

Tim Dixon & John O'Mahony

Australia in the Global Economy



Year 12 Economics

2019 EDITION

AUSTRALIA
IN THE
GLOBAL ECONOMY
2019 Edition

Pearson Australia

(a division of Pearson Australia Group Pty Ltd)
707 Collins Street, Melbourne, Victoria 3008
PO Box 23360, Melbourne, Victoria 8012
www.pearson.com.au

Copyright © Pearson Australia 2019
(a division of Pearson Australia Group Pty Ltd)

First published 2019 by Pearson Australia

2022 2021 2020 2019
10 9 8 7 6 5 4 3 2 1

Reproduction and communication for educational purposes

The Australian Copyright Act 1968 (the Act) allows a maximum of one chapter or 10% of the pages of this work, whichever is the greater, to be reproduced and/or communicated by any educational institution for its educational purposes provided that that educational institution (or the body that administers it) has given a remuneration notice to Copyright Agency Limited (CAL) under the Act. For details of the CAL licence for educational institutions contact Copyright Agency Limited (www.copyright.com.au).

Reproduction and communication for other purposes

Except as permitted under the Act (for example any fair dealing for the purposes of study, research, criticism or review), no part of this book may be reproduced, stored in a retrieval system, communicated or transmitted in any form or by any means without prior written permission. All enquiries should be made to the publisher at the address above.

This book is not to be treated as a blackline master; that is, any photocopying beyond fair dealing requires prior written permission.



Editor: iEnergizer Aptara Limited
Publisher: Sandhya Jayadev
Project Manager: Anubhuti Harsh
Production Manager: Elizabeth Gosman
Rights and Permissions Editor: Amirah Fatin
Designer: Katy Wall. Cover Designer: Anne Donald
Page Layout: Dave Doyle
Printed in Malaysia

ISBN 978 1 4886 2464 3

Pearson Australia Group Pty Ltd

ABN 40 004 245 943



A catalogue record for this book is available from the National Library of Australia

Disclaimer/s

The selection of internet addresses (URLs) provided for this book was valid at the time of publication and was chosen as being appropriate for use as a secondary education research tool. However, due to the dynamic nature of the internet, some addresses may have changed, may have ceased to exist since publication, or may inadvertently link to sites with content that could be considered offensive or inappropriate. While the authors and publisher regret any inconvenience this may cause readers, no responsibility for any such changes or unforeseeable errors can be accepted by either the authors or the publisher.

COVER: Shutterstock: Anton Balazh

123RF: rustyphil, p. 363 (building); spectral, p. 75 (woman).

Australian Bureau of Statistics: © Commonwealth of Australia. Licensed under CC BY 2.5 AU. pp. 119, 119t. cat. no. 1350, p. 358; cat. nos. 5204.0, p. 220; cat. no. 5204.0, GDP current prices, p. 178; cat. no. 5206.0, pp. 119b, 123, 167, 176, 180, 220, 223, 233, 299, 315, 358; cat. no. 5302.0, pp. 105, 111–4, 117t, 119b, 220, 223, 224, 299, 358; cat. no. 5306, p. 180; cat. no. 5368.0, pp. 109–10, 145, 150; cat. no. 6105.0, p. 189; cat. no. 6202.0, pp. 180, 186, 190; cat. no. 6291.0 Table UM2, p. 189; cat. no. 6302, p. 238b; cat. no. 6306.0, pp. 237b, 239, 337, 341; cat. no. 6321.0.55.001, p. 343; cat. no. 6333.0, August 2017, Table 5, p. 238c; cat. no. 6440, p. 203; cat. no. 6523.0, pp. 232b, 232t, 234, 242b; cat. no. 6401, p. 180; cat. no. 6401.0, p. 204; cat. no. 6554.0, p. 234; cat. no. 6523.0, pp. 236, 237c, 237t, 238, 24, 242t, 250.

Australian government's Productivity Commission: Licensed under CC BY 3.0 AU. p. 34; 'Challenges, Threats and Opportunities for Australian International Trade' speech by Peter Harris to the European Australian Business Council (EABC), 24 April 2018, Licensed under CC BY 3.0 AU, p. 34; Workplace Relations Framework, December 2015, p. 350.

Baker McKenzie: 'A prediction for globalisation in 2018' by Paul Rawlinson, Global Chair Baker McKenzie, as part of World Economic Forum Annual Meeting, 22 January 2018, p. 5.

Banco Central Do Brasil 2018: pp. 80, 84.

Bank for International Settlements: p. 8; Bank for International Settlements: 'A stairway to heaven? The promises and limits of global integration', speech by Dr. Andreas Dombret, member of the Executive Board of the Deutsche Bundesbank, at the London School of Economics and Political Science, London, 8 February 2018. From www.bis.org/review/r180209c.htm, p. 61b.

BKPM – Indonesia Investment Coordinating Board: p. 98.

Black Inc.: 'Battlers and Billionaires: The story of inequality in Australia' by Andrew Leigh, p. 244.

Ciobo, Steve: Speech by Australia's Trade Minister Steve Ciobo to APEC Study Centre, 20 July 2017, Licensed by CC BY 3.0 Australia, p. 34.

Committee for Economic Development of Australia (CEDA): 'How unequal? Insights on inequality', April 2018, p. 247.

© Commonwealth of Australia: Licensed under CC BY 3.0 AU. 2017–18 Budget Paper, p. 145; 2018–19 Budget Forecasts, p. 180; 2009–10 Commonwealth Budget Paper, Statement 2, p. 199; 2018–19 Budget Paper 1, Statement 11, Tables 1 and 6, 3.0 Australia, p. 285; 2018–19 Budget Paper

1, Statement 11, Table 4, p. 292b; 2018–19 Budget Paper No. 3 Appendix C, Tables C1, C2, C3, C5, C6, p. 292t; 2017–18 Commonwealth Budget, Paper No. 1, Statement 3, p. 295; 2017–18 Budget Paper No. 1 Statement 10, Table 1, p. 295; Australian Government's The Treasury: 'Lower taxes for a stronger economy', then-treasurer Scott Morrison's address to the Australian Business Economists, Sydney, 26 April, 2018, p. 297; Productivity Commission: 'Shifting the Dial: 5 Year Productivity Review, Inquiry Report', p. 322; 2017–18 Budget Paper 1, p. 358.

Credit Suisse: 'Credit Suisse Global Wealth Report 2017', November 2017, p. 51.

Debelle, Guy: '25 years of inflation targeting in Australia' speech by RBA Deputy Governor Guy Debelle, 12 April 2018, p. 304.

Department of Foreign Affairs and Trade: Licensed under CC BY AU 3.0. p. 108; Submission to Productivity Commission, May 2010, p. 34; Composition of Trade Australia (2018), p. 107; 'Australian Trade Liberalisation', prepared for the Department of Foreign Affairs, Centre for International Economics, October 2017, Department of Foreign Affairs and Trade, p. 152.

Fair Work Commission: 'Fair Work Commission Statement, Annual Wage Review 2017–18', 1 June 2018, p. 338.

Garnaut Climate Change Review: p. 264.

International Monetary Fund (IMF): IMF World Economic Outlook April 2018, p. 6t; IMF World Economic Outlook April 2018, p. 17b; 'Building a More Resilient and Inclusive Global Economy', speech by Christine Lagarde, managing director of the IMF, 12 April 2017, p. 61t; IMF World Economic Outlook, April 2018, p. 77; IMF Executive Board Concludes 2018 Article IV Consultation with Brazil, July 11, 2018, p. 86; World Economic Outlook Database, April 2018, p. 91; World Economic Outlook Database, April 2018, p. 92.

Intergovernmental Panel of Climate Change (IPCC): p. 264; © United Nations Intergovernmental Panel on Climate Change Report 2014, p. 263.

IZA World of Labor: p. 16.

Melbourne Institute of Applied Economic and Social Research: © The University of Melbourne 1994 – 2016, Licensed under CC BY 3.0 AU, p. 239.

NSW Education Standards Authority (NESA): Economics Stage 6 Syllabus 2009 extracts © NSW Education Standards Authority for and on behalf of the Crown in right of the State of New South Wales, 2009, pp. 2, 103, 162, 270.

OECD: OECD Economic Surveys: Brazil, 2018, p. 82; OECD Economic Surveys: Brazil 2018, February 2018, p. 88; Agricultural Policies in OECD countries, 2018, p. 154; Bridging the Gap: Inclusive Growth –

2017 Update Report, 2017, pp. 245–6; OECD 2017 Global Economic Outlook, p. 357; 'Time to Act: Making Inclusive Growth Happen', Policy Brief: http://www.oecd.org/inclusive-growth/Policy_Brief_Time_to_Act.pdf, p. 359.

Reserve Bank of Australia (RBA): pp. 135–7, 177, 226, 312; RBA Bulletin, p. 190; RBA Statement on Monetary Policy, August 2016, p. 204; Statement on the Conduct of Monetary Policy, October 2013, p. 208; Speech to the Australian Government Fixed Income Forum 2018 by Christopher Kent, assistant governor, 6 June 2018, p. 228; Speech by Reserve Bank Governor Glenn Stevens to a parliamentary committee, 17 August 2007, p. 308.

Shutterstock: Celso Diniz, p. 75 (houses); Mark Schwettmann, p. 75 (statue); Meister Photos, p. 89t (money).

Solt, Frederick: 'The Standardised World Income Inequality Database', Social Science Quarterly 97. SWIID Version 6.2, March 2018, p. 69.

State Administration of Foreign Exchange of the People's Republic of China: p. 139.

Stewart, Miranda and Milane, Emily: 'Submission to Senate Economics and References Committee' by Miranda Stewart and Emily Milane, 4 June 2018, p. 301b.

Transparency International: Corruption Perception Index © 2017 by Transparency International, p. 63.

United Nations Conference on Trade and Development (UNCTAD): UNCTAD World Investment Report 2017, p. 11–2.

United Nations: The Sustainable Development Goals Report 2017, p. 53; World Investment Report 2018, p. 81.

United Nations Development Programme (UNDP): Human Development Report 2016, pp. 52, 67, 75, 89, 357; 'Report on the achievement of the Millennium Development Goals Indonesia 2013', p. 98.

Wild, Daniel: 'Submission to Senate Economics and References Committee' by Daniel Wild, May 2018, p. 301t.

World Bank Group: Licensed under CC BY 3.0 IGO. World Bank. 2017. World Development Indicators 2017. Washington, DC: World Bank, pp. 14–5, 94, 97–8, 357; World Bank. 2018. World Development Indicators 2018. Washington, DC: World Bank, pp. 6b, 7, 8, 49, 50, 55, 70, 83, 89, 93, 255, 353, 357; Indonesia Economic Quarterly, 2016, p. 91t; Indonesia Economic Quarterly: 'Towards inclusive growth', March 2018, p. 100–1.

World Health Organization (WHO): Health Workforce Alliance and the Health Workforce Department, p. 16;

World Trade Organization (WTO): WTO statistics on anti-dumping, August 2018, p. 26; WTO Secretariat, p. 32.

AUSTRALIA
IN THE
GLOBAL ECONOMY

2019 Edition

YEAR 12 ECONOMICS

TIM DIXON
JOHN O'MAHONY

Table of contents

TOPIC 1	THE GLOBAL ECONOMY	
Chapter 1	Introduction to the Global Economy	
	1.1 The global economy	4
	1.2 Globalisation	5
	1.3 The international and regional business cycles	17
Chapter 2	Trade in the Global Economy	
	2.1 Advantages and disadvantages of free trade	23
	2.2 Reasons for protection	25
	2.3 Methods of protection	28
	2.4 Trade agreements	31
	2.5 International organisations	39
	2.6 Government economic forums	44
Chapter 3	Globalisation and Economic Development	
	3.1 Introduction	48
	3.2 Differences in income and economic growth	49
	3.3 Differences in economic development	52
	3.4 Categories of development in the global economy	54
	3.5 Causes of inequality in the global economy	56
	3.6 The impact of globalisation	64
	Case Study: Brazil	75
	Case Study: Indonesia	89
TOPIC 2	AUSTRALIA'S PLACE IN THE GLOBAL ECONOMY	
Chapter 4	Australia's Trade and Financial Flows	
	4.1 Understanding Australia's place in the global economy	106
	4.2 Trends in Australia's trade patterns	107
	4.3 Trends in Australia's financial flows	111
	4.4 The balance of payments	112
	4.5 Trends in Australia's balance of payments	118
	4.6 The consequences of a high CAD	126
Chapter 5	Exchange Rates	
	5.1 Introduction	131
	5.2 Australia's floating exchange rate system	132
	5.3 Reserve Bank intervention in the foreign exchange market	138
	5.4 Fixed exchange rate systems	140
	5.5 Exchange rates and the balance of payments	141
Chapter 6	Protection in Australia	
	6.1 Introduction	146
	6.2 Government initiatives to reduce protection	147
	6.3 Australia's free trade agreements	148
	6.4 Implications of a reduction in protection levels for the Australian economy	151
	6.5 The impact of international protection levels on Australia	156
	6.6 The future of Australian industry in the global economy	158

TOPIC 3 ECONOMIC ISSUES

Chapter 7	Economic Growth	
	7.1	Introduction 164
	7.2	Economic growth and aggregate demand and supply 165
	7.3	The components of aggregate demand 166
	7.4	Changing levels of growth: the multiplier process 169
	7.5	The role of aggregate supply 172
	7.6	The effects of economic growth 173
	7.7	Recent economic growth trends 175
	7.8	Policies to sustain economic growth 179
Chapter 8	Unemployment	
	8.1	Introduction 183
	8.2	Measuring the level of unemployment 183
	8.3	Recent unemployment trends 186
	8.4	The main types of unemployment 187
	8.5	The non-accelerating inflation rate of unemployment 190
	8.6	The causes of unemployment 191
	8.7	The impacts of unemployment 196
	8.8	Policies to reduce unemployment 199
Chapter 9	Inflation	
	9.1	Introduction 204
	9.2	Measuring the rate of inflation 204
	9.3	Recent trends in inflation 206
	9.4	The main causes of inflation 207
	9.5	The effects of inflation 210
	9.6	Policies to sustain low inflation 212
Chapter 10	External Stability	
	10.1	Introduction 216
	10.2	Australia's current account deficit 217
	10.3	Australia's foreign liabilities 221
	10.4	Australia's exchange rate 224
	10.5	Policies to achieve external stability 227
Chapter 11	Distribution of Income and Wealth	
	11.1	Introduction 231
	11.2	Measuring the distribution of income and wealth 232
	11.3	Sources of income and wealth 235
	11.4	Trends in the distribution of income and wealth 236
	11.5	The costs and benefits of inequality 245
	11.6	Government policies and inequality 249
Chapter 12	Environmental Sustainability	
	12.1	Introduction 255
	12.2	Ecologically sustainable development 256
	12.3	Market failure: private benefits and social costs 258
	12.4	Public and private goods 260
	12.5	Major environmental issues 261
	12.6	Government policies and environmental sustainability 266

TOPIC 4 ECONOMIC POLICIES AND MANAGEMENT

Chapter 13	The Objectives of Economic Policy	
	13.1 Introduction	272
	13.2 The objectives of economic management	272
	13.3 The goals of government policy in 2019	275
	13.4 Conflicts in government policy objectives	278
	13.5 The economic policy mix	279
Chapter 14	Fiscal Policy	
	14.1 The meaning of fiscal policy	283
	14.2 Budget outcomes	284
	14.3 Changes in budget outcomes	286
	14.4 Methods of financing a deficit	289
	14.5 The current stance of fiscal policy	293
	14.6 The impact of recent fiscal policy	296
Chapter 15	Monetary Policy	
	15.1 Introduction	304
	15.2 The objectives of monetary policy	305
	15.3 The implementation of monetary policy	307
	15.4 The impact of changes in interest rates	310
	15.5 The current stance of monetary policy	312
Chapter 16	Microeconomic and Environmental Policies	
	16.1 Microeconomic policies and aggregate supply	316
	16.2 Microeconomic policies and individual industries	319
	16.3 Environmental management policies	326
Chapter 17	Labour Market Policies	
	17.1 Introduction	335
	17.2 The role of national and state industrial systems	336
	17.3 Australia's wage determination system	337
	17.4 Dispute resolution	343
	17.5 Decentralisation of the labour market	345
	17.6 Education, training and employment programs	347
	17.7 Evaluating labour market outcomes in Australia	351
Chapter 18	Effectiveness and Limitations of Economic Policy	
	18.1 An overview of the effectiveness of economic management	355
	18.2 Limitations of economic policy	360
	18.3 Evaluating the effectiveness of specific policies	365

APPENDICES

Appendix A	Key Economic Skills	
	A.1 Introduction	374
	A.2 Drawing and interpreting economics diagrams	376
	A.3 Equations and calculations in economics	381
	A.4 Interpreting economic data and information	383
Appendix B	Advanced Economic Analysis	
	B.1 Comparative advantage and gains from trade	386
	B.2 Income-expenditure diagram	390
	B.3 Long-run Phillips curve	392
	B.4 Limitations of macroeconomic policy	394
Glossary		397
Index		410

Welcome

We live in an extraordinary time in world history. In the past decade, we saw the global financial system brought to the edge of collapse, with financial meltdown in the United States creating a domino effect that caused the worst global downturn in 75 years. Banks in Europe are charging depositors – not borrowers! – for holding their money. China is on the way to becoming the world's biggest economy. President Donald Trump has rejected many of the principles that shaped the United States's leadership of the global economy for almost a century. Meanwhile, technology continues to break down the communication barriers created by distance, bringing the idea of the global village close to reality. Trade has boomed as governments have relaxed barriers and consumers have taken up new products from other countries. Markets have opened up throughout the world. Governments have found that their power to implement domestic economic policies is becoming limited in the face of powerful global forces. While governments have lost power, large corporations have gained it.

Despite the growth of the global economy and spread of new technology, significant gaps remain both between rich and poor countries and between the rich and poor people within countries, with just under half of the world's population living in poverty. Incomes have stagnated in many wealthier nations, jobs have become more insecure and there is heightened anxiety about the future.

Globalisation is probably the most important force at work at this time in history. It is changing what products are bought, where people travel, what is studied, what careers are chosen, how people entertain themselves and what people believe in. In many countries it is creating a backlash of anti-globalisation forces, reflected in numerous elections and events such as Britain's decision to leave the European Union.

Globalisation is also the most significant force at work in the Australian economy. Since the 1980s, Australia has embraced globalisation, placing a high priority on integrating its economy with other economies in its region and throughout the world. As a small economy in a world dominated by much larger economic powers, Australia cannot escape the impact of global economic developments. However, we've seen in the past three decades that a combination of good economic policy, a business sector that responds quickly to changing conditions, and good luck from developments like the global resources boom can all combine to produce surprisingly good results for the Australian economy, even when the general international economic climate is difficult.

The Year 12 Economics Course gives you the opportunity to grapple with many of these issues. It blends theory with current developments, a global perspective, a sensitivity to the factors that determine economic performance and government policies and a focus on the impacts of those policies. Quite apart from keeping you busy during Year 12, it introduces a smorgasbord of issues that you may choose to pursue in greater detail in further study or in your working life.

The first topic of this book examines the global economy. The second examines Australia's relationship to the global economy and trade performance. After these topics establish where Australia fits into the world economy, the third topic reviews the major problems and issues in the Australian economy, such as the goals of economic growth, low unemployment, low inflation, external balance and environmental sustainability. The final topic examines the macroeconomic and microeconomic policies used by governments to meet these challenges.



The textbook team (L-R): Tim Dixon, Diana Hu, Natalie Baker, Zain Ahmed, Joel Bank, Rohan Garga, Nicholas Kamper, John O'Mahony; Michael Pahos (not pictured)

This textbook is a collaborative effort of a whole team of economic researchers. Each year, the book is comprehensively revised and refined to reflect feedback from students and teachers as well as changes in global and domestic economic conditions and developments in the economic policy environment. Our thanks to all of the team involved in the production of this textbook both for this year and previous years. We hope that this text helps you make sense of the complex topic of Australia and the global economy and that we can pass on to you some of our passion for it.

Tim Dixon and John O'Mahony

How to use this book

Congratulations on choosing *Australia in the Global Economy* as your text for Year 12 Economics. Before you use *Australia in the Global Economy*, we'd like to highlight some of its key features.

The text is divided into four Topics, following the structure of the Year 12 Economics syllabus. Each Topic is introduced by a page that includes the relevant Focus, Issues and Skills for that Topic, reflecting the syllabus objectives. This is followed by a clear introduction to each chapter within the Topic.

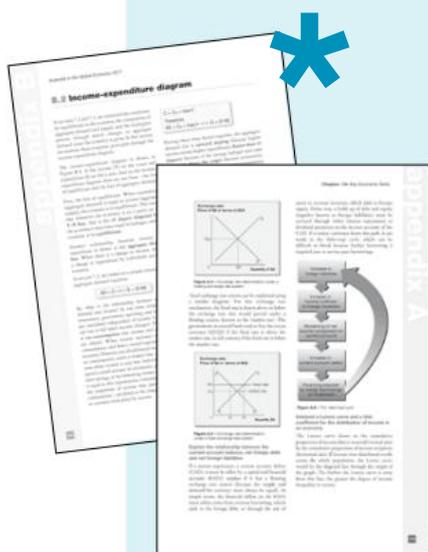


Each Chapter concludes with a 10-point **Chapter Summary** and 10 **Chapter Review** questions. The Chapter Summary is a good starting point for your notes on each Chapter, and the review questions are a great way to test your understanding of the Chapter.

The comprehensive Glossary at the back of the text provides a ready reference for more than 350 key economics terms and concepts.



Throughout the text, you will find references to useful websites relevant to that area of study.



A unique feature of ***Australia in the Global Economy*** is its two appendices, located at the back of the book.

Appendix A: Key Economic Skills gives you the opportunity to master the 23 skills outlined in the Year 12 Economics syllabus. The appendix covers three main areas: drawing and interpreting economic diagrams, equations and calculations, and interpreting economic data and information. By working through this material you will develop and reinforce the key economic skills.

Appendix B: Advanced Economic Analysis provides extension material beyond the Year 12 Economics Syllabus for students seeking an extra challenge.

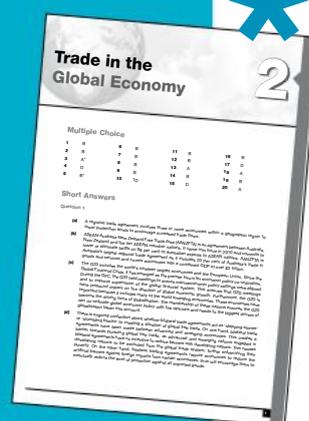
Australia in the Global Economy Workbook Ninth Edition

The accompanying workbook *Australia in the Global Economy Workbook Ninth Edition* is a great resource to further help you in your study of Year 12 Economics.

How to access answers to the Workbook

You can download the answers to all multiple choice questions and example responses to short answer questions by following these simple steps:

1. Go to www.pearsonplaces.com.au
2. Log in, or sign up (free)
3. Click Secondary Student ProductLink in the Toolkit section – toward the bottom of the screen of your Passport
4. Click Business Studies/Economics and Legal Studies
5. Click Australia in the Global Economy
6. Under Menu, click Suggested answers
7. Choose the answers for the chapter or practice exam you need, then download.



We really hope that this text makes your study of economics more enjoyable and rewarding. The book is revised and updated each year to ensure it stays sharp and up to the minute – and to save you from having to spend time chasing down information when you should be focusing on understanding the content and developing your skills as an economist.

TOPIC

1

THE GLOBAL ECONOMY

Issues

Topic 1 economic issues questions can ask you to:

- Examine the effects of globalisation on economic growth and the quality of life, levels of unemployment, rates of inflation and external stability
- Assess the potential impact on the environment of continuing world economic development
- Investigate the global distribution of income and wealth
- Assess the consequences of an unequal distribution of global income and wealth
- Discuss the effects of protectionist policies on the global economy

Focus

The focus of this study is the operation of the global economy and the impact of globalisation on individual economies.

Skills

Topic 1 skills questions can ask you to:

- Analyse statistics on trade and financial flows to determine the nature and extent of global interdependence
- Assess the impact on the global economy of international organisations and contemporary trading bloc agreements
- Evaluate the impact of development strategies used in a range of contemporary and hypothetical situations

Topic 1

Introduction

This section (chapters 1 to 3) covers Year 12 Topic 1 *The Global Economy* and focuses on the structure of the global economy and the key features of globalisation. To understand the Australian economy we need to start with a global perspective. Topic 1 is critical to the rest of the course because it provides the overall perspective for when we later examine other topics such as Australian economic issues and policy.

- Chapter 1 provides an overview of the global economy. It discusses the main components of the global economy – international trade, international flows of finance and investment, and the role of technology and people movements in strengthening links between individual economies. These links are highlighted with a review of international and regional business cycles.
- Chapter 2 examines the main economic theory that underpins globalisation – the concept of free trade and the economic benefits that trade brings. Chapter 2 then examines the reasons for countries restricting trade and protecting their own industries and how recent years have seen many international agreements to reduce barriers to trade. This chapter concludes with a look at the role of international organisations and government economic forums in managing the global economy.
- Chapter 3 examines the divisions within the global economy. Understanding the gaps in the living standards between rich and poor nations is essential to an analysis of the global economy. This chapter looks at the distinction between economic growth and economic development. It discusses the main categories into which different economies are grouped and examines the global and domestic factors that contribute to inequality. Chapter 3 also discusses the impacts of globalisation on economic development.

Topic 1 concludes with case studies of Brazil and Indonesia. Understanding the impacts of globalisation on individual economies is an important complement to any analysis of globalisation at the global level and is a requirement of the Year 12 Economics Course.

Brazil is one of the four largest emerging economies in the world and is the major economy of the Latin American region – a region of the world Australians often know little about. Like Australia, Brazil is a major commodity exporter, but unlike Australia it has recently experienced severe recession. Brazil been cautious in its response to globalisation and many of its experiences highlight the opportunities and challenges of increased economic integration.

Indonesia is the largest emerging economy of South-East Asia – a region that experienced rapid industrialisation and improvements in economic development in recent decades despite major international economic disturbances. The increasing linkages between Indonesia and Australia make understanding the Indonesian economy especially valuable for future Australian economists.

The case studies may complement another country that you choose to study. You may decide to compare the impacts of globalisation on these two economies or you may choose to make either Brazil or Indonesia your case study in 2019.

1

Introduction to the Global Economy

- 1.1 The global economy
- 1.2 Globalisation
- 1.3 The international and regional business cycles

1.1 The global economy

The study of economics has traditionally focused on how individual economies operate. While countries have always traded with each other, economic theories have generally assumed that economies operate separately from each other and that the structure and performance of economies is mainly the result of local developments and influences.

This way of looking at economics no longer describes the real world. Today we live in a **global economy** – where the economies of individual countries are linked to each other and changes in a single economy can have ripple effects on others. In the industrialised world, for example, the value of what many countries buy and sell from overseas is greater than half of the country's economic output. When conditions in the global economy change, these changes can have an impact on the economies of far-flung countries almost immediately.

In many respects there is nothing new in the fact that major economic developments can have impacts across the world. For example, the Great Depression of the 1930s had a global impact with many countries experiencing a severe economic downturn. The level of trade and integration between the economies of European nations a century ago was so strong that many observers doubted that these nations would ever go to war against each other. In fact, the level of trade between the world's leading economies has only recently surpassed its level in the decades prior to World War I, as countries have dismantled the trade barriers that were raised after World War I and the Great Depression.

On the other hand, economies are more closely integrated now than at any previous time. The linkages between economies are stronger and more far-reaching than ever before. There are few aspects of life that have not been affected by the waves of global influences washing across the world. This is especially the case in a small economy such as Australia, which has embraced the global economy and pursued policies to integrate its economy with those of its region and around the world.

In the past three decades **globalisation** has become a dominant economic, political and social theme. Globalisation is the integration between different countries and economies and the increased impact of international influences on all aspects of life and economic activity.

Unlike many previous times in world history when the influence of one country has been almost entirely one-way, globalisation in recent decades has involved layers of influences in all directions. Although the United States is still the leading world economy, its power is increasingly constrained China and other major economies.

There are many dimensions to globalisation and there are many statistics that can be used as measures of globalisation. For example, some indication of the extent of globalisation

Globalisation refers to the integration between different countries and economies and the increased impact of international influences on all aspects of life and economic activity.

can be gained from examining the proportion of television programming taken by shows produced overseas or the influence of global fashions on what people wear in countries such as Australia. These would be classified as social or cultural indicators of globalisation.

Globalisation is also a phenomenon with increasing impacts on politics. The United Kingdom's "Brexit" from the European Union and the election of Donald Trump as US president on an anti-free trade platform were both examples of rising public opposition to globalisation, with perceptions that it reduces national sovereignty and contributes to inequality. The impacts of globalisation are discussed in detail in chapter 3 of this textbook.

From an economic point of view the major indicators of integration between economies include:

- international trade in goods and services
- international financial flows
- international investment flows and transnational corporations
- technology transport and communication
- the movement of workers between countries.

Each of these indicators provides an insight into the way in which economies are now linked to each other and the extent to which a global economy is emerging.

"A couple of years ago, our former Chair Christine Lagarde described a world where the global economy was increasingly integrating, but where the global political system was fragmenting, in part because of a backlash against the disruptive effects of globalisation, and its perceived winners and losers.

Over the last decade, opportunities and forces unleashed by technology and globalisation have accelerated, ushering in the Fourth Industrial Revolution. Innovation has created new business models, disrupting incumbents. Corporations strive to remove friction from supply chains and service delivery. However, governments, regulators, incumbent players and societies react to disruption with friction. Complex forces are at play.

We are seeing a shift to multi-speed globalisation. The strategic challenge of the next decade is navigating a world that is simultaneously integrating and fragmenting. Stock markets have set new records and economic volatility has fallen to historic lows, while political shocks on a scale unseen for generations have taken place.

Despite Brexit and the rise of President Trump's "America First," the global economy is still doing remarkably well. China's GDP growth is clipping along at 6%. While the UK economy is a little weaker, the Eurozone is seeing a rise in household spending and business investment. Key measures of world trade, such as container shipping and air freight, are growing at their fastest rates since before the global economic crisis."

– Paul Rawlinson, *Global Chair, Baker McKenzie*
 "A prediction for globalisation in 2018", 22 January 2018
World Economic Forum Annual Meeting

1.2 Globalisation

Trade in goods and services

International trade in goods and services is an important indicator of globalisation because it is a measure of how goods and services produced in an economy are consumed in other economies around the world. Trade in goods and services has grown rapidly in recent decades, increasing from US\$6.2 trillion (37 per cent of global output) in 1987 to over US\$43.8 trillion (50 per cent of global output) in 2018. The size of the **Gross World Product (GWP)** – the aggregate value of all goods and services produced worldwide each year in the global economy – is now over fifty times its nominal level in 1960, but the volume of world trade has grown to 125 times its 1960 level.

Gross World Product (GWP) refers to the sum of total output of goods and services by all economies in the world over a period of time.

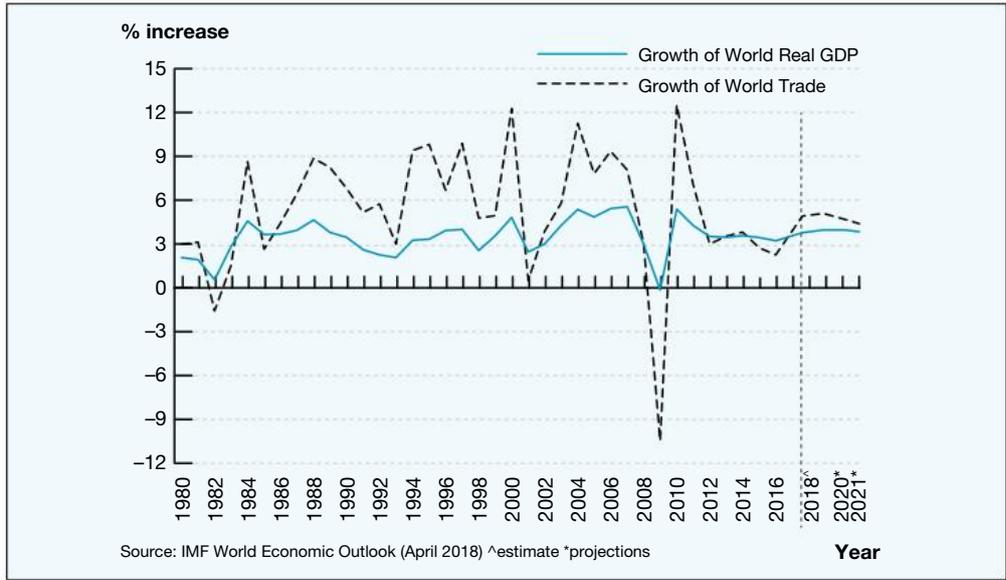


Figure 1.1 – Gross World Product and world trade

Annual growth in the value of trade has generally been around twice the level of world economic growth, as shown in figure 1.1. During economic downturns, however, such as in the mid-1970s, early 1980s, early 2000s and again in the late-2000s, the growth of global trade has contracted faster than world economic output, highlighting the **greater volatility** of trade compared with Gross World Product. The WTO has forecast that global trade growth could range from between 2.1 per cent to 4 per cent for 2018 until the end of the 2010s. This will be driven by stronger global economic growth and offset somewhat by government policies (such as the UK’s withdrawal from the European Union).

World Trade Organisation (WTO) is an organisation of 164 member countries that implements and advances global trade agreements and resolves trade disputes between nations.

The high volume of global trade reflects the fact that economies do not produce all the items they need, or they do not produce them as efficiently as other economies, and have to import goods and services. Global trade has also grown strongly in recent decades because of new technology in transport and communications, which have reduced the cost of moving goods between economies and providing services to customers in distant markets. Over the same period, governments have encouraged trade by removing barriers and joining international and regional trade groups such as the **World Trade Organisation (WTO)**, European Union (EU), and the Association of South-East Asian Nations (ASEAN). These developments have been a major force behind increasing global trade.

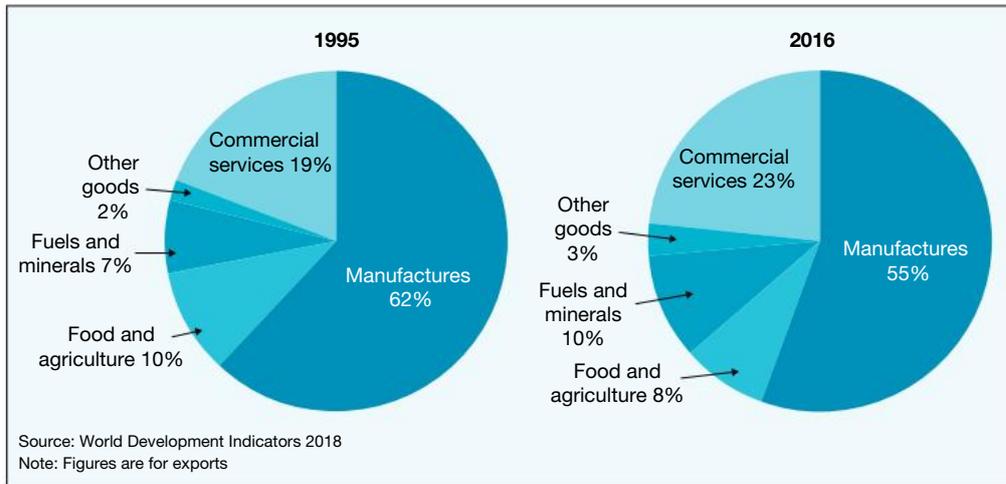


Figure 1.2 – Composition of global trade, 1995 and 2016

The mix of what goods and services are traded, known as the **composition of trade**, can have an impact on individual economies. As shown in figure 1.2 on page 6, global trade used to be dominated by manufactured goods, such as vehicles, clothing and electronic goods. In the long term it is expected that trade in services like finance and communication services will be the fastest-growing category because while services make up two-thirds of global output, they still make up just one-quarter of global exports. Countries such as Australia are expected to benefit from this growth because countries with highly educated workforces are best positioned to compete in growing global markets for services.

The **direction of trade flows** has changed in recent decades, reflecting the changing importance of different economic regions. Between 1995 and 2016, high-income economies (concentrated in North America and Western Europe) saw their overall share of global trade fall from 82 per cent of world merchandise exports to 65 per cent, as shown in figure 1.3. Over the same period, the fast growing economies of East Asia and the Pacific region (which includes China, Indonesia and Vietnam) experienced the most rapid increase in trade with their share of global trade surging from 7 per cent to 15 per cent.

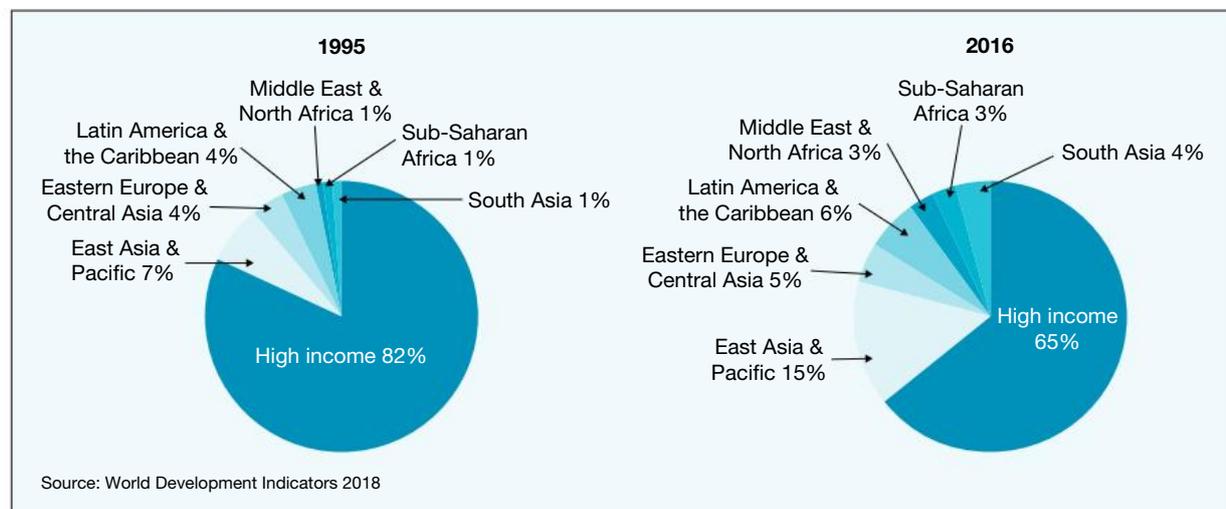


Figure 1.3 – Share of world's merchandise exports by region, 1995 and 2016

Trends in the direction of trade can also have an impact on individual economies. For example, with the Chinese economy playing an increasingly important role in global trade, other economies have placed an increased priority on their trade relationships with China. China's economy has grown rapidly in recent decades, and while it has recently been growing at a more moderate pace, it is still one of the world's fastest growing economies. Countries such as Australia have responded by preparing for a larger trading relationship with China through encouraging students to learn Mandarin at school, negotiating trade agreements with China, and increasing investment in domestic industries whose goods and services are in greatest demand from China.

reviewquestions

- 1 Explain TWO reasons for the increase in trade in goods and services in the global economy.
- 2 Describe trends in the composition and direction of trade flows in the global economy.
- 3 Discuss the impacts of changes in global trade flows on economies.

Financial flows

International finance now plays a leading role in the global economy. Because finance is crucial to so many aspects of how modern economies work, the globalisation of finance has had a major impact in terms of linking economies around the world. Finance is the most globalised sector of the world economy because money moves between countries more quickly than goods and services or people.

International financial flows have expanded substantially following financial deregulation around the world, which in most countries occurred in the 1970s and 1980s. Controls on foreign currency markets, flows of foreign capital, banking interest rates and overseas investments in share markets were lifted. Technological change also played an important role. New technologies and global communications networks have linked financial markets throughout the world, allowing events in major international markets such as New York, Tokyo, London and Hong Kong to produce immediate results.

While there is no single measure of international financial flows, all have shown a dramatic increase during the globalisation era. Figure 1.4 shows the growth of exchange-traded derivatives, which are a major instrument in global financial markets. After falling significantly in 2008 because of the global financial crisis, financial flows have recovered strongly. Exchange-traded derivatives fluctuated around US\$65 trillion throughout the mid-2010s, but in 2017 reached almost US\$90 trillion (rivaling the size of Gross World Product).

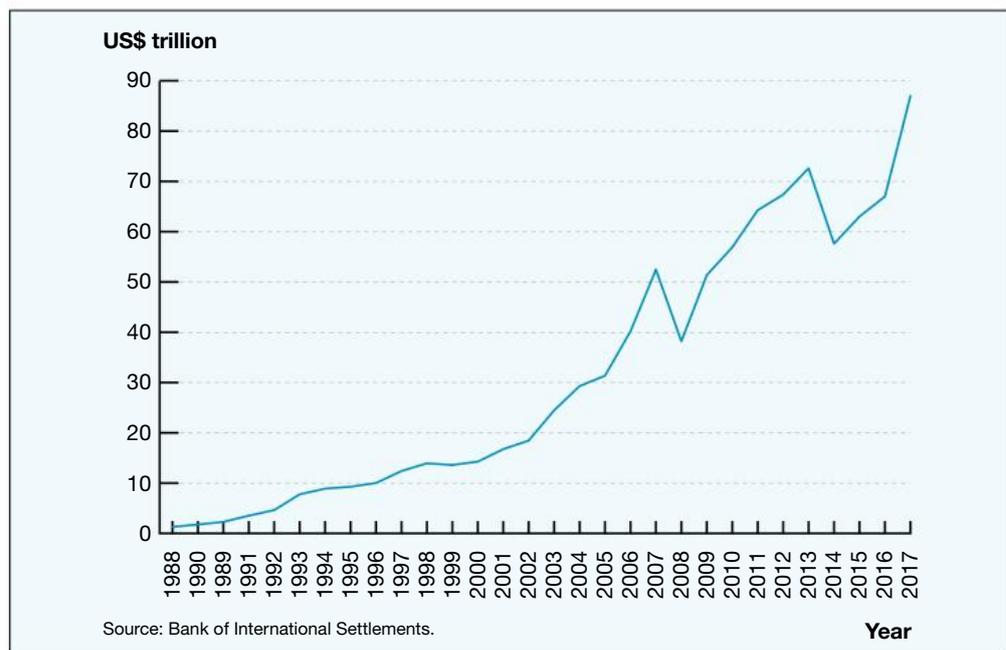


Figure 1.4 – The growth of global financial flows: exchange-traded derivatives

An important feature of international finance is **foreign exchange markets** (or forex markets), which are networks of buyers and sellers exchanging one currency for another in order to facilitate flows of finance between countries. Foreign exchange markets have experienced extraordinary growth in recent years with average daily turnover reaching almost US\$5.1 trillion in 2016, up from US\$4.0 trillion in 2010. The value of a currency is expressed in terms of another currency and is known as the **exchange rate** between two currencies. As will be discussed in chapter 5, most countries determine the value of their currency through the interaction of the forces of supply and demand in foreign exchange markets.

The main drivers of global financial flows are **speculators and currency traders** who shift billions of dollars in and out of financial markets worldwide to undertake short-term investments in financial assets. Based on data from the Bank of International Settlements'

Speculators are investors who buy or sell financial assets with the aim of making profits from short-term price movements. They are often criticised for creating excessive volatility in financial markets.

Triennial Survey of foreign exchange transactions, only a small share is for “real” economic purposes such as trade and investment. The vast majority is for speculative purposes – to derive short-term profits from currency and asset price movements – or for technical purposes, such as hedging against future exchange rate movements and swapping funds between currencies. International investment banks and hedge funds, often based in the United States, are generally responsible for most of these transactions. The aim of these transactions is to either gain from short-term movements in asset prices – namely currency and share price fluctuations – and to generate profits, or to hedge against future movements and minimise the risk of losses.

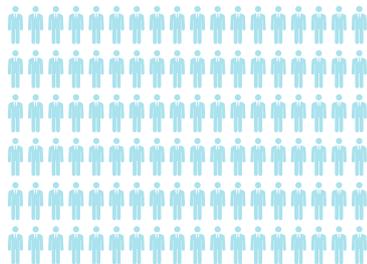
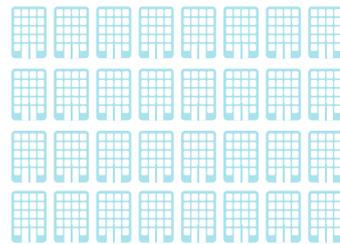
GLOBAL INVESTMENT US\$1.52 TRILLION

FOREIGN DIRECT INVESTMENT



GLOBAL COMPANIES 104 THOUSAND

TRANSNATIONAL CORPORATIONS



GLOBAL LABOUR 258 MILLION

PEOPLE WHO HAVE MIGRATED TO WORK

US\$44 TRILLION

50%
GLOBAL TRADE



GLOBAL COMMUNICATIONS 4 BILLION

NUMBER OF INTERNET USERS

SOURCES: World Bank, International Monetary Fund, Bank of International Settlements, International Telecommunications Union, United Nations Conference on Trade and Development.

International Monetary Fund (IMF) is an international agency that consists of 189 members and oversees the stability of the global financial system. The major functions of the IMF are to ensure stability of exchange rates, exchange rate adjustment and convertibility.

The main benefit of greater global financial flows is that they enable countries to obtain funds that are used to finance their domestic investment. In particular, investors in countries with low national savings levels would not otherwise be able to obtain the necessary finance to undertake large-scale business and investment projects if their economy were closed off to global financial flows. In this regard, global financial flows may enable a country to achieve higher levels of investment (and therefore economic growth) than would otherwise have been possible if finance from overseas were not available.

However, changes in global financial flows can also have significant negative economic impacts. Speculative behaviour can create significant volatility in foreign exchange markets and domestic financial markets. This is because speculators are often accused of acting with a herd mentality, meaning that once an upward or downward trend in asset prices is established it tends to continue. Speculative activity has been blamed for large currency falls and financial crises in East Asia in 1997, the British pound in 2016 following the Brexit referendum result and the Turkish lira in 2018. As discussed further in chapter 2, the **International Monetary Fund (IMF)** is responsible for the overall stability of the global financial system. Its objective is to stabilise individual economies experiencing currency crises or financial turmoil in order to prevent flow-on effects to other economies.

review questions

- 1 Account for the trends in international financial flows during the globalisation era.
- 2 Examine the role of speculators and currency traders in global financial markets.
- 3 Discuss the impact of global financial flows on economies.

Foreign direct investment (FDI) refers to the movement of funds between economies for the purpose of establishing a new company or buying a substantial proportion of shares in an existing company (10 per cent or more). FDI is generally considered to be a long-term investment and the investor normally intends to play a role in the management of the business.

Investment and transnational corporations

Another indicator of globalisation is the rapid growth of investment between countries over the past two decades. Since the late-1970s in particular, the global economy has witnessed rapid growth in movements of capital. While there are similarities in the growth of global finance and global investment, the two concepts can be distinguished by describing the shorter-term, speculative shifts of money as finance and the longer-term flows of money to buy or establish businesses as investments.

One measure of the globalisation of investment is the expansion of **foreign direct investment (FDI)**, which involves the movements of funds that are directly invested in economic activity or in the purchase of companies. Reforms in developed and developing countries led to a surge in FDI flows from the 1980s onwards. Figure 1.5 demonstrates the dramatic increase in FDI flows over the past three decades. FDI flows are strongly influenced by the level of economic activity. The global recession in the late-2000s saw FDI flows fall significantly, and this has continued across the early 2010s due to ongoing policy uncertainty and geopolitical risks. FDI flows fell from US\$1.8 trillion in 2016 to US\$1.5 trillion in 2017 with the United Nations Conference on Trade and Development (UNCTAD) citing geopolitical uncertainty and US investment policy decisions as affecting the environment for FDI.

FDI flows have traditionally favoured developed nations. With greater industrial capacity and larger consumer markets, economies in Europe, North America and Japan were the natural destination for foreign investment during the globalisation decades of the 1990s and most of the 2000s. But this dominance is now changing, with the share of FDI destined for developing and other economies increasing from a quarter of the global total to over half in recent years. From the early to mid-2010s, developing and other

countries have received almost or more than half of FDI inflows, spurred by the growth of developing countries such as China, India, Brazil and Mexico. However, in 2016 these economies saw a short-term decline of 14 per cent in FDI inflows, from a combination of lower commodity prices, weaker domestic performance and general global uncertainty. At the same time, FDI flows to developed economies increased by more than 5 per cent to surpass US\$1 billion in 2016 (particularly to North America). This level is expected by UNCTAD to remain steady throughout the end of the 2010s (especially as prospects and FDI inflows into Europe recover).

Developing and transitional economies are also significantly increasing their share of FDI outflows. In 2014 these economies contributed 35 per cent of global FDI funds compared to 13 per cent in the mid-2000s. Furthermore, developing Asia became the largest regional provider of global FDI funds. However, this trend reversed in the mid-2010s as developed countries increased their investment overseas by 33 per cent (from 61 per cent in 2004 to 72 per cent in 2016 of global FDI outflows). This was largely driven by investment from European economies, which had experienced a decline in FDI outflow in the early 2010s.

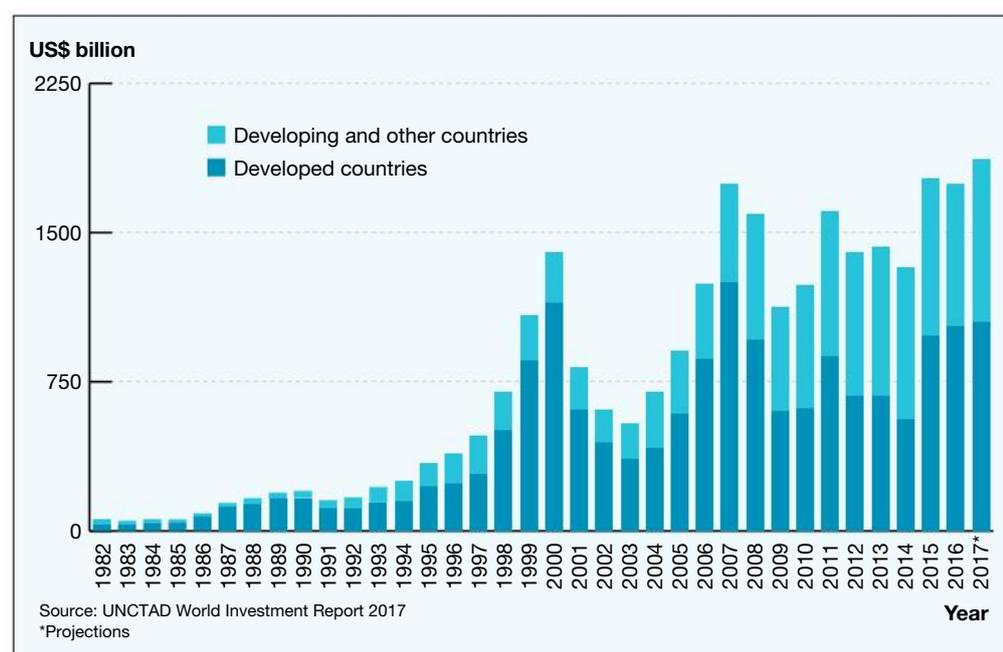


Figure 1.5 – Total world FDI inflows

Transnational corporations (TNCs) play a vital role in global investment flows. Often, they will have production facilities in countries around the world, sourcing inputs from some countries, doing most of the manufacturing in another country, and doing other packaging and marketing tasks in another country.

As TNCs such as Apple, Shell and Toyota establish or expand production facilities in a country, they bring foreign investment, new technologies, skills and knowledge. Because of the capital and job opportunities they bring, governments often encourage TNCs to set up in their country through supportive policies like subsidies or tax concessions. Since the early 1990s, the number of TNCs has grown from 37,000 to 104,000 and the number of affiliates to TNCs has grown from 170,000 to over 1,116,000. Since the mid-2010s, foreign affiliates of TNCs employ over 79 million people globally. As TNCs continue to increase in both volume and significance, there has been an associated increase in cross-border cartels between large corporations, which reduces competition in economies and disadvantages local consumers. The OECD reports that 240 cross-border cartels were penalised between 1990 to the mid-2010s, with a financial impact of US\$7.5 trillion. The number and effect of undetected cartels throughout this same period is unknown, but is expected to be similarly significant.

Transnational corporations (TNCs) are global companies that dominate global product and factor markets. TNCs have production facilities in at least two countries and are owned by residents of at least two countries.

A significant cause of the growth of international investment is the increased level of international mergers and takeovers. During recent years, there has been a spate of mergers between some of the world's largest corporations – most recently between fast food chains Burger King and Tim Hortons, pharmaceutical companies Johnson & Johnson and Actelion, technology and communications giants AT&T and Time Warner, snack companies Kellogg's and Pringles, mining companies Glencore and Xstrata and between other major companies in the resources, healthcare, and financial services industries. These mergers have seen the formation of companies worth hundreds of billions of dollars and reduced the number of truly global companies in different product markets. In 2007, cross-border mergers and acquisitions (M&As) reached a record level of US\$1.6 trillion, as shown in figure 1.6. International mergers and acquisitions typically move in line with changes in global economic conditions – investment falls when economic growth is lower. In 2016, mergers and acquisitions rose by 18 per cent from the year before to reach US\$869 billion, their highest level since the global economic downturn, largely driven by increased growth and investment from developed economies.

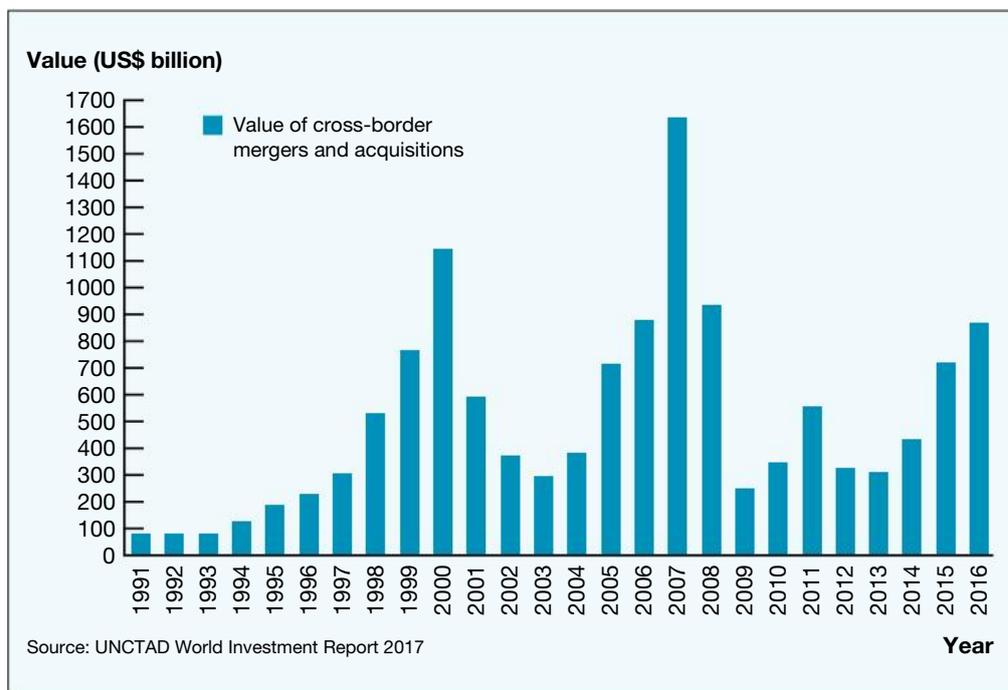


Figure 1.6 – Cross-border mergers and acquisitions

In overall terms, most investment still comes from domestic sources. Foreign direct investment typically accounts for less than 20 per cent of total investment, meaning that over 80 per cent of investment still comes from within national economies.

review questions

- 1 Distinguish between global financial flows and global investment flows.
- 2 Outline trends in the growth and direction of FDI flows.
- 3 Explain the role that transnational corporations play in global investment flows.

Technology transport and communication

Technology plays a central role in globalisation. In part, this is because technological developments facilitate the integration of economies. Consider the following examples:

- Developments in freight technology such as standardised shipping containers (containerisation), cargo tracking and more efficient logistics systems facilitate greater trade in goods.
- Cheaper and more reliable international communications through high-speed broadband allows for the provision of commercial services to customers around the world. The proportion of the global population that uses the internet has increased from 6 per cent in the early-2000s, to over 43 per cent in the late-2010s.
- In finance and investment, technology plays a key role in facilitating globalisation through the powerful computer and communications networks that allow money to move around the world in a fraction of a second.
- Smartphones and mobile internet access are fundamentally changing the structure of many industries, from retail and transport sectors to education, leisure and professional services. Technology is causing disruptive change to the structures of many of these industries as huge populations embrace online technologies. The number of mobile phone subscriptions is now almost 7.2 billion, which is roughly equal to the number of people in the world.
- Advances in transportation such as aircraft and high-speed rail networks allow greater labour mobility between economies, as well as increased accessibility to tourism and travel for consumers.

In these ways, technology is the ultimate driver of globalisation because it allows integration at a depth unthinkable in previous decades and centuries. Economies that adapt to new technologies rapidly also tend to be the economies that are most closely integrated with other economies in their region or around the world.

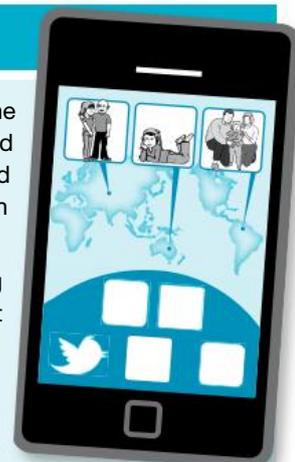
Another way technology influences globalisation is as a driver of growth in trade and investment. For the leading technology innovators and exporters, technology represents a major trade opportunity. The United States earns substantial export revenues from its global leadership in many areas of new technologies. An analysis of the income flows from technology transfers between countries shows that the United States receives half of the royalties and licence fees from the world's technology transfers and that most of the remaining gains are shared amongst a small group of developed economies. Other countries rely on importing technology from these leading countries with the hope

SOCIAL MEDIA AND GLOBALISATION

Social media has accelerated globalisation at many levels. By creating new online communities, social media platforms such as Facebook, Instagram, Google+ and Twitter connect individuals on an unprecedented scale. Of all internet users, around three-quarters are active on social media. Facebook, for example, claims 1.9 billion members.

Although social media is contributing to “cultural globalisation”, it is also having major economic impacts. Large companies must now consider social media as part of their global marketing efforts. Firms may use professional networks like LinkedIn to source the best talent from global labour markets. Google Chief Economist Hal Varian has even suggested that word-search data for terms like *unemployment benefits* and *holidays* could be used to predict trends in consumer confidence and economic conditions.

Social media is also itself a global business opportunity. Google earned almost US\$100 billion in 2017, mostly from advertising revenue. LinkedIn was bought by Microsoft in 2016 for US\$28.1 billion, six times its value after it was floated in 2011. Facebook acquired WhatsApp for US\$19 billion in 2014, and Microsoft paid US\$8.5 billion for Skype Communications to expand its new media operations. Apple Inc. has become the world's first trillion dollar company by selling the phones, tablets and laptops through which people access social media. Like most new trends, social media's growth is unpredictable but it is reshaping the economics of many industry sectors beyond media and telecommunications.



that over time, as they adopt new technologies, they can become innovators and develop their own technology exports as countries like India, South Korea and Israel have done in recent years. Trade, therefore, spreads new technologies. Because innovation is an ongoing process, the leading country can often retain its technological superiority for a long period of time.

Business corporations that play a leading role in developing new technologies will often move directly into overseas markets in order to sell their products and services direct to local buyers. For example, leading information and communications technology corporations such as Google, Oracle and IBM all have extensive global operations. These corporations bring extensive know-how into a new market and will often invest substantially in the new countries that they enter particularly in education and training. In this way technology drives increased foreign investment.

The internet is the communications backbone that links businesses, individuals and nations in the global economy. This not only allows greater communication within and between firms but also reduces business costs that have in the past been a barrier to integration between economies. The World Information Technology and Services Alliance (WITSA) estimated that since the mid-2010s the global marketplace for information and communications technology has been worth almost US\$5 trillion. The surge in worldwide internet usage to four billion users highlights the rapid spread of technologies across countries in recent years and the increasingly interconnected nature of the global economy. Figure 1.7 shows the number of internet users in selected countries.

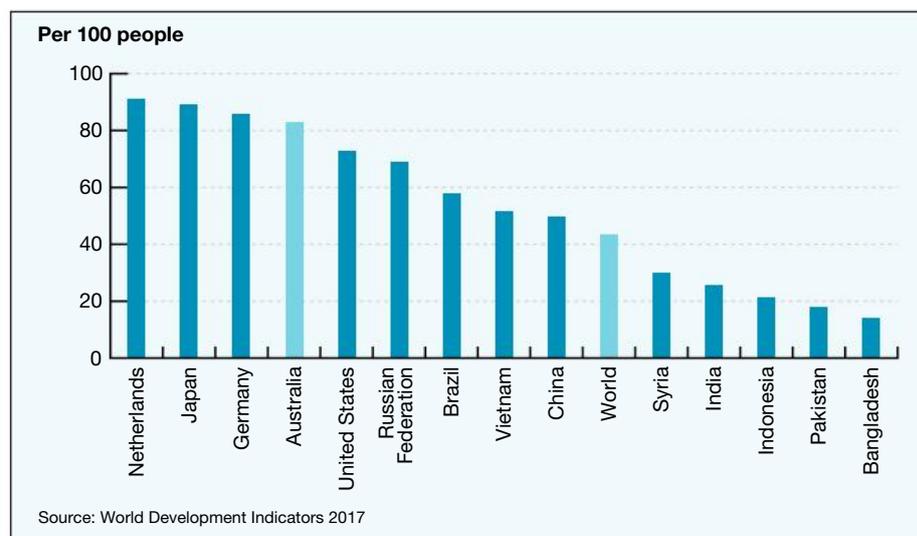


Figure 1.7 – Internet users in selected countries

International division of labour and migration

Migration is the movement of people between countries on a permanent or long-term basis, usually for 12 months or longer.

Labour markets differ from markets for goods and services, finance and investment, in that they are far less internationalised. While money can move around the world in fractions of a second, goods and services can move in days and investments can be made in weeks, people do not move jobs quite as freely. In fact in recent years the industrialised world has become more restrictive about immigration of people from poorer countries.

Nevertheless, more people than ever before are moving to different countries to take advantage of the better work opportunities that other countries offer. The World Bank estimates that there are around 258 million people (triple the 85 million people in 1990 and over 3 per cent of the world's population) who have migrated to work in different countries in the world, and that rising labour supply pressures and income inequalities could increase this level. Labour migration into Organisation for Economic Cooperation and Development (OECD) member countries fell because of reduced job opportunities during the late-2000s, but according to the International Migration Outlook, migration has started

to pick up again, driven largely by the European Union, United States and Australia. While there are strong economic and financial motivations for migration, political unrest and conflict are also a significant factor driving movements, as is evident by the countries shown in figure 1.8.

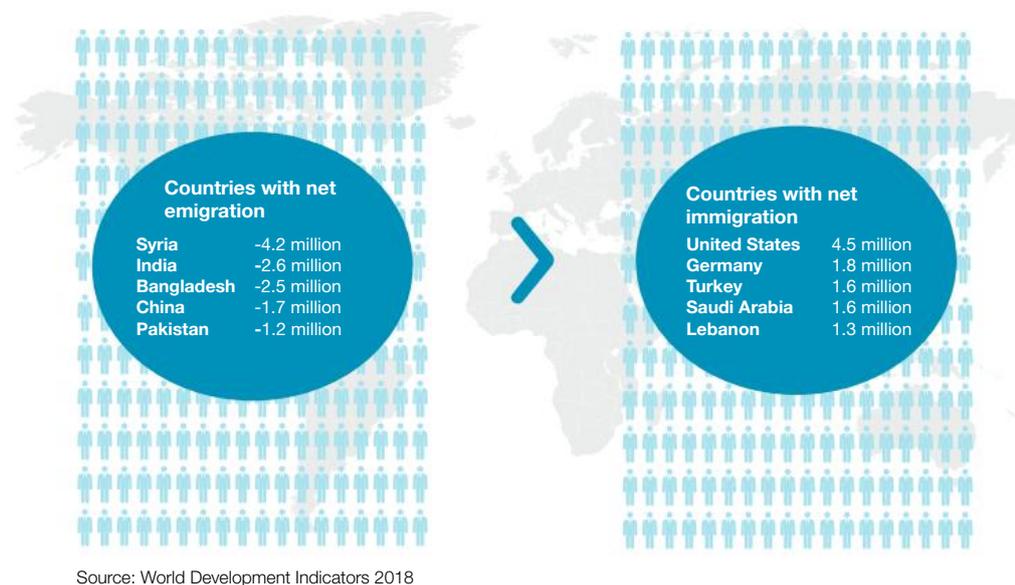


Figure 1.8 – Net migration by region and country (over past five years)

The movement of labour between economies appears to be concentrated at the top and bottom ends of the labour market. At the top end, highly skilled workers are attracted towards the richest economies such as the United States and the largest European economies because of the higher pay and better opportunities available in these countries. The OECD has reported that the proportion of migrants leaving developing countries who move to high-income economies has increased from 36 per cent to 51 per cent in the past two decades. Smaller advanced economies such as Australia and New Zealand suffer from a “brain drain” of some of their most talented and skilled workers, who are attracted to other countries by greater rewards. In effect, there is a global market for the most highly skilled labour.

At the bottom end of the labour market, low-skilled labour is also in demand in advanced economies where it may be difficult to attract sufficient people born locally to do certain types of work. Jobs that only require basic skills (and perhaps do not require any language skills) are often filled by migrants – in the United States by migrants from Latin America; in European countries, by migrants from Eastern Europe and Africa; in richer Asian countries by migrants from poorer Asian nations.

These trends in migration reflect an **international division of labour** whereby people move to the jobs where their skills are needed while the globalisation of the labour market is increasing but there are still significant barriers to working in other countries. These barriers include immigration restrictions, language, cultural factors and incompatible educational and professional qualifications. Most people would prefer to stay in the country of their birth, where their family and friends live, and where they are most familiar with the language and culture. Against this preference, domestic instability and geopolitical turmoil may force people to flee their countries, with the UNHCR estimating that 66 million were forcibly displaced at the end of 2016, the highest figure since World War II.

The international division of labour is also evident from another aspect of the world economy – the shift of businesses between economies, rather than the shift of people. Just as people may move countries in search of the best job opportunities, corporations shift production between economies in search of the most efficient and cost-effective labour.

International division of labour is how the tasks in the production process are allocated to different people in different countries around the world.

BRAIN DRAIN OR BRAIN GAIN?

Around 258 million people worldwide have migrated because of work. The proportion of these “economic migrants” who are highly skilled heavily outnumbers those who are low-skilled in almost all countries. In some countries, like Haiti and Jamaica, more than 80 per cent of the skilled labour force has moved overseas. Not even high-income countries are immune to the brain-drain problem, with Hong Kong and Ireland losing between one-third to one-half of their college graduates.

Brain drains have traditionally been perceived as a negative outcome for an economy in terms of both development and welfare. High levels of skilled labour emigration increase the technological gap between developed and developing countries as human capital flows towards more advanced economies and the source country may experience shortages of particular workers. It is also suggested that high-skilled migrants may contribute to fiscal imbalances if they leave and do not pay income taxes to “repay” their publicly subsidised education.

On the other hand, economies experiencing outwards migration can benefit from remittance inflows, interconnected business networks and increased sharing of technological developments. The World Health Organisation (WHO) and the European Union recently launched a project, focused on the migration of health workers, From Brain Drain to Brain Gain. The program aims to manage and improve the flow of health workers from developing economies in Sub-Saharan Africa and Asia to maintain health standards and ensure that source countries retain some ability to deal with potential medical crises.

Sources: IZA World of Labor; WHO Health Workforce Alliance and the Health Workforce Department



In a globalised business environment, many producers operate what is sometimes called a global supply chain, with production facilities in several countries. The process called “offshoring” allows companies to shift production between countries to reduce costs. This results in the development of export-oriented economies that can compete on the basis of their abundance of low wage labour. While offshoring has been occurring for decades, particularly for labour-intensive manufacturing processes, recent years have also seen services functions such as IT support, data management and accounting move to more competitive locations to reduce costs.

The international division of labour reflects the economic concept of “comparative advantage” that is discussed in chapter 2. Essentially, this theory states that economies should specialise in the production of the goods or services that they can produce at the lowest opportunity cost. Developing economies have a large population of workers with only basic labour skills and education levels, giving them a comparative advantage in labour-intensive manufacturing. Advanced economies have generally shifted away from labour-intensive manufacturing to focus on specialised service aspects of the economy that use more highly skilled workers who are in greater supply in advanced economies.

reviewquestions

- 1 Explain the role of innovations in technology communications and transport in driving the process of globalisation.
- 2 Outline key trends in migration in recent years.
- 3 Explain how migration and offshoring reflect an international division of labour between different economies.

1.3 The international and regional business cycles

The level of economic activity in individual economies is never constant (that is, never in a state of equilibrium). Economic growth usually moves in cycles – in other words, instead

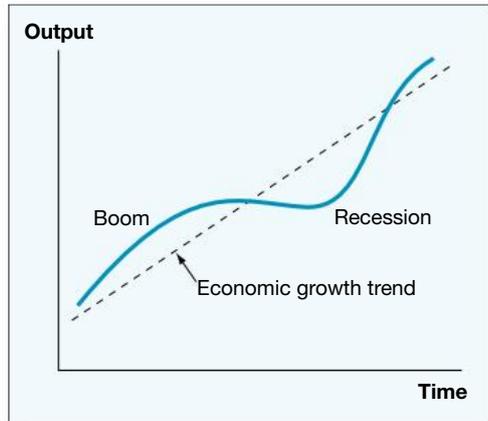


Figure 1.9 – The business cycle

of sustaining a steady rate of growth from year to year, most economies go through periods of above average growth that then lead into a period of below average growth. These ups and downs of the **business cycle** (that is, the general level of economic activity) are caused by changes in the level of aggregate supply and demand. This is shown in figure 1.9, which also reveals that, over time, economies usually experience an overall trend of growth in output (measured by increases in **Gross Domestic Product**).

Just as individual economies experience stronger and weaker periods of economic growth, so too does the global economy.

This ebb and flow of world economic growth is known as the **international business cycle**, which refers to the changes in the level of economic activity in the global economy over time. Although the levels of economic growth each year often differ greatly between countries, for most countries economic growth is stronger when the rest of the world is growing strongly and weaker when other countries are experiencing a downturn. The extent of synchronisation of economic growth levels across individual economies is highlighted by the extent to which the downturn of the late-2000s in the United States spread to other advanced industrialised economies and resulted in the biggest global recession since the Great Depression of the 1930s. It resulted in the largest fall in world trade in more than six decades, highlighting the relationship between trade and economic growth.

Business cycle refers to fluctuations in the level of economic growth due to either domestic or international factors.

Gross domestic product (GDP) is the total market value of all final goods and services produced in an economy over a period of time.

International business cycle refers to fluctuations in the level of economic activity in the global economy over time.

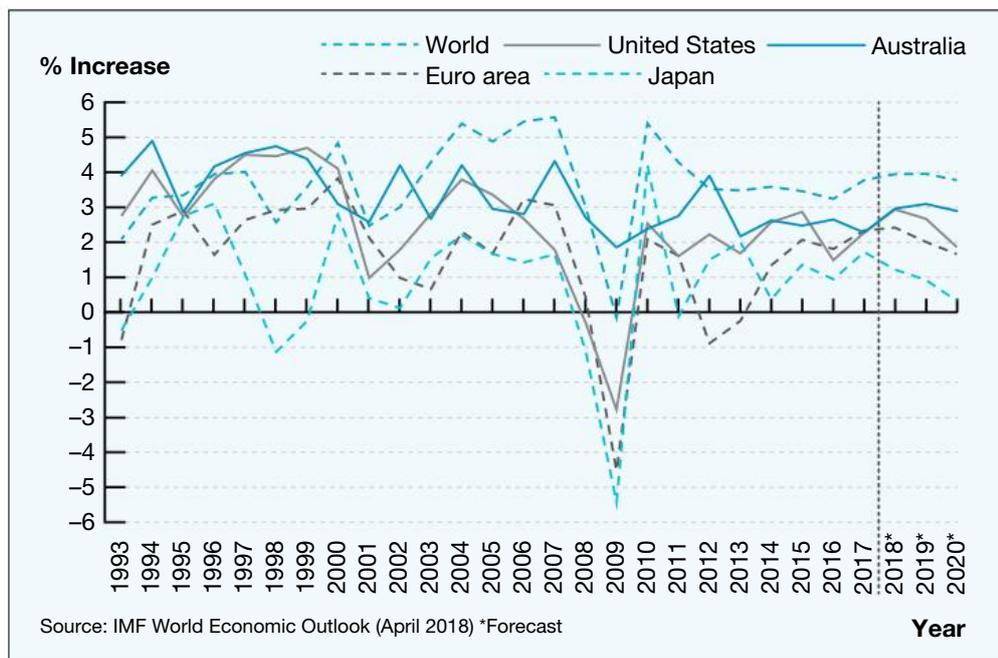


Figure 1.10 – Economic growth performance of major economies

Figure 1.10 on page 17 highlights the strong relationship between the economic growth performances of the world's major economies. The United States, the Euro Area economies, Japan and Australia all experienced a long period of moderate growth during the 2000s, followed by a sharp collapse in growth in the late-2000s. Each of these advanced economies has struggled to improve its economic growth across the 2010s due to a variety of factors, including persistent global uncertainty, volatile commodity prices and a moderation of growth for the emerging economies. As a small open economy, the Australian economy is particularly affected by economic growth rates overseas. Research by the Reserve Bank of Australia (RBA) has found that 63 per cent of changes in the level of output in Australia can be explained by the changes in interest rates, growth levels and inflation rates in the Group of Seven (G7) largest industrialised countries. This means that for Australia, domestic factors have half as much influence as international factors on economic growth in any given year. The transmission of economic conditions from one country to another is made more immediate by the increased integration of economies during the globalisation era:

- **Trade flows:** If there is a boom or recession in one country, this will affect its demand for goods and services from other nations. The level of growth in an economy will have flow-on effects on the economic activity of its trading partners. During the global downturn in the late-2000s, it was estimated that more than 25 per cent of the decline in US growth transmitted to other economies.
- **Investment flows:** Economic conditions in one country will affect whether businesses in that country will invest in new operations in other countries, affecting their economic growth. In the early 2010s, for example, one of the factors limiting the growth of foreign direct investment (FDI) inflows to developing countries was the weak economic growth performance in Europe and the United States.
- **Transnational corporations:** Transnational corporations (TNCs) are an increasingly important means by which global upturns and downturns are spread throughout the global economy. The 2017 UNCTAD World Investment Report found that in 2016, growth in TNC assets and sales were valued at over US\$150 billion, and higher for their foreign affiliates compared to their domestic entities.
- **Financial flows:** Short-term financial flows also play an important role in transmitting the international business cycle. A 2016 paper by leading economists in the European Union titled "International business cycle synchronisation: the role of financial linkages" concluded that countries with strong financial integration will experience an increase in financial flows between themselves, especially in response to common external shocks. This was experienced in mid-2016 when the Brexit referendum result in the UK saw increased financial flows between the other advanced economies.
- **Financial market and confidence:** Consumer confidence and the "animal spirits" of investors are constantly influenced by conditions in other countries. This is highlighted by the strong correlation between movements in share prices of the world's major stock exchanges – that is, they tend to go up and down at the same time. Events that threaten global stability – such as an increased risk of war, sovereign debt default or the collapse of a major business – can spark an immediate downturn in share values. This effect was seen in early 2018 as markets reacted to the possibility of a global trade war, provoked by US President Trump's sudden announcement of tariffs on a wide range of imports. As both emerging and advanced economies incur more debt to fund financial and investment flows, there is also concern about the risks to financial stability. Historically, high leverage has impeded growth over time. The 2017 Bank of International Settlements forum noted that global corporate debt in particular had increased by 16 per cent since the late-2000s to reach almost 130 per cent of gross world product.
- **Global interest rate levels:** Monetary policy conditions in individual economies are increasingly influenced by interest-rate changes in other countries. If strong economic growth makes it necessary for the central bank to increase interest rates in the United States, this places pressure on central banks in other economies to follow suit. Furthermore, higher interest rates in a major economy will make borrowing more expensive for emerging and developing economies. In response to

a strengthening US economy, the Federal Reserve continued raising interest rates throughout 2017. While this was suitable for US policy reasons, the World Bank predicts that this increase will reduce investment into emerging economies by up to 1.1 per cent of GDP, slowing their growth.

- **Commodity prices:** Global prices of key commodities such as energy, minerals and agricultural products play a critical role in the general level of inflation in the world economy and therefore have an effect on investment, employment, growth and other features of the international business cycle. Oil prices are particularly significant due to their role in the transport of many goods and services. Typically, oil exporting countries experience slower growth due to reduced revenues, while emerging economies benefit due to their manufacturing-based economies and reliance on imported oil supplies. The slump in oil prices between 2014 and 2016 was one of the largest in modern history, but failed to provide a boost to growth. The World Bank concluded that oil is no longer a major influence on growth rates because of structural changes in the way their economies operate, particularly as more countries move to cleaner energy sources.
- **International organisations:** International forums such as the Group of Twenty (G20) or Group of Seven (G7) can play an important role in influencing global economic activity. Discussions of global economic conditions at summit meetings mean that the G20 or G7 can act as the unofficial forum for coordinating global macroeconomic policy, especially during periods of economic uncertainty. *The OECD Business and Financial Outlook 2017* emphasised the significance of international organisations imposing stricter regulations on bribery and corruption and cross-border tax minimisation strategies, which otherwise pose risks for economic growth and inequality.

Nevertheless, it is important to note that despite these linkages, the pattern and the pace of economic growth differ between countries. Even countries that are at similar stages of economic development, such as the United States and European economies, experience differing levels of economic growth. Despite the global linkages described above, many of the factors that influence the business cycle differ between economies:

- **Interest rates** have a significant impact on the level of economic activity, and interest rates differ between countries (or regions, in the case of European countries that share a common interest rate policy). Higher interest rates will dampen economic activity while lower interest rates will stimulate economic activity.
- **Government fiscal policies** also have a significant effect upon the level of economic growth in the short to medium term. If a government in one country raises taxes while the government in another country cuts its taxes, economic growth is likely to move in opposite directions in those two countries.
- **Exchange rates** differ between countries and impact on the level of trade competitiveness and confidence within economies. In turn, these factors will influence the level of economic growth. The Bank of International Settlements 2016 Annual Report notes that exchange rates are having an increased impact on domestic economies, particularly in the past decade as government policy has less ability to target economic shocks.
- **Structural factors** differ between economies. For example, countries have different levels of resilience in their financial systems; different levels of innovation and takeup of new technologies; different attitudes towards consumption and savings; different population growth rates and age distribution; different methods of regulating labour markets, educating and training employees and regulating businesses. These structural factors influence the competitiveness of economies and their level of growth.
- **Regional factors** between economies differ. Some economies are closely integrated with their neighbours and are therefore very influenced by the economic performance of their major trading partners. For example, geopolitical instability in countries like Egypt, Turkey and Yemen has held back economic growth in other Middle Eastern economies throughout the 2010s. Other economies may be less influenced by changing growth in a specific region.

FACTORS THAT STRENGTHEN THE INTERNATIONAL BUSINESS CYCLE

Trade flows
Investment flows & investor sentiment
Transnational corporations
Financial flows
Technology
Global interest rates
Commodity prices
International organisations

FACTORS THAT WEAKEN THE INTERNATIONAL BUSINESS CYCLE

Domestic interest rates
Government fiscal policies
Other domestic economic policies
Exchange rates
Structural factors
Regional factors

In summary, there is an international business cycle and when there is a substantial economic downturn, such as in the mid-1970s, the early 1990s and the late-2000s, this downturn is shared across almost all countries. However, the factors influencing individual economies differ and the level of world economic growth is one of several factors that influence economic conditions.

Regional business cycles

Regional business cycles are the fluctuations in the level of economic activity in a geographical region of the global economy over time.

Similar to the international business cycle, the term **regional business cycle** refers to the changes in economic activity in a particular region. In the same way that countries' activity can be affected by global changes, they can also be affected by regional changes. While changes in the US economy will have ripple effects around the world, they can have more pronounced impacts in **North America**, on the nearby Canadian and Mexican economies, because of their integration through the North American Free Trade Agreement. Likewise, many of the 28 economies of the **European Union** (27, after the departure of Britain) are influenced by activity levels in Europe's largest economies – Germany and France.

In the **East Asian region**, economic conditions are dominated by the influences of China and Japan – the world's second- and third-largest economies. While the regional business cycle in Asia has been weaker than in other regions, it has strengthened in recent years because of increased integration between Asian economies. On the other hand, as China and Japan both experienced a slowdown in recent years, the region continued to experience stable growth due to moderate upswing elsewhere in the region.

Other regions around the world have a higher proportion of developing or low-income countries, and they tend to be less regionally integrated. In **Sub-Saharan Africa**, for example, many economies such as Chad, Uganda and Sierra Leone are dependent on high-income economies for more than 80 per cent of their exports, and are therefore as likely to be influenced by conditions in the world economy as they are by neighbouring African economies. In the **South Asia and Latin American regions**, regionally dominant economies such as India and Brazil respectively play a key role alongside influences from outside the immediate region. The moderate growth forecast in both these economies for the end of the 2010s (primarily driven by government reforms and monetary easing) will be a key contribution to an upswing in their respective regions.

While regional business cycles tend to be dominated by the largest and most globalised economies, it is also important to recognise the complexity of conditions at the regional level. Throughout the 2010s, economic conditions in large European economies like France and Italy were weakened by financial turmoil in the relatively small economy of Greece. Similarly, the East Asian financial crisis of the late 1990s was triggered by a substantial depreciation of the Thai baht. In Latin America in the early 2000s, problems in Argentina quickly became a regional crisis. Geographical tensions among Russia and Ukraine in the mid-2010s reduced growth, trade and economic policy across **Europe and Central Asia**. In this way, smaller economies can affect the performance of regional economies even if they are not dominant economies or strongly integrated.

Clearly, regional business cycles can be quite different from patterns in global economic activity with some regions performing more strongly than others and fluctuating more independently from other regions. However, regional cycles are also part of the phenomenon of globalisation because they result from increased cross-border integration. Ultimately, the business cycles of different regions interact in complex ways to drive the level of economic activity around the world.

review questions

- 1 Define the terms *international business cycle* and *regional business cycle*.
- 2 Using examples from specific countries or regions, describe recent trends in the international business cycle and regional business cycles.
- 3 Outline the factors that strengthen and weaken the relationship between the economic cycles of individual economies.

chapter summary

- 1 Globalisation** refers to the integration between different countries and economies, leading to the increased impact of international influences on all aspects of life and economic activity.
- The **global economy** is a way of describing the activities of all the economies of the world as a whole, reflecting the fact that they are now increasingly linked together into one larger economic system.
- Gross world product** is the sum of the total output of goods and services produced by all economies in the world over a given period of time.
- The growth of **world trade** is an important indicator of the extent of globalisation. World trade has increased at around double the rate of world economic growth over the past half century.
- The pattern and direction of world trade has changed to reflect the increasing importance of advanced technology and services and the growth of the Asia Pacific region.
- The process of globalisation has occurred most rapidly in global finance which faces few barriers and is driven mostly by speculative activity (that is, investors seeking to make short-term profits out of fluctuations in exchange rates, interest rates and other financial indicators).
- Foreign direct investment (FDI)** is the injection of funds into an economy to establish a new business or purchase an existing business. FDI flows are driven by **transnational corporations (TNCs)** and often involve the transfer of technological innovations between economies.
- Technology, transport and communication** have driven increased economic integration by facilitating linkages between businesses individuals and nations in the global economy.
- Globalisation has also contributed to the **international division of labour** in part because of the migration of workers to countries where jobs are plentiful or better paid, and also because of the shift of business between economies in search of the most efficient and cost-effective labour.
- The concept of **international and regional business cycles** refers to the extent to which economies tend to experience a similar pattern of boom, downturn and recovery at similar times. Although the shape and the length of the business cycle differs from one economy to the next, the level of economic growth between different economies is closely related, and recessions and booms tend to occur around similar times.

chapterreview

- 1** Explain what is meant by *globalisation*, using recent trends to illustrate your answer.
- 2** Describe the role of trade flows in globalisation.
- 3** Summarise recent changes in the direction and composition of international trade in goods and services.
- 4** Explain how technology drives growth in the trade of goods and services.
- 5** Explain the difference between *investment flows* and *financial flows*.
- 6** Outline the role of foreign-exchange markets in international financial flows.
- 7** Discuss the role played by transnational corporations (TNCs) in globalisation.
- 8** Discuss the impact of globalisation on the international division of labour.
- 9** Explain how changes in the level of economic growth in one economy can impact on economic growth in other economies.
- 10** Examine the performance of an individual economy over the past decade. Discuss the extent to which this economy's performance has reflected world economic growth trends and the extent to which it has differed. Identify factors that might explain these similarities and differences.

Trade in the Global Economy

2

- 2.1 Advantages and disadvantages of free trade
- 2.2 Reasons for protection
- 2.3 Methods of protection
- 2.4 Trade agreements
- 2.5 International organisations
- 2.6 Government economic forums

Trade has played a critical role in the expansion of the global economy. The world's most successful economies typically are economies with high levels of trade. Similarly, the periods of the fastest growth in the global economy have also been periods of rapid growth in trade. Trade has brought countries together, created significant wealth and resulted in the restructuring of economies.

This chapter examines the economic theory behind trading relationships such as the reasons for trade, government policies that have restricted trade and the role played by international institutions in trade financial flows and foreign investment.

2.1 Advantages and disadvantages of free trade

One of the most fundamental assumptions of economists around the world is that trade is a good thing and that economies will achieve higher levels of growth in a free trade environment. Although there are still many barriers to trade, in recent decades the global economy has seen significant progress towards free trade.

Free trade can be defined as a situation where governments impose no artificial barriers to trade that restrict the free exchange of goods and services between countries with the aim of shielding domestic producers from foreign competitors.

The argument for free trade is based on the economic concept of **comparative advantage**. The principle of comparative advantage states that even if one country can produce all goods more efficiently than another country trade will still benefit both countries if each specialises in the production of the good in which it is comparatively more efficient. This comparative efficiency is measured by the **opportunity cost** of producing each good within that country. Thus if the opportunity cost of producing coal in Australia is lower than in the United States (that is, in order to produce an extra ton of coal, Australia gives up producing a smaller quantity of wheat than does the United States), then Australia is said to have a comparative advantage in coal production. At the same time, if the opportunity cost of producing wheat in the United States is lower than in Australia, then the United States is said to have a comparative advantage in wheat.

Comparative advantage is the economic principle that nations should specialise in the areas of production in which they have the lowest opportunity cost and trade with other nations so as to maximise both nations' standards of living.

Opportunity cost represents the alternative use of resources. Often referred to as the "real" cost, it represents the cost of satisfying one want over an alternative want. This is also known as economic cost.

Free trade is a situation where there are no artificial barriers to trade imposed by governments for the purpose of shielding domestic producers from foreign competitors.

ADVANTAGES OF FREE TRADE

- Trade allows countries to obtain goods and services that they cannot produce themselves or in sufficient quantities to satisfy domestic demand. This would generally occur because of a lack of adequate resources. For example, a country may lack the necessary technology to produce certain manufactured goods.
- Free trade allows countries to **specialise** in the production of the goods and services in which they are most efficient. This leads to better resource allocation and increased production within countries and throughout the world.
- Free trade encourages the **efficient allocation of resources**. Resources will be used more efficiently because countries are producing the goods in which they have a comparative advantage.
- A greater tendency for specialisation leads to **economies of scale**, which will lower average costs of production while increasing efficiency and productivity.
- **International competitiveness** will improve as domestic businesses face greater competitive pressures from foreign producers, and governments will encourage domestic industrial efficiency.
- Free trade encourages innovation and the spread of new technology and production processes throughout the world.
- Free trade leads to **higher living standards** as a result of lower prices, increased production of goods and services and increased consumer choice, as countries have access to goods that a lack of natural resources may otherwise prevent. The opening up of global markets leads to higher rates of economic growth and increased real incomes.

DISADVANTAGES OF FREE TRADE

- An increase in **unemployment** may occur as some domestic businesses may find it hard to compete with imports. The short-term rise in unemployment should correct itself in the long term as the domestic economy redirects resources to areas of production in which it has a comparative advantage. Nevertheless, some specific industries, workers and regions may lose out in the longer term as a result of free trade.
- It may be more difficult for less advanced economies to establish new businesses and new industries if they are not protected from larger foreign competitors.
- Production surpluses from some countries may be **dumped** (that is, sold at unrealistically low prices) on the domestic market, which may hurt efficient domestic industries.
- Free trade may encourage environmentally irresponsible production methods because producers in some nations may win markets by undercutting competitors' prices – only because they also undercut environmental standards. For example, they may reduce or might not dispose of waste products safely.

Appendix B:

For more information on the economic theory of comparative advantage and gains from trade go to section B.1 in the Advanced Economic Analysis appendix at the back of the textbook.

reviewquestions

- 1 Explain the principle of comparative advantage.
- 2 Describe how the idea of comparative advantage supports the arguments in favour of free trade.
- 3 Define *free trade*.
- 4 Examine the costs and benefits of free trade.

2.2 Reasons for protection

Protection can be defined as any type of government action that has the effect of giving domestic producers an artificial advantage over foreign competitors. The main protectionist measures include tariffs, import quotas and subsidies.

Despite the economic arguments in favour of free trade, historically most countries have tended to impose at least some forms of protection to assist local producers in the face of foreign competition. A number of arguments have been put forward to justify why countries impose protectionist barriers to trade including the need to assist infant industries, protecting industries from overseas firms dumping goods, reducing unemployment and arguments for self-sufficiency in certain items.

Protection refers to government policies that give domestic producers an artificial advantage over foreign competitors, such as tariffs on imported goods.

Infant industries

New industries generally face many difficulties and risks in their early years. They usually start out on a small scale with costs that are relatively higher than those of established competitors in other countries. These “infant industries” may need to be shielded from competitors in the short run to enable them to build capacity, establish markets and achieve economies of scale so that they can compete in the global economy. This approach to the development of new industries has been used by many emerging economies in recent decades.

The key test for economic credibility of the infant industry argument is whether industry protection is removed over time. If protectionist policies are not removed, there will be no real incentive for the industry to reach a level of efficiency that would enable it to compete without protection. This means that governments should provide temporary assistance only to industries that have a good chance of achieving some comparative advantage in the long run so they can compete in the global economy.

Historically, many industries that have received assistance, as infant industries have continued to rely on this assistance for many years. The infant industry argument has been used to support many industries that would never have survived otherwise. For this reason economists are generally reluctant to accept businesses seeking protection based on the infant industry argument. When governments provide help to new industries now, this tends to involve direct assistance and lasts for a very limited time.

Prevention of dumping

Dumping occurs when foreign firms attempt to sell their goods in another country’s market at unrealistically low prices (that is, below the price charged in the home country’s market). The practice of dumping may be used to dispose of large production surpluses or to establish a market position in another country. These low prices are usually only of a temporary nature but can harm domestic producers. Local firms that could normally compete with such foreign producers may be forced out of business causing a loss in a country’s productive capacity and higher unemployment.

Dumping is the practice of exporting goods to a country at a price lower than their selling price in their country of origin.

The only gain from dumping is that it results in lower prices for consumers in the short term but this does not last as foreign producers will put up their prices once the local competition is eliminated. Under such circumstances it is generally in the economy’s best interest to impose restrictions on such imports. Using protectionist methods to prevent dumping is the only reason for protection that is widely accepted by economists. However, in recent years the World Trade Organisation has questioned whether countries might be unfairly accusing efficient low-cost foreign producers of dumping and abusing “anti-dumping” processes in order to protect their domestic industries.

More than 5000 anti-dumping complaints have been lodged by WTO members since the WTO was formed in 1995, with India and the United States responsible for the highest number. By 2018, there were over 3500 anti-dumping measures (such as duties) legally in force. The sectors where anti-dumping measures are most common are base metals, chemicals, plastics, resin and rubber. Australia has lodged a surprisingly high number of complaints – sixth in the world (with over 320 complaints lodged). Figure 2.1 identifies the countries that have initiated the largest number of anti-dumping actions and the countries most affected by them.

Top Five countries enforcing anti-dumping measures		Top five countries exporting countries affected*	
India	888	China	1269
United States	659	Korea, Republic of	417
European Union*	502	Taipei, Chinese	296
Brazil	410	United States	283
Argentina	352	India	227

Source: WTO statistics on anti-dumping, www.wto.org, August 2018
*Based on measures undertaken to December 2017

Figure 2.1 – Anti-dumping actions in force under WTO system

Protection of domestic employment

One of the most popular arguments in favour of protection is that it saves local jobs. If local producers are protected from competition with cheaper foreign imports the demand for local goods will be greater and this will create more domestic employment. This argument tends to gain more public support during times of recession when unemployment is rising, even though trade technology and automation often play a more significant role in job losses than trade.

However there is little support amongst economists for this argument. Protection will tend to distort the allocation of resources in an economy away from areas of more efficient production towards areas of less efficient production. In the long run this is likely to lead to higher levels of unemployment and lower growth rates. On the other hand by phasing out protection it is hoped that better and more lasting jobs will be created in other sectors within the economy that are internationally competitive. Furthermore, if a country protects its industries it is possible that other countries will retaliate and adopt similar protectionist policies. The net result could be that the country would maintain employment in less efficient protected industries but lose employment in more efficient export industries.

Defence and self-sufficiency

Countries sometimes have non-economic reasons for wanting to retain certain industries. For example, major powers generally want to retain their own defence industries so that they can be confident that in a time of war they would still be able to produce defence equipment. For this reason a country such as the United States would not buy crucial defence equipment from overseas countries even if they could produce them cheaper because this could make it reliant on other countries for their national security.

A similar argument can be made for self-sufficiency of food supplies. For example, even though Japan is highly inefficient in producing its own food supplies, it retains very high tariffs on rice imports because it wants to retain its own food supply. There are historical reasons for this attitude as Japan experienced famine twice in the twentieth century due to wartime blockades that prevented imports of food supplies. When a country adopts this

approach it must accept that it may result in lower living standards than if it specialised in producing goods and services where it had a comparative advantage and engaged in free trade.

Other arguments in favour of protection

Several other arguments are also used in favour of protecting local industries. For example:

- Because of the large difference in wage levels between higher and lower income economies, some economists argue that producers should be protected from competition with countries that produce goods with low-cost labour. They argue that labour costs are artificially low in many developing economies because of weak labour standards (such as restrictions on the rights of workers to form unions and low safety standards). They reason that it is legitimate to protect the living standards of workers in high-income economies through protectionist trade policies. Some economists also argue that in order to protect human rights, governments should prohibit trade with goods produced using forced labour (for example, prison workers) or child labour.
- Countries sometimes block trade in goods because of **environmental factors**, such as the environmental harm involved in the production of certain goods. Overseas producers may be able to produce some items cheaply because the producers are environmentally irresponsible and do not have to comply with the tougher environmental standards that apply in advanced economies.

THE 2018 LIVE SHEEP EXPORT CRISIS

Countries normally impose trade restrictions on imports to prevent goods from overseas being sold in their country. However sometimes countries restrict their own producers from selling to other countries. This is normally done for non-economic reasons – for example, Australia restricts the export of uranium to reduce the risk of Australian uranium being used in the production of nuclear weapons.

Australian export restrictions became a front-page news story in 2018, after an episode of the current affairs program television *60 Minutes*. The program showed footage of cruel treatment and the deaths of hundreds of sheep and lambs that had been exported from Australia to the Middle East, in clear breach of live export regulation. A public outcry followed, with thousands of Australian signing petitions to ban live animal exports and a series of public rallies and protests across the country.

Responding to public pressure, the Australian Government launched a series of reviews into the live export trade. Its initial recommendations included a reduction in live sheep export during the hotter months of the year, as well as consideration of a gradual phasing out of live animal exports completely.

Agricultural groups immediately criticised the recommendations from the report, saying that these recommendations would cause long-term damage to agricultural exports. Around 7 per cent of Australian cattle and 6 per cent of sheep are sent overseas alive rather than being slaughtered in Australia.

reviewquestions

- 1 Outline the major reasons why nations may argue in favour of introducing protectionist policies.
- 2 Identify which argument in favour of protection is most accepted by economists and explain why.

2.3 Methods of protection

Most countries use at least some measures to shield their domestic producers from foreign competition with protectionist policies, although the use of protectionist barriers has declined in recent years. There has also been a shift from traditional protectionist measures such as tariffs and subsidies towards less visible measures such as administrative barriers and industry assistance plans.

Tariffs

Tariffs are taxes on imported goods imposed for the purpose of protecting Australian industries.

A **tariff** is a government-imposed tax on imports. It has the effect of raising the price of the imported goods, making the domestic producer more competitive. The effects of a tariff are shown in figure 2.2.

Figure 2.2 reveals the following:

- The curves SS and DD represent domestic supply and demand.
- OP is the price of imported goods if there was **no tariff** applied (that is, in a situation of free trade). At this price consumers demand $0Q_1$ domestic producers supply $0Q$ and the quantity imported would be QQ_1 .
- If a tariff of PP_1 is imposed all of which is passed on to the consumer, demand will contract to $0Q_3$ domestic supply will expand to $0Q_2$ and imports will fall to Q_2Q_3 .
- Following the imposition of the tariff the government will raise revenue of ABCD.

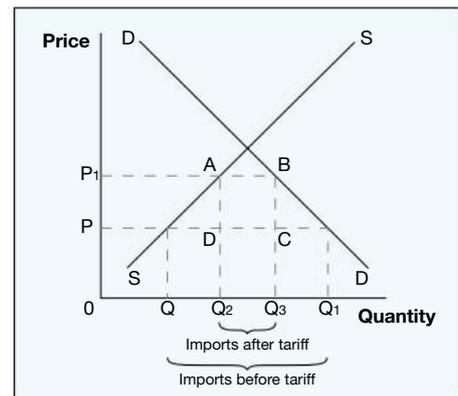


Figure 2.2 – The effect of a tariff

ECONOMIC EFFECTS OF A TARIFF

- Domestic producers supply a greater quantity of the good. Therefore the tariff **stimulates domestic production and employment**.
- More domestic resources are attracted to the protected industry. This leads to a reallocation of resources towards less efficient producers (that is, those who are unable to compete on an equal footing with foreign producers).
- Consumers pay a **higher price** and receive **fewer goods**. This redistributes income away from consumers to domestic producers. A 2017 study published by the Centre for International Economics suggested that if global tariffs on all merchandise imports were increased by 10 per cent, Australia would suffer by seeing a fall in real GDP of 2.2 per cent, while the global real GDP would fall by 4.1 per cent.
- The tariff raises **revenue for the government** but that is not the primary objective. In fact the more successful the tariff as a protectionist device (that is, the more imports it restricts), the less revenue it will raise. In Australia, the government provided around \$675 million in tariff assistance in 2017, despite the Productivity Commission (in its annual Trade and Assistance Review) noting that this type of assistance has negative impacts on consumers, as well as Australian living standards, and furthermore does not increase employment generally in the economy.
- A **retaliation effect** can sometimes occur. In response to tariffs on imports other countries may impose tariffs on the goods that are exported to them. Increased production and employment gains for import-competing industries would be offset by the losses suffered by that economy's export industries. This was seen in 2018 when US President Donald Trump's sudden announcement of wide-ranging import tariffs prompted retaliatory action from several countries, including China, the European Union and Canada. The conflict escalated, with President Trump announcing further rounds of tariff increases, inviting further retaliatory action from trading partners, and warnings that the escalating global trade war threatened the whole global trade system.

Quotas

An import **quota** controls the volume of a good that is allowed to be imported over a given period of time. The quota guarantees domestic producers a share of the market. The effects of a quota are shown in figure 2.3.

Figure 2.3 reveals the following:

- The curves SS and DD represent domestic supply and demand.
- OP is the price at which the imported goods would sell if there was **no quota** imposed. At this price, consumers demand $0Q_1$ domestic producers supply $0Q$, and the quantity imported would be QQ_1 .
- If the government imposed a quota restricting imports to Q_2Q_3 , this would have the effect of raising the price of imported goods to OP_1 . This price would allow domestic supply to expand to $0Q_2$.

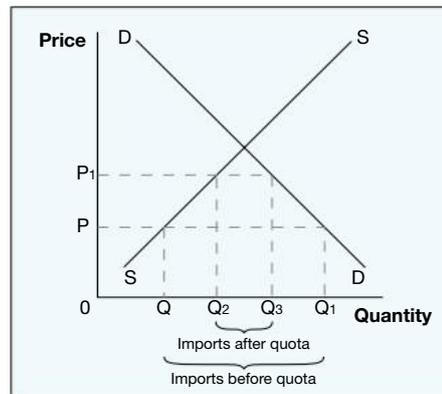


Figure 2.3 – The effect of an import quota

Quotas refer to restrictions on the amounts or values of various kinds of goods that may be imported.

Countries sometimes use a system of **tariff quotas**. Under this protectionist method, goods imported up to the quota pay the standard tariff rate whereas goods imported above the quota pay a higher rate. In the past many of Australia's most highly protected industries (for example, textiles, clothing, footwear and motor vehicles) were shielded from foreign competition in this way.

ECONOMIC EFFECTS OF A QUOTA

- Domestic producers supply a greater quantity of the good. Therefore the quota stimulates **domestic production and employment** in the protected industry.
- More resources in that economy are attracted to the protected industry leading to **reallocation of resources** from other sectors of the economy (where production and employment will fall).
- Consumers pay a **higher price** and receive **fewer goods**. This redistributes income away from consumers to domestic producers in the protected industry and results in lower overall levels of economic growth.
- Unlike tariffs quotas **do not directly generate revenue** for the government. However, governments can sometimes raise a small amount of revenue from quotas by administering the quota through selling import licences allowing firms to import a limited number of goods.
- As with tariffs, the imposition of a quota on imports can invite retaliation from the country whose exports may be reduced because of the quota. This can result in lower exports for the country that initiated the import quota.

Subsidies are cash payments from the government to businesses to encourage production of a good or service and influence the allocation of resources in an economy. Subsidies are often granted to businesses to help them compete with overseas produced goods and services.

Subsidies

Subsidies involve financial assistance to domestic producers, which enables them to reduce their selling price and compete more easily with imported goods. In figure 2.4 this is shown by a rightward shift of the domestic industry's supply curve from SS to S_1S_1 which results in a lower market price. Businesses will be able to sell a higher quantity of their product on both domestic and global markets. The quantity produced increases from Q to Q_1 . The size of the subsidy in per unit terms is the vertical distance between the S and S_1 .

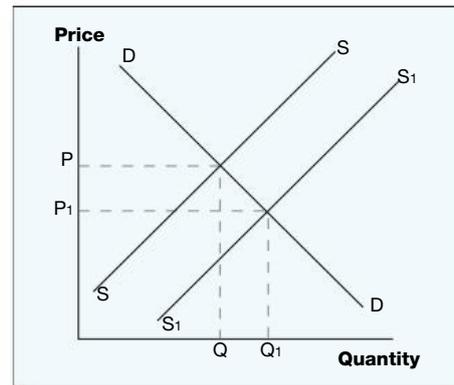


Figure 2.4 – The effect of a subsidy

ECONOMIC EFFECTS OF A SUBSIDY

- Domestic producers supply a greater quantity of the good. Therefore the subsidy stimulates **domestic production and employment** in the protected industry.
- More resources in that economy are attracted to the protected industry leading to **reallocation of resources** from other sectors of the economy (where production and employment will fall).
- Consumers pay a **lower price** and receive **more goods** because the subsidy shifts the supply curve for the sector to the right. However consumers still pay indirectly for subsidies through higher taxes.
- Subsidies impose **direct costs on government budgets** because they involve payments from the government to the producers of goods and services. This means that governments have fewer resources to allocate to other priorities such as education and health care.
- While economists are opposed to protectionist policies they often prefer a subsidy to a tariff because subsidies tend to be abolished more quickly – since they impose costs on the budget rather than generating revenue.

Local content rules

Local content rules specify that goods must contain a minimum percentage of locally made parts. In return for guaranteeing that a certain percentage of a good will be locally made the imported components may not attract a tariff. One of the reasons why French defence contractor DCNS won the Australian Government's \$50 billion submarine building contract in 2016 was their commitment to undertake some parts of the manufacturing and service in Australia. Although this was a protectionist measure relating to government procurement, not avoidance of a tariff, it is one illustration of how domestic industry may be protected through content rules. In the past, when motor vehicles were produced in Australia, manufacturers were allowed reduced tariffs so long as they complied with local content rules.

Export incentives

Export incentive programs give domestic producers assistance such as grants, loans or technical advice (such as marketing or legal information) and encourage businesses to penetrate global markets or expand their market share. The popularity of such programs has grown considerably in recent years as nations have moved to a greater focus on capturing foreign markets rather than protecting import-competing businesses as a strategy to achieve higher rates of economic growth and employment. For instance, Australia has a program known as the Export Market Development Grant (EMDG) that provides direct funding

and general assistance to local manufacturers looking to break into international markets. Technically export incentives do not protect businesses from foreign competition in the domestic market, but they are nevertheless an artificial barrier to free trade. The World Trade Organisation (WTO) agreement limits the scope of export incentives, but in general terms countries can still give exporting assistance to local producers.

OVERALL ECONOMIC EFFECTS OF PROTECTIONISM

In addition to the effects that protectionist policies have on domestic economies outlined above they can also have overall impacts on the global economy.

Global protectionist policies have the overall effect of **reducing trade between nations**. For an individual economy protectionism means that exports and imports will be a smaller share of the national economy. The World Trade Organisation has cited research estimating that a far-reaching Doha agreement would remove protectionist policies that are currently costing the global economy between US\$180 billion and US\$520 billion in exports every year.

Overall, protectionist policies **reduce living standards** and **reduce global economic growth** by shielding inefficient producers. The OECD has estimated that each dollar of increased protection leads to a drop of 66 cents in GDP and that free trade would increase average real incomes in developing countries by 1.3 per cent and in high income countries by 0.8 per cent. The International Monetary Fund estimated in 2018 that a 10 per cent increase in tariffs and related non-tariff barriers would reduce global trade by 16 per cent, shrink the global economy by 2 per cent and reduce investment across the world by an average of 3.5 per cent.

Protectionist policies make it more difficult for individual economies to specialise in production in which they are most efficient. Businesses are less able to achieve economies of scale and therefore have lower profits and lower dividends. With less competitive pressures, prices for goods and services in individual economies are higher.

The negative economic impact of the protectionist policies of trading blocs tends to be greatest for **developing economies** that are often excluded from access to the markets of advanced economies. It is estimated that two-thirds of the US\$90 to US\$200 billion annual welfare gains from trade liberalisation would flow to developing countries lifting 140 million people out of poverty.

review questions

- 1 Describe how tariffs affect the price and quantity of goods sold in a market.
- 2 Discuss the impact of tariffs, quotas and subsidies on firms, individuals and the government in the domestic economy.

2.4 Trade agreements

As trade has grown and economies have become more integrated, countries have in recent years moved to form agreements and trading alliances to ensure that they are in the best position to gain from growing trade opportunities and also to avoid being excluded from emerging trading blocs.

Trade agreements can be bilateral, multilateral or global. They can promote free trade exclusively amongst members or can be open to all nations. A **trading bloc** occurs when a number of countries join together in a formal preferential trading arrangement to the exclusion of other countries such as the European Union (EU) and the North American Free Trade Agreement (NAFTA).

Trade bloc occurs when a number of countries join together in a formal preferential trading agreement, to the exclusion of other countries.

Free trade agreements (or **trade agreements**) are formal agreements between countries designed to break down barriers to trade between those nations. When the agreement is between two countries it is said to be bilateral, and when the agreement is between three or more economies, it is said to be multilateral or regional. While these agreements are generally described as “free” trade agreements it is often more accurate to call them preferential trade agreements because in effect they give more favourable access to goods and services from one nation or a group of nations compared to another. Sometimes they can even make it harder for nations outside the preferential trade agreement to trade. In this respect they may not create better conditions for free trade at all. In contrast global free trade agreements conducted through the **World Trade Organisation (WTO)** are designed to remove barriers to trade uniformly across all economies.

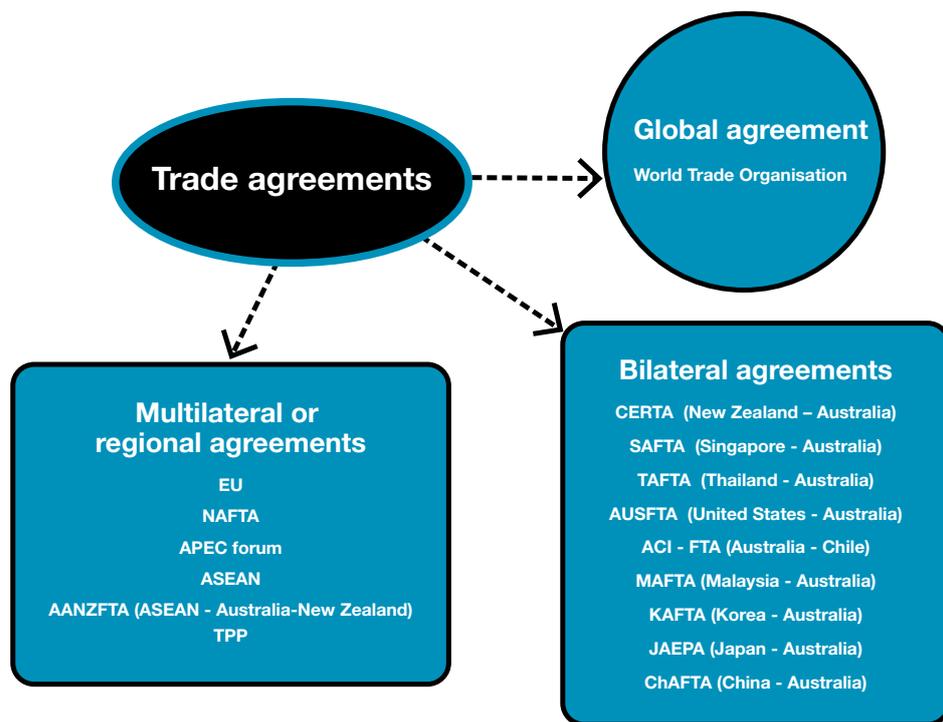


Figure 2.5 – Types of trade agreements

A GLOBAL TRADE WAR?

“When a country (USA) is losing many billions of dollars on trade with virtually every country it does business with, trade wars are good, and easy to win.”

– US President Donald Trump, 2 March 2018

President Donald Trump’s election in 2016 marked a dramatic departure from the United States’ commitment to trade liberalisation since the Second World War. President Trump had for several decades railed against America’s “horrible Trade Deals” with economies such as Japan, Europe, Mexico, Canada and China, most recently arguing that China had stolen American intellectual property and implemented unfair industrial policies. In 2018 he began implementing a protectionist agenda, with tariffs on steel and aluminium imports and a 25 per cent tariff on \$50 billion worth of Chinese imports. By late 2018 the US was threatening to extend these tariffs to half of America’s \$505 billion worth of imports from China. President Trump’s actions triggered immediate tariff increases in retaliation by China and other trading partners. Economists almost universally criticised his economic arguments as incoherent and dangerous, because of the risk that a global trade war could trigger a recession in the world economy.

Regional trade agreements have multiplied in recent decades with the number of agreements in force jumping from 27 in 1990 to 459 in 2018. The rapid proliferation of regional trade agreements in recent years has led to what some economists have described as the emergence of **regionalisation**, not **globalisation**.

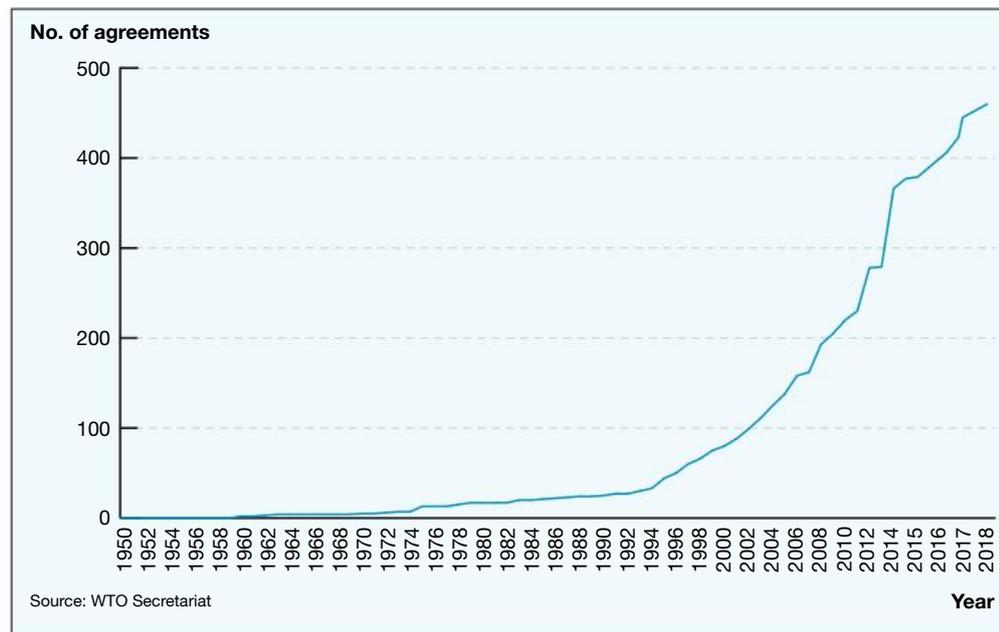


Figure 2.6 – The growth of bilateral and multilateral trade agreements

The extent to which countries trade with other economies within their regional trade blocs varies between regions. Around two-thirds of European trade occurs within the European Union, demonstrating both its vast size and its tendency to be a more closed trade bloc due to protectionist policies. On the other hand, the ASEAN economies primarily trade with countries outside their region, reflecting that they are smaller economies and their economic growth strategies have centred around exports to industrialised economies. The economies of the North American Free Trade Agreement and ASEAN Free Trade Area in recent years have substantially increased the level of trade amongst themselves compared to trade with countries outside their trade area (although both continued to grow). This figure points towards the risk that regional trade blocs could result in global trade fragmenting into self-contained regions, hindering the spread of global free trade.

A 2018 study into Free Trade Agreement Utilisation conducted by PricewaterhouseCoopers found that 78 per cent of Australian businesses surveyed used at least one FTA arrangement to source their products from overseas, while 62 per cent of Australian exporting businesses used at least one FTA to sell their product to foreign markets. The study (which was focused on bilateral FTA use) also found there could be vastly different utilisation rates of the same product across different countries. For example, when importing agricultural produce into Australia, over 90 per cent of businesses used FTAs with the United States, China and Chile, but there was only a 35 per cent utilisation for the Japan-Australia FTA. However, there was a 97 per cent use of the FTA with Japan for vehicles (and related parts) compared to only 82 per cent for China, 70 per cent for the United States and no use for Chile.

Asia-Pacific Economic Cooperation (APEC) forum

In the early 1990s countries in Australia's region established the Asia-Pacific Economic Cooperation forum (APEC) in response to the formation of trading blocs in other areas of the world such as the EU and NAFTA. The 21 member economies of the forum are: Australia, Brunei, Canada, Chile, China, Hong Kong, Indonesia, Japan, Malaysia,

REGIONAL TRADE AGREEMENTS: STEPPING STONES OR STUMBLING BLOCKS?

Economists disagree on the extent to which regional and bilateral trade agreements assist or obstruct progress toward global free trade. Some say that the regional and bilateral trade agreements that have often led to the formation of trading blocs can hinder the progress towards global free trade because they slice the world up into separate trading areas. Others argue that the regional trade agreements act as a stepping-stone towards free trade, initially convincing economies to reduce their protection barriers against a small group of economies but eventually encouraging them to remove those barriers for the whole world.

Less a stepping stone, more a noodle bowl

“One angle of bilateral agreements usually ignored in all but the most academic analyses is... the increasing significance of Rules of Origin as a new form of non-tariff barrier that can make the task of extracting even the small gross benefits out of bilateral agreements almost impossible. That they are of significance should no longer be in doubt: Rules of Origin are at the heart of the US efforts being made to alter the North America Free Trade Agreement. In Australia, the noodle bowl of inconsistent rules we have created via bilateral negotiations is potentially going to be topped up further by bilateral deals... It has been claimed in the past that bilateral agreements may one day help us transition to more liberal multilateral outcome. This will only be a realistic claim if Rules of Origin can be dissolved... [we need] to improve the bilateral model, not exacerbate its failings.”

– Peter Harris, Chairman, Productivity Commission,
Speech to the European Australian Business Council (EABC),
24 April 2018, Sydney.

Complex costly and time consuming?

“Preferential trade agreements are not as effective in improving national welfare as unilateral action to reduce or eliminate trade barriers (primarily through greater domestic competition) or multilateral trade and investment liberalisation ... Preferential agreements also add to the complexity of international trade and investment, are costly and time consuming to negotiate and add to the compliance costs of firms (in the evaluation and utilisation of preferences) and administrative costs of governments ...

Proponents of preferential bilateral and regional trade agreements argue that such arrangements are a pragmatic way of improving market access opportunities for Australian exporters in the absence of multilateral reform ...

[But] current processes fail to adequately assess the impacts of prospective agreements. They do not systematically quantify the costs and benefits of agreement provisions fail to consider the opportunity costs of pursuing preferential arrangements compared to unilateral reform ignore the extent to which agreements actually liberalise existing markets and are silent on the need for post-agreement evaluations of actual impacts.”

– Productivity Commission (2015)
“Issues and concerns with preferential trade agreements”
Trade & Assistance Review 2013–14

Or just a matter of rowing our own boat?

“[W]e cannot afford a wide-spread back-sliding into protectionism. Australia is a trading nation. Our ability, as a country of less than 25 million people, to sell our goods and services to billions of other people around the world is what makes us rich. The standard of living we experience is among the highest in the world, in fact second highest in the world ... This growth would not have been possible had Australia not embraced liberalised trade ... trade liberalisation has lifted the income of Australian households by around \$4500 a year ...

To further advance our prosperity, the Turnbull Government is pursuing an ambitious trade agenda ... Since 2013 the Coalition has concluded new free trade agreements with China, Japan, Korea, Singapore and many of the Pacific Island nations through the PACER Plus Agreement ...

The Turnbull Government is also pursuing regional trade deals.

In the face of protectionist sentiment ... [t]he Turnbull Government will continue to make the case for economic openness, and continue to seek ambitious trade liberalisation outcomes.”

– Steve Ciobo, Minister for Trade,
Speech to APEC Study Centre, RMIT University,
20 July 2017

Mexico, New Zealand, Papua New Guinea, Peru, the Philippines, Russia, Singapore, South Korea, Taiwan, Thailand, the United States and Vietnam. Although it has only 21 member economies the APEC forum accounts for approximately 40 per cent of the world's population (2.9 billion people), 60 per cent of world GDP (around US\$45 trillion) and 47 per cent of world trade in 2017.

In 1994, during APEC forum's early days, member countries made an ambitious commitment to the Bogor Goals – a target of free trade to be achieved by 2020 with developed nations dismantling their trade barriers by 2010 and emerging and developing economies by 2015. The APEC forum economies also agreed not to become a protectionist trading bloc like the EU but to reduce barriers to non-member economies as well. The APEC forum is intended to be a free trade group that supports the WTO and addresses all impediments to the objective of free and open trade and investment in the region. As a **non-discriminatory** grouping, APEC forum members will trade with countries outside of the grouping on the same basis as members of the forum if they are prepared to give equal access to their markets. However the APEC forum never delivered on its ambitious free trade goal. Instead it has only played a modest role in advancing free trade. APEC meetings are held annually but they do not focus on trade issues. Instead they are an opportunity for leaders to meet and address whatever issues are the priorities of the day – such as financial crises, climate change or terrorism. Nevertheless, average tariff levels in the region since 1994 have fallen from 19.6 per cent to 13.4 per cent in 2016 (chiefly as a result of unilateral decisions to reduce protectionism by member economies).

Trans-Pacific Partnership (TPP-11)

The Comprehensive and Progressive Agreement for Trans-Pacific Partnership (TPP-11) is a multilateral trade agreement among 11 Pacific Rim countries that was formally signed and ratified in March 2018. At the time of ratification, its eleven members (Australia, Brunei, Chile, Canada, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore and Vietnam) represented over 13 per cent of global economic output and around 15 per cent of global trade, with a market of just under 500 million people. Even though the 11 TPP-11 economies only make up 6.8 per cent of the global population, their contribution to global trade is significant, especially for Australia's economy. Australia's exports to TPP-11 members in 2018 were worth \$164 billion, just over 22 per cent of all Australian trade.

The TPP-11 was dealt a major blow when the United States withdrew from the agreement when Donald Trump came to office as president in early 2017 following an election campaign in which he criticised America's trade agreements. Nevertheless, the remaining 11 signatories went ahead with the TPP-11. Its extensive provisions – 30 chapters and provisions to lower 18,000 tariffs (representing over 98 per cent of all tariffs in the free trade area) came into effect when ratified in 2018. However, the agreement does not have a clear implementation timetable and members are given a long lead time for implementing the agreement (up to 10 years for some members). It also includes controversial provisions that give corporations the right to sue governments for policy decisions that might harm their investments. The World Bank has estimated that the TPP-11 (as originally planned, including the United States) could increase trade among TPP members by an additional 11 per cent by 2030, and increase GDP in member countries by an average 1.1 per cent.

Association of South-East Asian Nations (ASEAN)

The ASEAN group covers emerging and developing economies in South-East Asia. ASEAN has acted as a counter-weight to the APEC forum, which tends to be dominated by the large economies such as the United States, China, Japan and South Korea. ASEAN has become the most effective force for trade negotiations within the Asia Pacific region.

The ASEAN Free Trade Area (AFTA) comprises Indonesia, Thailand, Malaysia, Singapore, Philippines, Vietnam, Brunei, Burma, Cambodia and Laos. The **ASEAN-Australia-New**

Zealand Free Trade Area (AANZFTA) agreement came into effect in 2010 with ASEAN nations committing to lowering and eliminating tariffs on 96 per cent of Australian exports to the region (compared to 67 per cent prior to the agreement). This is the largest preferential trade agreement that Australia has concluded (measured by population) representing 20 per cent of Australia's trade in goods and services and covering economies with a GDP of around \$3.4 trillion. ASEAN is also at the centre of a proposed Regional Comprehensive Economic Partnership (RCEP), a potentially major regional agreement expected to come into effect in 2019 that has been spearheaded by China as an alternative to the TPP-11.

The European Union

The European Union (EU) is the most important trade bloc in the world economy. Its member countries span across the European continent. With around 17 per cent of the world market for exports, 28 member countries and more than 500 million people, the EU is a larger trade market than the United States, and similar in size to China. At present there are five additional candidate countries that have begun negotiating potential membership of the EU: Albania, Montenegro, Macedonia, Serbia and Turkey. However, the EU has also been weakened by Britain's decision to leave the EU in 2019.

The formation of the European Union (formerly the European Economic Community) in the late 1950s helped to dismantle trade barriers within Europe. A single market for European goods and services was established in 1992, and this has helped drive strong trade growth within the EU. However the EU has frequently used tariff barriers against non-member countries, resulting in accusations that the EU is a closed trading bloc.

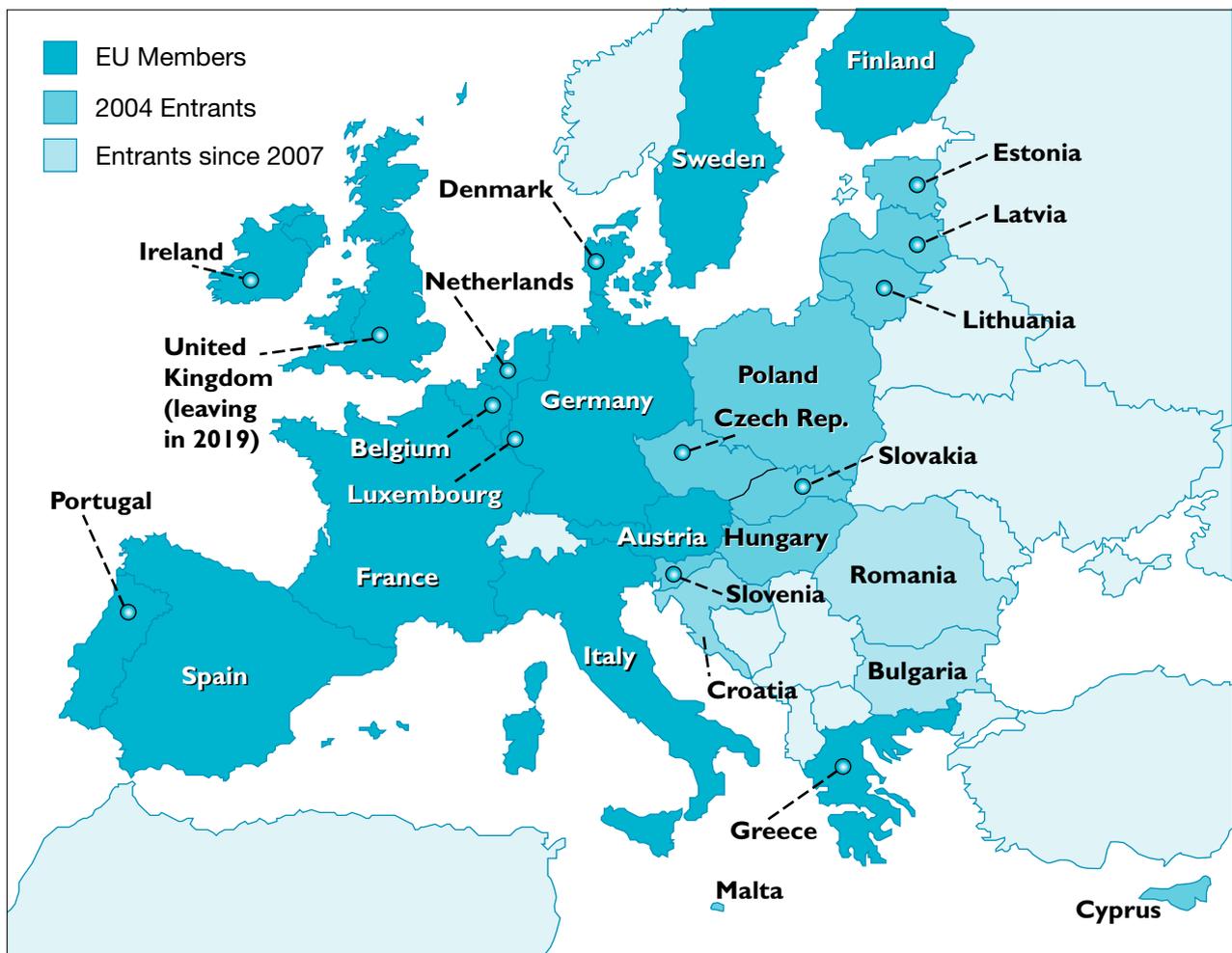


Figure 2.7 – European Union member states 2019

This increase in protection has had major implications for non-European countries – some of them large players in international trade such as the United States and some of them relatively small such as Australia. In particular, the high rates of protection applied to agricultural products in the EU (direct subsidies and rural support provided under the EU's Common Agricultural Policy absorbed 38 per cent of its €160 billion budget in 2018.) and the oversupply of agricultural commodities that this generated has prompted the United States to retaliate with similar protectionist policies. Smaller agricultural trading countries around the world, including Australia, have been squeezed in the ongoing conflict between the EU and the United States.

A further step towards European integration was the introduction of a monetary union in 1999 that now covers 19 members (commonly known as the eurozone). The monetary union involves the adoption of a common currency (the euro) and common interest rates, and it has played a major role in economic integration among the eurozone economies. While successful in promoting trade and economic integration, since the global financial crisis in 2008 the euro system has been undermined by its failure to require common fiscal policies across the eurozone and the failure to account for different economic conditions across the region.

North American Free Trade Agreement (NAFTA)

The NAFTA bloc was established in 1994 with the United States, Canada and Mexico. NAFTA is a free trade agreement in which agricultural protection is to be completely eliminated and other tariffs are to be phased out over a period of five to 15 years. NAFTA has contributed to a tripling of trade between the three economies over the past two decades, and NAFTA overall accounts for around 13 per cent of global merchandise trade. Access to the United States market has resulted in significant increases in exports for Canada and Mexico. In the United States, the impacts of NAFTA have been widely debated, and President Trump threatened to withdraw from NAFTA after coming to office in 2017, before announcing instead that he wanted to renegotiate its terms to give the United States a better deal (these negotiations began in 2017, with a focus on car manufacturing). President Trump's criticisms reflect concerns that American workers have lost jobs as manufacturing has shifted to Mexico to take advantage of lower wages. However, consumers have also benefited from lower prices and US corporations from lower costs.

A group of 34 nations in North Central and South America agreed in 2001 on the goal of creating a wider free trade agreement for the entire American continent. This was intended to operate as a counterbalance to the EU, establishing a Free Trade Area of the Americas (FTAA). However, negotiations over the proposed FTAA floundered because of differences between the advanced economies (seeking greater intellectual property rights and opening of markets for services) while emerging economies sought an end to US agricultural subsidies. It is unlikely that the FTAA will be concluded in the foreseeable future.

Bilateral trade agreements

In addition to global and regional agreements, economies also enter into bilateral agreements. A good example of such a bilateral agreement is the **Closer Economic Relations Trade Agreement (CERTA)**, which has led to the elimination of trade restrictions between Australia and New Zealand. CERTA began in 1983 and is one of the most comprehensive free trade agreements in the world. CERTA has gradually been extended in recent years, such as with the harmonisation of business regulations and tax laws between New Zealand and Australia. Since 1983 it has contributed to an average annual increase in trade between Australia and New Zealand of around 8 per cent and is generally regarded as being successful in both countries.

Bilateral trade agreements have experienced a resurgence in recent years. This reflects a number of factors including the slower progress of the World Trade Organisation's

negotiations and that the United States is increasingly using its economic power to negotiate more favourable trade relationships with other nations on a country-by-country basis. In recent years, Australia has concluded bilateral agreements with several nations, including Singapore and Thailand (finalised in 2003), the United States (2004), Chile (2008), Malaysia (2012), South Korea (2014), Japan and China (2015) and Peru (2018).

Like regional trade agreements economists are divided over the extent to which bilateral trade agreements assist or obstruct progress towards global free trade. A Productivity Commission study in 2010, *Bilateral and Regional Trade Agreements*, noted that although governments often claim that bilateral trade agreements will deliver large increases in trade, in fact their impact is often much smaller because benefits are often exaggerated and the costs of implementing those agreements are underestimated. The Commission also noted that bilateral agreements can contribute to greater “trade diversion” – not adding to overall world trade, but simply diverting it to nations that are party to an agreement. The report concluded that unilateral and multilateral trade reform was the most effective way to reduce trade barriers and that bilateral and regional deals should only go ahead when they are clearly beneficial and do not hinder multilateral progress on reducing trade barriers.

Pursuing further bilateral trade agreements remains a key component of Australia’s trade policy. Australia is currently negotiating trade deals with several countries, including Indonesia, India, and Hong Kong. The process of negotiating bilateral agreements is generally much faster than for multilateral agreements but not always – the ten-year negotiation process that preceded the Australia-China FTA showed that bilateral agreements with less open economies can be as slow as larger regional negotiations.

reviewquestions

- 1 Assess the impact of regional and bilateral trade agreements on the global economy.
- 2 Account for the growth of bilateral trade agreements in recent years.
- 3 Describe the recent developments in free trade negotiations in Australia’s region.

2.5 International organisations

The major institutions of the global economy are the **World Trade Organisation**, the **International Monetary Fund** and the **World Bank**. Both the IMF and the World Bank were established at the Bretton Woods conference in 1944, which designed the post-war global economic system. However, change in the global economy since World War II has forced these institutions to adapt to new circumstances without necessarily being equipped to deal with the more complex flow of capital and goods across borders that has characterised the globalisation era.

In addition, there are several other organisations with substantial influence in the global economy, such as the Organisation for Economic Cooperation and Development, and the United Nations.

World Trade Organisation

The role of the WTO is to implement and advance global trade agreements and to resolve trade disputes between economies. The WTO was formed in 1995 and is the first international organisation with powers to enforce trade agreements across the world.

Prior to the formation of the World Trade Organisation, the responsibility for developing trade agreements was borne by the **General Agreement on Tariffs and Trade (GATT)** process that began in 1947. Under the GATT process, regular rounds of trade negotiations were conducted; once agreements were reached, it was up to the individual countries who belonged to GATT to put those agreements in place. The weakness of the GATT process was that there was no effective mechanism to enforce the trade agreements and as a result, many countries only implemented parts of the GATT agreements. This eventually led to an agreement in 1993 to form a new global trade organisation with enforcement powers.

The formation of the **World Trade Organisation** was significant not only because it had power to resolve trade disputes but also because its reach extended beyond trade in goods to include trade in services (such as insurance and banking) and intellectual property (such as patents, copyright, electronic circuits and trademarks).

One of the most important features of the WTO is its role in settling disputes between countries. A country that believes that it is suffering harm as a result of another country's failure to comply with its WTO obligations can lodge a complaint with the WTO. A process of **dispute resolution** is then commenced and if no agreement can be reached directly a WTO panel will hear the complaint and then issue a decision. If the country involved does not comply with the WTO's directive, the other country or countries may then impose trade sanctions that may include high tariffs on goods imported from the offending nation.

The WTO has proved effective in resolving disputes between smaller countries, although it has been less effective in resolving disputes between the two largest forces in the global economy – the United States and the European Union. Although the United States and the EU have not formally refused to comply with WTO determinations, they have delayed and continued to lodge appeals rather than accept WTO decisions.

The WTO's membership is growing, with 164 member countries and 23 further “observer” countries negotiating to join the WTO. Since its formation in 1995 the WTO has had some success in negotiating further agreements to free up world trade. For example, in 2014 the WTO formally agreed on a binding Trade Facilitation Agreement, which aims to reduce the cost of trade by 10–15 per cent by making customs procedures simpler and more efficient. Some WTO members have also signed voluntary agreements to reduce trade barriers in financial services, information technology, telecommunications and shipping.



For further information on international organisations visit:

www.wto.org
www.worldbank.org
www.imf.org
www.un.org
www.oecd.org
www.globalgoals.org

While the WTO has been effective in resolving disputes and making progress on a series of voluntary agreements, its efforts to conclude a comprehensive global trade agreement since 2001 have been unsuccessful. The **Doha Round** of trade liberalisation talks – named after the city in the Middle Eastern nation of Qatar in which they were launched – began with ambitious goals to reduce agricultural protection, lower tariffs on manufactured goods and reduce restrictions on trade in services. It was claimed that trade liberalisation could create annual welfare gains of US\$90 to US\$200 billion per year and lift over 140 million people out of poverty in the developing world.

The Doha Round failed due to disagreements on access to agricultural markets, restrictions on the production of pharmaceutical medicines, disputes between developed and developing nations, and arguments relating to manufacturing protection. More generally, the past decade has seen a decline in public support for free trade in many countries and a shift towards a focus on bilateral and regional trade agreements.

Nevertheless, the Doha negotiations have produced some results, such as the Nairobi Package, a voluntary agreement in 2015 to reduce export subsidies for farm exports.

A quarter of a century after its establishment, the WTO is facing a serious threat to its survival. Following the trade war initiated by the Trump Administration in 2018, the WTO's authority is increasingly in question. The United States has threatened to withdraw from the WTO altogether, while also blocking appointments to the WTO Appellate Body in ways that threaten to undermine the WTO's ability to operate after December 2019, when it will have just one judge on the seven-member panel remaining. Many observers have described this period as the greatest threat to the rules-based system of international trade in the post-war era.

International Monetary Fund

The International Monetary Fund (IMF) is one of the most important institutions in the global economy. It has 189 members, covering almost all nations. Its role is to **maintain international financial stability**, particularly in relation to foreign exchange markets. In earlier times the role of the IMF was to oversee a system of fixed exchange rates that would stabilise economic relationships between economies. When the system of fixed exchange rates collapsed in the 1970s, the IMF's role widened to ensuring global financial stability. In situations where a financial crisis occurs in an economy, region or even across the world the IMF plays a critical role in minimising the crisis. When a crisis occurs in an individual economy, the IMF will often develop a “rescue package” to help stabilise the economy. For example, the IMF provided an emergency loan of US\$17 billion to the Ukraine in 2014, when a security crisis threatened to cause a major financial crisis. Its financial assistance program in 2018 was focused on Mexico, Colombia and Poland, with other help being provided to Egypt, Tunisia, Sri Lanka, Jordan, Bosnia and Herzegovina, Côte d'Ivoire, Georgia, and Moldova as part of a total round of funding of US\$98 billion.

The IMF's role in ensuring stability in global financial markets was highlighted by its interventions after the global financial crisis of 2008 and the subsequent sovereign debt crises in Europe. In response to the initial crisis, the IMF injected US\$250 billion into the global economy to promote liquidity in the global financial system and provided specific support for countries hard-hit by the crisis. Its lending commitments reached a record level of US\$157 billion in 2009. The IMF also suspended interest payments on some loans to help developing countries cope with the economic downturn. The IMF played a major role in addressing the ongoing sovereign debt crisis in Europe with large-scale loans and relief programs for eleven European economies. During 2015, the IMF also played an important role in negotiations to avoid Greece defaulting on its foreign debt.

In the longer term, the IMF's policies are to support the free trade of goods and services and the free movement of finance and capital throughout world markets. The IMF often requires countries to change their economic policies and open up their markets before

they receive financial assistance. The policies that the IMF requires countries to adopt are generally known as **structural adjustment** policies, sometimes described as the “Washington Consensus” policies. The impact of the IMF’s policy approach is increased by the fact that many international banks and other private lenders require that countries adopt IMF supported policies before they are willing to lend to those countries.

The IMF’s structural adjustment policies have played an important role in the process of globalisation, by encouraging economies to adopt similar economic strategies in recent years. The IMF’s support for reducing the size of government, privatising government businesses, deregulating markets and balancing government budgets has been a major reason why economies around the world have adopted these policies.

The IMF has often attracted criticism during financial crises where its policies appeared to make conditions worse for the economies affected. The IMF was widely criticised for demanding that governments adopt contractionary macroeconomic policies during the Asian financial crisis in the late 1990s. The IMF admitted after the Asian financial crisis that it had made mistakes in its response.

The IMF’s response to the global financial crisis of the late 2000s differed, with the IMF supporting expansionary macroeconomic policies while the global economy was facing recession. The IMF gave borrowing economies greater control over their macroeconomic policies and lent to governments that were increasing their spending to avoid recession. The IMF also undertook steps to make its governance structure more representative so that developing and emerging economies have a greater say over IMF policies.

However, the IMF’s handling of the early 2010s sovereign debt crisis in Europe reignited old criticisms of its approach. Critics argued that the IMF gave priority to protecting Europe’s monetary union and its banks, while doing very little to protect ordinary people. In the period from 2011 to 2014, 80 per cent of the IMF’s lending went to just three European economies who had been deeply affected by the sovereign debt crisis: Greece, Portugal and Ireland. The IMF required strict austerity measures, including reduced government spending, higher taxes, the sale of government assets and reductions in the size of public sector workforces. A 650-page internal IMF audit report in 2016 concluded that “serious scientific and professional failure” had occurred in the IMF’s response to the crisis, especially its failure to take account of how financial crises affect countries in a monetary union (who do not have their own currency that can help the adjustment process). The report argued that the measures demanded by the IMF had worsened the collapse in Greece, with Greece’s nominal GDP falling 26 per cent lower than the IMF’s projections (in the words of the report, “the magnitude of Greece’s growth forecast errors looks extraordinary”). Likewise, after the imposition of the bailout package, unemployment in Greece had risen to 25 per cent, while the IMF had projected it rising to only 15 per cent.

World Bank

The World Bank’s role in the global economy is primarily concerned with helping poorer countries with their **economic development**. The official title of its main organisation, the International Bank for Reconstruction and Development, gives an indication of its focus: to fund investment in infrastructure, reduce poverty, and to help countries adjust their economies to the demands of globalisation. The World Bank also has a number of organisations that provide specific assistance to lower-income countries including:

- the International Development Association, which provides “soft loans” (that is, loans at little or no interest to developing countries)
- the International Finance Corporation, whose role is to attract private sector investment to the Bank’s projects
- the Multilateral Insurance Guarantee Agency, which provides risk insurance to private investors

- The International Centre for Settlement of Investment Disputes, which provides conciliation and arbitration of investment disputes between states, and between states and corporations.

The World Bank is funded by contributions from member countries and from its own borrowings in global financial markets. It makes loans to developing nations, at rates that are below standard commercial rates to fund infrastructure projects such as power plants, roads and dams. The World Bank provided US\$60 billion in loans, grants, equity investments and guarantees in 2017, supporting programs to reduce global poverty and encourage sustainable economic development. The value of the World Bank's active portfolio of investments was US\$200 billion.

The World Bank's two major goals are:

- Reducing the rate of extreme poverty to less than 3 per cent of the world's population by 2030 (in contrast to current forecasts of 6–9 per cent of the world's population living on less than \$1.90 per day by 2030). At the 3 per cent level those in poverty will mostly be experiencing “frictional poverty”, that is, poverty related to short-term disasters such as extreme weather events rather than being in long-term poverty. This goal supports the United Nations Global Goals, although it is more narrowly focused.
- Reducing inequality by fostering income growth for the world's bottom 40 per cent.

In overall terms, the World Bank's global importance as a lender to developing countries has declined as private lending markets have expanded in recent decades. However, it played an important role in providing short-term trade finance for low income economies of \$35 billion after the onset of the global financial crisis in 2008, when private credit markets seized up.

One of the most important actions of the World Bank in the past two decades has been its support of the Heavily Indebted Poor Countries Initiative, in which it aims to reduce debt by two-thirds in the world's poorest countries in Africa, South Asia and Latin America, whose debt levels are considered unsustainable. By 2017, 36 countries had received debt relief estimated to have saved them at least USD\$99 billion.

United Nations

The United Nations (UN) is a global organisation whose membership includes more nations than any other political or economic organisation. The UN was established in 1945 and has grown to cover 193 member states. Its agenda is broader than any other organisation, covering the global economy, international security, the environment, poverty and development, international law and global health issues. However, its decision-making powers are limited (because it relies on the support of its member states) and the budgets for the different arms of the United Nations are small compared to national governments in many advanced economies.

The UN has historically played an important role in supporting greater linkages between economies and promoting globalisation. A range of different UN agencies have developed international standards that make it easier for trade and investment flows to occur between nations, such as standards for food safety and rules on copyright and intellectual property. Key UN agencies include the UN Development Programme, the UN Childrens Fund (UNICEF), the UN Refugee Agency (also known as the UN High Commissioner for Refugees or UNHCR), the World Food Programme, the UN Conference on Trade and Development (UNCTAD) and the UN Environment Programme (UNEP).

The UN also has overseen the development of a large number of international agreements to enforce human rights and political freedoms. Research by the World Bank has consistently shown individual freedoms in these areas to be a necessary condition for economic growth and development. Several of these conventions were also developed with the intention of addressing the underlying causes of poverty in developing nations.

One of the most important roles played by the United Nations in recent years is establishing a set of Global Goals, which aim to reduce global poverty and inequality between 2015 and 2030. These goals build on the Millennium Development Goals which oversaw a reduction in the proportion of people living on less than \$1 a day between 1990 and 2015 – from 29 per cent to 14.5 per cent of all people in low- and middle-income economies (chiefly as a result of rapid economic growth in China lifting 600 million people out of poverty). The Global Goals (officially the Sustainable Development Goals) comprise 17 goals covering global poverty, hunger, well-being, education, gender equality, clean water and sanitation, clean energy, economic growth, sustainable cities, climate action and sustainable use of land and oceans. The Global Goals incorporate 169 targets that UN member states have pledged to take action towards, during the period 2015 to 2030.

Organisation for Economic Cooperation and Development

The Organisation for Economic Cooperation and Development (OECD) is an international economic organisation of 36 countries committed to democracy and the market economy. The primary goal of the OECD is to promote policies “to achieve the highest sustainable economic growth and employment and a rising standard of living in member countries while maintaining fiscal stability and thus contribute to the development of the world economy”. In practice the main role played by the OECD is to conduct and publish research on a wide range of economic policy issues and to coordinate economic cooperation among member nations, such as towards the development of common policy agendas. For example, the OECD played a role in proposing an internationally coordinated macroeconomic stimulus when the global financial crisis struck the world economy in 2008.

The OECD undertakes a large amount of original economic research as well as compiling more detailed economic and policy information on advanced economies than any other international organisation. Alongside research conducted by the IMF and the World Bank, OECD economic research is regarded as the most reliable and highest quality economic research in the world (and you will see OECD reports quoted frequently in subsequent chapters of this book). Although OECD publications generally advocate similar policies to those of the IMF and World Bank – in favour of globalisation, free markets, privatisation and deregulation – they also often support the role of government intervention in achieving economic policy goals.

reviewquestions

- 1 Outline recent developments in global trade negotiations.
- 2 Identify which international organisations are responsible for accelerating economic development and poverty reduction.
- 3 Explain why the IMF has been described as the world’s financial firefighter.
- 4 Explain why in recent years the WTO has found it difficult to negotiate further cuts in protection.

2.6 Government economic forums

Organisations that exist as forums for world leaders play an important role in coordinating policies between major economies especially during times of economic or financial crisis. The aim of these forums is to enable heads of state along with their treasurers and central bank governors to discuss global economic issues with particular attention to economic stability and growth. Such forums were especially important in coordinating the international policy responses to the global financial crisis of the late 2000s.

Group of Seven Nations (G7)

In recent decades, the most important government economic forum has been the group of the seven largest industrialised nations including the United States, UK, France, Germany, Canada, Japan and Italy. The inclusion of Russia in the group between 1997 and 2014 meant that during that period it was known as the G8, until Russia's membership was suspended after its military seizure of the Ukrainian territory of Crimea (subsequently, Russia quit the G8 permanently). The G7 has effectively operated as the economic council of the world's wealthiest nations, meeting annually to discuss conditions in the global economy since its formation in 1976. The G7 has been the unofficial forum coordinating global macroeconomic policy because of its influence over the fiscal and monetary policies of the world's largest economies. Because of the G7's status as the forum for the world's most powerful economies, its agenda has often included general political issues and current priorities such as climate change, global poverty and security.

The significance of the G7 is now in decline, reflecting the shift in the global balance of power towards emerging economies in particular China (which, on some measures, is now the world's largest economy) and the nationalistic posture of the United States under the Trump Administration. The membership of the G7 is no longer representative of the most important forces in the global economy (nations like China and India are more important to future global economic growth than economies like Canada and Italy). The G7's share of global GDP shrunk from 68 per cent in 1992 to 39 per cent in 2018, and the G7 nations cover only 10 per cent of the world's population. For this reason, there have been recent attempts to expand the group to include five developing countries referred to as the Outreach Five (O5): Brazil, China, India, Mexico and South Africa.

Group of Twenty Nations (G20)

In the aftermath of the global financial crisis, the Group of Twenty (G20) emerged as the leading forum for coordinating the global response to avert a depression. The G20 agreed to coordinate fiscal stimulus around the world, as well as improve supervision of the global financial system and international financial institutions. G20 summits in 2010 and 2011 also agreed on taking steps to balance the need for a long-term plan to reduce fiscal deficits while continuing to support global economic recovery.

The G20 includes 19 of the world's largest national economies plus the EU, covering 80 per cent of world GDP and two-thirds of the world's population. Importantly the G20 membership includes several emerging economies that have become the driving force behind world economic growth since 2008. The extent to which the G20 or the G7 plus O5 group becomes the forum for international economic cooperation in future years is unclear, but at the moment the G20's main activity is its annual summit, and it does not have any permanent leadership or headquarters. The limited effectiveness of the G20 was highlighted in the annual summit in 2014 held in Brisbane. Although G20 members



Figure 2.8 – Members of the G20

agreed to a goal of increasing economic growth by 2 per cent, many of policy changes pledged in support of the goal were not implemented, and global growth was actually even weaker two years after the summit. Following the 2018 summit meeting in Buenos Aires under Argentina's leadership, the 2019 G20 summit will be hosted by Japan and will take place in Osaka.

review questions

- 1 Explain the role of government economic forums in the global economy.
- 2 Discuss the role of the G20 in the global economy in recent years.

chapter summary

- 1 Free trade** is a situation where there are no artificial barriers to trade imposed by governments that restrict the free exchange of goods and services between economies.
- 2 Protection** can be defined as any type of government action that has the effect of giving domestic producers an artificial advantage over foreign competitors.
- The **arguments in favour of protection** include that it can help “infant industries” to establish themselves, protect local jobs being lost because of cheaper imports, allow a country to remain self-sufficient in important areas such as defence and can help to prevent foreign companies dumping goods on domestic markets at unrealistically low prices.
- The **arguments against protection** are that it results in a distortion in resource allocation towards less efficient sectors of the economy and in the longer term can lead to a less internationally competitive economy, higher unemployment and a lower standard of living.
- The main **methods of protection** are: tariffs (a tax on imports), subsidies (a payment to local producers), local content rules (a requirement that a proportion of goods are made locally), quotas (a limit on the quantity of goods imported) and export incentives (other means to encourage local production).
- Trade agreements** are a way of reducing barriers to trade between nations. Recent years have seen a proliferation of multilateral and bilateral trade agreements, and while they have removed some trade barriers they have also made the global trading system increasingly complicated.
- The **World Trade Organisation** is a global organisation that enforces the existing WTO agreement, resolves trade disputes and is the major forum for global trade negotiations pursuing the goal of global free trade.
- The **International Monetary Fund** is a global organisation whose main role is to maintain international financial stability. The IMF plays a key role in monitoring the international financial system and assisting economies who face major economic crises.
- The **World Bank** is a global organisation whose main role is to assist poorer nations with economic development through loans development assistance and technical advice with the goal of reducing extreme poverty to 3 per cent of the global population by 2030 and raising income levels for the lowest 40 per cent of income earners.
- The **G7** and the **G20** are the two most important forums for global economic policy coordination through annual meetings of national leaders. The **G7** includes the major advanced economies, while the G20 includes the large emerging economies that have recently been driving global economic growth.

chapter review

- 1 Define *free trade*.
- 2 Explain what is meant by *comparative advantage*.
- 3 Use the following terms to briefly outline the main methods of protection that can restrict free trade:
 - tariffs • local content rules • export incentives • subsidies
- 4 Outline the arguments supporting the following statements on protecting local industries:
 - “We should protect our infant industries so that they have a chance to establish themselves and become competitive in world markets.”
 - “We should use protectionist policies to safeguard our local industries against dumping.”
- 5 Discuss the economic arguments against the following justifications for protection:
 - “It’s time we made Australia great again, and stopped sending jobs offshore to China with all this free trade nonsense.”
 - “We need to protect our essential domestic industries just in case there’s a war or global famine.”
- 6 Examine the role that regional trade agreements play in making progress towards free trade in the global economy.
- 7 Discuss the advantages and disadvantages of bilateral trade agreements for the Australian economy.
- 8 Explain how regional trade agreements in the Asia-Pacific might affect Australia’s economic future.
- 9 Compare and contrast the role of the following institutions in the global economy:
 - World Trade Organisation
 - International Monetary Fund
 - World Bank
- 10 Explain which international organisation would be most likely to play the major role in the following situations:
 - A dispute between the United States and China about Chinese companies using the intellectual property of American technology firms.
 - Construction of a major dam and irrigation project in India.
 - A crisis in European financial markets that threatens to cause a severe global recession.

3

Globalisation and Economic Development

- 3.1 Introduction
- 3.2 Differences in income and economic growth
- 3.3 Differences in economic development
- 3.4 Categories of development in the global economy
- 3.5 Causes of inequality in the global economy
- 3.6 The impact of globalisation

3.1 Introduction

The most disturbing feature of the global economy is the very large difference in the living standards of people around the world. People born into families with high living standards in wealthy countries have very different prospects in life than those born in families with lower living standards and in low income countries. Their opportunities in life vary significantly in terms of health, education, income and life expectancy. Despite the extraordinary technological change and progress of the past, stark inequalities persist between wealthy and poor countries and between wealthy and poor people within countries.

While there is a large gap between rich and poor countries, it is also true that in overall terms, living standards are improving in most countries, rich and poor. Evidence of progress towards overcoming global inequalities is highlighted by the following facts:

- The percentage of people now living in extreme poverty has declined significantly, with less than 11 per cent of the population living below US\$1.90 per day in 2013, compared to 42 per cent in 1981.
- The under-five mortality rate has been reduced by more than half between 1990 and 2016.
- The global primary school net enrolment rate increased from 81 to 89 per cent between 1996 and 2016.
- Life expectancy for those born in countries with low human development increased from 49.6 to 63.5 between 1980 and 2015.

Sources: World Development Indicators 2018, Human Development Report 2016

On the other hand, evidence also demonstrates the major gaps between people in the developing world and the one billion people in developed countries who enjoy a high level of human development.

- An estimated 767 million people live in “extreme poverty”, subsisting on less than US\$1.90 per day in 2013. Half of this population lives in Sub-Saharan Africa (which has seen an increase in the number of people living in extreme poverty compared to 1990).
- 2.3 billion people live without access to basic sanitation, and around 1 billion have no access to electricity.
- It is estimated that 5.6 million children under the age of five died in 2016. Most of these occurred in Sub-Saharan Africa or Southern Asia.
- Across the world are an estimated 66 million refugees and forcibly displaced people, who had to abandon their homes to seek protection due to conflict or persecution.

Sources: World Health Organisation, UNHCR, World Development Indicators 2018

In this chapter we look at how to measure and understand differences in economic development in the context of globalisation.

3.2 Differences in income and economic growth

The most popular method for comparing living standards between different economies is income. It measures the ability of a nation’s citizens to satisfy their material wants. **Gross National Income (GNI)** is the sum of value added by all resident producers in an economy plus receipts of primary income from foreign sources. Real GNI figures are obtained by discounting GNI growth for the effects of inflation.

Country	GNI 2015 (US\$ bn)	Ranking
United States	18,969	1
China	11,154	2
Japan	5107	3
Germany	3537	4
United Kingdom	2588	5
France	2505	6
India	2236	7
Italy	1863	8
Brazil	1759	9
Canada	1515	10
World Total	75,991	

Source: World Development Indicators 2018

Figure 3.1 – The world’s 10 largest economies

Figure 3.1 shows that the United States economy is by far the largest in the world. It is over one-and-a-half times the size of the next largest economy, China, and almost four times the size of the third largest, Japan.

One of the limitations in comparing the size of economies is the exchange rate used. By using the United States dollar, we can make inaccurate comparisons about the living standards of developing countries. For example, if the prices of goods and services in developing countries are low relative to prices in the United States, then measuring GNI in terms of the United States dollar will underestimate the true income of

people in these developing countries. For this reason, economists usually make an adjustment using **purchasing power parity (PPP)** before comparing GNI levels between countries. Measuring purchasing power parity adjusts measurements of the size of an economy to reflect the purchasing power of currencies within a national economy. PPP-adjusted figures provide a standard comparison of real income levels between countries.

Figure 3.2 groups the global economy into low-, middle- and high-income economies, a distinction made by the World Bank. It shows raw GNI and then the figures adjusted for purchasing power parity between these countries. Making these adjustments results in substantially higher comparative figures for developing countries, whose exchange rates tend to be undervalued.

Purchasing power parity (PPP) is a theory that states that exchange rates should adjust to equalise the price of identical goods and services in different economies throughout the world.

Grouping	Population (million)	GNI (US\$ billion)	GNI measured at PPP (\$Int'l billion)
Low income	659	\$397	\$1098
Middle income	5595	\$26,606	\$63,320
High income	1190	\$49,001	\$56,176
Global economy	7442	\$75,991	\$120,415

Source: World Development Indicators 2018

Figure 3.2 – Adjusted GNI for major country groups

Figure 3.2 shows that high-income economies (also known as advanced economies or industrialised economies) receive around two-thirds of the world's income as measured in raw GNI figures. This is nearly half of the world's income using PPP-adjusted GNI figures. A high level of inequality clearly exists in the global economy, given that high-income economies make up just over one billion of the world population of over seven billion. The population of low-income economies makes up almost 10 per cent of the global population but less than 1 per cent of the size of the global economy.

The population size of different countries must also be considered. The population size and rate of population growth vary between countries. Allowances can be made for this by dividing the real GNI of each country by its population, generating a **GNI per capita** figure.

As figure 3.3 shows, people in high-income regions (around one in seven people in the world) enjoy income levels that are nearly five times those in low- and middle-income countries, even after adjusting for purchasing power parity. The table also details information about the regions where income is the lowest. Living standards in Sub-Saharan Africa and South Asia, where over one-third of the world's population lives, are exceptionally low.

Grouping	Population (million)	GNI per capita (US\$)	GNI measured at PPP per capita (\$Int'l)
High income	1190	41,254	47,208
Low and middle income	6254	4440	10,229
East Asia and Pacific	2053	6667	13,768
Europe and Central Asia	417	7694	19,027
Latin America & the Caribbean	610	7955	14,443
Middle East & North Africa	374	4042	12,796
South Asia	1766	1611	6052
Sub-Saharan Africa	1033	1611	3603

Source: World Development Indicators 2018

Figure 3.3 – Global comparison of living standards measured by GNI per capita

Almost all nations have experienced some **economic growth** in recent decades, enjoying higher incomes as a result of an increase in their **Gross Domestic Product (GDP)**. While the gap in income between the richer and poorer countries appears to be lessening, the reduction of income inequality in the global economy is occurring very slowly.

Another dimension to global inequality is the unequal **distribution of global wealth**. Wealth is an important safety net for people when they do not have income and can be used to start a business and generate income. According to research by Credit Suisse, in 2017, 1 per cent of world's population owned more than half of the world's US\$280 trillion in wealth. Most of this wealth is concentrated in households across Europe, North America and in Asia-Pacific countries like Japan and Australia. People in Latin America, India and Africa, by contrast, hold only a small percentage of global wealth. Wealth is distributed even more unevenly than income throughout the global economy.

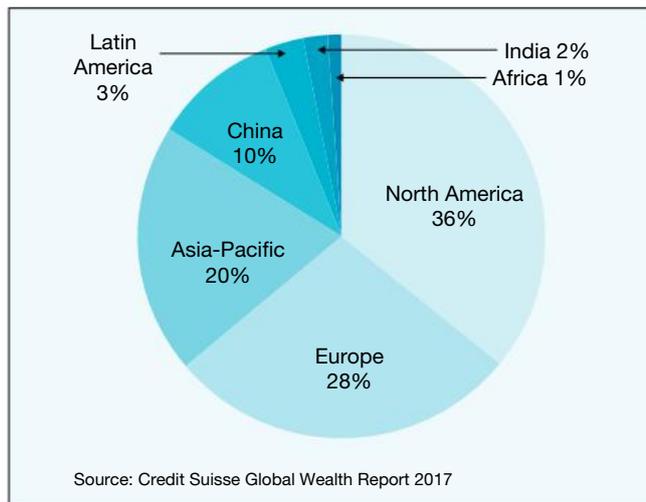


Figure 3.4 – Distribution of world's US\$280 trillion wealth

The World Bank monitors changes in the wealth of countries using a measure that includes produced capital and urban land, human capital (based on a person's lifetime earnings), natural capital (energy, minerals, agricultural land and forests) and net foreign assets. This measure of wealth is a useful complement to measuring GDP growth, as it provides an indication of the sustainability of development.

Recent trends in global wealth include:

- Global wealth has grown significantly over recent decades, increasing by 66 per cent from 1995 to 2014. This was largely due to rapid economic growth in Asia.
- Changes in wealth per capita were mixed across countries. Wealth per capita declined in some countries, particularly in Sub-Saharan Africa, where growth in population exceeded investment.
- Natural capital was the most important asset for low income countries, at 47 per cent of total wealth in 2014.
- Human capital accounts for approximately two thirds of global wealth. Overall, this share has declined over the last two decades, driven by changes in higher income countries. Factors causing this trend are linked to reduced labour earnings as a share of GDP, and include technological change, stagnating wages and ageing populations in many countries.
- For lower-income countries, human capital has increased as a share of total wealth. In many of these countries, this is associated with population growth rates being reduced and a better educated population.

review questions

- 1 Explain why real GNI per capita (PPP) is used to measure income levels in the global economy.
- 2 Identify THREE economic regions that have low income or middle income levels and state their level of GNI per capita (PPP).
- 3 Discuss what statistics on income levels in economies reveal about the level of inequality in the global economy.

Economic development

is a broad measure of welfare in a nation that includes indicators of health, education and environmental quality as well as material living standards.

Human Development Index (HDI)

is a measure of economic development devised by the United Nations Development Program. It takes into account life expectancy at birth, levels of educational attainment and material living standards (as measured by Gross National Income per capita).

3.3 Differences in economic development

It is important to look beyond simple measures of income and economic growth to assess the differences in living standards in the global economy. **Economic development** is a broader concept than economic growth. It attempts to measure improvements in well-being or welfare, rather than simply how much extra money people have. Higher incomes play a crucial role in improving well-being, especially for those living in poverty. However, development also takes into account other **quality-of-life indicators** such as health standards, education levels, domestic work that is not given a financial value, the level of damage to the environment and inequalities in income distribution.

Human Development Index

A number of indicators have been developed to compensate for the limitations of economic growth measurements. The main alternative measure to GNI is the **Human Development Index (HDI)**, devised by the United Nations Development Programme (UNDP) to measure economic development. It takes into account:

- **Life expectancy at birth.** This is indicative of the health and nutrition standards in a country. High levels of longevity are critical for a country's economic and social well-being.
- **Levels of educational attainment.** Education is important for the development of the skills of the workforce and the future development potential of an economy. The HDI measures the average number of years for which adults aged 25 attended school and the expected years of total school attendance for school-age children.
- **Gross National Income per capita.** This measures the sum of gross value added by all resident producers in the economy, plus income from foreign sources on a purchasing power parity basis. This is used as a measure of a decent standard of living and is an essential determinant of the access that people have to goods and services.

The HDI is a score between 0 for nations with no human development and 1 for maximum human development. The 2016 Human Development Report gave Norway the highest HDI at 0.949 and Central African Republic the lowest at 0.352. Australia ranked second after Norway, with an HDI of 0.939.

Comparing HDI and GDP statistics reveals the differences between growth and development across the globe. The comparisons highlight the importance of a broader measure of welfare than just GDP figures.

In making these comparisons, it is important to emphasise that economic growth is still crucial for high levels of development – as illustrated by countries such as Norway, which have very high rates of both per capita income and human development.

Figure 3.5 – Comparison of GDP per capita and the Human Development Index

Country	GNI per capita (2011 PPP, US\$)	Human Development Index Value	HDI Ranking	Country	GNI per capita (2011 PPP, US\$)	Human Development Index Value	HDI Ranking
Very high human development				Medium human development			
Norway	67,614	0.949	1	Moldova (Republic of)	5026	0.699	108
Australia	42,822	0.939	2*	Botswana	14,663	0.698	109
Switzerland	56,364	0.939	2*	Philippines	8395	0.682	116
Estonia	26,362	0.865	30	South Africa	12,087	0.666	119
Kuwait	76,075	0.800	51	Nepal	2337	0.548	145
				Pakistan	5031	1.550	147
High human development				Low human development			
Belarus	15,629	0.796	52	Swaziland	7522	0.541	148
Oman	34,402	0.796	52	Solomon Islands	1561	0.515	156
Cuba	7455	0.775	68	Chad	1991	0.396	186
Maldives	10,383	0.701	105	Niger	889	0.353	187
Uzbekistan	5748	0.701	105	Central African Republic	587	0.352	188

Source: UNDP Human Development Report 2016 * Equal second

In some cases, countries had similar HDI levels but very different income levels. This suggests that in some countries the benefits of income are not well distributed as a result of their high levels of inequality. For example, Oman and Belarus share the same HDI level of 0.796, but have very different income levels. Oman has a GNI per capita of US\$34,402 while Belarus has a GNI per capita of US\$15,629. Similarly, Cuba and Swaziland have income levels of around US\$7500, yet Cuba had a HDI rank of 68, while Botswana almost 100 places lower at 148.

THE GLOBAL GOALS

In September 2015 in New York, world leaders agreed to 17 new Global Goals, or Sustainable Development Goals (SDGs). The SDGs promote 15-year targets aimed at tackling poverty with a renewed focus on sustainability issues such as climate change, ecology and biodiversity, consumption and production, food security, energy provision and infrastructure. The goals listed below are supported by nearly 170 individual targets, to be achieved by 2030.

17 Sustainable Development Goals	
Goal 1	End poverty in all its forms everywhere
Goal 2	End hunger, achieve food security and improved nutrition and promote sustainable agriculture
Goal 3	Ensure healthy lives and promote well-being for all at all ages
Goal 4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
Goal 5	Achieve gender equality and empower all women and girls
Goal 6	Ensure availability and sustainable management of water and sanitation for all
Goal 7	Ensure access to affordable, reliable, sustainable and modern energy for all
Goal 8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
Goal 9	Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation
Goal 10	Reduce inequality within and among countries
Goal 11	Make cities and human settlements inclusive, safe, resilient and sustainable
Goal 12	Ensure sustainable consumption and production patterns
Goal 13	Take urgent action to combat climate change and its impacts
Goal 14	Conserve and sustainably use the oceans, seas and marine resources
Goal 15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
Goal 16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
Goal 17	Strengthen the means of implementation and revitalise the global partnership for sustainable development

Source: United Nations Sustainable Development Goals Report 2017

The SDGs were developed based on the previous Millennium Development Goals (MDGs). At the United Nations Summit in 2000, 189 countries agreed to eight MDGs to guide efforts by international organisations to improve economic development in poorer countries. Many of these goals had measurable targets, to be achieved by 2015. These goals reflect the importance of income, education, health and the environment to improving quality of life.

At the conclusion of the 15 years, the progress of these goals was mixed. Between 1990 and 2015, the global proportion of people living in extreme poverty (Goal 1) fell from 1.9 billion to 987 million in 2015. However, this progress was primarily driven by reductions in certain Asian regions, particularly China, where the proportion of people living in extreme poverty reduced from 61 per cent in 1990 to 4 per cent in 2015. This masks the widespread levels of extreme poverty in regions such as Sub-Saharan Africa where extreme poverty rates remain at 41 per cent.

Progress was also made in other areas, such as child mortality (Goal 4) and improving access to safe water (Goal 7). However, many other targets have not been met, including achieving universal primary education (Goal 2), eliminating gender disparity in education (Goal 3), and reducing maternal mortality by three-quarters (Goal 5).

review questions

- 1 Explain the difference between economic growth and economic development and discuss their relationship in the global economy.
- 2 Outline how the Human Development Index is calculated and assess its adequacy as a measure of economic development.

3.4 Categories of development in the global economy

In examining economic data on living standards and development, we have referred to descriptions of high income, middle income or lower income economies. In this section, we examine these distinctions in greater detail, and consider the use of other categorisations such as advanced, developing and emerging economies.

Countries are generally categorised into groups because they tend to confront similar issues according to their stage of economic development. Notwithstanding, all countries face unique circumstances at any point in time. The main categories that economists use are:

- **Advanced economies:** These countries have high levels of economic development, close economic ties with each other and liberal-democratic political/economic institutions. The 39 advanced economies identified by the International Monetary Fund make up most of the high-income economies in the world (the others are very small nations) and comprise most of the members of the Organisation for Economic Development (OECD). High-income countries have Gross National Income per capita levels above US\$12,235 and are mostly found in North America and Western Europe, with a smaller number in the Asia-Pacific region.
- **Developing economies:** These countries generally have low income levels, human resources with poorer education and health outcomes and have only experienced industrialisation to a limited extent. The major consequence is that developing nations have large numbers of people living in absolute poverty (defined as less than \$1.90 per day in 2011 US dollars), as shown in figure 3.6. Developing countries are often divided into the two groups of low-income and middle-income countries.

While there are significant differences between developing countries, some common characteristics may include:

- high levels of income inequality within their economies
- dependence on agricultural production for income, employment and trade opportunities
- reliance on foreign aid and development assistance as a major source of income
- low levels of labour productivity, industrialisation, technological innovation and infrastructure development
- weak political and economic institutions and a high prevalence of corruption

Developing economies experience low living standards, low education levels and generally have agriculture-based economies with poor infrastructure and economic and political institutions.

The United Nations Conference on Trade and Development (UNCTAD) has also identified a sub-group of 47 **least developed countries (LDCs)**, with the lowest GNI per capita levels in the world (less than US\$1035 per year based on a three year average); weak human assets (based on health and education indicators); and high economic vulnerability (based on economic structure, size, and exposure to shocks). Thirty-three of the 47 LDCs are located in Sub-Saharan Africa, highlighting what is sometimes called the “Africanisation” of poverty.

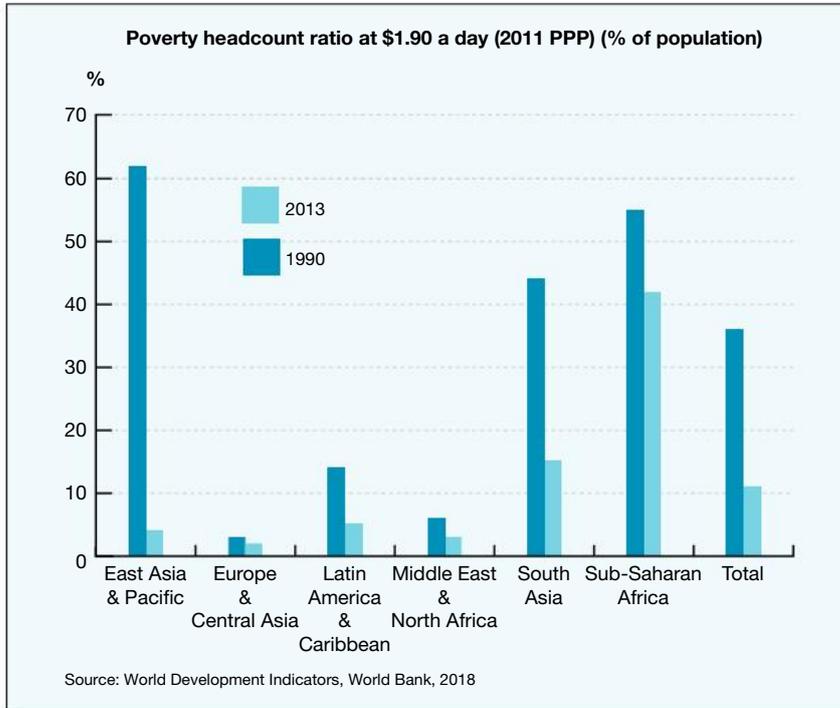


Figure 3.6 – Proportion of people in absolute poverty throughout the global economy

Another classification for economies is **emerging economies**. These economies are in the process of industrialisation or modernisation and experiencing sustained high levels of economic growth. This classification includes a range of economies that are neither high income, nor share the traditional characteristics of developing economies. They include the economies previously known as newly industrialised economies (such as Malaysia and the Philippines), economies previously known as transition economies, which were making the transition from socialist economies (such as China and Hungary), and developing economies with improved prospects (such as India and Indonesia).

Emerging economies are in the process of industrialisation and experiencing sustained high levels of economic growth.

Type of Economy	Income levels	Economic growth	Structure of economy	Examples
Advanced	High income levels with GNI per capita above US\$12,235	Slower growth in recent decades	Large service industries and advanced manufacturing	Singapore Portugal Czech Republic
Developing	Low income levels with around half of population in absolute poverty	Moderate growth rates but population growth also high	Heavily reliant on agriculture and (in more extreme cases) foreign aid	Madagascar Yemen Myanmar
Emerging	Income levels vary, but what these economies have in common is fast growth in income levels	Strongest growth rates in the world (5–10 per cent) and favourable prospects	Industrialising usually with substantial manufacturing sectors	China Brazil Indonesia

It is important to acknowledge the limitations of classifications systems. Classifications are very broad and can group dissimilar economies together. For example, Brazil and Indonesia might both be considered emerging economies, but they have very different living standards. Likewise, some economies do not fit neatly into one of these three categories. Bulgaria is much better off than a developing economy, yet it is not quite an advanced economy or emerging economy. Despite these limitations, classifying economies is still an important step towards understanding the reasons for economic inequalities between nations.

reviewquestions

- 1 Summarise the main categories of development and the typical features for each classification.
- 2 List FOUR economies that have the characteristics of each of the main categories of development.

3.5 Causes of inequality in the global economy

Understanding the reasons for differences in levels of development between nations has been a central issue of economic debate for over half a century. During the globalisation era, differences in living standards between rich and poor countries have come into sharper focus because of the increased interaction between the more prosperous and less prosperous regions of the world.

The severe and widening extent of global inequalities between economies raises two fundamental questions. Why have some economies succeeded in achieving rapid industrialisation and economic development while others have achieved little or no progress in reducing poverty? Second, what are the factors driving this growing divergence of income, health and education outcomes between and across economies?

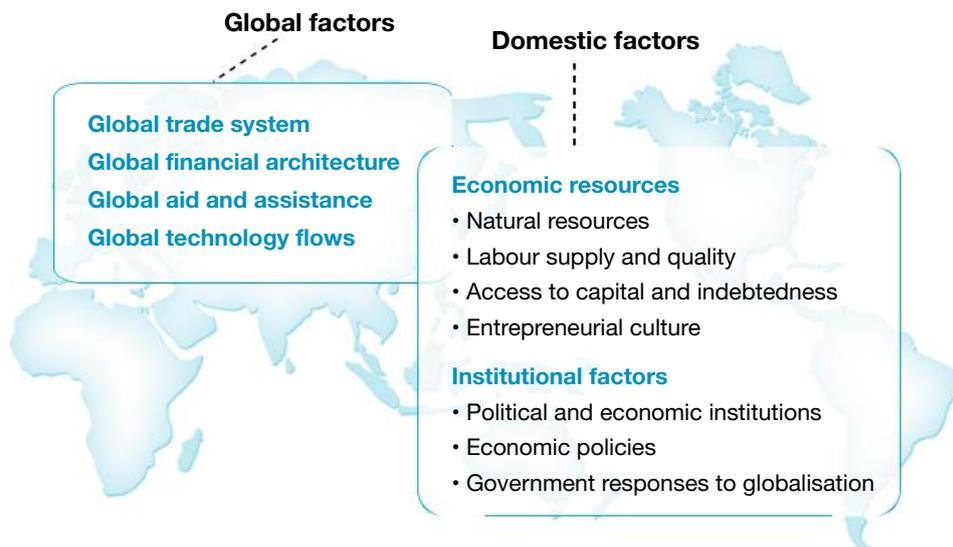
Such issues are the domain of **development economics**, which attempts to identify and enable the conditions required for sustainable economic growth and development. By comparing the characteristics of high-income and developing economies, development economics highlights the specific problems faced by poor countries, such as high rates of population growth, low levels of skills development, weak legal and financial institutions, and endemic corruption.

In an era of increased integration between economies, it is important to also understand how the relationships between nations, the overall structure of the global economy, and the roles of international organisations influence global inequalities. These global factors are set out below, alongside the domestic factors that contribute to low levels of development.

Global factors

Many features of the global economy and the process of globalisation contribute to the inequalities between countries. Although globalisation also creates opportunities for economic growth and development, some aspects of the global economy appear to entrench rather than alleviate global inequalities.

Causes of global inequalities



Global trade system

Several features of the global trade system work to reinforce rather than reduce global inequalities:

- Wealthy countries protect their domestic agricultural sector because it is not competitive with agricultural producers in many developing nations. Developing countries that export commodities are severely affected by high levels of global **protectionism in the agricultural sector**. While total agricultural support to producers in OECD has fallen by almost half since the mid-1980s, it remained high at US\$287 billion in 2016, providing 26 per cent of income for farmers in rich economies such as Japan, Korea and the European Union.
- **Regional trading blocs** such as the European Union and North American Free Trade Agreement can exclude poorer nations from gaining access to lucrative global consumer markets. Exclusion from trade opportunities has an enormous impact on poor countries. It is estimated that the global annual welfare gains from trade liberalisation would be in the order of US\$90 to US\$200 billion of which two thirds would accrue to developing countries. This would have the potential to lift 140 million people out of poverty.
- The World Trade Organisation's **Doha Round** of trade negotiations had been promoted as the "development round" because of its focus on trade reforms to benefit poorer nations. A major reason for its failure was that high-income nations resisted making concessions on the issues that would provide the greatest benefit to developing countries. Recent WTO negotiations have focused on a smaller package that only tries to expand tariff-free access for exports from the least-developed countries and postpones more complicated trade negotiations into the future.
- The benefits of free trade agreements are often not accessible to developing nations because of the substantial cost in implementing international agreements and lodging appeals against other countries' protectionist measures. Economists at the World Bank have concluded that a 1 per cent increase in administrative costs associated with trade would decrease gross world product by US\$75 billion. The complexity of many trade agreements further tilts the benefits of the global trade system towards richer countries and can entrench rather than alleviate global inequalities.



For further information on global aid issues, visit the website of non-government aid and advocacy organisation Oxfam International www.oxfam.org and the Australian-based youth-run aid organisation the Oaktree Foundation: www.oaktree.org

Using these websites, outline some of the recent policy proposals of Oxfam or the Oaktree Foundation to address global poverty.

Global financial architecture

Although deregulated global financial markets and the global financial system are intended to create development opportunities by enabling the free flow of funds around the world, the global financial system can also entrench global inequalities:

- Historically, long-term international flows of investment heavily favoured developed countries. This has changed over the last decade, with developing economies receiving an increasingly larger share of global FDI flows, peaking in 2014 with 56 per cent of FDI. The 2018 World Investment Report noted that global FDI flows fell by 23 per cent in 2017, despite increases in GDP and trade indicators. Moreover, FDI flows now entrench a widening gap between faster-growing emerging economies and developing economies largely benefiting a handful of emerging economies including China, Brazil, India and Russia. In contrast, the world's 48 least developed countries received just 1.8 per cent of global FDI inflow in 2016. This is despite continued year-on-year growth in FDI towards the LDCs, increasing to a high of US\$56 billion in the mid-2010s.
- Short-term financial inflows heavily favour the more prosperous emerging economies, which offer better financial returns for currency and stock market speculators. However, these regions as a result are exposed to **economic volatility** as witnessed by the dramatic financial crises of East Asia in the late 1990s and of Latin America in the early 2000s. When those crises occur they can set back economic development for years while global financial market speculators simply move on to invest in other countries.
- International financial rules have not kept pace with the globalisation of the economy and in some areas have tolerated loopholes that contribute to large flows of income or wealth to those who already hold substantial wealth. For example, a report by the former chief economist of global consultancy McKinsey and Co estimated that during the 2010s between US\$21 trillion and \$32 trillion in wealth has been siphoned out of countries into **international tax havens**. The report noted that the sums of money involved – larger than the entire annual output of the United States economy – are a major contributor to global inequality, with US\$9.8 trillion in secret tax havens such as the Cayman Islands held by a group of just 92,000 people. The 2016 World Investment Report confirmed that part of the growth in FDI inflows are due to corporate restructures (so funds are moving between economies but with little change to actual business activity or operations), and developing countries are most disadvantaged because of their limited ability to prevent (or benefit from) complex tax avoidance schemes from transnational corporations. Bermuda, for example, reported profits of US\$44 billion in 2015 from investment by transnational corporations, which represents a disproportionately high 779 per cent of its domestic GDP (compared with less than 1 per cent of GDP for other countries). The absence of basic global rules such as requiring transnational corporations to report their earnings or profits in individual countries (known as country-by-country reporting) has fostered this rapid growth of the use of tax havens in developing economies.
- The role of the International Monetary Fund, the international organisation that oversees the global financial system, has been under greater scrutiny in recent years, in particular because of its impact on developing countries. The major criticism of the IMF is that the “structural adjustment” policies it advocates **serve the interests of rich countries**, and may not be appropriate to the conditions of many developing countries. Acknowledging this concern, the IMF's assistance package in response to the global economic recession of the late 2000s included zero-interest loans with limited conditions to low-income countries and a range of

credit facilities (or “reserves”) that could be tailored individually to the different needs of developing countries. Nevertheless, some have argued that the IMF gives priority to protecting the interests of rich countries’ financial institutions rather than the long-term economic interests of developing countries.

- Many developing countries have **massive foreign debt burdens**. The 2018 International Debt Statistics report estimated that total external debt for low- and middle-income economies was US\$6.9 trillion, an increase of US\$1.7 trillion since 2016. Interest repayments on these past loans reduce the income available for governments to promote growth and development through spending on education, healthcare and infrastructure. As a result, many developing countries spend more on debt servicing than public health. Recent years have seen major efforts by the World Bank and International Monetary Fund to provide “debt relief” to Heavily Indebted Poor Countries (HIPCs) in part because much debt has been the result of irresponsible lending practices by rich-country financial institutions to authoritarian leaders in developing countries such as Uganda and the Democratic Republic of the Congo.

Global aid and assistance

The small-scale efforts made by developed countries to address the problem of global inequalities also contribute to the entrenched problem of differences in living standards:

- The total level of development aid provided by high-income economies was US\$143 billion or 0.3 per cent of gross domestic product in 2016. This is less than half the level promised by high-income economies since the 1970s (0.7 per cent of GDP, however, does represent an increase of 8.9 per cent from the year before [after adjusting for exchange rates and inflation]). The total difference between aid that was promised and aid that has been delivered stands at over US\$4 trillion, which represents a 58 per cent shortfall since 1970. The OECD *Official Development Assistance 2016* data shows that only six of its member countries have reached the 0.7 per cent UN target.
- Critics of the aid policies of developed countries argue that a significant proportion of official development assistance is “phantom aid” – that is, aid funds that do not improve the lives of the poor. According to the OECD, almost one in every six dollars of foreign aid is “technical cooperation”, which is often paid to consultants in donor countries. Another 11 per cent of aid is debt-related, such as for relieving or refinancing past loans, but does not contribute to new development. A further 5 per cent of the foreign aid budget is spent on administration. These disbursements reduce the amount available for development projects and humanitarian relief. Additionally, these figures do not reveal the proportion of aid that is “tied aid” – that is, aid that must be spent on overpriced or unnecessary goods and services that are produced by the donor country. For example, when the United States provides food support to very poor countries it generally buys American crops and ships them all the way to countries in Africa, at a far greater expense than buying those crops in the local region.
- The distribution of aid by high-income countries often reflects strategic and military considerations rather than the needs of the world’s poorest countries. A recent Briefing Paper by Oxfam International, a non-government aid organisation, *Whose aid is it anyway?: Politicizing aid in conflicts and crises* found that since 2002 almost half of the US\$178 billion increase in global aid from wealthy countries went to Iraq and Afghanistan while much smaller shares were received by other developing countries.

- While multilateral development aid (distributed by the World Bank, IMF and United Nations) is better targeted at the world's poorest countries, it is less than one-third of the value of total development assistance from the Development Assistance Committee members. Recent new initiatives include the Aid for Trade programme, established by the WTO to assist developing countries in overcoming the structural difficulties that limit their ability to successfully trade out of low economic development. The 2016 WTO global review assessed that contributions from Aid for Trade make up more than 2 per cent of GDP in over 15 African countries. Over US\$300 billion has been disbursed for financing aid-for-trade programme from 2006 to 2016. The Least Developed Countries received US\$10 per capita in aid for trade, more than double the average. More than three-quarters of this aid has gone towards providing transportation and storage, energy generation, agriculture as well as banking and financial services.

Global technology flows

Technology has the capacity to contribute to closing the gaps in living standards, but it can also entrench inequalities. New technologies can be adopted much more quickly in economies that have better infrastructure, higher levels of education, and that already have high penetration rates of related technologies, such as computers. The 2017 WTO global trade review observed that the internet remains unavailable to 3.39 billion people around the world, most of them living in the Least Developed Countries. This means that these businesses and consumers have limited access to online opportunities to sell and purchase goods and services, which is a rapidly expanding market, and reinforcing economic isolation from the digitally connected and developed world. The gaps in people's access to new communications technologies are called the "digital divide".

New technologies are also largely geared to the needs of high-income countries because they choose the priority areas of scientific research. Much of this technology – like labour-saving devices and pharmaceuticals that deal with the health problems of ageing people in rich countries – are of little benefit to poorer nations that have abundant labour supplies, a young population whose main health risks are common infectious diseases, and limited capital resources. For example, around 17 per cent of the global population (approximately 1.1 billion people) do not even have access to basic electricity, according to the International Energy Agency.

Developing nations also find it difficult to gain access to new technologies. Intellectual property rights restrict the benefits of technological transfer to poorer countries because they cannot pay developed country prices for those technologies. The Agreement on Traded Related Aspects of Intellectual Property Rights (TRIPS), for example, has been criticised for requiring all countries to implement complex intellectual property regimes that are difficult to implement for developing economies. This issue has been highlighted in the Doha Round of trade negotiations, in which wealthy nations fought to resist giving concessions that would reduce the intellectual property rights of their businesses.

Domestic factors

Economic resources

The simplest explanations for contrasts in levels of development focus on the difficulties most economies face in acquiring and maintaining sufficient resources for the production process – namely natural resources, labour, capital and entrepreneurship.

- **Natural resources:** While natural resources may in themselves be low value-added goods, they are important inputs for the production of higher value-added manufactured goods and services. Economies that have an abundant and reliable supply of cheap natural resources clearly have better opportunities for economic development than those that do not, even if some have been spectacularly unsuccessful

Natural resources

include all the resources provided by nature that are used in the production process. These are often simply referred to as "land". The reward (return) to the owners of natural resources is called "rent".

Differing views on globalisation

The importance of global integration and cooperation

The good news is that, after six years of disappointing growth, the world economy is gaining momentum as a cyclical recovery holds out the promise of more jobs, higher incomes, and greater prosperity going forward.

But just as we see this momentum unfolding, we also see — at least in some advanced economies — doubts about the benefits of economic integration, about the very “architecture” that has underpinned the world economy for more than seven decades.

... For more than 70 years, the world has responded to challenges through a system of rules, shared principles, and institutions, with the Bretton Woods system at its centre. John Maynard Keynes, one of the IMF’s chief architects, called it “that bigger thing we are bringing to birth”.

It is a prime example of the international cooperation that has underpinned a phenomenal rise in incomes and living standards around the world.

More recently, we worked together to ensure that the Great Recession did not become another

Great Depression. Cooperation through a multi-lateral framework has benefited every country.

Fostering more resilient growth therefore requires more international cooperation — not less.

... We need to work together to accelerate gains in living standards where needs are greatest. Helping low-income countries achieve the Sustainable Development Goals is not only a humanitarian question, but will also help billions of consumers to participate fully in the global economy.

Standing together is essential to face global challenges such as refugee and humanitarian crises, natural disasters, and climate change.

– *Building a more resilient and inclusive global economy*
Speech by Christine Lagarde, Managing Director of the International Monetary Fund

12 April 2017

<http://www.imf.org/en/news/articles/2017/04/07/building-a-more-resilient-and-inclusive-global-economy-a-speech-by-christine-lagarde>

Has globalisation gone too far?

Globalisation is good – for almost everyone. This was the mainstream judgement for a long time. But the wind has changed. More than a year after the [Brexit] “leave” vote and a new US administration taking office, the discontent with globalisation seems to be almost everywhere. Do Brexit and the new US trade policy threaten to reduce overall economic welfare as they turn back globalisation? Or has globalisation gone too far? Has it created wealth for a few, while creating many losers among the broader population?

Brexit and growing populist support around the world [are a reminder] that globalisation has a darker side; that global economic integration of the last 40 years has contributed to two significant problems.

First, importing and exporting lead to sectoral change and redistribution, which produces both winners and losers in a society. There is considerable evidence that international trade pushes some people in import-competing industries out of jobs

or reduces their wages. Examples of what this does to societies are to be seen in the American rust-belt and northern England. There is also evidence that it heightens political polarisation.

Now, a society may want to protect globalisation’s losers...but, this may be difficult – because of the second problem of globalisation – global regulatory harmonisation. Global regulatory harmonisation, in the form of formal international agreements but also through informal pressure from multinational corporations, limits countries in their individual policy choices. Moreover, they leave insufficient room for institutional, legal and regulatory diversity between countries with different histories and preferences.

– *A stairway to heaven?*
The promises and limits of global integration
Speech by Dr Andreas Dombret,
Deutsche Bundesbank (German central bank)

8 February 2018

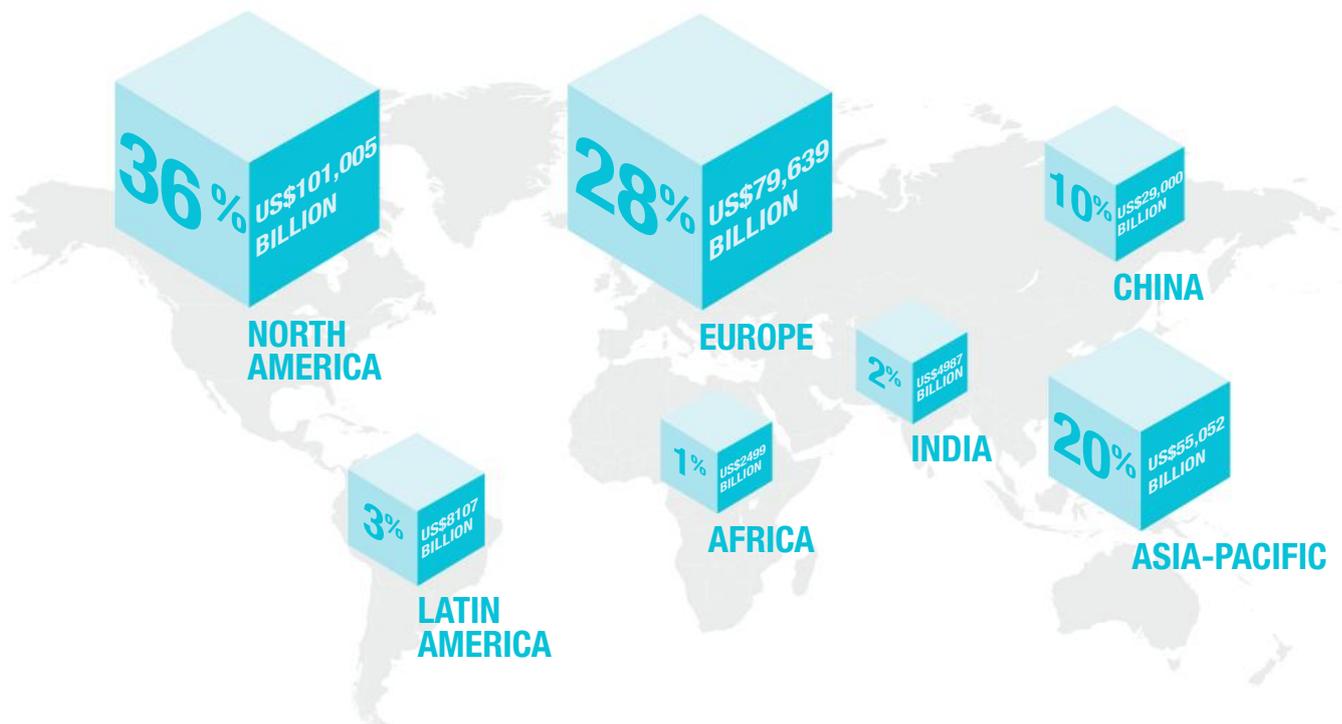
<https://www.bis.org/review/r180209c.htm>

in using these opportunities. Oil-rich countries in the Middle East, Africa and Latin America have achieved higher growth rates than their neighbours largely as a result of their exploitation of natural resources. But an abundance of natural resources can also hamper a country's economic development if it leads to an overvalued exchange rate, a narrow export base and an over-reliance on a small number of industries to drive economic growth. Countries that rely on natural resource exports also are exposed to downturns in commodity prices which can result in sudden falls in nation's income.

- **Labour supply and quality:** Labour is an input to the production process for many sectors of the economy and therefore influences development levels. Whereas high-income countries tend to have highly educated and skilled labour resources, low-income nations are characterised by high population growth, poor education levels and low health standards that reduce the quality of the labour supply. In Singapore, for example, a strong commitment to education over several decades has played a central role in the development of a sophisticated service-based economy. In South Africa, by contrast, the quality of the labour supply is diminished by inadequate education facilities and high rates of HIV/AIDS, which affects almost one in four South Africans aged 15 to 49 years and reduces workforce participation and productivity. Across a number of developing countries, a lack of education is especially prevalent among the female population. The World Bank's 2016 "Poverty and Shared Prosperity" publication noted that of the 780 million people estimated worldwide to be illiterate, almost two-thirds of these are women.

DISTRIBUTION OF THE WORLD'S WEALTH

Around 84% of the world's US\$280 trillion in wealth is held by individuals in Europe, North America and in Asia-Pacific countries like Japan and Australia. By contrast, people in Latin America, India and Africa hold only small shares of global wealth. Wealth is distributed more unevenly than income throughout the global economy.



SOURCE Credit Suisse Global Wealth Report 2017

- **Access to capital and technology:** Difficulty in gaining access to capital for investment and development is another major structural weakness of developing nations that contributes to their lower living standards. Low income levels provide little opportunity for savings that can be used for investment. Poorly developed financial systems makes it difficult for businesses to gain easy access to loans for investment purposes. Microfinance organisations have been established in many developing economies to provide small loans to help the poorest people in the world manage their farms or start a business. Additionally, with small research organisations and limited funds for business innovation, developing countries have limited opportunities to develop new technologies or to pay for the patents to use technologies developed in other countries.
- **Entrepreneurial culture:** While it is difficult to quantify differences in culture between economies and how this can impact upon economic performance, evidence suggests that a country's history and social institutions can impact on its economic success. In particular, the values of individual responsibility, enterprise, wealth creation and a strong work ethic can assist the industrialisation process, and the transition towards sustainable economic development.
- **High levels of inequality:** Large gaps in the distribution of income and wealth are a common characteristic of developing countries, and especially of countries with high concentrations of poverty. Research published by Oxford University's Poverty and Human Development Initiative argued that although national averages would suggest that the world's poorest billion people live in the poorest 30 countries in the mid-2010s, a more detailed analysis of data on individual households shows that the poorest billion people are spread across around 100 countries, with 70 per cent living in middle-income countries. Furthermore, by the mid-2010s the world's richest 62 individuals held the same amount of wealth as the bottom half of the entire global population. This highlights the need to examine both differences in living standards within countries and between countries, if we are to understand the overall differences in living standards across the global economy.

Institutional factors

Institutional factors – ranging from political stability, legal structures, central bank independence, extent of corruption, strength of social institutions and the government's domestic and external economic policies – can affect the ability of a nation to achieve economic development.

- **Political and economic institutions:** Institutional factors in individual countries can have a dramatic influence on the economic environment for businesses, investors and consumers, and thus have implications for a nation's level of economic development. Political instability, corruption and a lack of law enforcement by government agencies tend to undermine the confidence of investors, who will be reluctant to take risks if their business interests are threatened by an inadequate structure for resolving legal disputes, corruption or other institutional problems. The impacts of weak political institutions on economic development are difficult to quantify. One attempt to do so is the Corruption Perception Index, compiled each year by Transparency International. The Corruption Perception Index is a score between 0 for countries with a relatively high level of corruption and 100 for countries with a relatively low level of corruption. Figure 3.7 shows that developed economies have, in general, lower levels of corruption than developing and emerging economies.

Country Rank	Country	Corruption Perception Index (0–100)
1	New Zealand	89
2	Denmark	88
6	Singapore	84
13	Australia	77
16	The United States of America	75
77	China	41
81	India	40
135	Russia	29
171	Korea (North)	17
178	Syria	14
180	Somalia	9

Source: Transparency International

Figure 3.7 – Corruption Perception Index, selected countries 2017

- **Economic policies:** Government economic policies can have a substantial impact on development, in particular how governments balance the roles of market forces and government intervention in the economy. If all major decisions are left to market forces, a country may achieve a high level of economic growth, but it may not improve education, health care and quality of life. On the other hand, excessive government control over economic decision-making can constrain entrepreneurship and innovation reducing economic growth. Countries with the highest levels of human development, such as Norway and Australia, typically have both a strong market economy and significant government investment in human development. By contrast, economies like Latvia and Poland experienced slower growth in development when they were command economies during the twentieth century. An IMF paper, *Income Inequality and Fiscal Policy*, found that the major reason for higher inequality in Latin America compared with European economies was that developing economy governments are less able to implement policies that can ease inequality because they collect less tax revenue and therefore cannot provide the same level of public services and social welfare.
- **Government responses to globalisation:** Government responses to globalisation can have a substantial influence on a nation's ability to achieve economic development. Policies relating to trade, financial flows, investment flows, transnational corporations and the country's participation in regional and global economic organisations will influence an economy's ability to take advantage of the benefits of integration, such as economic restructuring, efficiency, access to foreign capital and technology and access to overseas goods markets. For example, East Asian economies that have been most open to trade and foreign investment have experienced the strongest rates of economic growth in recent decades. In contrast, a recent World Bank research paper found that while Sri Lanka's geographical proximity to many emerging markets and abundance of human capital provided export-led growth opportunities, government policies which protect domestic businesses and restrict foreign investment to Special Economic Zones has led to a "freeze" of many Sri Lankan exports over the past few decades. Another WTO paper, *Making Globalisation Socially Sustainable*, found that policy responses to an economic crisis have a significant effect on the domestic economy. Active labour market policies that support unemployed workers were found to be beneficial, with the majority producing long-term benefits.

reviewquestions

- 1 Assess the extent to which global and domestic factors cause inequality in the global economy.
- 2 Discuss the extent to which globalisation may increase or reduce the extent of inequality in the global economy.

3.6 The impact of globalisation

In this section, we address one of the most important questions of modern economics: what is the impact of globalisation on individual economies and the world as a whole? We look at how the forces of globalisation have affected economic growth and development, changed production processes, influenced the gap between rich and poor, and impacted on the natural environment. While the overall impact of globalisation is to foster improved economic outcomes, we also note some of the downsides to greater economic integration.

Economic growth and development

Globalisation has affected countries in different ways. Developing economies have greater opportunities to grow by producing goods for global consumer markets, and can also benefit from greater access to new technologies and foreign investment. High income economies, especially through transnational corporations, have found growth opportunities in global supply chains and new global service markets. Nevertheless many economies have not gained as much as might be expected from globalisation and greater economic integration has caused disruptive structural changes in some regions.

Overall, there is no clear evidence that globalisation has produced an acceleration of economic growth. As the world economy has become more integrated over recent decades, global real GDP growth has fallen marginally from 2.9 per cent per year during the 1980s and 1990s to 2.8 per cent from 2000 to 2017.

While this suggests that globalisation has not produced an overall acceleration in world economic growth, globalisation does nevertheless appear to be contributing to a convergence in living standards in the global economy. In recent decades, the fastest growing economies have been emerging economies such as China and India, while the slowest growing economies have been the advanced economies. Since 1990, emerging and developing economies have been “catching up” to advanced economies.

- The **East-Asia and Pacific** region (excluding high income countries) has been the fastest growing region in the world (9.0 per cent per year on average across the 1990s and 2000s, though it fell to 7.1 per cent on average between 2011 and 2016). In particular, strong growth in China during this period (10.4 per cent across the 2000s, though this fell to 7.7 per cent between 2011 and 2017) demonstrates the role of industrialisation and globalisation in economic growth.
- Economies in **South Asia** have also experienced successful growth since 2000 (6.5 per cent), particularly India after its steps towards greater integration with the global economy (6.9 per cent) as well as Bangladesh (5.8 per cent).
- The former socialist economies of eastern **Europe and Central Asia**, which grew by 5.0 per cent in the 2000s, and 3.0 per cent between 2011 and 2017, rebounded strongly after experiencing a severe contraction in their economies during the 1990s (-0.9 per cent) because of the difficult process of transitioning to a market-based economy.
- The **Middle East** experienced solid economic growth (5.1 per cent) throughout the 1990s and 2000s, helped by strong growth in Egypt (4.5 per cent) and Saudi Arabia (4.6 per cent). Higher growth in the Middle East over the past two decades compared with the 1980s (3.1 per cent) has been underpinned by greater competition for energy resources during the globalisation era. However, political instability and a decline in oil prices have dampened this success, with growth averaging 3.6 per cent since 2010. Many economies in the Middle East are also characterised by very high levels of inequality.
- **Sub-Saharan Africa** recorded an average growth rate of 4.6 per cent from 2000 to 2017, with strong growth in Ethiopia (6.1 per cent), Mozambique (7.5 per cent) and Nigeria (4.9 per cent). However some African countries have been less successful, including Swaziland and Burundi, having growth rates so low that they are not catching up to advanced economies living standards at all.
- **Latin American** economies experienced strong annual growth in the first decade of the 2000s (3.1 per cent), improving from the 2.4 per cent average of the 1980s and 1990s. However, growth has since fallen back to 1.7 per cent a year, reflecting weaker commodity prices and political instability in some countries in the region.

- **High-income economies** (or advanced economies) grew by just 2.1 per cent on average in the 1991–2017 period, slower than the 3.3 per cent recorded during the 1980s. Over this period, average growth rates were 2.4 per cent a year in the United States, 1.8 per cent in the European Union and only 1.1 per cent in Japan.

The implications of these trends are mixed. On the one hand, the remarkable growth experienced by emerging and developing economies that have embraced international trade, foreign investment and the participation of transnational corporations may indicate that globalisation facilitates higher rates of economic growth. For example, sustained economic growth in China and India is linked to policies in both countries that have encouraged increased trade and foreign investment.

On the other hand, the most globally integrated economies are the advanced economies, and they have experienced comparatively weak growth over the past two decades and were most negatively impacted by the global recession of the late 2000s. In particular, economies with highly globalised financial markets, such as the United States and Europe, suffered the worst effects of global recession and were again the centre of economic instability in the early to mid 2010s. This economic instability, coupled with less ability for government policy intervention, is expected to continue throughout the late 2010s. Global forces have also contributed negatively to other growth outcomes in recent years, such as through foreign indebtedness (in Africa) and exchange rate volatility (in Latin America). Therefore, while certain features of globalisation clearly facilitate economic growth, other features may destabilise or constrain economic growth.

While globalisation also has impacts on **economic development** or “well-being”, this influence occurs mainly because of the link between globalisation and economic growth explained above. If globalisation lifts economic growth rates in individual economies, it also raises income levels, and provides more resources for education and health care, and for programmes to clean up the natural environment. Of course, globalisation could have negative consequences for development if, while contributing to growth in individual countries, it also caused income inequality to increase and accelerated climate change and environmental damage.

In analysing the trends of recent decades, it is clear that any statistical analysis of the impacts of globalisation is dominated by the rising economic power of China, since China has the world’s largest population. The rise of China is a major structural change in the global economy that is occurring in parallel to the process of globalisation. There is no question that globalisation has also contributed to the extraordinary speed of China’s economic development. Trade has been central to China’s rapid industrialisation since China’s growth has been led by export-oriented manufacturing industries. China’s growth is also in turn accelerating the process of globalisation, by deepening trade and financial links among economies. The speed and scale of China’s economic expansion dwarfs any other emerging economy and so in examining the impact of globalisation it is important to focus specifically on the role of China.

Trends in the **Human Development Index** (which measures combined material living standards education and health outcomes) shows that over long periods of time (between 1980 and 2016) almost all countries have experienced major improvements in economic development. There is little evidence that globalisation, on balance, contributed negatively to economic development. Declines in economic development are restricted to a handful of countries that have experienced upheaval in transition to market economies (Russia, Moldova and Tajikistan) or serious political turmoil (Zimbabwe, Democratic Republic of Congo and Afghanistan). Figure 3.8 shows the changes in HDI levels for selected countries over the past three decades.

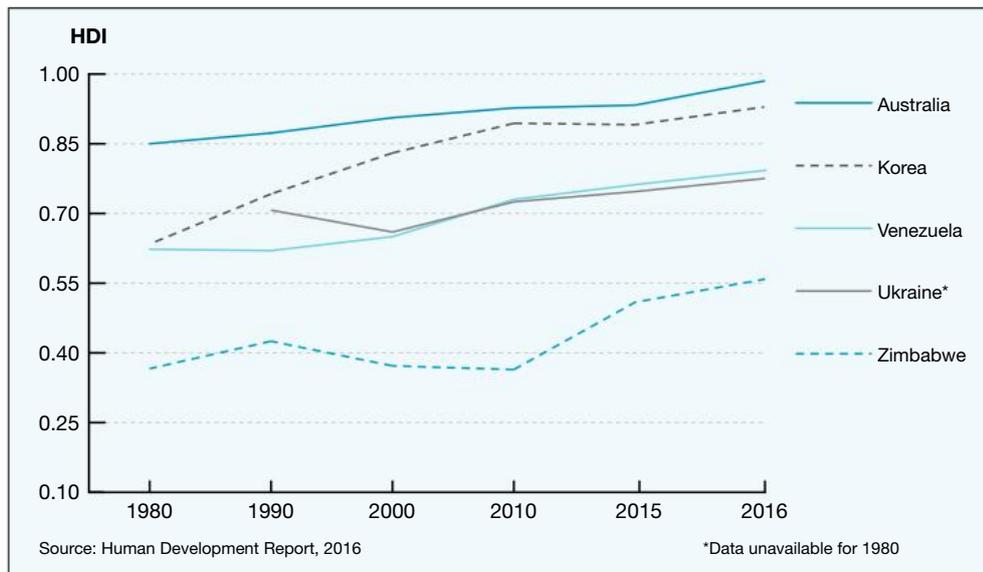


Figure 3.8 – HDI performance of various countries

Trade investment and transnational corporations

Globalisation has resulted in substantial increases in the size of trade flows and foreign investment. Because of the key role played by transnational corporations (TNCs) in both trade and investment flows, TNCs are increasingly dominating business activity around the world.

We saw in Chapter 1 that international trade in goods and services continues to grow most years and is now equal to around two-thirds of global output. All regions in the world have experienced this trend as changes in technology and government policy have fostered trade growth. An important feature of trade growth during the globalisation era is how goods are produced in different stages in different economies – a concept known as vertical specialisation. Since the late 2000s, around two-thirds of global trade is in intermediate goods, which are further processed.

The different stages of production for consumer goods such as iPhones might see the manufacturing of computer chips, logic boards, camera parts, screen casings and the final assembly occurring in different countries. Figure 3.8 demonstrates how the globalisation of production processes means there could be many international trade transactions rather than just the export of a finished iPhone from one country to another. A 2013 report released by the World Trade Organisation, *Global Value Chains in a Changing World*, characterised the twenty-first century as a “trade-investment-services” era of globalisation. For the first time in history, intellectual property and commercial know-how is being mass-traded across economies, while investment is expanding beyond physical capital into productivity training for labour and long-term business relationships.

The globalisation of financial markets has seen an increased reliance on foreign sources of finance for investment. From another perspective, more countries now have greater access to overseas funds for investment than ever before. Either way, foreign direct investment is now playing a greater role in creating more economic activity for every region around the world. Between 1990 and 2017, foreign direct investment increased more than ninefold. Very large increases were recorded for high-growth, emerging economies that have relaxed barriers to foreign investment.

However, as discussed in Section 3.5, the benefits of increased FDI flows have mostly been enjoyed by economies with already favourable economic prospects, and there has only been a trickle of FDI flowing to the LDCs. In addition, the growth of short-term financial flows has had a destabilising impact on many economies.



For a critical view of the practices of transnational corporations in developing countries visit the website of CorpWatch
www.corpwatch.org

Explain concerns regarding the conduct of transnational corporations held by this organisation. Outline one proposal to improve TNC practices.



Figure 3.9 – The global supply chain for Apple iPhones

The removal of restrictions on foreign ownership and the development of global capital markets have spurred the growth of transnational corporations, of which there are now over 104,000. In 2017, the foreign affiliates of these TNCs accounted for one-third of total world exports and employed over 73 million people. The combined value-added by the world's TNCs accounted for over one-quarter of gross world product in 2017, with foreign affiliates contributing around 10 per cent. They dominate the world's major industries such as motor vehicles, telecommunications and pharmaceuticals, and merger activity continues to concentrate the number of these companies, as TNCs prepare for a world where many global industries will feature just a handful of global companies.

TNCs generally perform better than domestic firms on a range of indicators including productivity, quantity sold, production size and export market share. However, World Bank research has found that on average benefits to the local community were lower as foreign firms tend to use less domestic capital and labour. The full advantages of FDI inflow can only be realised if TNCs are encouraged to increase links with the local community and assist local suppliers. Another criticism of TNCs is that they do not operate under the laws of any one country and so can move their production facilities to countries with the weakest laws and artificially structure their financial flows to avoid paying taxes. Lower labour standards and environmental protection laws in developing nations can lead to the exploitation of workers and environmental degradation.

Income inequality

In examining the impact of globalisation on economic growth and development earlier in this chapter, we saw that many developing countries are experiencing faster economic growth rates than higher income countries and that over time this could see income levels converge and inequalities narrow. Globalisation also has impacts on income inequalities within countries because as trade and financial flows grow, it changes the structure of economies:

- Increased openness to trade provides more export opportunities, which can raise the incomes of agricultural workers in developing countries. Lower tariffs on imports improve standards of living for the poor by reducing the prices of goods. In advanced economies, higher levels of trade may shift employment towards higher-paid services industries, but it may also depress the incomes of workers in import-competing sectors (for example, employees in the American motor vehicle industry have seen their incomes decline as US car producers have sought to compete against cheaper imports from Asia).

- Increased financial flows provide greater employment opportunities and fuel economic growth, but FDI flows also tend to be concentrated in higher skill and higher technology sectors, favouring those who are already better off. According to the IMF, financial globalisation increases income inequality within countries.
- Income inequality has increased in many emerging economies because the global mobility of skilled labour means that highly skilled workers may emigrate to more advanced economies with higher paying jobs unless they receive higher pay. This contributes to large increases in pay for highly skilled workers while incomes for other workers grow at a much slower rate. The 2015 UN Human Development Report was focused on the impact of global unemployment on economic development, and noted that 75 million young people are unemployed globally. This is over three times the adult unemployment rate across developing economies alone, and worsens income inequality especially in the Middle East and African regions.

According to the IMF, income inequality rose by almost 0.45 per cent per year over the three decades up until the mid-2000s, as measured by the Gini index (a common measure of inequality where a higher number indicates a higher level of inequality). IMF studies have suggested that this trend is detrimental to economic development as increased income for the top 20 per cent of households is associated with a corresponding 8 per cent fall in GDP over the next five years. In contrast, an increase in the bottom 20 per cent of household income leads to higher economic growth of 38 per cent over the same medium-term period. However, using a different methodology a 2018 report titled “The Future of Worldwide Income Distribution” published by the Peterson Institute for International Economics calculated that the global Gini index actually declined from 68.7 in the mid-2000s to 64.9 in the mid-2010s. At the same time, the global median income doubled over this last decade. The report noted the emerging economies and developing countries in South-East Asia have experienced most of these improvements in inequality.

This positive trend can be seen calculated that the global in figure 3.10, which shows that China for example has experienced a decline in income inequality in the most recent years. However, the general trend towards higher inequality is evident in many countries like Indonesia, China and the United States since the 1990s more generally. According to the IMF about one-fifth of the increase in income inequality seen in countries is because of globalisation. A major part of this increasing inequality is the impact of technological change which shifts production processes away from low-skilled labour towards higher-skilled jobs. This benefits people with higher levels of education but increases unemployment for less skilled workers.

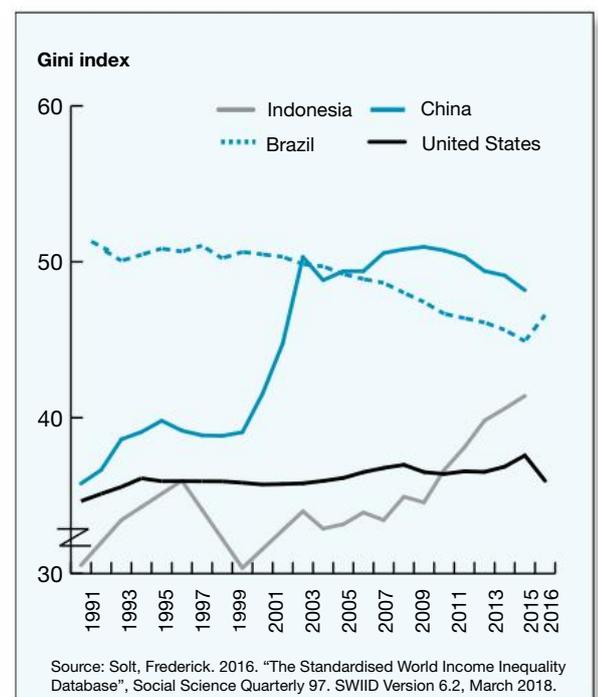


Figure 3.10 – Income inequality selected countries

Environmental sustainability

The relationship between globalisation and environmental factors is complex. Globalisation can have negative environmental consequences for several reasons. Low-income countries that are desperate to attract foreign investment and earn higher export revenue may engage in economic behaviour that harms the environment. This may occur through deforestation for paper or woodchip industries; depletion of marine life through unsustainable fishing practices or poisoning of water supplies by mining operations; pollution caused by manufacturing industries; and increased carbon dioxide emissions from power plants, contributing to the greenhouse effect. Additionally, the growth in global trade itself is increasing consumption of non-renewable fuels for transport by air, road, rail and sea.

The most significant environmental problem in the early twenty-first century is **climate change** because the warming of the atmosphere has potentially irreversible and catastrophic impacts on all aspects of the natural environment including oceans, marine life, the weather, wildlife, air quality and water supplies. While the carbon emissions that contribute to climate change come from individual countries the impacts of climate change affect the whole world. This means that nations need to work together to address climate change.

Efforts to reach agreements between economies on reducing carbon emissions are coordinated by the United Nations Framework Convention on Climate Change (UNFCCC). In 1997, the UNFCCC summit of world leaders produced the Kyoto Protocol on Climate Change, which set carbon emission reduction targets for industrialised countries. When the Kyoto Protocol expired in 2012, the 2012 United Nations Climate Change Conference concluded with an agreement to extend Kyoto to 2020.

After some years of negotiation stalemate, at the 2015 UNFCCC Conference in Paris, a historic agreement was negotiated with representatives from nearly 200 countries to keep “the increase in global average temperature to well below 2 degrees Celsius above pre-industrial levels” – the benchmark scientists believe is necessary to prevent the most dangerous impacts of climate change. The agreement, to become effective in 2020, was

IS A ZERO-CARBON FUTURE ACHIEVABLE?

“Choices made today can lock in emissions trajectories for years to come and leave communities vulnerable to climate impacts. To reach zero net emissions before the end of this century the global economy needs to be overhauled.”

– Rachel Kyte Vice President and Special Envoy
for Climate Change, World Bank, 11 May 2015

Climate change represents a problem exacerbated by the effects of globalisation but at the same time requires a concerted global effort to find a solution. The Intergovernmental Panel on Climate Change has suggested that if the global community waited until 2030 before taking action on climate change it would cost 50 per cent more to ensure that temperatures did not rise by more than 2 degrees Celsius each year.

The World Bank has suggested that zero net emissions by the end of the century can be achieved if three key steps are taken by governments around the world:

Altering demand and supply: Promoting economic growth strategies that rely on electricity and other clean energy solutions as well as managing the store of carbon in land and forest areas. This will eventually lower demand for fossil fuels and improve energy efficiency.

Using incentives: Implementing a carbon pricing or emissions trading package to correct the market failure that results in environmental damage. At the same time, introducing subsidies rebates or other incentives to encourage the use of green technologies – such as solar panels and fuel-efficient vehicles.

Global effort: Consensus across the global community is paramount to reaching a zero-carbon future and the first step is through development and implementation of global agreements. The removal of fossil fuel subsidies which predominantly benefit transnational corporations and high-income economies would furthermore improve income inequality especially in developing economies.

A 2017 OECD report *Investing in Climate, Investing in Growth* noted that if the G20 countries worked to tackle economic growth and climate change as a combined issue, this could increase economic output for each of their economies by up to 2.8 per cent by 2050. Furthermore, the economic benefits of avoiding climate change consequences (such as storm damage and coastal flooding) could be valued at a further 2.2 per cent increase in GDP by 2050.

For further information: OECD (2017), *Investing in Climate, Investing in Growth*, and World Bank (2016), *Decarbonizing Development: Three Steps to a Zero Carbon Future*

significant because, for the first time, it included developing nations, such as China and India, alongside the United States, which refused to ratify the Kyoto Protocol. In contrast to the Kyoto Protocol, the Paris Agreement has greater inbuilt mechanisms for transparency and review process, with the intention of increased global scrutiny to further encourage countries to meet their respective contribution to global emissions reduction. The Paris Agreement came into force in November 2016, with 178 parties having ratified it by mid-2018.

Globalisation also offers opportunities to protect the world's environment from harm by forcing individual nations to face up to their global responsibility for environmental preservation. It makes it possible for the costs of preservation to be shared and to increase scrutiny of the environmental practices of transnational corporations. Globalisation has also facilitated the transfer of new technologies to improve energy efficiency and reduce environmental pollution. Over time globalisation may create international institutions with the power to enforce orders on individual countries to stop environmental damage. In recent years, however, problems that have involved global environmental resources, such as fish stocks or climate, have proved difficult to tackle and progress in making agreements to combat global environmental problems has been slow.

The role of financial markets

The influence of global financial markets on economies has increased substantially during the globalisation era. Driven by global information and communications networks, global financial markets dominate financial flows around the world. Governments have encouraged the development of global financial markets by removing “capital controls” on the flow of finance, floating their exchange rates and deregulating their domestic banking sectors.

Global financial markets can have positive impacts on economies. Countries would be unable to conduct international transactions without foreign exchange markets. Businesses would find it more difficult to access loans or attract investors if they were confined to domestic financial markets. Efficient international financial markets should encourage greater transparency of the actions of businesses and governments and should foster economic development.

However, global financial markets have also produced negative results during the globalisation era. Financial markets shift massive volumes of money around the world every day. If investor sentiment turns against a particular economy, it can result in a collapse in exchange rates, a shock to the economy and a recession accompanied by rising unemployment.

In the late 2000s global financial markets played a part in producing the worst economic crisis since the Great Depression of the 1930s. With its origins in the United States housing market, the global financial crisis of 2008 saw a collapse in worldwide investor confidence and the seizure of the global financial system. Central banks subsequently flooded financial markets with liquidity, governments guaranteed banking deposits to improve confidence and many governments provided “bail-outs” to prevent troubled banks and financial institutions from collapsing. Although these emergency measures helped avoid global economic depression the world economy still contracted by 2 per cent. This trend has continued throughout the 2010s as many advanced economies struggled to return their economic growth and unemployment rates to pre-global financial crisis levels in contrast to emerging economies which continued to benefit from their strong export-driven, manufacturing-led growth.

In recent years the global economy's growth patterns have converged. For example, a slowdown in China and India's growth impacted heavily on many advanced economies which relied on emerging markets for both exported goods as well as to import their

commodities and commercial services. The Bank for International Settlement's 2016 Report observes that the volatility of financial markets, combined with rising debt levels (especially from government stimulus packages) and lower productivity growth, presents a significant risk for the global economy over the late 2010s.

The international business cycle

The closer linkages between economies hold benefits and risks for countries in the global economy. The benefit of integration is that it allows countries to achieve faster rates of economic growth by specialising in certain types of production and by engaging in trade. Countries that have a higher level of trade also experience faster economic growth. In particular, during times when world economic growth is higher, individual economies are likely to benefit from the upturn in growth.

However, closer economic integration also makes economies more exposed to downturns in the international business cycle and to developments in their regions. One of the reasons for the strength of global economic growth in the mid-2000s was the simultaneous upswings in the United States and China that propelled the global economy to its fastest growth rates in 30 years. Equally, the closer links between economies resulted in the downturn in the US economy in the late 2000s, spreading quickly to other developed and developing economies. As the extent of trade and financial integration continues to increase, there is likely to be greater synchronisation of the international business cycle, intensifying both the downturns and the upswings in the global economy.

Greater synchronisation of business cycles between different countries has also increased the need for macroeconomic policies to be coordinated. Following the late 2000s recession, for example, the IMF recommended that countries use their combined budgets to stimulate the world economy by 2 per cent of global GDP in response to the global economic recession. However, economies generally do not coordinate their macroeconomic policies unless they are in a global crisis. As the global economy approached the end of the second decade of the century, economists warned of consequences to growth from rising economic nationalism and in particular, an escalating trade war between the United States and China. Meetings for international forums like the G20 became dominated by topics beyond the economic management, such as terrorism and climate change, creating risks that countries are unprepared for future economic threats.

reviewquestions

- 1 Analyse the impact of globalisation on economic growth and development in the global economy.
- 2 Explain the impact of globalisation on environmental sustainability in the global economy.
- 3 Describe the role of financial markets and the international business cycle in globalisation.

chapter summary

- 1** The global economy is characterised by stark **inequalities**. Out of a world population of almost 7.5 billion, just under 1 billion live in high-income countries with high standards of living while just over 1 billion people live on less than US\$1.90 per day. Economists emphasise different aspects of these inequalities with some noting the widening disparity of income and others focusing on the decreasing proportion of people living in absolute poverty.
- 2** **Standards of living** are most commonly measured by Gross National Income (GNI) per capita adjusted for exchange rate impacts or Purchasing Power Parity (PPP). However economists recognise the limitations of this measure as an indicator of variations in living standards of the global economy.
- 3** **Economic growth** is an increase in the real Gross Domestic Product over a specific time period. Per capita GDP growth is the most common traditional measure used to compare the performance of economies.
- 4** **Economic development** is concerned with economic growth alongside other quality of life factors such as income distribution in a population, education levels, health standards and quality of environment. The most common measure of economic development is the United Nations **Human Development Index** (HDI) which is based on a combination of GNI per capita, life expectancy at birth and levels of educational attainment.
- 5** The main two categories of economies are **developing economies** and **advanced economies**. Advanced economies are also known as high-income first world industrialised or western economies.
- 6** **Emerging economies** are in the process of industrialisation or modernisation and experiencing sustained high levels of economic growth. This classification includes a range of economies that are neither high income nor share the traditional characteristics of developing economies.
- 7** While many factors within individual economies can contribute to a lack of economic development, such as a lack of quality inputs to production and the nature of economic and political institutions, the globalisation era has highlighted how certain **features of the global economy** – trade finance, foreign aid and technology – may work to entrench rather than alleviate inequalities between nations.
- 8** Opinion about the impacts of globalisation is divided. While globalisation does not appear to have accelerated economic growth overall, many emerging economies that have opened themselves up to the global economy have experienced rapid economic growth and development. However countries with highly globalised financial markets also suffered the worst effects of the late 2000s recession.
- 9** Globalisation has contributed to a greater synchronisation of economic growth rates through the **international business cycle**, reflecting the increased integration of economies through trade and financial flows.
- 10** Globalisation has increased the need for national governments to coordinate their economic policy with other nations.

chapterreview

- 1** Explain the difference between the concepts of economic growth and economic development.
- 2** List examples of indicators that measure economic growth and economic development and outline what factors they include.
- 3** Discuss the distribution of income and wealth in the global economy. Assess whether inequality is increasing or decreasing.
- 4** Identify what categories are used to group economies. Discuss the key features of these groupings.
- 5** Analyse the reasons for differences in levels of development between economies.
- 6** Explain how globalisation has changed the role of trade investment and transnational corporations in economies.
- 7** Discuss how globalisation has impacted on the distribution of income and wealth within countries.
- 8** Analyse the positive and negative impacts that globalisation might have on the natural environment.
- 9** Explain how globalisation has increased the need for national governments to coordinate economic policy with other nations.
- 10** Critically analyse the argument that the negative impacts of globalisation have been greater than its positive impacts.

Case Study: Brazil



Brazil serves as a case study in the variations between different countries' economic performance, despite the increased integration of the global economy. Since 2015, it has been one of the world's worst performing economies. But in the 2000s decade, Brazil was one of the world's fastest growing economies, and widely seen as a global success story. Like other Latin American economies, it had been slower to embrace globalisation than the East Asian region. But a global commodity boom, combined with major new resource discoveries, resulted in years of rapid growth and rising incomes. Suddenly, however, this collapsed. Brazil went into recession in 2014 as commodity prices slumped and a corruption crisis engulfed the government. As this case study discusses, to date Brazil's response to its recession has been to seek a deeper integration with the global economy and accelerate economic reform.

Brazil is the world's ninth-largest economy, and is the third largest of the "BRIC" emerging economies (behind China and India but ahead of Russia). Its population recently topped 200 million – making it the world's fifth-largest country by population – and it is the world's fourth-largest country in land area. Brazil has in recent years increased its international profile with its successful hosting of the 2016 Olympic Games and the 2014 FIFA World Cup.

FIGURE 1 – DEVELOPMENT INDICATORS: SELECTED COUNTRIES

	Brazil		Indonesia		Poland		China		Egypt		USA	
Population (millions, 2017)	209		263		38		1386		98		326	
Gross Domestic Product (current US\$ billion, 2017)	2056		1015		524		12,237		235		19,391	
GNI Per Capita (US\$, PPP, 2017)	15,160		11,900		28,170		16,760		11,360		60,200	
Population below US\$1.90 per day (%) (2015)	3.4		7.2		0		1.9		–		–	
Gini index (2015, ^2013)	51.3		39.5^		31.8		42.2^		31.8		41.5	
Mean years of schooling (2015)	7.8		7.9		11.9		7.6		7.1		13.2	
Life expectancy at birth (1990, 2015)	67	74.7	62	69.1	71	77.6	69	76	62	71.3	75	79.2
Human Development Index (Rank) (2015)	0.754 (79)		0.689 (113)		0.855 (36)		0.738 (90)		0.691 (111)		0.920 (10)	

Source: World Bank 2018; Human Development Report 2016

1. Economic performance

In recent decades, Brazil has emerged as a rising power in the global economy. It has made significant progress in economic development, with reductions in poverty and improvements in health. Its reputation as one of the world's most unequal societies has changed as innovative policies have seen 40 million Brazilians climb out of poverty. It has also become more open to the global economy, although trade remains a relatively small part of its economy.

This case study will examine Brazil's efforts to recover from the worst recession Brazil has experienced since records began. It resulted in unemployment almost doubling, a sharp fall in living standards for tens of millions of Brazilians and the collapse of Brazil's government in 2017. But the case study will also examine the reasons for Brazil's medium-term success, which has been only partially undone by the more recent economic crisis. One of the challenges in understanding Brazil as a case study of globalisation is that it comprises both major successes and major failures – and it is not yet clear whether its future is leadership of the Latin American region and an increasing role in the global economy, or a return to the economic stagnation of the last decades of the twentieth century.

1.1 Social and economic progress

Brazil is a large economy with many billionaires and a large, growing middle class. Its gross national income (US\$15,160 in 2017) puts Brazil in the category of upper-middle-income economies. However as one of the world's most unequal societies, it has always ranked poorly for its levels of economic development. Brazil has made major progress in recent decades, but from a low starting point. The 2016 Human Development Report ranked Brazil well down the global league table at 79th in the world for its Human Development Index of 0.754 (up from 0.68 in 2000). This put it slightly ahead of the average levels of development for the Latin American region, reflecting improvements in health, education and income during recent years:

- Brazil now ranks 74th in the world for life expectancy, which has increased from 63 years in 1980 to 75 years.
- Brazil ranks 76th in the world for adult literacy, with 92 per cent of the population having basic literacy skills, up from 82 per cent in 1990 (even though the average period of formal education in the workforce is relatively low).
- Brazil's infant mortality rate has fallen significantly, from 51 per thousand live births in 1980 to 14.6 in 2015 – an outcome that places it alongside China, Mexico, Argentina and other emerging economies.

One of the most significant achievements is Brazil's progress in **poverty reduction**. Historically, Brazilian society has been characterised by very high levels of **inequality**. Although income inequality remains high, Brazil has made consistent progress: the Gini index (a measure of income inequality) fell from around 60 in 2000 to 52 in 2016, although this still left Brazil ranked at 130th out of 142 countries. Research published by the OECD in 2014 estimated that around half of the reduction in inequality was the result of economic growth, and the other half of the reduction in inequality came from government policies to redistribute income. The success of these policies made former President Luiz Inácio Lula da Silva (President da Silva, often known simply as “Lula”) the most popular Brazilian president in living memory at the time when he finished his term in 2014 – with an approval rating of 80 per cent. During his first term in office, President da Silva prioritised policies that aimed to redistribute wealth in Brazil, including raising the minimum wage and pensions.

The flagship policy of the Lula administration was the Bolsa Familia (Family Fund) program. Introduced in 2004, it aims to assist poor households by providing small cash transfers in return for keeping their children in school and attending preventive health care visits. These programs, known as Conditional Cash Transfer policies (CCTs), are widely regarded as some of the most effective anti-poverty policies introduced anywhere in the world. On the back of their success, a number of countries have adopted CCTs, such as Prospera in Mexico. Between 2002 and 2016, the percentage of Brazilians living on less than US\$2 per day fell from 23.2 per cent to 3.7 per cent.

1.2 Economic recession

The turn of the century appeared to offer Brazil a new era of sustained growth, rising living standards and economic development. In the decade to 2010, Brazil's economy grew by an average of 3.7 per cent annually. But between 2010 and 2014, this slowed to 2.2 per cent, and in 2014 it came to a hard stop.

The recession was so severe that it came close to the technical definition of a depression (a recession that lasts eight or more straight quarters in which there is a decline in real GDP of 10 per cent or more). The economy shrank by 3.8 per cent in 2015 and then 3.6 per cent in 2016. The pace of Brazil's economic recovery has been slow, with the forecast 2.5 per cent growth in 2019 only just ahead of growth in 2018.

The sense of economic crisis was deepened by inflation and unemployment surging at the same time (the textbook definition of "stagflation", which has rarely been seen in the world economy since the 1970s). Unemployment reached a record high of 13.7 per cent in the first quarter of 2017, leaving close to 14 million Brazilians out of work (compared to 2014, when unemployment had fallen to almost 4 per cent). Inflation rose to 9 per cent during the recession, but has stabilised at just below 4 per cent since the economy went into recovery.

FIGURE 2 - ECONOMIC INDICATORS

	2012	2013	2014	2015	2016	2017	2018*	2019*
Real GDP growth	1.8	3.0	0.1	-3.8	-3.6	1.0	2.3	2.5
Inflation (CPI)	5.8	6.2	6.3	9.0	8.7	3.5	3.5	4.2
Current account (% of GDP)	-2.2	-3.0	-4.3	-3.2	-1.3	-0.5	-1.6	-1.8
Unemployment rate	5.5	7.1	6.8	8.5	11.3	12.8	11.6	10.5
Fiscal balance	-2.3	-3.0	-6.0	-9.7	-7.4	-6.4	-7.3	-7.6

Source: IMF World Economic Outlook, April 2018 *Forecasts

In response to rising inflation, Brazil's main interest rate was raised to 14.25 per cent, giving Brazil the highest interest rates of any comparable economy. Sharp falls in tax revenues also created a vicious cycle of further cuts in spending by state and local governments – even to the point that many of Brazil's famous annual Carnival parade celebrations were cancelled in 2016.

Brazil's economy has been in a slow recovery since 2017. The depreciation of Brazil's currency began an export recovery, and the current account deficit, which had risen to a monthly deficit of US\$13.2 billion in 2014, had swung around by mid-2017 to a monthly surplus of US\$2.9 billion. Inflation returned to its target range, allowing the central bank to begin reducing interest rates from an average of 14.2 per cent in 2016 to 6.5 per cent by mid-2018.

Although the recession was Brazil's worst on record, one of its positive features was that Brazil's financial system remained stable and financial markets operated relatively smoothly during the downturn. This was surprising to some observers, given Brazil's history of financial crises. The mechanism of the floating exchange rate (which fell by 50 per cent in the four years to 2016) helped improve competitiveness in the real economy, while stronger regulatory and capital controls helped maintain stability in the financial sector. Brazil's large store of international reserves also provided a defence against financial market volatility, as did the fact that its public sector debt was mostly denominated in Brazilian currency rather than foreign currencies. In addition, despite the recession, longer term foreign investment inflows continued. Brazil had one of the world's strongest performing share markets in 2016, with a 42 per cent increase in its index, followed by further gains in 2017. While these factors should accelerate the recovery for Brazil, the economy remains fragile.

THE REASONS FOR RECESSION

How did a country that had been held up as a Latin American tiger economy just a few years before, and which had become the first South American country to host the Olympic Games, suddenly become the G20's worst performing economy?

Seven key factors that explain the deep recession that Brazil experienced between 2014 and 2016:

1. Brazil is a major commodity exporter, so the sharp fall in the prices for oil, iron ore and agricultural output after 2011 resulted in **lower export revenues and a fall in national income**. Eight of Brazil's top ten exports in 2015 were commodities, accounting for the 25 per cent fall in the value of exports. However the fact that Brazil is a major commodity exporter does not explain the depth of its recession. Other major commodity exporters also experienced an economic slowdown, but Brazil's recession was much worse.
2. **Brazil was unprepared for a fall in commodity prices**: for different reasons, other sectors in the economy could not fill the gap left by the collapse in revenues for oil, iron ore and other commodities. The government's budget was already in deficit, households already held high levels of debt, businesses were reluctant to invest given Brazil's high interest rates and the strong commodity prices had masked a long period of very weak productivity growth.
3. After 2014 **a major corruption scandal engulfed Brazil's business and political elites**, halting the progress of economic reforms and shelving investment plans. The investigation revealed massive bribery and corruption involving Petrobras, Brazil's large state-controlled oil company, and some of the country's leading political and business figures. The scandal was at such a scale that Petrobras suspended its plans for energy exploration. Meanwhile, the judicial investigation into the scandal engulfed so many major businesses and politicians that it crowded out almost all other issues, meaning that congress did not advance the government's proposals for economic reform. The scale of the political crisis and corruption in government have continued to hinder economic recovery and undermine confidence.
4. Investors were **losing confidence in Brazil's ability to address its budget problems** with a fiscal deficit that reached 11 per cent by 2016. Public spending had grown at an annual average of 6 per cent per year for two decades, well above the rate of economic growth. But expenditure restraint had weakened even further since President Dilma Rousseff had come to power in 2011, with primary expenditures rising from around 30 to 36 per cent of GDP, and the budget moving from a "primary surplus" (that is, excluding interest payments on government debt) of 3.1 per cent of GDP to a "primary deficit" of 2.7 per cent of GDP. When added to interest payments of almost 8 per cent of GDP, Brazil was running a massive budget deficit of 11 per cent of GDP by 2016.
5. That loss of confidence was reflected in the **downgrading of Brazil's sovereign debt by ratings agencies** to below "investment class", making it more difficult (and more expensive) for the government to obtain loans. Public debt rose from 52 to 68 per cent of GDP between 2013 and 2016, and was on course to rise to an unsustainable level of 130 per cent of GDP by 2023.
6. President Rousseff had initiated a number of **economic policies that had failed to overcome economic problems** in recent years, including price controls that failed to rein in inflation, aggressive lending by state banks that failed to stimulate new investment and infrastructure project plans that failed to attract private investors.
7. Brazil had **made little progress on a series of deep-seated structural problems** affecting its labour productivity, transport infrastructure, education levels and its reputation as a difficult place to do business. This left Brazil exposed when the favourable environment of high commodity prices disappeared.

1.3 Brazil's environmental challenges

Brazil has a mixed environmental record of progress in some areas and rapid resource depletion in others. Brazil has faced significant challenges in managing its natural environment, which remains central to the Brazilian economy. Like many developing economies, Brazil suffers from a high level of water and environmental pollution. Only 30 per cent of waste water is treated, and almost half of the country's

garbage and other solid waste is not collected. Only 47 per cent of the population lives in housing that benefits from sewage collection, and poor sanitation is a major contributor to public health problems.

The two areas of environmental policy in which Brazil has made the greatest progress are in biofuels and its progress in reducing greenhouse gas emissions. Brazil has led the world in the development of sustainable biofuels, pioneering much of the technology now used in the global ethanol industry (of which Brazil is a leader, with ethanol now accounting for around 45 per cent of fuel usage). Brazil also played a key role in formulating the framework for the 2015 COP 21 climate accord and has ratified the Paris Agreement. Brazil also voluntarily committed to reducing its greenhouse gas emissions between 36.1 per cent and 38.9 per cent by 2020, a target that is expected to be met before 2020.

Nevertheless, Brazil has a poor reputation for environmental protection because of the continued and rapid destruction of the Amazon rainforest and Atlantic Forest. Brazil's forest coverage declined from 72 per cent to 61 per cent between 1990 and 2011. In other words, in just 21 years, 10 per cent of the country's total land mass was deforested. The destruction of the Amazon is regarded as an environmental catastrophe, in particular because of its impact on increased carbon dioxide emissions and therefore its contribution to climate change. Brazil's large-scale deforestation has made it the world's third-largest source of greenhouse gas emissions. Since 1970, 19 per cent of Brazil's entire forest cover has been removed, a further 1 per cent being removed every six years. In response to international and domestic concerns about the impact of the loss of forest coverage, in 2009 the Brazilian Government made a commitment that by 2020 the pace of deforestation would be reduced by 80 per cent. Progress was made during the first half of the 2010s, with the rate of deforestation by 2015 falling to less than half its pace just one decade before. But progress was reversed after the recession saw severe cuts in the budget for the government department that protects forests from illegal logging. The pace of logging increased for three years running during the recession from 2014 to 2016. While the 6500 square kilometres of logging in 2017 represented a 16 per cent reduction, this was well above the levels of five years before.

2. Influence of globalisation

2.1 Influence of trade

Brazil benefited greatly from the global resources boom between 2003 and 2011. Brazil is a large supplier of mineral resources, including iron ore, manganese and nickel. As prices for these commodities increased, driven especially by demand from China and India, the value of Brazil's exports increased and the trade surplus rose. However, just as greater integration can benefit an economy in times of global growth, the opposite can also occur. Slower growth in China resulted in weaker export growth for Brazil, and after five years of surpluses, the balance of trade fell into deficit. The trade deficit grew year by year until reaching a record of US\$65 billion in 2014 (with the current account deficit at 4.2 per cent of GDP). Brazil's recession led to a sharp fall in imports, and a recovery in exports in response to a major depreciation in its currency. By 2016 a small trade surplus had been achieved, one that has persisted into 2018.

An analysis of the Brazilian economy by the International Monetary Fund in 2015 concluded that for long-term economic stability, the current account deficit needs to average somewhere in the range of 1.2 to 2.0 per cent of GDP. This has been achieved in recent years due to the economic downturn (with a forecast CAD of 1 per cent of GDP in 2019) but Brazil's longer term challenge is to keep its current account deficit in a sustainable range once its economy recovers. Brazil also remains vulnerable to changes in commodity prices, with its three largest exports (iron ore, soybeans and oil) accounting for one-third of total exports. The discovery of enormous oil reserves in the "pre-salt" fields three kilometres below the ocean's surface in the early 2000s highlighted how Brazil might become one of the world's largest oil exporters in the future. However, Brazil's shorter-term prospects were undermined by falling oil prices and the corruption scandal surrounding Brazil's state-owned oil company, Petrobras, which has made it more difficult to obtain funding for drilling operations. In 2017, the "Weak Flesh" corruption scandal disrupted Brazil's meat exports, when one of Brazil's largest businesses was implicated in selling putrified meat that had been dyed with red colouring (to make consumers think it was fresh) and bribing officials so that the meat still passed inspections. Exports have also been disrupted by industrial disputes, such as a week-long truck drivers' strike in mid-2018 in response to rising fuel prices.

2.2 Influence of external accounts

Historically, the most significant problem underlying Brazil's external vulnerability has been its high level of **foreign debt**, which has been amongst the highest in the developing world. Brazil's level of total debt grew considerably in the 1990s, but it fell during the 2000s as Brazil achieved trade surpluses and exercised greater fiscal discipline. While a large debt problem may not necessarily cause economic instability (Australia experienced similar growth in foreign debt during this period), specific characteristics of the debt problem have made Brazil's debt a matter for concern:

- The cost of servicing Brazil's foreign debt reached 89 per cent of the value of exports by 2000. After falling to 21 per cent in 2011 due to a series of trade surpluses, lower interest rates and export growth, the debt servicing ratio began rising again. In 2015 it rose to 56 per cent as a rising current account deficit, weaker exchange rate, falling exports and higher domestic interest rates increased servicing costs. The debt servicing ratio has fallen steadily since, standing at 38 per cent in mid-2018. While encouraging, it is important that external debt remains at manageable levels going forward.
- Around 70 per cent of Brazil's total debt is owed to foreigners and is denominated in foreign currency. As a result, any depreciation of the real immediately increases debt servicing costs.
- More than 40 per cent of the total debt is owed by the public sector, and there is persistent concern about the growth and sustainability of public spending in Brazil.
- Servicing the foreign debt cost approximately 6 per cent of GDP in 2017, a level that makes the Brazilian economy vulnerable to increases in international interest rates, particularly in the US, which is the source of a large proportion of Brazil's foreign borrowings.

FIGURE 3 – BRAZIL'S EXTERNAL INDICATORS

Year	External debt (US\$ millions)	External debt to GDP ratio (%)	Debt servicing ratio (% of exports)
1980	53,847	27.0	70.9
1990	96,545	26.3	65.1
2000	215,414	36.6	88.6
2010	256,804	12.0	23.0
2015	283,605	18.6	55.7
2016	269,970	18.2	55.4
2017	266,017.6	15.4	44.7
2018	258,060.9	16.0	38.1

Source: Banco Central do Brasil 2018 (Economic Indicator Table V.28)

Brazil made significant progress in managing its external debt in the 2000s and early 2010s before the recession. Better current account outcomes, contractionary fiscal policy and a build-up of international currency reserves helped Brazil make significant inroads into the size of its foreign debt. Overall, net public-sector debt declined from a peak of 63 per cent of GDP in 2002 to 33 per cent in 2014, before increasing to 38 per cent by mid-2018. Public-sector debt has also been transitioned out of short-term foreign borrowings, which in the past made Brazil far more exposed to exchange rate crises. Instead, most public borrowings are now denominated in the Brazilian real currency. As already noted, Brazil has also substantially increased its foreign currency reserves to US\$382 billion by mid-2018, which in the event of a sudden depreciation in the exchange rate can be used to buy up Brazilian currency and stabilise its value.

2.3 Influence of financial markets

Many Brazilians view the influence of globalisation through the lens of the financial shocks that have been a regular feature of recent Brazilian economic history. Some of these crises had dramatic effects, such as the early 1990s collapse of the exchange rate that saw inflation reach 1000 per cent. Similarly, major financial shocks had occurred at different times in the 1980s and 1990s. When the prospect of a financial crisis over a default on debt re-emerged in Argentina in 2014, Brazilians worried about a repeat of the events of 2002 when a financial crisis in Argentina spilled over into Brazil. Brazil's GDP shrunk by 40 per cent in US dollar terms in 2002 (to US\$459 billion), interest rates soared to an average of 23 per cent and both unemployment and inflation rose sharply. The International Monetary Fund (IMF) stepped in and provided an emergency loan of US\$30 billion to Brazil in August 2002, one of its largest loans ever. In return for its IMF loan, the Brazilian Government agreed to adopt a range of economic reforms, as outlined in a Memorandum of Economic Policies. The IMF intervention was successful in restoring investor confidence in the Brazilian economy, and by 2005 Brazil had repaid

its entire borrowings from the IMF, eight months ahead of schedule. More recently, the global financial crisis had a more mild effect on Brazil's economy and financial markets. Overall, Brazil has seen much less volatility in financial markets in recent years. Indeed, the recent recession was not the result of financial market instability but instability in Brazil's government due to a major corruption scandal.

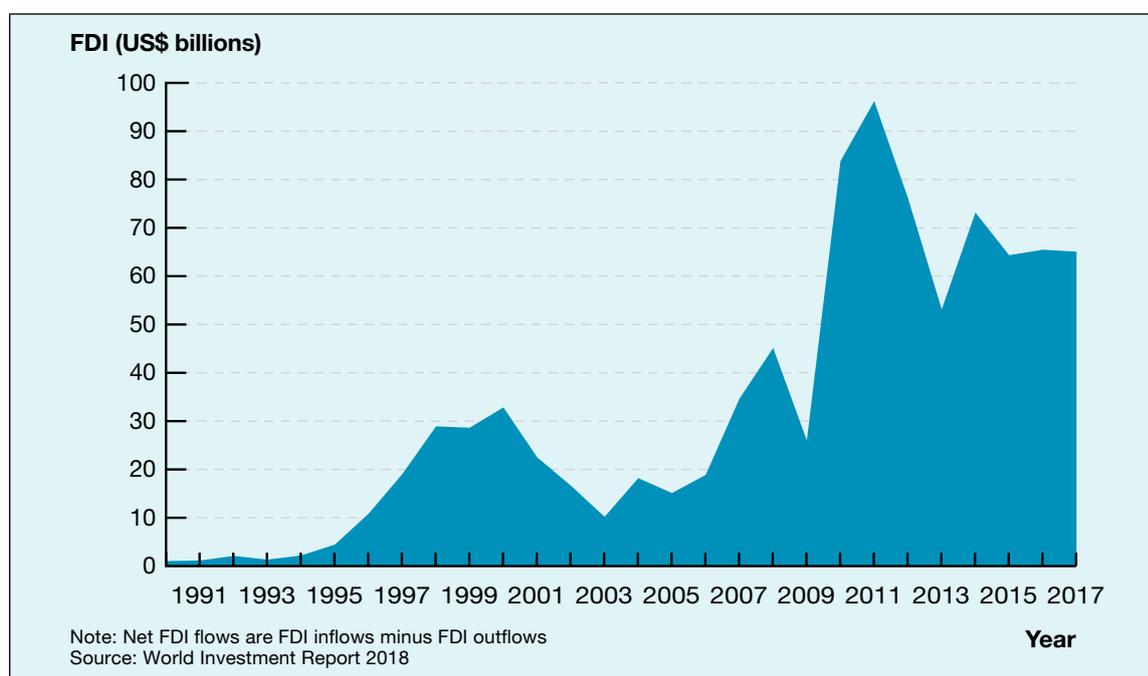
3. Brazil's response to globalisation

3.1 Brazil's approach is different from the Asian tiger economies

Like most Latin American nations, Brazil has been more cautious in its response to globalisation than many East Asian economies. For much of the twentieth century, Brazil insulated itself from the global economy. Successive governments sought to create a large industrial base and minimise Brazil's dependency on imported manufactured goods in the hope of developing greater self-sufficiency. Brazil relied largely on foreign borrowing to fund its industrialisation, but rather than increasing its economic integration, these financial inflows were used to reduce Brazil's reliance on the global economy by substituting imports with domestically produced goods and services.

The contrast in the growth rates of East Asia and Latin America in the 1980s and 1990s led many observers to question the Latin American approach of a more closed economy. Latin American governments were gradually persuaded to give greater priority to opening their economies, attracting foreign investment and pursuing export markets. Brazil has been taking a more open approach since the 1990s, becoming more integrated with regional and global markets. Brazil has benefited from several developments in the global economy, including the global commodities boom, China's demand for resources and growth in regional Latin American economies. The expanding middle class has also developed an appetite for consumer imports.

FIGURE 4 – BRAZIL'S NET FDI FLOWS



Brazil's response to globalisation reflected the model of economic development that is less reliant on export demand. Brazil gives a higher priority to retaining control over its natural resources, such as in the rapidly-expanding oil and gas industry, where until recently, there was a requirement that Brazil's state business Petrobras must own at least 30 per cent of new oil and gas projects. Brazil is also more cautious about the adverse impacts of globalisation, such as unrestrained financial flows, and has enacted measures to restrict short-term financial speculation by foreign investors. Brazil's democratic system has also resulted in a different approach to economic reform. There has been slower progress on some of the changes demanded by foreign investors, and a greater priority given to domestic social programs.

3.2 Brazil's increased openness to foreign investment

Since the mid-1980s, Brazil has sought increased foreign investment, rather than merely borrowing funds from overseas to provide the capital for economic development. To increase its attractiveness to foreign investors, Brazil has embarked on a far-reaching program of market reforms, including the deregulation of most industries and the abolition of state monopolies. It has also given priority to low inflation as a major goal of macroeconomic policy.

These measures have dramatically increased the participation of foreign enterprises in the Brazilian economy. Transnational corporations (TNCs) play an important role in the telecommunications, chemical, pharmaceutical, automotive and mechanical industries. Foreign Direct Investment (FDI) flows have played an important part in the economy during recent years, with Brazil receiving the highest level of FDI inflows in the Latin American region. Brazil, like the other “BRIC” economies, has become a hotspot for FDI inflows – especially in the resources sector, but also in retail, financial services and construction. Brazil has also sought to encourage more FDI through liberalising rules surrounding foreign investment.

Another important aspect of Brazil's response to globalisation is an **increasing level of foreign investment** by Brazilian companies offshore. The stock of overseas foreign investment held by Brazilian companies rose to US\$233 billion in 2017 – more than double its level just five years before. While some of this investment involves establishment of new businesses and facilities, most of Brazil's offshore FDI has involved mergers and acquisitions of other businesses. The substantial focus of Brazilian FDI outflows to other developing countries reflects an historic shift in FDI flows, which traditionally involved flows from developed to developing countries – but now comprise a growing share of flows between developing nations. Large Brazilian TNCs such as Petrobras (oil and gas), Vale (mining), and Embraer (aircraft manufacturing) were all previously state-owned enterprises that went through partial or full privatisation. Brazil also has TNCs that are making large offshore acquisitions in the steelmaking, beef cattle, cement, banking and construction sectors.

3.3 Brazil's economic model has been less export-focused, but it is changing

Despite Brazil's embrace of financial and investment flows, it has been relatively slow in liberalising trade flows. For several decades, Brazil's economic development strategy was focused on developing domestic industries that could substitute locally made goods for imports, rather than focusing on overseas markets. This strategy was implemented through tariffs and subsidies. While this approach helped to keep import levels down, it also made Brazilian industry less internationally competitive and less successful in developing export markets. While East Asian economies were pursuing growth through exports, in Brazil exports barely grew as a share of the economy during the 1970s and 1980s.

“Brazil has remained on the side lines of an increasingly integrated world economy. This reflects several decades of inward oriented policies including a strategy of industrialisation through import substitution. Trade has been persistently falling, with imports plus exports amounting to less than 30 per cent of GDP... Brazil has so far not fully reaped the benefits that integrating into the world economy can offer. High tariff and non-tariff barriers have shielded large parts of the economy from international competition, with detrimental effects for their competitiveness, but also for consumers in higher prices.”

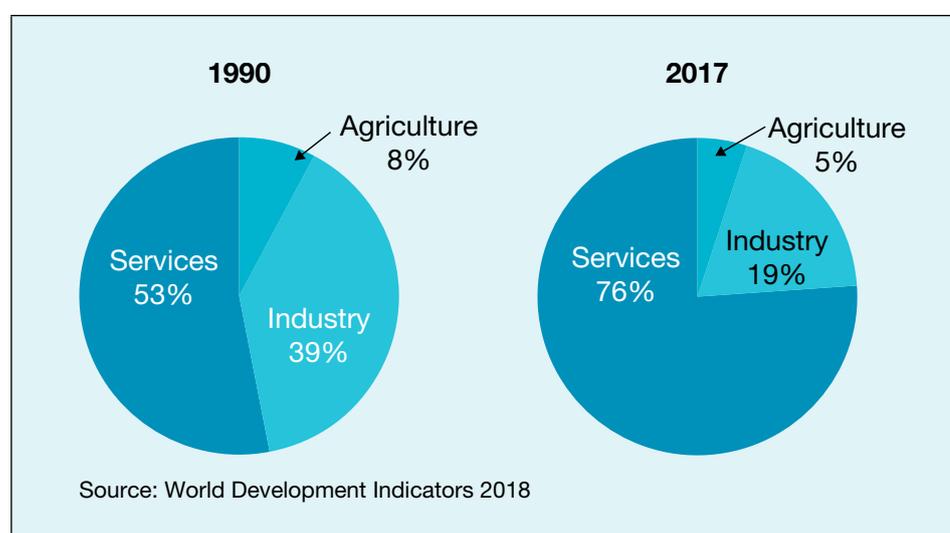
– OECD 2018 *Economic Survey of Brazil*,
Chapter 2 ‘Fostering Brazil's Integration into the World Economy’.

Although Brazil remains more closed than other economies in the region, it has become more outward-oriented since the 1990s, implementing **substantial reductions in industry protection**. Between 1990 and 2010, the average level of tariffs fell from 32.2 to 7.6 per cent, and all quantitative restrictions (such as import quotas) were abolished. Following these reforms, Brazil's economic integration increased significantly, with foreign trade increasing from just 10 per cent of GDP in 1995 to 25 per cent by 2016. This is nevertheless very low by international standards, and in more recent years trade has fallen as a share of GDP. Average annual growth in the value of merchandise exports growth slowed to 3.4 per cent in the decade to 2016, after export growth averaged 5.9 per cent in the 1990s and 16 per cent in the 2000s.

During his time in office between 2016 and 2018, President Michel Temer pursued greater integration with the global economy and reduced trade protectionism through lower tariffs and reduced local content requirements. Soon after coming to office, the government announced a suite of microeconomic reform measures that aimed to make the economy more open to trade and investment. The policies consisted of the standardisation and digitisation of procedures relating to starting a business, paying taxes, trading across borders, enforcing contracts and obtaining credit.

Brazil nevertheless still actively intervenes in the economy to support domestic industries. Brazil retains some tariffs as well as taxes and restrictions on credit facilities that give preference to companies who purchase locally produced equipment. In 2013 Brazil announced a reduction in tax for over 40 “strategic” manufacturing sectors. While Brazil is under pressure to further reduce protection, it has suspended additional steps to dismantle trade barriers without reciprocal benefits from other countries, arguing that this strategy allows Brazil to maximise its bargaining power in trade negotiations. In fact, the OECD in 2014 found that Brazil was only second to Indonesia in the number of local content requirements imposed since the global financial crisis.

FIGURE 5 – STRUCTURE OF THE BRAZILIAN ECONOMY



Nevertheless, Brazil’s greater economic openness has contributed to a change in industry structure, including a relative decline in the importance of domestic manufacturing industries, as shown in figure 5. The manufacturing sector has become smaller as a share of the economy, but more internationally competitive. Manufactures still comprise the largest share of merchandise exports, although since 2000, their share of exports fell from 58 to 38 per cent, while ores and metals increased (from 10 to 12 per cent) and fuels also surged (from 2 to 9 per cent). Brazil’s services sector makes up the largest share of its economy, but its services contributed around only 17 per cent of export revenue in 2017.

3.4 Brazil’s growing leadership role in the global economy

A significant development in Brazil’s more open relationship to the global economy since the early 2000s has been an increased **leadership role** among developing economies. This was reflected in Brazil hosting the formal meeting of the five BRICS nations (including South Africa) in 2014, when the emerging economies agreed to establish a new BRICS bank that could help stabilise economies during periods of economic volatility. Brazil’s leadership has also been reflected in its role in global trade negotiations. Like other agricultural exporters, Brazil faces major hurdles in competing in global markets against the heavily subsidised agricultural exporters in developed nations. Brazil (together with India) leads a negotiating bloc of 20 developing countries in global trade talks, and has also long been a prominent member of the Cairns Group of 17 agricultural trading nations. This made Brazil a leading player in the (unsuccessful) Doha Round of trade negotiations overseen by the World Trade Organisation (WTO), with Brazil often negotiating directly with the US, EU and other major countries – at times earning criticism for being too stubborn in its demands.

Brazil's more independent approach to globalisation is also reflected in its willingness to challenge the interests of the wealthier G7 countries. Brazil has been a leading advocate of the rights of developing nations to produce cheaper medicines for their populations. Brazil has sought to test the limits of WTO trade rules that allow developing countries to “override” the patents on expensive pharmaceutical products held by Western pharmaceutical companies by purchasing cheaper copied products made by domestic producers.

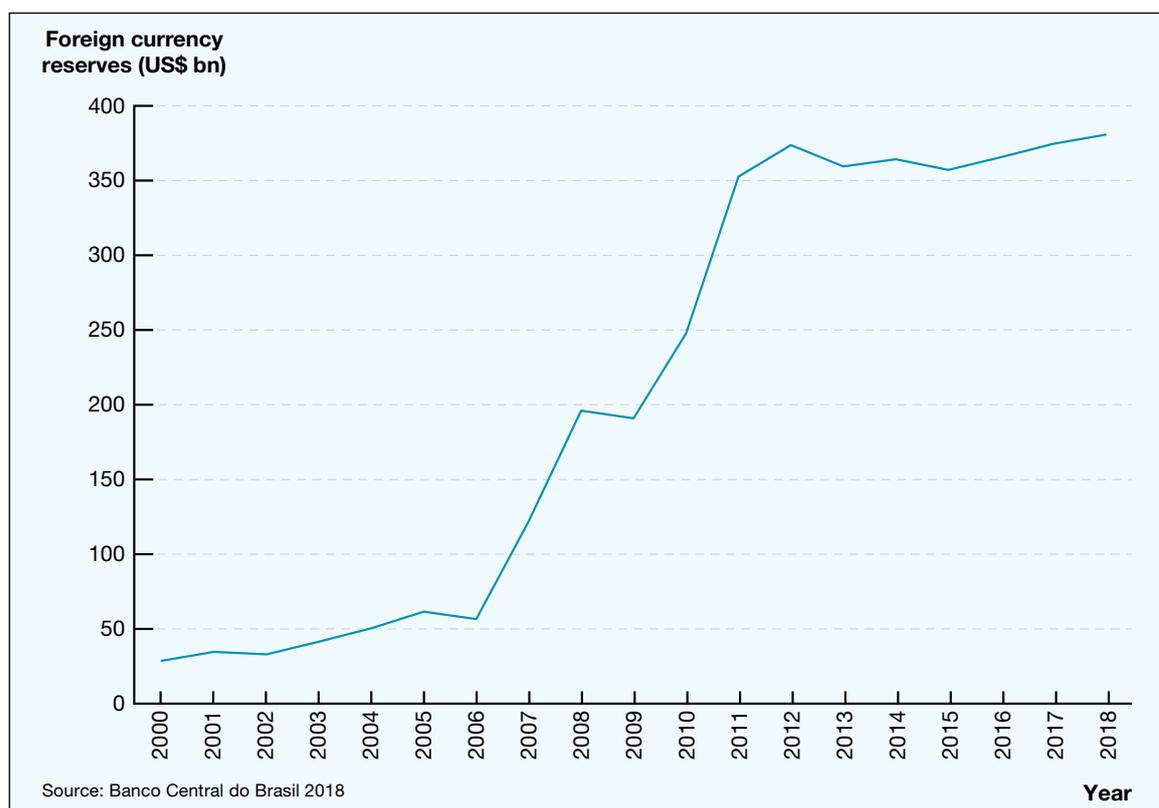
Another part of Brazil's increased international role is its support for greater **regional economic integration**, especially through preferential trade agreements. Within the South American continent, Brazil supported the formation of the Mercado Común del Cono Sur (Mercosur), a customs union between Brazil and four other Latin American nations (Argentina, Paraguay, Uruguay and Venezuela), which came into effect in 1995. Trade within the Mercosur bloc is mostly tariff free, with common external tariffs ranging between 0 and 20 per cent and averaging 14 per cent. Negotiations for a proposed free trade agreement between Mercosur and the European Union began in 2010 but have only moved forward slowly, with talks in 2018 still unable to resolve stumbling blocks, including EU demands for exclusive naming rights for 357 regional food products made in Europe, such as rioja and cognac wine and manchego cheese. In the meantime, China has become Brazil's largest export market, comprising 19 per cent of exports and 17 per cent of imports.

3.5 Brazil's currency reserves have helped stabilise financial markets

Financial instability is one of the most undesirable impacts of globalisation for developing economies. As already noted, Brazil has experienced numerous exchange rate crises caused by sudden shifts of sentiment on financial markets. Those crises often pointed to Brazil's underlying problem of high foreign debt and slow export growth, and its exposure to changing foreign investor sentiment.

Brazil responded to its history of financial instability by floating its exchange rate and building up its currency reserves. Floating exchange rates are generally less vulnerable to excessive speculation on foreign exchange markets than fixed exchange rates and Brazil's experience during the severe recession of 2014–16 – which occurred without causing major financial volatility – confirms the success of the floating system.

FIGURE 6 – BRAZIL'S CURRENCY RESERVES



BRAZIL'S POLITICAL CRISIS

In modern economies, governments play an important role in responding to changing economic conditions and establishing policy priorities. But it is rare for a political crisis to have such economic impact as Brazil has seen in recent years. As Brazil's central bank governor said in April 2016, political events in Brazil have "outweighed" economic events in recent years, leading to a severe recession.

Brazil's recent political crisis has resulted in a criminal prosecution against former president Lula da Silva and the early termination of another president, Dilma Rousseff in 2016, which brought to an end 13 years of rule by the Workers' Party of Brazil. Power was then handed to the Vice President, Michel Temer, the veteran leader of a former coalition partner (the Party of the Brazilian Democratic Movement), but he was soon implicated in corrupt activities himself, and stayed in office only because Brazil's congress prevented prosecutors from charging him with corruption.

Officially, the reason that Brazil's congress voted President Rousseff out of office was related to fiscal policy. In the lead-up to the 2014 election, President Rousseff had used accounting tricks to make the fiscal deficit look smaller than it really was, in order to allow her to increase public spending before the 2014 election. Her political opponents launched an impeachment against her for this wrongdoing.

But the real reason for the President's impeachment was the crisis that engulfed the country after the exposure of a massive corruption scandal involving billions of dollars of contracts at the state-owned energy company Petrobras. The scandal was far-reaching, implicating both ministers in Rousseff's government and members of many other parties. Indeed, 352 of the 594 members of congress in Brazil faced accusations of criminal wrongdoing, alongside 27 of Brazil's leading construction companies. Inevitably, the blame rested to some extent with President Rousseff, who had been the chair of Petrobras at the time when the alleged corruption took place, even though there was no evidence she was directly involved.

The Petrobras scandal (and what became known as "Lava Jato", the extensive criminal investigation that followed) brought the economy to a halt. At the same time, falling commodity prices were undermining Brazil's export revenues. President Rousseff lost popular support, amidst growing public anger over corruption, the weak economy, poor government services, inadequate infrastructure and rising prices. Across Brazil, large public rallies were calling for her resignation, while politicians in Brazil's congress who were themselves facing corruption charges were hoping that their own careers might be saved if they could bring down President Rousseff's administration and end the Lava Jato investigation.

Instead of restoring stability, President Rousseff's removal only worsened Brazil's political crisis. Within months of taking office, President Michel Temer was caught up in even more serious corruption allegations. President Temer's own attorney general charged him with corruption, as part of a wider investigation into the "Weak Flesh" investigation, in which meat packers had bribed politicians and officials to turn a blind eye to breaches of food safety laws. (This even included widespread use of red dye to disguise out-of-date and putrefying meat for sale.) The scandal resulted in a ban on Brazilian meat exports to the US and European Union.

Although Brazil's economy has been recovering from recession, confidence in Brazil's political system is yet to recover and the scandals have left the country divided between opposing political forces.

Since the global financial crisis of 2008, Brazil has taken steps to cushion itself from financial speculation and from the risk of further global financial volatility. Brazil has built large reserves of foreign currency – from just US\$54 billion in 2005, these reserves in 2018 were US\$380 billion, the tenth-largest volume of foreign currency reserves in the world. The OECD has criticised the size of the international reserves held by Brazil, noting the high cost in interest payments by the central bank, but for Brazil the reserves have provided a safeguard against instability in global financial markets.

4. Brazil's recent policy developments

4.1 Macroeconomic policy

Brazil's policymakers carry significant responsibility for the deep recession of recent years, which was driven not just by a loss of confidence in Brazil's economic outlook, but also a loss of confidence in its political and economic leadership. Revelations of massive corruption throughout Brazil's political and business elites, combined with frustration at promised changes that had never materialised, served to undermine the confidence of consumers, investors and financial markets.

The centrepiece of fiscal policy in Brazil is a constitutional amendment passed in late 2016 that imposes a spending cap, which effectively freezes the national budget in real terms for 20 years. This was introduced in response to a structural deterioration in the budget after 2009 that had led international ratings agencies in 2014 to downgrade Brazil's sovereign rating to the bottom rung of investment grade. The constitutional provision operates alongside the Fiscal Responsibility Law, which imposes transparency requirements for fiscal policy and requires that fiscal policy focus on reducing public debt and maintaining a medium-term target for the "primary fiscal surplus" (the fiscal surplus before payments on government debt). This target was initially set at 4.25 per cent of GDP but it was adjusted and then effectively abandoned after the financial crisis of 2008.

The OECD has argued that to attain the targets in the Fiscal Responsibility Law while also making much needed investments in poverty reduction and essential infrastructure, Brazil needs to contain the growth of public-sector wages and break the connection between pensions and minimum wages (given the pace of wage growth, which feeds directly into increased spending on pensions). Less than 15 per cent of expenditure in Brazil is discretionary, with fixed spending commitments imposing significant burdens on state and local governments, some of which have come close to insolvency in recent years. Brazil's age pension system is one of the world's most generous (it even gives the spouses of deceased workers the right to receive the deceased's full pension for the rest of the spouse's life, no matter what their age). Brazil also has low levels of workforce participation because workers retire so early. Compared to an average retirement age of 66 in the OECD, the effective retirement age for Brazilian men is 56 years and for Brazilian women 53 years.

Brazil has relied heavily on **monetary policy** to address high inflation, after the failure of other steps to constrain inflation, from capping electricity charges to scrapping the fuel duty. The inflation target for Brazil has been 4.5 per cent since 2005, with a target band of 1.5 per cent on either side of the central target (effectively, a target range of 3 to 6 per cent). Inflation broke through the upper limit of the target range in 2013, and peaked at 9 per cent in 2015 and 2016. The high inflation rate was a reflection of the depreciation of the Brazilian real, the removal of price regulations, wage indexation, infrastructure bottlenecks and increased government charges. In response, between 2013 and 2015 the central bank raised the official interest rate, or "Selic" rate, from 7.25 to 14.25 per cent. This strategy was successful in bringing inflation back into the target range, but at the price of a severe recession. With inflation below its target range, by mid-2018 the Selic rate had fallen back to an all-time low of 6.5 per cent. Brazil's challenge now is to sustain low inflation and avoid a return to double-digit interest rates.

"A mild recovery supported by accommodative monetary and fiscal policies is currently underway. But the economy is underperforming relative to its potential, public debt is high and increasing, and, more importantly, medium-term growth prospects remain uninspiring, absent further reforms..."

Brazil's economic recovery is under way but remains subject to significant downside risks stemming from uncertainty regarding the continuity of reforms and the ongoing tightening of global financial conditions..."

[G]iven the high level of public debt, continued fiscal consolidation is of paramount importance... [P]ension reform is imperative to ensure the sustainability of the system and improve equity. Additional expenditure measures could include decisive efforts to contain the public wage bill while protecting public investment and social programs. Reforms to simplify taxes should be considered and the fiscal framework should continue to be strengthened... [T]he floating exchange rate regime and the large reserve buffers are important cornerstones of the policy framework and should be preserved."

– *International Monetary Fund, Executive Board statement, 11 July 2018.*

4.2 Microeconomic policy

A comprehensive review of the Brazilian economy undertaken by the OECD in 2018 set out a detailed agenda for microeconomic reform in Brazil. It highlighted a series of policy challenges that come up repeatedly in international reviews of Brazil's economy:

- Brazil remains a relatively isolated economy because of elevated tariffs, rigidities in factor markets, inadequate infrastructure and high unit labor costs. Tariffs have increased since 2010 and Brazil has been the world's third most active user of anti-dumping actions in the World Trade Organisation. By the measure of trade as a proportion of GDP, Brazil is much less integrated with the global economy compared to other emerging economies such as Chile, Colombia, Mexico, Thailand and Turkey. Although Brazil is the world's ninth-largest economy, it represents just 1.2 per cent of the value of global trade and it is not well integrated into global value chains. As a proportion of GDP, trade is lower in only five other countries in the world.
- Brazil needs to increase labour productivity, which is low by international standards, and around one-third the level of regional competitor Argentina.
- Brazil has a young population but it is achieving relatively poor education outcomes for them. The percentage of students in secondary education who are enrolled in vocational programs is lower than all comparable countries other than South Africa and less than half the average for the OECD. Only 15 per cent of Brazilians aged 25–64 had a tertiary degree, compared to 36 per cent on average for OECD countries (2016 data).
- More rapid progress is needed on infrastructure development. Transport infrastructure is important in a country as large and heavily populated as Brazil. Its road, rail and port quality ranks poorly according to international studies. The OECD's 2018 Economic Survey of Brazil concluded that Brazil's infrastructure gaps are the result of both underinvestment and relying too heavily on funding from public banks.
- Reforms are needed in government itself. The political crises of recent years have revealed high levels of corruption throughout government, implicating hundreds of politicians, including Brazil's three most recent presidents. In 2017, Brazil was ranked 90th among 180 countries on Transparency International's annual corruption index, with a score of 37/100 (on a scale where 0=highly corrupt and 100=very clean).
- An overhaul of the tax system is needed to reduce the notorious cost of compliance with Brazil's tax system. The World Bank's 2018 "Ease of Doing Business" report ranked Brazil 125th out of 190 countries, noting for example that on average it takes almost 2000 hours for a business to prepare its returns in Brazil, more than any other country (and comparing to an average of around 200 hours for most economies).
- Regulation more generally needs to be simplified and enforced. The OECD's Product Market Regulation Indicators report measures the regulatory barriers to entrepreneurship for the world's leading advanced and emerging economies, and it has ranked Brazil third most restrictive of those 46 countries. Excessive regulations have encouraged a culture of "jeitinho", or finding a way around a law or a rule, sometimes illegally. For example, Brazil's complex system of environmental licences for developments is often criticised by foreign investors, and often evaded by local developers. In other areas, Brazil's problem has been a failure to enforce regulations. In 2018 the European Union announced a ban on imports from seven of Brazil's meat processing factories because of food safety concerns.

Brazil has nevertheless created some successful and innovative social policies, such as the Bolsa Familia (Family Fund) policy, introduced in 2004 to assist poor households. The success of the Bolsa Familia policy has resulted in its expansion into a wider income support, education, elderly care, health and micro-lending package called Brasil Sem Miséria (Brazil Without Misery). This program incorporated one of the previous government's cornerstone projects – the Fome Zero (Zero Hunger) program, and by 2015 it was giving 14 million of Brazil's poorest families up to 95 reals per month. By merging a range of income distribution payments, the government aimed to target inequality more effectively, and its cost – just 0.6 per cent of GDP – is very small compared to the 12 per cent of GDP spent on pension benefits that mostly go to Brazil's less needy middle class.

5. Conclusion

“Over the past two decades, strong growth combined with remarkable social progress has made Brazil one of the world’s leading economies. However, Brazil remains a highly unequal country, recent corruption allegations have revealed significant challenges in economic governance and the situation of its fiscal accounts is challenging with high and rising public debt... Implementing the planned fiscal adjustment and achieving fiscal targets is crucial for restoring the credibility of fiscal policy and avoiding a fiscal crisis. A comprehensive social security reform has become the most urgent element of the fiscal adjustment, as much of the worsening of the deficits is due to rising pension spending.

The government has started to put in place significant reforms, including a fiscal rule and a financial market reform that aligns directed lending rates with market rates. The long and deep recession is over and growth is projected to accelerate significantly this year. But more needs to be done to improve the living standards of all Brazilians...

Further advances in living standards will also hinge on finding a new inclusive growth strategy, ensuring that the benefits of growth will be broadly shared across the population. Productivity will have to become the principal engine of growth in the future, because the demographic bonus that has supported growth in Brazil is reversing. But raising productivity will require significantly higher investment and trade. Brazil has one of the lowest investment rates among OECD and emerging market economies and it is also less integrated into global trade. Boosting investment and trade would raise productivity, helping Brazilians to access higher wages and living standards.”

– *OECD Ecoscope, “Towards a More Prosperous and Inclusive Brazil”, introduction to the OECD 2018 Economic Survey of Brazil, 28 February 2018.*

After a period of extraordinary boom and bust, Brazil’s economy has returned to a slow rate of growth. The surge in revenues from minerals, energy and agricultural exports in the 2000s is long forgotten, and Brazil is dealing with the more difficult economic conditions it often faced in past decades. The challenges of tackling the country’s economic and social problems given the collapse in trust in the nation’s political leaders are daunting.

Brazil’s new government and president, in place from January 2019, needs to restore public confidence in government as well as tackle a set of short- and long-term challenges. Several necessary steps will be unpopular. These include raising the retirement age, reducing social welfare benefits for Brazilians on higher incomes and reducing tax expenditures and credit subsidies for businesses. Other reforms such as improving Brazil’s infrastructure, school education and vocational training require longer-term structural reforms.

Although Brazil’s recent recession was its worst in a century, it is worth noting that things could still have been much worse. The corruption scandals were very serious, but Brazil’s political and judicial institutions have been fearless in exposing those crimes and sending powerful business leaders and politicians to jail for crimes. For a country that only became a democracy in 1988, Brazil’s institutions have proved to be strong, independent and stable – all important elements of a positive environment for long-term investment and growth.

Brazil will play an important role in the future of the global economy both because of the size of its population and economy, and because of the way it is responding to globalisation. Brazil has been more cautious in adopting the “Washington consensus” approach of liberalising trade and finance than many other economies. Its bitter experience of economic crises generated by financial market shocks has led to greater controls on speculative financial flows and preventative measures such as building large foreign currency reserves. Brazil’s challenge now is to ensure that it can restore the confidence of Brazilians and of global investors so that its recent progress can be resumed.

Case Study:

Indonesia



The East Asian economic region has been strongly influenced by globalisation over recent decades, through increased international trade, foreign investment and rapid industrialisation. East Asian economies have become more closely integrated at a regional level, and with economies around the world. With strong economic growth and development over recent decades, East Asia is fast becoming an economic centre of gravity to rival North America or Europe. Although North Asia has the largest regional economies, China and Japan, economies in the South-East Asian region are growing fast. They demonstrate the growth opportunities that come from more open markets, but also highlight the challenges of managing rapid economic change.

Indonesia is the **largest economy of the South-East Asian economic region**. With the world's fourth-largest population and sixteenth-largest economy, it is an emerging economy that has increased international integration in recent decades. As it has opened its economy to global forces since the mid-1980s, Indonesia has experienced the growth of trade and investment and the increased participation of transnational corporations in the economy. Across a range of quality-of-life indicators, economic development has improved. However, Indonesia has also been exposed to major international economic disturbances, including a regional financial crisis in the late 1990s and ongoing volatility in global commodity markets. At a policy level, Indonesia faces major challenges to build more competitive industries, improve regulations and improve the sustainability of government revenue and services.

Indonesia is an excellent case study of globalisation because of the mixed influences of globalisation on its economy and the challenges it faces in sustaining economic development. Indonesia also has enormous long-term importance to Australia's economy and security. With trade and financial linkages between the two countries growing stronger, understanding the Indonesian economy is especially valuable for Australia's economic future.

FIGURE 1 – DEVELOPMENT INDICATORS: SELECTED COUNTRIES

	Indonesia		Brazil		Poland		China		Egypt		USA	
Population (millions, 2017)	263		209		38		1386		98		326	
Gross Domestic Product (current US\$ billion, 2017)	1015		2056		524		12,237		235		19,391	
GNI Per Capita (US\$, PPP, 2017)	11,900		15,160		28,170		16,760		11,360		60,200	
Population below US\$1.90 per day (%) (2015)	7.2		3.4		0		1.9		–		–	
Gini index (2015, ^2013)	39.5^		51.3		31.8		42.2^		31.8		41.5	
Mean years of schooling (2015)	7.9		7.8		11.9		7.6		7.1		13.2	
Life expectancy at birth (1990, 2015)	62	69.1	67	74.7	71	77.6	69	76	62	71.3	75	79.2
Human Development Index (Rank) (2015)	0.689 (113)		0.754 (79)		0.855 (36)		0.738 (90)		0.691 (111)		0.920 (10)	

Source: World Bank 2018; Human Development Report 2016

1. Economic Performance

1.1 Indonesia's economy and development

With a Gross Domestic Product of US\$932 billion, Indonesia is the world's sixteenth-largest economy. Indonesia is much smaller than the world's largest economies, such as China, which is 12 times as big, or the United States, which is 20 times bigger. However, Indonesia is larger than other economies in its region, such as Thailand and Malaysia, whose economies are around half the size of Indonesia's.

Although Indonesia has a large economy, it also has a very large population, which is now over 260 million. When measured on a per capita basis, Indonesia has low living standards, with national income of just US\$3841 per person (and while this rises to US\$11,220 after adjusting for purchasing power parity, it is still behind 100 other countries in terms of living standards). Living standards are similar to some nearby economies such as the Philippines and Vietnam, but less than half those of other South-East Asian neighbours such as Thailand and Malaysia. The World Bank classifies Indonesia as a **lower-middle-income country**.

Indonesia's low income levels mean that it suffers from a relatively high incidence of poverty. Around 8 per cent of the population lives on less than US\$1.90 per day. While this is lower than the world's poorest regions – Sub-Saharan Africa and South Asia – poverty rates in Indonesia are almost double the average for the East Asian region.

Indonesia also suffers from a relatively low level of **economic development**. According to the United Nations, Indonesia's Human Development Index of 0.689 is below 112 other economies. Mostly this reflects Indonesia's low standard of living, as measured by its per capita income. Indonesia also has a relatively poor performance for other key indicators like adult literacy and life expectancy at birth. Health outcomes in Indonesia are especially low. Only half of the population have access to improved sanitation facilities, and one in five Indonesians do not have access to an improved water source. Expenditure on health, now US\$99 per person each year, is barely above the average of the world's least developed region, Sub-Saharan Africa.

Despite these poor outcomes, Indonesia's development indicators have improved substantially in recent decades. The statistics in figure 1, on page 89, demonstrate improvements in life expectancy since 1990. Over the same period, the under-five child mortality rate has decreased by around 70 per cent from 86 deaths per 1000 births to 27 deaths.

Income inequality in Indonesia, as measured by its Gini index of 39.5, is similar to other economies in the region such as Malaysia and Vietnam. The distribution of income is more equal than in many countries beyond the region such as the United States and Brazil.

1.2 Indonesia is an emerging economy

In previous decades, Indonesia was considered a developing economy, and later, a newly industrialised economy. Indonesia is now considered an **emerging economy** because of its strong growth performance and prospects. In the four decades since 1980, Indonesia has grown at an average annual rate of over five per cent. Although not as fast as some neighbouring economies in East Asia, this growth rate puts Indonesia well ahead of most economies around the world, including advanced economies in Europe and North America, and emerging and developing economies in Latin America, Central and Eastern Europe and Africa. In 2011, the Indonesian Government set goals of becoming a middle-income country and becoming one of the world's 10 largest economies by 2025. To do so, Indonesia will need to lift annual growth from 5 per cent a year to 7 per cent a year. If it can achieve such growth, Indonesia could soon be considered to be alongside the world's largest emerging economies, the so-called BRIC economies of Brazil, Russia, India and China.

The **international business cycle** and regional business cycle have also had strong impacts on the economic performance of the Indonesian economy in recent decades. While most economies experienced a downturn in growth during the 1970s because of rapid increases in global oil prices, Indonesia, as a major oil exporter, experienced an acceleration of economic growth. During the 1980s, the opposite occurred, as the glut of oil supply pushed prices down, and with them the growth rates of the Indonesian economy. During the 1990s, Indonesia was part of an economic growth boom that spread across East Asia after the end of the Cold War. However, this growth came to an abrupt end in 1997 with

the Asian financial crisis, which saw the Indonesian economy contract by 13 per cent in one year, with devastating consequences.

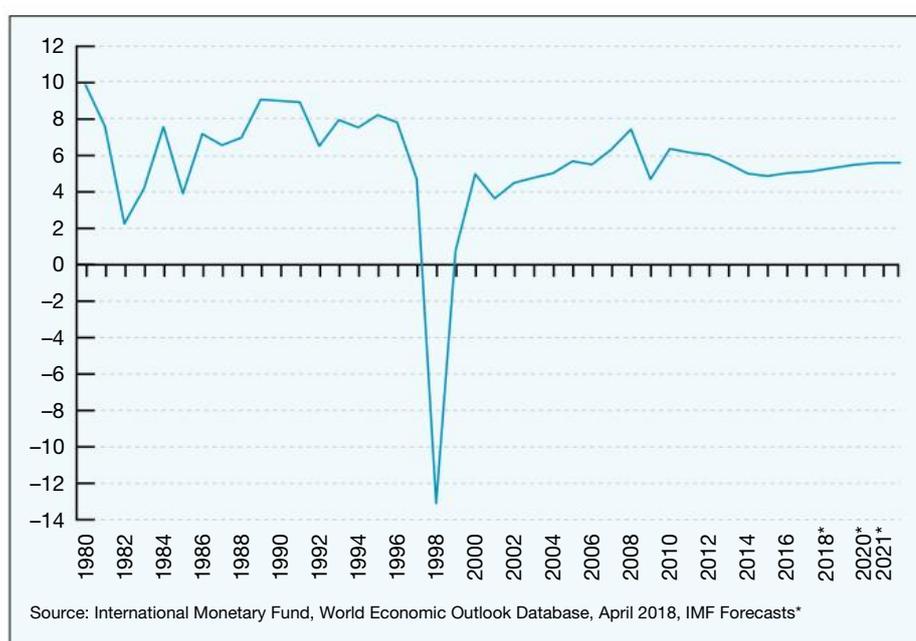
Indonesia did not meet all of the Millennium Development Goals by the target year of 2015, but made significant progress in many areas. The Indonesian Government is committed to delivering progress in the Sustainable Development Goals (or SDGs, also known as Global Goals), building on the progress achieved with the MDGs, such as reducing poverty (goal 1), promoting gender equality (goal 3), and dealing with the long-term impacts of climate change (goal 7).

FIGURE 2 – INDONESIA'S PERFORMANCE ON THE MILLENNIUM DEVELOPMENT GOALS

Goal	Performance
1	Poverty headcount (proportion of people living below US\$1.90 a day) has fallen from 67 per cent (1998) to 6.5 per cent (2016). The proportion of underweight children under five decreased from 31 per cent (1989) to 20 per cent (2013).
2	The net enrolment rate for primary children is almost 100 per cent and primary school completion improved from 62 per cent (1990) to 100 per cent by 2015. The literacy rate of the population is 95 per cent (2015).
3	The proportion of males aged above 25 who have completed at least primary school is 82 per cent (2015). For females, it is 74 per cent (2015).
4	The mortality rate of children under five years has decreased from 97 (1991) to 23 (2015) per 1000 live births.
5	The maternal mortality rate has fallen from 390 (1991) to 126 (2015) per 100,000 live births. Issues with access to contraception remain.
6	The prevalence of tuberculosis decreased from 449 (2000) to 395 (2015) cases per 100,000 people, and the proportion of people with HIV/AIDS has decreased.
7	Carbon emissions are high. Only 43 per cent of people have access to sustainable drinking water, and only 56 per cent have access to basic sanitation. The proportion of the urban population living in a slum has decreased from 51 per cent (1990) to 22 per cent (2014).
8	The foreign-debt-to-GDP ratio has been reduced from 25 per cent (1996) to 11 per cent (2015). The debt servicing ratio has been reduced from 37 per cent (1996) to 32 per cent (2016).

Sources: Report on the achievement of the Millennium Development Goals Indonesia 2013, World Bank World Development Indicators 2017; Indonesia Economic Quarterly (2016)

FIGURE 3 – ECONOMIC GROWTH IN INDONESIA

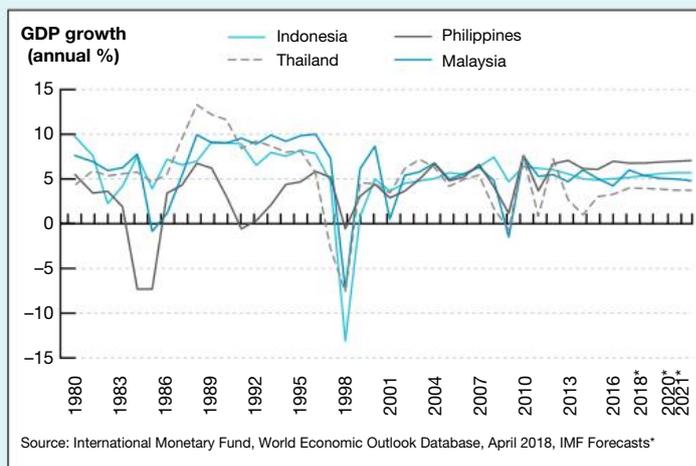


ASIAN FINANCIAL CRISIS

The Asian financial crisis of 1997 and 1998 was an early example of some of the possible negative impacts of globalisation. As the economy most severely affected by the crisis, Indonesia's experience highlights how volatile global financial markets, combined with economic mismanagement, can have devastating consequences for economic growth and development.

The rapid growth of South-East Asian economies for much of the 1990s (as shown in figure 4) had led to a flood of short-term financial inflows that was increasingly flooding into stock markets, consumer finance and real estate. Inadequate banking regulations saw finance flow to customers that did not meet normal creditworthiness standards.

FIGURE 4 – EAST ASIAN GROWTH RATES



In July 1997, sentiment changed as foreign investors reassessed the value of their assets and loans and suddenly withdrew their funds – known as “capital flight”. Beginning with the Thai baht, the currencies of South-East Asian economies depreciated rapidly as financial outflows mounted. The financial “contagion” of the crisis also spread to other economies including Indonesia, Korea and Malaysia.

To obtain an emergency US\$18 billion financial assistance loan from the IMF, the Indonesian Government was required to undertake policy measures including spending cuts, budget surpluses, dramatically raising interest rates (to 80 per cent), closing some banks, cutting fuel subsidies, and undertaking long-term structural reforms. Although designed to strengthen the Indonesian economy in the long term, these policies had the immediate effect of further undermining confidence and choking off economic activity. By mid-1998, as panic spread to Indonesia's businesses, households and other deposit holders, the rupiah had lost 85 per cent of its value against the US dollar (to be worth as little as Rp 16,000 to the US dollar) and the managed float was abandoned.

The Asian financial crisis had devastating economic consequences for Indonesia. The economy shrank by over 13 per cent. Unemployment increased and the Indonesian Government's official estimate of the number of people in poverty almost doubled from 11 per cent to 19 per cent as a result. As the exchange rate depreciated and the price of imported goods soared, inflation was recorded at over 75 per cent. Foreign debt increased to US\$148 billion. In May 1998, the Indonesian president Suharto was forced to step down after over 30 years in office. It took six years before living standards returned to pre-crisis levels.

Aside from the mishandling of the crisis by the IMF and Indonesian Government, economists often cite two causes of Indonesia's problems during the crisis. The

first was the combination of open financial markets with a fixed exchange rate. The rupiah became overvalued, and because it was fixed, there was no mechanism for it to adjust to its market value. A second cause of the crisis was excessive financial speculation and the poor regulation of the financial sector during a period of rapid globalisation. The Asian financial crisis in Indonesia highlights how, without an appropriate policy framework, global economic forces can destabilise an economy and cause extensive economic and social harm.

The Asian financial crisis saw new policies introduced for the Indonesian economy, including the establishment of an independent central bank (Bank Indonesia), a new bankruptcy law, and measures to promote competition and improve the social safety net. The **Indonesian Bank Restructuring Agency (IBRA)** oversaw the reforms to the financial sector. These programs aimed to correct weaknesses in the financial and regulatory environment, inadequate governance and a lack of transparency. This involved the closure of many unviable financial institutions, greater financial supervision and attempts to sever the close links between business and government. In more recent years, the government has continued the process of financial sector reform by imposing higher prudential and consumer protection standards and by privatising state-owned business enterprises.

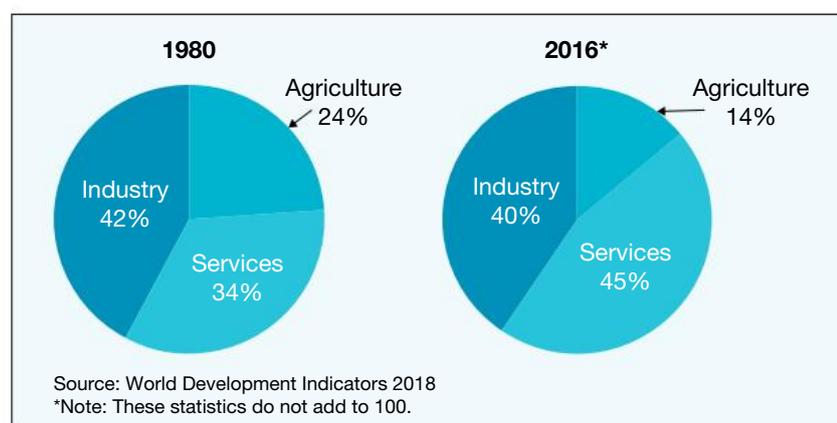
The Asian financial crisis also forced a change in the way that the IMF responds to financial crises. In contrast to its policy prescriptions for Indonesia in the late 1990s, a decade later during the global financial crisis, the IMF recommended that economies pursue massive fiscal stimulus programs, reduce interest rates to support economic activity, and boost liquidity for credit markets. As one of the first major crises of the modern era of globalisation, the Asian financial crisis helped shape future economic policy.

Over the past decade, Indonesia recorded an average economic growth rate of 5.6 per cent. In 2017, economic growth was slightly lower, at just 5.1 per cent, though it is increasing from its low point in 2015. Indonesia is expected to exceed the 5.1 per cent growth target set in its 2017 Budget. The growth target is lower than in previous budgets reflecting the Government's decision to cut spending in response to lower than expected revenue. The overall unemployment rate has improved in recent years, with unemployment at 5.5 per cent in 2017. However, with slow economic growth, there has been a rise in the number of people working less than full time each week. In the past Indonesia had a volatile inflation rate, spiking at several times over the past decade and a half because of increases in fuel prices (2005 and 2013) and food prices (2008). Inflation is expected to be contained in the foreseeable future as sluggish economic growth dampens demand pressures.

One characteristic of Indonesia that is typical of an emerging economy is the transformation of its industry structure in recent decades. Like many other economies in East Asia, Indonesia has seen the economic importance of the agricultural sector fall, while manufacturing industries and services have become more important. As shown in figure 5, the past three decades have witnessed substantial structural change in the Indonesian economy.

Indonesia's **primary industries** nevertheless remain important. Outside the formal economy, the majority of Indonesia's rural population still survives on subsistence agriculture, with wages in the form of crop shares. The main agricultural product is rice, and other crops include rubber, coffee, cocoa and spices. Unlike other economies in the region, Indonesia also has a large oil and gas industry. Until 2008, Indonesia was Asia's only member of the Organisation of the Petroleum Exporting Countries (OPEC) – the international oil cartel. Petroleum and liquefied natural gas are Indonesia's largest single exports, making up a quarter of total exports.

FIGURE 5 – STRUCTURE OF ECONOMY



Indonesia's **manufacturing sector** includes a large textile and garment industry and some other labour-intensive manufacturing. However, Indonesia's manufacturing sector is not competitive compared to other similar economies. Manufacturers confront poor infrastructure, limited access to finance, complex regulations and increased barriers to imports (which raise the cost of capital goods). Nevertheless, Indonesia does have an opportunity to revitalise its manufacturing sector provided it takes advantage of its two key strengths – its cheap labour force and its huge domestic market.

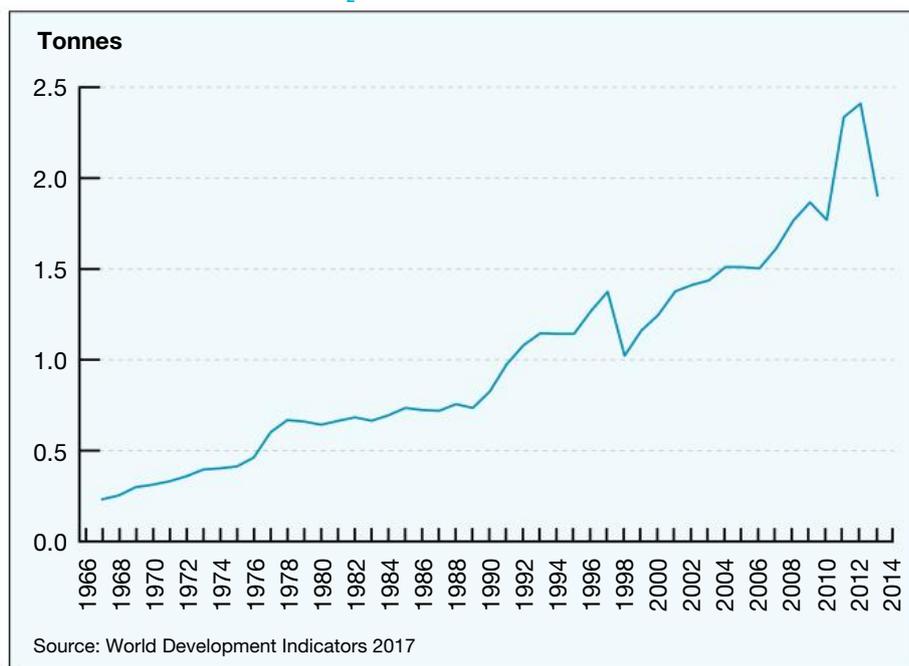
Indonesia's fastest-growing sector is its **services sector**. In 2016, the services sector contributed to 44 per cent of GDP, employing 50 per cent of the workforce and recording an average growth rate of 7 per cent. Indonesia's main services are tourism and retail. In the future, information and communications technology is expected to be the primary driver of the services sector. Indonesia's services sector is being driven by increasing FDI flows, with services accounting for 40 per cent of Indonesia's investment inflow. The growth in information and communications services is evidence of the positive role of investment by foreign technology companies in helping to lift the skills of the Indonesian workforce. Nevertheless, the growth of Indonesia's services sector is being restrained by a number of factors, including poor infrastructure and technology and inadequate workforce skills.

1.3 Indonesia's growth has had negative environmental impacts

Degradation of the natural environment has been a significant cost of the industrialisation and globalisation of the Indonesian economy. Over the 15 years to 2015, the area of Indonesia covered by forests fell by 15 per cent to 910,000 square kilometres. This was the result of commercial logging, land clearing for agriculture, mining developments and population expansion. Other key environmental issues include loss of species and water and air pollution:

- Economic activity has affected natural habitats and regeneration, with some 850 animal and plant species in Indonesia now considered threatened.
- Protection of the marine environment is a challenge because of Indonesia's vast coastline, pollution from industry and over-exploitation of fishing stocks.
- Indonesia's capital city, Jakarta, has worse air pollution than all but a handful of major cities such as Cairo, Chongqing and Delhi.

FIGURE 6 – INDONESIA'S CO₂ EMISSIONS PER CAPITA



Indonesia is more vulnerable to the future impact of **climate change** than many other economies. As a cluster of islands, it will be more affected by coastal inundation, and like other countries, Indonesia faces more extreme weather events, such as droughts and floods, which will affect its agricultural sector and food security. As shown in figure 6, Indonesia's emissions of carbon dioxide from energy use and industry, which contribute to climate change, are low in per capita terms (1.9 tonnes per year), but they are growing rapidly because of economic and population growth. If the emissions caused by deforestation are also included, **Indonesia is the world's third-largest contributor to global carbon dioxide emissions**, behind only the United States and China. Forest fires are deliberately lit every year by companies clearing land for palm oil and timber plantations. They cause a thick haze of smoke, respiratory problems for the local population and complaints from neighbouring countries Malaysia and Singapore. Government regulations banning the practice are not adequately enforced.

Reducing carbon dioxide emissions while maintaining economic growth will be a key environmental management challenge in the future. Indonesia is unlikely to meet its commitment to reduce carbon emissions. Indonesia has pledged to reduce emissions by 29 per cent by 2030 (compared to business-as-usual levels). However, Indonesia is on track to reducing emissions by just 19 per cent. Indonesia's high emissions are due to its reliance on fossil fuels and deforestation. Currently, government policy around climate change is centered on various small measures, such as issuing a moratorium on new licenses to clear primary forests.

Indonesia is taking steps to increase the supply of renewable energy. In 2018, the government announced an ambition of 25 per cent renewable energy by 2015 through geothermal and hydropower. Indonesia is ranked second in the world for geothermal generating capacity, with access to 40 per cent of the world's geothermal sources. In 2012, a geothermal fund of US\$200 million was established by the government and by 2018, had installed over 2000 megawatts (MW) in power generating capacity.

Indonesia has a number of other environmental issues that also need addressing, particularly when it comes to resource management. For example, Indonesia has the second-highest plastic waste amongst the world's 192 coastal countries. The Government has a policy to slash marine litter by 70 per cent by 2025. In June 2016, the Government introduced a charge on plastic bags. Within three months, it reduced plastic bag use by 25 per cent. Although, this policy was reversed after three months in response to legal proceedings, it does highlight the effectiveness of targeted policies to solving Indonesia's environmental issues.

2. Indonesia's Path to Globalisation

Since the Indonesian economy became more open in the 1980s, the forces of globalisation have reshaped the Indonesian economy. Reforming the economy has been necessary so that Indonesia can keep pace with other economies in the South-East Asian region and avoid relying too heavily on commodity exports, whose value on global markets tends to be volatile. As the oil boom of the 1970s subsided, Indonesia needed to find more sustainable foundations for long-term economic growth, and exporting manufacturing goods was central to this strategy.

Since the mid-1980s, Indonesia has lowered protectionist barriers to trade, resulting in greater competitive pressures and making businesses more export-focused. Indonesia has taken opportunities to participate in multilateral efforts to reduce protectionism. Greater foreign investment has provided a source of capital, while also creating financial market and economic volatility. Transnational corporations have played a greater role in the economy for both traditional commodity sectors and other exports.

2.1 Indonesia has reduced protectionist barriers since the 1980s

Trade liberalisation has been a crucial component of Indonesia's integration with South-East Asia and the global economy. In the mid-1980s, Indonesia **shifted away from a policy of import substitution towards export-led development**. In 2016, the simple mean tariff rate applied to imported goods was 6 per cent, down from 17 per cent in the early 2000s, and similar to the 5 per cent average for the East Asia and Pacific region.

Prior to the mid-1980s, Indonesia was a highly protected economy. Indonesia's oil boom in the 1970s saw the imposition of strict trade barriers to protect government-sponsored and government-owned business enterprises. The methods of protection used included tariffs, licensing requirements, local content rules and import monopolies. One area that historically has faced high non-tariff barriers has been agriculture. In the mid-1980s, under the control of Indonesia's sole approved rice importer, Bulog, the country was able to achieve self-sufficiency in rice production and phase out all rice imports.

The shift towards trade liberalisation began in the mid-1980s. The average level of tariffs was reduced by almost one-third. Between 1987 and 1995 the effective rate of tariff protection for the manufacturing sector fell from 86 per cent to 24 per cent. For agriculture over the same period it halved, from 24 per cent to 12 per cent. The government has also relaxed the complicated network of import licensing restrictions. Annual deregulation and liberalisation packages aimed to reduce barriers to foreign trade and investment.

After the Asian financial crisis in 1998, Indonesia continued to pursue trade liberalisation under the auspices of an IMF program. Tariff and non-tariff barriers were reduced, together with an easing of the restrictions on foreign investment. However, despite continuing reform to tariffs, protectionist barriers still remain, with significant non-tariff barriers in sectors including agriculture, textiles and steel. According to data collected by the World Bank, the number of non-tariff measures doubled between 2009 and 2015 to cover more than 38 per cent of products. As a result, rice was 68 per cent dearer than otherwise. In 2015, protectionist trade policies increased the cost of living in Indonesia by an estimated 7.4 per cent compared to a scenario in which no trade restrictions were imposed.

2.2 Indonesia has joined regional trade agreements

At the same time as it has been reducing protectionist barriers, Indonesia has become increasingly integrated with the global economy through participation in global, regional and bilateral trade agreements. Indonesia has also become more prominent on the global stage, in particular through its membership of the Group of 20 (G20) major economies.

Indonesia has been an active member of the **World Trade Organisation (WTO)** since 1995. With almost half of the population employed in the rural sector, Indonesia has supported the Doha Round of trade negotiations, hoping for reductions in agricultural protection by advanced economies. However, Indonesia has voiced the opinion that “special and differential treatment” provisions must be at the heart of a negotiated agreement. This refers to provisions in WTO agreements that give developing countries special rights, such as a slower tariff reduction schedule.

The process of regional integration has seen the **Association of South-East Asian Nations (ASEAN)** emerge as the most important regional organisation. Formed in 1967 by Indonesia, Malaysia, the Philippines, Singapore and Thailand, ASEAN has since expanded membership to include Brunei, Burma, Cambodia, Laos and Vietnam. The ASEAN Free Trade Area (AFTA agreement), signed in 1992, aims to reduce tariff and non-tariff barriers within ASEAN. It uses a Common Effective Preferential Tariff scheme, where tariffs are less than 5 per cent for goods originating within ASEAN. In 2007, the ASEAN leaders adopted a blueprint for the creation of the ASEAN Economic Community (AEC), intended to create a single market of around 600 million people, allowing the free flow of goods, services, capital and labour. The aim is to maintain the attractiveness of South-East Asia as a foreign investment destination and improve the level of regional integration. While the initial timing for the creation of the AEC was 2015, this saw the adoption of an AEC Blueprint 2025, giving members another decade to pursue the reforms and initiatives needed to achieve the vision of a highly integrated, cohesive and competitive economic region.

FIGURE 7 – INDONESIA'S TRADE AGREEMENTS

Global	Regional	Bilateral
Founding member of the World Trade Organisation (1995)	<ul style="list-style-type: none"> • ASEAN Free Trade Agreement (1992) • Asia-Pacific Economic Cooperation forum 	Japan-Indonesia Economic Partnership (2008)

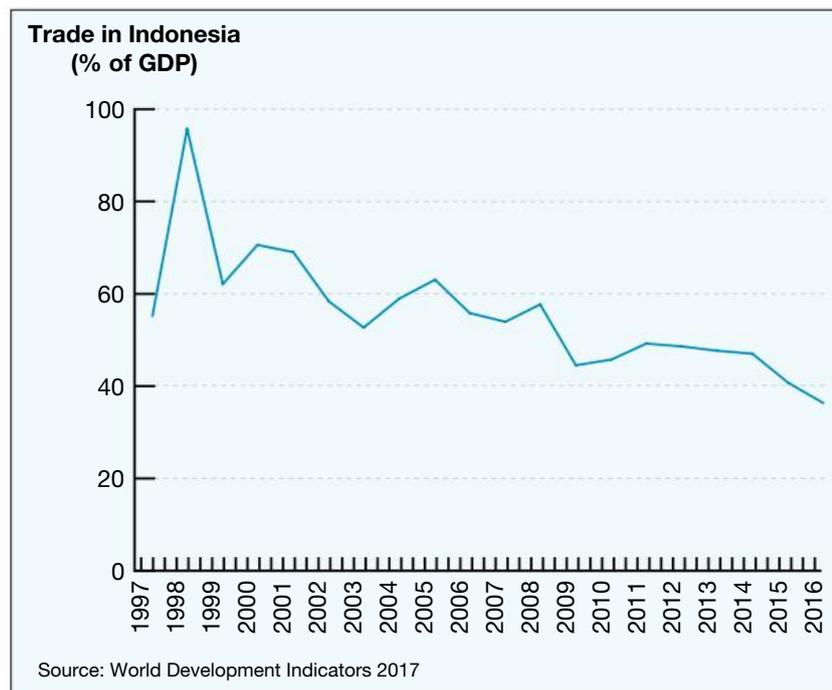
Indonesia is also a party to a number of other trade agreements through the ASEAN Plus Three framework. ASEAN has concluded free trade agreements with China, South Korea, Japan, India, Australia and New Zealand. Indonesia is also a member of the Asia-Pacific Economic Cooperation (APEC) forum, which has aimed to advance regional and global trade and investment liberalisation. Indonesia will continue to pursue regional trade opportunities into the future, with President Widodo indicating his intention to begin discussions about entering the Trans-Pacific Partnership (TPP) and participate in the Regional Comprehensive Economic Partnership (RCEP).

Indonesia also has a comprehensive bilateral trade agreement with Japan that took effect in 2008. Japan accounts for 11 per cent of Indonesia's exports, and is Indonesia's largest single export destination. Indonesia is also currently negotiating bilateral trade agreements with New Zealand, India, South Korea, Chile, Australia and the EU. China is also emerging as an important trade and investment partner. Figure 7 outlines Indonesia's trade agreements.

2.3 Changes in trade in goods and services

Trade liberalisation has improved Indonesia's access to overseas export markets and led to stronger economic growth. Exports of goods and services have grown at an average annual rate of over 6 per cent since 1985. Nevertheless, in recent years the contribution of trade (as measured by percentage of GDP) has significantly fallen. In 2016, trade in goods and services was equal to around 37 per cent of Indonesia's GDP. Prior to the global financial crisis, this figure was above 50 per cent of GDP. The recent weak trade performance is attributable to poor commodity export performance, the introduction of protectionist measures in the commodity sector and the appreciation of Indonesia's currency.

FIGURE 8 – TRADE IN INDONESIA (% OF GDP)



The importance of trade to the Indonesian economy is lower than the regional average for East Asian economies (58 per cent). This means that Indonesia is relatively less integrated through international trade than other East Asian economies. It also means that, through trade linkages at least, Indonesia is less exposed to the international business cycle than some other economies. Also, with around three-quarters of its trade with other Asian economies, Indonesia is most closely integrated at a regional level with economies such as Japan, China, Singapore, Malaysia and Korea.

Since the mid-1990s, Indonesia's export base has shifted back towards food and fuels, with manufactured exports falling as a share of trade. High-technology exports contribute less than 5 per cent of Indonesia's total export revenues. Unlike many other economies in the region, Indonesia has not generally emerged as a major low-cost manufacturer for global markets, relying instead on its commodity exports. In part, this reflects the strong commodity prices of recent years, which have also affected other commodity exporters such as Australia, Brazil and Russia. However, it also suggests that Indonesia may need to do more in coming years to develop sustainable exporting industries. Despite the economic reforms of recent decades, Indonesia has **struggled to diversify its export base**. In 2018, its main exports were oil and gas, electrical appliances, plywood, textiles and rubber.

2.4 Barriers to finance and investment have also been liberalised

Indonesia has reduced barriers to financial and investment flows during the globalisation era to encourage economic growth and development. From the mid-1980s, Indonesia pursued tax reforms, deregulation of industry sectors, and the removal of restrictions on foreign ownership. While previous decades saw FDI flow mainly to the oil and mining sectors, since the 1990s Indonesia has seen an increasing flow of investment into manufacturing.

Insufficient domestic private investment means that foreign direct investment (FDI) plays an important role in Indonesia's economy. FDI has been steadily increasing in Indonesia and was US\$33 billion in 2017. However, FDI inflows (as a share of GDP) are lower than comparable economies. This mainly reflects poor and consistently changing government policy. In 2007, the government simplified FDI transactions by streamlining all FDI investment restrictions into one negative investment list (DNI). However due to constitutional issues, local governments have still been able to place restrictions on FDI, overruling the Indonesian Government's policies. This has led to confusion, undermining FDI.

Encouraging FDI, along with continuing to reduce trade barriers, is important to ensure Indonesia can secure export-led development. Figure 9 sets out some key features of foreign investment and integration of Indonesia with the global economy.

FIGURE 9 – FOREIGN DIRECT INVESTMENT IN INDONESIA

Trends	FDI inflows were \$32.3 billion in 2017. They continue to grow as global credit improves and Indonesia eases regulations.
FDI source country	Singapore (26%); Japan (16%); China (10%); South Korea (6%); Hong Kong (7%); Others (35%)*
Destination region within Indonesia	West Java (16%); Special Territory of Jakarta (14%); Banten (10%); Central Java (7%); Papua (6%); Others (47%)
Destination sector	Mining (14%); Gas, electricity & water supply (13%); Metal, machinery & electronic industry (12%); Real estate, industrial estate & office building use (9%); Chemical & pharmaceutical industry (8%); Others (45%)
TNCs in Indonesia	<ul style="list-style-type: none"> • About 170 pharmaceutical companies operate in Indonesia • Oil sector TNCs include Caltex and ConocoPhillips • L'Oréal and Honda have recently established production in Indonesia
Benefits of FDI	<ul style="list-style-type: none"> • More investment when domestic savings are low • Employment in production and management • New technologies and business processes • Links to export markets and international supply chains
Risks of FDI	<ul style="list-style-type: none"> • Exchange rate and financial market volatility • Structure of FDI may limit technology and training benefits for local economy • Environmental sustainability of FDI in natural resource sector
Drivers of FDI	<ul style="list-style-type: none"> • Large endowment of natural resources • Large consumer market • Relatively low labour costs
Constraints on FDI	<ul style="list-style-type: none"> • Inadequate transport and energy infrastructure • Inadequately trained staff • Complicated regulations • Exchange rate volatility undermines investor confidence • Economically disconnected regions

Source: BKPM – Indonesia Investment Coordinating Board

Note: Numbers do not add to 100 due to rounding.

Financial markets have also been liberalised in recent decades to encourage economic growth, beginning with the shift in Indonesia from a fixed exchange rate to a managed float in 1978. The currency, the Indonesian rupiah, was devalued during the 1980s as a deliberate strategy to improve the competitiveness of exports. The managed float was abandoned during the Asian financial crisis in August 1997, and currency was allowed to float freely because the central bank's attempts to stabilise the currency were unsuccessful. The rupiah suffered a massive depreciation, causing major turmoil in financial markets and the economy.

Currency volatility is a continuing problem in Indonesia, with major shifts in the rupiah caused more by global factors than domestic factors. During the global financial crisis in 2008, the rupiah depreciated sharply by over 20 per cent. In the following years, the rupiah appreciated due to higher commodity prices and a return of FDI inflows. At the time, Indonesia's policymakers were concerned that a sudden change in the sentiment of global investors could see the rapid withdrawal of finance, as occurred in the late 1990s. To reduce instability (and encourage longer term foreign investment), the Indonesian Central Bank has strengthened capital controls – with investors in government bonds required to hold them for a minimum of six months, slowing the pace of any “capital flight”. IMF research has found currency volatility reduces private sector investment – for every 1 per cent increase in volatility, there is an almost a 0.2 per cent reduction in investment.

2.5 Foreign aid and assistance have supported economic development

Economic development in Indonesia has been supported by foreign aid and assistance. In addition, the World Bank funds many active projects in Indonesia with a cumulative lending value of US\$7 billion.

These programs have targeted community empowerment, government administration, energy and infrastructure development. Australia's aid budget for Indonesia in 2018–19 was \$316 million, a reduction from the \$359 million in the previous financial year.

3. Recent Developments in Economic Policy

Indonesian economic policy has evolved gradually in recent years, with governments aiming to achieve macroeconomic stability, promote economic development and gradually open up the economy. The process has not been smooth, with some wealthy vested interests strongly resisting reforms and with some key economic policies not keeping up with changing circumstances. In 2011, former President Yudhoyono introduced a 15-year economic master plan that aimed to lift annual economic growth from around 6 per cent to the range of 7.5 to 9 per cent through investments in infrastructure and education. The master plan focused on developing six economic corridors, strengthening links between these areas and developing large value-added export markets.

President Joko Widodo was elected in 2014. Although his government began by endorsing some of the key principles of the master plan, over time, policy priorities have shifted. The strategy is no longer described as Indonesia's "master plan". Indonesia still aims to achieve developed country status by 2025, or a per capita income level of around US\$15,000. But annual growth of 9 per cent seems highly unlikely. In fact, in the post-global financial crisis era of lower commodity prices, Indonesia has struggled to sustain growth of 5 per cent. With the exception of phasing down fuel subsidies, the Widodo Government has mostly focused on incremental measures to reduce regulations and make it easier to do business.

Fiscal discipline has played an important role in maintaining the confidence of international investors and in providing macroeconomic stability. During the 1990s, the government achieved budget surpluses, using those surpluses to retire government debt. The Asian financial crisis had major impacts on the Indonesian Government's budget, with the budget falling into deficit and government debt peaking at over 72 per cent of GDP. Since then, the government has been successful in keeping strong fiscal settings. Since 2003, the government has kept fiscal deficits mainly within 3 per cent of GDP and public debt within 60 per cent of GDP. By 2016, government debt fell to 27 per cent of GDP. Increases in the deficit prior to 2015 have been reversed, with the deficit just 2.6 per cent of GDP in 2017. The government achieved this outcome through increasing total revenues (by 14.6 per cent) and reducing energy subsidies. In 2017, Standard & Poor's upgraded Indonesia's sovereign bond rating from BB+ to BBB-, an investment-grade rating (for the first time in nearly 20 years). This should lower borrowing costs over time.

A key constraint on the sustainability of Indonesia's fiscal policy is its poor collection of taxation revenue. Indonesia's tax ratio is low compared to similar economies and has been declining since 2013. This is due to economic and governance reasons. Indonesia's tax revenues are heavily linked to the cyclical commodities sector. There has also been a failure of policy, with a large number of exemptions to taxes granted, and a poor administration of tax. The problems of the tax system are highlighted when examining luxury motor vehicle taxes. The current system taxes vehicles at the factory price,

FUEL SUBSIDIES

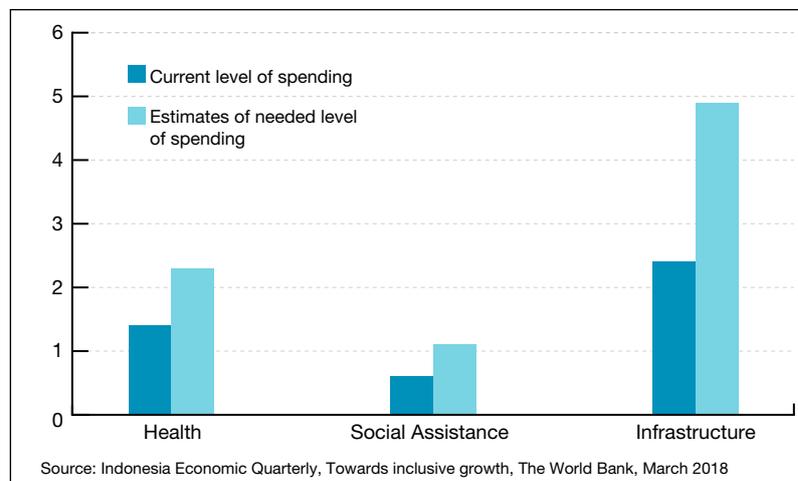
A continuing drain on Indonesia's public resources for many years was the large government expenditure on fuel subsidies, which have been larger than all central government social and capital spending combined. In 2014, fuel subsidies accounted for a fifth of government expenditure, or 2.3 per cent of GDP. Petrol prices have previously caused political turmoil, forcing a reversal of subsidy cuts in 2008 and 2011. In early 2015, the president announced a plan to gradually abolish petrol subsidies and drastically reduce diesel subsidies. By 2017, fuel subsidies were projected to have fallen to 0.2 per cent of GDP. Government funds were reallocated to investment projects in what is regarded as a major example of successful economic reform. The fuel subsidies policy underscores the failure of the government to use fiscal policy to improve socio-economic outcomes. Fuel subsidies mainly benefited the middle class, with the poorest 10 per cent of households receiving just two per cent of fuel spending.



at varying rates. This creates the incentive for firms to transfer vehicles across to factories with lower rates. If the government were to adopt a market price excise or tax vehicles based on environmental impact, taxation would be clearer and more streamlined. The Indonesian government has been making small progress to addressing this issue. For example, in 2017 a tax amnesty program was introduced, which allowed Indonesians to declare previously untaxed assets. That policy brought in an additional US\$8 billion in revenue for the budget.

However, Indonesia has been unable to use its relatively strong fiscal settings to improve social outcomes. Currently, Indonesia's tax and transfer payment system makes no difference to the level of inequality. The failure for fiscal policy to promote inclusive growth is due to insufficient and poor quality spending in infrastructure, education and health. This is shown in figure 10, with Indonesian needing to dramatically increase spending across these areas. The 2018 Macroeconomic and Fiscal Policy Framework involves spending more funds more efficiently on a range of education, welfare and child-care initiatives.

FIGURE 10 – INDONESIAN SPENDING ON INFRASTRUCTURE, HEALTH AND SOCIAL ASSISTANCE



Indonesia has consistently underspent in infrastructure. Between 2000 and 2013, Indonesia spent an average of 3.6 per cent of GDP in infrastructure. This compares to China (which spent 17.7 per cent of GDP), Malaysia (11.3 per cent) and Thailand (6.3 per cent). This has led to a large infrastructure deficit of nearly US\$1.5 trillion. The Indonesia Government has recognised the need to invest in infrastructure, evidenced through the development of its National Medium-Term Development Plan (RPJMN). Under RPJMN, the Government will spend around US\$83 billion on infrastructure between 2015 and 2019, focusing on transport (including roads, rail and airports), electricity and water and sanitation. However even if this policy is implemented in full, Indonesia will still have a large infrastructure deficit. Private investment will need to play a role too, but has been hampered by regulatory issues, inadequate planning and issues in securing finance. The Government has established a Public Private Partnership Unit within the Ministry of Finance to address with project approval and delivery and has made steps to reduce regulatory burdens. International assistance will also play a role in addressing infrastructure issues. For example, a recent US\$125 million loan from the World Bank is being used to upgrade more than 140 dams throughout the country.

Education spending is comparatively low at around 3 per cent of GDP, despite a mandate that 20 per cent of government expenditure be on education. Inadequate investment in education is one of the reasons for Indonesia's high rate of youth unemployment, which at 20 per cent is six times higher than for other age groups. In addition, existing education policies are poorly targeted. The Government has expanded its Program Indonesia Pintar (PIP) policy which provides a cash subsidy for school age children in poor households. However, the PIP does not rise when education costs rise in secondary years, causing many students to drop out, and is poorly targeted, with around 36 per cent of people from non-poor backgrounds receiving the benefits of PIP. Public health spending is below 1.5 per cent of GDP, lower than in most South-East Asian economies, such as the Philippines or Cambodia. The Government has failed to encourage preventative health measures, leading to large proportion of the

health budget being spent on expensive interventions. The government has announced an ambition to lift public health insurance coverage from 60 per cent to 100 per cent of the population by 2019.

Indonesia has also undertaken significant reforms to the conduct of **monetary policy**. Indonesia's Central Bank, **Bank Indonesia**, was granted independence from the government in 1999 and has had a medium-term inflation target of 4 to 6 per cent since 2005. Monetary policy was loosened significantly in response to the global financial crisis, and tightened as the economy recovered. Monetary policy was loosened throughout 2016 and 2017 with settings stabilising in 2018. Into the future, monetary policy is likely to come under pressure as the central bank manages strong economic conditions with the need to maintain currency stability. There will be pressure to raise interest rates as interest rates rise in the US, which reduces the spread between US and Indonesia interest rates, making Indonesian bonds less attractive. Concerns about governance and transparency in Indonesian institutions also remain a barrier to foreign investors.

Some recent policy decisions assert Indonesia's national economic interests in opposition to the trend towards integration with the global economy, through investment restrictions and local content rules. Indonesia has prohibited foreign investment in certain industries, such as casinos and alcohol, and has placed conditions on investment for some economically important industries, including agricultural plantations, public works construction and telecommunications services. Indonesia has imposed local content rules on many areas of the economy. In April 2018, the Government announced that exporters of crude palm oil and coal and importers of rice and government procured goods would have to use Indonesian-flagged vessels for shipping and insure their products with Indonesian insurance companies. This is likely to raise the prices of these goods and reduce their supply. While designed to promote domestic economic development, such restrictions could weaken the Indonesian economy and the confidence of foreign investors. President Widodo's advocacy of policies that encourage "economic independence" could mean Indonesia is less open to globalisation in the years ahead.

A consistent hurdle for reforms is the organised resistance from established interest groups whose power and wealth have been threatened by the removal of regulations that advantaged them. In previous decades, parts of the Indonesian economy suffered from "crony capitalism", where economic policies were set up for the benefit of corrupt officials and relatives of important political leaders. Recent years have seen a shift in Indonesia towards a more decentralised state, with large areas of public expenditure and services being transferred from central government to the nation's 440 local governments. In 2007, Indonesia introduced an investment law that seeks to improve the transparency of the investment regime, with an emphasis on the equal treatment of domestic and foreign investment. The law consolidates foreign investment restrictions to a single decree, a negative investment list, but it has been revised in 2010, 2014 and 2016, creating uncertainty for investors. Significant reforms are still required for the legal system to improve corporate practices, with the World Bank ranking Indonesia 91 out of 190 countries for ease of doing business in 2016.

4. Conclusion: Is Indonesia a Globalisation Success Story?

The economic outlook continues to be positive with GDP growth projected to reach an average of 5.3 percent in the period 2018–2020... Decisions on government spending and revenue collections – the core of fiscal policy – play a key role in supporting economic growth, and help share the benefits of growth more widely across society... To achieve faster and more inclusive growth, Indonesia needs to spend better and spend more in priority areas. This will require continuing to enhance the effectiveness of line ministry and subnational spending, further reallocating spending across and within sectors, and collecting more revenues in an efficient and growth-friendly manner.

– *Indonesia Economic Quarterly, Towards inclusive growth, The World Bank, March 2018.*

Indonesia's experience provides a complex picture of globalisation. Since the 1980s, Indonesia has progressively liberalised trade, investment and financial flows. Global and regional integration have delivered Indonesia substantial benefits and have allowed for progress towards reducing poverty. At the

same time, the case study of Indonesia is a warning of the dangers of inadequately regulated domestic and international capitalism. Poor governance and weak economic institutions meant that Indonesia suffered badly in the Asian financial crisis. Indonesia's experience also highlights that globalisation is not an economic "silver bullet" and countries still need to build competitive industries, reform their economies and undertake major investment in education, health and infrastructure to achieve economic development.

Despite achieving strong growth in the years since the global financial crisis, Indonesia is faced with a number of challenges. In the short term, it faces the challenge of maintaining growth whilst dealing with external risks such as a slowdown in China and lower commodity prices. It must also manage the volatility associated with greater financial inflows. While the government cannot ensure the stability of the currency, it can contribute to investor confidence. In the long term, a key economic challenge will be to reorientate government spending towards education and infrastructure, improve coordination between the national and local governments and attract more foreign investment that can diversify the Indonesian economic base. Stronger economic growth is needed to reduce the incidence of poverty and achieve improvements in quality of life. Whether Indonesia can make progress in these areas will determine whether it is able to continue its significant economic progress towards its ambitious goal of joining the world's 10 leading economies by 2025.

TOPIC

2

AUSTRALIA'S PLACE IN THE GLOBAL ECONOMY

Issues

By the end of Topic 2, you will be able to examine the following economic issues:

- Assess the impact of recent changes in the global economy on Australia's trade and financial flows
- Examine the effects of changes in trade and financial flows on Australia's economic performance
- Analyse the effects of changes in the value of the Australian dollar on the Australian economy
- Discuss the impact of free trade and protection policies on the quality of life in Australia
- Propose likely changes to the structure of industry within Australia as a result of current trends in the global economy

Focus

The focus of this topic is an examination of Australia's place in the global economy and the effect of changes in the global economy on Australia.

Skills

Topic 2 skills questions can ask you to:

- Calculate the main components of Australia's balance of payments
- Analyse the relationship between the balance of the capital and financial account and the net income balance
- Explain the relationship between the current account balance and the balance of the capital and financial account
- Use supply and demand diagrams to explain how the value of a currency is determined under different exchange rate systems
- Analyse the impact of changes in the components of the balance of payments on the value of the Australian dollar

Topic 2

Introduction

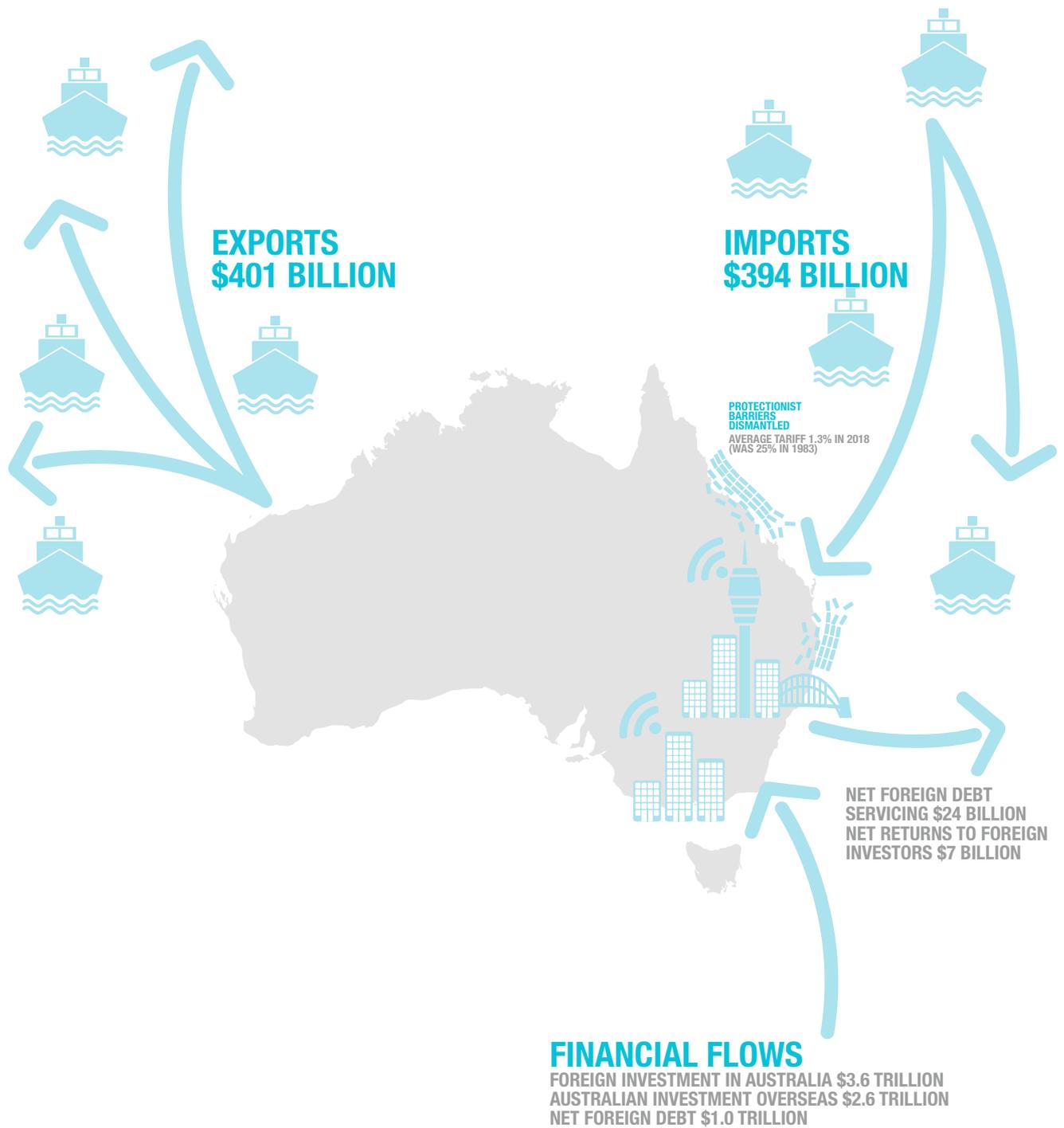
Australia is a big country in terms of its physical size, yet its economy is relatively small compared to the rest of the world. As economies throughout the world become more integrated, Australia's economy is increasingly affected by developments in the global economy. Global economic forces have changed the Australian economy and the lives of Australians dramatically in recent years, and these changes will accelerate as globalisation continues.

Chapters 1 to 3 covered Year 12 Topic 1 – *The Global Economy* and reviewed some of the main features of the global economy. It was noted that economies have become far more integrated in recent years because of flows of trade, finance, investment, technology and labour. International institutions have become more important as economies have become more closely linked to each other. There has been significant progress in recent years to remove trade barriers between nations. Yet with the increasing integration of the global economy, there remains an extraordinary gap in wealth between rich and poor nations.

This topic – *Australia's Place in the Global Economy* – will focus on examining where Australia fits into the global economy and the impact of changes in the global economy on Australia's internal and external stability.

- Chapter 4 outlines Australia's trade and financial flows. It looks at how Australia's trade patterns have changed over time, and how Australia's trading partners have also changed. Chapter 4 also examines the key topic of the balance of payments. The balance of payments tracks Australia's trade and financial relationships with the global economy. Chapter 4 sets out the structure of the current account and the capital and financial account, along with links between key balance of payments categories. This chapter also analyses recent trends in the size and composition of Australia's balance of payments.
- Chapter 5 explains the role that Australia's exchange rate system plays in Australia's relationship with the global economy. It gives an overview of how exchange rates are determined, and looks at the influences on the demand for and supply of Australian dollars. This chapter also examines the role of government policy in influencing the exchange rate, and the effects that exchange rates can have on other economic outcomes.
- Chapter 6 examines free trade and protection with a particular focus on Australia's trade and protection policies, which have changed significantly in the past three decades. These changes have had impacts for many participants in the economy. The chapter concludes with a look at the implications for Australia of the free trade and protectionist policies of other countries and international organisations and the future of Australian industry in the global economy.

AUSTRALIA'S PLACE IN THE GLOBAL ECONOMY



SOURCE ABS cat. no. 5302.0

4

Australia's Trade and Financial Flows

- 4.1 Understanding Australia's place in the global economy
 - 4.2 Trends in Australia's trade patterns
 - 4.3 Trends in Australia's financial flows
 - 4.4 The balance of payments
 - 4.5 Trends in Australia's balance of payments
 - 4.6 The consequences of a high CAD
-

4.1 Understanding Australia's place in the global economy

In the first section of this book we examined the key features of the global economy, including the trends towards greater integration among countries, trade and financial linkages, trade policies, important global institutions, and the income gap between advanced and developing economies. In this section, the focus is on where the Australian economy fits into the global economy and in particular the nature of Australia's trade and financial links with the rest of the world.

By global standards, Australia is large in some respects and small in others. On size alone, the Australian economy ranks thirteenth in the world – placing it in the middle ranks of advanced economies. This means that the Australian economy is larger than almost 200 other countries, but if the Australian economy is compared to the giants of the world economy, such as the United States, the EU, China or Japan, then it is relatively small. Another way to compare Australia with other countries is to look at standards of living. In 2017, Australia was ranked second in the world in terms of quality of life, according to the United Nation's **Human Development Index**. This demonstrates that Australia has a very high level of economic development.

Measures of the size of the economy and living standards only provide a snapshot comparison between economies. To really understand the **impacts of changes in the global economy on the Australian economy**, we must understand the linkages between Australia and the global economy. This requires an analysis of Australia's trade patterns and trade policies, Australia's financial relationships with overseas countries, and the influence of the exchange rate on the **structure and performance of the Australian economy**.

4.2 Trends in Australia's trade patterns

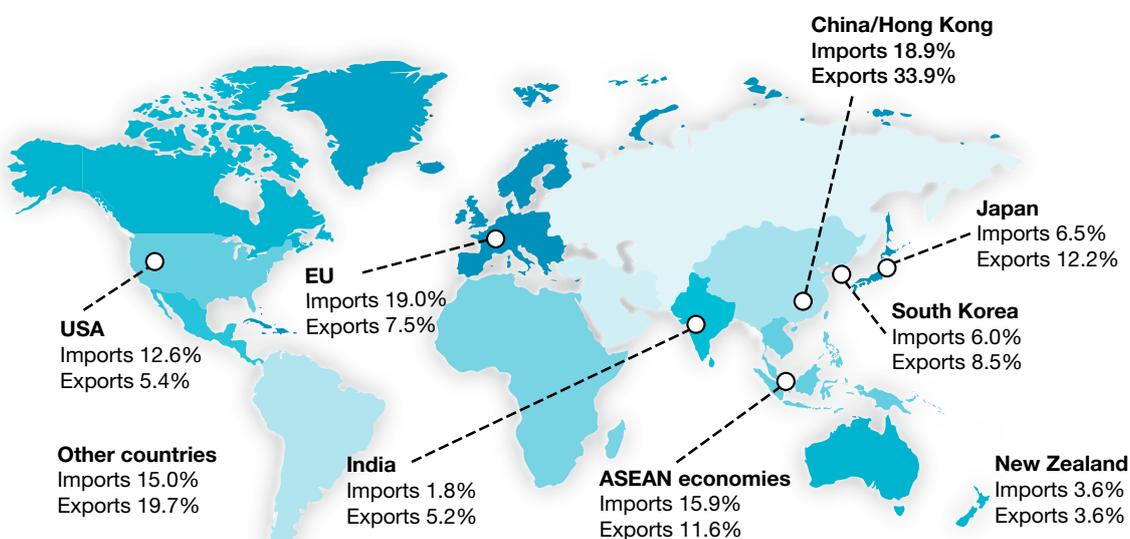
International trade has historically played a very significant role in the development of the Australian economy. Despite Australia's geographic isolation from the rest of the world, trade has always represented a high proportion of Australia's economic activity. In part, this is because there have always been overseas markets for Australia's primary commodities, such as minerals and agricultural products. It is also partly because Australia has needed to trade in order to obtain new technology and items that are not produced in Australia because of its relatively small population size.

In the context of the global economy, Australia is sometimes referred to as a small, open economy. It is small by global standards, producing around 2 per cent of gross world product. But while the Australian economy makes up only a small proportion of the global economy, trade is central to the Australian economy. We export almost one-quarter of what we produce, and we import the equivalent of almost one-quarter of gross domestic product. As a result, although the Australian economy does not have much influence on developments in the global economy, world economic developments can have a very significant impact on Australia.

The changing direction of trade

The direction of Australia's trade has changed considerably over recent decades. China has become Australia's dominant trading partner in the past decade, while South Korea and ASEAN countries have also become more important. Meanwhile, the key export markets for Australia in previous decades – Japan, the United Kingdom and Europe – have declined in importance. Figure 4.1 illustrates the importance of each of these regions to Australia's merchandise trade (which includes trade in physical goods but not trade in services).

There was an historic shift in the direction of Australian trade after the United Kingdom joined the European Economic Community trading bloc (EEC), now known as the European Union (EU), in 1973. The United Kingdom had been Australia's major trading partner prior to this period, reflecting the historic ties going back to when Australia was a colony of Britain. Once the United Kingdom joined the European trading bloc, it was required to impose the same barriers to trade with Australia as with other countries, in effect giving



Source: Department of Foreign Affairs and Trade, Composition of Trade Australia (2018)

Figure 4.1 – Australia's major trading partners in 2018

a preference to trade from European countries. Australia soon lost many of its traditional export markets for agricultural products in the United Kingdom.

As Australian exporters found it increasingly difficult to gain access to European markets, there was a shift in the focus of exporters to other areas, particularly the North-East Asian and ASEAN countries, for trade opportunities. By the 1960s, the Japanese economy was sustaining rapid economic growth and its demand for production inputs such as minerals and energy products was increasing rapidly. Australia responded to this opportunity and Japan became our largest export market. Japan's share of Australia's trade began declining around 1990 and has continued to shrink since then, reflecting both Japan's weak growth and Australia's increased focus on other markets in the region.

In the early 2000s exports to China increased dramatically, making China **Australia's largest trading partner** since 2007 (calculated by adding imports and exports together), reflecting its position as the driving force behind global economic growth in recent years, and Australia's position as a major world commodity supplier. China is not just Australia's largest export market. It is also our dominant export market, overshadowing all other countries. China comprises a larger share of exports than the sum of our second, third and fourth largest export markets: Japan, ASEAN and the EU. In 2017, China accounted for around one-third of Australia's export earnings from merchandise trade, and as figure 4.2 shows, the growth in exports to China since 2000 has been extraordinary, with exports to China exceeding \$100 billion in 2017.

The 2020s are likely to see further shifts in the direction of Australian trade towards other rapidly growing Asian economies. By 2020, Asia is expected to account for 43 per cent of global trade flows, and be responsible for the majority of world trade growth (according to IMF forecasts in 2016). While trade with North Asia will still account for Australia's largest trading relationships, with China and Japan remaining our top two trading partners, Australia is also likely to experience strong growth in markets in South-East Asia and South Asia, most notably in India, which is now a larger export market for Australia than the United States. In 2017, exports to India grew by 33 per cent; by contrast, exports to the United Kingdom fell by 25 per cent.

Figure 4.2 shows that the trends in the direction of Australia's exports and imports differ. Although Australia does not sell a high proportion of its output to other advanced economies, it still buys a substantial amount from these economies, in particular Europe and the United States. This reflects the importance of imports from these countries, both for capital equipment and for many consumer items. China and ASEAN economies are also large sources of imports, reflecting Australia's demand for manufactured imports that these economies specialise in producing. China's share of Australian imports has grown dramatically in the past three decades, and in 2016 China became our largest source of imports.

Country/region	Annual exports (%)						Annual imports (%)					
	1990	2000	2010	2015	2016	2017	1990	2000	2010	2015	2016	2017
China/Hong Kong	5.8	8.0	24.3	30.6	35.6	33.9	4.4	8.1	16.0	18.6	22.6	18.9
Japan	26.5	17.5	16.2	13.4	14.0	12.2	15.6	11.2	7.4	6.4	7.4	6.5
ASEAN	12.6	13.9	10.4	12.2	10.3	11.6	7.0	14.0	18.3	16.3	15.7	15.9
European Union	16.9	13.6	9.5	7.4	7.8	7.5	26.1	21.9	19.2	18.7	18.3	19.0
South Korea	5.3	6.8	7.9	6.3	7.0	8.5	1.9	3.3	2.8	4.5	4.1	6.0
United States	13.1	11.5	5.1	7.0	4.8	5.4	23.4	19.8	12.8	13.6	11.1	12.6
New Zealand	6.5	6.4	3.9	4.0	3.4	3.6	4.4	4.0	3.6	3.2	2.8	3.6
Other countries	13.4	22.3	22.7	19.1	17.1	19.7	17.2	17.7	19.9	18.7	17.9	15.0

Source: Department of Foreign Affairs, Trade Statistics.
NOTE that DFAT data differs from ABS data due to a number of statistical adjustments.

Figure 4.2 – Australia's direction of trade by country and region

The changing composition of Australia's trade

Primary industries have always been the main focus of Australian exports as Australia has a comparative advantage in commodities due to its vast natural resources. Australia has exported high volumes of agricultural products such as wheat, wool and beef, and minerals such as coal, iron ore, gold and alumina. Together, agricultural and mineral exports account for two-thirds of Australia's export earnings. Australia has been less competitive in manufacturing. While other advanced economies generally developed substantial manufacturing industries in the second half of the twentieth century, Australia has continued to rely on its primary exports while importing large quantities of capital goods and manufactured consumer goods.

Australia has experienced significant changes in the composition of its export base. In 2017–18, Australia's total exports increased from \$373 billion to \$401 billion. Of these, metal ores and minerals (particularly iron ore) were Australia's largest single goods export category (valued at \$90 billion, up from \$85 billion), followed by coal (\$60 billion, up from \$54 billion). The largest services export was tourism (valued at \$115 billion, down from \$155 billion). Figure 4.3 highlights some significant changes in the composition of Australia's exports. While agriculture and manufacturing have declined in relative importance as export earners, exports of minerals and metals have increased in relative importance, reflecting the impact of the global commodities boom in the decade after 2003. This trend is likely to continue with huge growth in LNG (liquefied natural gas) exports, already worth \$14 billion per year, expected to continue. Australia is forecast to be the world's largest LNG exporter by 2020.

Several factors have contributed to the decline of agricultural exports as a proportion of Australia's trade over recent decades. Large fluctuations in world prices as well as the trade protection policies of other countries have influenced the export revenue from agricultural commodities. In addition, most agricultural trade involves commodity items to which little extra value is added in processing, unlike other areas of world trade, such as elaborately transformed manufactures, which are high in added value.

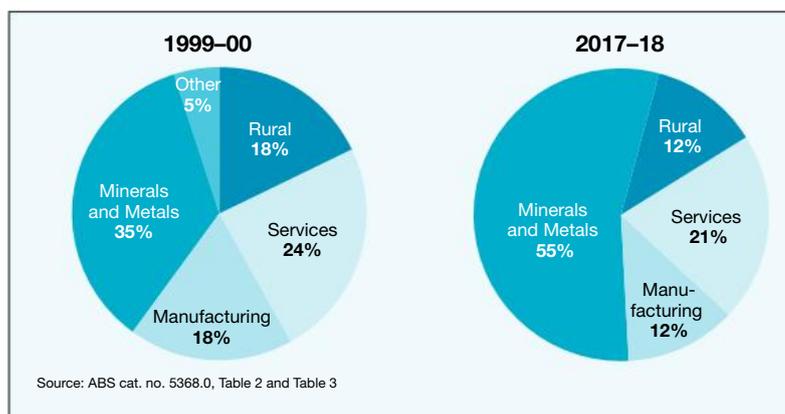


Figure 4.3 – Australia's composition of exports

Manufactured goods comprise only a small share of exports but are at a low level compared with most advanced economies and their share fell during the era of the mining boom. While Australia does not compete well in the manufacture of high-volume, low-cost products, its sales of sophisticated, niche-market-manufactured goods picked up in the 1990s, but since the mining boom increased the value of the Australian dollar, Australian manufacturing exporters have encountered more difficult conditions, alongside increased competition from goods manufactured in China and other low-cost economies in Asia.

The global resources boom stirred debate about whether Australia can continue to rely so heavily on exports of commodity items. Some economists argue that the prospects for high commodity prices are positive in the medium to longer term because of the rapid

growth of China, India and other developing economies. However, others point to the risks of Australia being too reliant on commodity exports and one major export market (China). Australia's resource exporters have experienced considerable volatility in the past two decades, although the overall trend has been towards higher commodity prices. There are specific risks in Australia's reliance on global demand for coal, which is likely to fall as markets shift to energy sources with lower carbon emissions.

Australia's best long-term alternative to relying so heavily on mineral and energy exports is to diversify exports towards goods and services demanded by the growing population of middle-class consumers across Asia. Service exports hold the greatest potential for growth over the medium to longer term. Australia has sophisticated service industries and a highly skilled workforce, nearly three-quarters of which is employed in service industries. In recent decades, Australia has grown substantial export markets for education services, financial services, insurance and tourism, as well as smaller markets for transport, health and communications services. There is also potential for expanding some areas of agricultural and manufacturing output, such as processed foods. Nevertheless, while the Chinese economy continues to grow rapidly, keeping resources priced above long-term averages, the resources sector is likely to continue to drive export growth.

Year	Capital goods (%)	Consumer goods (%)	Intermediate goods and other (%)	Services (%)
1981–82	18.2	15.6	42.8	23.3
1986–87	19.2	17.2	39.6	23.7
1996–97	18.1	20.3	36.4	24.3
2001–02	17.6	24.2	34.7	22.0
2010–11	18.4	23.6	33.8	22.4
2011–12	21.0	22.2	33.4	21.2
2012–13	19.2	23.0	33.1	23.0
2013–14	17.8	23.8	34.0	23.1
2014–15	18.3	24.9	32.8	23.0
2015–16	17.9	27.0	29.6	24.0
2016–17	18.8	26.8	29.4	23.3
2017–18	18.7	26.0	30.6	23.2

Source: ABS cat. no. 5368.0, Table 1

Figure 4.4 – Australia's composition of imports

Figure 4.4 illustrates the trends in the composition of Australia's imports as a percentage of total import expenditure over the past three decades. During this time, the composition of Australia's imports has changed moderately. The share of capital goods has remained largely unchanged at around one-fifth of imports, increasing recently due to high levels of investment in the mining sector. Part-finished intermediate goods and service imports have both fallen slightly. Consumer goods as a proportion of imports have increased. These changes can be explained by the shift away from large-scale manufacturing in Australia, especially with the gradual reduction of tariffs and local content rules. In 2017–18, Australia's total imports were valued at \$394 billion. Capital goods imports accounted for \$74 billion, followed by tourism travel overseas by Australians (\$42 billion), followed by fuel imports (chiefly petrol) of \$34 billion and car imports of \$25 billion.

reviewquestions

- 1 Identify the key changes in the direction and composition of Australia's trade over recent decades.
- 2 Discuss whether Australia's reliance on commodity exports is beneficial or harmful for the Australian economy.

4.3 Trends in Australia's financial flows

While Australia's trade flows have increased substantially over recent years, the rate of growth in financial flows has been much greater, as international businesses have bought Australian assets and invested in Australian businesses, and as Australian companies have increased their overseas investments.

International financial flows were less important in the post-war economic boom of the 1950s to the early 1970s while exchange rates remained fixed and international capital markets remained largely closed. However, during the early 1970s the international system of fixed exchange rates (known as the Bretton Woods system) came to an end. Exchange rates around the world were floated and restrictions on the movement of capital across national borders were removed. Financial flows began growing rapidly as international capital markets opened up, exchange rates were floated, and technological changes made it easier to shift finance between countries. The level of foreign investment in Australia and investment overseas by Australians has more than doubled in the past decade, and has been rising rapidly since the 1980s.

Year	Foreign investment in Australia (\$m)			Australian investment abroad (\$m)		
	Direct	Portfolio	Total	Direct	Portfolio	Total
1980–81	24,929	7794	46,786	4562	137	13,375
1985–86	41,081	13,351	138,495	13,017	7049	39,019
1990–91	106,636	145,942	309,330	44,715	22,702	115,583
1995–96	156,172	256,288	482,952	84,786	49,964	204,281
2000–01	253,467	475,407	888,811	218,371	150,145	516,419
2005–06	386,425	831,380	1,456,020	352,019	314,393	918,882
2010–11	557,150	1,190,110	2,109,426	458,567	498,911	1,334,455
2011–12	597,306	1,224,653	2,212,528	455,263	520,871	1,402,969
2012–13	647,040	1,331,448	2,422,248	508,666	643,093	1,618,467
2013–14	696,504	1,458,866	2,643,010	552,638	711,769	1,787,753
2014–15	798,631	1,604,245	3,012,083	638,104	850,013	2,150,667
2015–16	872,685	1,639,430	3,260,343	620,730	897,973	2,266,895
2016–17	914,737	1,684,064	3,277,930	670,962	974,715	2,347,393
2017–18	993,970	1,865,904	3,554,665	753,782	1,130,151	2,601,235

Source: ABS cat. no. 5302.0
Note that direct and portfolio investment differ from calculations of foreign debt and equity

Figure 4.5 – The changing pattern of Australia's financial flows

Figure 4.5 shows a change in the composition of financial flows between **direct investment** and **portfolio investment**. Direct investment includes the establishment of a new company, or the purchase of a substantial proportion of shares in an existing company (10 per cent or more). When a business undertakes direct investment, it is generally considered to be a longer term investment and the investor normally intends to play a role in the management of the business. This is different from portfolio investment, which includes loans, other forms of securities and smaller shareholdings in companies. Businesses and individuals that undertake portfolio investment generally do not intend to play a role in the running of the business.

Prior to the deregulation of the financial sector, most financial flows came into Australia in the form of direct investment. Governments preferred direct investment, because it brought the benefits of job creation and technology transfer. Portfolio investment was not as important, as the level of overseas purchase of shares was relatively small and, in an environment where financial markets were regulated, overseas loans were not common. The removal of restrictions on financial flows changed this situation, as Australia saw the benefit of attracting the growing flows of finance into the economy, injecting money into Australian companies through loans and share purchases.

Following the deregulation of the financial sector and the floating of the Australian dollar in the 1980s, foreign investment inflows began to grow rapidly, a trend that has been sustained for the past three decades. The rate of growth of portfolio investment into Australia – the shorter term and more speculative inflow – has been significantly faster than the growth in longer term foreign direct investment. Similarly, Australian investment overseas is around 20 times what it was in 1990 and the level of portfolio investment is now higher than the level of direct investment. The level of growth in financial flows remains higher than growth in trade, although during recent years the gap between the two has been reduced.

Another significant feature of the financial flows between Australia and the global economy is the imbalance between investment in Australia and Australian investment overseas. Australia has always been a **net capital importer**, with the level of foreign investment in Australia consistently remaining well above the level of Australian investment abroad.

In part, this reflects the historically **low level of domestic savings** within Australia. For many years, Australia has relied on financial flows from overseas to make up for the shortfall between savings and investment in Australia, and this remains a feature of financial flows between Australia and the global economy today. However, it is important to note that these flows are not all one-way – even though there is a much higher level of foreign investment in Australia, with a total of over \$3.6 trillion invested in the Australian economy in 2017–18, Australia had also invested over half as much overseas (\$2.6 trillion). Australian businesses have substantial overseas assets, and Australia also has significant shorter-term overseas investments such as overseas loans and shares on overseas stock markets. One reason for this is that overseas capital markets have become more open to investment from Australian residents, and as a result, Australian residents have more actively pursued investment opportunities overseas.

reviewquestions

- 1 Explain the difference between direct and portfolio investment flows.
- 2 Identify TWO factors that have influenced financial flows into and out of Australia in recent years.
- 3 Discuss the extent to which Australia's financial flows have been influenced by globalisation.

4.4 The balance of payments

Balance of payments is the record of the transactions between Australia and the rest of the world during a given period, consisting of the current account and the capital and financial account.

The **balance of payments** is the single most important economic indicator of the relationship between Australia and the global economy. The **balance of payments** summarises all transactions that Australia has with the rest of the world over a given period of time. It shows the trade and financial flows in and out of the Australian economy. All money that flows in is referred to as a **credit**, and all money that flows out is referred to as a **debit**. For example, if Australia exports goods to New Zealand, the money we receive for these exports is an inflow and thus, a credit on the balance of payments. On the other hand, if Australia imports goods from New Zealand, the money paid out for these imports is a debit. In these accounts, credit entries are considered as positive transactions, while debit entries are negative (denoted with a minus sign).

The balance of payments figures are presented in two accounts – the **current account** and the **capital and financial account**. These accounts are compiled according to a set of international accounting standards, which make it easier to compare Australia's balance of payments with other countries.

The current account

The **current account** shows the money flow from all exports and imports of goods and services, income flows and non-market transfers for a period of one year. In effect, the current account covers external transactions that are not reversible in the sense that once commenced, these transactions cannot be undone. Figure 4.6 shows a simplified current account for the Australian economy.

In order to analyse the information in this table, one must understand the meaning of the items that appear on the current account:

Net goods

This refers to the difference between what Australia receives for its exports and pays out for its imports of goods. There are three possible outcomes: Australia could be in balance (where export receipts equal import payments), Australia could have a surplus (where receipts exceed payments), or Australia could have a deficit (where payments exceed receipts). Figure 4.6 shows that net goods recorded a surplus of \$12.1 billion in 2017-18.

Net services

This refers to services that are bought and sold without people receiving a “good” – for example transport, travel, insurance charges, telephone calls or tourist accommodation. Services that Australia sells are an inflow of money and are shown as credits. Services that Australia buys are an outflow of money and are shown as debits. The net services deficit of \$5.9 billion in figure 4.6 shows that the value of Australia’s service exports is lower than the value of its service imports.

Balance on goods and services

The balance on goods and services (BOGS) is the amount that is derived by adding net goods and net services together. Figure 4.6 shows a surplus of \$6.2 billion in 2017-18.

Net primary income

This refers to earnings on investments, that is, income that is earned as a return from a factor of production. It covers interest payments on borrowings and returns on other foreign investments, such as foreign-owned companies in Australia or foreign land ownership. When foreigners invest in Australia, income in the form of rent, profits, interest and dividends flow overseas. When Australians invest overseas, there is a flow of income back to Australia. Figure 4.6 shows a deficit in the net primary income account of \$59.1 billion in 2017-18, making it the cause of Australia’s current account deficit (CAD).

Current account is the part of the balance of payments that shows the receipts and payments for trade in goods and services, transfer payments and income flows between Australia and the rest of the world in a given time period. These are non-reversible transactions.

Component	2016–17 (\$bn)	2017–18 (\$bn)
Goods		
Exports	-277.9	-302.9
Imports	291.4	315.0
Net goods	13.5	12.1
Services		
Service credits	82.0	85.6
Service debits	-84.5	-91.5
Net services	-2.6	-5.9
Balance on goods and services	10.9	6.2
Primary Income		
Credits	54.7	57.5
Debits	-102.7	-116.6
Net primary income	-48.0	-59.1
Secondary Income		
Credits	8.9	9.2
Debits	-10.7	-10.4
Net secondary income	-1.8	-1.3
Balance on current account	-38.8	-54.1

Source: ABS cat. no. 5302.0

Figure 4.6 – Structure of the current account

Net secondary income

This refers to non-market transfers, which is income that is not earned through a factor of production. These occur when products or financial resources are provided without a specific good or service being provided in return. This is a small and relatively technical account, which has little importance in the scope of the overall balance of payments. Net secondary income includes payouts on insurance claims, workers' remittances (for example, foreigners working in Australia and sending money overseas) and funds taken out of Australia in the form of unconditional aid to developing nations (such as funds given as a gift to a foreign government to be used not for any specific purpose). Pensions received by residents from foreign governments (which would be a credit on net secondary income) are also included.

Balance on current account

This refers to the addition of the balance on goods and services, net primary income and net secondary income. Figure 4.6 shows that in 2017–18 the balance on the current account was a deficit of \$54.1 billion.

The capital and financial account

The other side of the balance of payments is the capital and financial account. This is concerned with financial assets and liabilities – the money flows that result from international borrowing, lending and purchases of assets such as shares and real estate for a period of one year. The major feature of the capital and financial account is that these transactions are reversible in the sense that after the transactions occur, they can be undone in the future. For example, borrowings can be paid back, and assets that are bought can be sold again.

Figure 4.7 shows a simplified capital and financial account for the Australian economy. The main features of the capital and financial account are as follows:

Capital account

The capital account consists of two main components. The first item is capital transfers, mainly in the form of “conditional” foreign aid grants (which are linked to specific capital projects) and debt forgiveness. This may be in the form of assistance to other countries to build up their infrastructure or capital stock (such as an Australian donation to build a bridge in the Solomon Islands). The second item is entries for the purchase and sale of non-produced, non-financial assets – mainly intellectual property rights such as patents, copyrights, trademarks and franchises (such as an Australian company buying the rights from an American company to operate a Subway outlet in Australia). Figure 4.7 shows a capital account deficit of \$0.7 billion.

Component	2016–17 (\$bn)	2017–18 (\$bn)
Capital account		
Capital transfers	-0.6	-0.8
Net acquisition/disposal of non-produced, non-financial assets	0.1	0.2
Total capital account	-0.4	-0.7
Financial account		
Direct investment	63.4	59.6
Abroad	8.0	-13.2
In Australia	55.4	72.8
Portfolio investment	4.1	9.3
Abroad	-40.4	-109.4
In Australia	44.5	118.7
Financial derivatives	3.4	-8.4
Other investment	-17.9	-16.5
Reserve assets	-19.6	8.9
Total financial account	33.3	52.8
Balance on capital and financial account	32.8	52.1
Net errors and omissions	6.0	2.0

Source: ABS cat. no. 5302.0

Figure 4.7 – Structure of the capital and financial account

Capital and financial account records the borrowing, lending, sales and purchases of assets between Australia and the rest of the world.

Financial account

The **financial account** shows Australia's transactions in foreign financial assets and liabilities. It is categorised by the type of investment, with five main categories: direct investment, portfolio investment, financial derivatives, reserve assets and other investment. The size of the financial account can change substantially from one time period to the next. This is a result of the large money flows that underlie the balance on the financial account.

Credit entries in the financial account represent net inflows. These come about either because of an increase in foreign investment in Australia or a reduction in Australian investment overseas. Debit entries represent net outflows. Australia consistently records a positive financial account balance, which shows that during each year the rise in Australia's liabilities to the rest of the world is higher than the increase in the liabilities of the rest of the world to Australia. In effect, Australia draws on the savings of the rest of the world to finance a deficit on its current account.

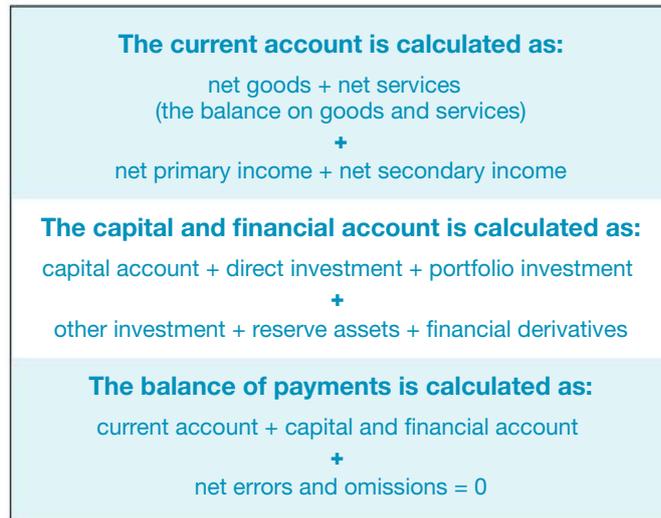
The five main financial account components are:

- **Direct investment:** Direct investment covers foreign financial transactions to fund new investment in Australia or overseas or to buy more than 10 per cent of shares in an existing company. This might include a Japanese company bringing in funds to build a motorway in Sydney or BHP-Billiton sending funds to Indonesia to fund building a steel mill. Figure 4.7 shows a direct investment surplus of \$59.6 billion.
- **Portfolio investment:** Portfolio investment refers to the buying of land, shares and other marketable securities (that is, securities that can be easily sold) in existing companies. This is also where most foreign debt is recorded. Portfolio investment is often the largest item on the capital and financial account. Figure 4.7 shows a \$9.3 billion deficit in portfolio investment in 2017–18.
- **Financial derivatives:** Financial derivatives are a category of complex financial assets that have become increasingly significant in recent years. The value of these investments is normally derived from the performance of specific assets, interest rates, exchange rates or indices. Financial derivatives are an important part of global financial markets. Figure 4.7 shows an \$8.4 billion deficit in financial derivatives.
- **Reserve assets:** Reserve assets refer to those foreign financial assets that are available to and controlled by the central authorities for financing or regulating payment imbalances. Reserve assets include monetary gold (gold held by the Reserve Bank), Special Drawing Rights, reserve positions in the International Monetary Fund and foreign exchange held by the Reserve Bank of Australia. Figure 4.7 shows a surplus of \$8.9 billion.
- **Other investment:** Other investment is a residual category that captures transactions not classified as direct investment, portfolio investment, financial derivatives or reserve assets. Other investment covers trade credits, loans including financial leases, currency and deposits and other accounts payable and receivable that do not meet the classification requirements of the above categories. Figure 4.7 shows a \$16.5 billion deficit for this category.

Balance on capital and financial account

The overall balance of the capital and financial account is determined by adding the categories together. The outcome should be approximately equal to the deficit on the current account. Figure 4.7 shows a \$52.1 billion surplus in 2017-18.

Australia's balance of payments figures are derived in the following way:

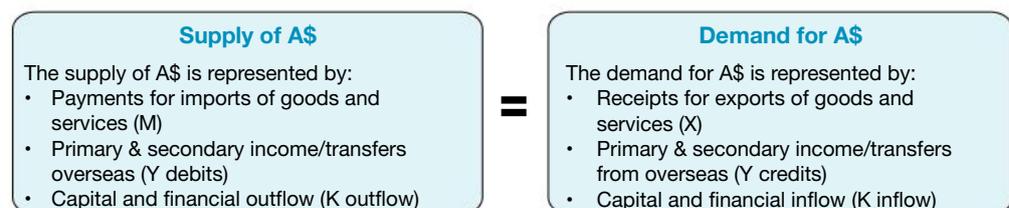


The final part of the balance of payments is the category of **net errors and omissions**. This refers to statistical discrepancies. It is included because under a floating exchange rate system, the balance of payments should always balance to zero (that is, a deficit of \$54.1 billion on the current account should be offset by a surplus of \$54.1 billion on the capital and financial account). For convenience, the balancing item is often added on to the capital and financial account figure to ensure the balance of payments sums to zero. It is therefore often reported with the capital and financial account. In 2017–18 the net errors and omissions item was \$2.0 billion.

Links between key balance of payments categories

An important relationship exists between the current account and the capital and financial account on the balance of payments. Firstly, the two accounts add up to zero – together, they represent a “balance of payments”. The deficit on the current account is equal to the surplus on the capital and financial account (allowing for the small category of net errors and omissions). An increase in the current account deficit (CAD) will result in a rise in the capital and financial account surplus.

In theory, the floating Australian dollar plays the key role of ensuring that there is a balance in the balance of payments. Under a freely floating exchange rate, equilibrium occurs where:



Therefore, for equilibrium in the foreign exchange market:

$$\text{Supply of A\$} = \text{Demand for A\$}$$

Which in turn implies:

$$M + Y \text{ debits} + K \text{ outflow} = X + Y \text{ credits} + K \text{ inflow}$$

Rearranging the equation:

$$M - X + Y \text{ debits} - Y \text{ credits} = K \text{ inflow} - K \text{ outflow}$$

OR

$$\text{Deficit on the current account} = \text{Surplus on the capital and financial account}$$

The strongest link between the current account and the capital and financial account can be seen on the net primary income part of the current account. In the longer term, a capital and financial account surplus will result in a larger deficit on the net primary income account. This is because any foreign financial flow that comes to Australia must earn some kind of return for its owner, and these earnings are a debit (or an outflow) recorded on the primary income account. Financial inflows can create debits on the primary income category of the current account in two ways:

- **International borrowing** (that is, foreign debt) will require regular interest repayments. These interest payments, or servicing costs, are not recorded on the capital and financial account; they are recorded as debits on the net primary income part of the current account. Only the repayment of the principal (the original amount borrowed) is recorded on the financial account. Australia's high level of borrowing from overseas has contributed significantly to the net primary income deficit due to the servicing costs of foreign debt.
- **Foreign investment** (that is, foreign equity) will require returns on the equity investment. Equity financial inflows are related to the foreign purchase of Australian assets such as land, shares, or companies. Foreign owners of Australian land will receive rent, owners of shares will receive dividends, and owners of companies will receive profits. These returns on investment are also recorded as debits on the net primary income part of the current account.

Over a period of time, a high level of capital and financial account surpluses will result in a widening CAD because of the servicing costs associated with increased foreign liabilities (that is, higher foreign debt and foreign equity). In extreme cases this may lead to a "debt trap" scenario, where an economy borrows from overseas merely to pay the interest-servicing costs on its existing foreign debt.

Another perspective on the links between the two sides of the balance of payments can be seen by examining savings and investment. Australia's historically low savings level (relative to investment demand) makes it necessary to attract a large inflow on the financial account. This perspective suggests that Australia's current account deficit is not simply the result of a trade imbalance. Between the mid-1980s and mid-1990s, economists generally associated Australia's balance of payments' problems on Australia's lack of international competitiveness (that is, on the balance on goods and services on the current account). This encouraged successive governments to introduce a series of microeconomic reforms in trade, financial and labour markets with the aim of achieving greater competition and growth in productivity. More recently, there has been a focus on the gap between savings

and investment as the cause of Australia's balance of payments problems, because low savings result in a need for foreign capital inflow to fund investment within Australia (that is, making the CAD a capital and financial account problem).

reviewquestions

- 1 Identify the main components of the balance of payments.
- 2 Explain the main components of the capital and financial account.
- 3 Explain the relationship between the TWO sides of the balance of payments.

4.5 Trends in Australia's balance of payments

The balance of payments is an important indicator of the health of the economy and the ability for Australia to make good with its obligations to the rest of the world. It reflects key features of the structure of the economy, and it highlights imbalances in the relationship between Australia and the global economy. Balance of payments figures are watched carefully by financial markets and have a significant influence on business confidence and foreign investors.

The main focus of analysis of trends in the balance of payments is the current account deficit, and in particular its main components, the balance on goods and services and net primary income. Figure 4.8 and figure 4.9 highlight the trends in Australia's balance of payments since the 1980s, when the current account deficit first emerged as a significant economic concern. Calculated as a **percentage of GDP** (which provides the most accurate comparison across time and between countries), the current account deficit averaged 1.1 per cent in the 1970s and 4.0 per cent in the 1980s. This sudden increase in the CAD alarmed economists and prompted a range of major structural reforms to restore the competitiveness of the Australian economy. Since the 1980s, the CAD has moved in a range of around 3 to 6 per cent of GDP, averaging 4.1 per cent in the 1990s, 5 per cent in the 2000s and 3.6 per cent since 2010. The extent to which a high current account deficit remains a problem for Australia has been a matter of ongoing debate among economists. To understand this debate (which is also examined in more detail in Chapter 10), we need to analyse the trends in the balance of payments in greater detail.

The current account data shown in figures 4.8 and 4.9 reveals a number of important points. Australia's current account deficit moves in cycles, reflecting a mix of short and longer term, domestic and external influences. The size and movements on the balance on goods and services and primary income account are influenced, to varying degrees, by both cyclical and structural factors. **Cyclical factors** are those which vary with the level of economic activity – such as changes in global demand for commodities, Australia's terms of trade and the value of the exchange rate. On the other hand, **structural factors** are those which are underlying or persistent influences on the balance of payments – such as the structure of Australia's export base, the international competitiveness of Australia's exports, and the level of national savings.

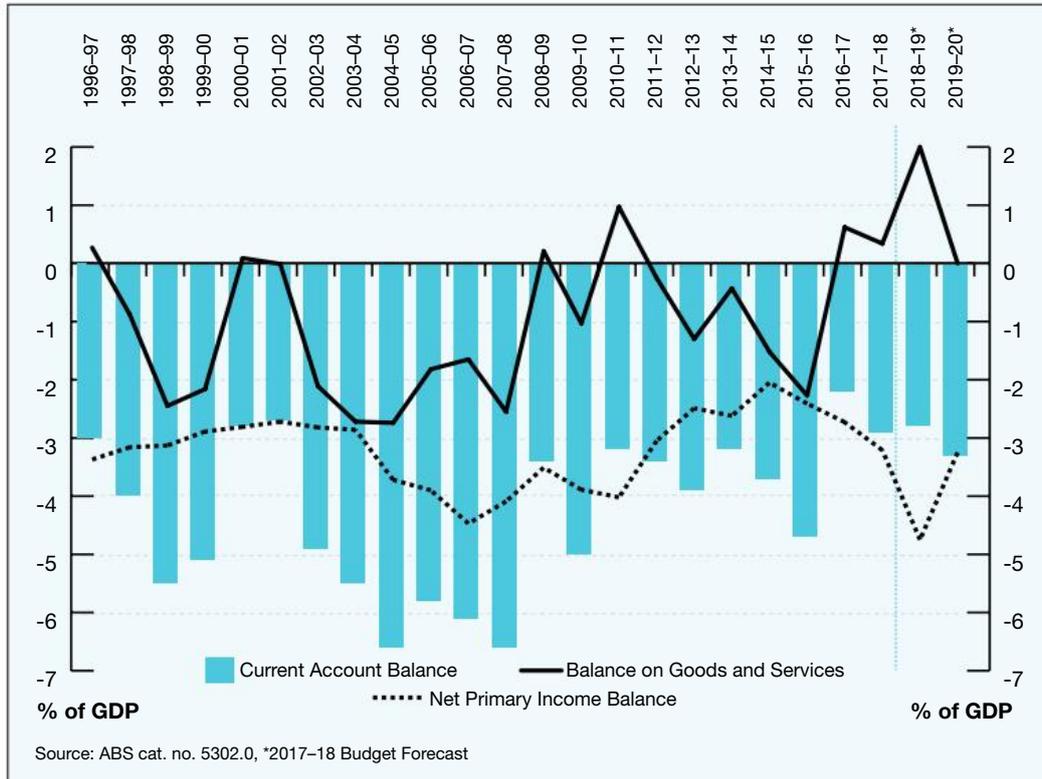


Figure 4.8 – The current account deficit

Year	Balance on goods & services (\$bn)	Net primary income (\$bn)	Net secondary income (\$bn)	Balance on current account (\$bn)	Capital and Financial account (\$bn)	CAD as % of GDP
1990-91	-0.6	-16.8	0.6	-16.7	16.0	-4.0%
1995-96	-2.4	-18.7	0.4	-20.7	19.1	-3.9%
2000-01	0.6	-19.8	-0.4	-19.6	16.9	-2.8%
2005-06	-18.1	-38.8	-0.8	-57.7	55.7	-5.8%
2006-07	-17.9	-48.5	-0.2	-66.6	64.0	-6.1%
2007-08	-30.0	-48.1	0.1	-78.0	77.2	-6.6%
2008-09	2.7	-44.2	-0.9	-42.4	43.9	-3.4%
2009-10	-13.4	-50.5	-1.3	-65.2	68.7	-5.0%
2010-11	13.7	-56.9	-2.1	-45.3	45.1	-3.2%
2011-12	-3.7	-45.6	-2.1	-51.4	49.7	-3.4%
2012-13	-19.9	-38.2	-2.3	-60.4	58.1	-3.9%
2013-14	-6.8	-41.8	-2.1	-50.8	49.3	-3.2%
2014-15	-24.7	-33.2	-1.8	-59.7	60.9	-3.7%
2015-16	-37.6	-40.0	-0.9	-78.4	80.1	-4.7%
2016-17	10.9	-48.0	-1.8	-38.8	32.8	-2.2%
2017-18	6.2	-59.1	-1.3	-54.1	52.1	-2.9%

Source: ABS cat. no. 5302.0, 5206.0

Figure 4.9 – Australia's balance of payments performance

In the years since the global financial crisis Australia's CAD has improved markedly. After reaching a record level in 2007–08 of 6.6 per cent of GDP, the size of the CAD has been much lower, with the CAD falling to 2.2 per cent of GDP in 2016–17, its lowest level since 1980. In 2017–18 the CAD remained below the 2010s average, at 2.9 per cent of GDP. This reflects favourable cyclical factors influencing the current account, including increased export volumes, above-average commodity prices, low global interest rates and an increase in domestic savings. Some of these changes also appear to be structural, with Australia expected to sustain higher export volumes in the medium term.

The balance on goods and services

The balance on goods and services (BOGS), also sometimes referred to as the trade balance, has recorded an improving trend in recent years, with surplus being achieved more regularly (including a record \$10.9 billion surplus in 2016–17 and remaining in surplus in 2017–18). Since 2010, exports have averaged 20.7 per cent of GDP while imports have averaged 21.2 per cent of GDP, resulting in an average deficit on the BOGS of 0.5 per cent of GDP (compared to an average of 1.5 per cent of GDP in the previous decade). In 2016–17, the BOGS recorded a surplus for the first time since the height of the mining boom in 2010–11. In 2017–18, the BOGS remained in surplus with a value of \$6.2 billion. This was lower than the \$10.9 billion surplus recorded in 2016–17. The BOGS is the main cyclical component of the CAD, but it is also influenced by structural factors.

Cyclical Factors

The balance on goods and services is affected by a range of cyclical factors, including the exchange rate, the terms of trade, and the rate of economic growth in the Australian economy and the global economy.

Movements in the exchange rate affect the international competitiveness of Australia's exports and the relative price of the goods and services that Australia imports. A depreciation decreases the foreign currency price of Australia's exports, increasing the international competitiveness of Australian exports on world markets. At the same time, a depreciation increases the Australian dollar price of imports and discourages consumers from purchasing imports, also improving the BOGS account. The record trade surplus that was recorded in 2016–17 was partly a result of a depreciation in the value of the dollar during the previous three years, with its value falling from US\$1.08 in February 2012 to a low of US70c in September 2015.

The greatest influence on Australia's balance of payments in recent years has been changes in Australia's terms of trade. The terms of trade shows the relationship between the prices Australia receives for its exports and the prices it pays for its imports. If export prices are increasing relative to import prices, Australia's terms of trade will improve. On the other hand, if import prices are increasing relative to export prices, then the terms of trade would deteriorate.

The terms of trade index is shown in figure 4.10. An improvement in the terms of trade means that the same volume of exports can buy more imports. Unless there is a significant decrease in export volumes compared to import volumes, then this would lead to an improvement on the balance on goods and services (either a larger surplus or a smaller deficit), and a decrease in the CAD.

In the 2000s, Australia experienced the largest sustained terms of trade boom in its history. This reflected the impact of the global commodities boom, which was the strongest influence behind changes in the CAD for over a decade. As commodities are Australia's largest export, this had significant impacts upon the terms of trade and the BOGS. Australian exporters received higher prices for their exports, increasing export revenue and thus increasing the value of Australian exports. This improved the BOGS,

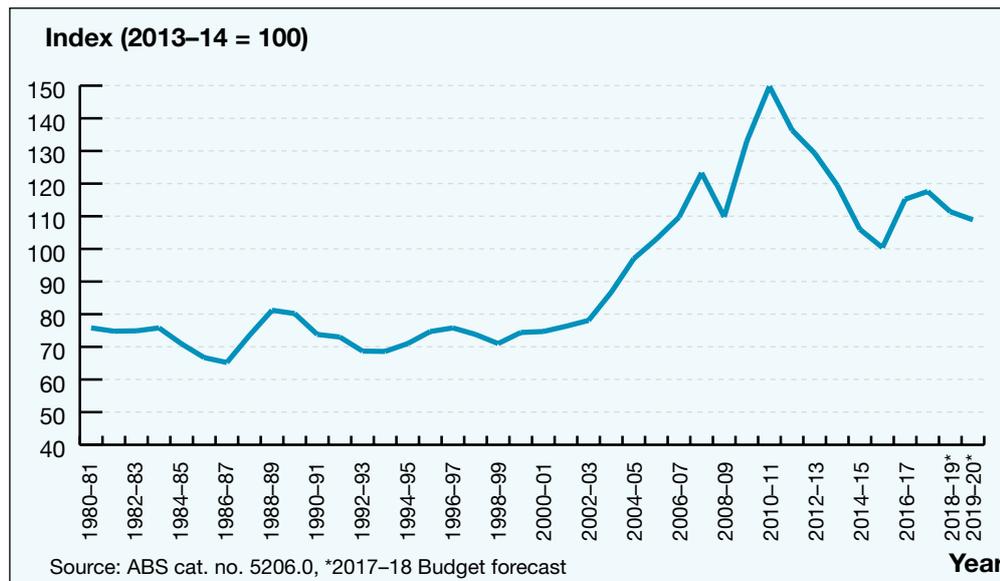


Figure 4.10 – Terms of trade

while the rise of China and other low-cost emerging economies also flooded world markets with low-cost manufactured goods, reducing import prices and further increasing Australia's terms of trade.

After the beginning of the boom in global commodity prices in 2003, Australia experienced a doubling of its terms of trade. Besides a temporary decline during the global recession in 2009, the trend increase in the terms of trade continued until the second half of 2011, where it peaked at a level 85 per cent above the average level of the entire twentieth century. The terms of trade reached a low point in March 2016. Since then, the terms of trade has risen due to rising prices for key commodity exports. By mid-2018, the terms of trade was only 23 per cent lower than the September 2011 peak.

The **terms of trade** affects both the BOGS and the exchange rate. Ordinarily, a higher terms of trade means that exports receive higher prices for the same output, which increases export revenue and improves the BOGS. However, because a higher terms of trade reflects an increase in demand for Australian exports, the demand for Australian dollars rises, causing an appreciation of the exchange rate. The higher Australian dollar weakened the international competitiveness of Australia's non-commodity exports. As a result, a lower level of non-commodity exports partially offset the benefits of the rising terms of trade.

The level of **domestic economic growth** also influences the BOGS balance by affecting demand for imports. An upturn in the domestic business cycle results in increased business investment and higher disposable income, which leads to higher consumption. Higher levels of business investment and household consumption spill over into higher imports (especially since imports constitute a large proportion of both capital and consumer spending), worsening the BOGS. High growth in investment (especially in the resources sector) and household disposable income levels during the commodities boom both contributed to Australia's poor BOGS performance in the mid- to late-2000s despite a rising terms of trade. In recent years, expenditure on imports has been subdued due to weaker household consumption and lower levels of investment in capital.

Terms of trade measures the relative movements in the prices of an economy's imports and exports over a period of time. The terms of trade index is calculated as export price index divided by import price index multiplied by 100.

TERMS OF TRADE

The **terms of trade** is expressed as a number known as the terms of trade index. It shows the ratio of the export price index to the import price index. The export price index shows the proportional change in the level of export prices, while the import price index shows the proportional change in the level of import prices. It should be noted that, as with all index numbers, the proportional change is relative to a base year, or starting point, which is given an index number of 100. (**Note:** You are not required to make calculations of the terms of trade index for the NSW Year 12 syllabus, but understanding the terms of trade is important for analysis of recent trends in Australia's balance of payments.)

$$\text{Terms of trade index} = \frac{\text{Export price index}}{\text{Import price index}} \times \frac{100}{1}$$

The following example, based on the information in figure 4.11, will be used to demonstrate how to calculate the terms of trade.

Year	Export price index	Import price index	Terms of trade index
1	100	100	100
2	115	105	109.5
3	120	130	92.3

Figure 4.11 – Hypothetical terms of trade index figures

In this example, the terms of trade have improved in Year 2 and deteriorated in Year 3 (shown by the falling index number), with import prices rising faster than export prices.

$$\text{Year 3 terms of trade index} = \frac{120}{130} \times \frac{100}{1} = 92.3$$

Changes in the **international business cycle** impact on the BOGS by affecting the demand for Australia's exports. A slowdown in global economic growth and weaker growth in Australia's key regional trading partners both reduce growth in demand for Australia's exports, worsening the BOGS. A key feature of Australia's economic successes in recent decades is that our economy has been more closely integrated to faster-growing economies than many other developed countries. A continuation of this success depends on strengthening trade linkages with the economies that are most likely to drive global economic growth in the 2020s, such as India and China.

Structural Factors

The structure of Australia's export base has an important influence on the long-term behaviour of the balance on goods and services. Australia has a **narrow export base**, in the sense that Australia's exports are heavily weighted towards primary commodities. Australia's comparative advantage lies in low valued-added products, such as minerals and agriculture, which together account for around two-thirds of Australia's export earnings. By contrast, Australia lacks **international competitiveness** in manufacturing and tends to import more expensive high value-added products such as consumer goods and capital goods. As a result, in the long run the BOGS tends to be in deficit rather than surplus because import payments very often outstrip export revenues. An additional difficulty with Australia's narrow export base is that global commodity prices are more volatile than the prices for manufactures and services, which contributes to large fluctuations in the BOGS from year to year.

Until the early 2000s, many economists thought that the long-term downward trend in commodity prices over the second half of the 20th century would continue to worsen Australia's external position. However, the increased global demand for commodities has made commodity exports far more valuable since the beginning of the 21st century. Although there was a fall in prices after the commodities boom peaked in 2011, the terms of trade have risen since 2016, and they remain well above longer term averages. This led to significant improvements in Australia's terms of trade and extraordinary growth in export revenues.

An important lesson from the commodities boom of the 2000s is that there are significant time lags between increases in commodity prices and increased export volumes. Increasing production capacity takes time because of the delays in investment decisions and the time required to construct new mines, railways and shipping facilities. During the 2000s decade, despite high levels of global demand and booming commodity prices, Australia managed to increase export volumes by only 3 per cent per year on average. By contrast, import volumes consistently grew at 8 per cent per year. Poor transport infrastructure, such as low capacity at the nation's ports and inefficient road and rail networks, physically prevented Australian exporters from taking advantage of favourable cyclical conditions by increasing export volumes. An influx of both government and private sector investment in infrastructure gradually eased these infrastructure constraints. Increased export capacity has been reflected in higher growth in export volumes in recent years, and this is expected to continue with large increases in LNG export volumes in the short to medium term.

In recent years there has also been an upturn in the prices for many **agricultural** exports, although the increase has been much smaller than the soaring prices for the mining sector. For a long time, the agricultural sector had experienced a trend decline in prices as global trade has shifted to sophisticated manufactured goods and services. Because agricultural production is often labour-intensive, it has been easy for many (especially developing) countries to produce agricultural exports. As such, there are many sellers on global markets. Farm subsidies have also contributed to over-production in some regions. Since 2006, the trend for the Reserve Bank's index of rural commodity prices has shifted upwards. Agricultural prices (in Australian dollars) were 50 per cent higher in 2018 than their average for the twenty years from 1990 to 2010. The increase in agricultural prices reflects growing global food demand, rising incomes in the developing world, rising prices for agricultural inputs such as oil and fertilisers and the impact of climate change in reducing agricultural productivity such as increased through natural disasters.

Many economists argue that Australia would benefit by diversifying its export base towards high-growth sectors of global trade, including high tech and **elaborately transformed manufactures** (ETMs) – that is, technologically advanced goods, as opposed to simply transformed manufactured goods or commodity exports. There is potentially an even greater role for growth in **services exports**, given Australia's close proximity to emerging economies in Asia and the increasing importance of services within Australia's export mix. An expansion of service exports is essential to diversifying Australia's export base since Australia is chiefly a service-based economy. Australia exported \$86 billion of services in 2017–18, with most of this revenue coming from the tourism and education sectors.

The growing impact of climate change also underscores Australia's need to diversify its export base. As other economies accelerate their shift away from carbon-intensive fossil fuels, Australia will need to address its structural dependence on carbon-intensive exports.

Australia also faces the difficult challenge of retaining an internationally competitive manufacturing sector. The increased value of the Australian dollar since the rise in global commodity prices in the 2000s has added to the pressure on Australian manufacturers from low-cost Asian economies. The closure of major industry sectors such as car manufacturing also puts Australian manufacturing at risk of losing the base level of skills and capacity required to compete in global supply chains.

The primary income account

The primary income account is the ongoing structural cause of Australia's CAD. It is comprised mainly of payments of interest and dividends on Australia's net foreign debt and equity. The net primary income account tends to record a deficit of between 2 and 3 per cent of GDP. In 2017-18, the net primary income deficit was 3.2 per cent of GDP.

Cyclical Factors

The net primary income deficit is a reflection of Australia's net servicing costs owed to overseas. These can take the form of interest repayments on foreign debt or dividend payments and profits on foreign equity.

The relative size of Australia's **interest repayments** to overseas are affected by two main cyclical factors. The first factor is changes in the value of the **exchange rate**. Movements in the exchange rate will alter the Australian dollar value of debt denominated in foreign currencies. This is known as the "valuation effect". An appreciation will decrease the Australian dollar value of debt denominated in foreign currencies, decreasing the value of Australia's debt service (in Australian dollar terms), reducing the value of net primary income outflows and improving the net primary income deficit. This has been one factor improving the CAD. On the other hand, a depreciation will increase the Australian dollar value of debt denominated in foreign currencies, increasing the value of Australia's interest repayments and worsening the net primary income deficit. However, many economists argue that in practice, the valuation effect only has a small impact upon the net primary income account, at least in the short term. This is because a large amount of Australia's foreign debt will be "hedged" in some way (meaning that the lender and borrower will agree to fix the exchange rate over the course of the loan to reduce the risk of large exchange rate fluctuations). Also, a significant part of Australia's foreign debt is denominated in Australian dollars, therefore making it immune from exchange rate movements.

The second factor affecting the size of Australia's interest repayments are changes in **domestic and global interest rates**. The servicing costs on foreign debt are set by an interest rate. Hence, changes to the interest rate will impact the cost of servicing debt. Australian borrowers might borrow under an overseas interest rate or under an Australian interest rate. The decline in Australian and global interest rates to record low levels in recent years reduced the cost of debt servicing (which in net terms was \$21.3 billion in 2017-18). Additionally, over the same period, there was an increase in the share of foreign liabilities owed by the government sector, which typically pays a lower rate of interest than the private sector due to lower default risk. These factors contributed to the narrowing of the net primary income deficit over this period.

While changes in the level of interest repayments on foreign debt have some impact, the most significant cyclical factor affecting the net primary income deficit is the performance of the **domestic business cycle** through its influence on **equity servicing costs**. Equity – the ownership of assets – entitles the owner to a share of profits from that asset. When the domestic economy experiences strong growth, **domestic company profits** rise, and these profits are redistributed to shareholders as dividends. In Australia, approximately 40 per cent of the Australian public share market is foreign-owned. Hence, a large proportion of dividends flow out of Australia as payments to overseas shareholders. In this way, higher domestic profits will tend to result in higher equity servicing costs in the form of dividend outflows, which will worsen the net primary income deficit. Since Australia's mining sector is mostly owned by foreign companies, a high level of profits in the mining sector results in a significant dividend outflow from Australia. This is a significant factor influencing the size of the net primary income deficit. For example, large profits for resources companies helped increase dividend outflows on foreign direct investment in Australia from \$39.7 billion to \$48.2 billion in 2017-18.

Structural Factors

The main reason for Australia's ongoing net primary income deficit is an underlying structural characteristic of the Australian economy: the **savings and investment gap**. The problem is that Australia is a relatively small economy with a historically low level of national savings. At the same time, it requires high levels of capital investment for its economic growth: in particular, Australia's major export industry, minerals and resources, requires high levels of investment in exploration, excavation, machinery, transport infrastructure and research.

In a closed economy, investment must be financed by domestic savings. However, since Australia is an open economy, firms are able to look to foreign sources of finance to fund their investment. This means that Australia tends to fund a large part of its investment through international borrowing (which increases foreign debt) or selling ownership in Australian assets (which increases foreign equity). This increases Australia's foreign liabilities and creates future servicing obligations in the form of interest repayments (on debt) and dividends (on equity). These servicing costs are recorded as outflows on the net primary income account, and are the major causes of Australia's persistent current account deficit.

On the other hand, the growth in Australian investment overseas (which has been led by Australia's large volume of superannuation funds) results in inflows of earnings on those investments, which improve the net primary income balance. Two factors that have contributed to the trend towards a lower primary income deficit in the 2010s are increased returns on overseas equity held by Australian investors and a lower exchange rate.



Figure 4.12 – Household savings ratio

Australia's household savings experienced a sustained long-term decline until the global financial crisis in 2008. Between the 1970s and the 2000s Australia experienced a decline in household savings and in public savings (because governments tended to run fiscal deficits, which meant that the government was borrowing money to fund government spending). A sustained upward trend in household borrowings has also given Australia one of the highest levels of household debt in the industrialised world. By 2018, household debt had grown to 190 per cent of household incomes, its highest level on record (though this measure excludes the impact of other assets owned by households, such as money held in offset accounts). Australian households are highly leveraged, with twice as much debt (as a proportion of their household income) as two decades ago.

Although household debt levels have continued to rise, in the years following the global financial crisis the household savings ratio – the proportion of household disposable income that is not spent on consumption – increased after falling below zero in the early 2000s. This can be seen in figure 4.12. Increased saving reduced Australia’s net borrowing needs, easing pressure on the net primary income account. By 2018, the household savings ratio was down 1.8 per cent, around the same level as just before the global financial crisis, casting doubt on whether the crisis resulted in any lasting change in savings levels.

The government can address the savings problem by implementing policies to increase the level of personal savings (such as compulsory superannuation and encouraging individuals to increase savings through tax incentives), and through measures to increase public savings by eliminating the budget deficit and moving the public sector into surplus through **fiscal consolidation**. A budget deficit can be regarded as negative public savings, while a budget surplus makes a positive contribution to the level of national savings.

review questions

- 1 Discuss THREE trends in Australia’s balance of payments performance in recent years.
- 2 Explain how changes in commodity prices have influenced Australia’s terms of trade and the current account in recent years.
- 3 Analyse the relationship between the level of national savings and imbalances on the current account.
- 4 Evaluate recent influences on the size of the current account deficit.

4.6 The consequences of a high CAD

An important question is whether there are negative effects associated with sustaining a high current account deficit. Economists differ over the extent to which we should be concerned about Australia’s CAD and foreign liabilities, with some arguing that if the government is not contributing to the CAD and foreign liabilities problems, any external imbalances are simply the result of normal market transactions in a global economy. Some also argue that the CAD and foreign debt can be beneficial because borrowing from overseas can increase investment and help the economy to grow faster. The International Monetary Fund generally considers a CAD to be too high if it averages over 4 per cent in the medium to long term or if it is above 6 per cent in the short term.

There are several risks associated with a sustained high CAD. These include:

- The growth of **foreign liabilities** – over a period of time a high CAD will contribute to an increased level of foreign liabilities. A deficit on the current account presupposes financial inflow on the capital and financial account, either in the form of borrowings from overseas (foreign debt) or through selling equity in items such as property and companies (foreign equity). This will mean that lenders may become more reluctant to lend to Australia or to invest in Australia.
- Increased **servicing costs** associated with high levels of foreign liabilities lead to larger outflows on the net primary income account, worsening the CAD. Foreign debt must be serviced through interest payments that vary according to the level of interest rates in Australia and overseas, and profits must be returned on foreign equity investment. Higher levels of foreign debt can result in foreign lenders demanding a “risk premium” on loans, forcing up interest rates.
- Increased volatility for **exchange rates** – high current account deficits may undermine the confidence of overseas investors in the Australian economy and,

WHY HAS THE CURRENT ACCOUNT DEFICIT NARROWED?

Australia has recorded current account deficits for every year since 1973, and between the 1980s and 2000s Australia's CAD was often among the highest in the industrialised world.

However, during the 2010s Australia's current account deficit has narrowed. The reasons for the improvement in the CAD were studied in a report released by the International Monetary Fund in February 2018, which highlighted four key contributing factors in addition to Australia's improved export revenues:

1. Import expenditure has decreased as domestic demand in Australia has contracted more sharply than in Australia's major trading partners.
2. There has been an increase in saving by households and businesses since the financial crisis, reducing the need to borrow from overseas to meet Australia's domestic investment needs.
3. Tighter regulatory requirements and a change in international lending conditions have meant that Australian banks have held more funds in reserves.
4. The servicing costs of Australia's overseas debt have been lower, due to sustained low global interest rates.

While some of these factors may change (for example, global interest rates have begun to rise), the report concluded that for the foreseeable future, Australia's CAD is likely to remain below its pre-2008 levels. It calculated that if Australia can keep the CAD in an average range of 2.5 to 3 per cent of GDP, net foreign liabilities can be sustained at around 55 per cent of GDP, giving an external position that the IMF judged to be "broadly consistent with medium-term fundamentals and desirable policies".

by reducing demand for Australia's currency, may result in a depreciation of the Australian dollar.

- **Constraint on future economic growth** – in the longer term, a high CAD may become a speed limit on economic growth. Higher levels of economic growth generally involve an increase in imports and a deterioration in the CAD. Economies with a CAD problem are therefore forced to limit growth to the level at which the CAD is sustainable. This is known as the **balance of payments constraint**.
- **More contractionary economic policy** – if they find it necessary to reduce a high CAD in the short term, governments may use tighter macroeconomic policies and accelerate the implementation of microeconomic reform. In the short run, tighter fiscal and monetary policies will reduce economic growth and contribute to a lower CAD.
- **A sudden loss of international investor confidence** – economic crises can sometimes be triggered by a sudden shift in the attitude of global markets towards a country whose external imbalance appears unsustainable. A major financial crisis was triggered in Asia by concerns over Thailand's high CAD in 1997, and similarly, a major economic crisis occurred in Argentina in 2002 because of its external imbalances. Investor confidence can change suddenly and countries with high CADs are more vulnerable to shifts in investor sentiment.

The balance of payments constraint is the extent to which an economy's capacity to grow is constrained by its need to keep the current account deficit at a sustainable level.

Although Australia's current account deficit has been high by comparison with other countries for several decades, concerns about its potential to disrupt the Australian economy have decreased in recent years. This is especially the case since the trend improvement in the past decade. In part, it is because in the era of globalisation, financial markets have become more willing to accept external imbalances, since over the past three decades those imbalances have not stopped countries such as Australia from sustaining strong economic growth. Financial markets have also been confident that Australia's natural resource wealth will underpin continued strong export growth in the future, allowing Australia to service its foreign liabilities.

Some economists warn, nevertheless, that the high CAD may still re-emerge as a long-term risk for Australia. It creates an ongoing strain on the external accounts, and makes Australia dependent on continuing financial inflows in order to fund the servicing costs of its high foreign liabilities. The fact that Australia's high CAD has not affected its growth in recent years is irrelevant, they argue – after all, until the sudden onset of the Asian economic crisis in 1997, which was sparked by external imbalances, the same arguments had been used about the high CADs of many economies in that region. These concerns were most recently raised in the 2017 book *Credit Code Red*, by Australian economists Peter Brain and Ian Manning. The argument of economists such as Brain and Manning is that a country may be able to sustain external imbalance for many years before it suddenly finds that the external imbalance is a major economic problem. Potential vulnerabilities for Australia include adverse developments in the Chinese economy, a fall in commodity prices, rising global interest rates or other changes in global credit conditions.

reviewquestions

- 1 Describe THREE consequences of a persistently high CAD.
- 2 Explain how a high CAD might affect the exchange rate.
- 3 Discuss why Australia's high CAD has not caused significant problems for Australia in recent years. Explain whether you think this might change in the future.

chapter summary

- 1** The **direction** of Australia's exports has shifted considerably in recent years from the United States, Japan and Europe towards China, Hong Kong, South Korea, India and the ASEAN countries.
- 2** Historically, agricultural products such as wheat, wool and beef comprised a large share of the **composition** of Australia's exports. These have declined in relative importance while mineral and energy exports, and to a much lesser degree services, have increased in relative importance.
- 3** The **balance of payments** summarises all transactions between Australia and the rest of the world over a given period of time. The balance of payments consists of the current account and the capital and financial account.
- 4** The **current account** shows the money flowing from all of Australia's exports and imports of goods and services, income and transfer payments for a period of one year. The main feature of current account transactions is that they are not reversible.
- 5** The **capital account** consists of Australia's capital transfers, such as those from conditional foreign aid and the purchase and sale of intellectual property rights. The **financial account** shows Australia's transactions in financial assets and liabilities. The main feature of capital and financial account transactions is that they are reversible.
- 6** The current account and the capital and financial account are closely linked. A deficit on the current account corresponds to a surplus on the capital and financial account. These surpluses, which cause rising foreign debt or the sale of Australian assets, result in longer term outflows on the primary income component of the current account.
- 7** The long-term effect of running a CAD is the growth of **foreign liabilities**. This may occur in the form of foreign debt or foreign equity (the sale of Australians' assets such as land, companies and shares).
- 8** The **terms of trade** is an index showing changes in the prices of Australian exports relative to changes in the price of imports. Australia experienced the largest surge in its terms of trade in history between 2003 and 2011, with far-reaching consequences for the balance of payments and the economy.
- 9** The CAD is influenced by a combination of **cyclical and structural factors**. The BOGS is the major cyclical component and is influenced by the exchange rate, terms of trade and the international and domestic business cycles. The net primary income deficit is the main structural cause of Australia's CAD, and is the result of a savings-investment gap.
- 10** A persistently high current account deficit may lead to a higher level of foreign liabilities, increased debt servicing costs, greater exchange rate volatility, higher interest rates and slower economic growth. However, financial markets have tolerated Australia's persistently high CAD, and while Australia's current account remains in deficit, it has fallen during the past decade.

chapterreview

- 1** Outline recent changes in the direction and composition of Australia's trade flows.
- 2** Explain why foreign direct investment might be preferable to portfolio investment.
- 3** Briefly explain what is meant by the *balance of payments*. Outline the structure of the two main accounts of the balance of payments.
- 4** Explain the relationship between the current account and the capital and financial account.
- 5** Examine Australia's recent balance of payments performance, distinguishing between short-term and long-term factors influencing the CAD.
- 6** Discuss the impact of movements in the exchange rate on the current account.
- 7** Discuss the role of cyclical and structural factors in influencing the net primary income account.
- 8** Explain how movements in the terms of trade impact on the current account, with reference to recent Australian experience.
- 9** Examine the role of savings in Australia's balance of payments problems.
- 10** Discuss the possible problems associated with a high CAD.

Exchange Rates

5

- 5.1 Introduction
- 5.2 Australia's floating exchange rate system
- 5.3 Reserve Bank intervention in the foreign exchange market
- 5.4 Fixed exchange rate systems
- 5.5 Exchange rates and the balance of payments

5.1 Introduction

Exchange rates play a central role in the relationships between individual economies and the global economy. All of the trade and financial relationships between countries are mediated through the exchange of currencies. For this reason, exchange rate movements have a significant impact on international competitiveness, trade flows, investment decisions, inflation and many other factors in the economy. Chapter 2 examined how global foreign exchange markets operate. This chapter will examine more closely where Australia fits into global foreign exchange markets, and the influences on the value of the Australian dollar.

The exchange rate is simply the price of Australia's currency in terms of another country's currency. It is the price at which traders and investors can swap Australia's currency for another currency. Exchange rates are necessary because exporting firms want to be paid in their own currency, which means that the importers need to be able to convert their domestic currency into the foreign currency in order to make payments. For example, a South Korean firm exporting to Australia wants to be paid in South Korean won (the local currency). The Australian importer must convert Australian dollars into won in order to make the payment. To do so, they must know how many won they can buy with their dollars.

This currency conversion occurs in the **foreign exchange market** (also referred to as the forex market) where the forces of supply and demand, or in the case of a fixed exchange rate, the government or its representatives, determine the price of one country's currency in terms of another (that is, the exchange rate).

THE AUSTRALIAN DOLLAR IN THE GLOBAL ECONOMY

- The Australian dollar is the world's fifth-most traded currency after the US dollar, European euro, Japanese yen, and British pound.
- The Australian dollar is used in 6.9 per cent of all currency trades in foreign exchange markets.
- 89 per cent of all Australian dollars sold in the Australian foreign exchange market are used to buy US dollars.
- Activity in Australia's forex market has softened since 2013 according to the RBA, but the value of the currency can still go through large upswings and downswings in any given year.
- US\$111 billion worth of foreign exchange transactions occur in the Australian market every day, which is around 3 per cent of the global total.

Countries can use different systems for determining the exchange rate of their currency. These include a floating system (clean or dirty float), a fixed rate system, and a flexible peg. Another option for countries with similar regional interests is a currency union with major trading partners, such as the euro, which is the currency of 19 European countries collectively known as the euro area.

Floating exchange rate is when the value of an economy's currency is determined by the forces of demand and supply in foreign exchange markets.

5.2 Australia's floating exchange rate system

In December 1983 Australia switched from a managed flexible peg to a **floating exchange rate** system. This is regarded as one of the most important structural changes in Australia's economic history because it opened up the economy to global financial flows. Under a floating system, the exchange rate is determined by the free play of market forces and not government intervention. Supply and demand establish an equilibrium price for the Australian dollar (A\$) in terms of another country's currency. This is demonstrated in figure 5.1, which shows how the exchange rate for A\$ in terms of US\$ is determined.

Just as market forces establish the equilibrium price for a good, they can also determine the equilibrium price of the A\$ in terms of another country's currency. Figure 5.1 reveals that market forces have determined the value of the A\$ in terms of US\$ at US\$0.80 (that is, A\$1 will buy US80 cents or alternatively US\$1 buys A\$1.25). This equilibrium will change regularly (hour by hour, or even minute by minute) as supply and demand in the market change.

Demand for A\$ is represented by all those people who wish to buy A\$. Demand for A\$ will be affected by:

- The size of **financial flows** into Australia from foreign investors who wish to invest in Australia and need to convert their currency into A\$.
- **The level of Australian interest rates relative to overseas interest rates** has a critical influence on the demand for A\$. Relatively higher Australian interest rates make Australia a more attractive location for foreign savings and thus increase the demand for A\$.
- The availability of **investment opportunities** in Australia will also strongly influence the demand for A\$. If there are more opportunities for investors overseas to start new businesses or buy into existing businesses via the share market, the demand for A\$ will increase.
- **Expectations** of a future appreciation of the A\$ will increase current demand for A\$ by speculators, thus contributing to the expected appreciation.
- The demand for **Australian exports**, since the foreigners who buy Australia's exports need to convert their currency into A\$ to pay Australian exporters.
- Changes in **commodity prices** and in the **terms of trade** have tended to have an immediate effect on the dollar. A rise in commodity prices and an improvement in the terms of trade are generally associated with an increase in the value of Australian exports. Financial markets will often respond to these changes by increasing the value of the dollar with an expectation that the value of exports will increase over the short to medium term.

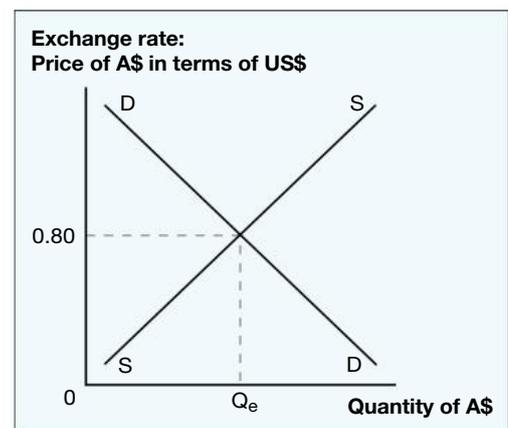


Figure 5.1 – Exchange rate determination under a floating exchange rate system

- ❖ The demand for Australian exports will be influenced by the degree of **international competitiveness** of domestic exporters and Australia's inflation rate relative to overseas countries. If domestic firms are competitive in world markets and Australia's inflation rate is relatively low, Australia's exports will generally be relatively cheaper and more attractive to foreign buyers.
- ❖ Changes in **global economic conditions** will also influence the overseas demand for exports. The demand for Australia's commodity exports is highly dependent on the growth rates of Australia's trading partners – when the world economy is on an upturn, demand and prices for Australia's exports rise and vice versa.
- ❖ **Tastes and preferences** of overseas consumers will also affect the demand for Australia's exports.

International competitiveness is a measure of the ability of Australian producers to compete with overseas producers in both local and world markets.

Supply of A\$ is represented by all those people who wish to **sell A\$**. The supply of A\$ will be determined by a number of factors:

- The level of **financial flows** out of Australia by Australian investors who wish to invest overseas and who will need to sell A\$ and purchase foreign currency.
 - ❖ The **level of Australian interest rates relative to overseas interest rates** will also be a critical factor influencing financial flows out of Australia and the supply of A\$. Relatively lower Australian interest rates will make investing savings overseas more attractive and hence increase the supply of A\$.
 - ❖ The availability of **investment opportunities** overseas will also influence financial flow out of Australia. Greater opportunities to start businesses overseas or to purchase shares in overseas companies will increase financial flows out of Australia and increase the supply of A\$.
- **Speculators** in the foreign exchange market who expect the value of the A\$ to go down will sell A\$, increasing the supply of A\$ and thus contributing to the anticipated depreciation.
- The exchange rate will be affected by the **domestic demand for imports** since Australian importers who buy from overseas need to sell A\$ in order to obtain foreign currencies to make import payments.
 - ❖ Demand for imports will be determined by a range of factors within Australia. One of the most important is the **level of domestic income**. Strong economic growth and rising incomes and employment will result in the demand for imports also rising, increasing the supply of A\$.
 - ❖ The domestic inflation rate and the **competitiveness** of domestic firms that compete with imports will also influence import levels. If Australia's domestic inflation rate is higher and its import-competing firms are relatively uncompetitive, imports will be relatively cheaper than domestic products and demand for imports will be higher.
 - ❖ **Tastes and preferences** of domestic consumers change over time, and an increasing preference for goods and services from overseas will raise the supply of Australian dollars on the foreign exchange market.

Figures 5.2 and 5.3 show how the exchange rate of the A\$ against the US\$ can **appreciate** (increase) or **depreciate** (decrease) due to changes in supply and demand.

Figure 5.2 reveals that any increase in the demand for A\$ (shift in the demand curve to the right, from D_1 to D_2) will increase the price of A\$ in terms of US\$ (that is, cause an appreciation of the A\$).

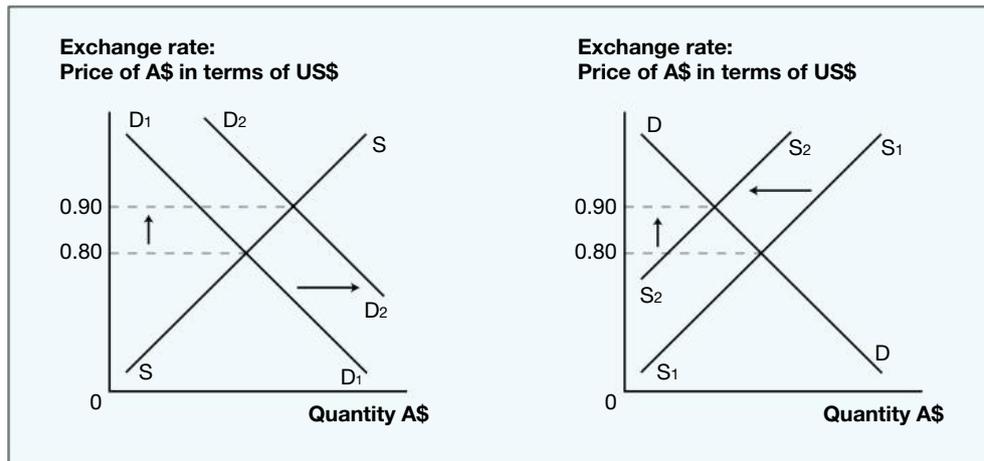


Figure 5.2 – An appreciation of the A\$

Likewise, any decrease in supply of A\$ (a shift in the supply curve to the left, from S_1 to S_2) would also cause an appreciation. The appreciation shown in both cases is an increase in the value of the A\$ from US80 cents to US90 cents.

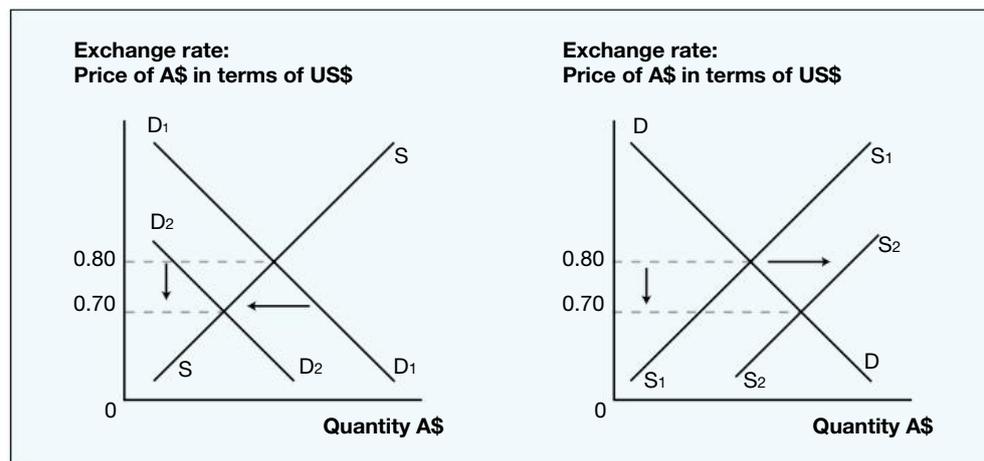


Figure 5.3 – A depreciation of the A\$

Figure 5.3 reveals that any decrease in the demand for A\$ (shift in the demand curve to the left, from D_1 to D_2) will decrease the price of A\$ in terms of US\$ (that is, cause a depreciation of the A\$).

Likewise, any increase in supply of A\$ (shift in the supply curve to the right, from S_1 to S_2) would also cause a depreciation. The depreciation shown in both cases is a decrease in the value of the A\$ from US80 cents to US70 cents.

Australia has many exchange rates – one for each of the currencies of the countries for which foreign exchange transactions are required. Thus, it is possible that at any given time, Australia's exchange rate may be appreciating against some currencies, and depreciating against others. For example, in 2017–18 the Australian dollar appreciated against the Turkish lira but depreciated against the US dollar.

A comparison of the value of the dollar against a single currency, such as the United States dollar, can create a misleading impression of trends in the Australian dollar's value. This is because just as there are unique factors influencing the Australian dollar, there are also unique factors influencing the value of the US dollar. For example, the US\$ depreciated significantly against most currencies during the 2000s. If we only examined the exchange rate between the US\$ and A\$, and did not make other comparisons, we would think that

APPRECIATION ▲	DEPRECIATION ▼
<ul style="list-style-type: none"> • an increase in Australian interest rates or decrease in overseas interest rates • improved investment opportunities in Australia or deterioration in foreign investment opportunities • a rise in commodity prices and an improvement in Australia's terms of trade • an improvement in Australia's international competitiveness • lower inflation in Australia • increased demand for Australia's exported goods and services • expectations of a currency appreciation based on forecasts of one of the above factors 	<ul style="list-style-type: none"> • a decrease in Australian interest rates or increase in overseas interest rates • deterioration in investment opportunities in Australia or improvement in foreign investment opportunities • a fall in commodity prices and a deterioration in Australia's terms of trade • a deterioration in Australia's international competitiveness • higher inflation in Australia • increased demand for imported goods and services • expectations of a currency depreciation based on forecasts of one of the above factors

Figure 5.4 – Main factors causing an appreciation or depreciation of the Australian dollar

the Australian dollar had appreciated on its own by over 100 per cent of its value during the decade to 2011. In fact, the Australian dollar was rising while the US\$ itself was falling, creating an exaggerated impression of the rise in the A\$. The Australian dollar rose by a smaller amount against other currencies.

The **Trade Weighted Index (TWI)** gives an indication of how the value of the A\$ is moving against all currencies in general. The TWI is calculated by measuring the value of the A\$ against the currencies of Australia's major trading partners compared with a base year. The currencies of the countries that are more prominent in Australia's trade are given a higher weighting so that they have a greater influence on the TWI.

Trade Weighted Index (TWI) is a measure of the value of the Australian dollar against a basket of foreign currencies of major trading partners. These currencies are weighted according to their significance to Australia's trade flows.

Currency	Trade weights (%)	
	2018	2017
Chinese renminbi	27.5	26.1
Japanese yen	10.7	10.4
United States dollar	10.3	11.5
European euro	9.8	10.3
South Korean won	5.4	5.8
United Kingdom pound sterling	4.3	4.7
New Zealand dollar	4.2	4.2
Indian rupee	4.0	3.4
Singapore dollar	3.9	4.0
Thai baht	3.4	3.7

Source: Reserve Bank of Australia November 2017

Figure 5.5 – Trade Weighted Index: A summary of Australia's top ten trading partners

Figure 5.5 indicates how the TWI is calculated. Each year, the Reserve Bank amends the measurement of the TWI based on the volumes of trade for the previous financial year. The total number of countries included in the TWI must cover at least 90 per cent of Australian trade (meaning that around 20–25 countries are included in the TWI calculations). During the last two decades, the relative significance of the exchange rates with the Japanese yen and the US dollar have declined, while the exchange rate with the Chinese renminbi has become more important.



For the latest statistics and analysis of exchange rate movements, visit the website of the Reserve Bank of Australia: www.rba.gov.au

AUSTRALIAN DOLLAR: RECENT MOVEMENTS

The late 2000s saw one of the most volatile periods for the Australian dollar since it was floated in 1983. After hitting a low in 2001 (of US47 cents), from 2003 it began appreciating strongly as commodity prices increased. It fell sharply but briefly in 2009 as the global financial crisis shook the world's currency markets, losing one-third of its value against the dollar. But it soon recovered, and by 2011 the dollar had reached a peak of US\$1.10 and 79 on the TWI. It then began falling, and in recent years it settled into a range of US70–80 cents. The currency depreciated slightly in the first half of 2018.

Commodity prices have typically played a critical role in the volatility of the exchange rate. As a significant commodity exporter, with around half of its exports from mineral and metal products, Australia's terms of trade and long-term export performance are strongly influenced by the prices of those commodities. After commodity prices soared to over three times their value before the beginning of the resources boom in 2003, this fuelled both demand from trade as well as speculative investment in the Australian dollar.

A Reserve Bank Research Paper by Daniel Rees and Mariano Kulish in 2015 estimated that the legacy of the recent commodity price boom would be a 40 per cent increase in commodity prices in the long run and a corresponding 31 per cent appreciation in the Australian dollar. This suggests that the Australian dollar will remain above its pre-2003 levels for the foreseeable future.

Other research by the Reserve Bank has identified another cause of the dollar's recent volatility. When Australia's cash rate is greater than that of other advanced economies, foreign investors (particularly from high-savings nations such as Japan) become more likely to invest their savings in Australia. This is known as the "carry trade", and has provided strong support for the Australian dollar through the last decade. Equally, when interest rates have been cut, as they were in 2016, this reduces demand for the currency. In early 2016, the Commonwealth Bank of Australia forecast the exchange rate to appreciate to US 80 cents over the subsequent 12 months, because despite lower interest rates in Australia, expectations for US interest rate increases were low.

Long-term economic factors such as economic growth, commodity prices and returns on investment have significant impacts on the value of the exchange rate. But the past decade has shown that the main way those long-term factors have an effect is through their impact on global financial markets, in which speculators are generally more influenced by short-term factors rather than long-term economic trends.

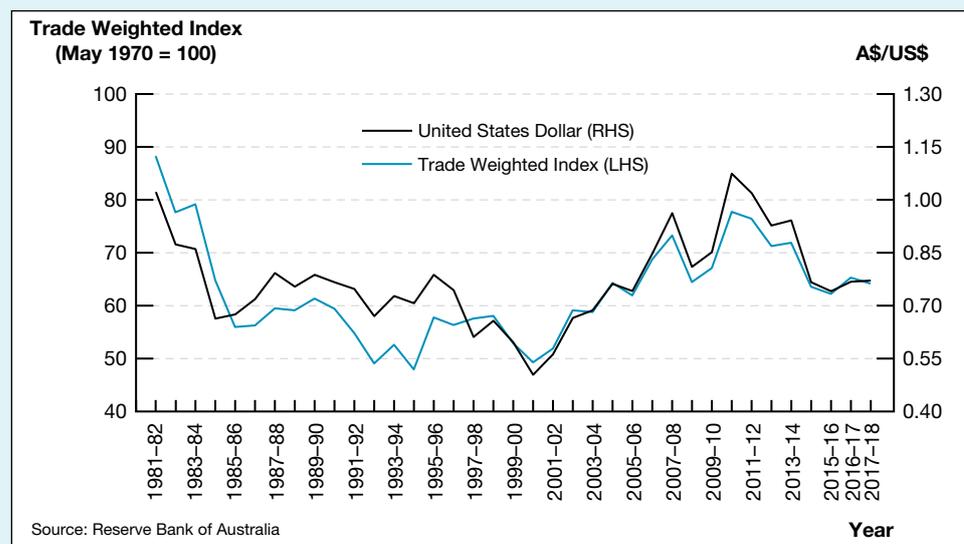


Figure 5.6 – Recent movements in the Australian dollar

One limitation of the TWI measure of exchange rate movements is that it is weighted according to volumes of trade regardless of the currency in which export and import contracts are invoiced. As around two-thirds of Australia's exports and around half of imports are priced in US dollars, the A\$/US\$ exchange rate is far more important than the weight it receives in the TWI calculation. This is important when analysing the impact of movements in the A\$ against the US\$ and TWI on Australia's trade and financial flows.

Figure 5.7 shows exchange rate movements since 1990–91 for the currencies of some of Australia's major trading partners as well as the TWI. It shows that while experiencing a general appreciation over the beginning of the century, the Australian dollar depreciated in 2008–09, and again after 2012–13.

Year	US dollar	Euro	Japanese yen	Pound Sterling	Chinese Yuan	TWI
1990–91	0.77	-	106.19	0.47	3.99	59.7
1991–92	0.75	-	94.05	0.39	4.18	55.2
1992–93	0.67	-	71.54	0.45	3.94	49.5
1993–94	0.73	-	72.20	0.47	5.04	53.0
1994–95	0.71	-	60.08	0.45	6.34	48.4
1995–96	0.79	-	86.48	0.51	6.30	58.1
1996–97	0.75	-	85.20	0.45	6.52	56.7
1997–98	0.61	-	86.16	0.37	5.61	57.9
1998–99	0.66	0.64	79.66	0.42	5.17	58.4
1999–00	0.60	0.63	63.19	0.39	5.17	53.3
2000–01	0.51	0.60	62.94	0.36	4.40	49.7
2001–02	0.56	0.57	67.48	0.37	4.27	52.3
2002–03	0.67	0.58	79.99	0.40	4.87	59.4
2003–04	0.69	0.57	74.82	0.38	5.91	59.1
2004–05	0.76	0.63	84.14	0.42	6.24	64.5
2005–06	0.74	0.58	85.11	0.40	6.01	62.2
2006–07	0.85	0.63	104.70	0.42	6.16	68.9
2007–08	0.96	0.61	101.93	0.48	6.54	73.4
2008–09	0.81	0.58	77.76	0.49	5.13	64.7
2009–10	0.85	0.70	75.46	0.57	6.05	67.3
2010–11	1.07	0.74	86.33	0.67	6.60	77.8
2011–12	1.02	0.81	80.89	0.65	6.58	76.5
2012–13	0.93	0.71	91.64	0.61	6.39	71.4
2013–14	0.94	0.69	95.43	0.55	5.62	72.0
2014–15	0.77	0.69	93.92	0.49	5.13	63.8
2015–16	0.74	0.67	76.23	0.55	4.70	62.5
2016–17	0.77	0.67	86.16	0.59	5.14	65.5
2017–18	0.77	0.65	85.28	0.57	5.03	64.4

Source: Reserve Bank of Australia

Figure 5.7 – Exchange rate movements 1990–2018

The Chinese Yuan is the basic unit of the Chinese currency, the renminbi. Its usage is similar to the way that economists refer to the British currency as Sterling and its unit as the British pound.

review questions

- 1 Define the term *exchange rate*.
- 2 Describe how the Trade Weighted Index (TWI) is calculated and explain why it is a better measure of the value of the Australian dollar than the US\$/A\$ exchange rate.
- 3 Account for recent movements in the Australian dollar.
- 4 Outline the possible impact of the following scenarios on the Australian dollar:
 - a) an increase in commodity prices and Australia's terms of trade
 - b) overseas consumers switching to Australian exports
 - c) speculators believing that the Australian dollar will soon appreciate
 - d) an increase in Australia's economic growth rate
 - e) an increase in interest rates overseas.

5.3 Reserve Bank intervention in the foreign exchange market

Although Australia relies primarily on market forces to determine the exchange rate, the Reserve Bank of Australia (RBA) sometimes plays a role in influencing the value of the currency. While the RBA cannot change the value of the Australian dollar in the long term, it is able to smooth out swings in the dollar relating to short-term factors. It can do so by **dirtying the float** and through monetary policy intervention.

Dirtying the float

When the Reserve Bank feels that a large short-term change in the exchange rate (possibly due to excessive speculation) will be harmful to the domestic economy, it may decide to step into the foreign exchange market, either as a buyer or a seller, in order to stabilise the A\$.

In order to curb a rapid depreciation of the currency, the RBA will buy A\$, putting upward pressure on the exchange rate. On the other hand, by selling A\$ the RBA may prevent a rapid appreciation. For example, in the second half of 2008 when the A\$ lost one-third of its value against the US\$, the RBA purchased \$3.3 billion of A\$ to moderate its depreciation and provide support in the forex market. The RBA was able to sell \$3.4 billion of A\$ in 2009 as the currency recovered in value. In addition to stabilising the currency, the forex interventions also generated profits that contributed to the RBA's dividend payment to the government.

Nevertheless, the RBA's ability to intervene through buying A\$ is limited by the size of its foreign currency holdings (that is, its reserves of foreign currency and gold that can be used to fund such purchases). In reality, the sum total of the RBA's foreign currency reserves is relatively small – it is not even equal to one day's total transactions in the currency.

Monetary policy decisions

Monetary policy initiatives are an indirect way of influencing the exchange rate and are rarely used for this purpose. If the RBA wants to curb a rapid depreciation, it may increase the demand for A\$ by raising interest rates. Higher interest rates will attract more foreign savings, which must be converted into A\$. This will increase the demand for A\$ and put upward pressure on the exchange rate. However, this policy will generally only be effective for a limited time.

It is unusual for the RBA to change interest rates in response to movements in the currency, since the primary focus of its monetary policy decisions is to influence the domestic economy and in particular the inflation rate. However, exchange rate movements can at times be so large that they may affect the stability of the economy or the level of inflation. The RBA estimates that a 10 per cent depreciation leads to a $\frac{1}{4}$ – $\frac{1}{2}$ per cent increase in inflation each year for two years, making currency movements an important consideration for the RBA.

reviewquestions

- 1 Explain how the Reserve Bank of Australia could directly intervene in the foreign exchange market to prevent a rapid depreciation of the Australian dollar. Discuss the limitations of this method of intervention.
- 2 Explain the impact of a decrease in Australian interest rates on the Australian dollar.
- 3 Explain what is meant by a *dirty float* of a currency.

GOVERNMENT PARTICIPANTS IN GLOBAL FOREIGN EXCHANGE MARKETS

In recent decades, governments and their central banks have played a much smaller role in global foreign exchange markets. The power of governments to influence the exchange rates of currencies has been reduced as private sector participants in forex markets, especially currency speculators with their vast holdings of finance, have become more dominant. Governments, through countries' central banks, rarely play more than a residual role as a buyer or seller of a country's currency, mainly to stabilise its value.

Instead, exchange rate values are mostly determined by market forces – that is, the bargaining process between private sector buyers and sellers of different currencies. The values of currencies such as the Australian dollar, Japanese yen and British pound are all determined this way. Some countries, however, attempt to influence the value of their currency against another currency, and therefore play a much larger role in that foreign exchange market.

The value of the Chinese yuan, also known as the renminbi, for example, is largely set by the People's Bank of China (PBC). Between 1994 and 2005, the PBC fixed the exchange rate at 8.27 RMB to the US dollar. After 2005, it adopted a crawling peg exchange rate system, intervening to prevent the value of the yuan from deviating too much (in either direction) from a specific value against the US dollar on any given day. Initially, the yuan could not change in a day by more than 0.3 per cent. Over time, this daily trading band was gradually widened, reaching its current rate of 2 per cent in 2014. By mid-2018, the yuan was valued at around 6.8 to the US dollar. To maintain the exchange rate at around this level, Chinese authorities must be willing to purchase a US dollar for 6.8 RMB, and be willing to purchase 6.8 RMB for a US dollar. If there is too much demand for renminbi at this “price” in US dollar terms, the Chinese central bank will accumulate increasingly more US dollar “reserves” as it sells more renminbi. In fact, the past decade has seen China's foreign exchange reserves soar from US\$150 billion to over US\$3 trillion – a twenty-fold increase.

The Chinese Government is gradually moving towards the internationalisation of the renminbi, and is slowly relaxing its influence over its day-to-day value. This can be seen in the moderate fall of China's foreign reserves since 2014 (see figure 5.8). This move towards a more flexible exchange rate will contribute to the diminishing role of central banks in global foreign exchange markets.

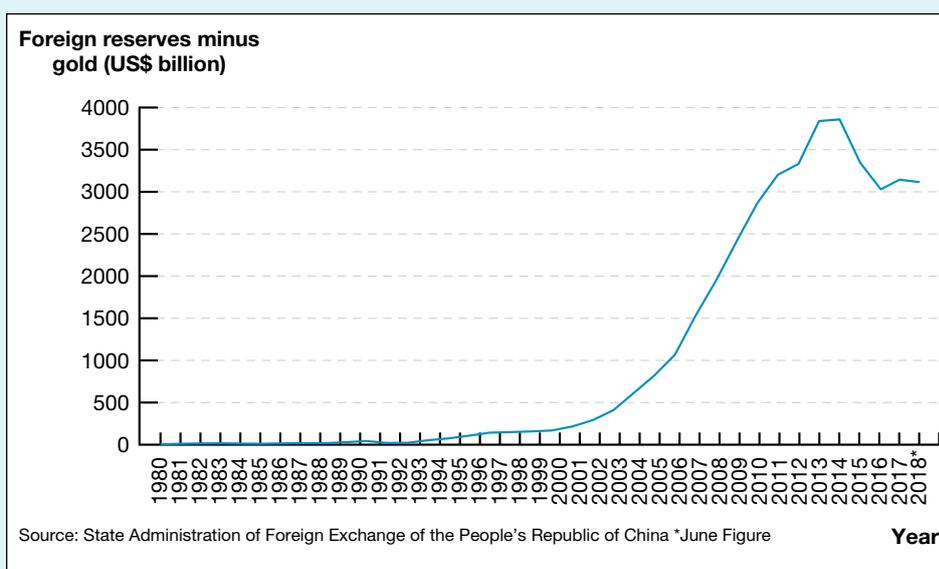


Figure 5.8 – China's foreign exchange reserves since 1980

5.4 Fixed exchange rate systems

Since December 1983, Australia has had a floating exchange rate system. In previous decades, however, it operated on a range of fixed exchange rate systems. Prior to November 1976, Australia had a fixed exchange rate system in which the A\$ was pegged, at different times, to the UK pound sterling, US dollar and the Trade Weighted Index. From November 1976 to December 1983, Australia had a variation of the fixed exchange rate known as the **managed flexible peg**.

Fixed exchange rates

Under a fixed exchange rate system, the government, or the RBA, officially sets the exchange rate (that is, it would not be left up to the forces of supply and demand). A fixed exchange rate regime is depicted in figure 5.9. In this case, the official rate has been set at A\$1=US90 cents (above the US80 cents rate that would apply if it was left up to market forces).

The government can attempt to maintain a fixed exchange rate by either buying or selling foreign currency in exchange for A\$. In this case it would be buying the excess supply of A\$ (that is, Q_1Q_2) at a price of US90 cents.

Thus, in order to intervene in the foreign exchange market under a fixed exchange rate system, the government would need **foreign reserves** of foreign currency and/or gold.

When Australia operated under a fixed exchange rate system, the RBA obtained the necessary foreign reserves by insisting that all foreign exchange holdings be lodged with them. Even so, the risk with this system is that in order to prop up the value of the A\$, the RBA could exhaust its foreign reserves by continually exchanging them for the excess supply of A\$, which could lead to a complete collapse of trade in the currency.

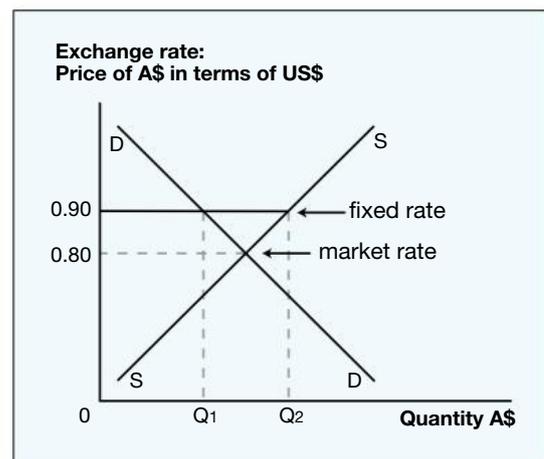


Figure 5.9 – A fixed exchange rate system

The other avenue open to the government would be to change the exchange rate “officially”, so that it was closer to the real market value. It would **devalue** the A\$ when it officially lowered the exchange rate and **revalue** the A\$ when it increased the exchange rate.

The managed flexible peg

A variation of the fixed exchange rate is the managed flexible peg. This system operated in Australia from November 1976 to December 1983. Under this system, the Reserve Bank would “peg” the value of the A\$ at 9am each day and that price would operate throughout that day. A flexible peg system provides more flexibility than the fully fixed rate, but it can still allow the official rate to drift away from that which would exist under pure market forces. For example, many economists have argued that Australia had an overvalued exchange rate under the managed flexible peg system in the early 1980s.

review questions

- 1 Explain, using graphs, how the Reserve Bank of Australia can influence the exchange rate by buying and selling Australian dollars.
- 2 Outline the risks of operating a fixed exchange rate system.
- 3 Distinguish between a fixed exchange rate and a managed flexible peg.

5.5 Exchange rates and the balance of payments

In an open economy such as Australia's, the value of the exchange rate can change substantially in response to economic developments. One of the most important influences on the exchange rate is the performance of the balance of payments. But just as the balance of payments influences the value of the dollar, the value of the dollar can also influence the balance of payments – as well as several other areas of the economy.

How the balance of payments influences the exchange rate

Under a floating exchange rate, the quantity of A\$ supplied must always equal the quantity of A\$ demanded. In other words, the net outflow of funds on the current account (supply of A\$) equals the net inflow of funds on the capital and financial account (demand for A\$). (Note, however, that in reality, allowance has to be made for statistical mistakes through the net errors and omissions item on the balance of payments). If there is any disequilibrium on the balance of payments it is only temporary and is automatically corrected by a movement in the exchange rate.

The following example demonstrates how a change in the current account can influence the exchange rate and the capital and financial account. If the value of imports increased, while exports remained unchanged, this would result in a deterioration in the current account deficit (CAD). It would also cause an increase in the supply of A\$ (importers will be selling more A\$ in order to buy foreign currency), resulting in a depreciation of the currency. Also, because of the depreciation, a given level of financial inflows would be able to buy more A\$. Therefore, the positive balance on the capital and financial account would increase in A\$ terms to match the bigger deficit on the current account.

Likewise, any other increased outflow of funds on the current account (for example, payment of services, income payments or current transfers) would most likely lead to a depreciation of the A\$ and an increase in the surplus on the capital and financial account. On the other hand, an improvement in the CAD would result in an appreciation of the A\$ and a decrease in the surplus on the capital and financial account.

The effect of the balance of payments on the exchange rate also depends on the perceptions of financial markets. If financial markets are concerned that an increase in the CAD is not sustainable, they may be less willing to buy Australian assets, and so the value of the dollar is likely to fall further as capital inflow is reduced. On the other hand, the dollar may appreciate despite increases in the CAD if financial markets believe the CAD is sustainable and they have confidence in Australia's future economic prospects. For example, the Australian dollar appreciated to over US95 cents in mid-2008, a time when the CAD was large, but investors believed that Australia's current account problems did not pose a short-term risk to the economy, and they expected that high commodity prices would eventually reduce the CAD. The experience of recent years indicates that the most significant influence on the value of the exchange rate is how financial markets react to developments in the balance of payments (and indeed other economic indicators), not the actual balance of payments figures themselves. This can often result in greater instability in foreign exchange markets because market sentiment can change quickly.

The effects of a change in the exchange rate

Changes in the exchange rate can also bring about changes in the balance of payments. The effects of appreciations and depreciations can be both good and bad for the economy.

An appreciation

NEGATIVE EFFECTS	POSITIVE EFFECTS
<ul style="list-style-type: none"> • By increasing the value of the A\$ in terms of other currencies, Australia's exports become more expensive on world markets and therefore more difficult to sell, leading to a decrease in export income and a deterioration in Australia's CAD in the medium term. • Imports will be less expensive, encouraging import spending and worsening Australia's CAD. Domestic production of import substitutes is likely to fall. • Higher import spending and reduced export revenue will reduce Australia's economic growth rate. • Foreign investors will find it more expensive to invest in Australia, generally leading to lower financial inflows. However, financial inflows may continue if foreign investors expect the currency to continue rising. • An appreciation reduces the A\$ value of foreign income earned on Australia's investments abroad and would cause a deterioration in the net primary income component of the CAD. • An appreciation will also reduce the value of foreign assets in Australian dollar terms – a phenomenon known as the valuation effect. 	<ul style="list-style-type: none"> • Australian consumers enjoy increased purchasing power – they can buy more overseas produced goods with the same quantity of A\$. • An appreciation decreases the interest servicing cost on foreign debt because Australians can buy more foreign currency with Australian dollars. This would reduce outflow on the net primary income component of the current account in future years and help reduce Australia's CAD. • An appreciation will also reduce the A\$ value of foreign debt that has been borrowed in foreign currency – a phenomenon known as the valuation effect. • Inflationary pressures in Australia will be reduced as imports become cheaper. This is likely to reduce pressure on the RBA to raise interest rates to defend its inflation target.

Valuation effect is where an appreciation (or depreciation) of the currency causes an immediate decrease (or increase) in the Australian dollar value of foreign debt that is borrowed in foreign currencies.

A depreciation

NEGATIVE EFFECTS

- Australian consumers suffer reduced purchasing power – they can buy fewer overseas produced goods with the same quantity of A\$.
- A depreciation increases the interest servicing cost on Australia's foreign debt because Australia can buy less foreign currency with its domestic currency with which to pay interest. This increases income outflow on the net income component on the current account and thus increases Australia's CAD.
- A depreciation will also raise the A\$ level of foreign debt that has been borrowed in foreign currency as expressed in Australian dollar terms – a phenomenon known as the valuation effect.
- Inflationary pressures in Australia will increase as imports would now be more expensive. This may increase pressure on the RBA to raise interest rates to defend its inflation target.

POSITIVE EFFECTS

- By decreasing the value of the A\$ in terms of other currencies, Australia's exports become cheaper on world markets and therefore easier to sell, leading to an increase in export income and an improvement in Australia's CAD in the medium term. A weaker A\$ following the end of the commodity boom in the early 2010s is largely credited with helping the Australian economy adjust to reduced income from mining by making other sectors in the economy more competitive.
- Imports will be more expensive, discouraging import spending and potentially improving Australia's CAD. Domestic production of import substitutes should also rise.
- Lower import spending and greater export revenue will increase Australia's growth rate, but this may not happen if Australia is unable to replace its imports with domestically produced goods.
- A depreciation increases the A\$ value of foreign income earned on Australia's investments abroad and would cause an improvement in the net primary income component of the CAD.
- A depreciation will also increase the value of foreign assets in Australian dollar terms – a phenomenon known as the valuation effect.
- Foreign investors will find it less expensive to invest in Australia, generally leading to greater financial inflows. However, financial inflows may dry up if foreign investors expect the currency to continue falling.

Given the positive and negative effects of both depreciations and appreciations, we might ask whether economists and policy makers favour a higher or lower exchange rate? The answer is that economists mostly favour an exchange rate values that reflects the true forces of supply and demand. These “true” supply and demand forces would result from the exchanges of goods, services and finance between Australia and the rest of the world, but would not include exchange rate changes due to speculation. Speculators who buy or sell A\$ in anticipation of a change in the currency distort exchange rate movements, and they increase exchange rate volatility by exaggerating upwards and downwards cycles.

One of Australia's problems is that it is a small economy that relies on substantial financial inflows to deal with its large external imbalances. This has traditionally made the A\$ a “hot money” currency, which makes it more vulnerable to speculators than many other advanced economies. The problems of excessive speculation and volatile currencies have become major global economic issues during the globalisation era, with many countries experiencing large swings in their currencies.

reviewquestions

- 1 Critically evaluate whether the value of the A\$ is likely to be higher or lower against the US\$ by the end of this year. Justify your forecast. (Hint: check the currency forecasts on the websites of any of the major Australian banks.)

chapter summary

- 1** The **exchange rate** is the price of Australia's currency in terms of another country's currency.
- 2** Under Australia's floating exchange rate system, the value of the currency is determined by the interaction of the forces of demand and supply in the marketplace, which determine an equilibrium value for the currency. This equilibrium changes regularly (hour by hour, or even minute by minute) as supply and demand change.
- 3** **Demand** for the Australian dollar is determined by the perceptions of speculators about future movements in the dollar, changes in interest rates and the demand for Australian exports, which are in turn influenced by the level of economic growth in Australia's trading partners and commodity prices.
- 4** **Supply** of the Australian dollar is determined by the perceptions of speculators about future movements in the dollar, changes in interest rates and the demand for imports, which are in turn influenced by the level of economic growth and consumer spending within Australia.
- 5** The two main exchange rates are the Australian dollar against the **United States dollar**, the world's leading currency, and the **Trade Weighted Index**, which is a basket of currencies weighted according to their significance to Australia's trade patterns.
- 6** The Reserve Bank of Australia (RBA) can influence the value of the dollar by intervening directly in foreign exchange markets through buying or selling the dollar with the aim of influencing its value, which is known as **dirtying the float**.
- 7** The RBA can also influence the currency's value through **monetary policy** decisions. For example, an increase in the level of interest rates will tend to attract financial flows into Australia and raise the value of the currency.
- 8** Under a **fixed exchange rate system** the value of the currency is normally determined by the central bank, either for the longer term or on a day-to-day basis through a flexible peg system.
- 9** Changes in the balance of payments can influence the currency's value, although the extent to which the balance of payments impacts on the currency depends on the response of foreign investors. In general, a deterioration in the CAD is likely to result in a depreciation, and an improvement in the CAD is likely to result in an appreciation.
- 10** Movements in the value of the exchange rate can have an impact on the level of inflation, international competitiveness, the level of exports and imports, foreign debt servicing costs, the CAD and the rate of economic growth.

chapter review

- 1 Describe what is meant by the *exchange rate*.
- 2 Outline the factors that affect the demand for Australian dollars.
- 3 Outline the factors that affect the supply of Australian dollars.
- 4 With the aid of a diagram, explain what is meant by a *fixed exchange rate system*. Outline the problems that the RBA could experience when maintaining a fixed exchange rate.
- 5 Explain what is meant by a *depreciation* of the dollar. With the aid of a diagram, describe how a depreciation may occur.
- 6 Outline what is meant by the *Trade Weighted Index*. Identify why it is useful for analysing movements in the value of the Australian dollar.
- 7 Explain how, under our present floating exchange rate system, the Reserve Bank can influence the exchange rate:
 - a) by dirtying the float
 - b) through changes in monetary policy.
- 8 Examine how the exchange rate will be influenced by a deterioration of the current account deficit.
- 9 Discuss the positive and negative impacts of an appreciation of the Australian dollar.
- 10 Discuss how speculation can influence the value of the Australian dollar.

6

Protection in Australia

- 6.1 Introduction
- 6.2 Government initiatives to reduce protection
- 6.3 Australia's free trade agreements
- 6.4 Implications of a reduction in protection levels for the Australian economy
- 6.5 The impact of international protection levels on Australia
- 6.6 The future of Australian industry in the global economy

6.1 Introduction

Trading relationships have long been important to the Australian economy. Australia's distance from the rest of the world, and the relatively high proportion of output that is traded, mean that barriers to trade have a significant effect on the economy, whether these barriers are within Australia or in overseas markets. In recent decades, the Australian economy has benefited from the gradual removal of trade barriers, and Australia remains hopeful that more can be done in the global economy to liberalise trade. An analysis of trade barriers in the Australian and global economies is central to our understanding of the impacts of globalisation on the Australian economy.

Historically, Australia was one of the most highly protectionist countries in the world. Governments felt it was necessary to protect Australian manufacturers, who for many years found it difficult to compete because of the relatively small population and low production runs in Australia. However, in the early 1970s Australia began to shift away from this protectionist strategy, and during the late 1980s Australia began to phase out almost all tariffs. For over two decades, Australia has been, in most respects, one of the most open economies in the world, and is one of its most vocal free trade advocates.

THE GOVERNMENT'S MAIN AIMS IN REDUCING PROTECTION

- Force domestic industries to become internationally competitive by exposing them to competition from imported goods.
- Encourage resources to move away from industries and firms that cannot improve their competitiveness to those that can become more competitive – in other words, to focus on areas of the economy where Australia has a comparative advantage.
- Allow Australia to benefit from greater integration with the global economy, by giving consumers and businesses access to goods and services available on global markets at the lowest possible price.
- Promote structural change in the economy, with the long-term aim of encouraging efficient firms to produce what the global economy demands.

6.2 Government initiatives to reduce protection

Australia's transition from a highly protected economy to an economy with relatively low trade barriers has occurred over a period of decades. As shown in figure 6.1, this is demonstrated by the **gradual decline in the average tariff level** in Australia since the late 1960s. Over the same time period, Australia has also seen the gradual phasing out of other “non-tariff barriers” to trade, such as quotas and subsidies.

1968–9	1977–8	1982–3	1986–7	1994–5	2002	2016
36%	23%	25%	19%	9%	3.7%	1.2%

Sources: Productivity Commission, World Development Indicators

Figure 6.1 – Average tariff levels in Australia

Protectionist policies came under sustained attack from the early 1970s. Organisations such as the Productivity Commission (then called the Industries Assistance Commission), the Commonwealth Treasury and the National Farmers' Federation argued that protection fostered inefficiency, increased prices, misallocated resources, made Australia less internationally competitive, damaged our trading performance and reduced living standards in the long run.

The first significant initiative to reduce protection was made by the Whitlam Government, which in 1973 announced a 25 per cent across the board tariff cut. However, it was not until 1988 that Australia commenced a comprehensive program of trade liberalisation. Over the subsequent decade, Australia reduced its tariffs faster than any other advanced economy (other than New Zealand).

Today, around half of all imported goods are tariff free, with the remainder, mostly manufactured goods, subject to a general tariff rate of 5 per cent or less. Historically, some manufacturing industries such as motor vehicles and the clothing and textiles industry were protected by higher tariff levels. However, these arrangements were phased out in 2015. Most of those remaining tariffs do not apply to imports from countries with which Australia has a free trade agreement, such as Korea, Japan and China. In 2017,

SOUTH AUSTRALIAN SUBMARINES: DEFENCE OR PROTECTIONISM?



In 2016, after a 15-month “competitive evaluation process”, the Turnbull Government announced French naval ship building company DCNS Group (now known as Naval Group) had won the contract to build 12 submarines for the Australian fleet. The submarines would be built over 25 years at a cost of \$50 billion. One of the factors influencing the decision to award the contract to France over rival countries was because the proposal involved the “bulk of the [manufacturing] work” occurring in South Australia, which might support 2800 local jobs. Australia and France formally sealed the agreement in late 2016.

While some saw strategic advantages in local construction, maintaining the skill base for the use and maintenance of the vessels, other foreign policy commentators questioned the national interest benefits of the decision. They argue that there were no short-term benefits as domestic economic benefits from the project will not start until at least 2021–22 when construction is slated to begin. Meanwhile, economists criticised the decision as costly trade protectionism, with local manufacture expected to add 30 to 40 per cent to the cost of the vessels.

Defence procurement remains one of the key areas of manufacturing where free trade is limited. The Naval Group itself is majority owned by the French Government. Significant trade liberalisation worldwide is unlikely in this area – partly because of genuine national security interests, and partly because it is one policy area where it is easier to justify policies to support industry and jobs, especially in politically sensitive regions with higher unemployment such as South Australia.

Australia's **average tariff level** (weighted according to what goods and services are traded the most) was 1.2 per cent. The Productivity Commission estimates that the dollar value of tariff assistance to domestic production was \$6.8 billion in 2016–17. Australia's average tariff level is similar to other industrialised economies such as the United States (1.6 per cent) and the European Union (1.6 per cent).

When other protectionist methods, such as subsidies to domestic producers, are taken into account, Australia is **one of the least protectionist economies in the world**. Australia provides far fewer subsidies for domestic producers compared with North America, Western Europe and East Asia, where they play a significant role in boosting the competitiveness of these countries' agricultural sectors. In 2016, Australia had the second-lowest level of agricultural protection in the OECD, with subsidies accounting for only 2 per cent of farm income (New Zealand was the only economy with a lower level of protection). By comparison, subsidies accounted for 9 per cent of farm income in the US, 21 per cent in the EU and 48 per cent in Japan.

While protection and direct assistance for producers has been substantially reduced during recent years, some export assistance programs still exist. These programs are administered through **Austrade** (the Australian Trade and Investment Commission). Austrade's assistance for exporters includes financial assistance, information on potential export markets and marketing advice. The main program that Austrade administers is the **Export Market Development Grants (EMDG)** scheme, which reimburses exporters for some of their costs in promoting their exports in new markets. Each year the EMDG scheme aims to provide around \$140 million in grants to around 4000 Australian businesses to help them find export markets and enhance export promotion. A 2015 review found that the EMDG scheme was effective and that each dollar spent generates net economic benefits valued from \$1.55 to \$7.03. It recommends an expansion of the program to encourage more Australian firms to export.

Australia's reductions in protection levels have typically gone well beyond those required by **international trade agreements** such as the World Trade Organisation agreement. While some other countries have only reduced protection levels to the extent required by their trade agreements, Australia has pursued a general strategy of phasing out protection. A 2015 Trade Policy Review of Australia by the WTO commended Australia's trade policies and highlighted only a few areas where policy changes would further liberalise trade: quarantine laws in the agricultural sector, certain foreign investment restrictions, anti-dumping measures, and state government procurement practices. That said, some of Australia's recent trade policy moves seem inconsistent with trade liberalisation. Legislative changes in 2017 made it easy for the government to keep enforcing anti-dumping measures well after the associated dumping activity has stopped. In addition, tariffs on new cars and complete bans on the importation of second-hand cars still remain even though Australia no longer has a domestic car manufacturing industry to protect.

reviewquestions

- 1 Outline trends in Australia's protection levels over recent decades.
- 2 Explain the government's main objectives in reducing protection levels.

6.3 Australia's free trade agreements

In addition to reducing their own levels of protection, governments pursue free trade by accessing overseas markets through trade agreements. Australia has been active in recently securing free trade agreements with China, Japan and South Korea, adding to existing agreements with the US, Chile and other regional economies (see figure 6.2). Australia's involvement in trade negotiations includes both multilateral agreements and bilateral agreements.

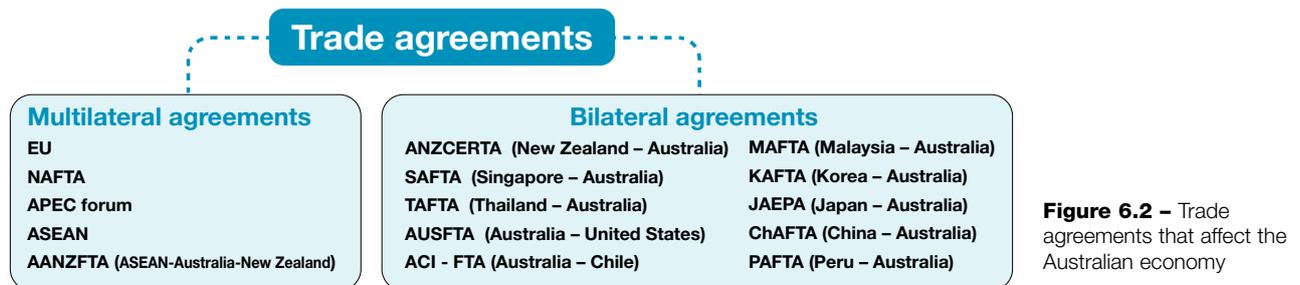


For further information on Australian protection and trade agreements, visit the Department of Foreign Affairs and Trade website www.dfat.gov.au, the Productivity Commission site www.pc.gov.au and the Bureau of Agricultural and Resource Economics and Sciences: www.agriculture.gov.au/abares

Using the DFAT website, identify current negotiations being undertaken by the Australian Government for future bilateral and regional trade agreements.

Bilateral trade agreements

Bilateral agreements involve just two nations. They are the easiest trade agreements to negotiate because they only need to factor in the interests of the two participants. The most comprehensive bilateral agreement for Australia is the 1983 Australia – New Zealand Closer Economic Relations Trade Agreement (known as ANZCERTA). This agreement has led to free trade between the two countries and increased standardisation of laws, business practices and commercial structures.



Since 2000, Australia has entered bilateral agreements with Peru, Chile, China, Japan, Korea, Malaysia, Singapore, Thailand, and the United States. Bilateral trade deals are an important focus of trade policy in Australia. The Australian Government has also entered into negotiations for separate agreements with the Gulf Cooperation Council (covering the economies of Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates), Indonesia and India, and Hong Kong.



While bilateral trade agreements reduce overall protection for Australian industries, they do so on a country-by-country basis, depending on the origin of the imports. As a result, they generate fewer economy-wide benefits than broad trade liberalisation. In addition, many argue that the significant number of bilateral trade agreements that are currently enforced around the world have created a complex web of overlapping and inconsistent trade rules for exporters and importers. Because of this, the Productivity Commission has concluded that such preferential trade agreements add to the complexity and cost of international trade. Indeed, the Productivity Commission has found that some businesses find it easier just to pay the general tariff rate on imports than to use the tariff-free import provisions in Australia's bilateral agreements, which require efforts to prove compliance with rules of origin.

Multilateral trade agreements

Multilateral trade agreements are agreements that provide for free or preferential trade between many countries, usually on a regional basis. This category of agreements sometimes refers to agreements administered by the World Trade Organisation (WTO), by which we mean global agreements. At other times this category can refer to regional trade agreements, such as the European Union and North American Free Trade Agreement.

Australia's main multilateral trade agreement is the **ASEAN-Australia-New Zealand Free Trade Agreement (AANZFTA)** with New Zealand and the Association of South-East Asian Nations (ASEAN), which came into effect in 2010. This agreement covers around 20 per cent of Australia's trade in goods and services and effectively creates a free trade area of over 650 million people with a combined GDP over US\$4 trillion. Australia and the ASEAN economies are complementary economies. This means that the type of goods that Australia can export – namely commodities, particularly in resource-based industries – are in heavy demand in the industrialising nations of South-East Asia. Conversely, South-East Asia can export to Australia those goods that we cannot produce competitively, such as simply transformed manufactures produced in labour-intensive industries. Overall this agreement is forecast to boost the Australian economy by US\$19 billion during the decade following its implementation in 2010.

Australia and New Zealand are just two of the six countries that have multilateral trade agreements with ASEAN (the others being China, India, South Korea and Japan). Since 2012, ASEAN and these six countries have been negotiating an ambitious Regional Comprehensive Economic Partnership (RCEP) that would bring all of these countries into a single multilateral trade agreement. The RCEP would cover 39 per cent of the global economy and include more than 3.4 billion people across these 16 countries. China and India have played key roles in shaping the proposed RCEP (which excludes the United States), and countries in the American continent.

Australia's main focus for future multilateral trade agreements in recent years has been the Trans-Pacific Partnership Agreement (TPPA). The coverage of the TPPA was intended to cover 12 countries: Australia, Brunei, Chile, Malaysia, New Zealand, Singapore, Peru, the United States, Vietnam, Canada, Mexico and Japan. Australia made the TPPA a priority because the TPPA economies account for around 40 per cent of global GDP, 35 per cent of Australian exports, and 45 per cent of Australia's total outward investment. The United States withdrew from the TPPA in 2017, before the agreement had even become operative. The remaining 11 countries, led by Japan and Australia, signed a new agreement (the "TPPA-11") without the United States in early 2018. However, some critics argue that without the United States the TPPA has limited value, and that the region should instead finalise the RCEP.

During the 1990s, Australia's regional trade negotiations focused on the **Asia-Pacific Economic Cooperation (APEC)** forum. In 1994, the APEC forum set a target of free

trade by 2020 (by 2010 for developed countries). This goal was never formalised in a trade agreement, and for most of its history the meeting of APEC forum leaders has focused on other priorities such as terrorism and climate change. A 2017 analysis by the APEC Policy Support Unit argues nevertheless that even without binding commitments, the forum has indirectly supported trade liberalisation among members. Since 1994 average tariff levels have fallen from 17 per cent to under 6 per cent, the proportion of goods without tariffs has increased to 60 per cent, and 150 free trade agreements (including regional agreements) have been implemented involving APEC members.

review questions

- 1 Distinguish between a bilateral trade agreement and a multilateral trade agreement.
- 2 Explain the key features of TWO of Australia's bilateral trade agreements.
- 3 Compare Australia's multilateral trade agreement with the Association of South-East Asian Nations and New Zealand and its membership in the Asia-Pacific Economic Cooperation forum.

6.4 Implications of a reduction in protection levels for the Australian economy

Australia's decision to largely abandon protectionism has been one of the most significant structural changes in the economy in recent economic history. It has significantly increased Australia's integration with the global economy. It has also had far-reaching effects in its impact on the structure of the economy and the nature of Australia's trading relationships.

Effects on firms

While the long-run effect of reduced protection on businesses may be beneficial, as shown in figure 6.3, there is no doubt that reducing protection creates winners and losers, particularly in the short run. Individual firms that operate in marginal, import-competing industries will shrink unless they are able to improve their competitiveness.

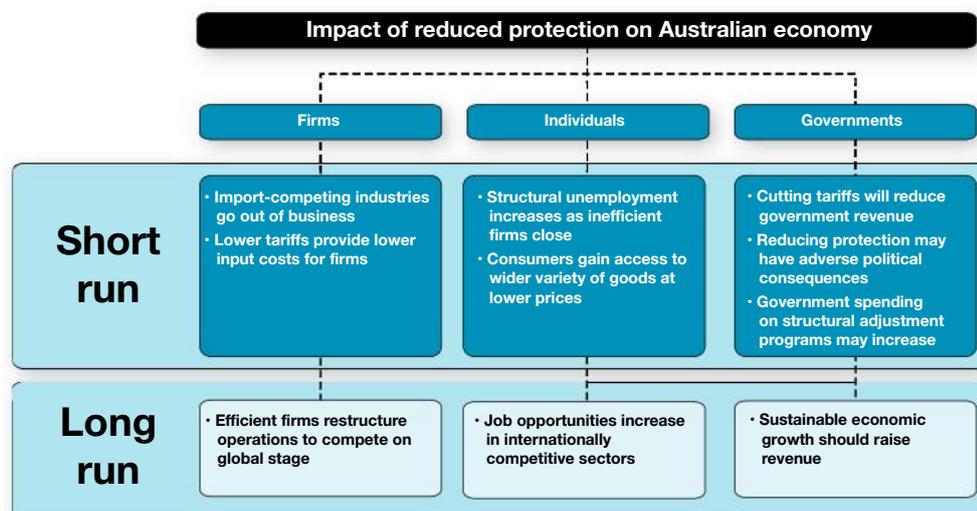


Figure 6.3 – The impact of reduced protection on the Australian economy

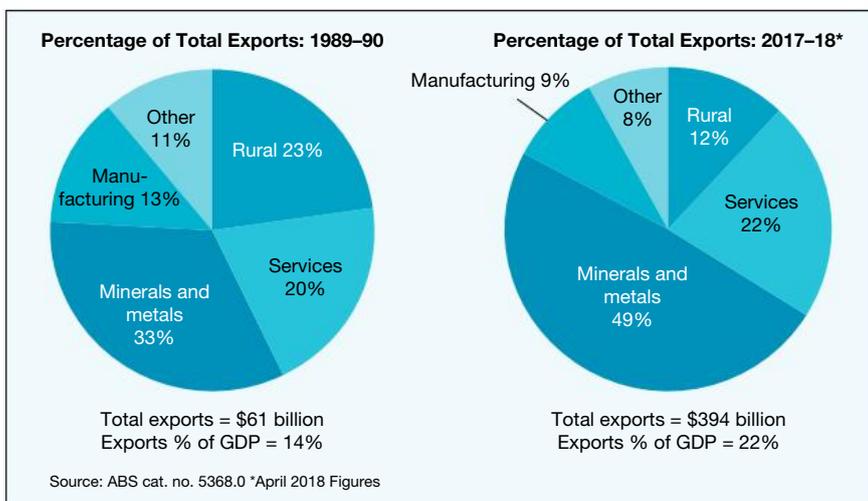
In some cases, production in some sectors of the economy cease altogether – for example, the manufacturing of consumer electronics products such as televisions, sound systems and microwave ovens in advanced economies such as Australia has almost entirely ceased (with car manufacturing in Australia ceasing in 2017). This is because manufacturing of these products generally requires high production volumes and a large workforce, and advanced economies cannot compete with the lower-wage costs of industrialising economies such as China.

Some businesses will respond to a phasing out of protection by restructuring their operations with the aim of staying in business or perhaps putting their focus on specialising in one aspect of production. This restructuring may involve measures such as consolidating their manufacturing processes down to a single plant, eliminating less profitable product lines, finding opportunities for exporting in response to the decline in their share of the domestic market, adopting new production technologies in order to reduce production costs, or reducing staffing levels.

The aim of removing protection for local industries is to force them to develop the innovation and efficiency that is necessary to compete on a world stage. By operating in a competitive domestic market, Australian firms should be better able to compete in global markets. This should also result in higher levels of investment for those firms that survive, as Australian businesses invest in improving their technology or expanding their business. Productivity Commission research shows that reducing tariffs spurs innovation and productivity growth through increased competitive pressure.

Lower tariffs for one industry can generate benefits for firms in other industries. Lower tariffs mean **lower input costs** for many firms that import capital goods for their production processes – for example, machinery used by mining companies in the extraction of commodities such as coal and gas. The Productivity Commission in 2017 estimated that abolishing tariffs on intermediate production inputs would reduce input costs by around \$6 billion per year. Reducing these input costs will also make exporting firms more internationally competitive. For example, the removal of tariffs on inputs such as farm machinery has improved the competitiveness of Australia's agricultural industries. For this reason, the agricultural industry's lobby group, the National Farmers' Federation, has for many years supported reducing levels of industry protection.

During the 1990s, the reduction in protection, along with other microeconomic policies, contributed to changes in Australia's export base, including a significant growth in manufacturing exports. However, the global resources boom of the 2000s saw Australia shift back to a heavily commodity-focused export base, as shown in figure 6.4.



In addition to the changing composition of exports during this period, there has also been substantial overall **growth in export volumes**, suggesting that Australia is becoming more integrated with the world economy. A higher proportion of Australia's production is being exported, and equally, a higher proportion of the goods and services that Australians consume are imported.

Figure 6.4 – Changes in Australia's export profile in the past decades

Effects on individuals

Individuals can experience substantial dislocation as a result of reduced protection levels, in particular through the **increase in unemployment** associated with the restructuring of industries and cuts in local production. The impact of these job losses can be particularly harsh on individuals who have worked in these industries for a long time and have limited alternative job opportunities.

- The import-competing industries that have been most affected by reductions in protection have been concentrated in particular regions, such as the manufacturing areas of Victoria and South Australia, where there are fewer alternative sources of employment. With reductions in protection, unemployment rates in these areas climbed dramatically and it was difficult for people who lost jobs in these areas to find alternative employment.
- Many of the jobs lost in the manufacturing sector because of lower protection are relatively low-skilled, production-line jobs. The limited skills that workers develop in these jobs are not easily transferred to other workplaces, especially at a time when the overall number of people employed in many of the manufacturing industries has been declining.

People who lose jobs as a result of tariff cuts often join the ranks of the **structurally unemployed**, because they often find that their skills do not match the job vacancies in the economy. It may then become necessary for these people to retrain to develop work skills that are relevant to the current needs of the economy. The Australian Government has funded many retraining programs with the aim of helping workers made redundant through tariff cuts to adapt their skills to other industries and find work elsewhere. For example, the Australian Government established a \$155 million Growth Fund to support the transition away from the automotive industry after it was announced that domestic car production would end in 2017.

However, the effects of reduced protection on employment patterns are not entirely negative. While unemployment is likely to increase in the short term due to cuts in protection, the longer-term prospects for employment levels may be brighter. Provided the process of structural change promotes internationally competitive firms in the future, the lost employment opportunities should be more than recouped by the growth experienced by those sectors in the economy that are efficient and internationally competitive. For example, while manufacturing industries declined in recent decades, service industries such as tourism and education have grown. In 2017, education represented over a third of Australia's service exports, up from 11 per cent in 1999, and Australia received around 8.8 million visitor arrivals in 2017. These figures are expected to increase further in the coming years as Asia's middle class, a significant source of demand for Australian services, expands even further. The problem with reducing protection in overall terms may not be that it raises the total level of unemployment, but that the gains and losses from protection cuts are distributed unevenly throughout the population, with some individuals winning while others lose out.

CLOTHING TARIFF CUTS

The reductions in tariffs on clothing goods from 17.5 per cent to 10 per cent in 2010 were strongly opposed by manufacturing industry employees. In the lead up to the cuts, some workers took their campaign to the Parliament House, arguing that the decision would create unemployment. A report by the Productivity Commission estimated that the lower clothing tariffs would indeed reduce industry employment by over 5 per cent – the equivalent of over 1500 jobs. However, the government decided to proceed with the cuts because there would be overall economic benefits, including lower prices for consumers, a view strongly supported by the Productivity Commission. A further reduction to 5 per cent was implemented in 2015.

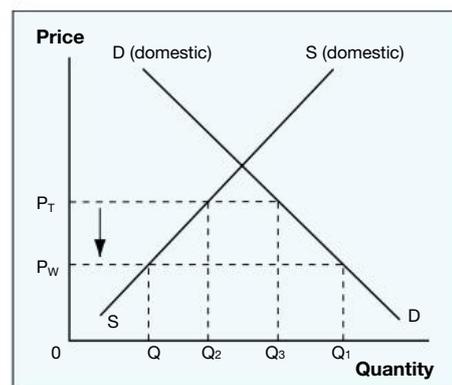


Figure 6.5 – The effect of tariff reductions

SELLING THE FARM

Although debates about protectionism have traditionally centred on trade and jobs, more recently they have begun to focus on issues of foreign investment. One of the most sensitive issues of debate in Australia is the growing foreign ownership of Australian assets, particularly of agricultural land. Concern about overseas investors buying Australian farms was highlighted by a 2016 decision by Treasurer Scott Morrison to block the proposed \$371m sale of Australia's largest single landholding, the S. Kidman & Co's 10 cattle stations that cover over 1 per cent of the nation's land, to a Chinese-led consortium, citing national interest concerns. Large foreign investment projects in Australia are all subject to a specific government approval process, and are often subject to special rules.

In recent years, Australia has tightened the restrictions and imposed greater regulations on foreign investment in agricultural land. Since 2017, important information on all foreign interests in farm land must be disclosed and made publically available on a national register, and the minimum screening threshold on future foreign purchases of agricultural land has been reduced, both to promote greater scrutiny and transparency of foreign agricultural investment. In 2018 the government introduced new rules forcing sellers of large agricultural properties to prove that they have 'adequately' marketed their property to domestic bidders before they can sell to foreigners. Policies like these explain why Australia is one of the most FDI-restrictive countries in the OECD, according to a report in 2017. In 2016–17, foreign direct investment in Australian farmland fell by 1.5 per cent.



One way in which all individuals should benefit from lower levels of protection is in their role as **consumers**. Lower trade barriers have resulted in consumers being able to buy many goods at lower prices. Additionally, a wider variety of goods and services are available. For example, according to the Australian Government's 2011 Trade Policy Statement, lower protection and other factors had resulted in real price falls of up to 54 per cent since 1985 for a range of manufactures including footwear, electronics, furniture and motor vehicles. The increased level of competition has also contributed to improved customer service from firms in some sectors. Figure 6.5 on page 151 shows how the removal of tariff protection lowers the *domestic price* of products (from P_T to P_W), and increases the amount of foreign products available (from Q_2Q_3 to QQ_1).

The phasing out of trade barriers and the opening up of the Australian economy to global markets is intended to **improve living standards** for individuals. The quality of goods and services is higher because the best global businesses enter Australian domestic markets, forcing domestic firms to lift their game in response to the more competitive business environment. Highly competitive markets also tend to encourage greater innovation as firms seek to differentiate themselves from competitors. The domestic presence of many firms that operate in global markets also ensures that innovations in other markets are brought into Australia more quickly.

ECONOMIC BENEFITS OF TRADE

Australia's trade liberalisation policy between 1986 and 2016 increased GDP by 5.4 per cent and increased average family income by up to \$2670, according to modelling by the Centre for International Economics. Other economic benefits included:

Gross Domestic Product	+ 5.4 per cent
National Income	+ 5.1 per cent
Exports	+ 28.5 per cent
Imports	+ 28.6 per cent
Prices	- 3.4 per cent
Real wages	+ 7.4 per cent

Source: "Australian Trade Liberalisation", prepared for the Department of Foreign Affairs, Centre for International Economics, October 2017

Effects on governments

Cutting tariffs will lead to a reduction in **government revenue**, since tariffs provide indirect tax revenue to the government. In the early years of Australia's nationhood at the beginning of the twentieth century, tariffs provided the largest source of revenue to the

Commonwealth Government. The importance of tariff revenue declined throughout the twentieth century to the point where it is now only a minor source of revenue. The \$1.6 billion in tariff revenue collected by the government in 2017–18 accounts for less than 1 per cent of its total revenue.

A program of reducing protection levels may also have effects on the levels of **government spending**. Governments may be required to assist the structural adjustment process through increased expenditure on unemployment benefits and retraining programs to aid individuals who lose their job. In some instances, governments also provide financial support to certain industries to assist with the adjustment process. For example, motor vehicle industry policy includes specialised assistance for workers who lose their jobs because of restructuring, such as job search assistance, relocation assistance, and industry-specific training.

Governments can also be affected by the **political consequences** of tariff reductions. Despite the general consensus amongst economists that cutting protection will benefit the economy, this policy is generally unpopular with the wider community. The costs of lower protection are highly visible – structural unemployment, the closure of factories and well-known businesses and the damage to the economy of regional Australia. The benefits are less visible, because they are spread out across the economy, and they may take a long time to arrive. In the meantime, governments can lose votes by pursuing policies to reduce protection. This explains why governments in many countries are reluctant to reduce protection levels.

Other economic effects

Phasing out protection also has an impact on Australia's economic growth and **standards of living**. In the short term, lower levels of protection may lead to increased levels of imports. Because imports are produced overseas and do not create jobs or income in Australia, reducing protection can be negative for living standards in the short term. In the long term, however, as resources such as labour and capital move to more productive areas of the economy – with higher rates of return – economic growth and living standards should improve. While many other factors have also been important, lower protection levels in recent decades have generally been seen by economists as being one of the critical factors causing Australia's stronger economic performance.

In the short term, the phasing out of protection can have significant effects on Australia's trade performance and **current account deficit (CAD)**. The CAD is likely to worsen as imports rise, because some imports will be cheaper due to lower tariffs and quotas, or of a higher quality than local products. However, lower protection should improve international competitiveness and reduce the CAD over the longer term as exports grow. In fact, government reports have argued that Australia's failure to reduce tariffs until the late 1980s contributed to a less competitive export sector and higher current account deficits.

The fact that the benefits of reduced protection grow over time has encouraged Australia to adopt a process of phasing tariffs out over a 30-year period rather than with a small number of large cuts. This helps industries to adjust better to changing business conditions. Most economists would agree that the short-to-medium-term problems of reducing protection are far outweighed by the long-term benefits to be gained, but a gradual phasing out makes it easier to manage these problems.

reviewquestions

- 1 Outline the impacts of reduced protection on economic growth, unemployment, and external stability in the Australian economy.
- 2 Explain the effects of a reduction in protection on domestic firms and individuals. Outline how reducing protection creates winners and losers in the Australian economy.
- 3 Examine the short- and long-term effect of reducing tariffs on government revenue and expenditure.

6.5 The impact of international protection levels on Australia

Just as domestic policies to protect Australian industries have an impact on the Australian economy, so do the policies of other nations to protect their industries. When other countries put tariffs on Australian goods and services, Australian exports become less competitive and struggle to penetrate foreign markets. When other countries subsidise their exports, they raise the supply and reduce the price of those goods on global markets. The result is that countries like Australia that compete to sell similar products on global markets have their income reduced. Overall, international protectionism reduces the output of the Australian economy. As a measure of this impact, a 2018 report by the Centre for International Economics found that a global reduction in tariffs that reduces import prices by 10 per cent would increase Australia's real GDP by 0.6 per cent a year.

IS PROTECTIONISM CONTAGIOUS?

Productivity Commission research in 2017 found that if tariffs globally rose by 15 per cent, Australia's GDP would be reduced by 1 per cent every year, cost 100,000 jobs and reduce median household income by \$1500 a year. Five per cent of the value of Australia's capital stock would be lost. The estimates in *Rising protectionism: Challenges, threats and opportunities for Australia* were not a forecast, but rather a warning of what could result if protectionist trends accelerated. According to the WTO, 1671 new measures to restrict trade had been implemented by member countries by 2016. The global consequences of higher tariffs would be even more severe than that experienced in Australia: global trade would be a whopping 22 per cent lower and global output would be 3 per cent lower – the equivalent of another global financial crisis.

As a small economy with a high level of agricultural trade, Australia suffers particular disadvantages as a result of the protectionist policies of other nations and trading blocs. The European Union has for several decades heavily subsidised agricultural production through the Common Agricultural Policy, which absorbs over one-third of the European Union's budget and supplies around a fifth of European farmers' incomes. Farmers also receive significant subsidies in the United States, Japan, Korea and Switzerland. Australian farmers are therefore competing in global markets at a significant disadvantage to their counterparts in the rest of the industrialised world. Figure 6.6 shows the significant contribution of agricultural protection to farm income in the countries of the OECD.

While Australia's agricultural sector is mostly affected by protection levels in developed countries, it also plays a role in trade with developing countries. For example, the reduction of Chinese tariffs on Australian wine in helped Australia's wine exports to China to double in value by 2018. China now imports more than \$1 billion of Australian wine every year.

Progress towards reducing **agricultural protection** since the early 2000s had been disappointing long before the election of President Trump in the United States in 2016 threatened a new era of protectionism globally. Many of the most highly protectionist agricultural nations have taken advantage of complex loopholes in the World Trade Organisation regulations to avoid genuinely freeing up agricultural trade. Additionally, even though significant trade agreements have been signed and ratified in recent years, they have typically offered quite modest reductions in agricultural protection. If global trade liberalisation had been achieved by the WTO's Doha Round, it could have boosted Australia's agricultural exports by US\$9 billion by 2020, according to the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES).

Australian firms exporting **non-agricultural goods** generally face fewer barriers to trade compared with the agricultural sector. The

mining and resources sector, whose exports contribute the largest share of Australia's exports, face very few barriers to trade. The products from this sector, such as coal, natural gas, oil and iron ore, are in very high demand worldwide. As a result, mining companies are probably more likely to face export restrictions from an Australian government trying to secure energy supplies for the domestic economy than from a foreign government

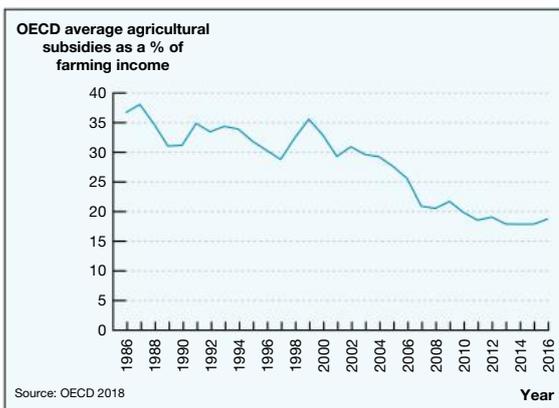


Figure 6.6 – Subsidies as a percentage of farm incomes for OECD countries

trying to protect their minerals and resources industries. The West Australian Government's domestic gas reservation policy requires that 15 per cent of the state's natural gas production be made available for domestic use. From another perspective, the countries importing Australian energy and mineral resources often simply do not have their own resources to produce domestic alternatives. If a foreign government was to impose tariffs on Australian resource exports, it would simply raise costs for consumers and businesses but would not encourage the discovery or exploration of energy resources that the foreign country does not have.

Likewise, Australia's **manufacturing industries** generally face few barriers to trade because of the substantial reduction in industrial tariffs in recent decades that have been negotiated through multilateral trade agreements. Most industrialised economies in the world have low manufacturing tariffs like Australia. Within the Asia-Pacific region, which includes many industrialising and developing countries, average manufacturing tariffs are also low but there are exceptions, such as for motor vehicles, which incur tariffs of around 20 per cent in China. Additionally, some Australian exporters argue that **non-tariff barriers** to trade, such as technical restrictions and licensing rules, act as disguised barriers to trade. For example, inconsistent or varying health regulations for processed food products in different areas of a country can make it difficult for Australian exporters to penetrate foreign markets. For this reason, technical barriers to trade are now formally part of trade negotiations at the World Trade Organisation and in bilateral trade agreements.

Australia's **service industries**, which account for around 70 per cent of the Australian economy but less than a quarter of our exports, arguably face the most prohibitive barriers to international trade. According to a 2010 analysis by the World Trade Organisation, the costs associated with trade in services are two or even three times higher than trade costs in goods. In other situations, trade is not feasible. Most of these are not the result of protectionist policies in other economies, but are simply the **natural barriers** caused by geography and transport costs, language and cultural differences, and local tastes and preferences. For example, Australian restaurants might be producing some of the best food in the world, but the market for restaurant customers is limited to people either living in or visiting Australia. This makes it difficult for Australian restaurateurs to export their services (other than to tourists, who make up a very small proportion of the global consumer market for food).

Protectionism also plays a role in reducing services trade in the global economy. Unlike goods, the main barriers to services trade are not tariffs, but a range of government regulations and practices that have the effect of restricting services trade. Many countries' banking sectors are protected from foreign competition by restrictions on granting licences for overseas-owned banks. This restricts the growth of Australia's financial services industry in overseas markets. Similarly, competitive Australian firms in the electricity, recycling, and communications industries face many overseas markets that are dominated by monopoly government providers or procurement arrangements that favour local providers. Figure 6.7 on page 156 lists some common barriers that Australian service businesses face in overseas markets. The impact of restrictions to trade in services is significant for service-based economies such as Australia. A 2010 Productivity Commission Report cited one estimate that liberalisation of trade in services could increase Australian services exports by \$11 billion per year by 2025. A subsequent Productivity Commission report in 2015

EXPORT QUOTAS FOR AUSSIE GAS?

Whereas most trade restrictions are imposed on imports, occasionally governments impose restrictions on exports, where markets do not operate in the national interest. For many years, Australian manufacturers and energy retailers have criticised Australia's liquefied natural gas (LNG) industry for refusing to supply the domestic Australian energy market with gas at a fair price and for making long-term deals to sell all of their output to overseas buyers. In 2017, the Turnbull Government announced restrictions on the export of LNG to address a shortage of domestic supply on the east coast of Australia. LNG exports have grown rapidly since the commodity price boom that started in 2004. The measures, slated to start in 2018, were expected to reduce wholesale and retail prices for domestic industrial users and households, which have increased sharply in recent years. Despite LNG industry concerns it would jeopardise the commercial viability of future offshore gas projects and undermine investor confidence, the government said the measures were consistent with Australia's international trade obligations and would only be invoked if an assessment was made that Australia had a gas shortage in a given year. The scheme was not activated in 2018 as an agreement was reached with LNG exporters to provide additional domestic supply. Most gas exporting countries also apply some form of gas reservation policy or other policy mechanism to protect their national interest in supplying their domestic energy market.

noted that international barriers to Australian services trade remain costly – particularly restrictions on establishing commercial operations in key Asian markets (especially for Australian financial services). However, the implementation of trade agreements with Japan and China should mitigate these costs to some extent.

Government procurement refers to the policies and procedures for purchasing goods and services for the use of the government and public trading enterprises.

Service industry	Potential trade barriers
Financial services	Restrictions on foreign ownership of banks and other financial institutions
Transport services	Restrictions on the number of flight routes in another country
Professional services	Licensing laws that only recognise own country's educational qualifications
Construction services	Government procurement rules that mandate use of local suppliers
Utility services	Government monopoly provision of electricity, gas and water
Environmental services	Government preferences for local suppliers of waste or recycling services
Media and entertainment	Minimum local content requirements to preserve country's culture

Figure 6.7 – Trade barriers that often affect Australian services exporters

reviewquestions

- 1 Discuss the impact of subsidies in overseas economies on Australia's trade performance.
- 2 Compare and contrast recent trends in global protection levels across different industries in the global economy.

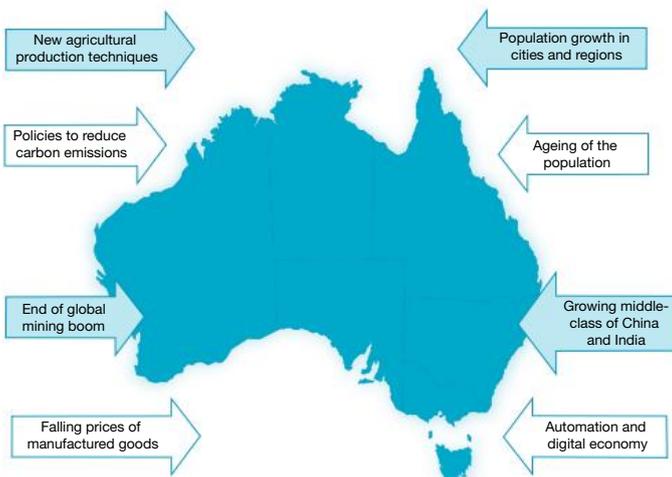
6.6 The future of Australian industry in the global economy

Rising protectionism and conflict over trade policies under the Trump Administration has created widespread uncertainty about the future prospects for international trade in years ahead. However, it is important to recognise that there has always been uncertainty in Australia about exactly how the structure of industry will change in response to trends in globalisation and trade. During the 1980s and 1990s, there was an assumption that globalisation would result in a shift towards value-added manufacturing and services industries, and away from primary industries and basic manufacturing. With the rapid industrialisation of China and other emerging economies generating substantially higher prices for commodities, something very different happened. Australia became even more reliant on its commodity exports, but they also became far more valuable. Globalisation has made resources more central to the Australian economy. A high value for the

Australian dollar has also made Australia's manufacturers less competitive in both global and domestic markets, as well as making services exports less attractive to overseas buyers. Although resources continue to be the bedrock of Australia's exports, services industries (such as education, tourism and professional services), are expected to become more important export industries in the long term.

Mining and energy industries remain Australia's most important export industries foreseeable for the future. Since the beginning of the 2000s, the share of Australia's total export revenue earned by minerals and metals industries has risen from under one-third of exports to over one-half of exports, reversing a decline that occurred during a period of lower commodity prices. In 2017–18, earnings from mining and resources exports exceeded \$180 billion. These industries, which two decades ago had been ridiculed as

Trends affecting the Australian economy



“old economy” industries during the “dotcom” boom in information technology, experienced a dramatic resurgence during the resources boom of the 2000s, underpinned by the rapid industrialisation of East Asian economies. Although the high price of resources have receded somewhat since their peak in 2011, Australia’s mining output and exports will continue to contribute significantly to the Australian economy. Production capacity has continued to increase as large-scale mining construction projects have been completed in recent years.

Australian **agricultural industries**, in contrast, face a more mixed outlook. Global food prices have increased significantly in recent years. This has lifted farm incomes. The return of the Australian dollar closer to its historic average has also improved competitiveness of farming exports. However, the lack of progress in reducing global protectionist barriers, the impact of climate change on weather patterns and Australia’s agricultural output, growing water shortages and increasing levels of agricultural efficiency in other countries will probably mean that the relative share of Australia’s export revenue from rural produce will continue to decline, as it has in recent decades. Processed food industries that add value to traditional agriculture are likely to play a larger role in exports, particularly as they have been afforded greater market access under Australia’s more recent trade agreements than traditional areas of agriculture. For example, the wine and dairy industries have experienced strong export growth in recent decades. The global market for high-quality processed foods is expected to continue growing strongly in coming years, fuelled by the growth of the middle-class in China and India, and Australia’s high-quality food industries are well positioned for export growth.

Although Australia has seen a gradual reduction in its older, import-competing manufacturing sector, at the same time smaller, export-oriented manufacturing has continued to grow. Overall, manufactured exports grew from \$5 billion to over \$30 billion in the three decades to 2018. This growth is expected to continue at a slower pace, as specialised manufacturers expand their markets by producing high-quality goods aimed at specific market niches. Future trends in the exchange rate will also be important for the future competitiveness of Australian manufacturers.

Services are expected to continue to grow as a proportion of exports, in line with global trends. Historically, Australia’s main services export has been tourism, driven by the popularity of icons such as Sydney Harbour, the Sydney Opera House, Bondi Beach, and the Great Barrier Reef. As annual tourism export earnings have surged towards \$50 billion, Australia has been broadening its appeal as a modern, diverse country with high-quality food and accommodations and as a destination for business conferences. Other growing areas of services exports include:

- **International education:** now worth over \$30 billion in export earnings, Australian schools and universities have rapidly expanded their intake of overseas students, especially from the fast growing Chinese market.
- **Digital services:** while direct exports of information and communications technology (or digital) services remain modest at around \$4 billion a year, the amount of digital technology embedded in the production process for other goods exports in agriculture, mining and manufacturing doubled in the three years to 2016.
- **Environmental services:** these may also experience growth over the longer term. They include supplying renewable energy, energy-saving devices, and related services. According to the *Global Trends in Renewable Energy Investment Report 2018*, annual global investment in clean energy is now almost US\$280 billion, taking total investment since 2010 to \$2.2 trillion.

Other services sector exports for Australia that may grow in the future include professional services, financial services and services related to housing and infrastructure.

reviewquestions

- 1 List FIVE industries that you think will play a greater role in Australia’s export mix in the future. Justify your answer.
- 2 Outline the likely future trends in the direction of Australia’s exports.

chapter summary

- 1** The aim of **reductions in protection** over recent decades has been to make Australian industry more internationally competitive and to reallocate resources to the most efficient sectors of the economy.
- 2** In the past, the Australian economy had relatively high levels of protection. However, tariff reductions began in 1973, and during the 1990s and 2000s Australia phased out most of its tariffs barriers. **Tariff levels** in Australia are low like other industrialised economies and the average tariff rate is 1.2 per cent. Half of all imported goods and services are tariff free and the general tariff rate is 5 per cent or less. Non-tariff barriers in Australia are low compared with other industrialised countries.
- 3** Australia's free trade agreements include **bilateral agreements** with Chile, China, Japan, Malaysia, New Zealand, Singapore, South Korea, Thailand and the United States and **multilateral agreements** with ASEAN and New Zealand and the Asia-Pacific Economic Cooperation forum and the TPP-II.
- 4** The effects of reducing protection levels on **firms** vary across different industries, with traditional import-competing manufacturers losing out due to cheaper imports, while export-oriented industries benefit from lower input costs.
- 5** The impact of lower protection levels on **individuals** varies. Most individuals benefit as consumers from goods and services becoming cheaper, and from a wider product choice and a higher quality of service. However, with the decline of older import-competing industries, some people experience long-term unemployment, in particular the less-skilled employees of traditional manufacturing firms.
- 6** While lower levels of protection may benefit the economy generally, in the short to medium term **governments** may lose out from reduced revenue, increased expenditure (such as for higher unemployment benefits and structural adjustment packages), and a loss of public support.
- 7** Lower protection levels should improve the economy's international competitiveness and trade performance in the longer run, thus reducing the current account deficit. However, in the short term the current account deficit may worsen due to increased import levels.
- 8** The use of **protectionist policies in other countries** has resulted in significant costs for the Australian economy, in particular the loss of potential export revenue as a result of lower export prices and reduced access to overseas markets.
- 9** Australia's approach of phasing out protection is likely to lead to an economy that is **more integrated with the global economy**, with a higher proportion of production and consumption going to exports and imports.
- 10** The resources boom of the 2000s resulted in a large expansion in Australia's mining exports, underpinned also by higher commodity prices. Although resources are expected to remain Australia's largest source of exports, future export growth is expected to come from a more diversified export base.

chapter review

- 1** Describe the factors that have influenced government policies to reduce protection in Australia during recent decades.
- 2** Explain how the short-term problems associated with a reduction in protection might be outweighed by the long-term benefits.
- 3** Discuss recent changes in Australia's protection levels and the outlook for protection levels in the future.
- 4** Describe the main features of two of Australia's bilateral and two of Australia's multilateral free trade agreements.
- 5** Account for the varying impacts of lower levels of protection on different industry sectors.
- 6** Examine how changes to protection levels in Australia have impacted Australia's trade performance and economic growth.
- 7** Discuss the impact of reduced protection levels on individuals.
- 8** Outline the impacts of lower tariffs on the Australian Government.
- 9** Discuss the impacts of global protectionist policies on the Australian economy.
- 10** Outline possible future changes in the structure of industry within Australia as a result of current trends in the global economy.

TOPIC

3

ECONOMIC ISSUES

Issues

By the end of Topic 3, you will be able to examine the following economic issues:

- Examine the arguments for and against increasing economic growth rates
- Investigate the economic and social problems created by unemployment
- Analyse the effects of inflation on an economy
- Discuss the effect of a continued current account deficit on an economy
- Investigate recent trends in the distribution of income in Australia and identify the impact of specific economic policies on this distribution
- Analyse the economic and social costs of inequality in the distribution of income
- Examine the economic issues associated with the goal of ecologically sustainable development

Focus

This topic focuses on the nature, causes and consequences of the economic issues and problems that can confront contemporary economies.

Skills

Topic 3 skills questions can ask you to:

- Identify and analyse problems facing contemporary and hypothetical economies
- Calculate an equilibrium position for an economy using leakages and injections
- Determine the impact of the (simple) multiplier effect on national income
- Explain the implications of the multiplier for fluctuations in the level of economic activity in an economy
- Calculate the unemployment rate and the participation rate using labour force statistics
- Interpret a Lorenz curve and a Gini coefficient for the distribution of income in an economy
- Use economic concepts to analyse a contemporary environmental issue
- Assess the key problems and issues facing the Australian economy

Topic 3

Introduction

This section (chapters 7 to 12) covers Year 12 Topic 3, *Economic Issues*, and focuses on the nature, causes and consequences of the economic issues and problems that confront contemporary economies such as Australia.

- Chapter 7 examines the issue of economic growth in the Australian economy. It provides a foundation of economic theory with which to examine Australia's recent growth performance. Concepts examined include aggregate demand and supply, injections and withdrawals, the simple multiplier and the measurement of growth through changes in real Gross Domestic Product. The chapter looks at the sources and effects of economic growth in Australia, recent trends in the business cycle and the impacts of economic growth.
- Chapter 8 examines the issue of unemployment in the Australian economy. The chapter covers measurement of unemployment, trends in unemployment, types and causes of unemployment, the concept of a non-accelerating inflation rate of unemployment and examines which groups in the community are most affected by high unemployment levels. The chapter finishes with a review of the economic and social consequences of unemployment.
- Chapter 9 examines the issue of inflation in the Australian economy. Australia has been successful in achieving low inflation outcomes since the early 1990s. The chapter looks at the measurement of inflation and its trends in recent years. It then examines the main causes of inflation and the effects of inflation on the Australian economy.
- Chapter 10 examines the issue of external stability in the Australian economy. Australia's economy has experienced significant external imbalances in the past three decades. The chapter addresses how we measure external stability in terms of the relative size of the current account deficit, net foreign debt and net foreign liabilities. The trends in Australia's external accounts are briefly reviewed, with reference to Topic 2. Chapter 10 also examines the causes and effects of external imbalance in Australia.
- Chapter 11 examines the issue of distribution of income and wealth in the Australian economy. The chapter looks at how we measure inequality, and we examine some of the factors that influence inequality by looking at the sources of income and wealth. It examines the relationship between inequality and a range of social dimensions, such as gender, age, occupation, ethnic background and family structure. It also examines the economic and social costs and benefits of inequality in the context of the Australian economy.
- Chapter 12 examines the issue of environmental sustainability in the Australian economy. This is becoming a more important priority because of the long-term economic impacts of climate change and water shortages. The chapter covers the issues of ecologically sustainable development, private and social costs and benefits of growth, and public and private goods. A number of issues, such as preservation of natural environments, pollution control, climate change and depletion of renewable and non-renewable resources, are also examined in the context of the Australian economy.

7

Economic Growth

- 7.1 Introduction
- 7.2 Economic growth and aggregate demand and supply
- 7.3 The components of aggregate demand
- 7.4 Changing levels of growth: the multiplier process
- 7.5 The role of aggregate supply
- 7.6 The effects of economic growth
- 7.7 Recent economic growth trends
- 7.8 Policies to sustain economic growth

7.1 Introduction

Economic growth creates jobs, allows individuals to increase their consumption, and raises living standards. Accordingly, economic growth is generally considered to be the most important single measure of an economy's performance. For this reason, the pursuit of economic growth has long been a major objective of government policy.

Economic growth can be defined as an increase in the volume of goods and services that an economy produces over a period of time. It is measured by the **annual rate of change in real Gross Domestic Product (GDP)**, that is, the percentage increase in the value of goods and services produced in an economy over a period of time, usually one year, adjusted for the rate of inflation.

$$\text{Economic Growth (\%)} = \frac{\text{real GDP (current year)} - \text{real GDP (previous year)}}{\text{real GDP (previous year)}} \times \frac{100}{1}$$

The Australian Bureau of Statistics estimates the level of GDP in Australia every three months (that is, for every quarter of the year) in the publication called *Australian National Accounts: National Income, Expenditure and Product*. To measure GDP, the ABS uses information about household and business incomes, expenditure on goods and services, and production by firms. You might recall from the Preliminary Economics Course, when we looked at the Circular Flow model, that income, expenditure and production are all the same in an economy because all production generates an income, and all expenditure is in return for produced goods and services. To add to the confusion of three separate sources of data to calculate GDP (income, expenditure and production), there are also three different time periods used to measure Australia's rate of economic growth:

- Every three months the ABS calculates the quarterly rate of **economic growth**. For example, quarterly growth in the "March quarter" of 2018 is the percentage increase in GDP since the previous December quarter (that is, the final three months of 2017). So if quarterly GDP was \$440 billion in the December quarter of 2017 and \$445 billion in the subsequent March quarter of 2018, the quarterly rate of economic growth would be around 1 per cent.

- Quarterly national accounts figures can also be used to calculate a less volatile measure of economic growth called **year-on-year growth**, which measures the percentage change in GDP between one quarter and the corresponding quarter of the previous year. For example, if quarterly GDP was \$427 billion in the June quarter of 2017 and was \$442 billion in the June quarter of 2018, the year-on-year rate of growth would be 3.5 per cent.
- Australia's **annual economic growth rate** is calculated each year using GDP statistics for the financial year, which runs from 1 July to 30 June. When the June quarter national accounts are released, usually in early September, annual growth is calculated as the percentage increase in GDP since the last financial year. For example, if GDP grew from \$1740 billion in 2017–18 to \$1810 billion in 2018–19, the annual rate of economic growth would be 4 per cent.

There are a variety of measures of economic growth because economic policymakers use growth statistics for a wide range of purposes, and each measure of economic growth is useful for different purposes. The Reserve Bank, for example, needs to know what the level of economic activity will be in the coming 12 to 18 months in order to forecast inflation trends and determine appropriate changes in the cash rate, and therefore must look at the most up-to-date indicators of economic growth. The Productivity Commission, by contrast, is more interested in how structural policies affect economic growth in the long term, perhaps over periods of decades. It is more interested in long-term growth trends, and has little interest in volatile quarterly growth statistics that are heavily influenced by short-term factors.

7.2 Economic growth and aggregate demand and supply

To understand more about economic growth we must first look at the factors that influence the level of economic activity. An understanding of how growth occurs can guide governments in deciding how to achieve higher rates of economic growth. This has been an issue of long-running debate amongst economists.

Traditionally, most economists believed that the most important factor determining economic growth was the ability of firms to produce goods and services – that is, the level of total output, or **supply**. According to this theory, market economies would naturally achieve their best levels of economic growth if they were left to operate without any intervention by the government. The classical and neoclassical economists of the eighteenth and nineteenth centuries argued this view as they laid the foundations for economic theory. However, opinions changed after the Great Depression of the 1930s. Many economists then concluded that sometimes an economy could grow at very slow rates for very long time periods, leaving large numbers of people out of work. As a result, economists began looking for alternative ways of achieving faster economic growth.

At this time, a British economist, **John Maynard Keynes**, developed a theory that stated that the most important influence on economic growth was the total level of expenditure in the economy – that is, the level of **aggregate demand**. Keynes' ideas were to become the most important of any economist in the second half of the twentieth century, under the title of Keynesian economics (or Keynesianism), which shaped the economic policies of the industrialised world after World War II until the 1970s.

Keynesian economic theory suggested that people would not necessarily spend their income just because goods were produced and businesses paid their workers for production. If households and businesses were generally pessimistic about the future economic outlook, households would tend to spend less on consumer goods and save more, and firms would be reluctant to invest in capital goods. This would result in an overall decline in aggregate demand, with falling production and rising unemployment.



To access articles and statistics about Australia's GDP growth rate, visit the website of the Australian Bureau of Statistics: www.abs.gov.au. The Australian National Accounts publication is catalogue 5206.0.

Aggregate demand

refers to the total demand for goods and services within the economy. Components of aggregate demand are: consumption (C); investment (I); government spending (G); and net exports (X-M).

Aggregate supply refers to the total productive capacity of an economy, that is, the potential output when all factors of production are fully utilised.

Aggregate demand – represented by the symbol AD – is the total level of expenditure in an economy over a given period of time. It includes consumption; investment; government spending; and net export spending (export spending minus import spending).

Aggregate supply – represented by the symbol Y – is the total level of income in an economy over a given period of time. Part of national income is collected by the government through taxation, and the rest is either spent on consumption or is saved.

$$AD = C + I + G + (X - M)$$

WHERE:

AD = aggregate demand
C = consumer spending by households
I = investment spending by businesses
G = government spending
X = export revenue
M = spending on imports

$$Y = C + S + T$$

WHERE:

Y = aggregate supply or national income
C = consumer spending by households
S = saving by households
T = taxation by the government

Equilibrium occurs when:

Aggregate supply = Aggregate demand
 $Y = AD$

Substituting for aggregate demand gives:

$$Y = C + I + G + (X - M)$$

Substituting for aggregate supply gives:

$$C + S + T = C + I + G + (X - M)$$

By rearranging the equation:

$$S + T + M = I + G + X$$

Leakages = Injections

The economy is in **equilibrium**, that is, will tend to be stable, when the level of aggregate demand and aggregate supply (national income) are equal. By substituting the components of aggregate demand and supply into the equilibrium equation, we find an alternative condition for equilibrium in the economy – that the leakages of savings, taxation and imports will be equal to the injections of investment, government spending and exports. (This is the way we looked at economic growth in the Preliminary Course, with the Circular Flow of Income model). Changes in leakages and injections are what influence the level of economic activity. If injections are greater than leakages, the economy will grow, but if leakages are greater than injections, economic growth will decrease and the economy may contract.

reviewquestions

- 1 Identify the main way in which Keynesian economics changed governments' approach to economic management in the twentieth century.
- 2 Explain how aggregate demand is calculated.
- 3 Assuming an economy is in equilibrium, determine the level of savings if taxation is 30, investment is 15, government spending is 45 and net exports is 10.

7.3 The components of aggregate demand

Changes in the level of economic growth in the short to medium term are driven largely by changes in the level of aggregate demand. To gain a better understanding of what drives economic growth, we need to examine the individual components of aggregate demand. By analysing the factors that influence these individual components, we can see what factors will cause the economy to expand and contract over time – and therefore better understand what policies may be used to increase the level of economic growth.

Influences on consumption

Examining the influences on leakages and injections allows us to see what factors influence the level of economic growth.

Influences on consumption and saving

Consumption is an important determinant of the level of economic growth because consumption by households typically makes up around 50–60 per cent of expenditure (or aggregate demand) in the economy (see figure 7.1). Anything that boosts consumption is also likely to boost expenditure (demand) and hence economic activity (that is, income or supply).

Obviously, the most important factor influencing the level of consumption is income itself. People with higher incomes tend to consume more. Economies with higher incomes tend to consume more. If a person's income rises over time, their consumption tends to rise too. However, because we want to know how consumption can influence economic activity (including income) we must look at the factors that influence consumption *for a given level of income* – that is, all the factors other than income. Put another way, our concern is with the proportion of total income that is spent on consumption, called the **average propensity to consume (APC)**, and the proportion of total income that is saved, called the **average propensity to save (APS)**. The three greatest influences on the APC are consumer expectations, the level of interest rates and the distribution of income.

Consumer expectations

Expectations about future price rises and the general availability of goods will influence consumers' decisions to spend or save their income. If consumers expect a rise in their incomes or in inflation, or if they anticipate future shortages of goods, then they would tend to spend more and save less in the short term. On the other hand, if consumers expect that their incomes might fall, that prices might fall or that goods and services might become more available in the future, then they would be inclined to spend less and save more.

The level of interest rates

An increase in the general level of interest rates would discourage individuals from spending their money (as the cost of borrowing money is now higher) and therefore encourage them to save, while a decrease in interest rates would encourage spending and discourage saving.

The distribution of income

Generally speaking, the more equitable (even) the distribution of income, the higher the rate of overall spending, and vice versa for a more inequitable (uneven) distribution of income. This is because people on lower incomes tend to spend proportionately more of their income than those on higher incomes. This reflects a key insight of the Keynesian consumption function: the more income that an individual receives, the higher proportion they save and the lower proportion they spend. For example, a person with a net income of \$400 per week might have to spend it all on basic costs of living, whereas someone receiving a net income of \$4000 per week might comfortably save half of that level of income. Government policies that aim to reduce the differences in income levels (that is, raise lower incomes and reduce higher incomes) would have the effect of reducing savings and increasing spending in the economy.

Influences on investment

Business investment tends to be the most volatile component of demand or aggregate expenditure, usually making up around 15 per cent. The main factors influencing business investment are the cost of capital equipment and business expectations.

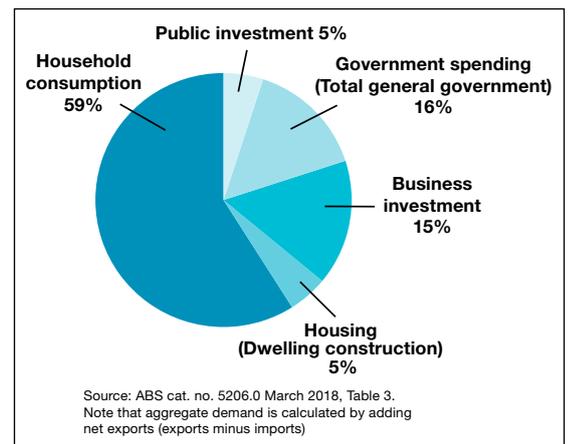


Figure 7.1 – The components of domestic demand

Average propensity to consume (APC) is the proportion of total income that is spent on consumption.

Average propensity to save (APS) is the proportion of total income that is not spent, but is saved for future consumption.

The cost of capital equipment

The cost, or relative cost, of capital equipment is influenced by the following factors:

- **Changes in interest rates.** A fall in interest rates would make it cheaper to borrow funds for the purchase of capital equipment, and a rise in interest rates would raise borrowing costs. Interest rates also represent an opportunity cost for firms who own their capital. Firms with available cash reserves will look at the returns they can receive from either saving money (for example, lending it to others such as by buying bonds) or by using it in the business such as to acquire capital. If they can earn more from lending to someone else than investing in capital, business investment will fall. On the other hand, when interest rates increase, this makes it less attractive for firms to borrow funds and invest, and more attractive to save.
- A change in **government policies** relating to investment allowances and tax concessions on capital goods. For example, if the government allowed businesses to claim the full cost of capital equipment immediately, instead of claiming depreciation over several years, this would reduce their tax liability and make capital relatively cheaper than it otherwise would have been. In 2015, the Australian Government adopted this policy by increasing the threshold for the instant asset writeoff from \$1000 to \$20,000, giving small businesses a significant incentive to purchase capital.
- Any change in the **price or productivity of labour** (labour being a substitute for capital in the production process) would affect the relative cost of capital compared with labour. For example, if the cost of labour increased, while the cost of capital remained the same, then the relative cost of capital compared with labour would have decreased, making its use more attractive.

Business expectations

Business expectations about future prospects, a factor sometimes described as entrepreneurial or “animal spirits”, influence the level of investment. The factors that affect expectations are:

- Any change in **expected demand for their products**. If entrepreneurs expected a future increase in demand, they would be more inclined to purchase new capital equipment to boost production and satisfy that demand.
- Any change in the **general economic outlook**. If the outlook for the economy was one of strong economic growth and growing prosperity, entrepreneurs would be more inclined to invest in capital equipment because they would feel that the risks associated with expanding their business were declining.
- **Inflation** leads to uncertainty about future prices and future costs of production, and this is likely to lead to reduced investment in productive capital equipment.

Influences on government spending and taxation

Levels of government spending and taxation can also have a significant influence on the level of economic activity. Federal government spending usually makes up between one-fifth and one-quarter of aggregate demand or expenditure, while taxation is usually equal to between one-fifth and one-quarter of aggregate supply or income in the economy.

As we will discuss in chapter 14, when we look at fiscal policy, one of the main goals of government spending and taxation policies is to **maintain a sustainable rate of economic growth**, and help achieve the goals of low unemployment and inflation. This means that governments may increase their level of spending and/or reduce the level of taxation to increase aggregate demand and boost growth. Alternatively, governments may reduce their level of spending and/or increase the level of taxation to reduce aggregate demand and growth. These decisions on spending and taxation will also be influenced by policy objectives for external stability and the sustainability of government debt.

Influences on exports and imports

Changes in export sales and demand for imports can have an impact on the level of aggregate demand and economic activity. Exports and imports are each equal to between one-fifth and one-quarter of aggregate demand. If export revenue is equal to import spending, net exports (export revenue minus import spending, that is, the trade balance) neither adds nor subtracts from aggregate demand. Because Australia's trade balance is more often in deficit than surplus, net exports more often make a small negative contribution to aggregate demand.

Australia's volumes of exports and imports are influenced by the levels of overseas and domestic income. When overseas income levels rise, Australia's exports tend to rise as well. When Australian income levels rise, Australia's imports tend to rise as well. Apart from income levels, Australia's net exports are also influenced by the exchange rate, levels of international competitiveness, protectionist policies of other countries, and consumer tastes and preferences:

- When Australia has a weaker exchange rate, domestic industries are more competitive as the relative cost to foreign purchasers decreases, often resulting in increased sales. This means that net exports will be higher, adding to aggregate demand and boosting economic activity.
- When Australia has a stronger exchange rate, domestic industries are less competitive and their products become more expensive for foreign consumers. As a result, net exports will be lower, detracting from aggregate demand and reducing economic growth.

As discussed in more detail in chapter 6, improving Australia's trade performance is important to government policy because of its impact on Australia's level of aggregate demand and economic growth.

reviewquestions

- 1 State TWO equations that show an economy is in equilibrium.
- 2 Summarise the factors influencing the components of aggregate demand.
- 3 Discuss the influence of interest rates on aggregate demand.

7.4 Changing levels of growth: the multiplier process

We now turn to the question of how changes in the level of aggregate demand influence the level of economic activity. In the analysis that follows, we simplify the economy to the three-sector Circular Flow model – that is, including individuals, firms and financial institutions, but not including the government or international sectors.

As we saw in the previous section, income (Y) that is not spent on consumption (C) must be saved (S). Likewise, expenditure in the economy (AD) is made up of consumption (C) and investment (I).

The consumption that comes from income is obviously equal to the consumption part of expenditure. However, there is no reason why savings (S) and investment (I) have to be equal all the time (see the factors influencing savings versus the factors that influence investment in chapter 7.3 as evidence of this).

Whenever S is not equal to I , the economy will be disrupted from its state of equilibrium. The Circular Flow model suggests that the economy will move towards a state of equilibrium – at a higher level of economic activity when the injection of I is greater than the leakage of S , and at a lower level of economic activity when the injection of I is less than the leakage of S .

How does this adjustment take place? By the **multiplier process**, an economic concept developed by John Maynard Keynes.

When there is a shock to the economy, such as a change in consumer or business expectations, a change in interest rates, or a change in government policies, there will be a change in injections or leakages. For example, lower interest rates will increase business investment and expenditure (demand). This expenditure will provide increased income for individuals, who then consume more, which will further increase expenditure and income and so on. Therefore, the initial increase in investment will have a **multiplied impact on national income**.

The **multiplier** is the greater than proportional increase in national income resulting from an increase in aggregate demand.

However, the increase in investment will not continue to increase income forever. Each time the injection moves around the economy, its impact on expenditure gets smaller because some of the income is not consumed but saved. This savings component is a leakage that reduces the effect of the higher investment on national income. The number of times the final increase in national income exceeds the initial increase in expenditure that caused it is **the multiplier**. The mechanism by which changes in aggregate demand result in changes in GDP is known as the **multiplier effect**.

To calculate how a change in injections or leakages has a multiplied impact on income we need to consider two more concepts:

$$\text{MPC} = \frac{\Delta \text{ in consumption}}{\Delta \text{ in income}}$$

$$\text{MPS} = \frac{\Delta \text{ in savings}}{\Delta \text{ in income}}$$

- The **marginal propensity to consume (MPC)** that is, the proportion of each extra dollar of income that is spent on consumer products; and
- The **marginal propensity to save (MPS)** that is, the proportion of each extra dollar of income that is saved.

In any economy, the sum $\text{MPC} + \text{MPS} = 1$ always holds, since each extra dollar of income must be either consumed (spent) or saved.

This can be explained using the following example: Assume that for each extra dollar of income, consumers spend 80 per cent (80 cents) and save 20 per cent (20 cents).

$$\begin{array}{l} \text{In this case} \quad \text{MPC} = 0.8 \\ \text{and} \quad \text{MPS} = 0.2 \end{array}$$

Assume also that investment in the economy has increased by \$10,000. This represents an injection into the circular flow of \$10,000, or put another way, an initial increase in aggregate demand of \$10,000. If the economy was previously at equilibrium, this means that aggregate demand will now exceed output in the economy. This excess in aggregate demand will manifest itself in an unplanned rundown of stocks. Producers will respond by increasing output and national income will initially increase by \$10,000 (since the initial increase in aggregate demand was \$10,000).

However, the multiplier process ensures that national income will ultimately rise by much more than \$10,000. It works like this:

- National income will increase by the initial \$10,000.
- Of that \$10,000, \$8000 will be spent (since the $\text{MPC} = 0.8$) while \$2000 will be saved ($\text{MPS} = 0.2$).
- The \$8000 that is spent will be income to those who receive it as payment for goods and services.
- Of that \$8000, \$6400 will be spent ($0.8 \times \$8000$), while \$1600 will be saved.
- The \$6400 that is spent will be income to those who receive it. They in turn spend 80 per cent of it and save 20 per cent – and so on.

This process will continue, but the amount of additional consumption spending each time will decline until it eventually becomes insignificant.

The following points should be noted before the total increase in income generated by this multiplier process is calculated. First, it is the MPS that causes the amount of income generated by each successive wave of spending to decrease. Second, the sum of each

successive wave of income generated will add up to the total amount by which national income increases. The final increase in national income is equal to the initial increase in aggregate demand multiplied by “the multiplier”.

The size of the multiplier is determined by the MPS and can be expressed as:

$$k = \frac{1}{\text{MPS}} \quad (\text{k being the symbol for the multiplier})$$

or

$$k = \frac{1}{1 - \text{MPC}} \quad (\text{since } \text{MPC} + \text{MPS} = 1)$$

Under the assumptions in our example (that is, $\text{MPS} = 0.2$):

$$k = \frac{1}{\text{MPS}} = \frac{1}{0.2} = 5$$

The total increase in income generated by the \$10,000 increase in aggregate demand is:

$$\Delta Y = k \times \Delta \text{AD} = 5 \times \$10,000 = \$50,000$$

In other words, five times the initial increase in aggregate demand.

Clearly, the larger the MPS, the smaller will be the value of the multiplier. If individuals save proportionately more of their extra income, they will spend less and therefore generate less additional income. It follows that the factor by which we must multiply our initial increase in aggregate demand must also be less. The reverse will also be true – the smaller the MPS, the larger the value of the multiplier.

The multiplier process also works for decreases in aggregate demand. For example, if we had a decrease in investment spending of \$10,000, the multiplier effect would work in reverse, leading to a decrease in national income of \$50,000.

Thus, it can be seen that any change in the level of planned expenditure (either due to changes in investment, government spending, consumer spending or net export spending) will have a multiplied effect on the level of national income. Governments use the multiplier process because an initial increase in government spending can result in a much larger increase in economic activity as money circulates through the circular flow of income.

Note that in the analysis above we have only used what is called the “simple multiplier”, as required by the Year 12 Economics Syllabus. The simple multiplier is calculated by only considering savings as a leakage from the circular flow. If we were to also include the government and international sectors of the circular flow, we would also need to know what proportion of income is “leaked” into taxation and import spending. For example, if in addition to 20 per cent of income being saved, a further 10 per cent of income was paid in tax and a further 10 per cent was spent on imports, total leakages would be 40 per cent of income, and the value of the multiplier would fall to 1 divided by 0.4, that is, 2.5 – half the value of the multiplier we used in the above example. However, the Year 12 Economics Syllabus only requires you to calculate the multiplied impacts of changes in leakages and injections on national income using the simple multiplier.

Appendix B: Advanced Economic Analysis at the back of this textbook looks at the income-expenditure diagram – an extension of the economic growth theory covered in this chapter.

review questions

- The following numbers apply to a hypothetical economy:
(\$m) $S = 65$ $G = 30$ $X = 10$ $M = 15$ $C = 40$ $I = 20$ $\text{MPC} = 0.6$
 - Calculate the level of aggregate demand in the above economy.
 - Calculate the value of the multiplier.
 - If the government wanted to increase national income by \$35m, by how much would it have to increase its own spending levels?
- Suppose that in an economy a \$50m increase in consumption leads to a \$300m increase in national income. Calculate the value of this economy's marginal propensity to save.

7.5 The role of aggregate supply

While shifts in aggregate demand play the main role in determining the level of economic growth in the shorter term, aggregate supply also plays an important long-term role in influencing levels of economic growth. An economy's aggregate supply is determined by the quantity and quality of the factors of production – natural resources, labour, capital, and the ability of entrepreneurs to combine them efficiently to produce goods and services. Economies with more or better quality factors of production will be able to produce more goods and services.

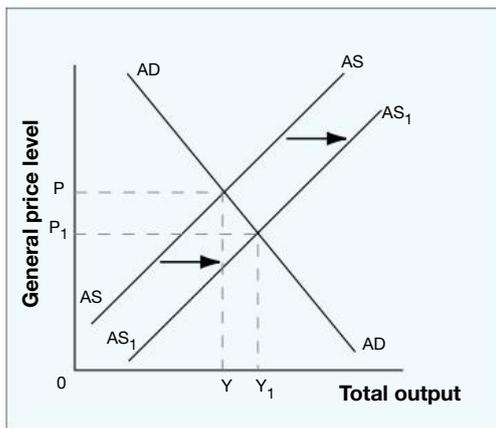


Figure 7.2 – The impact of increased aggregate supply on economic growth

Economists sometimes refer to aggregate supply as an economy's “potential”. This means that when aggregate supply increases, an economy can grow faster. As figure 7.2 shows, an increase in aggregate supply can lead to an increase in total output (economic growth) and a reduction in the general price level (inflation).

Aggregate supply can be increased when a higher level of output can be produced for the same cost. Aggregate supply is increased when there is an increase in quantity or improvement in the quality of the factors of production. This can be achieved through changes such as:

- **Population growth** – labour is the main input into the production process, so if there is an increase in the population (either through increased immigration or birth rates) and there are more workers available, the economy will be able to produce more goods and services. For several decades, Australia's relatively high population growth (through immigration) has been a major contributor to growth rates that are ahead of most advanced economies.
- **Discovery of new resources** – for example, new mineral and metal deposits discovered in Australia can be exploited to increase exports and increase economic growth.
- **Workers acquiring new skills** – for example, more highly trained doctors and health professionals may be able to diagnose illnesses more quickly and treat them more effectively.
- **Increased capital** – for example, investment in capital equipment that efficiently replaces labour will in the long term increase the capacity of the business to produce goods.
- **The adoption of new technology** – for example, businesses providing their customers with a mobile phone app to place orders and provide customer service online, saving the cost of sales agents needing to visit customers or speak to them on the phone therefore reducing labour costs.
- **Measures to improve efficiency** – for example, when international standards for the size of shipping containers were adopted by the transport industry, there was an enormous improvement in the efficiency of freight transport, because this allowed all containers to be carried on every form of transport – rail, road, and ships – without needing to shift freight between different size containers.
- **Government policies** – for example, reforms to rules and regulations in an industry may increase competitive pressures, encouraging firms to be more efficient and may therefore lead to an increase in production of goods and services.

If macroeconomic management is successful in managing aggregate demand, over time an economy will begin to run out of spare capacity and reach capacity constraints. This occurred in Australia during the mining boom in the mid-2000s, with widespread shortages of skilled workers and bottlenecks in transport infrastructure, especially at ports. Policymakers responded with measures to increase aggregate supply. To address skill shortages, Australia brought in more skilled workers from overseas and expanded

apprenticeships. To address infrastructure bottlenecks, steps were taken to increase both public and private investment in ports, railways and roads and improve infrastructure planning. More generally, the government's microeconomic reform aims to increase productivity and workforce participation in order to increase aggregate supply and move the economy's production possibility curve to the right.

review questions

- 1 Explain the role of increases in aggregate supply in contributing to economic growth.
- 2 Outline TWO examples of policies that might increase aggregate supply in an economy.

7.6 The effects of economic growth

Traditionally, economic growth has been regarded as the most important objective for economic management. This is because economic growth makes it possible to achieve other aims. However, while economic growth is essential to achieve many economic and social objectives, economic growth can also sometimes create problems.

Living standards

Faster economic growth results in an increase in real GDP per capita. Real wages can rise and households can enjoy a higher disposable income and therefore higher material living standards. This is the main reason that countries pursue higher levels of economic growth. Australia's record of sustained economic growth since 1991 resulted in an average 2.3 per cent annual growth in per capita real incomes in the 2000s after 2.0 per cent annual growth in the previous decade. However, Australia's slower rate of economic growth and wages growth in more recent years has meant that living standards have been improving at a slower rate than in past decades.

In 2018, the average Australian household had less disposable income in real terms than five years before, due to a long period of below-average wages growth. This suggests that the strong link between economic growth and improved living standards is broken. Nor are wages expected to pick up strongly in the near future. According to IMF forecasts in 2018, the annual rate of wages growth in Australia is likely to remain below 2.9 per cent until at least 2023.

Employment

Economic growth creates jobs and in an economy that sustains strong economic growth, everyone who is willing and able to work should be able to find employment. Over the longer term, higher rates of economic growth are usually associated with the development of new and more advanced industries. Countries with higher levels of economic growth therefore tend to create more highly paid and highly skilled jobs.

Inflation

Higher levels of economic growth can result in price increases and larger wage claims, contributing to a rise in the level of inflation. This is particularly the case if spending is growing at times when the economy is close to its full capacity and the growth in aggregate supply cannot keep pace with the growth in aggregate demand. Inflation is therefore often a side effect of economic growth. A major aim of macroeconomic policy is to keep growth at a level that is not so high that it prompts a surge in inflation – this is known as the “sustainable rate of economic growth”.

External stability

Economic growth is often accompanied by higher disposable incomes, leading to increased consumer and business spending, resulting in a higher level of imports. When an economy is growing faster than its trading partners, unless exports keep pace with growth in imports, the balance of goods and services can worsen and the current account deficit can increase. An excessive current account deficit, in turn, can undermine confidence in an economy. For that reason the balance of payments is sometimes regarded as a “speed limit” on growth, reflected in the concept of a “balance of payments constraint”. When a country faces a balance of payments constraint, policymakers may deliberately reduce the level of economic growth in order to improve external stability.

Income distribution

Economists generally assume that economic growth contributes to higher living standards and therefore to better outcomes for everyone. However, this is not necessarily so. Sometimes, the benefits of economic growth flow disproportionately to higher income earners or owners of capital, rather than flowing more broadly throughout the economy through wage increases or lower prices. In this respect, economic growth often leads to increased inequality in income distribution as only those who own factors of production benefit. Absolute poverty should fall as the economy grows, however, relative poverty is likely to rise as income distribution tends to be more unequal during periods of strong growth. Benefits are skewed towards skilled workers, rather than unskilled workers, so the gap between the rich and poor widens. For example, the only decile of income earners that increased its share of income distribution during the two decades to 2015–16 were the top 10 per cent of income earners, and most of those benefits went to the top half of that decile.

Environmental impacts

Economic growth can potentially have a negative impact on the environment. If growth is pursued with little regard to its impact on the environment, it can result in pollution, depletion of non-renewable energy sources and damage to the local environment. Economists are increasingly recognising that the threat of climate change will require economies to break the link between higher rates of economic growth and increased greenhouse gas emissions – otherwise continued economic growth will have catastrophic impacts upon the global environment within the next hundred years. Government policies have increasingly sought to maintain a growth rate that is not so high that it causes irreparable damage to the environment – known as “ecologically sustainable development”. Nevertheless, economic growth is not necessarily incompatible with environmental preservation, since an economy with a higher level of growth may have greater capacity to invest in environmentally friendly technologies and stronger environmental protections.

reviewquestions

- 1 Discuss TWO positive impacts of economic growth for an economy.
- 2 Explain how higher rates of economic growth may have negative consequences.

7.7 Recent economic growth trends

The level of economic activity is never entirely stable. A market economy such as Australia's is subject to the ups and downs of the **business cycle** (that is, the general level of economic activity) caused by changes in the level of aggregate supply and demand. Figure 7.3 reveals that over time, market economies like Australia usually experience an overall trend of growth in **real GDP**. However, they are subject to a continuous cycle of strong economic growth followed by recession (decreased levels of economic activity, generally associated with rising unemployment).

Australia's economic growth performance in recent times has been relatively stable and sustained over a long period – both compared with previous cycles and compared with other economies. Australia last experienced a recession in the early 1990s. A **recession** is when the economy contracts, that is, has a negative rate of economic growth, for two consecutive quarters. Since 1991 Australia has experienced its longest period of sustained economic growth on record, with over two and a half decades of continuous growth. In particular, during the 1990s, Australia's average annual growth rate of 3.3 per cent was much higher than the advanced industrialised economy average of 3.0 per cent. In fact it was **higher than every high-income economy** other than the rapidly industrialising economies of Singapore, Ireland and South Korea. Although Australia's average growth rate during the 2000s slowed to 3.1 per cent, it was still above average for OECD economies.

After navigating the global financial crisis in 2008 and 2009 with just a mild economic downturn, Australia has continued to sustain economic growth, albeit at a rate below the economy's long-term trend. Since 2010 annual economic growth has averaged 2.7 per cent, and Australia has notched up the remarkable achievement of the longest unbroken period of growth achieved by any country in recorded history. Following the onset of the GFC, annualised growth moderated to 2.2 per cent, below the long-term trend of 3.5 per cent, as global uncertainty dampened demand for commodities and exports, reducing domestic confidence and sentiment, which perpetuated into a slowdown of consumption. As a result, since the beginning of 2010, average economic growth has been 2.7 per cent. The Australian Treasury (the main government economic agency) forecast continued economic growth of 3.0 per cent in 2018–19, after growth of 2.9 per cent in 2017–18.

Australia's record period of sustained growth reflects a mix of domestic and external factors. Australia has benefited from global economic trends, but has also gained from its successful management of the economic cycle:

- **Global economic conditions** have been mostly favourable for Australia since the early 1990s. During the 1990s, the robust performance of the United States economy contributed to Australia's sustained growth cycle. As the engine of global economic growth shifted from the US to China during the 2000s, Australia was a major beneficiary because of the rapid growth in global demand for resources such as iron ore and coal. Strong demand for Australia's resource exports underpinned a boom in mining and construction investment, and a surge in export revenues that helped Australia avoid the prolonged downturn in Europe and the United States following the global financial crisis in 2008.
- More specifically, the Australian economy has gone through a period of a major structural improvement in its **terms of trade** – the ratio of the price we receive for our exports relative to the price we pay for imports. This has meant that Australia enjoyed the double benefit of rising export prices and volumes for several years. This lifted Australia's national income and the rate of economic growth, and triggered a mining investment boom. The terms of trade reached their highest level for 140 years in September 2011, adding an estimated 15 per cent to Australia's national

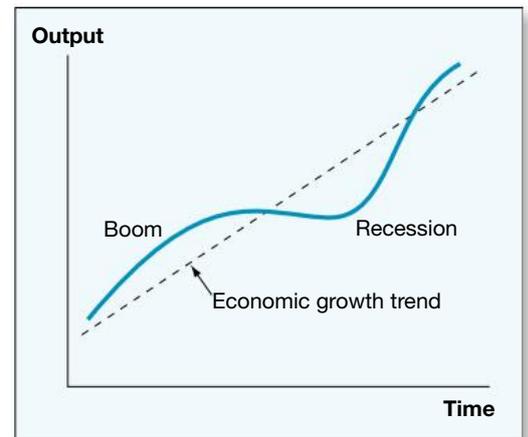


Figure 7.3 – The business cycle

Recession is the stage of the business cycle where there is decreasing economic activity, defined as two consecutive quarters (six months) of negative economic growth, that is, a fall in GDP.

income. Australia's terms of trade then went into decline, but then recovered strongly after 2016–17. Australia's terms of trade are expected to remain well above their historical averages in coming years. Australia has also been increasing export volumes (for example, for iron ore) as increased production capacity has come onstream after large mining investment projects over the past decade.

- Macroeconomic management in Australia has been generally successful in maintaining a **sustainable rate of economic growth** – a level that does not push inflation above its target range of an average 2–3 per cent, and does not push the current account deficit so high that financial markets react negatively. The Australian Treasury estimates that Australia's long-term sustainable rate of economic growth is around 3.25 per cent of GDP. Since the current growth cycle began in 1991–92, growth has been within 1 percentage point of this target for 20 out of 27 years (on two occasions it has been more than 1 percentage point higher, and on five other occasions more than 1 percentage point lower).
- The Reserve Bank of Australia's pre-emptive use of **monetary policy** and its focus on maintaining low inflation has been important in sustaining economic activity. The RBA has taken quick action to ward off inflationary pressures when the economy is experiencing high levels of growth. This has helped to keep the economy growing within a sustainable range and to avoid the need for larger interest rate increases that might have caused more prolonged contractions in economic growth. Conversely, during an expected downturn, the RBA has responded quickly by reducing interest rates to support aggregate demand before the actual downturn sets in. For example, throughout 2015 and the first half of 2016, the RBA made four reductions in the cash rate (to a record low of 1.5 per cent by August 2016) because of concerns about the weakness of the economy, even though official forecasts still pointed to trend growth at the time of 3 per cent. Similarly, after the meltdown in global financial markets in late 2008, the RBA lowered interest rates aggressively, from 7.25 to 3.25 per cent, ahead of the expected global recession.



Figure 7.4 – Australia's economic growth performance

- During periods of economic downturn, the government has successfully used active **fiscal policy** to increase economic growth. The Australian Treasury has concluded that Australia avoided a recession after the global financial crisis in 2009 because the government responded quickly with a large-scale fiscal stimulus that had an immediate impact on household consumption and government spending.
- Large increases in asset prices such as real estate and shares during the early 2000s and again in the current decade increased the wealth of households, encouraging greater borrowing and consumption. This is known as the “wealth effect”. Of course higher housing prices also constrain the spending power of homebuyers, and the

BEYOND THE MINING BOOM

During the 2000s, Australia experienced what the Reserve Bank Governor, Glenn Stevens, described as the greatest expansionary shock to its economy in more than 50 years. Strong growth in China and other emerging economies resulted in soaring demand for natural resources such as coal, gas, oil and iron ore, leading to a sharp increase in prices and the largest increase in Australia's terms of trade for 150 years. The spike in global resources prices in the 2000s was especially large because of a long period of low investment in mining operations around the world, meaning that global supply was price inelastic: mining companies were unable to increase output quickly in response to the increased demand, and so prices soared. This meant that average prices for Australia's commodity exports tripled between 2003 and the peak of the cycle – as shown in figure 7.5.

This increase in commodity prices sparked the largest sustained improvement in Australia's terms of trade on record. Although the terms of trade slipped back briefly during the downturn that followed the global financial crisis in 2009, the terms of trade soon recovered and by 2011 were the highest in 140 years – and 65 per cent above their average level during the twentieth century. This provided a very large stimulus to the economy. The Reserve Bank noted in 2011 that the terms of trade boom had added 15 per cent to Australia's nominal GDP, equivalent to over \$190 billion per year. This meant that the resources boom had a larger positive impact on national income in Australia than all of Australia's economic reforms of the 1980s and 1990s and the revolution in information and communication technologies. Although foreign-owned mining companies sent a share of their increased profits overseas, the boom not only benefited those working in the construction, mining and transport

sectors. Australian taxpayers also benefited as higher company tax receipts allowed the government to reduce personal income taxes.

A decade and a half after the beginning of the terms of trade boom, income per person in Australia is around 20 per cent higher than it was in the mid-2000s and average real wealth per person has risen by 40 per cent. Australia's unbroken run of economic growth since 1991 is the longest of any country on record, and unemployment has remained lower than at any time since the 1970s (although there are higher levels of underutilisation of labour).

Nevertheless, as Australia enters the 2020s conditions are likely to be more challenging. Australia is exposed to any slowdown in the Chinese economy. Many other exporters of minerals and energy have also expanded their capacity, and the increase in global supply is likely to lead to lower prices for many commodities. Global demand for coal is also in long-term decline as economies around the world transition to lower carbon energy sources. As the Chief Economist of Australia's Department of Industry, Innovation and Science, Mark Culley, noted, "2018 marks the end of the remarkable resources and energy investment boom of the past decade." The International Energy Agency (IEA) predicted in 2018 that lower iron ore and coal prices would reduce Australia's annual export revenues by \$11 billion and \$10 billion respectively in 2018, although increasing revenues from gas (LNG) exports are offsetting this decline – LNG exports were forecast to add \$14 billion to export earnings in 2018–19.

Australia's future economic growth is likely to be underpinned by terms of trade that remain above their historic averages and growth in some commodity exports. However to sustain economic growth in the decade ahead, Australia needs to diversify its sources of growth. Public investment in infrastructure, housing and health care have played important roles in driving economic growth more recently, reflecting Australia's high immigration rate and ageing population. Looking ahead to the 2020s, some of Australia's strongest growth opportunities are in markets that tap into the rising household incomes of large populations in Asia, including education, tourism and consumer goods such as processed foods.

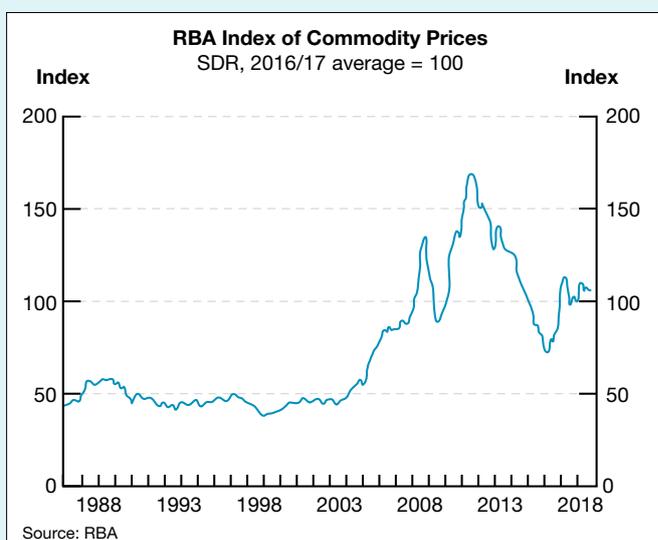


Figure 7.5 – Reserve Bank of Australia Index of Commodity Prices

late 2010s have also seen some falls in house values. Nevertheless, the wealth effect of higher asset prices tends to increase economic growth.

- **Productivity growth** reached record levels in the 1990s. Analysis for the Treasury’s 2015 Intergenerational Report noted that labour productivity growth had increased from an average of 1.3 per cent per year in the 1980s to 2.1 per cent per year in the 1990s, reflecting the beneficial impact of extensive microeconomic reforms. Micro-reform helped to overhaul many sectors of the economy and to introduce competitive pressures, as well as encourage the take-up of new technologies. However, labour productivity averaged just 1.2 per cent in the 2000s, and just 1.1 per cent in the 2010s (up to 2018). Given that the terms of trade is unlikely to underpin further growth in national income in the 2020s, lifting Australia’s productivity growth will be critical to sustaining economic growth in the decade ahead.
- Australia was fortunate that its **financial system was better regulated** and not significantly exposed to the high-risk financial products that triggered the global financial crisis. Australian governments had for many years resisted pressure to allow major banks to merge so that they could become larger players in global financial markets. This benefited Australia during the global financial crisis, since the relative isolation of the Australian banking system meant that banks had not invested in the “toxic assets” that forced governments to rescue failed banks in many other countries and slowed down economic recovery in the decade since the crisis.

Australia has been relatively successful in navigating the events of the past two decades – from the Asian financial crisis of 1997–98, to the worldwide downturn that followed the collapse of the “dotcom” boom of 2001, to the deeper global recession that followed the global financial crisis in 2008, and to the slowdown in the Chinese economy more recently. In part this reflects good luck – the specific impacts of each of these events on Australia were far milder than for most advanced economies, and the global resources boom is an example of a once-in-a-century event. Yet with less skilful macroeconomic policy, and without the economic flexibility created by a succession of microeconomic reforms, Australia may have had much less success in responding to those events.

In the long term, Australia’s economic challenges have been described by the Australian Treasury as “the three Ps” – productivity, participation and population. Sustaining long-term productivity growth, high levels of workforce participation and continued population growth from natural growth and immigration will help Australia to achieve the highest possible rate of economic growth.

The participation rate is expected to fall during the coming decades because of the ageing of the population. As the economy is forced to allocate more resources to health and aged care, it will be harder for living standards to keep improving. The Treasury’s 2015

Year	Growth (%)	GDP (\$bn)
1989–90	3.5	405
1990–91	-0.4	415
1991–92	0.4	423
1992–93	4.1	445
1993–94	4.1	467
1994–95	3.9	496
1995–96	3.9	530
1996–97	3.9	557
1997–98	4.4	589
1998–99	5.0	621
1999–00	3.9	662
2000–01	1.9	706
2001–02	3.9	754
2002–03	3.1	802
2003–04	4.1	862
2004–05	3.2	923
2005–06	3.0	998
2006–07	3.7	1087
2007–08	3.7	1179
2008–09	1.8	1259
2009–10	2.0	1298
2010–11	2.4	1410
2011–12	3.6	1492
2012–13	2.6	1528
2013–14	2.6	1590
2014–15	2.4	1617
2015–16	2.7	1660
2016–17	2.1	1758
2017–18	2.9	1840
2018–19*	3.0	1895

Source: ABS cat. no. 5204.0, GDP current prices

Figure 7.6 – Australia’s GDP

Intergenerational Report estimated that improvements in living standards, measured by average annual growth in real GDP per capita, will fall from 1.7 per cent in the past four decades to 1.5 per cent in the next four decades. Average growth in real GDP is expected to fall from 3.1 per cent in the past four decades to 2.8 per cent in the next four decades. This outlook underscores the significance of policy measures to lift productivity growth and participation in the longer term. The Treasury calculated in 2010 that for every additional 0.1 percentage point increase in average annual productivity growth over the next 40 years, Australians will enjoy an average increase in living standards of \$4500 per year.

reviewquestions

- 1 Outline the recent economic growth performance of the Australian economy and the causes of economic growth in Australia.
- 2 Discuss the contribution of external factors to Australia's economic growth.
- 3 Account for the future drivers of economic growth in the Australian economy.

7.8 Policies to sustain economic growth

A major aim of economic management is to sustain a high rate of economic growth to allow national wealth to grow and individuals to experience a higher standard of living. The government is able to use **macroeconomic policies** to influence the rate of economic growth. The main role of macroeconomic policy is to influence economic growth in the short term with the primary aim of smoothing volatile fluctuations in the business cycle. These policies will have only a limited impact on the level of long-run growth rate. **Fiscal policy** involves the use of the Commonwealth Government's Budget in order to achieve economic objectives. Government expenditure in the Budget represents an injection into the economy, whereas government revenue (taxation) is a leakage from the economy. By adjusting its expenditure and revenue, the government is able to influence the level of aggregate demand and therefore the level of economic growth. If the government wants to increase the level of economic growth, it can reduce taxation, increase expenditure or do both. This would increase the level of injections relative to leakages and therefore cause an upturn in the level of economic growth. Alternatively, economic growth would be constrained if taxation receipts were increased or government expenditure was reduced. Generally, fiscal policy is more effective in stimulating growth during a downturn than slowing down an economy that is growing fast.

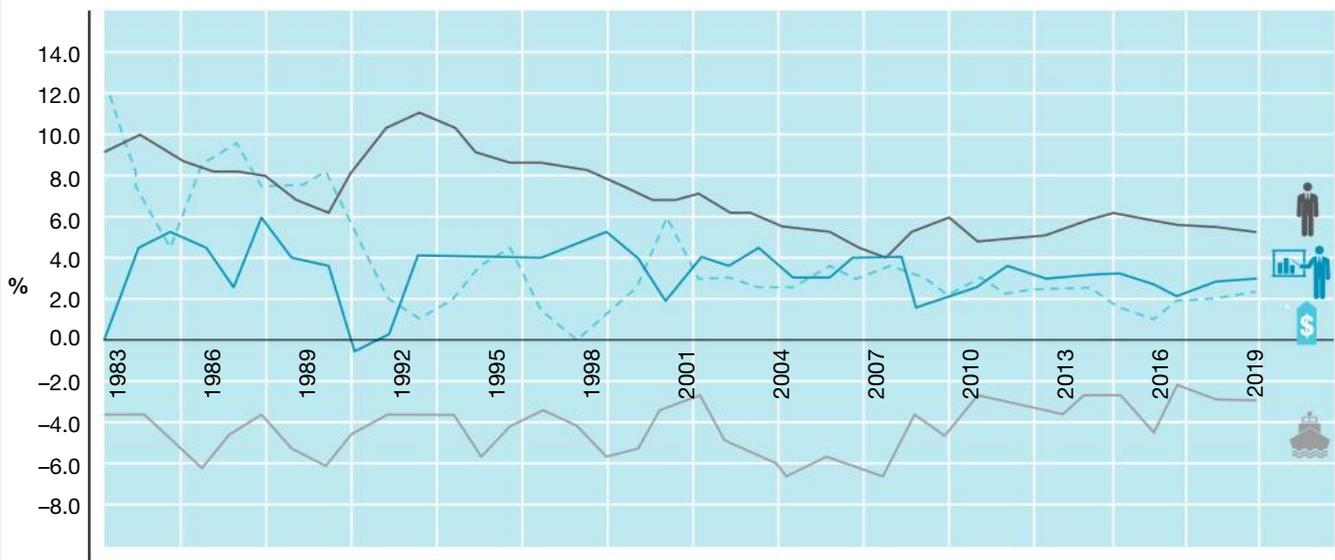
The government is also able to use **monetary policy** to influence economic growth. Monetary policy involves the Reserve Bank of Australia influencing the level of interest rates in the economy, which in turn influences the level of aggregate demand and the rate of economic growth. If the government and the Reserve Bank want to stimulate growth, interest rates can be reduced, which would encourage consumer and business spending. Conversely, to decrease growth, interest rates can be raised. Monetary policy has, in recent years, been the most important macroeconomic policy tool for influencing the level of economic growth. However, its capacity to stimulate growth has diminished, with interest rates at very low levels for several years.

The main role that macroeconomic policies play in influencing economic growth is to affect the growth rate in the short term through influencing aggregate demand, with the aim of smoothing fluctuations in the business cycle and achieving the highest level of growth that the economy can sustain in the short to medium term. Macroeconomic policies will only have a limited impact on the level of long-run growth that an economy can achieve. Macroeconomic policies are discussed in detail in chapters 14 and 15.



For further information on the recent economic growth performance of the Australian economy, visit the recent speeches and publications sections of: www.treasury.gov.au and www.rba.gov.au, the Australian Bureau of Statistics site: www.abs.gov.au, or the economics section of any of the major Australian banks such as www.anz.com

Australia's growth and economic outcomes since 1983



Sources: ABS cat. nos. 5206, 6401, 6202, 5306

**ECONOMIC GROWTH**

Australia has experienced more than 27 years of sustained economic growth without experiencing a major downturn (the longest unbroken run of growth in the world). Economic growth has averaged 3.2 per cent a year, boosting employment and living standards. But the rate of economic growth has slowed since 2008.

**INFLATION**

Inflation has averaged 2.5 per cent in Australia since the introduction of the 2-3 inflation target in the early 1990s. Monetary policy has been focused on containing price pressures because of the economic instability that can result during periods of high inflation. The low level of wages growth in the past decade has contributed to sustained low inflation.

**UNEMPLOYMENT**

After unemployment spiked in the early 1980s and early 1990s, Australia has achieved a sustained reduction in unemployment over time. Unemployment edged up after the global financial crisis in 2008 and with sustained but relatively slow economic growth, unemployment has remained in the range of 5-6 per cent in recent years.

**CURRENT ACCOUNT DEFICIT**

Australia has experienced large persistent current account deficits since the mid-1980s. While the balance on goods and services has varied with the economic cycle, the primary income deficit worsened as foreign liabilities increased. More recently, increased mining export volumes have resulted in the lowest deficits for almost four decades.

Microeconomic policies aim to increase the economy's sustainable growth rate by increasing aggregate supply, and reducing the extent to which higher growth causes inflationary and current account problems, the factors that may constrain higher growth. In effect, microeconomic policies increase aggregate supply in order to keep pace with rising aggregate demand. The Productivity Commission has argued that Australia's strong rates of growth in the 1990s came about because of the far-reaching microeconomic policies that were undertaken during that period. Increased investment in workforce skills and physical infrastructure in recent budgets have aimed to increase the economy's aggregate supply, alongside reforms to increase competitive pressures and reduce unnecessary regulation. Microeconomic policy is discussed in detail in chapter 16.

review questions

- 1 Briefly outline how government policies can contribute to a sustainable rate of economic growth.
- 2 Discuss the effect of a decrease in government spending on the level of aggregate demand and economic growth.
- 3 Discuss the role of government policies in increasing aggregate supply.

chapter summary

- 1 **Economic growth** is measured as the percentage increase in the value of goods and services produced in an economy over a period of time, usually one year.
- 2 The economy is in **equilibrium** when the level of aggregate demand (total demand for goods and services within the economy) is equal to the level of aggregate supply (total productive capacity of the economy).
- 3 The **Circular Flow of Income** model shows that certain economic factors can be identified as either injections or leakages in the overall level of economic activity. Investment, government spending and exports are injections because they add to the circular flow of income. Savings, taxation and spending on imports are leakages because they take money out of the circular flow of income.
- 4 **Consumption** is influenced by consumer expectations of future economic developments, the level of interest rates, income distribution and consumer preferences between consumption and savings.
- 5 **Investment** is influenced by the level of interest rates, government policies, labour costs, productivity levels and business expectations.
- 6 **Net exports** are influenced by income levels in Australia and overseas, movements in the exchange rate and the international competitiveness of Australia's industries.
- 7 The **multiplier process** explains how an increase in aggregate demand will increase the overall level of national income by much more than the initial increase. This amount is known as the multiplier. The size of the multiplier is determined by the marginal propensity to save and can be expressed as:

$$k = \frac{1}{MPS} \quad \text{OR} \quad k = \frac{1}{1 - MPS}$$
- 8 **Aggregate supply** resulting from improvements in efficiency and technology can lift productivity and can accelerate economic growth.
- 9 Economic growth results in higher living standards and increased employment, but can also contribute to increased inflation, external instability, greater income inequality and damage to the natural environment.
- 10 Australia has sustained continued economic growth since 1991. Although economic growth has slowed in the current decade, Australia has still achieved stronger growth than most advanced economies. The long sustained growth cycle reflects a combination of influences including the benefit of a major terms of trade boom, demand for Australian resource exports from China, the success of macroeconomic policies in sustaining low inflation, and the legacy of a period of substantial microeconomic reforms in past decades.

chapter review

- 1 Explain why economic growth is important to an economy.
- 2 List the components of aggregate demand and state the aggregate demand equation.
- 3 Outline the main factors that influence the levels of consumption and investment in an economy.
- 4 State the leakages and injections equation for an economy to be in equilibrium and explain the effect on the level of economic activity when:
 - a) total leakages exceed total injections; and
 - b) total injections exceed total leakages.
- 5 Define the *multiplier*. Explain how the concept of the multiplier is related to an understanding of economic growth.
- 6 Consider why economist John Maynard Keynes advocated an active role for the government in influencing the level of economic activity. Discuss how the government might influence the level of aggregate demand.
- 7 Discuss the positive and negative impacts of a higher level of economic growth for an economy.
- 8 Briefly discuss the role of increases in aggregate supply in sustaining economic growth.
- 9 Examine the factors that have contributed to the recent growth performance of the Australian economy.
- 10 Evaluate the policies available to governments to sustain economic growth.

Unemployment

8

- 8.1 Introduction
- 8.2 Measuring the level of unemployment
- 8.3 Recent unemployment trends
- 8.4 The main types of unemployment
- 8.5 The non-accelerating inflation rate of unemployment
- 8.6 The causes of unemployment
- 8.7 The impacts of unemployment
- 8.8 Policies to reduce unemployment

8.1 Introduction

One of the most important challenges that faces an economic system is to generate jobs for its working-age population. Unemployment is a major cost to an economy, because it results in the opportunity cost of lost production, as well as slower economic growth, increased social welfare payments and a loss of taxation revenue. In addition, unemployment leads to major long-term social costs, including increased inequality, poverty, family problems, crime and social division.

Since 2002, Australia has had a lower rate of unemployment than most industrialised economies, reflecting its sustained economic growth over the past quarter century and its success in avoiding the global recession in 2009. However, this lower rate of unemployment was only achieved after governments struggled with relatively high levels of unemployment in the last quarter of the twentieth century. Sustained economic growth has proved to be the best way to achieve a lasting fall in unemployment, but in the years since the global financial crisis, Australia has not been able to reduce unemployment to its pre-crisis levels, and in some regions and parts of the labour market unemployment is still relatively high despite vacancies for skilled workers.

8.2 Measuring the level of unemployment

While economists generally agree on what unemployment is, there are differences in views about how to calculate the level of unemployment. A considerable amount of economic debate about unemployment is related to the different ways in which we measure unemployment.

The labour force

The **labour force** (or workforce) can be defined as that section of the population 15 years of age and above who are either working or actively seeking work. Therefore, the labour force consists of:

- Persons aged 15 and over who are currently employed for at least **one hour per week** of paid work. It also includes those on paid leave, as well as those on leave or stood down without pay for less than four weeks, on strike, on workers' compensation, or receiving payment whilst undertaking full-time study.

Labour force consists of all the employed and unemployed persons in the country at any given time.

- Self-employed persons working for at least one hour per week in their own business or a family business.
- Unemployed persons aged 15 and over, who are currently available for work and are actively seeking work.

Those persons not included in the labour force are:

- Children under 15 years of age.
- Full-time, non-working students above 15 years of age.
- People who perform full-time domestic duties.
- Unemployed persons who are not willing to actively apply for jobs and attend job interviews or who are not available to start work.
- People who have retired from the labour force.

The size of the labour force in Australia is around 13.2 million people.

The labour force participation rate

In Australia, anyone over the age of 15 can participate in the labour force and is therefore considered to be a member of the **working-age population**. Determining the actual size of the labour force requires taking into account people's willingness and preparedness to participate in the labour force, either by working, or for those without a job, by looking for work. People may decide not to participate in the labour force for many reasons, such as wanting to do further study, taking care of family, devoting their life to leisure activities, if they think they are unlikely to find a job, or if they have other forms of income.

The **labour force participation rate** can be defined as the percentage of the working-age population – those aged 15 years and over – who are in the labour force, that is, either working or actively seeking work.

$$\text{Labour force participation rate (\%)} = \frac{\text{Labour force}}{\text{Working-age population (15+)}} \times \frac{100}{1}$$

The participation rate in Australia in 2017–18 was 65.5 per cent.

Unemployment

Unemployment statistics reflect the number of people who are out of work, but are actively seeking work. To be classified as actively seeking work, a person without a job must satisfy any one of a number of criteria, such as:

- regularly checking advertisements from different sources for available jobs
- being willing to respond to job advertisements, apply for jobs with employers and attend interviews
- registering with an employment agency linked to Job Services Australia.

To determine the rate of unemployment, the Australian Bureau of Statistics (ABS) undertakes a monthly survey of the labour force. Through this survey of around 52,000 individuals, the ABS calculates both the total number of unemployed people and the rate of unemployment.

$$\text{Unemployment rate (\%)} = \frac{\text{Number of persons unemployed}}{\text{Total labour force}} \times \frac{100}{1}$$

Australia's unemployment rate in 2017–18 averaged 5.5 per cent.

Labour force

participation rate refers to the percentage of the population, aged 15 and over, in the labour force, that is either employed or unemployed.

Unemployment refers to a situation where individuals want to work but are unable to find a job, and as a result labour resources in an economy are not utilised.

PROBLEMS WITH THE METHOD USED TO MEASURE UNEMPLOYMENT

There is some debate amongst economists about the accuracy of the calculations that are currently used in the official measure of **unemployment**. As a result of structural changes that have occurred in Australia's labour market in recent years, the classification of all people into three categories of employed, unemployed and not in the labour force does not provide a complete picture of the actual utilisation of labour (or spare capacity), and may disguise the extent of Australia's labour market problems. There are two main problems associated with current labour force statistics:

- 1 By classifying people as either employed or unemployed, official statistics do not take into account the number of hours people work. Some employed people with a limited amount of work want to work more hours – known as “underemployed” people. If a 40-hour per week job were converted into four 10-hour per week jobs, this would create three new jobs and reduce the official unemployment rate, without increasing real economic activity or the demand for labour.
- 2 By classifying people as either in the labour force or not in the labour force, official unemployment statistics do not include people who have not been able to find work and have left the labour force – known as “hidden unemployed”. Also known as “discouraged jobseekers”, this group may include family members undertaking home duties, students that would rather work, and people with disabilities who would take up suitable employment if it were available.

Taking into account the combination of unemployment and underemployment, the ABS publishes a quarterly labour force underutilisation rate, which in 2017–18 averaged 13.9 per cent. This figure increased by 1.2 per cent over the 5 years to 2017–18 (from an average of 12.7 per cent in 2012–13). In comparison, over the same time period, the unemployment rate has barely changed, moving from 5.4 per cent in 2012–13 to 5.5 per cent in 2017–18. While the highest underutilisation rate in 2016–17 was for young people aged 15–19 years (40 and 42 per cent respectively for males and females), the largest gender difference occurred in the 35–44 age range (a 7.3% per cent difference, making women in this age group twice as likely as their male counterparts to be looking for more work). The ABS also publishes an extended labour force underutilisation rate, which adds to the quarterly underutilisation rate two additional groups of people who are marginally attached to the labour market (persons actively looking for work and able to start within four weeks but not within one week and discouraged jobseekers). This rate rose sharply from 10.6 per cent in 2008 to 14.3 per cent in 2009, following the global recession, and was 15.4 per cent in 2017. This rate is significantly higher for women (17.8 per cent compared to 13.3 per cent for males). This measure suggests that a decade after the global financial crisis, the job market has not recovered to pre-crisis conditions. It also shows that official unemployment statistics measure less than half of the number of people who are short of work.

reviewquestions

- 1 Define the *participation rate* and explain what it measures.
- 2 Explain why the official unemployment rate may not be the best measure of the number of Australians out of work.
- 3 Discuss whether an increase in the participation rate is likely to increase or reduce unemployment.
- 4 Analyse the impact of a higher labour force participation rate on the economy.

8.3 Recent unemployment trends



Figure 8.1 – Unemployment in Australia

During the last quarter of the twentieth century, unemployment was a significant economic policy challenge in Australia. As shown in figure 8.1, Australia began experiencing higher unemployment rates in the mid-1970s, after recording very low unemployment rates in the 1960s and early 1970s. The level of unemployment peaked in the early 1990s – the 10.7 per cent unemployment rate recorded in 1992–93 was its highest level since the Great Depression of the 1930s. The main reason for this increase was a severe **recession** in Australia and the global economy. Falling aggregate demand saw cutbacks in production and the closure of many firms, which led to the shedding of labour and an increase in unemployment.

The unemployment problem during this period was worsened by extensive **structural change and microeconomic reform**. Many people who had lost their jobs in declining industries during the recession were unable to obtain new jobs created in growing industries because the job vacancies often required higher or different skills. As new technologies and production techniques changed the structure of businesses, Australia's unemployment problem became one of the major structural issues facing the Australian economy.

There was a gradual downward trend in unemployment for the 15 years from 1993 to 2008, when it fell to 4 per cent, its lowest level since 1974. Unemployment fell even lower in the resource-rich states of Western Australia and Queensland, as the boom in mining construction created a huge demand for labour. Conditions changed suddenly in 2008 as the global financial crisis triggered a worldwide recession, but in Australia the increase in unemployment was much milder than in most advanced economies. Unemployment rose by almost 2 per cent during 2008–09, but a quick recovery in growth the following year meant that unemployment was again down to 5 per cent by 2010.

Since 2010, Australia's unemployment rate has stayed mostly in the range of 5 to 6 per cent (rising marginally higher in 2015), which is slightly below the average for advanced economies. The rate of economic growth has generally been high enough to create jobs for people entering or returning to the labour market. Official Treasury forecasts in 2018 predicted that unemployment would remain stable in 2018–19, with employment growth of around 1.7 per cent nationally, but with significantly faster job growth of 3.6 per cent in New South Wales.

Australia's labour market has also seen a sustained trend of faster growth in part-time than full-time jobs during recent decades. The official unemployment statistics do not fully capture the problem of individuals who want to work full-time but can only find part-time

work. To understand recent trends in the number of “underemployed” people, we need to look at the rate of underemployment. The economic downturn in 2008 and 2009 saw the rate of underemployment rise by almost 2 per cent (from 5.9 to 7.8 per cent) in addition to the increase in the rate of unemployment. This increase in underemployment reflected the way that many employers, rather than laying off employees, sought to reduce their hours of work instead (such as by shifting them to part-time work, encouraging them to share jobs or take unpaid leave). Less progress has been made in reducing underemployment during the past decade, with underemployment relatively stable at 8.7 per cent in 2018.

Australia needs economic growth rates above 3 per cent in order to make progress on reducing unemployment. The relationship between economic growth and unemployment is explained by **Okun’s Law**, which says that to reduce unemployment, the annual rate of economic growth must exceed the sum of percentage growth in productivity *plus* increase in the size of the labour force in any one year. Analysis by the Reserve Bank in 2015 (“Okun’s Law and Potential Output”) concluded that the rate of GDP growth consistent with stable unemployment had fallen from around 5 per cent in the 1970s to 2.9 per cent by 2015. One implication of Okun’s Law is that in the short term, higher rates of productivity growth actually make it more difficult to reduce the rate of unemployment (as Australia experienced in the 1990s when it was enjoying higher productivity growth rates). Conversely, one of the short-term impacts of lower productivity growth will often be a lower rate of unemployment (as Australia experienced in the 2000s). However this trade-off between faster productivity growth and faster employment growth only applies in the short term. In the long run, a higher level of productivity growth should lead to stronger economic growth and more job creation, but in the shorter term more jobs are likely to be created during a period of lower productivity growth because employers will be forced to hire more workers if they want to increase production.

Australia’s labour force participation rate is expected to decline gradually over coming decades, falling from its peak in 2010 of 65.8 to 62.4 by 2054–55 (according to the Treasury’s 2015 Intergenerational Report). Structurally, Australia’s population is ageing because of longer life expectancy and lower fertility rates. The proportion of Australia’s population aged over 65 years has risen from 12.6 to 15.8 per cent over the two decades to 2016, putting downward pressure on the participation rate. The proportion aged over 65 is expected to continue rising by 2 per cent every decade through to the 2050s, and even with the retirement age being lifted to 67 years, the larger effect of population ageing will be lower participation rates. At the same time, cyclical factors also influence the participation rate from one month to the next. For example, weaker demand for labour and below average wage growth may contribute to a cyclical “discouraged jobseeker” effect. More recently, economists have been surprised by the rise in the participation rate of 1 per cent between the beginning of 2017 and mid-2018, suggesting that jobseekers may have become more confident of improving conditions in the Australian labour market.

Okun’s Law explains the relationship between unemployment and economic growth, showing that to reduce unemployment, the annual rate of economic growth must exceed the sum of percentage growth in productivity *plus* increase in the size of the labour force in any one year.

review questions

- 1 Outline the recent trends in Australia’s unemployment rate.
- 2 Explain the relationship between productivity and unemployment.

8.4 The main types of unemployment

In order to understand how the government’s economic strategies can reduce unemployment, it is helpful to distinguish between the different types of unemployment.

Structural unemployment

Structural unemployment occurs because of structural changes within the economy caused by changes in technology or the pattern of demand for goods and services. Workers find

that the skills previously useful in declining industries do not match the job opportunities opening up in newly emerging industries. Most of Australia's persistent, long-term unemployment problem is attributed to structural unemployment.

Cyclical unemployment

Cyclical unemployment occurs because of a downturn in the level of economic activity, and falls during times of strong economic growth. Falling demand means fewer employment opportunities. Cyclical unemployment has been the major contributor to a rise in unemployment since 2011, as Australia's economic growth rate fell below its long-term average.

Frictional unemployment

Frictional unemployment represents the people who are temporarily unemployed as they change jobs – they have finished one job, but have not started a new one. It generally takes time to move from one job to another as workers invest time and effort into finding a suitable job, and as employers invest time and effort in the search for suitable candidates. Frictional unemployment is inevitable, although it is increased by delays in matching unemployed people to available jobs. Improving the efficiency of job matching services through job and skills databases can help to reduce frictional unemployment. Each year in Australia, around 1 in 12 workers (or one million people) change jobs.

Seasonal unemployment

Seasonal unemployment occurs at predictable and regular times throughout the year because of the seasonal nature of some kinds of work (for example, fruit picking or being a shopping centre Santa Claus). It also accounts for the influx of students finishing school, university and TAFE courses between December and March each year. Official unemployment figures are usually seasonally adjusted to take these fluctuations into account.

Hidden unemployment

Hidden unemployment includes those people who can be considered unemployed but do not fit the Australian Bureau of Statistics definition of unemployment and are thus not reflected in the unemployment statistics. This includes those individuals who have been discouraged from seeking employment and are no longer actively looking for a job. Because they are not actively seeking work, such people are not officially classified as unemployed; they simply are not participating in the labour force. These people are known as the hidden unemployed or discouraged jobseekers. Examples would include a middle-aged male who had been retrenched, then suffered severe depression and did not return to work.

The presence of hidden unemployment shows up in the statistics as a decline in the labour force participation rate when these individuals give up looking for work, but they are not shown in the unemployment statistics. While it is difficult to measure this figure, the Australian Council of Social Service has estimated that there are as many as 1.3 million hidden unemployed people in Australia. The Australian Bureau of Statistics has reported a sharp increase in recent years in the number of people who want to work and are able to work, but are not actively seeking work for reasons such as family responsibilities, short-term illness and study. The number of people in this category grew from 851,000 to 1.2 million between 2010 and 2015, according to the Multipurpose Household Survey. Data released by the ABS in March 2018 showed that 734,000 Australians still have no job at all, a 30,000 increase from November 2017.

Underemployment

Underemployment refers to people who work for less than full-time (35 hours per week), but would like to work longer hours. These people are not classified as unemployed but they represent a significant growing part of Australia's unemployment problem. The increased importance of understanding trends in the level of underemployment is reflected in the Australian Bureau of Statistics' decision to begin measuring underemployment on a monthly basis since 2014.

Hidden unemployment refers to those people who can be considered unemployed but do not fit the official definition of unemployment and are thus not reflected in the unemployment statistics.

The Australian Bureau of Statistics estimated in 2018 that 1,127,200 Australians were underemployed, a rate of 8.5 per cent of the workforce. This means that Australia has a larger number of people who are underemployed than who are unemployed. The long-term trend of rising underemployment reflects the shift away from full-time to part-time and casual work. A higher proportion of women work part-time or casual jobs, so that while there is almost no difference in the rate of unemployment between males and females (just 0.1 per cent in 2018), the difference in the rate of underemployment was 4.1 per cent in 2018 (10.5 per cent for females compared to 6.4 per cent for males).

Long-term unemployment

Another important measure of unemployment is the number of long-term unemployed – referring to those people who have been out of work for 12 months or longer, usually as a result of structural unemployment.

Once a large pool of long-term unemployed people exists, it can be very difficult to reduce it. High economic growth can help because it stops the pool growing, but on its own it is not enough to solve the problem. Long-term unemployment often turns into permanent unemployment. This is because people who are out of work for long periods of time find it much harder to find a job, even when the economy picks up. Some reasons for this include:

- New arrivals into the unemployment pool are re-absorbed into the workforce more quickly, especially if they have skills that are more up to date and attractive for employers, compared to the longer-term unemployed.
- The long-term unemployed usually suffer from structural unemployment and do not possess the skills demanded in the labour market.
- Unemployed people lose their enthusiasm to find work when they are persistently unsuccessful in applying for jobs.
- Unemployed people also lose contact with the world of paid work and do not learn about the new skills and developments in the labour market, which further reduces their employment opportunities.
- Potential employers tend to look less favourably towards people who have been out of work for a long period of time.

Figure 8.2 shows that a sharp increase in the proportion of the jobless who are classified as long-term unemployed occurred during the recession of the early 1990s. Although there was a significant decline in long-term unemployment as a proportion of total unemployment until 2008–09, since then there has been an increase in the proportion of long-term unemployed. This is in addition to the discouraged jobseekers (not actively seeking work) who are not counted in the pool of long-term unemployed persons. Interestingly, Tasmania recorded the highest long-term unemployment rate as a percentage of the labour force (1.9 per cent) of all jurisdictions in the year to May 2018. The national long-term unemployment rate was 1.3 per cent in the same period.

Year	Average (weeks)	Median (weeks)	Long-term unemployed (%)
1970	7.3	n/a	n/a
1975	12.7	n/a	n/a
1980	32.0	n/a	n/a
1985	49.5	n/a	n/a
1990–91	39.4	14	21.0
1995–96	50.5	19	28.1
2000–01	47.5	16	22.5
2005–06	39.6	13	18.2
2006–07	37.2	12	16.8
2007–08	33.6	11	15.0
2008–09	31.4	14	14.0
2009–10	34.4	14	16.9
2010–11	36.7	14	19.3
2011–12	36.5	14	18.8
2012–13	36.5	14	18.6
2013–14	39.4	14	21.2
2014–15	43.4	15	23.0
2015–16	45.4	16	22.9
2016–17	45.7	17	23.9
2017–18	47.4	18	23.6

Source: Adapted from ABS cat. no. 6291.0.55.001 Table UM2

Figure 8.2 – Duration of unemployment

Hard-core unemployment

Economists sometimes also speak of **hard-core unemployment**, which refers to people who are out of work for so long that employers consider them unemployable because of their personal circumstances. Circumstances that might result in a person not being employable include mental or physical disability, drug abuse or anti-social behaviour. Where someone is assessed as being unable to undertake work, even on a part-time basis, they are placed on a disability support pension. People on the disability support pension are not counted in the official unemployment statistics.

reviewquestions

- 1 Outline the main types of unemployment.
- 2 Explain what is meant by hidden unemployment.
- 3 Discuss why it may be more difficult for a long-term unemployed person to find work compared to other unemployed persons.

8.5 The non-accelerating inflation rate of unemployment

The **non-accelerating inflation rate of unemployment (NAIRU)** refers to the level of unemployment at which there is no cyclical unemployment, that is, where the economy is at full employment.

The **non-accelerating inflation rate of unemployment (NAIRU)** is another important concept in understanding unemployment. The theory behind the NAIRU is that some level of unemployment is inevitable in an economy, and efforts to reduce unemployment below this “natural” level will be counterproductive. This natural rate of unemployment, commonly called the NAIRU, is comprised of frictional, seasonal, structural and hard-core unemployment. When unemployment is above the NAIRU, there is spare capacity in the labour market, which suggests that policymakers should stimulate economic growth with the aim of reducing unemployment. When unemployment is already at or below the NAIRU, an increase in economic growth will increase inflationary pressures, because employers will be forced to raise wages to compete for workers who are already in

employment, because there are insufficient numbers of unemployed people to fill those job vacancies (given that they need to have the right skills and be available to work). In other words, efforts to reduce unemployment below the NAIRU will result in higher inflation. The conflict between inflation and unemployment can be shown on the Phillips Curve diagram, which is discussed further in chapter 13.

The concept of the NAIRU has important implications for economic policy. It suggests that policies to encourage economic growth and reduce unemployment will be worthwhile up to a point, but beyond that, these policies will only create inflation. The NAIRU can, however, be reduced over the long term through policies that reduce structural, seasonal and frictional unemployment. For instance, the NAIRU might be reduced through increasing

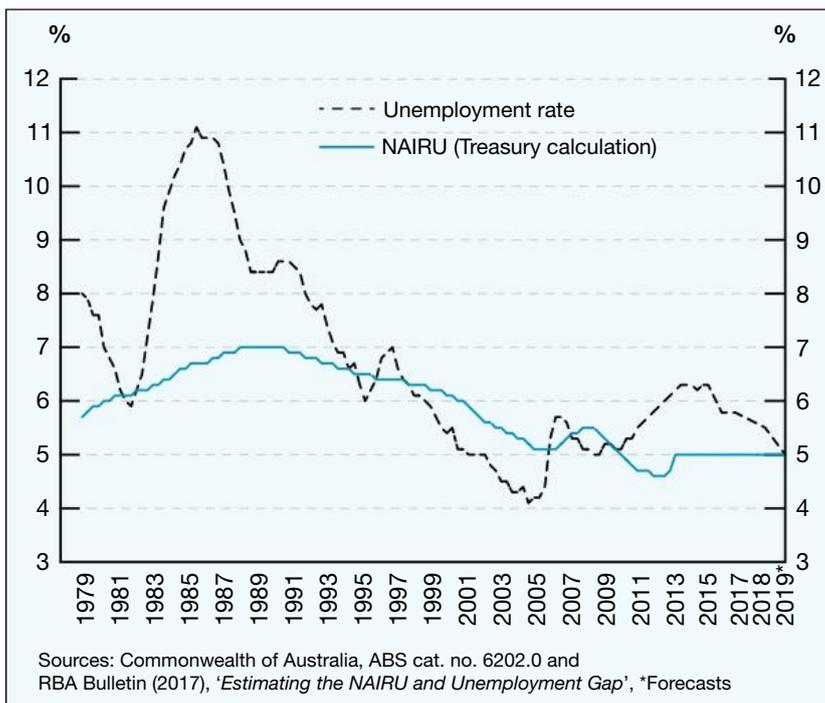


Figure 8.3 – Unemployment and the NAIRU since 1969

retraining and re-skilling programs to aid the structurally unemployed, or by making it easier for workers to change jobs or move interstate, or by removing hurdles for people with a disability to access a workplace.

Estimating the NAIRU is very complex because it attempts to remove cyclical influences, even though the levels of unemployment and inflation are highly influenced by cyclical factors. Figure 8.3 shows an Australian Treasury calculation of the long-term trends in the NAIRU since 1979. A 2017 Reserve Bank of Australia research paper concluded that by 2017 the NAIRU was around 5.0 per cent in Australia. The RBA analysis also concluded that the NAIRU had peaked at just above 7 per cent in 1995 and had declined gradually since then. These findings are supported by the fact that inflation increased when unemployment fell below 5 per cent (prior to the global financial crisis in 2008), and that with unemployment above the NAIRU in more recent years, wage and inflation pressures have been below their long-term averages. The Treasury's economic modelling has also concluded that the NAIRU fell from 7 per cent to 5 per cent in the two decades to 2015.

reviewquestions

- 1 Explain what is meant by the non-accelerating inflation rate of unemployment.
- 2 Outline how an economy might reach its non-accelerating inflation rate of unemployment.

8.6 The causes of unemployment

Economists disagree over the causes of unemployment and what policies should be used by the government to address Australia's unemployment problem. There are many explanations for unemployment offered by economists, including that:

- Economic growth has been too low to generate adequate employment growth.
- People do not have the right skills to fill job vacancies.
- People do not have adequate opportunities for education and training.
- Rapid structural change in our economy is creating a larger pool of workers whose skills are no longer in demand.
- Wage rates are too high, especially for low-skilled workers.
- There are too many regulations surrounding employment, discouraging employers from hiring new employees.
- Some people choose to remain unemployed, because they can receive government welfare benefits instead.
- Workers in high-income economies whose jobs can be performed overseas cannot compete with workers who are paid low wages in developing economies.
- Not enough is done to help people with mental illness or with a disability to find suitable work.

The factors that contribute to unemployment are considered in detail on the following pages.

The level of economic growth

The demand for labour is a **derived demand** – it is derived from the demand for the goods and services that labour helps to produce. If there is a downturn in the level of aggregate demand in the economy, this may be reflected in a downturn in the demand for labour and an increase in the level of unemployment. The decline in aggregate demand could be due to:

- an economic downturn with lower domestic consumption and investment spending

- government policies (such as contractionary monetary or fiscal policy) designed to dampen demand
- a decrease in the demand for Australia's exports due to a global recession, slower growth in the economies of our major trading partners, or because of less competitive Australian goods and services in world markets.

Unemployment is closely correlated with the overall level of economic growth. It is generally felt that unemployment starts rising when growth falls below around 2.5 per cent. On the other hand, when growth is above 3 per cent, the level of unemployment will begin to fall. Generally there is a time lag of around six months between a change in the level of economic growth and a change in employment levels. Changes in the level of economic growth mainly affect cyclical unemployment.

The trends in the measures of unemployment and underutilisation in recent years confirm their close correlation with the rate of economic growth. For the five years to 2018–19, the rate of growth stayed mostly in the narrow range of 2.5 to 3 per cent, just below the level that is needed to keep unemployment and underutilisation at its current level. There was a small trend increase in unemployment as a result, but it generally stayed in the range of 5–6 per cent. Similarly, during periods of faster growth from 2003 to 2008 unemployment fell (from 7 to 4 per cent) and during the economic slowdown in 2009 it rose (from 4 to a peak of 5.9 per cent).

The stance of macroeconomic policies

Macroeconomic policy settings can influence the level of cyclical unemployment in the short to medium term, through their influence on the business cycle.

1992–1994	Expansionary fiscal policy, with large deficits and low interest rates, saw unemployment fall from 11 per cent to 8.5 per cent.
1996–1997	A shift towards tighter monetary policy and fiscal consolidation contributed to slower growth and a slight increase in unemployment to 9 per cent.
1997–1999	Interest rate reductions helped accelerate growth, encouraging spending, business investment and job creation.
1999–2001	The cycle of interest rate increases slowed down growth in 2000 and 2001 and resulted in an increase in unemployment levels.
2003–2008	The mildly expansionary stance of monetary policy supported growth and led to a fall in unemployment levels. Mildly expansionary fiscal policy alongside a major resources boom helped sustain further reductions in unemployment to around 4 per cent.
2008–2009	Unemployment levels increased to around 6 per cent as the global recession impacted on the Australian economy, prompting highly expansionary macroeconomic policies that aimed to minimise the downturn.
2009–2010	As Australia recovered from the global downturn, unemployment fell as expansionary fiscal and monetary policies promoted economic growth. From late 2009 the Reserve Bank began returning interest rates to more normal levels.
2010–2011	As the Australian economy recovered and unemployment fell, the fiscal stimulus was wound back while monetary policy remained relatively neutral.
2011–2018	With economic growth below its long-term average, and inflation low, monetary policy became increasingly expansionary, with the RBA cash rate falling to a record low in 2016. Expansionary monetary policy offset contractionary fiscal policy, which was focused on reducing the budget deficit.

Fiscal and monetary policy both influence the level of aggregate demand through their influence on the business cycle, and this in turn influences the level of unemployment in the short to medium term. An expansionary stance aims to increase economic growth and job creation. This was seen with the series of expansionary monetary policy decisions

that took the cash rate down to a record low of 1.5 per cent in May 2016, in response to weak economic growth. Similarly, expansionary fiscal policy decisions were implemented in 2008–09 as economic growth slumped in response to the global financial crisis, and unemployment rose to 6 per cent.

Constraints on economic growth

Over the longer term, unemployment is influenced by the level of sustained economic growth achieved in an economy. If there are significant constraints on economic growth, the economy will struggle to create enough jobs to reduce unemployment. During the 1980s, Australia's inflationary concerns and current account deficit problems were significant constraints on economic growth and therefore contributed to the unemployment problem. Although inflation proved to be less of a constraint on growth in the 1990s, the economy approached full employment in 2008 in the period before the global financial crisis, and inflationary pressures re-emerged as a constraint on growth.

Rising participation rates

An increase in the labour force participation rate will tend to cause an increase in the rate of unemployment in the short term. This is because more people who previously were not looking for work (and were not classified as unemployed) start actively seeking employment. This situation usually occurs in times of economic recovery when many discouraged jobseekers, observing that employment opportunities are improving, start looking for work. For this reason, they re-enter the labour market, and unless they obtain a job immediately, they join the ranks of the unemployed. This means that the level of unemployment may only be reduced slowly during an economic recovery, even when economic growth and employment growth are strong, because more people are looking for jobs.

Structural change

The process of structural change in the economy often involves significant short-term costs. One of the most significant costs in the short term is a loss of jobs in less efficient industries and in areas undergoing major reforms. A 2014 Reserve Bank analysis of the impact of the resources boom on the labour market estimated that the boom in mining investment between the mid-2000s and 2013 saw construction jobs in the sector increase from 15,000 to 90,000, but that 60,000 of those jobs would be lost by 2018. The loss of these jobs will be partially offset with 20,000 new jobs in the mining industry operations. Meanwhile, tens of thousands of jobs were lost in the automotive sector in 2017 as Toyota, Ford and Holden all closed down their manufacturing operations in Australia. The OECD's analysis of labour market trends in its 2017 *Employment Outlook* concluded that the shift from manufacturing to service industries (related to trade and globalisation) is responsible for around one-third of job losses, while automation is responsible for around two-thirds.

Technological change

Rapid technological change can cause unemployment, at least in the short term. New and improved products and methods of production quite often result in the substitution of capital for labour and a change in the work skills required, causing some workers to become redundant. Unemployment caused by automation and the changing patterns of demand is usually structural unemployment. However, many economists argue that technological change is a natural part of how economies achieve higher living standards, and that as new technologies increase productivity, they can increase demand and create as many jobs as they destroy. Displaced workers may be re-employed in other industries, provided that they have suitable opportunities to be retrained.

Productivity

The productivity of labour is a significant factor affecting the decision of employers to increase or reduce employment. As we have noted in chapter 18.3, low productivity

growth has different short- and long-term impacts. Higher productivity growth will tend to slow employment growth (or increase unemployment) in the short term, because fewer employees are required per unit of output. However, in the long term, higher productivity growth contributes to higher economic growth and therefore lower rates of unemployment. Conversely, a slowdown in productivity growth will tend to result in lower unemployment in the short term but higher unemployment in the longer term, since an economy with lower productivity growth will be less competitive and slower growing (and employers may substitute greater use of capital for a reduced use of labour).

Inadequate levels of training and investment

Structural unemployment is related to the mismatch between the skills of the unemployed and the skills demanded by employers for job vacancies. During the 2000s, significant skills shortages emerged in many areas of the economy for occupational groups such as tradespeople, health professionals and construction workers. By 2018, only 40 occupations were included on Australia's skill shortage list (whereas at the peak of the economic boom before the global financial crisis in 2007–08, 85 per cent of all occupations were experiencing skill shortages). Two occupations have experienced skill shortages in every year for more than a decade: arborists and panelbeaters. Other areas of persistent skill shortages include hairdressers, chefs, butchers, air-conditioning mechanics, roof tilers, stonemasons, sheetmetal trades workers, motor mechanics, midwives and surveyors. The existence of skills shortages at a time when there have still been significant numbers of people unemployed suggests that there are gaps in Australia's education and training system. This

SHIFTING INDUSTRIES AND SHIFTING JOBS

Globalisation has accelerated the process of economic change, resulting in changes to the structure of Australian industries and to the labour market. A study of structural change in Australia published by the Reserve Bank in 2018 highlighted two of the largest changes to the labour market in the past 50 years:

- the growth of more highly skilled, non-routine jobs in the business services sector (such as financial services, consulting, technology, communications, recruitment, design and legal jobs), which has doubled from around 10 per cent to 20 per cent of total employment.
- the decline of lower skilled, routine jobs in the goods production sector (manufacturing, mining, construction, utilities and agriculture).

A similar but more detailed industry-specific analysis was released by the Australian Department of Jobs and Small Business, "Australian Jobs 2018", highlighting the profound changes of the past three decades:

- Manufacturing went from being the largest employing industry in Australia in the three decades between 1987 and 2017 to being the seventh largest industry. By 2017 it employed just 7 per cent of Australian workers, compared to 15 per cent three decades before.
- Employment in Agriculture, Forestry and Fishing halved from 6 per cent to 3 per cent of total employment in the same time period.
- The services sector now employs three in every four Australian workers. The services sector is generally defined as all industries other than manufacturing;

construction; agriculture, forestry and fishing; mining; and electricity, gas, water and waste services (although there are services jobs even within these industries).

The report noted that job growth in recent years has been driven by five key industries: Health Care (which now employs 1.7 million Australians) and four others – Professional Services, Construction, Education and Hospitality, which employ around 1 million each.

This process of change in the structure of the labour market is expected to continue in the decades ahead. Artificial intelligence and automation are expected to make a substantial number of jobs obsolete. The displacement of jobs resulting from new technologies that have affected jobs in retail stores, banks and offices will be accelerated by technologies such as robotics in manufacturing; driverless cars and trucks in the transport sector, and chatbots that replace customer service and helpdesk jobs. A study by PricewaterhouseCoopers in 2018 predicted that 20 per cent of all jobs will be displaced by new technologies in the next two decades, while a similar OECD study in 2018 predicted 14 per cent of jobs will be lost. Both reports also noted that technological change will expand employment in some other areas. More generally, increased demand for workers in expanding sectors (such as in health, aged care and disability care) will continue the trends of job growth in industries where the impact of automation will not be as great – ensuring a continued demand for jobs such as nurses, carers, chefs, plumbers, software and application programmers and teachers.

was underscored in the “Australian Jobs 2018” report by the Department of Jobs and Small Business, which reported that the number of people in traineeships or apprenticeships in 2017 had almost halved in the previous five years to just 268,600 people. Inadequate levels of training make Australia more reliant on skilled migration to fill job vacancies.

Increased labour costs

Unemployment may rise because of a sustained increase in labour costs (wages), although it is worth noting that in more recent years economists have been concerned by the low level of wage growth rather than the excessive wage growth that contributed to inflation in the 1970s and early 1980s. The circumstances where increased labour costs could contribute to higher unemployment include:

- A shortage of skilled labour may result in employers competing with each other for a limited pool of labour, thus forcing up labour costs more generally and possibly creating wage inflation and overheating the economy, prompting the Reserve Bank to increase interest rates.
- A wages breakout caused by excessive wage demands. When nominal wages are rising too fast, outstripping inflation and productivity increases, they can reduce business profits. Businesses may choose to substitute capital for labour, or reduce output, to improve profits. In these circumstances labour would be effectively pricing itself out of a job.
- A decision by the **Fair Work Commission** to increase award wages substantially in its National Minimum Wage Order (to improve the living standards of lower paid workers) might make it too expensive for some employers to keep all of their workers employed.
- A substantial rise in labour on-costs. These are the additional costs of employing labour, and include payroll tax, superannuation, sick leave, holiday pay and workers’ compensation. These are affected mainly by government policy decisions. If these on-costs are too high, they can cause a decline in the demand for labour.

Fair Work Commission is the government agency that regulates Australian workplaces, with functions that include the setting of minimum wages, the approval of workplace agreements and in some instances, the resolution of industrial disputes.

Inflexibility in the labour market

One of the reasons for high labour costs may be inflexibility in the labour market. Some economists argue that Australia’s relatively high minimum wages rates make it less attractive for employers to hire less-skilled workers, contributing to a higher level of unemployment, and that deregulation of the labour market might lead to lower minimum wages and a lower level of unemployment. However there is little evidence in favour of this argument from recent Australian experience, and the Australian labour market is generally regarded as more flexible than most OECD economies. (These issues are further discussed in chapter 17).

reviewquestions

- 1 Examine how the level of economic growth influences the level of unemployment.
- 2 Identify THREE causes of unemployment in the Australian economy.
- 3 Discuss how structural change in the Australian economy has affected the labour market in recent years.

8.7 The impacts of unemployment

A high level of unemployment has serious negative effects on the economy, on individuals and on society. For this reason, lowering unemployment is an important goal of economic management.

Economic costs

Opportunity cost

Unemployment means that the economy's resources are not being used to their full capacity – the economy is thus operating below its production possibility frontier. Therefore, total output is below what it could potentially be, since unemployed people are not contributing to the production process. Lower total output also means lower household incomes and expenditure, which may lower sales and profits. Higher unemployment levels may therefore lead to reduced business investment, production and economic growth.

Lower living standards

Those who are out of work will have lower incomes (relying on welfare payments) and therefore lower living standards. In addition, those who are in employment will need to contribute higher taxes to cover the cost of income support to the unemployed. With high rates of unemployment, the production of both consumer goods and capital goods is lower, resulting in lower living standards.

Decline in labour market skills for the long-term unemployed

Unemployment leads to a loss of skills among existing workers who find themselves without work for extended periods of time. Persistently high unemployment will mean that those who are unemployed will lose their labour market skills, confidence and experience, and will become less employable or even unemployable. In this way cyclical or short-term unemployment can turn into long-term structural unemployment, a process known as **hysteresis**. In addition, new members of the labour force (such as young school leavers and new university graduates) will find it more difficult to develop skills if they are unable to obtain jobs soon after finishing their education.

Costs to the government

High levels of unemployment can have a significant influence on the government's revenue and expenditure (and therefore on the Federal Budget). Falling incomes associated with unemployment will generate less tax revenue, and at the same time, the government will be burdened with increased transfer payments (unemployment benefits) to the unemployed, as well as the cost of training and labour market programs. This decrease in revenue and increase in expenditure will cause a deterioration in the government's budget balance.

Lower wage growth

High levels of unemployment mean that there is an excess of labour supply in the economy, which should lead to a fall in the equilibrium level of wages. However there is a "downward stickiness" for wages – that is, wages do not often get reduced (because, for example, they are set through formal enterprise agreements or industrial awards). Instead, higher unemployment is more likely to lead to slower wage growth over time rather than actual reductions in wages.

Social costs

Increased inequality

Unemployment tends to occur more frequently among lower-income earners in the economy, such as the young and unskilled. Because unemployment means a loss of income for these people, they become relatively worse off compared to higher-income

Hysteresis is the process whereby unemployment in the current period results in the persistence of unemployment in future periods as unemployed people can lose their skills, job contacts and motivation to work.

earners, contributing to poverty and overall inequality in income distribution. One in eight Australian children grow up in a household where nobody is working – a “jobless family”. Recent research by the Smith Family (see chapter 11) has highlighted the “intergenerational” dimension of inequality and poverty, where disadvantage is passed from one generation to the next, often described as the “poverty trap”.

Other social costs

Unemployment is associated with many of the most serious personal and social problems in Australia. Among families and individuals, especially those who suffer from long-term unemployment, there is an increased incidence of social problems, including:

- severe financial hardship and poverty
- increased levels of debt
- homelessness and housing problems
- family tensions and breakdown
- loss of work skills
- increased social isolation
- increased levels of crime
- erosion of confidence and self-esteem
- poor health, mental health conditions and a higher risk of suicide.

These social problems have an economic cost for the community as a whole since more resources must be directed towards dealing with them. For example, more public funds must be spent on health, welfare services, social workers, the police service and correctional centres, rather than being used to satisfy other community wants. In addition, increased unemployment and inequality can create social tensions and a backlash against globalisation more generally, as has been seen in many countries since the global financial crisis of 2008.

Unemployment for particular groups

The problem of unemployment is far more severe for some groups in society compared to others. One such group is the youngest group in the workforce – aged 15 to 19 – who experience levels of unemployment up to three times the rate of the general population, as shown in figure 8.4. The higher levels of unemployment in advanced economies in the decade since the global financial crisis have had the greatest impact on younger people, creating fears of a “jobless generation” in many countries. An OECD Skills Outlook report in 2015 estimated that more than 35 million people aged between 16 and 29 were neither employed nor in education or training. A similar report in 2017 found that more than 200 million adults across OECD countries, about 1 in 4, have low literacy or numeracy skills, and 60 per cent of them lack both types of skills needed to succeed in today’s economy. It called for changes to the curriculum and new training to prepare the younger generation for more technological focused jobs in the future.

High youth unemployment rates come about because employers are seeking workers with greater skills and experience, which young unskilled workers lack. This helps to explain Australia’s increasing school retention rate (more secondary students staying on to complete Year 12) and the long-term

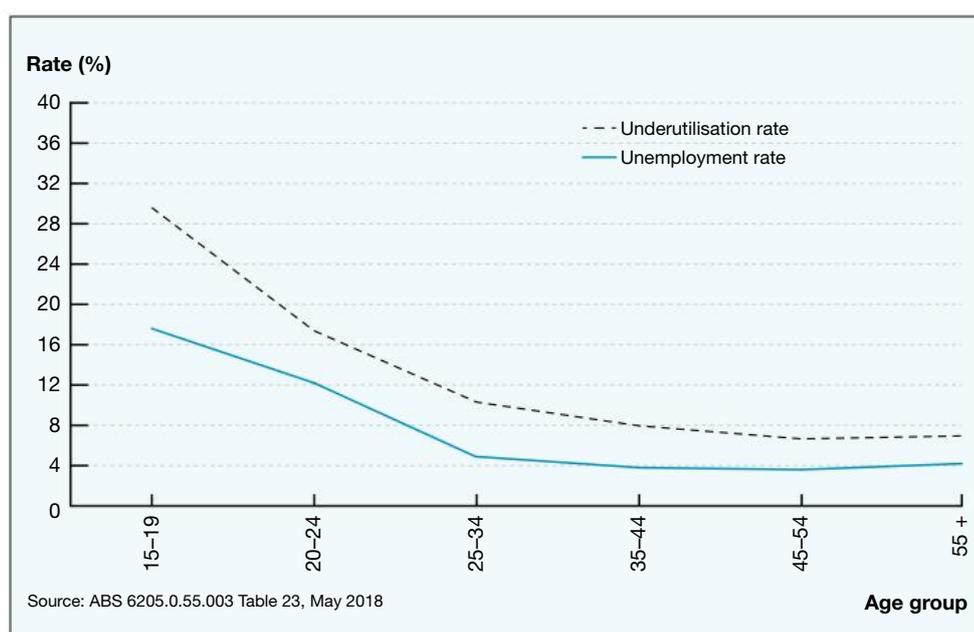


Figure 8.4 – Unemployment and underutilisation among different age groups, 2018

rise in participation in tertiary education. At the start of the 1980s, just over a third of students completed secondary school. This figure increased sharply over the past three decades, and since 2013 has exceeded 80 per cent.

Other particularly disadvantaged groups who face significantly higher levels of unemployment include:

- **Indigenous Australians** have relatively high unemployment rates, especially in sparsely settled regional areas. The Australian Government's annual "Closing the Gap" report in 2018 noted that unemployment among Aboriginal and Torres Strait Islanders is approximately four times the national average at 21.3 per cent. Unemployment is highest among those aged 15–24 years (31.8 per cent) and lowest for those aged 55 years and over (6.2 per cent).
- **Age-related unemployment.** Unemployment rates are highest among young Australians. Among 15–19-year-olds who are in the labour force, the rate of unemployment is 17.6 per cent, around three times the national average. The labour force underutilisation rate for 15–24 year olds was 29.6 per cent in 2018, more than double the national average of 14.4 per cent. A 2017 Report published by the Brotherhood of St Laurence, *Reality Bites: Australia's Youth Unemployment in a Millennial Era*, found that key reasons for the higher level of unemployment among younger people are the insufficient number of entry level jobs, poor secondary education outcomes and in some instances, personal circumstances contributing to a lack of motivation. Of the 267,000 Australians in the age range of 15 to 24 who were unemployed, 50,500 had spent more than a year looking for work without success. Older workers also have greater difficulty in finding work once they have lost a job. For example, a 2017 University of South Australia study showed that the average length of time jobseeking for those unemployed over 55 was 68 weeks. In contrast, employment seekers aged 25 to 54 spent an average of 49 weeks looking for work, while on average 15- to 24-year-olds spent just 30 weeks finding a job. The report also found 27 per cent of people over 50 had experienced age discrimination. In addition, surveys indicate that for workers over 55, there are as many discouraged jobseekers who stop seeking work as there are people who are officially unemployed.
- **Specific regions** suffer from higher unemployment rates than others. For example, the unemployment rate in New South Wales in mid-2018 was at 4.8 per cent in the rest of the state. Unemployment was highest in the Southern Highland and Shoelhaven region, at 8.1 per cent, and youth unemployment was 19.6 per cent. In contrast, the Eastern Suburbs and Northern Beaches of Sydney had unemployment rates almost half the state average, varying between 2.1 per cent and 3.3 per cent.
- **People born outside of Australia.** Unemployment rates are slightly higher for people born outside of Australia, which might be caused by the language barriers faced by people from non-English-speaking backgrounds. For example, in 2018 the unemployment rate for people who had migrated to Australia in the past decade was 7.4 per cent, compared with 5.5 per cent for the population overall. More significant is the higher level of workforce participation among people born overseas, which in 2016 was 70 per cent compared with a rate of 66 per cent among people born in Australia.

In addition to these factors, higher unemployment rates for some groups in society may indicate the persistence of discrimination and unequal employment opportunities in the labour market. For example, prejudicial attitudes to Indigenous Australians in parts of regional Australia are often cited as a factor in their higher unemployment rates.

review questions

- 1 Outline TWO economic and TWO social costs of unemployment.
- 2 Explain why some groups within the community experience higher levels of unemployment.
- 3 Australia is currently experiencing an ageing of its population, with the proportion of Australians aged over 65 expected to grow from 16 per cent of the population in 2016 to 23 per cent by 2055. Discuss the possible impacts of this longer-term trend on Australia's labour market.

8.8 Policies to reduce unemployment

Reducing unemployment is one of the most difficult tasks of economic management. Lasting reductions in unemployment take time to achieve and are dependent upon sustaining economic growth over a long time period. In periods of rising unemployment, the challenge for governments is to minimise the short-term increase in unemployment in order to achieve the fastest possible return to low unemployment. The broader challenge for governments is to reduce long-term structural unemployment through a combination of labour market policies, investment in training and other wider economic reforms.

Governments choose policies to reduce unemployment based on what they see as the main causes of unemployment. If, for example, a government believes that the main cause of unemployment is structural unemployment, where the skills of jobseekers are not suitable for the jobs that are available, it would implement policies that aim to train workers with new skills. On the other hand, if the government believes that cyclical unemployment is a main reason for people being out of work (due to an economic downturn), it might implement policies to encourage stronger economic growth. The changing priorities of government policies to reduce unemployment often reflect changing views on the causes of unemployment.

The most important government strategy to reduce **cyclical unemployment** is to use macroeconomic policies to sustain economic growth and minimise sharp downturns in the business cycle. Economists describe jobs as a derived demand of production, which means that reducing unemployment requires an increase in output. In Topic Four, we examine in detail the role of fiscal, monetary and other policies in influencing the level of output and therefore job growth. Measures such as increased government spending, reduced taxation and lower interest rates can stimulate economic activity and, aided by the multiplier effect, can cause an increase in domestic output and job creation.

Australia's economic history over the past half century has shown that unemployment rises quickly during a recession, but it can take many years of economic recovery for unemployment to return to its pre-recession levels. Avoiding sharp downturns in the economy can therefore minimise any increase in cyclical unemployment. The goals of sustaining economic growth, in the range of around 3 to 4 per cent, and keeping inflation within the 2 to 3 per cent target band, have been central to macroeconomic policy since the early 1990s. The main reason why Australia has succeeded in sustaining lower rates of unemployment since the 1990s is that it has sustained growth for almost 30 years and avoided recession (a feat which has broken world records). The downturn following the global financial crisis in 2008 prompted a major shift towards expansionary

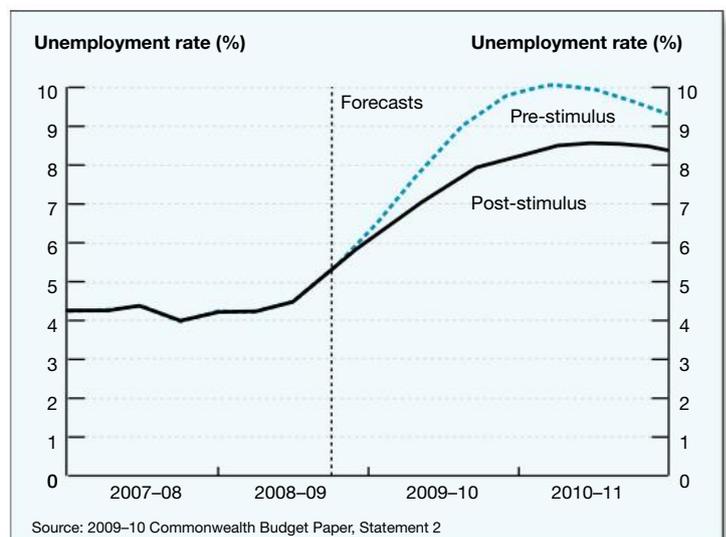


Figure 8.5 – Impact of fiscal stimulus on unemployment

fiscal policy, with government spending playing the lead role in stimulating economic activity in the economy between late 2008 and 2010. Figure 8.5 shows the Treasury's estimate of the impact of the fiscal stimulus on unemployment at the time the stimulus was introduced. The Treasury has subsequently estimated that the stimulus resulted in unemployment being 1.5 per cent lower than it would otherwise have been.

In addition to addressing cyclical unemployment through macroeconomic policies, governments also use a range of measures to address structural unemployment. By lifting the economy's efficiency, competitiveness and productivity, **microeconomic reform** aims to increase economic growth and job creation over the long term. Australia's microeconomic reform policies have included tariff reduction, deregulation, national competition policy, privatisation and tax reform. In particular, policies relating to the labour market – such as industrial relations, education and training and welfare to work initiatives – are intended to foster a higher level of employment growth over time.

Labour market policies play an important role in reducing many types of unemployment. The range of labour market policies available to governments extends from education and training programs for people who are out of work or at risk of unemployment, measures to improve the matching of unemployed people to job vacancies, and policies to increase demand for labour by making it more attractive for employers to hire workers, such as through wage subsidies. OECD research suggests that active labour market policies (involving direct government funding or subsidies) are among the most effective ways to reduce cyclical unemployment. The OECD's 2017 Employment Outlook noted that an increase in government spending on active labour market programs of 1 per cent of GDP is likely to reduce unemployment by 2 percentage points (in comparison to a reduction of just 0.5 percentage points if this increased funding is allocated to spending on other budget priorities).

Policies for the general regulation of the labour market have an influence on how the forces of demand and supply interact in the labour market. Since the 1990s, changes to labour market regulations such as enterprise bargaining have given employers more flexibility in determining employment conditions. These changes have aimed to increase productivity and give employers greater incentives to hire workers. There is an ongoing debate over how Australia can best strike a balance between policies that give flexibility to employers and policies that provide fair pay and conditions to employees. This debate was especially controversial during the mid-2000s, after the introduction of the Howard Government's Workchoices policy (subsequently replaced by the *Fair Work Act* in 2009 under the Rudd Government). The unpopularity of measures that might reduce wages, combined with the low level of wage growth and the stable level of unemployment, has meant that the *Fair Work Act* has remained mostly unchanged for the past decade despite changes in government.

Successive governments have implemented labour market policies aimed at moving individuals off welfare and into paid employment. These measures include making it harder to access welfare payments such as through longer waiting periods, tougher eligibility rules, requirements to keep applying for jobs and requirements to undertake training. By making it more difficult for people who are out of work to access income support payments, these changes have been designed to encourage unemployed individuals to actively seek work or additional education and training. In 2016 the Turnbull Government announced a \$752 million investment in the new Youth Jobs "PaTH" program (Prepare, Trial and Hire), which aims to reduce youth unemployment by combining training obligations with incentives for employers in three stages:

- 1 Jobseekers under the age of 25 are required to undertake six weeks of employability skills training within five months of registering for unemployment benefits.
- 2 Young jobseekers have the option of a voluntary 4–12 week internship placement, working 15–25 hours per week and receiving an additional \$100 per week in benefits (while employers receive a \$1000 upfront payment for taking on each intern).

- 3 Employers are given a wage subsidy of between \$6500 and \$10,000 if they employ an unemployed person under the age of 25 who has been out of work for more than six months.

State governments can also play a role in tackling unemployment at a local level. The NSW Government's Youth Employment Program that targets young people aged 15 to 24 years in regions with the highest youth unemployment rates. The program is being delivered by the local service providers who work with local employers, organisations and non-government organisations (NGOs) to connect eligible young people with training, support and jobs. One element is a Youth Employment Innovation Challenge, which offers \$10 million to fund innovative solutions that help young people find employment in NSW.

Governments can influence the labour market through their immigration policies, especially in Australia, which has had high levels of immigration throughout its history. Economists generally agree that immigration does not have any significant impact on the level of unemployment in Australia, because the immigration program is strongly focused on skilled workers. In 2017 the Turnbull Government introduced additional requirements for Temporary Skill Shortage visas and some permanent visas, including a requirement that employers who bring skilled migrants into Australia must contribute to a new Skilling Australians Fund. The Fund will pay for an increase in apprenticeships and traineeships.

Another area of policy changes aimed at the supply side of the labour market involves lifting workforce participation by reforming the way that the tax and welfare systems interact. Often, unemployed persons and low-income earners face very high "effective marginal tax rates", meaning that for every extra dollar they earn from work, they have to pay tax as well as lose a portion of their welfare benefit. Reducing effective marginal tax rates can therefore provide incentives to lift workforce participation and increase employment.

Changes to parental leave programs have also aimed to increase supply in the labour market by making it easier for parents to stay in paid employment over the longer term. Paid parental leave, combined with policies to make child care accessible and affordable, makes it easier for both parents in a family to maintain paid employment and take care of their children. In 2018 the Coalition Government introduced an integrated child care subsidy that pays for 85 per cent of child care costs for families earning up to \$65,000. It also expanded the ParentsNext program in 2018, which assists young parents to find work through providing child care, and pre-employment and financial literacy training.

Government policies can help to reduce frictional unemployment by helping to match jobseekers with job vacancies. Historically, the Australian government operated a national job search agency (the Commonwealth Employment Service), but in the 1990s this was closed down. It was replaced by a network of job search agencies, some run by the private sector and some by charities, who are funded by the government on the basis of how many jobseekers they train and place into jobs. This network of 62 employment service providers, known as jobactive, had a \$1.3 billion budget in 2018–19. Service providers are paid according to how long an employee stays in a job, and they also receive additional incentives for success in finding permanent work for individuals who have been out of work for an extended period of time.

reviewquestions

- 1 Outline the role of macroeconomic policy in reducing unemployment.
- 2 Explain how recent labour market policies reflect changes in views of the causes of unemployment in Australia.

chapter summary

- 1 The **labour force** is the number of people 15 years of age and above who are either working or actively seeking work.
- 2 The **labour force participation rate** is the percentage of the working-age population who are either working or actively seeking work.
- 3 **Unemployment** refers to the proportion of people in the labour force actively seeking work but unable to find it. It is measured by the unemployment rate. The **unemployment rate** is calculated by:

$$\text{Unemployment rate (\%)} = \frac{\text{Number of persons unemployed}}{\text{Total labour force}} \times \frac{100}{1}$$

- 4 **Underemployment** refers to people who work for less than full time hours per week but would like to work longer hours. Although not officially unemployed, they represent a significant part of Australia's unemployment problem.
- 5 Australia experienced a trend increase in unemployment from the mid-1970s. After falling slowly from the early 1990s to 2008 and then stabilising in the range of 5–6 per cent since 2010, Australia's unemployment rate is at the average level for advanced economies.
- 6 The main types of unemployment include:
 - **cyclical unemployment**, which occurs because of a downturn in the level of economic activity
 - **structural unemployment**, which occurs because of a mismatch between the skills of the unemployed and the skills required by job vacancies
 - **frictional unemployment**, which occurs when people are temporarily unemployed as they change jobs
 - **seasonal unemployment**, which occurs at predictable and regular times throughout the year because of the seasonal nature of some kinds of work.
- 7 The main **causes of unemployment** include low levels of economic growth, contractionary macroeconomic policies, rising participation rates, structural and technological change, changes in productivity, inadequate training and investment, rapid increases in labour costs and inflexibility in the labour market.
- 8 The **non-accelerating rate of unemployment (NAIRU)** is a concept used by economists to refer to the minimum rate of unemployment that can be sustained without inflationary pressure – thought to be around 5 per cent in Australia.
- 9 Unemployment has many economic and social costs. **Economic costs** include the opportunity cost of lost production, a decline in workforce skills, and the cost of income support for the unemployed. **Social costs** include increased inequality, poverty, family breakdown and crime.
- 10 In recent years, Australia has seen a greater emphasis on policies to improve vocational training and workforce participation in order to address structural unemployment.

chapter review

- 1 Define *unemployment*.
- 2 Discuss how unemployment is measured and how changes in underemployment might NOT affect the unemployment rate.
- 3 Outline the recent trends in unemployment in Australia.
- 4 Discuss the main types of unemployment that might exist in an economy.
- 5 Explain the role of technological change in influencing the level of unemployment.
- 6 Explain what is meant by the non-accelerating inflation rate of unemployment.
- 7 Explain how structural and cyclical factors have influenced unemployment in Australia in recent years.
- 8 Outline the economic and social costs for Australia of a sustained high rate of unemployment.
- 9 Identify which groups in Australian society tend to experience higher levels of unemployment.
- 10 Outline three recent policies to reduce unemployment in Australia.

9

Inflation

- 9.1 Introduction
- 9.2 Measuring the rate of inflation
- 9.3 Recent trends in inflation
- 9.4 The main causes of inflation
- 9.5 The effects of inflation
- 9.6 Policies to sustain low inflation

9.1 Introduction

Inflation is an economic problem that can have negative impacts on many economic outcomes including economic growth, international competitiveness, exports and income inequality. Maintaining low inflation is a major objective of economic policy because of the benefits that lower inflation provides to the economy in the long run. Australia has enjoyed relatively low levels of inflation since the early 1990s because inflation overseas has been lower and economic policies have placed a higher priority on the objective of low inflation.

9.2 Measuring the rate of inflation

Inflation is a sustained increase in the general level of prices in an economy. The best-known and most widely used measure of inflation in Australia is the percentage change in the **Consumer Price Index (CPI)**. The CPI summarises the movement in the prices of a basket of goods and services, weighted according to their significance for the average Australian household. The annual inflation rate is calculated by the percentage change in the CPI over the year.

$$\text{Inflation rate (\%)} = \frac{\text{CPI}_{\text{CY}} - \text{CPI}_{\text{PY}}}{\text{CPI}_{\text{PY}}} \times \frac{100}{1}$$

Where CPI_{CY} = the value of the CPI in the current year
Where CPI_{PY} = the value of the CPI in the previous year

The basket of goods and services used to calculate the CPI does not include all goods and services available in the economy, but it covers a wide selection that reflects average household spending patterns. As such, the CPI gives a good indication of the overall movement in the prices of consumer goods and reflects general changes in the cost of living (how much consumers have to pay for the goods and services they buy). The CPI is compiled by the Australian Bureau of Statistics and is published every three months.

The weights given to the expenditure groups in the basket are based on the ABS Household Expenditure Survey and are shown in figure 9.1. The CPI excludes some items of household spending such as changes in mortgage interest rates and consumer credit charges. In addition, the CPI does not include property prices, so the changes in residential property prices in recent years have not been reflected directly in the CPI.

Consumer Price Index (CPI) summarises the movement in the prices of a basket of goods and services weighted according to their significance for the average Australian household. It is used to measure inflation in Australia.

Expenditure group	Weighting factor %
Food	16
Alcohol and tobacco	7
Clothing and footwear	4
Housing	23
Household contents and services	9
Health	5
Transportation	10
Communication	3
Recreation	13
Education	4
Financial and insurance services	6
All groups	100

Source: ABS cat. no. 6440

Figure 9.1 – Weighting of main expenditure groups in the CPI basket

The official or “headline” rate of inflation, calculated using the CPI, can be a misleading indicator of ongoing price pressures in the economy because it includes some goods and services whose prices may be highly volatile or may be affected by one-off factors. Economists, including those at the Reserve Bank, therefore prefer to look at the level of **underlying inflation** (also known as “core” inflation). Underlying inflation removes the effects of one-off or volatile price movements (see the box below on how underlying inflation is calculated). As a result, measures of underlying inflation tend to be less variable than headline inflation.

MEASURES OF UNDERLYING INFLATION

There is no single measure of underlying inflation in Australia and both Treasury and the Reserve Bank have their own calculation of the underlying inflation rate. Most economists focus on two measures of the underlying inflation rate published by the RBA, the trimmed mean and the weighted median. These measures adjust the official CPI figures to give less weight to goods and services that experienced very large rises or falls in price. Although the calculation of these measures is a highly technical exercise, the logic behind each measure is quite straightforward.

- **Trimmed mean** inflation is determined by calculating the average inflation rate after excluding the 15 per cent of items with largest price increases and the 15 per cent of items with the smallest price increases (or largest price falls) from the CPI.
- **Weighted median** inflation is calculated by comparing the inflation rate of every item in the CPI and identifying the middle observation. The inflation rate of half of the items in the CPI will be greater than the weighted median inflation rate, and the inflation rate of the other half will be less than it.

When the RBA refers to its own estimate of underlying inflation, it is referring to the average of its two measures – that is, the trimmed mean and weighted median added together and then divided by two.

The Australian Bureau of Statistics in 2011 also introduced seasonally adjusted and underlying measures of inflation to help make CPI adjustments more comprehensive and reliable.

Recent years highlight the greater volatility of the headline measure of inflation. The annual CPI measure of inflation fell from 2.9 per cent in March 2014 to 1.3 per cent by March 2016 before rebounding to 2.1 per cent in June 2018. In contrast, underlying inflation trended downwards from its peak of 4.2 per cent in March 2008 and stayed within the 2–3 per cent range until mid-2016, when it fell slightly below, before rebounding to 11.9 per cent in June 2018. Headline inflation alone can give the impression that the nation’s inflationary problems vanish and reappear every 12 months, but the underlying inflation points to the real ongoing trends.

It is important to note that underlying inflation can be either below or above the headline inflation rate. For example, one-off dramatic falls in prices of certain goods, such as fruit or petrol prices affected by a short-term oversupply, will reduce the headline inflation rate but have a much smaller impact on the underlying rate.

reviewquestions

- 1 Define the term *inflation*.
- 2 Distinguish between headline and underlying inflation.
- 3 Analyse the limitations of the CPI as a measure of inflation in the economy.

9.3 Recent trends in inflation

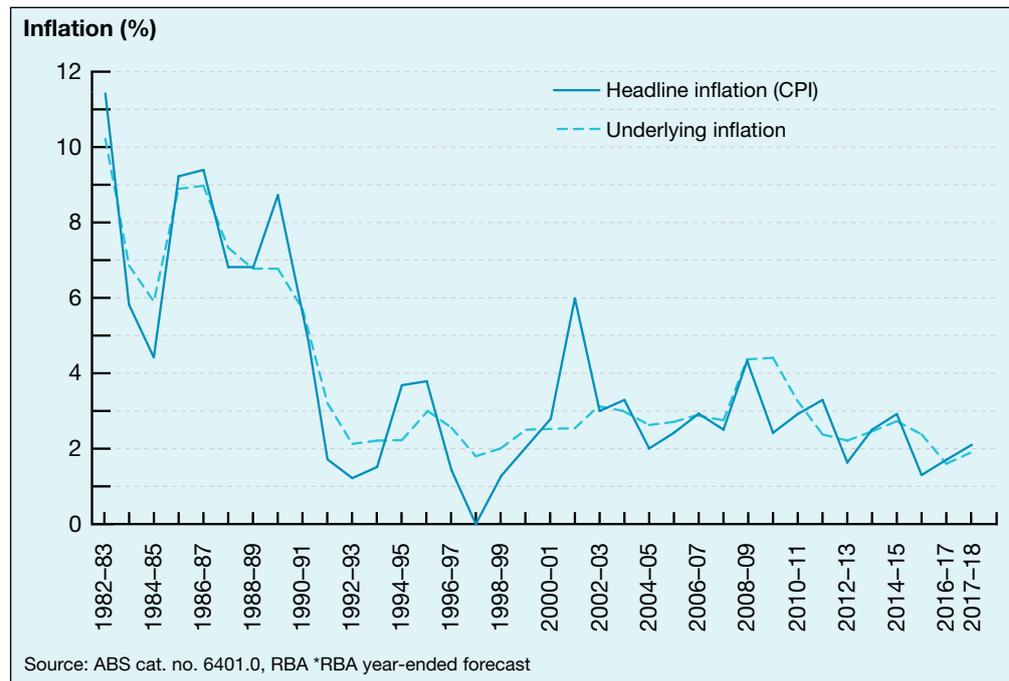


Figure 9.2 – Inflation in Australia 1982–2018

One of the most significant macroeconomic achievements of recent times was Australia achieving a sustained reduction in inflation from the early 1990s having experienced relatively high inflation since the mid-1970s (see figure 9.2). A key factor behind this success was the introduction of **inflation targeting**. In 1993, the Reserve Bank began to target an inflation rate averaging 2–3 per cent over the course of the economic cycle as a guide to determine interest rate decisions. The inflation target was formalised in 1996 by an agreement between the Treasurer and the RBA Governor. Inflation has generally stayed around the inflation target band since then, although there have been temporary periods where inflation has notably deviated from the target. For example, the introduction of the Goods and Services Tax in 2000 caused a one-off increase in the headline inflation rate. Between 1996 and 2018, headline and underlying inflation averaged 2.5 and 2.7 per cent respectively.

The main development that brought the high inflation era of the 1970s and 1980s to an end was the recession of the early 1990s. Australia emerged from this recession with low inflation levels. The RBA's inflation target then locked in this lower inflation rate. This has meant that whenever inflationary pressures have emerged since then – such as in 1994, 1999, 2003, 2007 and 2010 – the Reserve Bank has increased interest rates to slow down the growth in demand and curb inflationary pressures. Global factors, such as lower inflation worldwide and increased competition from imported goods, also assisted in containing inflationary pressures in Australia.

The surprising feature of the relatively long cycle of economic growth of the 1990s and 2000s is that inflation pressures remained constrained, and monetary policy was relatively successful in addressing inflation pressures when they emerged. Many economists attributed these lower inflation rates to the impact of **structural changes** during the 1980s and 1990s. Microeconomic reform increased the intensity of competition within Australia and from overseas, while **productivity growth** also improved in the 1990s, all contributing to sustained low inflation. This made it possible for Australia to achieve low inflation whilst simultaneously enjoying strong economic growth and falling cyclical unemployment.

Structural change refers to the process by which the pattern of production in an economy is altered over time, and certain products, processes of production, and even industries disappear, while others emerge.

Productivity refers to the quantity of goods and services the economy can produce with a given amount of inputs such as capital and labour.

The most recent period when inflationary pressures were strong was between 2005 and 2008. Underlying inflation peaked at 5.1 per cent as a result of higher global prices (for food, energy and other commodities) and the strength of economic activity. With the Australian economy at close to full capacity, production costs such as labour, materials and transport were rising across the economy and feeding through to higher consumer prices.

The period of strong inflationary pressures ended with the global downturn in 2008, which reduced consumer confidence, investment spending, demand for labour and wage growth. As economic growth recovered, the stronger exchange rate reduced import prices and the ability of domestic companies to raise prices – further containing inflationary pressures. Inflationary pressures eased during the downturn of the late 2000s before partly re-emerging in 2011 because of large increases in prices for fruit, vegetables and fuel. More recently, underlying inflation has been at the lower end of the RBA's target band or slightly below, and headline inflation has mostly been even more subdued. With wages growing slowly, domestic inflationary pressures have been contained, while many advanced economies have been experiencing inflation rates close to zero.

In coming years, Australia's inflation rate is projected to gradually move towards the middle of the target range. Low interest rates across the global economy have been creating some inflationary pressures. The surge in budget deficits resulting from the Trump administration policies and higher prices for Chinese imports as the value of the Yuan appreciates, will add to global inflationary pressures. Other factors, however, such as subdued oil prices and geopolitical uncertainty, can have offsetting effects. For Australia, regulatory changes to utility prices and increased wholesale prices for gas and electricity have put upward pressure on the headline inflation rate. On the other hand, record low wage growth in Australia has put downward pressure on inflation. If Australia's high levels of household debt drag down consumption in the future, this will also constrain inflationary pressures.

reviewquestions

- 1 Outline TWO factors that have affected Australia's inflation rate in the past year.
- 2 Explain the factors behind Australia's success in achieving low inflation levels since the early 1990s.
- 3 Discuss the impact of globalisation on Australia's level of inflation.

9.4 The main causes of inflation

Economists generally recognise four main causes of inflation: demand-pull, cost-push, inflationary expectations and imported inflation. We consider these causes below, along with two other possible causes of inflation – government policies and excessive increases in the money supply.

Demand-pull inflation

In a market economy, prices are determined by the interaction of demand and supply in the marketplace. When aggregate demand (or spending) exceeds the productive capacity of the economy, prices

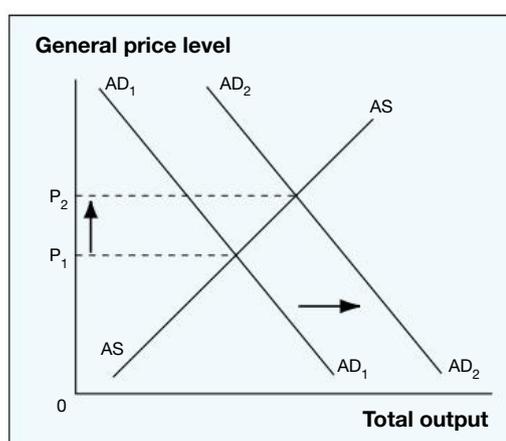


Figure 9.3 – Demand-pull inflation

Demand-pull inflation occurs when aggregate demand or spending is growing while the economy is nearing its supply capacity, so that higher demand leads to higher prices rather than more output.

rise as output cannot expand any further in the short term. Consumers force prices up by bidding against each other for the limited goods and services available. This is reflected in figure 9.3, as aggregate demand increases from AD_1 to AD_2 . Consumers are willing to pay a higher price for any given level of supply. Prices will therefore increase from P_1 to P_2 (causing an expansion in supply). The price increase that results from higher aggregate demand is known as demand-pull inflation.

Cost-push inflation

Cost-push inflation occurs when there is an increase in production costs (such as oil price increases or wage increases) that producers pass on in the form of higher prices thus raising the rate of inflation.

Cost-push inflation is caused by an increase in the costs of the factors of production. When production costs rise, firms attempt to pass them on to consumers by raising the prices of their products. This is reflected in figure 9.4, as aggregate supply shifts from AS_1 to AS_2 . Producers face higher costs so they now supply less quantity for any given price level. Prices therefore increase from P_1 to P_2 (causing a contraction in demand).

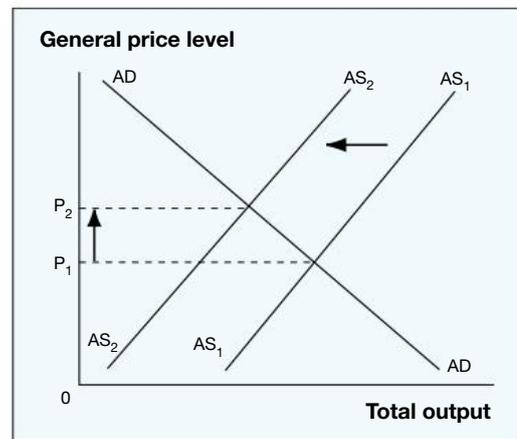


Figure 9.4 – Cost-push inflation

Traditional sources of cost-push inflationary pressures in the Australian economy include wages and the price of energy sources (especially petrol). When wages increase faster than productivity growth, the cost of labour for each unit of output increases. Since wages typically comprise around 60 per cent of a firm's costs, firms will attempt to pass on the wage increase to consumers in order to maintain their profitability. Similarly, an increase in the price of oil or other raw materials will generally lead to an increase in the price of the final product as firms pass on the increase in prices in order to maintain their profit margins. The Reserve Bank estimated in 2016 that a 10 per cent rise (or fall) in petrol prices adds (or subtracts) 0.4 per cent to inflation in any one year. The 20 per cent fall in petrol prices between 2014 and 2016 therefore subtracted 0.8 per cent from inflation over those two years.

Inflationary expectations

If individuals in the economy expect higher inflation in the future, they may act in a way that causes an increase in inflation. There are two ways in which high inflationary expectations can bring about higher inflation:

1. If the prices of goods and services are expected to increase in the economy, consumers will attempt to purchase products before prices increase. As consumers bring forward their planned purchases, this will cause an increase in consumption, resulting in higher demand-pull inflation. Similarly, if a firm expects that demand for their product will increase, the firm may raise prices in order to maximise profits, causing an increase in inflation.
2. If employees expect inflation to increase, they will take this into account when negotiating their wage increases. Workplace contracts are typically negotiated in advance for the next two or three years, and so an employee who expects higher inflationary pressures over the next few years will ask for a higher wage rise to preserve the purchasing power of their wage. Higher wage increases may be passed on by firms, leading to cost-push inflation.

Managing inflationary expectations is a major challenge for policymakers. Once individuals in the economy expect higher inflation, they will act in a way which will bring about higher inflation – in effect, they fulfil their own prophecy. High inflationary expectations can entrench high levels of inflation in the economy, and it may take a significant economic contraction (such as the recession of the early 1990s) to bring expectations down.

Imported inflation

This type of inflation is transferred to Australia through international transactions. The most obvious cause of imported inflation is rising import prices. An increase in the price of imported goods will increase the inflation rate in exactly the same way as would an increase in the price of domestically produced goods. A depreciation of the Australian dollar will also increase the domestic price of imports and will lead to inflation. The extent to which increases in overseas prices or a fall in the dollar will lead to consumers paying higher prices for imports will depend on market conditions. If imports face competition from locally made products, importers may reduce their profit margins and not pass on to consumers the full effect of the overseas price rise or depreciation. A Reserve Bank research paper in 2015 noted that imported inflation now accounts for a much larger share of the variability in the headline inflation rate than in the past.

Other causes

The four types of inflation listed above are the most common causes of inflation within the Australian economy. However, there are two other possible causes of inflation:

- **Government policies** may directly influence the level of inflation in several ways. By increasing indirect taxes, the government can have an impact on the general level of prices. For example, increases in government excise on tobacco products were expected to add around a $\frac{1}{4}$ - $\frac{1}{2}$ -percentage point to headline inflation for the two years from 2016. Other measures that may influence prices include deregulating an industry, changing tariff rates, imposing price controls or price monitoring and increasing charges for goods or services provided by the Australian Government.
- **Excessive increases in the money supply** can also lead to an increase in inflation. When the increase in the money supply outstrips the growth rate of the economy, an increased volume of money chases the same amount of goods and services and prices are likely to rise. Therefore, increasing the money supply without an increase in real production simply causes inflation (sometimes called “monetary inflation”).

It is possible to have all of the above types or causes of inflation operating at the same time. However, often one or two types of inflation are more prominent at a particular point in time. For example, during the mid-1970s and early 1980s, inflationary expectations and cost-push inflation tended to be more prominent; whereas the late 1980s saw demand-pull inflation as the main factor behind inflation. In the past decade other factors have created inflationary pressures. The strength of the mining boom in the 2000s added to demand in the economy and demand-pull inflation. More recently, inflationary expectations have largely been subdued because of slow wage growth, although inflationary expectations are starting to increase on expectations of stronger economic growth in Australia and globally.

Australia is in the most sustained low inflation environment in at least half a century. Overall, the mixed effects of these economic changes make it difficult to predict future trends in Australia’s inflation rate.

review questions

- 1 Outline recent trends in TWO types of inflation over the past decade.
- 2 Distinguish between demand-pull and cost-push inflation.
- 3 Explain why a depreciation of the Australian dollar causes higher inflation.

9.5 The effects of inflation

Inflation has significant impacts on the economy in both the short and long term. In general, the higher the level of inflation the more negative the consequences. As a result, governments around the world give priority to sustaining low inflation in order to avoid the negative consequences which high inflation brings.

“Both the Reserve Bank and the Government agree on the importance of low inflation. Low inflation assists business and households in making sound investment decisions. Moreover, low inflation underpins the creation of jobs, protects the savings of Australians and preserves the value of the currency.”

– RBA Statement on the Conduct of Monetary Policy, October 2013.

Economic growth and uncertainty

Inflation is the main constraint on economic growth. Excessive economic growth tends to raise inflationary pressures through increased wage demands and through strong consumer demand bidding up price levels. On the other hand, a sustained lower inflation rate allows moderate economic growth to be maintained without it becoming necessary to curtail growth through higher interest rates. Sustained low inflation since the early 1990s allowed for a long period of relatively high economic growth.

In overall terms, higher inflation distorts economic decision making since producers and consumers change their spending and investment decisions in order to minimise the effect of inflation on themselves, such as through buying assets rather than investing in income-producing activities.

Low inflation has a beneficial effect on the level of economic growth because it removes the distortion to **investment** and **savings** decisions which high inflation causes. High inflation discourages business investment because it makes producers uncertain about future prices and costs, and therefore future profit levels. Low inflation has a positive impact on business investment, restoring the incentive to invest in long-term productive assets rather than short-term speculative investments, which a high inflation environment encourages.

Higher inflation will also distort consumers' decisions to spend or save disposable income. Consumers are more likely to spend and not to save during periods of high inflation, because the purchasing power of their money is reduced over time. Sustained low inflation is likely to encourage consumers to save a higher proportion of their disposable income. However, Australia's recent experiences suggest that other factors such as house prices, superannuation and the broader economic outlook can be more important in influencing the overall level of savings in the economy. When the economy is performing strongly and people's assets are rising in value, consumption rises and the savings rate falls, even when inflation rates are low.

Wages

The level of inflation is a major influence on **nominal wage** demands. During periods of higher inflation, employees will seek larger wage increases in order to be compensated for the erosion in the purchasing power of their nominal wages. This can lead to the emergence of a **wage-price inflationary spiral** that is very difficult to break, where wage increases lead to higher prices, which lead to higher wage demands and so on.

Income distribution

High inflation rates tend to have a negative impact on the distribution of income because lower-income earners often find that their incomes do not rise as quickly as prices. In addition, lower-income earners may face higher interest rates on their borrowings if inflation rises. In general, high rates of inflation hurt those individuals who are on fixed incomes or

Nominal wage is the pay received by employees in dollar terms for their contribution to the production process, not adjusted for inflation.

whose incomes are not indexed to (or rise as fast as) the rate of inflation. Higher inflation rates can also erode the value of existing savings so that individuals who do not have a means of protecting their savings from the impact of inflation will see their net wealth decline.

Unemployment

The levels of unemployment and inflation are often closely related, especially in the short term. Higher levels of inflation will usually result in more contractionary fiscal and monetary policies, resulting in slower economic growth and higher unemployment in the short to medium term. More generally, periods characterised by high levels of unemployment often also have low inflation rates, while low levels of unemployment are often associated with rising inflation – a relationship demonstrated by the **Phillips curve**. Previously, governments generally chose between the priority of low inflation (and slower growth) or lower unemployment (at the risk of rising inflation). However, over the long term this inverse relationship breaks down. For example, in the mid-1970s Australia experienced simultaneous increases in inflation and unemployment (a problem known as **stagflation**). For most of the 1990s and 2000s, Australia experienced the opposite – a combination of low inflation and falling unemployment.

Stagflation occurs when the rate of inflation and the rate of unemployment rise simultaneously.

HOW INFLATION CAUSES AN EXCHANGE RATE DEPRECIATION

The economic theory of **purchasing power parity** says that exchange rates in the long run will change to reflect the real purchasing power of currencies. This means that goods which are traded globally (such as cars, clothes and electronic goods) should cost roughly similar amounts in different countries once money is converted into the local currency. The theory suggests that there is a strong link between inflation and exchange rate movements. Economies with high inflation should experience a depreciation relative to those economies with lower inflation rates.

The theory relies on an assumption of free trade and floating exchange rates. Suppose that the price of a car is the same in Australia and New Zealand, and the exchange rate is equal. If NZ experiences inflation, the price of its cars will rise. Australian cars will become more internationally competitive and there will be an increase in exports to NZ. NZ consumers will prefer to switch to the cheaper Australian substitutes. The increased demand for Australian cars will increase demand for the Australian dollar, causing an appreciation. As a result, the Australian cars will become less competitive, restoring the purchasing power parity between the two economies.

Of course, this theory does not work perfectly because of a range of local factors like transport costs and taxes, and the shorter-term influences of global financial flows on currencies. Purchasing power parity is nevertheless a long-term anchor for the exchange rate between different countries.

International competitiveness

High inflation results in increased prices for Australia's exports, reducing **international competitiveness** and the quantity of exports. As the price of domestic goods increase, consumers will also be more likely to switch to import substitutes, worsening the trade deficit. By contrast, low inflation should improve Australia's international competitiveness, making it more attractive for other countries to purchase Australian goods and services, as well as making local goods more competitive with imports. This should lead to an expansion of exports and the replacement of imports by domestic substitutes, thus improving the trade deficit.

International competitiveness refers to the ability of an economy's exports to compete on global markets. An economy may be competitive by selling products of a higher quality or a lower price than its competitors.

Exchange rate impacts

In the short term, higher inflation may result in an appreciation of the exchange rate, as speculators expect the Reserve Bank to raise interest rates in response, attracting greater financial flows. However, high inflation generally causes the currency to depreciate over time. Australian experience offers some evidence of the relationship between inflation and a depreciation (although the stronger relationship is where a depreciation causes higher inflation). Over the long term, sustained low inflation may foster greater international confidence in the Australian economy, strengthening the value of the dollar.

Interest rates

Lower inflation normally brings about reductions in nominal interest rates, since nominal interest rates are based on a real rate of return (or real interest rate) plus inflation. The reduction in inflation in advanced economies following the global recession in 2009 contributed to record low interest rates. Higher inflation, on the other hand, usually results in higher interest rates, as central banks try to reduce demand pressures in the economy and avoid the negative consequences of high inflation.

Benefits of inflation

The benefits of inflation are generally considered to be limited. A small amount of inflation can be beneficial because it allows for adjustments in relative prices in an economy without requiring reductions in normal prices which can often be “sticky”(especially for wages). The greater benefit of a low positive level of inflation is that it reduces the likelihood of the economy experiencing falling prices, or **deflation**, which can also have negative consequences. Deflation gives consumers an incentive to delay purchases, which can cause a fall in consumer spending and an economic downturn. Deflation can also make borrowing money less attractive because the amount to be repaid is rising in real terms, not falling. In addition, deflation can make hiring more workers less attractive if nominal wage rates stay the same and real wages rise.

For these reasons, central banks like the RBA tend to target low inflation levels that avoid the negative consequences of inflation. They also do not strive for zero inflation, which can increase the risk of deflation and other economic problems.

review questions

- 1 Describe THREE consequences of high inflation.
- 2 Explain the relationship between the level of inflation and economic growth.
- 3 Discuss the impact of high inflation on international competitiveness and the exchange rate.

9.6 Policies to sustain low inflation

Since the large fall in inflation during the recession of the early 1990s, the Government and the Reserve Bank have sought to maintain a low level of inflation in the Australian economy. Monetary policy has been the main tool used to achieve low inflation, but occasionally other parts of the policy mix have also been used to address price pressures in the economy.

Monetary policy has played the major role in Australia’s low inflation record since the early 1990s. In the short to medium term, monetary policy is the major tool used to reduce inflation, and it attempts to sustain growth at a level that does not create excessive inflationary pressures. If inflation starts rising, the Reserve Bank is able to increase interest rates throughout the economy by tightening monetary policy. This has the effect of dampening consumer and investment spending, resulting in a lower level of economic activity and therefore lower inflation.

The Reserve Bank has used **pre-emptive monetary policy** by taking action against inflation before it emerges as a problem. For example, the RBA increased interest rates seven times in 2009 and 2010 to address concerns about inflation after the economy emerged from the downturn caused by the global financial crisis. The Reserve Bank generally aims to increase interest rates before inflation reaches the top of the target band.

The Reserve Bank has attempted to make its use of monetary policy predictable by emphasising consistently its intention to use monetary policy primarily to ensure that inflation remains within its target band. This has had the effect of lowering inflationary expectations and thus further reducing inflation as a problem in the economy.

Fiscal policy can also play a support role in maintaining low inflation. If the Government increases revenue and decreases spending, this reduces demand pressure in the economy and can reduce demand-pull inflation. For example, the Government's plan to reduce the budget deficit over the medium term reflects a strategy of reducing inflationary pressures that might otherwise emerge in an economy with over two decades of consecutive growth, and thus take pressure off rising interest rates. This is the opposite of fiscal settings between late 2007 and 2010, which saw a substantial increase in government spending to stimulate the economy during the downturn. Fiscal policy settings that support the low-inflation objective may also reduce the need for higher interest rates to combat an inflation challenge.

The Government's use of **microeconomic policies** has also contributed to Australia's general low inflation environment. Reduced protection has lowered the prices of imports. It has also increased the competition faced by domestic producers from both overseas competitors and from new entrants to domestic markets. This makes it more difficult for domestic producers to raise their prices. In addition, reforms to the labour market attempt to ensure that wage increases are linked to productivity improvements. If productivity rises, the economy will be able to afford real wage increases without inflationary pressures. However, in a deregulated labour market, strong demand for skilled workers can more quickly translate into higher wages in industries that experience a shortage of skilled workers. Finally, economists have urged greater investment in economic infrastructure such as roads, railways and ports in order to reduce the capacity constraints that can create bottlenecks, increase production costs and add to inflationary pressures.

The Reserve Bank's continuing commitment to maintaining low inflation and the heightened level of competition in the economy suggest that, at least in the foreseeable future, the high levels of inflation experienced in the 1970s and 1980s are unlikely to return. In the long term, inflation is likely to be increasingly influenced by global factors rather than by government policies. The rise of China as a producer of low-cost manufactured goods has helped reduce global inflationary pressures since the early 2000s. Gradually improving economic conditions in other advanced economies could see inflationary pressures reemerge in the future.

Microeconomic policies are policies that are aimed at individual industries, seeking to improve the efficiency and productivity of producers – also referred to as supply-side policies.

Labour market policies are microeconomic policies that are aimed at influencing the operation and outcomes in the labour market, including industrial relations policies that regulate the process of wage determination as well as training, education and job-placement programs to assist the unemployed.

reviewquestions

- 1 Identify the types of inflation directly influenced by monetary policy.
- 2 Explain why the Reserve Bank implements monetary policy pre-emptively.

chapter summary

- 1 Inflation** is a sustained increase in the general level of prices in an economy.
- The **inflation rate** measures the percentage change in prices of consumer goods (as measured by the Consumer Price Index) and therefore reflects any change in the cost of living. The CPI is compiled from calculations of the change in the prices of a basket of goods and services, weighted according to the purchasing patterns of Australian households.
- Measures of **underlying inflation** exclude one-off and volatile changes in prices and provide a measure of ongoing price pressures in the economy.
- Since the early 1990s, the Reserve Bank has targeted an inflation rate of 2–3 per cent on average over the course of the economic cycle. This is known as **inflation targeting**.
- Australia's inflation rate has generally stayed within the 2–3 per cent target range since the early 1990s. In the mid-2010s, inflation has been low because of low wage growth and weak growth in parts of the economy. Inflation is also affected by a range of one-off factors such as volatility in fruit and vegetable prices.
- The two main causes of inflation are **demand-pull inflation** and **cost-push inflation**. Demand-pull inflation occurs when excessive aggregate demand results in upward pressure on the prices of a limited supply of goods and services. Cost-push inflation occurs when rising costs of production are passed on to consumers. Wage rises are the main source of cost-push inflation.
- The other main causes of inflation are inflationary expectations, imported inflation, specific government policy decisions and excessive increases in the money supply.
- Inflationary expectations** can lead to inflation if individuals and businesses within the economy expect an increase in the rate of inflation and attempt to protect themselves from it by raising prices and wages.
- Inflation is a major constraint on the rate of economic growth, since high levels of inflation tend to discourage investment and may also prompt the RBA to increase nominal interest rates, both of which will lower growth. Lower rates of inflation are often associated with higher levels of unemployment, lower nominal wage growth, a more equitable distribution of income, and increased international competitiveness.
- The main policies to sustain low inflation are **monetary policy**, which can respond quickly to rising inflation, and **microeconomic policies**, which can increase competitive pressures, making it harder for firms to raise prices.

chapter review

- 1 Define the term *inflation*.
- 2 Explain how the inflation rate is calculated.
- 3 Distinguish between headline and underlying inflation.
- 4 Outline recent trends in Australia's inflation performance.
- 5 Describe the main causes of inflation.
- 6 Explain how an increase in inflationary expectations can cause an increase in inflation.
- 7 Discuss the benefits of low inflation.
- 8 Explain TWO consequences of high inflation.
- 9 Examine the relationship between the levels of inflation and unemployment in an economy.
- 10 Explain how changes in economic policy have influenced Australia's inflation performance in recent years.

10 External Stability

- 10.1 Introduction
- 10.2 Australia's current account deficit
- 10.3 Australia's foreign liabilities
- 10.4 Australia's exchange rate
- 10.5 Policies to achieve external stability

External stability is an aim of government policy that seeks to promote sustainability on the external accounts so that Australia can service its foreign liabilities in the medium to long run and avoid currency volatility.

10.1 Introduction

Achieving **external stability** is an important objective of economic policy. External stability ensures that imbalances in Australia's relationship with the global economy do not hinder achieving domestic economic policy goals such as higher growth, lower unemployment or lower inflation. Achieving these goals can be affected by external imbalances, such as an unsustainable increase in the current account deficit (CAD) or foreign liabilities, or by large movements of the exchange rate. If overseas investors decide that Australia's external position is not sustainable, this can have serious effects on the Australian economy, including a depreciation of the currency, a withdrawal of investment funds, difficulties for firms in accessing overseas financial markets, higher interest rates and slower economic growth.

The key concern behind the issues of external stability is that for Australia to sustain economic prosperity, it must manage its relationship to the global economy. Australia needs to "pay its way" in the world and avoid imbalances that could threaten long-term prosperity. The main external stability issues for the Australian economy in recent decades have been:

- **A persistent current account deficit:** Australia has experienced a structural increase in the CAD since the early 1980s, driven by a deficit on the net primary income account. While Australia had historically sustained a deficit on the current account that averaged under 3 per cent of GDP, since the mid-1980s the CAD has averaged 4.3 per cent of GDP (although since 2010 it has averaged a lower rate of 3.4 per cent).
- **Volatile terms of trade:** In recent years Australia's terms of trade have fluctuated wildly as a result of the largest commodity price boom in Australian history, which began in 2003 and ended in 2011. The terms of trade peaked in 2011 at their highest level in 140 years, a level 85 per cent above their average throughout the twentieth century. After falling by 36 per cent between their 2011 peak and March 2016, the terms of trade more recently surged since 2011. By mid-2018 the terms of trade was 23 per cent lower than its 2011 peak. The global commodities boom was underpinned by rapid industrialisation in emerging economies such as China and India. Although this boosted Australian exports and national income, the higher terms of trade had negative effects for other sectors of the economy, which became less competitive because of the high Australian dollar.
- **Australia's lack of international competitiveness:** Throughout its economic history, Australia has struggled with its remoteness from the centres of the global

economy and small population base, which have made it harder to be competitive in many markets for tradeable goods and services, such as manufactured goods and the technology sector. Factors that contribute to our lack of international competitiveness in these markets include the cost of transporting goods to overseas markets, the lack of economies of scale in domestic production, the high cost base for labour, and a lack of financial backing for innovative business start-ups.

- **The growth of foreign debt:** The size of Australia's net foreign debt grew rapidly during the 1980s, causing alarm as it soared to 35 per cent of GDP from a tiny 6 per cent at the beginning of the decade. Its growth has been much slower since then, although it has more recently been close to 60 per cent of GDP. Although it has continued to grow, the era of low interest rates since the turn of the century has meant that foreign debt servicing costs are still lower than in the 1990s.
- **Rising foreign ownership in Australia:** High levels of foreign ownership result in a large share of profits going offshore. Those outflows on the net primary income account are offset by inflows of profits from Australian investments overseas. Many sectors of the Australian economy have high levels of foreign ownership, in particular the minerals and resources sector with \$315 billion in foreign investment in 2017. In 2011, at the height of the mining boom, foreign investors owned an estimated 80 per cent of the resources sector.
- **Volatility of the Australian dollar:** Because commodities comprise a large share of Australia's exports, the value of the Australian dollar often reflects fluctuations in commodity prices. Australia's exchange rate saw a strong rise in the decade from 2001 to 2011 (more than 60 per cent on the Trade Weighted Index, and more than 130 per cent against the US dollar). Following its highs in early 2012, the Australian dollar lost some of these gains (by 2018, it was down from its peaks by 21 per cent on the TWI and 32 per cent against the US dollar).

Although economists have expressed concern about Australia's external imbalances from time to time, these concerns have receded in recent years because the current account deficit has been lower and external imbalances have not had major impacts on Australia's economic performance. In fact, Australia has generally recorded sustainable economic growth, low inflation, and low unemployment, and it has maintained the confidence of foreign investors even while experiencing larger external imbalances than most advanced economies. Increased commodity export revenues have played an especially important role in strengthening confidence in the sustainability of Australia's external imbalances. The high CAD during the years of the mining boom also partly reflected a large inflow of foreign investment in mining, which has supported an expansion of exports since then. As a result, achieving improvements in external stability has diminished as a priority of economic management.

Many of the general issues relating to external stability were previously addressed in chapter 4. This chapter focuses specifically on the sustainability of Australia's external imbalances and the relationship between external outcomes and other economic issues in Australia.

10.2 Australia's current account deficit

A key measure of an economy's external stability is the **current account deficit as a percentage of GDP**. Australia has experienced persistently large current account deficits since the 1980s. Each year, Australia has paid out considerably more for goods, services and income than it has received from overseas. The CAD as a percentage of GDP is the best measure of trends in the current account over time, rather than the size of the CAD in dollar terms. Using this measure allows an accurate comparison across time and between countries.

In chapter 4 we saw that since the 1980s the CAD has generally moved in a range of around 3 to 6 per cent of GDP (see figure 4.8). As a percentage of GDP, the CAD averaged 1.1 per cent in the 1970s, then 4.1 per cent in both the 1980s and 1990s, 5.0 per cent

in the 2000s decade and 3.6 per cent since 2010. The large increase in the CAD in the 1980s caused alarm and prompted a range of major structural reforms to restore the competitiveness of the Australian economy. Australia has nevertheless continued running large current account deficits, generally at a higher rate than other economies with large deficits such as the United States and the United Kingdom, and in contrast to surplus economies such as China, Japan and Germany.

Over time there have been different explanations for Australia's persistent current account deficit. Section 4.5 discussed the cyclical and structural causes affecting the components of Australia's current account deficit. The extent to which the current account deficit is perceived as a problem, as well as the policy response required, depends on what factors are seen to be the causes of Australia's CAD. A related question is whether or not the CAD is **sustainable**. Having at first been regarded as largely a trade problem related to Australia's balance on goods and services, most economists now explain the high CAD as a structural issue related to the primary income account. In other words, the CAD is explained as the result of a **savings and investment gap rather than a trade gap**. For this reason, many economists have suggested that Australia's high CAD is sustainable since it is the result of high levels of direct investment in Australia that allow for higher economic growth and exports in the longer term. However, other economists argue that a high CAD puts Australia at risk of not being able to finance its external liabilities. In this section we examine three explanations of Australia's persistent CAD.

The CAD as a trade deficit

When the CAD first emerged as a major problem in the 1980s, economists mainly explained it as a product of Australia's trade problems. In other words, the CAD was blamed on persistent deficits on the balance on goods and services, caused by a combination of slow export growth and expanding demand for imports. While the balance on goods and services is not the main contributor to Australia's CAD, it is still a critical part of Australia's balance of payments performance. There are two key dimensions to the argument that the CAD is the result of a trade gap.

Firstly, Australia lacks **international competitiveness** in many of the higher value-added areas of global trade, such as elaborately transformed manufactures (ETMs). Many of Australia's traditional manufacturing industries have lost their markets at home and overseas, because they have not been able to compete with overseas competitors who specialise in large-scale, low-cost manufacturing, such as China. For example, many areas of manufacturing have largely moved offshore, such as footwear, clothes, textiles, electronics, whitegoods, motor vehicles, tyres, machinery, oil refining and even some areas of food processing. Australia's manufacturing sector has declined as a share of total output, reducing Australia's exports of finished goods and increasing our reliance on imports. During the past decade, a sustained period of high commodity prices caused an appreciation of the Australian dollar, making Australia's non-commodity resources less competitive. Economists use the term "Dutch disease" to describe how demand for one type of exports may drive up the value of the exchange rate, making other exports less competitive (leading to a contraction in production of those exports).

Australia's lack of international competitiveness can be seen as the result of both cost factors (being able to sell goods and services at attractive prices on global markets, influenced by exchange rates, labour costs and productivity levels) and non-cost factors (such as the quality of production, reliability of supply, marketing efforts and customer services). In the 2017–18 *Global Competitiveness Report*, the World Economic Forum found that Australia lags behind other advanced economies in innovation and sophistication (where Australia is ranked 27th in the world), important drivers of competitiveness. The World Economic Forum estimates that Australia's overall competitiveness has fallen in recent years (Australia in 2013–14 slipped out of the top 20 competitive countries for the first time).

Nevertheless, Australia has in recent years developed new export markets in business and financial services to growing Asian markets, and these markets have the potential for significant growth.

Secondly, Australia's **terms of trade** (discussed in chapter 4) have a major effect on changes in the CAD. In the final quarter of the twentieth century, global commodity prices went into long-term decline, contributing to slower growth in Australia's export revenue and a higher current account deficit. This trend changed in 2003, after which the terms of trade increased dramatically, so that by their peak in 2011 the terms of trade were more than double their average for the 1980s and 1990s. However, instead of reducing the deficit, the high terms of trade contributed to a substantial short- to medium-term increase in the CAD. For several years, a boom in mining investment created a surge in capital imports for mining construction and operations, while consumer imports also surged in response to the strong dollar and rising household incomes. In 2007, the CAD reached a historic record of 6.7 per cent of GDP. The CAD then fell as the investment in the mining sector led to increased output and exports.

The relationship between movements in the terms of trade and Australia's trade balance (and therefore CAD) has strengthened in recent years. As the terms of trade soared to record highs in 2011, the trade balance surged to a surplus of 1.2 per cent of GDP. As soon as the terms of trade began to decline, the trade balance followed. An improvement in the terms of trade has contributed to a return of trade surpluses since 2017. Overall, the trade balance has improved from an average deficit of 1.5 per cent of GDP in the 2000s to an average deficit of 0.5 per cent in the current decade (up until 2018). While Australia has profited from a period of high commodity prices, the risks of such a heavy reliance on minerals and energy exports is that a sharp fall in prices for those commodities can trigger a large increase in the CAD. The narrowness of Australia's export base is reflected in the fact that we have relied on just two commodities – coal and iron ore – to provide one-third of Australia's export revenues. A longer-term concern for Australia is that the global market for coal exports will shrink in coming years as economies move away from carbon-based energy sources.

The CAD as a savings-investment gap

Another explanation of the CAD is that it is the result of an excess of domestic investment over domestic savings – the **savings-investment gap**. If domestic spending exceeds domestic output, resulting in a deficit on the current account, we are forced to make up for this by bringing in financial inflow from overseas – in other words, Australia borrows from overseas or sells domestic assets to overseas residents. As such, foreign savings instead of domestic savings are used to finance domestic investment. Similarly, if the government runs a budget deficit, as it has in recent years, this will reduce the level of national savings and widen the savings-investment gap. The relationship between business investment, net saving and the CAD can be seen in figure 10.1. Recently a fall in investment has helped to narrow the savings-investments gap and contribute to a lower CAD.

From the perspective of the savings-investment gap, Australia's persistent CAD and need for capital inflow is partly explained as a natural consequence of specific features of the economy. As a country with a small population, a large land mass and extensive natural resources, to develop its economy Australia has historically relied on overseas capital to fill the gap between domestic savings and investment. Foreign investment and borrowings have made it possible for Australia to develop more rapidly than if we had relied only on domestic sources of capital. In this context, so long as foreign investors and foreign loans are increasing Australia's productive capacity (and not just funding the purchase of existing assets such as housing), they will add to Australia's capacity to service its foreign liabilities – and the CAD will therefore be sustainable in the longer term.

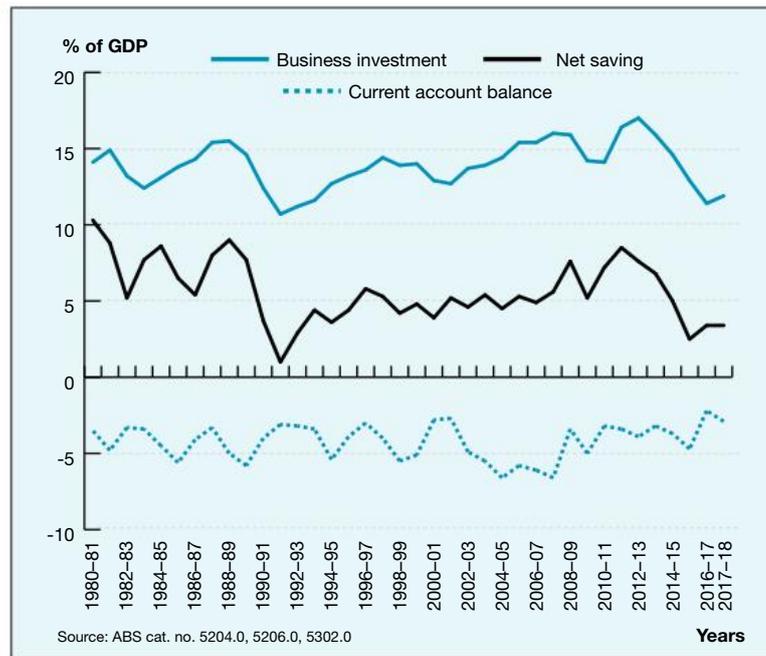


Figure 10.1 – Australia’s savings investment gap

The “consenting adults” thesis (the Pitchford thesis)

The **Pitchford thesis** states that as long as a current account deficit is the result of savings and investment decisions by the private sector that are not the result of distortions to normal market mechanisms, then there is no cause for concern about an economy’s external stability.

The argument that the CAD and foreign liabilities are not a major concern was popularised by Australian National University Professor John Pitchford in the 1990s and was known as the **Pitchford thesis**. It is now commonly known as the “**consenting adults**” thesis. Pitchford noted that Australia’s CAD and foreign liabilities were almost entirely generated by the private sector (despite the government running large budget deficits in recent years, the private sector still accounted for around 82 per cent of Australia’s net foreign debt in 2017). He argued that Australia’s current account problem was different from that of other countries with large external imbalances who had experienced financial crises arising from large foreign debt burdens, because their foreign debt was the result of government borrowings. In Australia’s case, Pitchford’s argument was that foreign liabilities helped to fund private investment projects, or were direct investments in firms and ventures by foreign residents. So long as private sector decision making is not distorted by other factors (such as government policy), individuals and firms make proper calculations of the risks and costs of borrowing from overseas, and borrowers and lenders are responsible for their own decisions – in other words, they are “consenting adults”.

Provided that Australia’s foreign liabilities are largely accumulated by the private sector, the argument goes that there is no need for the Australian Government to be too concerned about the level of foreign liabilities any more than with the level of domestic liabilities. However, the “consenting adults” view has attracted some criticism since the global financial crisis. The major point of debate has been whether one of the assumptions underpinning the Pitchford thesis – that private sector decision making involves a proper calculation of risks – always holds true. Critics point to the role of the collapse of the sub-prime mortgage market in the United States in 2008, which triggered the worst financial crisis in the global economy since the Great Depression of the 1930s. In this instance, large financial institutions were not able to accurately calculate the risks of borrowing and lending associated with complex financial products called mortgage-backed securities. The Pitchford thesis also assumes that private sector debt is entirely separate from public sector debt. However, the global financial crisis demonstrated that national governments are often forced to assume the liabilities of their country’s private sector banks in order to avert a more serious financial collapse. Nevertheless, while the Pitchford thesis remains a matter of debate, Australia’s strong economic performance throughout the global financial crisis supported the view that at least in an environment of strong commodity prices, Australia’s large external imbalances are sustainable.

review questions

- 1 Give TWO economic reasons why Australia's current account has been in deficit throughout most of Australia's economic history.
- 2 Discuss the arguments in favour of and against the view that Australia's CAD and foreign liabilities should not concern the government.

10.3 Australia's foreign liabilities

One of the long-term impacts of a high CAD is the growth of **net foreign liabilities** (or net external liabilities). Net foreign liabilities reflect Australia's total financial obligations to foreigners, minus the total financial obligations of foreigners to Australia. There are two components of net foreign liabilities:

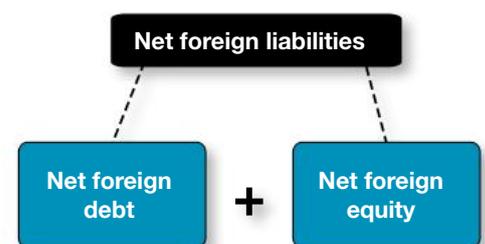
- **Net foreign debt** (or net external debt), which is the total stocks of loans owed by Australians to foreigners, minus the total stock of loans owed by foreigners to Australians.
- **Net foreign equity**, which is the total value of assets in Australia such as land, shares and companies in foreign ownership, minus the total value of assets overseas that are owned by Australians.

Overseas borrowing adds directly to Australia's foreign debt. The initial borrowed sum eventually has to be repaid and the debt must be serviced with regular interest payments. The servicing of Australia's debt constitutes an outflow of funds on the current account, and thus increases our CAD. By contrast, selling assets to foreigners does not add directly to Australia's foreign debt. Australia does not have to repay the price of purchasing equity unless the company or assets are sold back to Australians. However, Australia does have to send overseas returns on equity investment, such as company profits, rent on land and dividends on shares. In recent years, equity servicing costs on the primary income account have exceeded interest repayments on debt. The returns on equity that Australia pays to overseas investors are partly offset by returns received by Australians from investments overseas.

Figure 10.2 and figure 10.3 show the growth in Australia's **net foreign liabilities** as a **percentage of GDP**. While in some years this reflects the growth in net foreign debt, in other years it reflects the growth in net foreign equity. The figures reveal that Australia's **net foreign debt to GDP ratio** has been growing consistently since the 1980s, when the era of globalisation began for the Australian economy. Fluctuations can occur in the shorter term, in response to movements in the Australian dollar and trends in foreign investment inflows and outflows (for example, exchange rate movements contributed to a fall in net foreign debt in 2010–11, and a large increase in 2014–15). In 2017–18 Australia's net foreign debt was just above \$1 trillion, reaching 56.3 per cent of GDP. This is lower than the peak of 61.8 per cent of GDP recorded in 2015–16.

In the long term, excessive growth in Australia's foreign debt could lead to a debt sustainability problem. If the size of the debt is rising faster than the increase in GDP, as it has done in most years, the interest payments on the debt will progressively take up a greater proportion of our GDP. This reduces both Australia's overall standard of living and its economic growth potential. High foreign debt can also create a vicious cycle, sometimes known as the **debt trap scenario**. This starts with a high CAD, which requires an inflow of foreign funds that may come in the form of either foreign debt or selling Australian assets to foreigners. With a larger foreign debt, Australia's interest payments on that debt increase, which are recorded as primary income debits that flow out on the current account.

Net foreign liabilities are equal to Australia's financial obligations (foreign debt plus foreign equity) to the rest of the world minus the rest of the world's financial obligations to Australia.



Year	Net foreign debt (\$bn)	% of GDP	Net foreign equity (\$bn)	% of GDP	Net foreign liabilities (\$bn)	% of GDP
1980–81	9.4	6.3	24.0	16.0	33.4	22.3
1985–86	78.4	30.7	21.1	8.3	99.5	39.0
1990–91	142.8	34.5	50.9	12.3	193.7	46.7
1995–96	191.0	36.2	87.7	16.6	278.7	52.8
2000–01	295.9	42.0	76.5	10.9	372.4	52.8
2001–02	316.7	42.0	56.0	7.4	372.7	49.4
2002–03	348.5	43.5	73.4	9.2	421.9	52.7
2003–04	378.9	44.0	78.2	9.1	457.1	53.1
2004–05	421.8	45.8	85.1	9.2	506.9	55.0
2005–06	489.4	49.1	47.8	4.8	537.1	53.9
2006–07	535.8	49.4	82.8	7.6	618.7	57.0
2007–08	601.1	51.1	58.7	5.0	659.8	56.1
2008–09	622.6	49.5	69.7	5.5	692.3	55.0
2009–10	681.5	52.5	77.6	6.0	759.1	58.4
2010–11	674.9	47.7	100.1	7.1	775.0	54.8
2011–12	745.1	49.8	64.4	4.3	809.6	54.1
2012–13	809.2	52.8	-5.4	-0.4	803.8	52.4
2013–14	880.2	55.2	-25.0	-1.6	855.3	53.6
2014–15	957.3	59.0	-95.9	-5.9	861.4	53.1
2015–16	1025.7	61.8	-32.3	-1.9	993.4	59.9
2016–17	965.3	54.9	-34.8	-2.0	930.5	52.9
2017–18	1036.4	56.3	-83.0	-4.5	953.4	51.8

Source: ABS cat. no. 5206.0, 5302.0

Figure 10.2 – Australia's net foreign liabilities

Thus, today's foreign debt adds to future CADs. If international financial markets suspect that Australia's debt may become unsustainable, they may reduce Australia's international credit rating (which reflects the confidence that financial markets have in Australia). A downgrading in Australia's credit rating would make it more difficult to borrow funds internationally and would increase the interest rate on borrowing. However, Australia has avoided a debt sustainability problem. A sustained long period of low global interest rates since the 1990s, and rising export revenue as a result of the resources boom after 2003, have ensured that Australia has been able to service its foreign liabilities.

One of the most reliable economic measures of a country's capacity to service its foreign debt is the **debt servicing ratio**. This figure indicates the proportion of export revenue that must be spent on interest payments on foreign debt. A country is better able to service its foreign debt when it has a high volume of exports and is therefore earning a substantial amount of foreign currency. The debt servicing ratio in Australia peaked at just over 20 per cent in 1990. By 2017–18, the debt servicing ratio was 6.2 per cent, reflecting the fact that despite the increase in foreign debt levels, the low levels of global interest rates have meant that the servicing cost of that debt has remained relatively stable.

Historically, most foreign investment flows into Australia (both debt and equity) have been into the private sector. Part of this represented an inflow from the offshore funding of the banking sector. In other words, Australian banks borrowed on overseas financial markets in order to make loans to Australian households and businesses. However, in the years following the global financial crisis, banks reduced their reliance on offshore funding because of increased domestic savings. Meanwhile, a larger share of capital flows into Australia have gone into government securities, as foreign investors purchase Australian government debt. The Australian Government is one of a small number of national governments that still holds a AAA credit rating, which is attractive to overseas lenders because it represents a very low risk level. Foreign investors held 55 per cent of the stock of Commonwealth Government Securities on issue in 2018, but public sector debt represented only around 18 per cent of net foreign debt.

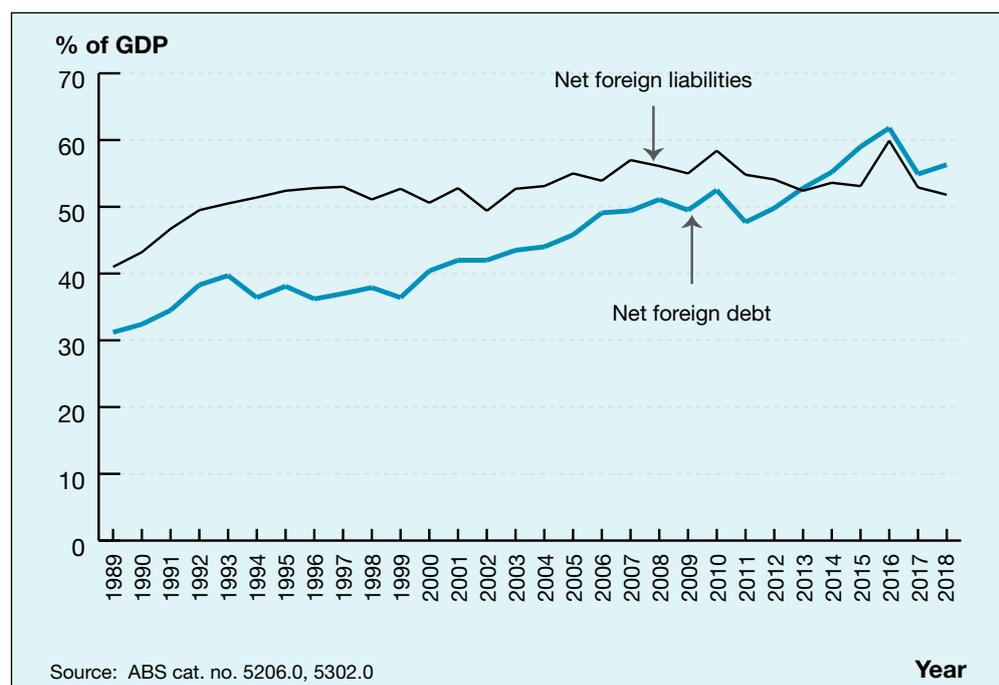


Figure 10.3 – Net foreign liabilities and net foreign debt in Australia (% of GDP)

Net foreign equity is the smaller component of Australia's foreign liabilities. When foreign investors buy assets in Australia, this is recorded as an increase in foreign equity. When Australians buy overseas assets, this is recorded as a decrease in net foreign equity. Between 2013 and 2017, for the first time on record, the value of Australian's foreign assets was greater than the value of foreign ownership of Australian assets (so that net foreign equity fell to zero), reflecting a trend increase in Australian ownership of foreign assets. Net foreign equity as a percentage of GDP peaked in the 1990s, as foreign investment in Australia increasingly involved asset sales rather than foreign borrowing. Net foreign equity tends to be more volatile than net foreign debt, reflecting exchange rate movements and shifts in the market valuation of companies and assets, which in turn are affected by changes in investor sentiment.

Foreign equity attracts servicing costs in the form of profits and dividends that are returned to overseas investors. This creates ongoing strain on Australia's external accounts by worsening the net primary income account (although it is offset by earnings from Australia's overseas investments). Equity servicing costs account for around half of total primary income outflows. While there are some disadvantages with high levels of foreign ownership, the sustainability of the servicing costs for foreign equity is less of concern than for foreign debt because dividends are only sent overseas when an Australian asset or business is generating a profitable return – while interest payments on debt must be paid regardless of whether there is a profit.

While there has been a rise in Australia's net foreign liabilities, this masks the large rise in Australian investments overseas, as well as the overall growth of other countries' liabilities to Australia. This is reflected in figure 10.4. Between 2000–01 and 2017–18, Australian ownership of equity overseas rose from \$306 billion to \$1402 billion, while Australian loans overseas grew from \$211 billion to \$1200 billion. However, Australia's gross foreign liabilities are still much larger: over the same period, foreign owned equity in Australia increased from \$382 billion to \$1319 billion, while gross foreign debt increased from \$506 billion to \$2236 billion. While Australia's gross foreign debt is around twice the level of Australian lending to overseas, as noted above, the gap between foreign equity inflows and outflows is much smaller. In overall terms, as Australia has become increasingly integrated into the global economy, foreigners have been lending and investing in Australia more than Australia has been lending or investing overseas.

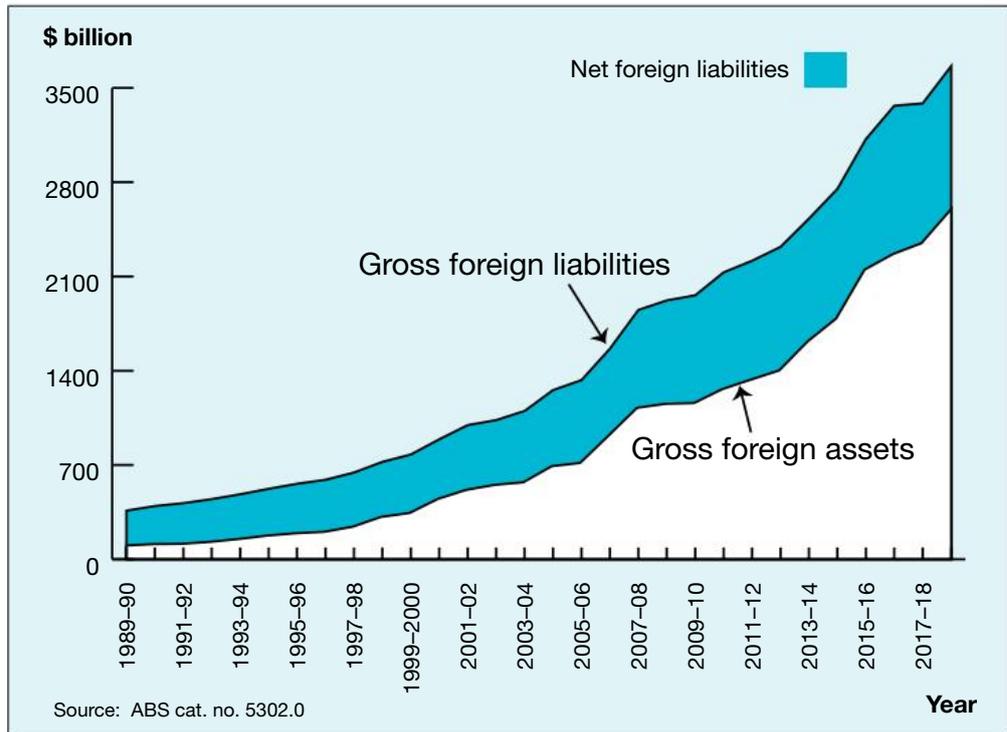


Figure 10.4 – Australia's international investment position

Australia's external imbalance has the potential to cause serious problems for Australia, although it has not been a major concern in recent decades. Among advanced economies, Australia has consistently had among the highest CAD and foreign liabilities, and Australia is often included in the list of economies globally whose current account deficits appear to be unsustainable in the longer term. While this has not stopped Australia from sustaining a long period of growth since the early 1990s, it makes Australia vulnerable when global economic conditions become more unstable. For example, the reliance of the Australian financial system on an ongoing inflow of foreign capital was a major reason why the government considered it necessary to provide a temporary guarantee for all overseas loans of banks and financial institutions after the global financial crisis in 2008. The government argued that without the government guarantee, banks would not have been able to obtain overseas loans and the financial system would have faced a major crisis. This demonstrates the extent to which a consistently high level of external imbalance increases the vulnerability of the economy to adverse economic developments overseas.

review questions

- 1 Explain the link between the current account deficit and foreign debt in Australia.
- 2 Explain how a high level of foreign debt might affect an economy.
- 3 Discuss whether Australia's foreign liabilities pose a threat to Australia's economy.

10.4 Australia's exchange rate

The exchange rate provides a direct link between Australia and the rest of the world. All trade and financial relationships between Australia and other countries are mediated through the exchange rate. Therefore, the exchange rate has a significant impact on Australia's international competitiveness and external stability.

THE BENEFIT OF LOW GLOBAL INTEREST RATES FOR AUSTRALIA

The decade following the global financial crisis saw an extended period of historically low interest rates on global financial markets. Central banks were faced with very low rates of economic growth, very low inflation and uncertainties about the stability of parts of the financial sector. In an attempt to address these issues and prevent deflationary pressures, central banks aggressively loosened monetary policy with interest rates being pushed towards zero. Monetary policy became so stretched in some countries that negative interest rates were introduced. In the case of Japan and some European economies, banks began charging a premium to hold money with the central bank – a concept that, up until recently, would have been unimaginable.

The consequence of such actions had indirect flow-on effects on the Australian economy and contributed to pushing down the so called “equilibrium interest rate” (the interest rate consistent with a neutral stance) for Australia. As other countries loosen monetary policy, their currencies weaken, and in relative terms the Australian dollar strengthens. This has the effect of curbing export competitiveness and places downward pressure on inflation in the short to medium term. As a result, the RBA, in defending its inflation target, was forced to lower its monetary policy settings accordingly.

Beginning in 2011, domestic interest rates were cut 12 times, falling from 4.75 per cent to just 1.5 per cent in August 2016. One benefit for Australia’s external accounts was that this helped to stabilise the level of foreign liabilities. Given that Australia’s net foreign debt exceeds \$1 trillion, every percentage point decrease in benchmark interest rates significantly reduces the servicing cost of foreign liabilities.

Globally, interest rates have begun rising more recently, with the US Federal Reserve rate just under 2 per cent by mid-2018. As global interest rates rise, the cost of servicing Australia’s foreign debt will increase as well. Standard and Poor’s, a global ratings agency, has had Australia’s credit rating on a negative outlook since 2016, implying that a downgrade could be imminent in the near future. The ratings agency has cited the slow path towards fiscal consolidation and Australia’s large external imbalances, namely its reliance on foreign borrowing, as particular weaknesses. Should Australia lose its AAA credit rating, it is possible that foreign investors will demand higher “risk premiums” – higher interest rates to compensate for a perceived increase in risk. This would further increase the cost of interest payments, and it highlights concerns about the sustainability of Australia’s large foreign liabilities.

The high level of volatility in the Australian dollar was noted in chapter 5, where we stated that this volatility is the result of Australia’s heavy reliance on commodity exports. The larger fluctuations in commodity-based currencies can often attract speculators, and despite comprising just 1 per cent of global trade, the Australian dollar is the world’s fifth-most traded currency (after the US dollar, the euro, the yen and the pound sterling). The past two decades have seen very large movements in the dollar, from its low of US 47 cents in 2001 to a peak of US\$1.10 in 2011.

The increasing volatility in the Australian dollar that can be seen in figure 10.5 is more the result of increased global economic instability than domestic economic instability. At the turn of the century, commodity prices were very low and the dawn of the internet era resulted in countries with “low tech” economies, such as Australia, being shunned by global markets. This changed after 2003, when Australia began the largest terms of trade boom in its economic history, as commodity prices started rising sharply on the back of the surging Chinese demand for natural resources. Other than a dip during the global financial crisis, the trend increase in the Australian dollar continued until 2011, underpinned by rising exports, sustained economic growth and the interest rate differential between Australia and other economies. The falling terms of trade brought about a sharp fall in the dollar in the early 2010s, followed by a more recent period of greater stability off the back of a rise in commodity prices.

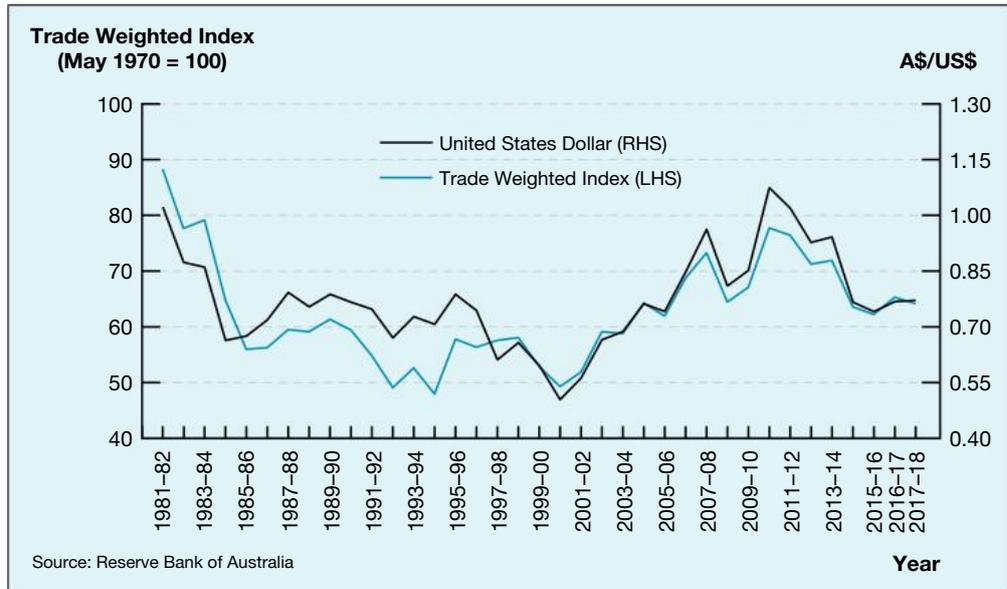


Figure 10.5 – Changes in the value of the Australian dollar

Although the exchange rate itself has experienced periods of volatility, it has operated as a powerful stabilising mechanism that has helped the Australian economy adjust to changing conditions in the global economy. During periods of weaker growth in Australia or in the global economy, exchange rate depreciations have helped make Australia more internationally competitive and helped stimulate export growth. The depreciation of the Australian dollar that followed the fall in the terms of trade after 2011 made exporters and import-competing sectors more competitive. Many non-mining firms in those sectors were adversely affected by the high value of the dollar during the mining boom. As the dollar returned closer to its historic averages in the mid-2010s, their goods and services became more internationally competitive.

Although the floating exchange rate is one of the most important mechanisms that helps Australia to adjust to changing global economic conditions, it can have a significant impact upon Australia's external stability. A change in the exchange rate influences the balance of payments by affecting Australia's international competitiveness and the size and servicing costs of our foreign debt (that is borrowed in foreign currency). Therefore, if the value of the dollar is continually subject to change, two of the major indicators of Australia's external stability will also be volatile. Large swings in the value of the dollar can create policy challenges and economic instability.

In particular, a sudden or large depreciation in the Australian dollar due to a fall in the confidence of foreign investors can create a vicious cycle. Investors may fear further volatility in the dollar, and investment decisions can be discouraged if the dollar is falling sharply, often because it has become a target of financial speculators (who make money from short-term financial market changes) as happened in 2009. Once a downward trend sets in, it can continue until enough investors begin to think that the currency is undervalued and start buying it again. Recent history has shown that foreign exchange markets can often overshoot when major currency movements occur.

reviewquestions

- 1 Explain how external imbalances may affect the value of the exchange rate.
- 2 Discuss the impacts of exchange rate volatility on the Australian economy.

10.5 Policies to achieve external stability

Achieving external stability has at times been one of the most important objectives of economic policy in Australia. However, in more recent years, external stability has not been a major objective of macroeconomic policy. While both the Australian Government Treasury and the Reserve Bank continue to monitor the current account deficit, foreign liabilities, and the exchange rate, the aim of improving external stability is not a major influence on fiscal or monetary policy settings. In part, this change reflects a widespread acceptance of the “consenting adults” view of the current account among economists and policymakers, that current account deficits and foreign debt reflect the decisions of the private sector and do not require policy change by government. The reduced concern around external stability is also related to Australia’s improved medium-term export prospects (with higher volumes of resources exports, even if commodity prices are below their peaks) and increased household savings.

This change does not mean that external stability is unimportant or of no interest to economic policymakers. What it has meant is that achieving sustainable outcomes on the current account and foreign liabilities and a stable value of the currency are now treated more as long-term objectives of economic policy. External stability issues are now addressed through Australia’s longer-term policy settings, which aim to reduce the risk of external shocks that could adversely affect Australia’s access to global financial markets:

- Monetary policy is not being used to address Australia’s external imbalances. In the past, contractionary **monetary policy** was used to reduce consumer spending on imports in order to create a short-term improvement in the balance on goods and services. However, this approach is now considered ineffective, since its impact is only temporary, and it results in a slowdown across the whole economy. In addition, higher interest rates can also increase capital inflows, generating higher net primary income outflows and worsening the current account. Monetary policy is also unable to target the long-term structural causes of Australia’s external imbalances.
- **Fiscal policy** has had some role in addressing Australia’s historically low level of **national savings**. By adopting the policy of fiscal consolidation (running balanced or surplus budgets over the course of the economic cycle), governments since the late 1990s have sought to reduce their call on private savings over the medium term, so that Australia is able to fund more of its domestic investment with domestic savings, rather than additional foreign borrowing. Reducing the deficit (that is, the public sector seeking fewer borrowings on financial markets) can lessen upward pressure on interest rates or the “crowding out” of private borrowers.
- The introduction of **compulsory superannuation**, which requires employers to set aside 9.5 per cent of an employee’s wages in a superannuation fund, has lifted the level of national savings since the early 1990s. It is also a major contribution to the increased Australia’s overseas investments, which help to create financial inflows on the net primary income account. The government’s plan to lift superannuation to 12 per cent in stages between 2021 and 2025 will further increase savings and potentially help reduce long-term pressures on Australia’s external accounts.
- **Microeconomic reform** can be used to address the structural problems causing Australia’s external imbalances. The international competitiveness of Australian goods and services should be improved by measures that lift the efficiency and productivity of Australian producers. These policies have included measures to reduce capacity constraints in the economy by improving infrastructure and alleviating skills shortages, removing protectionist barriers that shielded inefficient producers from foreign competition, and labour market reforms to increase productivity and workforce participation.

In practical terms, the best measure of external stability is the extent to which Australia maintains the confidence of international investors. Governments aim to sustain international confidence in Australia's economy with consistent, medium-term policy settings such as Australia's inflation targeting regime, the goal of budget surpluses and a continued commitment to microeconomic reform. This approach has been largely successful in maintaining international confidence in Australia's economy in recent decades. Economists (and international investors) have mostly accepted the "consenting adults" view of Australia's current account deficit and foreign debt. Nevertheless, the global financial crisis also provided an important lesson about the connection between private and public sector borrowings. Even if a high level of foreign debt is the result of private sector borrowings, governments can be forced to take responsibility for those borrowings, in order to prevent a meltdown of their entire financial system and a potential economic depression. Even in Australia, the government felt it necessary to provide a guarantee for all of the private borrowings of Australian banks in 2008. In effect, the Australian Government guaranteed the nation's private sector foreign debt. This, to some extent, undermines the argument that private sector borrowings from overseas do not matter because it shows that in times of extreme financial instability, an external imbalance – whatever its origins – can make an economy more vulnerable to external shocks.

"Australia has an extensive history of making productive use of foreign capital. It has long been recognised that there are reliable opportunities for overseas investors to profit from investment in Australian assets, whether they be physical or financial assets. This has enabled Australia to have sustained sizeable current account deficits over the course of the past 150 years or more."

– Christopher Kent, Assistant Governor, Reserve Bank of Australia, Speech to the Australian Government Fixed Income Forum 2018, 6 June 2018

reviewquestions

- 1 Account for the declining importance of external stability as a specific objective of economic policy.
- 2 Discuss how policy approaches can be used to address the current account deficit in Australia, with specific reference to the different accounts on the balance of payments.

chapter summary

- 1 External stability** is a broad term that describes a situation where external indicators such as the current account deficit, foreign liabilities and the exchange rate are at a sustainable level, that is, a level where they can remain in the longer term without negative economic consequences.
- The main factor that influences a country's external stability is its **current account deficit** (CAD). The CAD is generally regarded as being at a sustainable level in the long term if it averages less than 3 per cent of GDP and in the short term if it is less than 6 per cent of GDP.
- While Australia has sustained relatively high CADs for many years, some economists argue that Australia's persistently high CADs make the economy more reliant on overseas borrowing and therefore more vulnerable to adverse developments in the global economy.
- Some economists argue that Australia's CAD and foreign liabilities do not constitute a major economic problem because foreign capital adds to investment and productive capacity in Australia and because Australia's external imbalances are chiefly due to decisions of private investors for which the government is not responsible.
- The CAD can be viewed as a consequence of an imbalance between **savings and investment** – that is, a consequence of a shortfall in domestic savings. Historically, Australia's relatively low level of household savings has contributed significantly to the CAD. The CAD is also influenced by Australia's **international competitiveness** and the **terms of trade**.
- Another indicator of sustainability is the level of **net foreign liabilities** as a percentage of GDP. This includes **net foreign debt** and **net foreign equity**. A high level of net foreign liabilities poses risks for external stability because it involves large servicing costs in the long term.
- Australia has a relatively high level of net foreign liabilities because of the consistent growth in net foreign debt since the 1980s. Rapid growth in foreign liabilities is regarded as an indicator that a country's external position is not sustainable, but the growth in Australia's liabilities has proved sustainable during recent decades.
- Another indicator of the sustainability of foreign debt is the **debt servicing ratio**, which measures the percentage of export revenues spent in servicing the foreign debt. Despite Australia's rising foreign debt levels, the debt servicing ratio has fallen during recent years because of lower global interest rates.
- Movements in the value of the **exchange rate** are an indicator of the degree of international confidence in the economy, among other factors. If international investors form the view that the economy's external position is not sustainable, the value of the dollar is likely to fall.
- Governments have few policy instruments available to address problems of external imbalance. Governments mainly rely on market mechanisms (such as an exchange rate depreciation) and long-term policy settings to address external imbalances.

chapter review

- 1** Define what is meant by *external stability*.
- 2** Describe a situation of external instability.
- 3** Briefly discuss what factors determine whether a current account deficit is sustainable.
- 4** Examine the recent trends in the size of the current account deficit.
- 5** Explain the relationship between net foreign liabilities and the current account deficit.
- 6** Discuss the difference in the economic effects of a rising level of foreign debt compared with rising foreign equity.
- 7** Explain why exchange rate movements are an important indicator of external stability in Australia.
- 8** Critically evaluate the argument that the CAD and foreign liabilities are not significant economic problems in Australia.
- 9** Discuss the extent to which the CAD reflects a shortfall of savings, and to what extent it reflects a poor trade performance.
- 10** Outline what policies may be used to address the issues of external stability.

Distribution of Income and Wealth

11

- 11.1 Introduction
 - 11.2 Measuring the distribution of income and wealth
 - 11.3 Sources of income and wealth
 - 11.4 Trends in the distribution of income and wealth
 - 11.5 The costs and benefits of inequality
 - 11.6 Government policies and inequality
-

11.1 Introduction

A major challenge of government policy is to ensure fairness in the spread of wealth and economic opportunity throughout society. While all societies have some higher income and some lower income groups, in recent years research has shown that economies with a smaller gap in incomes between high and low income earners tend to achieve higher levels of happiness, better health outcomes and have more social mobility. In recent years there has been a growing consensus among economists at leading organisations such as the OECD and IMF that globalisation has increased inequality in many countries and lower rates of economic growth. As economies like Australia adjust to a changing global economy, one of the greatest challenges for governments is to ensure that one part of society does not shoulder an unfair share of the burden of structural change, and that the benefits of Australia's economic successes do not just flow to those who are already financially well off.

Australia has traditionally considered itself to be a country offering people a “fair go”, with relatively low levels of inequality. Economic evidence suggests however that Australia has a higher level of inequality than most OECD nations, even if inequality is worse in countries to which Australia most often compares itself, such as the United States or the United Kingdom. During the 1990s and 2000s, the level of inequality in Australia's income distribution increased. Nevertheless sustained economic growth since the early 1990s universal access to public education and health care and a well-targeted social security safety net, are all important factors that have helped Australia to avoid an even greater rise in inequality.

Many of the factors that contribute to an increase in inequality are side effects of the policies that aim to create a more internationally competitive economy. While inequality is a feature of all economies, the degree of inequality can increase when nations reduce marginal income tax rates, reduce welfare payments, cut back government services and deregulate their labour markets.

To understand the nature of inequality we first need to understand how wealth and income are distributed. As we look at factors such as occupation, age, gender, ethnic background and geography, we can piece together the influences on the distribution of income and wealth in Australia. This can then help us understand the role that government policies can play in redistributing income and wealth and reducing inequality.

11.2 Measuring the distribution of income and wealth

Income distribution

Personal **income** is the amount of money, or other benefits measured in money terms, that flow to individuals or households from the sale of factors of production over a period of time. Forms of income include wages from labour, rent from land, interest from capital and profit from enterprise. Income can be regarded as the benefit that flows to the owners of the factors of production for owning, maintaining and managing productive resources. Individuals can also receive income such as pensions and benefits from the government.

Income inequality refers to the degree to which income is unevenly distributed among people in the economy. The degree of unevenness can range from a high level of equality, where people receive a similar share of income, to a high level of inequality where there is a large gap between high and low income earners.

Income inequality can be measured by the share of total income received by different groups. For example, figure 11.1 looks at what proportion of income is received by each quintile, with a quintile being a 20 per cent grouping ranked from lowest to highest income earners. The figure shows that in 2015–16, the lowest 20 per cent of Australians received just 7.7 per cent of total income, while the highest 20 per cent received 39.8 per cent of income. In the past two decades, the share of income has fallen for every quintile except the highest income quintile, whose share is now almost 3 per cent higher than two decades ago. However the trend towards rising inequality appears to have stabilised since the global financial crisis.

Quintile	Share of income (%)									
	1995–96	2000–01	2002–03	2003–04	2005–06	2007–08	2009–10	2011–12	2013–14	2015–16
Lowest quintile	8.1	7.7	7.7	8.1	7.8	7.3	7.4	7.5	7.5	7.7
Second quintile	13.0	12.6	12.8	12.8	12.7	12.3	12.4	12.6	12.3	12.5
Third quintile	17.7	17.6	17.6	17.6	17.4	16.9	17.0	17.3	16.9	17.0
Fourth quintile	23.9	23.6	23.7	23.2	23.0	22.6	23.0	23.0	22.4	23.0
Highest quintile	37.3	38.5	38.3	38.4	39.2	41.0	40.2	39.5	40.8	39.8
Gini coefficient	0.296	0.311	0.309	0.306	0.314	0.336	0.329	0.320	0.333	0.323

Source: ABS cat. no. 6523.0 Household Income and Income Distribution.

Note that statistics are not released for every financial year and statistical changes mean that statistics since 2007–08 are not directly comparable to previous statistics.

Figure 11.1 – Share of total income by households

Figure 11.2 illustrates the difference in average incomes (before tax) among different groups in the Australian economy in 2015–16. The average annual pre-tax income for households in the highest quintile is \$261,872, more than ten times the average for the lowest quintile of \$23,712.

	Lowest quintile	Second quintile	Third quintile	Fourth quintile	Highest quintile	Average all households
Mean income per week	\$456	\$960	\$1616	\$2489	\$5036	\$2109
Annual	\$23,712	\$49,920	\$84,032	\$129,428	\$261,872	\$109,668

Source: ABS cat. no. 6523.0 Household Income and Income Distribution 2015–16

Figure 11.2 – Average gross household incomes in Australia, 2015–16

The following concepts will also be useful when we are interpreting statistics relating to the distribution of income and wealth later in the chapter:

- **Mean income** – the average level of income. It is calculated by dividing the total income of a group by the number of income recipients in that group.
- **Median income** – that level of income that divides the income recipients in a group into two halves, one half having incomes above the median and the other half having incomes below the median (it is the “middle” income).

The share of income data in figure 11.1 can be used to produce two other measures of income inequality used by economists – the Lorenz curve and the Gini coefficient.

Measuring income inequality – the Lorenz curve

We construct the **Lorenz curve** by plotting the cumulative percentage of total income received (vertical axis) against the cumulative percentage of income recipients (horizontal axis). Using the information provided in figure 11.1, a Lorenz curve can be constructed for Australian households.

If income were distributed evenly across the whole population, the Lorenz curve would be the diagonal line through the origin of the graph – **the line of equality**. The further the Lorenz curve is away from this line, the greater the degree of income inequality in society.

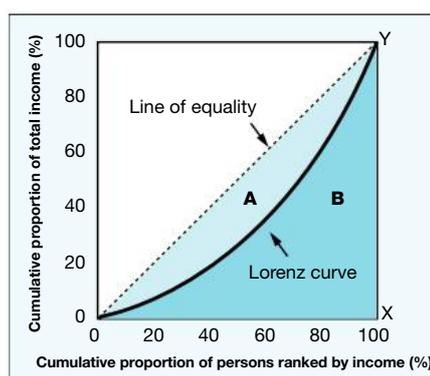


Figure 11.3 – Lorenz curve for Australian households

Lorenz curve is a graphical representation of income distribution, plotting the cumulative increase in population against the cumulative increase in income.

Measuring income inequality – the Gini coefficient

The **Gini coefficient** is a single statistic that summarises the distribution of income across the population. It is calculated as the ratio of the area between the actual Lorenz curve and the line of equality (area A in figure 11.3) and the total area under the line of equality (A+B).

$$\text{Gini coefficient} = \frac{A}{A + B}$$

The Gini coefficient ranges between zero when all incomes are equal, and one when a single household receives all the income. Therefore, the smaller the Gini coefficient, the more even the distribution of income. Figure 11.1 shows that the degree of income inequality in Australia has increased since the mid-1990s. The OECD’s most recent ranking of its 35 member countries ranked Australia 23rd for its Gini coefficient of 0.337, which meant that Australia has a more unequal distribution of income than most OECD economies (where the OECD average Gini coefficient was 0.32). According to the latest survey conducted by the Australian Bureau of Statistics in 2015–16, Australia’s Gini coefficient is at its second highest level on record, just slightly below its peak in 2007–08.

Gini coefficient is a number between zero and one that measures the extent of income inequality in an economy. It is calculated by measuring the degree to which the Lorenz curve deviates from the line of equality.

Measuring the distribution of wealth in Australia

The process of measuring household wealth is more complex than measuring income levels, and prior to the first release of comprehensive figures by the Bureau of Statistics in 2006, it relied on occasional surveys by other researchers. Both sets of data show that the distribution of wealth is more unequal than the distribution of income and that this level of inequality has existed for a long time.

Quintile	Share of wealth (%)										
	1915	1967*	1986	1998	2002	2004	2006	2010	2012	2014	2016
Lowest quintile	0	1	0	0	0	1	1	1	1	1	1
Second quintile	0	8	2	3	4	6	6	5	5	5	5
Third quintile	2	15	12	10	12	13	12	12	12	11	11
Fourth quintile	8	23	23	22	22	21	20	20	21	21	20
Highest quintile	90	54	63	65	63	59	61	62	61	62	63
Top 1 per cent	39	9	11	12	–	–	–	–	–	–	–
Gini coefficient	0.86	0.52	0.64	0.64	0.61	0.57	0.59	0.60	0.59	0.61	0.61

*Does not add to 100 per cent because of rounding
Sources: ABS cat. no. 6554.0 and 6523.0 Table 2.1; Simon Kelly, NATSEM 2001; Headey, Marks and Wooden, Melbourne Institute of Applied Economic and Social Research, 2004

Figure 11.4 – Distribution of wealth in Australia, selected years

Figure 11.4 depicts the high level of inequality in the distribution of wealth. Figure 11.1 showed that the top quintile earns 39.8 per cent of total income, while figure 11.4 shows that the top quintile owns 63 per cent of total wealth. Similarly, while those in the bottom quintile earn 7.7 per cent of total income, they own only 1 per cent of total wealth. Around 70 per cent of households have less than the average level of household wealth which was \$929,400 in 2016.

The above statistics highlight some long-term trends in Australia's distribution of wealth:

- Between 1915 and 1967, wealth inequality in Australia improved dramatically as a result of urbanisation (people moving into cities), industrialisation and the declining significance of rural landholders who had dominated wealth holdings in the early part of the twentieth century.
- After worsening between 1967 and 1986, wealth inequality has remained relatively stable, with the Gini coefficient most recently calculated as 0.605 by the ABS. Similarly, the Melbourne University's Household Income and Labour Dynamics in Australia (HILDA) report calculated that the Gini coefficient for the distribution in wealth in Australia was 0.626 in 2014. While inequality has grown across many types of wealth assets, such as home ownership, ownership of residential land, shares, financial investments, business ownership and interest bearing deposits, superannuation has played a different role for people in lower income quintiles who are in employment. Superannuation has given many of them a financial asset for the first time in their lives (given that many do not own any real estate), and this help explain why the lowest two quintiles have a larger share of wealth than in the 1980s, before compulsory superannuation was introduced.

A newer trend in wealth inequality that is not clear in the above data is growing inequality between generations. The huge increase in residential land prices in Australian cities during the past two decades has widened the gap between older age groups who bought into housing in previous decades, and younger age groups who are struggling to purchase homes and apartments. A 2017 HILDA report found that the wealthiest households in Australia were couples over 65, who had experienced a real increase in median net wealth of almost 70 per cent since 2002, compared to an increase of just 3.2 per cent during the same period among people in the 25 to 34 age range.

reviewquestions

- 1 Outline the TWO methods used to measure income inequality.
- 2 Distinguish between the terms *mean income* and *median income*.
- 3 Analyse how the share of income received by the highest income earners in Australia has changed in recent years.

11.3 Sources of income and wealth

We can gain a better insight into the factors influencing the distribution of income and wealth by looking at their sources and how each factor of production contributes to income or wealth levels. For household income, these are:

- **Wages from the sale of labour:** This is the main source of income for consumers. It comes in the form of wage or salary payments for labour when consumers participate in the labour market. It also includes non-wage income such as fringe benefits, employer contributions to superannuation, and workers' compensation payments.
- **Rent from land:** Many consumers own land that becomes a source of income when it is rented. For example, consumers may own an investment property that generates rental income.
- **Earnings from capital:** Returns from the ownership of capital are a significant source of consumer income. People with greater wealth tend to enjoy a much higher income because wealth creates ongoing income through returns from owning the factors of production. For most consumers, their ownership of capital occurs indirectly through superannuation and other investment funds or through the ownership of shares. They may earn interest on savings held in cash management accounts or bonds. Many Australians now own shares in companies such as the Commonwealth Bank, Woolworths and BHP Billiton, which can earn them dividends or capital gains each year.
- **Profit from the sale of entrepreneurial skills:** A substantial number of Australians are involved in operating businesses, especially small businesses. If the business makes a profit this income is considered a return for their use of entrepreneurial skill.
- **Transfer payments:** A significant proportion of household income in Australia is received by way of social security or social welfare, also known as transfer payments or government benefits, as figure 11.5 indicates. This is income collected through taxation and then transferred from governments to households. Over a third of the total income tax that is collected is used to pay unemployment and sickness benefits, age and disability pensions, family allowances and similar social security payments. The effects of taxation, transfer payments and other assistance on the distribution of income are examined in more detail in Section 11.6.

Transfer payments are payments from the government to assist people with basic costs of living. A number of terms are commonly used for transfer payments including: social welfare payments, government benefits, social security, income support and Centrelink payments.

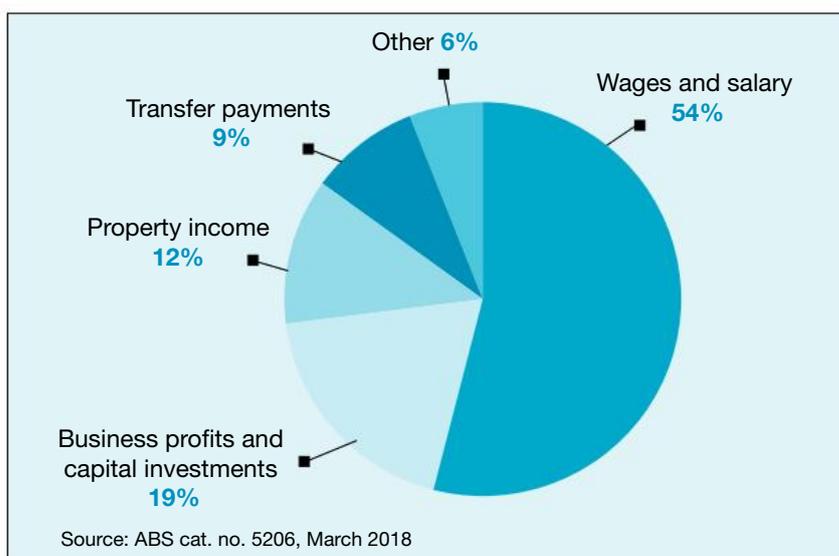


Figure 11.5 – Sources of household income

Sources of wealth in Australia

Household net worth is used by the Australian Bureau of Statistics to measure private sector wealth in Australia. Net worth is the extent to which the value of household assets such as houses and savings (that is, the things they own) exceeds the value of their liabilities such as loans (that is, the things they owe).

In 2015–16, the average value of household assets was \$1,098,000, while the average level of household liabilities (debts) was \$168,600. This gives an average net worth for Australian households of \$929,400. Figure 11.6 shows the composition of household assets.

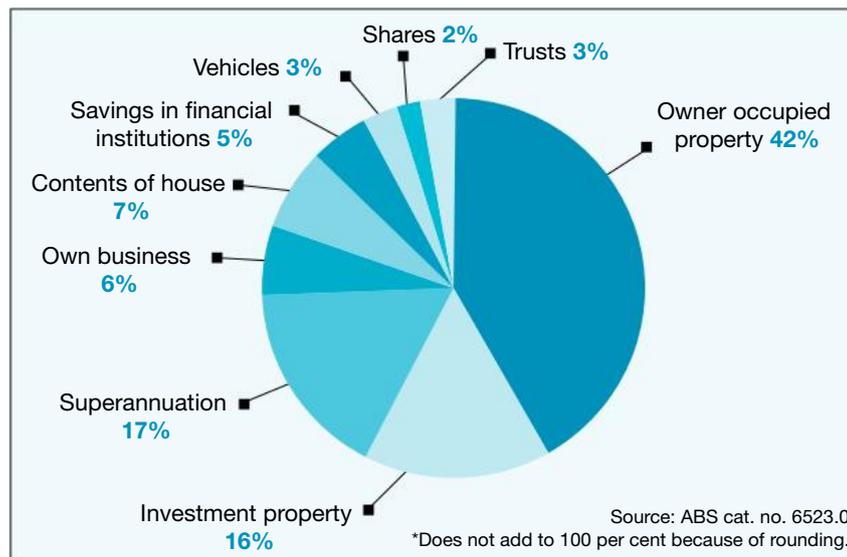


Figure 11.6 – The composition of household wealth 2015–16

The two largest components of household assets are property and superannuation, which account for most household assets in Australia. Housing (owner-occupied plus investment properties) make up almost 60 per cent of total assets. Around two-thirds of Australian households own their primary place of residence, and 24 per cent own other property (such as investment property or a “weekender”). The relative importance of housing and superannuation have increased significantly in recent decades, while savings and ownership of business assets have decreased in relative importance.

The most significant household liabilities are loans taken out to purchase property, which account for 90 per cent of household liabilities in Australia. The other household liabilities are loans for vehicles, other investments and credit card debts.

reviewquestions

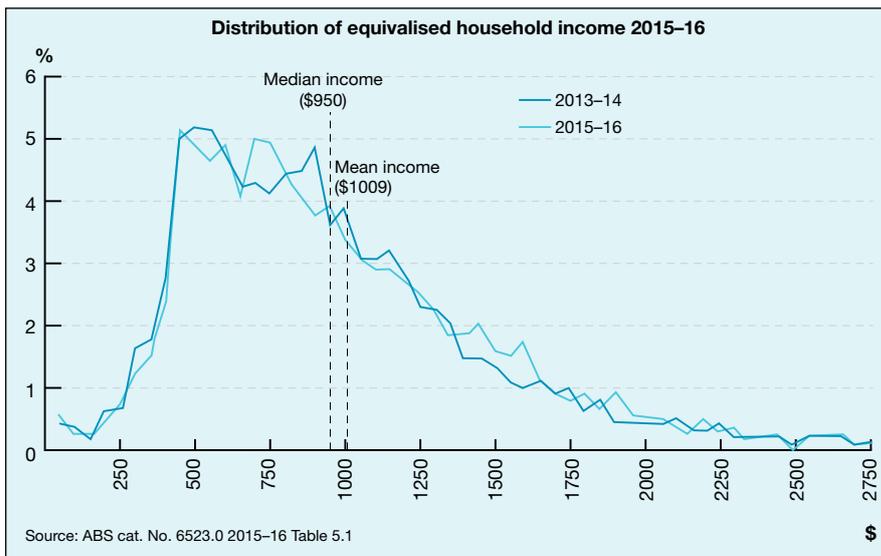
- 1 Outline the main sources of household income in Australia.
- 2 Discuss the importance of transfer payments.
- 3 Identify the THREE main sources of household wealth in Australia.

11.4 Trends in the distribution of income and wealth

In recent decades, Australia has experienced an increase in overall levels of inequality. In this section we find that some groups in society are more affected by inequality than others, depending on their age, qualifications, gender, occupation, ethnic background, family type and where they live in Australia.

Figure 11.7 highlights the extent of income inequality in Australia, with weekly incomes below \$1500 for the majority of households. Over half of the population earn less than the mean income of \$1009 per week, indicating that income distribution is asymmetric – a relatively small number of households have relatively high incomes, and a large number of households have relatively low incomes.

Figure 11.8 highlights the extent of wealth inequality in Australia, and that wealth is more unequally distributed than income. More than 80 per cent of households have a net worth that is below the average because wealth is so highly concentrated. This indicates a highly unequal distribution of wealth and an even greater concentration of wealth at the “top end” compared with the distribution of income. To be in the wealthiest 1 per cent, a household must have net assets exceeding \$6 million.



11.7 – Distribution of household income 2015-16

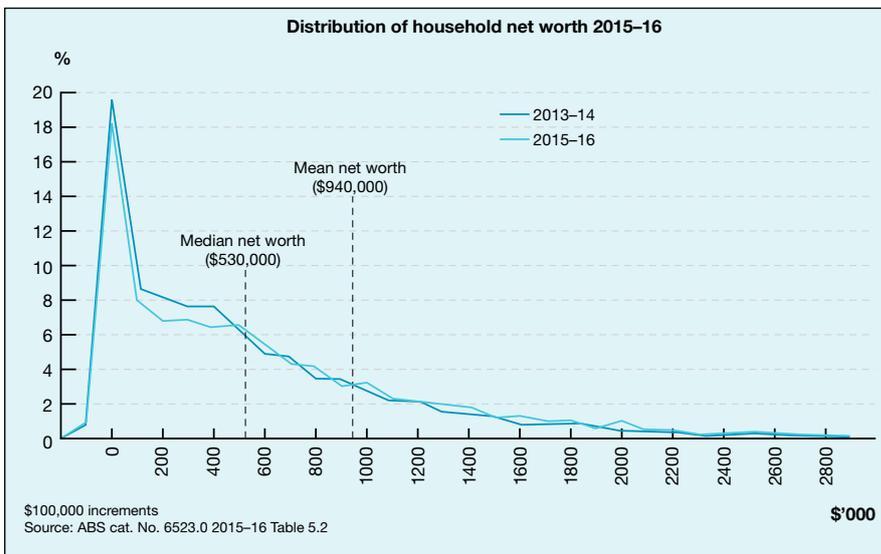


Figure 11.8 – Distribution of household net worth, 2015-16

Age and education

	Age groups					Average all ages
	20 and under	21-34	35-44	45-54	55 and over	
All persons (\$)	722	1377	1792	1842	1708	1624

Source: ABS cat. no. 6306 Table 2

Figure 11.9 – Mean weekly income by age for full-time workers, May 2016

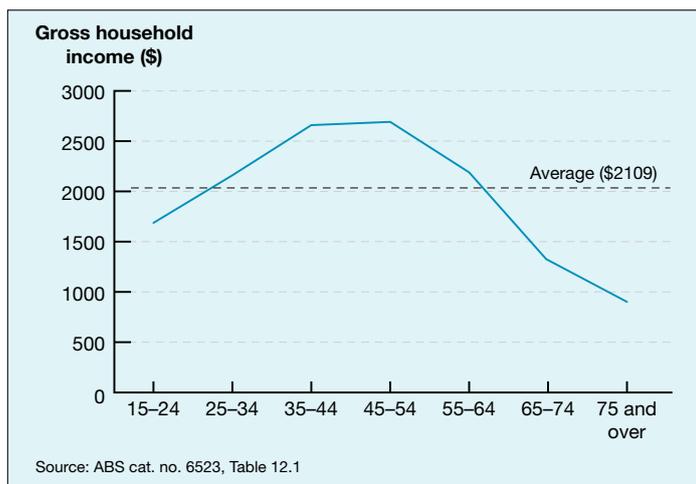


Figure 11.10 – Household income by age, 2015–16



Figure 11.11 – Average earnings by level educational attainment

Income varies over the course of a person's life, although it tends to remain highest between the ages of 25 and 54 – the main years of a person's working life. Figure 11.9 indicates that the 45–54 age bracket earns the highest mean weekly earnings (\$1842) while those aged 20 and under earn the lowest (\$722), followed by those aged 21–34 (\$1377). The table suggests that income levels are lower in the earlier years of working life (since people have less education and experience and hold lower-paying jobs). While figure 11.9 focuses on full-time work, workers in younger age brackets may also be employed in casual or part-time jobs which are typically lower-paying, even when number of hours is taken into account.

The distribution of wealth follows a similar pattern according to a person's age – rising for most of their lifetime, and falling away as people got older and move into retirement. Figure 11.11 also highlights the influence of educational qualifications on a person's income. Not surprisingly, those with higher qualifications such as tertiary degrees and diplomas enjoyed income levels that were much higher than those with vocational training or no qualifications beyond high school. Average weekly earnings are highest for those with a postgraduate degree (\$1675), and lowest for those without a non-school qualification (\$882).

Gender and occupation

Gender is another important influence on income distribution. Figure 11.12 shows that full-time female workers earn less than males. Furthermore, there seems to be little change in wage relativities since the ABS began publishing wages data for women more than

three decades ago. In 1982, women in full-time jobs were earning 81 per cent of male earnings and in 2016 this had risen only modestly to 84 per cent. Part of this difference in the earnings of males and females can be explained by human capital factors – due to past attitudes concerning the role of women in society, females had fewer opportunities to acquire education, skills and qualifications. However, even after taking into account differences in jobs and working hours, the average weekly earnings of females are still lower than those of males. The gap is influenced by a variety of factors including that occupations with a high proportion of female employees are still generally paid lower wages; women still have greater home caring responsibilities than men in many families, and there are fewer senior roles for employees that want to work part-time (as a higher proportion of women do). In addition to these economic factors, women still experience different forms of direct and indirect discrimination.

This presence of discrimination is confirmed by an observation of the average earnings of males and females working full time in the same occupation group, presented in figure 11.13. Even after we have taken occupational categories into account, on average, female employees earn less than their male counterparts, regardless of whether they have the same qualifications and experience as men. Women earn on average around \$250 per week less than men.

Year	Males	Females
1985	400	328
1990	567	470
1995	689	576
2000	829	695
2005	1050	892
2010	1334	1105
2011	1398	1150
2012	1444	1192
2013	1516	1252
2014	1561	1276
2015	1592	1309
2016	1614	1354
2017	1623	1354
2018	1677	1433

Source: ABS cat. no. 6302, Table 10

Figure 11.12 – Average weekly ordinary time earnings

Figure 11.13 also highlights the inequality between different occupations. Jobs that require higher levels of education, training and experience, such as managerial positions and professional occupations, offer higher income levels than those that do not.

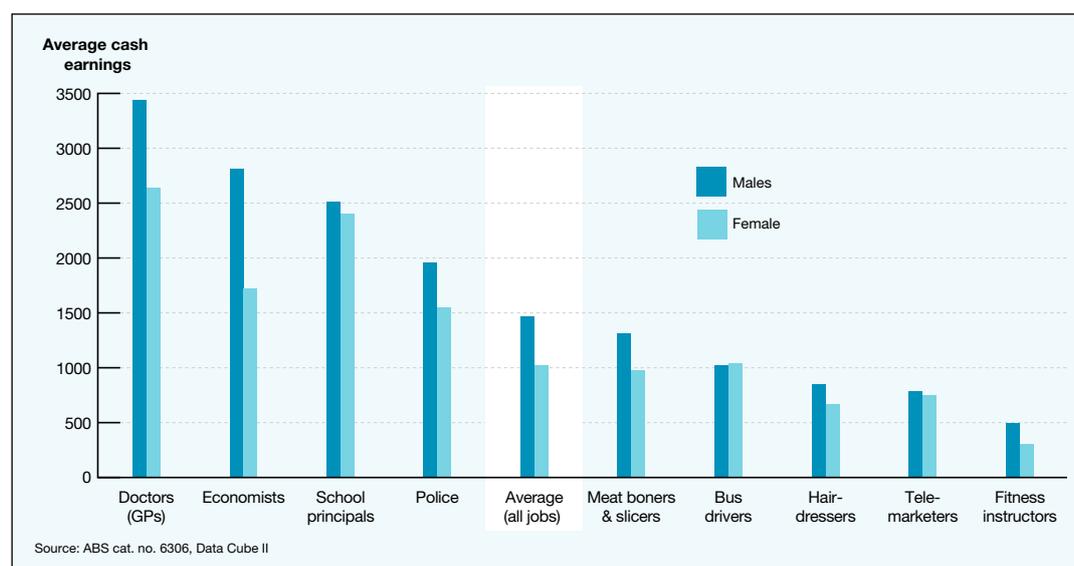


Figure 11.13 – Average weekly earnings by occupation and gender, 2016

Ethnic and cultural background

Ethnic and cultural background also has a significant influence on the distribution of income. In 2018, 28 per cent of Australians were born overseas, a higher number than the United States (14 per cent), the United Kingdom (13 per cent) or New Zealand (25 per cent). Almost half of all Australians (49 per cent) were either born overseas (making them a first generation Australian) or have at least one parent who was born overseas (making them a second generation Australian). Around 55 per cent of migrants come from countries that are not mainly English-speaking nations. An analysis of the economic data dispels many popular assumptions relating to recent migrants. For example, unemployment rates for migrants and people born in Australia are almost equal (although when migrants first arrive in Australia they are more likely to be unemployed: in 2017, 8.8 per cent of recent migrants were unemployed, compared to 4.6 per cent for those born in Australia). Recent migrants and temporary residents recorded a slightly higher participation rate of 70 per cent compared to an overall rate of 66 per cent at the end of 2016. Migrants who have become Australian citizens have a higher labour force participation rate than the general working age population, of 80 per cent compared to 70 per cent for workers born in Australia. A larger difference exists between those who have come to Australia under the skilled migration program, with a participation rate of 78 per cent, compared to a participation rate of 59 per cent for those coming under the family migration program (however this may be explained by the younger age of skilled compared to family reunion migrants).

Given that 28 per cent of Australia's population was born overseas, there is surprisingly little data on the relationship between migrant status and household income and wealth. The data in figure 11.14 is consistent with other research in suggesting that compared with native-born people, Australians with a migrant background tend to have higher incomes if they come from English speaking countries, and lower incomes if they come from non-English speaking backgrounds. On average, English speaking migrants earned between \$1193 and \$3979 more (for males and females respectively), while those from non-English speaking backgrounds generally earned around \$8000 less per year, and also had significantly less wealth.



For more information about the economic characteristics of recent migrants to Australia, see the Australian Bureau of Statistics catalogue 6250.0 and related publications at www.abs.gov.au

Migrant background	Males	Females
NESB* migrants from Europe, annual income	- \$8535	- \$4989
NESB* migrants from other regions, annual income	- \$7822	- \$8594
ESB* migrants	+ \$1193	+ \$3979
NESB* migrants from Europe, household wealth	- \$382,512	- \$327,661

Source: Melbourne Institute (2015), *Household Income and Labour Dynamics Survey: Selected Findings*. Data is for persons aged 35–54 *Non-English Speaking Background and English-Speaking Background

Figure 11.14 – Impact of migrant status on income and wealth (compared to native-born Australians)

The pattern of higher incomes for recent migrants from **English speaking countries** – (the United Kingdom, New Zealand, the United States, Canada, Ireland and South Africa) reflects the larger proportion of highly skilled and professionally qualified migrants among this group. Migrants from mainly English speaking countries who have been in Australia for a long time have similar income trends to Australian born people – that is, their income levels are lower and more evenly spread compared with recent migrants.

The picture for migrants from **non-English speaking countries** is very different. This may reflect the fact that even if non-English speaking background migrants have the equivalent skills and experience of their Australian-born counterparts, they may not be able to obtain better paid jobs if they do not have a good command of the English language. Long standing migrants from non-English speaking countries nevertheless have a very similar income distribution to Australian born people.

Several factors can influence how quickly and successfully new migrants integrate into the labour market in Australia, including education level, age and English speaking proficiency. Another significant factor is whether migrants can access networks of former migrants in Australia who share their background. As evidence of this, in 2015 economists at the University of Auckland published research showing that migrants to Australia find work and integrate into the economy more quickly when they move to suburbs with a high concentration of people from the same backgrounds as them.

INDIGENOUS AUSTRALIANS

Indigenous Australians (Aboriginal and Torres Strait Islanders) comprise around 3 per cent of the Australian population, or around 650,000 people, according to the 2016 census. Compared to the rest of the population, indigenous Australians are much younger (with an average age of 23 compared with 38 for the general population), more likely to live in remote parts of Australia, and more likely to have low levels of income and wealth. According to the Census publication *Characteristics of Aboriginal and Torres Strait Islander Australians 2016*, median weekly disposable income for indigenous individuals was \$441 compared to \$661 for the general population, and \$1203 for households compared to \$1438 for the general population.

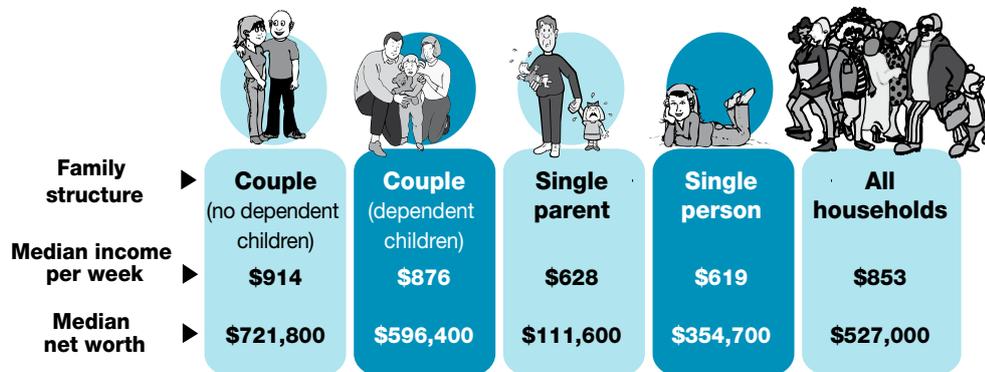
The Australian Government's 2018 *Closing the Gap: Prime Minister's Report 2018* highlighted that

- Although the gap between indigenous and non-indigenous unemployment rates has fallen to 11.6 per cent across Australia, in remote locations especially, very large gaps remain. For example, indigenous Australians in Queensland's remote communities had 33.3 per cent unemployment in 2016, meaning that they were 13 times more likely to be than non-indigenous Australians.
- Although life expectancy is improving for Aboriginal people, the life expectancy of non-indigenous Australians is improving even faster. In other words, the gap between indigenous and non-indigenous life expectancy is widening. Life expectancy for an indigenous person born between 2010 and 2012 is estimated to be around ten years lower than that for non-indigenous Australians (69.1 years compared with 79.7 for men, and 73.7 compared with 83.1 for females).
- In 2017, the overall school attendance rate for Indigenous students nationally was 83.2 per cent, compared with 93.0 per cent for non-indigenous students. There has been no meaningful improvement in any of the States or Territories. In fact, in the Northern Territory, the indigenous attendance rate fell from 70.2 per cent in 2014 to 66.2 per cent in 2017.

The policy solutions to address indigenous disadvantage are complex, and many policy approaches – including those of recent years – have struggled to achieve their aims. Nonetheless, the *Closing the Gap* report noted progress in reducing indigenous child mortality by 35 per cent, achieving a 91 per cent enrolment rate for indigenous four-year-olds in early childhood education, and nationally the proportion of indigenous 20- to 24-year-olds who had achieved Year 12 or equivalent increased from 47.4 per cent in 2006 to 65.3 per cent in 2016. Although there is a persistent gap in opportunities between indigenous and non-indigenous Australians, there is an increasing number of examples of indigenous Australians overcoming economic disadvantage.

Family structure

Family structure is another important factor influencing trends in income inequality, particularly because of recent demographic changes in Australia, such as the growth of female participation in the workforce, decreasing family sizes as couples raise fewer children on average, and the increasing proportion of people living alone.



Source: ABS cat. no. 6523. Table 11.1 and 11.2, 2015–16. Median equivalised disposable income.

Figure 11.15 – Median income and net worth by family type, 2015–16

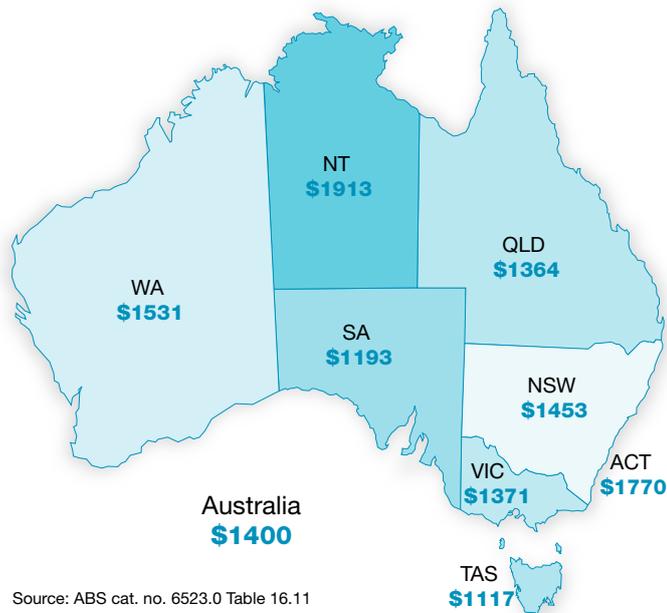
Figure 11.15 reveals a large disparity in family income and wealth levels. One person households and single-parent households received weekly income levels significantly below the median of \$853 per week. Single-parent households, who have a weekly income around one-third below the average for all family structures, were the worst off. This is partly explained by the fact that only 14 per cent of single parents of children aged less than 4 years are employed full-time. Although single parents work longer hours as their children grow older, they still work fewer hours than couples and therefore have lower incomes. Forty per cent of single person households are in the bottom income quintile. This is likely to reflect lower rates of full-time employment, driven by caring responsibilities. Couples without dependent children were the highest income family structure and received \$914 per person per week.

It is important to note the influence of age in interpreting the above findings because of the relationship between an individual's age and the family structure to which an individual belongs. Couples with dependent children have a much lower proportion of household members in paid work and we might expect them to have lower average incomes than couples without dependents. However, couples with children are also more likely to be older, so the adults in the household are more likely to have higher individual incomes, even if they do have to share it among more household members. Additionally, the major reason for the low income levels of single-person households is because of the large number of aged people who are no longer in the paid workforce and who may rely on government benefits as their primary source of income.

The distribution of wealth by family type shows a similar pattern to income distribution, with couple-households enjoying significantly higher wealth levels compared with single parent and single-person households. The main difference is that single-person households have much more wealth than single-parent households despite their similar weekly incomes. This primarily reflects the influence of “income-poor and asset-rich” elderly people in the single person category who have paid off their mortgages and now live off modest government pensions or other retirement incomes.

Geography

In recent years, inequality between different regions has become an issue of significant economic and social debate in Australia. Regional factors are not only influencing demographic change – as people in disadvantaged areas take flight to more prosperous areas – but they have also been a major issue driving the direction of government policies relating to income inequality. At one level, inequality exists between different states in Australia, but perhaps more significant is the inequality between people in major cities and regional areas, and between better-off and less well-off suburbs in major cities.



Source: ABS cat. no. 6523.0 Table 16.11

Figure 11.16 – Median household disposable income, Australian states 2015–16

Figure 11.17 highlights the inequality in household income distribution between Australia's states and territories, with the Northern Territory and the Australian Capital Territory enjoying the highest household incomes of \$1913 and \$1770 and Tasmania suffering the lowest income of \$1117 per week. Western Australia and the Northern Territory – the regions with the largest shares of economic activity in mining – have clearly benefited from the commodities boom and now have incomes above all the eastern states. Age also plays a role in interstate inequality, with areas with younger populations such as like the Australian Capital Territory and New South Wales having higher incomes than states with older populations like Tasmania. An important limitation of this data is that it does not take into account differences in the cost of living. For example, Sydneysiders are paying the highest weekly rents in the country, with the average rent of a Sydney property in 2018 \$582 a week. In contrast, the weekly median rent for a Hobart property is just \$410. So although incomes might be higher in Sydney, the disparity in

living standards may not be as high as these figures suggest since the cost of living may be lower in smaller cities.

Inequality also exists **within states** in particular, between the major cities and the rest of the state. Figure 11.17 shows that in New South Wales, for example, the population living in the capital city area earned 37 per cent more than those in rural areas. Even larger differences can exist for net wealth, reflecting the big differences between property values in cities compared to regional areas. The 47 per cent higher net worth for Sydney households is explained by their property assets, averaging \$710,300 for their home, almost double the average \$344,400 in average home values for households in the rest of NSW. In interpreting these statistics, however, it is important to remember that as with interstate comparisons, cost-of-living differences mean that raw income levels can exaggerate the true extent of income inequality between geographic areas.

	NSW	Vic	Qld	SA	WA	Tas	Australia
Weekly disposable income capital city area	1882	1584	1746	1394	1580	1209	1569
Weekly disposable income outside capital city	1367	1238	1259	1106	1227	987	1099
Average net worth capital city area	1,300,000	970,300	871,600	794,100	996,400	624,000	1,080,900
Average net worth	715,300	786,300	705,100	713,400	873,500	580,700	929,400

Source: ABS cat. no. 6523.0 Table 16.1, 16.2, 16.6, 16.7

Figure 11.17 – Income and wealth by state and region, 2015–16

AUSTRALIA THE LAND OF UNEQUAL OPPORTUNITIES?

Australians like to think of our country as a land of opportunity, but economic analysis suggests that there is much less social mobility than we like to think. One of the most important factors determining your future qualifications, job and income is what your parents do. This means that just as richer families pass down wealth from one generation to the next, it is also true that education levels and income levels tend to be handed down the generations as well.

Two studies of inequality in Australia in recent years highlight the nature of the debate about inequality and its causes.

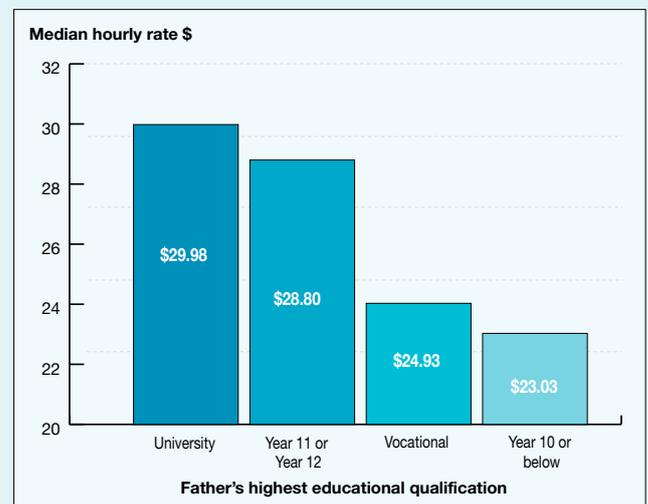
A report, *Understanding Inequality in Australia*, published by the Institute of Public Affairs in 2017, argued that problems with rising inequality in Australia were often exaggerated, and that different data sources reach different conclusions. It argued that Australia is around average for its levels of inequality if not better than average, that if anything inequality is in decline, and that there was greater inequality in the pre-1950 period than today.

The IPA report also placed emphasis on the role of family and local community in influencing the values of individuals around work and study, which in turn have significant impacts upon educational outcomes. It argued that to understand inequality we need to look beyond measures of income and take account of the fact that some individuals are happier with a lower income but greater leisure time, or the opportunity to do work that they most enjoy. The report made the case that two children who might have otherwise equal ability and inclination can have very different trajectories depending on the stability of their home conditions, the quality of their education, and whether the community in which they grow up values and celebrates hard work and success.

The IPA report noted the importance of housing prices to inequality, noting that while 98 per cent of Australians want to own their own home, housing has never been more unaffordable than it is today. The average house price is 6.2 times greater than the average annual income, a record level. The report also noted concerns that student results at Australia's schools have been in structural decline since Australia began to measure its student PISA scores (the Programme for International Student Assessment being an internationally accepted measure of school student skills). This decline has taken place across all three categories of mathematics, science and reading literacy.

In 2018 the Australia Institute published a report on similar issues, *Gini out of the bottle*, and came to different conclusions to the IPA, concluding that “the clear long-term trend has been towards worsening inequality”. Its analysis identified a trend towards increasing concentration of wealth among not just the highest income earning decile in Australia (whose share of income has risen from 26 to 31 per cent in the past two decades), but among an even smaller elite group within this decile. On this basis it warned against the Turnbull Government's long-term plan to abolish the 37c marginal rate for personal income tax, since this would disproportionately benefit higher income earners and add directly to inequality.

The IPA and the Australia Institute reports agree that it is more meaningful to look at comparisons based on equivalised disposable income rather than gross income, since this reflects the real circumstances of households after redistribution of income through taxation and social security payments. The Australia Institute noted that the Gini coefficient falls from 0.434 with gross income to 0.323 with equivalised disposable income. Nevertheless, it also noted that this places Australia 22nd out of 34 OECD countries, in other words having a less equal distribution of income than 21 countries in the OECD. In 2004, Australia ranked 17th, suggesting that relative to other countries Australia is becoming more unequal – reflecting an argument that is likely to continue for a long time to come.



THE RELATIONSHIP BETWEEN INCOME AND WEALTH

Although the distribution of wealth in Australia is far more unequal than the distribution of income, wealth and income are closely related. Individuals with high incomes tend to also enjoy greater levels of wealth compared to low income earners.

Household income can be used to purchase goods and services, service debts and acquire assets. The more income a household has left after covering living expenses, the greater its capacity to build wealth. Also, the more wealth a household has, the greater its capacity to generate income. A household can generate higher income in the form of rent from a property investment, or dividends from a share portfolio. But these assets may not be affordable until income levels reach a certain threshold. In this way, an increase in income inequality can result in a widening of wealth inequality, and an increase in wealth inequality can result in an increase in income inequality.

“Over the past few decades, there has been a rise in the share of people living on less than half the median household income – a rise in relative poverty. At the same time, the income share of the top 1 per cent of Australians has doubled. The income share of the top 0.1 per cent has tripled. Altogether, the increase in the affluent share over the past three decades represents a \$403 billion shift from the bottom 99 per cent to the top 1 per cent ... The same holds for wealth ... The wealth share of the top 100,000th of the population – approximately the top 200 people – has tripled since the mid-1980s ...

[S]ocieties with a large gulf separating the haves and have-nots are those in which few people escape the circumstances of their birth. Think of a ladder. If inequality measures the gaps between the rungs, then intergenerational mobility measures how easy it is to climb up or down. If the rungs move wider apart, the ladder becomes harder for someone to climb. In a very unequal society, people have little prospect of ever moving off their birth rung ... The more unequal we become, the more that a parent’s income will determine where their child ends up in life.”

– Andrew Leigh, *Battlers and Billionaires: The Story of Inequality in Australia*, *Black Inc*, 2013

reviewquestions

- 1 Describe the recent trends of income inequality within Australia, with reference to specific demographic groups.
- 2 Outline the reasons for the difference between the earnings of migrant workers from English-speaking countries compared to non-English speaking countries.
- 3 Analyse possible reasons behind the disparity in average earnings between men and women.
- 4 Discuss the accuracy of using the average weekly income measurement as a measure of income distribution in Australia.

11.5 The costs and benefits of inequality

There are advantages and disadvantages associated with an inequality in the distribution of income. In general, inequality has some limited economic benefits but significant social costs.

At one end of the spectrum, some economists argue that inequality is a natural consequence of the free market functioning effectively since each individual receives a share of income according to their marginal productivity. In addition, they contend that inequality has the advantage of creating and strengthening individuals' incentives and increasing their share of output. In other words, people will be encouraged to work harder to gain a larger share in the distribution of income.

At the other end of the spectrum, some economists emphasise the social costs associated with inequality. They argue that the system of free market capitalism divides society into different classes (for example, working class, middle class and upper class) and that the system tends to entrench high levels of inequality and poverty.

Economic costs of inequality

Inequality reduces overall utility

Inequality in the distribution of income reduces the total utility, or satisfaction, in society. This is because people on higher incomes gain less utility from an increase in income than people on lower incomes. This is explained by the principle of diminishing marginal utility: as more of a good is consumed it will provide progressively less utility to the consumer. This means that an extra \$1 of income is worth more to a lower income earner than to a higher income earner. A more equitable distribution of income would therefore increase total utility (in other words, create a greater overall level of satisfaction in society). However, although the concept of utility (similar to the concept of happiness) is important, it is difficult to measure accurately and consistently.

Inequality can reduce economic growth

Low income earners spend a higher proportion of their income than higher income earners, since the cost of basic essentials such as housing and food take a higher proportion of their income. In economic terms, lower income earners have a higher marginal propensity to consume (MPC) because they spend more of each additional dollar they earn than higher income earners. That means that in an economy with a high level of income inequality, there will be a relatively lower level of consumption and higher level of savings. This in turn would lead to lower economic activity, employment, investment and living standards.

Research released by the OECD in 2015 concluded that higher levels of inequality lead to lower levels of economic growth. The OECD estimated that the rise in income inequality in OECD economies between 1985 and 2005 reduced cumulative growth by 4.7 per cent during the two decades from 1990 to 2010. One of the main reasons for this negative economic impact is that as inequality increases, lower income households are less able to invest in education. Over time, with lower educational attainment individuals are less likely to stay in employment and the economy will experience the costs of higher unemployment and lower participation rates.

“Inequality constrains the ability of low-income groups to contribute to economic growth ... recent OECD work estimates that rising inequality between 1985 and 2005 might have contributed to knocking more than 4 percentage points off growth between 1990–2010 in half of OECD countries with available data. A main mechanism at play for this effect is under-investment in human capital ...

More work should be undertaken to assess all the consequences of inequalities, including for long-term growth, as they may be large ... Rising inequalities also put further pressure on public social budgets ... [and] may

also be hindering trust in public institutions, constraining governments' capacity to act and weakening structural reform efforts ... The cross-cutting challenge presented by the persistence of multidimensional inequalities and stagnating productivity underline the need for a profound reappraisal of the growth narrative ... [to] avoid the "grow first, distribute later" assumption that has characterised the economic paradigm until recently."

– OECD (2017), *Bridging the Gap: Inclusive Growth – 2017 Update Report*

Inequality creates conspicuous consumption

Some economists argue that inequality in the distribution of income creates a "leisure class" consisting of the higher income earners in society. The leisure class puts a large proportion of their money towards "conspicuous consumption", which is the consumption of expensive goods and services, such as designer-label clothes, purely for the purpose of displaying wealth. This can contribute towards a culture where individuals' sense of their own worth depends on their relative position in the wealth and income hierarchy.

Inequality creates poverty and social problems

Inequality in income distribution causes relative poverty. Poverty contributes to the development of an underclass of low income earners, which has limited access to educational opportunities and can suffer health and other disadvantages that may reduce labour force participation and create a self-perpetuating cycle of disadvantage.

Inequality increases the cost of welfare support

Governments provide safety net income support for people out of work, the aged and people with disabilities. Higher levels of inequality place increased demands on government revenue as a larger number of people on low incomes may require government assistance. In addition, economic research suggests that entrenched disadvantage imposes proportionately greater costs on governments as individuals cease to participate in the workforce and rely more heavily on government services.

Social costs of inequality

The two major social costs of inequality are those associated with social-class divisions and poverty.

Social class divisions

The distribution of income and wealth creates class distinctions in modern economies, such as between groups broadly described as upper class, middle class and working class. Class divisions can result in tensions between people and between different regions, as well as higher levels of crime and social disorder. Wage disputes between workers and employers, in which workers try to improve their income level, are a common cause of dispute. These divisions can sometimes lead to social and economic instability, especially in developing economies where the gains of rising prosperity are often unequally distributed.

Poverty

Australia does not suffer from a high level of absolute poverty, but it does have a high level of relative poverty – many sections of the community have income levels and lifestyles that are not meeting the expectations they have as part of modern Australian society. The 2017 Household Income and Labour Dynamics in Australia (HILDA) survey concluded, based on data collected from 2000 to 2017, that around 10 to 14 per cent of Australians are living in poverty at any one time, but that over half of the Australians who experience poverty over a ten-year period are only in poverty for one or two years. However, around 3 per cent of the Australian population is persistently in poverty. Poverty tends to trap families into a vicious cycle of low incomes and limited economic opportunities. High poverty levels also tend to be associated with increased levels of crime, suicide, disease and reduced life expectancy.



For more details on research into the economic and social costs of inequality visit the website of the Equality Trust, which collects the leading research on these issues: www.equalitytrust.co.uk

HOW UNEQUAL IS AUSTRALIA?

Simple measures of income inequality give us a limited understanding of how many people in Australia live with entrenched disadvantage. There are important differences between people who have low incomes for a short period of time and those who are stuck on very low incomes. In recent years, Australian researchers have gained a deeper understanding of entrenched disadvantage or social exclusion, by tracking people's incomes over a longer time period and looking at other circumstances in their lives such as housing, employment, health and social mobility.

The most recent report to investigate these issues was published by the Committee for the Economic Development of Australia (CEDA) in April 2018, titled 'How Unequal? Insights on inequality'. It built on a 2015 CEDA study that found that 4–6 per cent of Australians have deeply entrenched disadvantage, a finding echoed by the Social Policy Research Centre at the University of NSW and the Brotherhood of St Laurence's Social Exclusion Monitor. Research by the Productivity Commission in its 2013 report '*Deep and Persistent Disadvantage in Australia*' found that a larger group of between 10 and 13 per cent of Australians live in relative poverty, and around 17 per cent of adults experience multiple deprivation such as foregoing necessary medical treatments such as regular dental services because they cannot afford the cost.

The 2018 CEDA study investigated the factors most strongly associated with exclusion from the labour market, and found that the three groups most affected are people with a disability, people with serious mental health conditions and Indigenous Australians. For example, in 2015, only 53 per cent of people with a disability aged 15–64 participated in the workforce compared to 83 per cent for people without a disability.

The report noted that Australia has geographical pockets where there is concentrated and cumulative disadvantage across all the key indicators of wellbeing. This leads to

patterns of social exclusion becoming entrenched in those communities. In NSW, just 6 per cent of all postcodes account for 50 per cent of the most disadvantaged locations, based on measures of unemployment, domestic violence and criminal convictions; low internet usage and poor school outcomes. It found that the disparities that students can experience in these geographical pockets can be the equivalent of losing as much as 4.5 years of schooling. These disparities often involve a combination of community conditions (such as living in an area with greater social problems and poor facilities) and household conditions (such as living in a household where nobody is working, or where someone has a chronic health problem).

Australia is a prosperous nation. However, Australia's record-breaking run of economic growth since 1991 has not translated into a reduction in inequality and a lowering of our Gini coefficient. Research consistently concludes that a coordinated and long-term approach is needed to address the drivers of inequality of opportunity and wealth. Otherwise, entrenched disadvantage will remain.

Despite 26 years of uninterrupted economic growth Australia still has large pockets of disadvantage across the country, with 13 per cent of Australia's population living below the poverty line...Differences between generations are a growing policy concern. Reducing educational inequalities will lead to increased education effectiveness and efficiency. Two steps are necessary to reduce educational inequality. The first is to provide extra support to low performing, socially disadvantaged students and schools.....[Secondly,] needs-based school funding is crucial for addressing the additional challenges that socially disadvantaged students and schools face.

– CEDA (2018),
How unequal? Insights on inequality

Economic benefits of inequality

Income inequality can lead to an increase in the productive capacity of resources and thus an increase in real GDP per capita. Economic benefits are mainly derived from the **incentive effects** of inequality.

Inequality encourages the labour force to increase education and skill levels

If those with higher qualifications and skills reap higher income rewards, new entrants and existing participants in the labour force will be encouraged to improve their education and skill levels. This assumes that children growing up in poor households still have the opportunity to access a good education, perform well at school and afford higher education. If children in low income groups do not have the opportunity of gaining good educational standards, an economy is likely to suffer in the longer term from lower levels of productivity growth. Income inequality may then encourage an increase in the quality of the labour force.

Inequality encourages the labour force to work longer and harder

The potential to earn higher incomes produces an incentive for workers to work longer hours or to work overtime, which may enhance economic growth. However, workers will only be willing to give up leisure in order to work longer hours when they feel the extra income is more valuable than their leisure time.

In addition, if increased output is rewarded through higher pay, this encourages improved labour productivity.

Inequality makes the labour force more mobile

Higher incomes can act as an incentive to encourage labour to move to where it is most needed. A more mobile labour force will lead to a more efficient allocation of resources and a higher rate of economic growth. This has been an important factor in the past decade as high earnings in mining jobs attracted workers to remote parts of Australia, such as the Northern Territory and the north-west of the country.

Inequality encourages entrepreneurs to accept risks more readily

The prospect of considerable income rewards accruing to entrepreneurs may be necessary to encourage them to take the risks associated with new investment and innovation. If entrepreneurs received no extra reward for risk-taking, there would be fewer entrepreneurs and businesses, a lower rate of economic growth, weaker investment, less innovation, fewer jobs and a reduced productive capacity in the economy.

Inequality creates the potential for higher savings and capital formation

There is a strong relationship between income and saving levels. The higher the income an individual earns, the greater the proportion of income that will be saved; and likewise, the lower the income, the lower the proportion of savings. In theory, greater income inequality should encourage increased savings in the economy because of the greater number of higher income earners. Increased savings should reduce Australia's reliance upon foreign capital by providing domestic funds for investment.

Social benefits of inequality

It is difficult to identify significant social benefits of inequality. The potential economic benefits of inequality – such as higher levels of saving or productivity – could produce a “larger pie” from which all members of society could benefit. Additionally, one might argue that there are social benefits from an economic system that encourages hard work, risk-taking and social mobility. However, income inequality has few overall social benefits, since the economic system that determines the distribution of income and wealth does not give everyone the same level of opportunity to pursue their income and wealth goals.

Inequality of opportunity exists in Australia due to several factors:

- Existing inequality in the distribution of income and wealth tends to perpetuate inequality of opportunity. For instance, higher income earners have better access to educational opportunities, making it more likely that they will gain admission to university courses, allowing them to take up higher paid occupations.
- Not everyone has the same mental and physical attributes and the same potential with regard to the acquisition of income and wealth. For example, some people are more talented at manual work, which tends to lead to lower paying jobs than jobs that require analytical skills.
- People who acquire wealth through inheritance have a much greater opportunity to build up their wealth through investments, as opposed to those that start with no wealth.

- People may not have access to the same networks of people that may lead to new opportunities. For example, new migrants are likely to find it difficult to access social and business networks. Often this inequality makes it difficult to overcome because many of the barriers to opportunities are informal barriers (for example, business people may prefer to do business with people who went to their school or have a similar social background because they feel more comfortable with such people – this will informally exclude other people).

Given the problem of inequality of opportunity, it is generally felt that the social benefits associated with inequality are very limited.

review questions

- 1 Explain how reducing inequality might increase economic growth. Use a numerical example to support your answer. (*Hint: consider how people on different incomes spend their income and what their marginal propensities to consume would be.*)
- 2 Outline the major social and economic costs and benefits of inequality.

11.6 Government policies and inequality

Government policies can influence inequality in society in direct and indirect ways. Fiscal and labour market policies generally have the most direct impact through changing the levels of government benefits, taxation, and wages and salaries. However, the side effects of policies pursued for other purposes, such as microeconomic policy, can also affect inequality. In recent decades governments have adopted a strategy of reducing government intervention in markets generally, but also taking additional targeted policy steps to reduce economic and social disadvantage such as through personalised assistance with training and finding work.

Macroeconomic management and job growth

Since employment is the main source of income for households, unemployment is the main reason for low incomes and poverty. Periods of **unemployment** (and underemployment) in Australia in the past have contributed significantly to an increased gap between high and low income earners. Unemployed people must rely on government benefits, which are significantly below the average incomes earned by people in employment. Thus, lower unemployment rates tend to reduce the gap between the rich and the poor. Although lower rates of unemployment have helped to sustain the income of lower income households and helped reduce the level of income inequality, those lower rates of unemployment have been partly offset by more people being under-employed.

Inequality in the distribution of income and wealth in Australia is made higher when people of working-age drop out of the labour force, or remain unemployed for a long time. Those people who have been out of work for extended periods of time find it very difficult to find employment again. The fall in the proportion of the unemployed that are **long-term unemployed** since the 1990s has helped to reduce the level of income inequality between households. By avoiding the global recession in 2009, Australia prevented many workers losing their jobs and joining the ranks of the long-term unemployed, as happened after previous economic downturns. In contrast to Australia, many advanced economies now have large proportions of long-term unemployed because of the weakness of economic recovery since the global financial crisis.

Underemployment refers to those persons who are working less than full time (and therefore not unemployed) but would like to work more hours.

Changes in the labour market

Changes in the pattern of employment have meant that many of the jobs that have been created in recent years have been casual or part-time rather than full-time jobs. This has created the problem of **underemployment** – people in part-time or casual jobs wanting to work longer hours but being unable to find more work. Underemployed people often hold casual or temporary jobs that are low paid in the so-called ‘gig economy’, with work hours changing from week to week. Thus, they tend to have lower incomes and suffer greater fluctuations in their income levels because when an economy goes into a downturn the first measure business often take is to reduce casual and overtime hours.

The **decentralisation of the labour market** has widened inequality between wage earners. Under enterprise agreements, workers with greater skills and bargaining power have achieved higher average wage increases than less skilled workers who rely on industrial awards for wage rises. In addition, as jobs have become more highly skilled and highly specialised, the gap between pay for high skilled and unskilled work has widened. The problem of increased wage dispersion was recognised in the *Fair Work Act 2009*, which includes special provisions to help low paid workers engage in enterprise bargaining.

Australia’s national industrial relations regulator, the Fair Work Commission, also has an influence on inequality through its annual decision on adjustments to minimum wages in Australia. This decision establishes minimum wage levels for millions of employees who are covered by awards and agreements based on awards, and also indirectly influences other wage outcomes throughout the economy. Since its first minimum wage decision in 2010, the Fair Work Commission has indicated a willingness to raise minimum wages to assist low-paid workers where it has been confident that such increases would be affordable.

In June 2018, the Fair Work Commission announced that minimum wages for 2018–19 would increase by 3.5 per cent, raising minimum wages by 1.2 per cent in real terms. The new national minimum wage is \$719.20 per week or \$18.93 per hour. This was consistent with a series of minimum wage increases that in recent years have been above inflation and mostly in line with recent enterprise bargaining outcomes. The Commission’s higher minimum wage decisions over the past decade have halted a relative decline in minimum wages compared to overall earnings, with the federal minimum wage in 2018 at 55 per cent of median full-time earnings, just below its 56 per cent value a decade before.

Government policies to reduce inequality

Changes in government **taxation, transfer payments and other assistance** have the most direct impact on inequality in Australia. Overall, government intervention tends to reduce income inequality by taxing the wealthiest groups more heavily and **redistributing income** to lower socio-economic groups. The largest transfer payments are the age pension (worth \$46.9 billion in 2018–19), the disability support pension \$16.6 billion, the family tax benefit (\$18.4 billion), unemployment and other working-age benefits (\$16.2 billion) and carers payment (\$8.7 billion).

	Lowest quintile (\$)	Second quintile (\$)	Third quintile (\$)	Fourth quintile (\$)	Highest quintile (\$)	Average (\$)
Private income	210	849	1596	2440	4680	1891
Government benefits	384	351	189	86	41	218
Gross income (before tax)	594	1200	1785	2524	4721	2109
Disposable income (after tax)	579	1094	1534	2074	3493	1711

Source: ABS cat. no. 6523.0 Household Income and Income Distribution 2015–16, Table 5.1

Figure 11.18 – Distribution of household income, taxes and benefits 2015–16

Figure 11.18 shows that income inequality is significantly reduced through government intervention. The final income of households (bottom row) is more evenly distributed than

income from private sources (the top row). Without any taxes or government benefits, income for the highest quintile from private sources is around 22 times the average for the lowest quintile (most of whom are age pensioners or people on disability support). As a result of government policies, the average disposable income received by the lowest quintile of income earners is increased from \$210 to \$579 per week, so that the highest income earners now take home incomes six times those of the lowest quintile.

As income rises, so too does the level of taxation (the difference between gross income and disposable income). This occurs because Australia has a progressive income tax system, with higher marginal tax rates for higher income levels. Nevertheless, the most recent ABS data on the distribution of government taxes and benefits (ABS Catalogue 6537) showed that the lowest 40 per cent of income earners have a proportionately larger tax burden, earning only 12 per cent of total private income but paying 15 per cent of total taxes. This occurs because of the impact of indirect consumption taxes that are not related to income. Government benefits, by contrast, primarily assist those in the lowest three income quintiles (shown in the third row in figure 11.18). Government payments to the unemployed, low income earners and the elderly, and the provision of government services such as health, education and housing are the primary mechanism for reducing disadvantage in Australia. Family payments are also an important means of increasing income for low and middle income families. The combined effect of taxes and transfers is a reduction in the Gini coefficient from 0.52 to 0.34. Importantly, the GST is a regressive tax, and the Government has recently resisted temptation of a proposed increase from 10–15 per cent as this would disadvantage low income earners.

Recent budgets have contained several policy measures with significant consequences for inequality. The 2018–19 Budget announced a program of \$144 billion in personal income tax reductions phased in over seven years. The first stage of the cuts is targeted at lower income earners, but the largest tax reductions will be delivered from 2024–25 by abolishing the 37 per cent tax bracket. An analysis by the Australia Institute calculated that once fully implemented, 62 per cent of the benefit of the tax cuts will go to the top 20 per cent of taxpayers, while the bottom 30 per cent of income earners will get just 7 per cent of the benefit. Another significant Budget measure in recent years is the adoption of a needs-based system for funding school education, reflected in the 2018–19 Budget with the \$24.5 billion Quality Schools package. This delivers an average 50 per cent increase in Commonwealth funding per student over a decade.

Compulsory superannuation has improved the **distribution of wealth** in Australia since its introduction in 1992. Employers in Australia are required to contribute a minimum of 9.5 per cent of an employee's wages to a superannuation fund which they cannot access until their retirement. Since the mid-1980s, the proportion of employees covered by superannuation has risen from 42 to 94 per cent. While superannuation assets boost the wealth of all wealth quintiles, they are particularly important for lower and middle income earners, for whom superannuation may be one of few significant financial assets. Although compulsory superannuation has reduced wealth inequality, the tax concessions given to voluntary superannuation contributions mainly benefit high income earners who can afford to set aside extra income at reduced tax rates. The beneficial effects of compulsory superannuation for reducing inequality are expected to grow further as compulsory superannuation contributions are increased to 12 per cent of employee incomes by 2025.

The indirect impact of government policies

The impact of government policies aimed at creating a more equitable distribution of income can be outweighed by the consequences of other government policies that tend to widen the gap between higher and lower income earners.

The use of **monetary policy** to slow the rate of economic growth can influence the distribution of income and wealth. When interest rates increase, this transfers wealth from low to high income earners. This is because more low income earners are borrowers (for example, they have a mortgage or personal debts) and must pay the higher interest rates. High income earners, on the other hand, often have net savings so that high interest rates increase their income. This is an unintended side effect of a policy that is used for other purposes such as maintaining a low rate of inflation.

Microeconomic reform initiatives sometimes require economic restructuring that can create unemployment in the short term, or may result in the closure of some industries. Privatisation of formerly government owned businesses, for example, is often followed by price increases and “downsizing” of the workforce to improve profitability for shareholders. In general, microeconomic reform is intended to improve efficiency and increase the returns on investments to owners of assets. This means that its benefits can tend to flow to wealthier asset owners, while its costs tend to be felt most by lower income earners.

One of the challenges for governments is to implement microeconomic policies in such a way that they do not increase inequality. Microeconomic policies are often accompanied by substantial adjustment packages to compensate for the hardship that lower income groups may experience as a result of the reforms. For example, when a proposal to increase Australia’s Goods and Services Tax from 10 to 15 per cent was raised in 2015, its advocates highlighted the need to provide compensation to ensure that low income earners would not be disadvantaged. Targeted transitional support to groups directly affected by microeconomic reforms have proved effective in building greater public support for reform and minimising the hardships associated with structural change.

reviewquestions

- 1 Outline THREE recent government policies that have influenced the inequality in the distribution of income and wealth in Australia.
- 2 Examine how labour market policies might be used to address income inequality.
- 3 Explain how a government might implement policies to reduce the inequality in income and wealth distribution.

chapter summary

- 1 **Income inequality** refers to the degree to which income is unevenly distributed in an economy.
- 2 The **Lorenz curve** is a graphical representation of the degree of income inequality in an economy. It plots the cumulative increase in income against the cumulative increase in population when the population is ranked by income level.
- 3 The **Gini coefficient** measures the degree of income inequality in an economy, by calculating the degree to which the distribution of income deviates from perfect equality. It is represented by a number between 0 and 1, with a number close to 0 representing greater equality and a number closer to 1 representing a higher level of inequality. Inequality as measured by the Gini coefficient has increased since the mid-1990s.
- 4 Like income, **wealth** is unevenly distributed in the economy. Individuals in the top quintile own around 60 per cent of the total wealth in the economy while the bottom quintile has almost no wealth at all.
- 5 Wages and salaries are the largest source of income, constituting over half of total income to individuals, followed by business profits and rental property income.
- 6 Household wealth is mostly held in either owned occupied or investment property. Other sources of wealth include superannuation, business ownership, shares, savings accounts and shares.
- 7 Inequality for individuals is influenced by a range of factors. An individual's social background is a major influence – those who are born in rich families are likely to stay rich, and those born in poor families are likely to stay poor. Age is a significant factor because lower incomes are seen among young people and old people, but incomes are higher in middle age. Other influences include cultural background, family structures and where someone lives.
- 8 The **costs of inequality** are that it diminishes total utility in society, reduces social mobility, lowers consumption and economic growth, encourages conspicuous consumption, reduces work efficiency, and contributes to worse social outcomes such as higher rates of chronic disease and worse population health. It can also cause increased social tensions and can create an “underclass” of people who are stuck in poverty.
- 9 The **benefits of inequality** in a society are that inequality creates an incentive for people to work harder, to acquire new skills, to undertake entrepreneurial risks and innovate, and to save more in order to be able to start a business. If more productive workers receive higher incomes, this might increase inequality but might also increase national wealth.
- 10 Government policies have had a mixed impact on the distribution of income and wealth. Progressive income taxation, social welfare payments, government services and compulsory superannuation have reduced inequality, while microeconomic and labour market reforms have contributed to rising inequality.

chapterreview

- 1** Distinguish between income and wealth.
- 2** Explain how the following can be used to measure the degree of inequality in the distribution of income:
 - a) The Lorenz curve (explain using diagrams)
 - b) The Gini coefficient (explain using numerical examples)
- 3** Explain the relationship between income inequality and wealth inequality.
- 4** Examine which groups tend to be adversely affected by inequality according to occupation, education and ethnic background in Australia.
- 5** Discuss the general trends in the distribution of income and wealth in Australia in recent years.
- 6** Outline the economic costs and benefits associated with income inequality.
- 7** Outline the social costs and benefits associated with income inequality.
- 8** Discuss the relationship between increasing level of inequality and the level of economic growth in an economy.
- 9** Discuss government policy options to improve the distribution of income and wealth in Australia.
- 10** Analyse the impact of the government's policy mix on income inequality in Australia.

Environmental Sustainability

12

- 12.1 Introduction
- 12.2 Ecologically sustainable development
- 12.3 Market failure: private benefits and social costs
- 12.4 Public and private goods
- 12.5 Major environmental issues
- 12.6 Government policies and environmental sustainability

12.1 Introduction

Economists have traditionally assumed that there is an almost endless supply of natural resources to meet demands for production. If demand for a good increased, it was assumed that the supply of that good would also expand. However, in recent decades economists have shifted away from this traditional model that ignored environmental constraints. As environmental factors such as pollution, rising fuel costs and climate change have increasingly influenced people's lives, economists around the world have been working on new ways to include environmental factors in their economic analysis, alongside traditional concerns such as output, employment and prices.

The **natural environment** represents the totality of the physical environment in which human society lives. It includes the land, water, climate and plant and animal life. Environmental sustainability is about protecting and enhancing the natural environment. This includes protecting the quality of air, water and soil, preserving natural environments and biodiversity, ensuring the sustainable use of renewable and non-renewable resources, and minimising the negative environmental consequences of economic activity. Some of the key environmental sustainability challenges facing Australia include:

- reducing the emission of greenhouse gases, which contribute to climate change
- ensuring adequate supplies of water for use by households, farmers and businesses
- preserving the health of forests, waterways and ecosystems.

Historically, many aspects of economic activity in Australia have caused environmental harm. Economic activities – including farming, mining and industry – have resulted in land degradation, depletion of non-renewable resources, the extinction of many plant and animal species, and the pollution of water systems. Government policies now seek to address the impact of economic activity on the environment to improve quality of life and preserve the natural environment for future generations.

Australia's key environmental statistics		
Forest area (thousand sq. km)		1248
 Freshwater resources (per capita cu. m)		20,932
Threatened animals and plants (no. of species)		258
 Fossil fuels (% of total energy use)		93.4
Carbon dioxide emissions (per capita metric tons)		15.4
Source: World Bank 2018		

While prioritising environmental concerns may involve economic costs in the short term, sustainable economic growth in the longer term depends on a healthy environment. Moreover, there is an increasing acknowledgement that actions to protect the environment will support economic growth in the medium to long term. For example, a recent research report from the OECD indicates that the combination of policies to support economic growth and mitigate climate change, such as investment in low-emission and climate-resilient infrastructure, could increase average economic output by 1 per cent for G20 countries by 2021, and up to 2.8 per cent by 2050.

In recent decades, environmental issues have been incorporated into economic theory through the emergence of **environmental economics**. This chapter begins with an explanation of how economic theory deals with environmental issues. Concepts such as market failure, public goods and externalities are very useful in understanding the contemporary environmental challenges and policies addressed in sections 12.5 and 12.6.

12.2 Ecologically sustainable development

Environmental economics emphasises the need to pursue a sustainable level of growth, taking into account the effects that economic activity has on the environment. Environmental economists point out that unless the hidden costs of economic growth are taken into account, fast growth may lead to a rapid depletion of resources, a polluted atmosphere and a decreasing quality of life.

In chapter 7 we looked at the concept of sustainable economic growth. This is the idea that growth should be maintained at a level that is not so low that unemployment increases, and not so high that inflation or the current account deficit increase. As a result of these economic constraints, governments attempt to keep growth within a sustainable range.

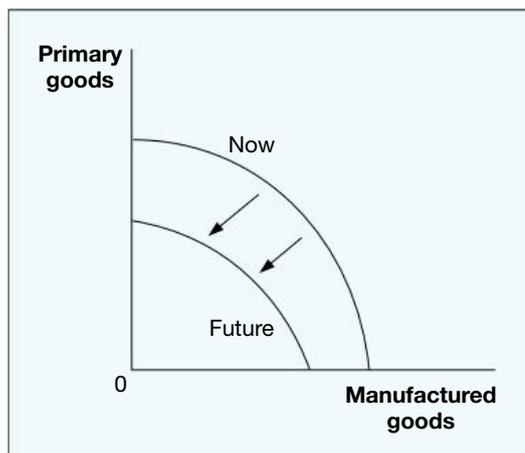


Figure 12.1 – The long-term impact of resource overuse on the production possibilities curve

Environmental concerns provide an additional longer-term dimension to the concept of sustainable economic growth. Overuse or exploitation of natural resources to achieve short-term growth can deplete these resources and permanently damage the environment, reducing the productivity of affected sectors of the economy. If the economy consumes resources in a way that depletes its natural resources, this will result in a fall in future potential output in the longer term, especially in primary industries that rely on natural resources as inputs in the production process. This is represented by a decrease in the economy's production possibility curve, as shown in figure 12.1.

Some historians argue that the severe depletion of natural resources played a major role in the collapse of past civilisations and empires, when deforestation and soil erosion made it impossible to sustain a food supply for local populations. This explanation for the decline of past empires (including the Roman Empire, the Mayan civilisation and smaller communities such as Easter Island) is the most extreme example of the impact of ecologically unsustainable development.

Ecologically sustainable development involves conserving and enhancing the community's resources so that ecological processes and quality of life are maintained. It is a level of economic activity that is compatible with the long-term preservation of the environment, rather than merely the maximum level of growth possible in the short term.

Ecologically sustainable development involves conserving and enhancing the community's resources so that ecological processes and quality of life are maintained.

The aim of both economic growth and environmental protection is to give people the best quality of life. The benefit of satisfying a greater number of material wants is diminished if it is accompanied by damage to the natural environment and depletion of natural resources. For example, a depleted natural environment has both harmful effects on the health of humans (such as air and water pollution) and diminishes their quality of life. Further, the depletion of the environment reduces the potential future growth of the economy by limiting its natural resources. One of the major principles of ecologically sustainable development is the principle of fairness between generations, or **intergenerational equity**. This describes the concept that resources should not be used in a way that will limit the quality of life of future generations.

KEY PRINCIPLES OF ECOLOGICALLY SUSTAINABLE DEVELOPMENT

- Integrating economic and environmental goals in policies and activities
- Ensuring that environmental assets are appropriately valued
- Ensuring fairness in the shifting of costs and assets within and between generations
- Managing environmental risks with caution
- Taking into account the global effects of environmental issues

Australia's National Strategy for Ecologically Sustainable Development (NSES) was first developed in 1992. The core objectives of the strategy are:

- to enhance **individual and community wellbeing and welfare** by following a path of economic development that safeguards the welfare of future generations
- to provide for **equity** within and between generations
- to **protect** biological diversity and **maintain** essential ecological processes and life-support systems.

The pursuit of ecologically sustainable development has been increasingly incorporated into the policies and programs of Australian governments as a significant policy objective. As part of a commitment to ecologically sustainable development, government departments are required to report on environmental matters in their annual reports.

review questions

- 1 Describe what is meant by *ecologically sustainable development* and explain how it fits within the study of economics.
- 2 Outline the concept of intergenerational equity and discuss the impact of policies to encourage intergenerational equity on economic growth.

12.3 Market failure: private benefits and social costs

In a modern market economy, the price mechanism is the key determinant in decisions about what goods will be produced, in what quantity, and the price at which they will be sold. The price mechanism involves the interaction of the market forces of supply and demand to reach an equilibrium price and quantity of production. Thus market outcomes reflect a balance between consumer preferences (as represented by consumer demand) and the costs of producing output (as represented by the firms' supply schedule). When consumers demand goods, producers will make them available, so long as they can receive a price that at least covers their costs. This means that as demand increases, production will increase.

However, the price mechanism does not effectively take into account the long-term effect of economic activity on the environment. Stocks of fish, for example, may continue to be farmed until they run out, forests may be logged until there are none left, and rivers and the atmosphere may be polluted. This is because producers enjoy a private benefit from the activity that depletes resources or pollutes the environment, but they do not directly face the social costs that their economic activity creates. Similarly, the market price that is paid by consumers does not reflect these social costs.

Market failure occurs because the price mechanism takes account of private benefits and costs of production to consumers and producers but does not take account of wider social costs and benefits borne by all of society. These other costs and benefits that are passed on to other members of society are known as externalities. Negative externalities are a cost to society and positive externalities are a benefit to society.

The concept of **negative externalities** generally refers to the adverse spillover effects on the environment from economic activity. Goods and services that have negative externalities are known as **demerit goods**.

Negative externality is an unintended negative outcome of an economic activity whose cost is not reflected in the operation of the price mechanism.

In an economic system based on private property ownership, there are no general property rights associated with environmental resources such as oceans and the atmosphere. This is one of the main economic problems that lie behind the market's failure to account for the environmental impacts of production. The price mechanism cannot determine a price or value for these resources, and they may be freely used without regard to their depletion. Therefore, the environment and other common resources can be destroyed through **overuse** (such as overfishing the seas or rivers, or polluting the atmosphere and waterways). This market failure is referred to as the **tragedy of the commons**.

ROAD TRANSPORT: A NEGATIVE EXTERNALITY

A company may decide to reduce its freight costs by transporting its goods by road rather than by rail. The use of a fleet of B-double trucks may result in substantial damage to roads in that area and also add to noise and air pollution. This may cause damage to cars because of pot holes, loose stones and increased risk of accidents; increased noise pollution of trucks; and respiratory problems from worsened air quality. None of these events impose costs to the company, which is saving money. In this situation, the company generates a negative externality, because society bears the cost of road damage, noise and air pollution.



Nevertheless, the price mechanism plays a limited role in protecting the environment by limiting the sales of depleted resources that do have a price. When environmental resources become scarce, the cost of natural resources increases, reducing the number of resources consumed. Therefore, if a large number of trees are cut down to be sold on the market,

eventually it will become more expensive to supply them. The remaining supply will be in a remote location, and of a lower quantity, so prices will rise and reduce the number of people who can afford them. In addition, the high price will also induce producers and buyers to look for and develop alternative inputs to production.

However, this can only protect those resources that are sold in markets, such as minerals and timber. The price mechanism plays no part in allocating environmental resources that can be used for free, such as the use of the atmosphere to dispose of gases generated during the production process. Further, remaining resources may not be protected if the price increases too late and by too little.

Not all externalities are negative. **Positive externalities** are the beneficial spillover effects from economic activity. Although production does not usually generate positive environmental outcomes, it can generate other beneficial spillover effects for society. The use of trucks may cause a negative externality, but the trucks may also provide new job opportunities for small-business people operating trucks, as well as increasing demand for food from roadside diners. Goods and services that have positive externalities are known as **merit goods**.

The role of externalities in the marketplace can be demonstrated with the use of a demand and supply diagram. In figure 12.2 the costs of production are borne by the producer, and are represented by the producer's supply curve. Negative externalities that are borne by the whole society, however, are an additional cost on top of the producer's costs. If we add the producer costs and social costs together for each level of output, we can plot the supply curve for the whole society – S (social cost), which lies above the normal supply curve. The vertical distance between the two supply curves is the size of the externality.

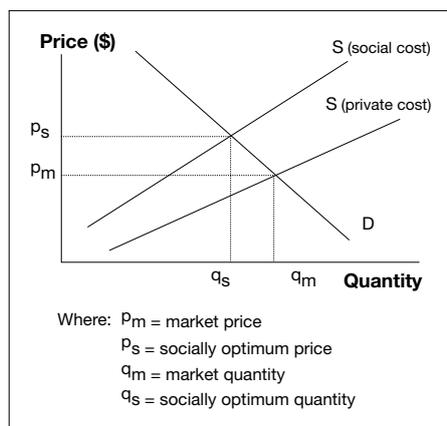


Figure 12.2 – Negative externalities

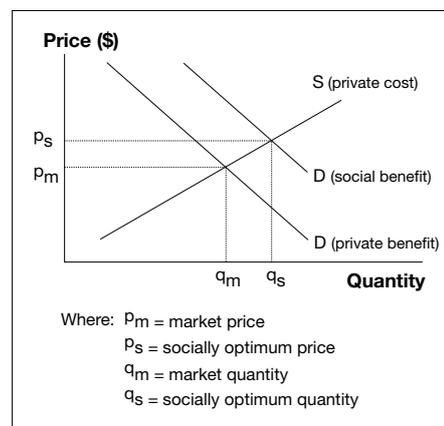


Figure 12.3 – Positive externalities

The market will only take into account private costs and benefits of production, resulting in a price of p_m and an output level of q_m . If the negative externality were borne by either the producer or consumer, however, the price would rise to p_s , reflecting the higher cost of production. Output would fall to q_s , highlighting that goods and services with negative externalities tend to be overproduced.

Positive externalities are the opposite – they are benefits of production that are not enjoyed by the individual consumer. For example, buying an efficient refrigerator will reduce a household's energy bill and also reduce its energy consumption and the emissions of carbon dioxide – a benefit for the whole society. In figure 12.3, the consumers' demand curve is based on the individual benefits of consumption. If we add the social benefits, we can plot the demand curve for the whole of society – D (social benefit), which lies above the normal demand curve. The vertical distance between the two demand curves is the size of the positive externality.

Positive externality is an unintended positive outcome of an economic activity whose value is not reflected in the operation of the price mechanism.

The market will only take into account private costs and benefits of production, resulting in a price of p_m and an output level of q_m . However, if the positive externality were enjoyed by the producer or consumer, the price would rise to p_s , reflecting the higher value of the good's production. Output would rise to q_s , showing that goods and services with positive externalities tend to be under-produced.

reviewquestions

- 1 Explain why individuals and businesses may not pay for the environmental costs of their economic activities.
- 2 Identify THREE examples of negative externalities and positive externalities resulting from economic activity.
- 3 Suppose a particular good has a high social cost that is not accounted for by the price mechanism. With the use of a diagram, contrast the socially optimum equilibrium with the market equilibrium outcomes.

12.4 Public and private goods

Having a clean and unpolluted environment is valued by individuals and society and considered a “good”. Yet private markets do not provide environmental “goods” like other goods and services. If all of us value a cleaner environment, why are there no private-sector firms that offer to clean up or maintain an unpolluted environment for a fee?

In order to answer this question, we must appreciate the difference between public and private goods. A clean environment, just like national defence and the maintenance of public law and order, has the characteristics of a public good.

THE TWO CHARACTERISTICS OF PUBLIC GOODS

1. Public goods are **non-excludable** – once public goods are provided, the producer cannot exclude consumers from enjoying the benefit of that good even if they are not prepared to pay.
Once national defence, street lights or a clean environment is provided, even non-paying consumers cannot be excluded from enjoying the benefits of these goods.
2. Public goods are **non-rival** – consumption of the good by one individual consumer does not reduce the quantity of the good available for other consumers.
For example, one person's “consumption” of the benefits of public order does not reduce the ability of others to also enjoy this public good.

Free riders refers to groups or individuals who benefit from a good or service without contributing to the cost of supplying the good or service.

These characteristics of public goods create the opportunity for “free rider” behaviour. This occurs when consumers or businesses benefit from a good or service without having to pay for its production or maintenance. A fishing company that benefits from clean oceans without paying the cost of cleaning up ocean pollution is an example of free-riding behaviour.

The potential for **free rider** behaviour means that private markets either do not provide or under-provide public goods, since private-sector firms would not be able to charge consumers for enjoying the benefit of that good. Therefore, the price mechanism cannot produce an equilibrium outcome that properly reflects the forces of supply and demand, and setting a price does not limit the consumption of public goods. The incentive for free

riders would therefore tend to undermine any attempt by the private sector to clean up the environment or protect it from overuse and depletion. For this reason, public goods tend to be provided by the government.

It is important to distinguish between public goods and **public-sector goods**, that is, goods and services that are provided by the government or its agencies. Not all public-sector goods are public goods. Train services, for example, are provided by the government, but they are not public goods because they are excludable, since train guards can prevent you from riding for free. Likewise, not all public goods are provided by the government.

Public-sector goods are goods and services provided by the government, such as train services and hospitals.

review questions

- 1 Identify a public good that is provided in your local area. Outline how the problems of public goods apply in this situation. What role does the government play in providing the good?
- 2 Using examples, describe the characteristics of a public good. Explain how these characteristics lead to the free rider problem.
- 3 Distinguish between public goods and public-sector goods.

12.5 Major environmental issues

The task of environmental sustainability appears simple while we discuss it in general terms. Surely it is just a matter of assessing the social costs of economic activity, then introducing laws and establishing authorities so that these costs are borne by the producer or consumer? In reality it is not so simple. Experts often disagree sharply on the environmental impact of economic activity, and on which policies are most effective in solving environmental problems. Industries resist pressure to change their practices or to pay the full costs of their environmental impact. Governments then have to decide whose evidence is most convincing and how environmental and economic goals should be balanced.

Below, we examine four major environmental issues with economic consequences that governments must confront in their longer-term policy setting.

Preserving natural environments

The preservation of the natural environment is an important environmental issue in the context of managing the economy. In the long run, the economy cannot keep growing if the environment is degraded. Environmental damage affects human health through higher levels of air and water pollution, and restricts the availability of resources. Active measures to preserve the environment aim to avoid the social and economic problems that arise when the environment is not actively preserved.

Preservation of the environment may include measures such as:

- restrictions on development in environmentally sensitive areas, such as mining in national parks
- protecting native plant and animal species from extinction
- controls over emissions of waste products
- requiring new plantation in areas where logging has occurred.

However, overall awareness of the importance of environmental issues has been slow to develop in Australia and throughout the industrialised world. Australia protects 17 per cent of its total land area, compared with 33 per cent in New Zealand and 28 per cent in the

United Kingdom. Australia also has a very poor record of preserving biodiversity despite being one of the six most biodiverse nations on the planet. In 2017, 151 flora and 71 fauna were considered critically endangered under the 1999 *Environment Protection and Biodiversity Conservation Act*.

Governments often face significant problems in trying to preserve the natural environment:

- In the short term, environmental policies may result in a **reduction in economic growth** through interventions in the price mechanism that may cause higher prices or reduced supply. For example, agricultural producers may oppose a reduction in water allocations for irrigation even though it may be critically important for environmental reasons, because this may result in lower agricultural output in the short term.
- Industries will face **higher costs** if they have to comply with rigorous environmental standards. In a highly competitive global economy, our environmental standards may make us less competitive as a place for some industries compared with other countries with weaker environmental safeguards. As a result, Australia may miss out on opportunities that would lift economic growth and exports. Groups that represent affected industries, such as farming, mining and construction, may try to lobby governments to prevent strict environmental protection policies.
- The **cost of repairing damage** to the environment is often borne by taxpayers rather than by those who have caused the economic damage. For example, the Australian Government is investing \$50 million to 2020 for the 20 Million Trees Programme. This provides funding to organisations undertaking tree planting and revegetation activities that restore native forests in urban and regional areas. In other situations, the government may try to pass costs on to industry. For example, in 2017 the NSW Government introduced a Container Deposit Scheme, where beverage containers can be deposited at recycling facilities in exchange for a 10-cent refund. This reform aims to reduce littering in order to protect the natural environment, with the associated scheme costs borne by beverage producers.

Pollution

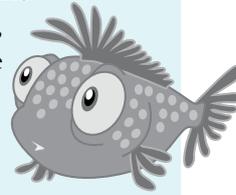
Pollution occurs where the natural environment is degraded in some way, such as by harmful chemical substances, noise and untreated rubbish. Pollution affects the atmosphere, water resources and land. All sectors of the economy, including manufacturing, agriculture and households, contribute to the pollution of our environment.

Pollution first became an environmental problem in populated areas, and this problem has been particularly serious since the Industrial Revolution, which attracted large numbers of people to live in urban areas. Mining and manufacturing processes create major environmental challenges, and the worst polluted areas in the world are in industrial cities in developing countries, such as Delhi in India or Shijiazhuang in China.

The impact of pollution is often felt far away from its original source. Pollution can therefore be a problem for the global economy and for international institutions, as well as for national governments. For example, sulphur emissions into the atmosphere from industrial regions in Europe and the United States cause “acid rain”, which has damaged lakes and forests throughout Europe and North America.

Within individual countries, governments can implement policies to reduce pollution. The range of options available to the government includes laws banning environmentally damaging production techniques, quotas to restrict the emission of harmful pollutants, subsidies to encourage environmentally friendly practices and taxes to discourage some forms of economic activity.

- **Renewable resources:** Renewable resources can naturally regenerate or replace themselves in a relatively short period of time. However, these resources may be depleted to the point where they become non-renewable (that is, they cannot regenerate) and they are lost forever. For example, overfishing of a species of fish may cause the numbers to fall to a level at which the species cannot reproduce and may become extinct.
- **Non-renewable resources:** Non-renewable resources are those natural resources that are in limited supply because they can only be replenished over a long period of time, or cannot be replenished at all. Non-renewable resources include fossil fuels such as petroleum and coal, and minerals such as copper and iron ore.



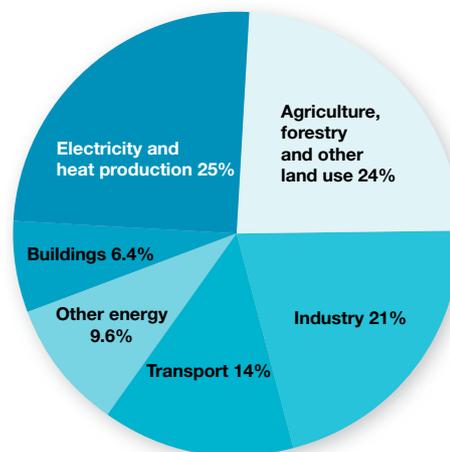
Climate change

The environmental problem that has received greatest attention throughout the world in recent years is climate change. Climate change, also known as global warming, is related to the emission of greenhouse gases, including carbon dioxide (CO₂), nitrous oxide (N₂O) and methane (CH₄). Total greenhouse gas emissions produced as a result of human activity reached the highest levels in human history from 2000 to 2010, according to the Fifth Assessment Report conducted in 2014 by the Intergovernmental Panel on Climate Change (IPCC), a scientific body established by the United Nations. The IPCC calculated that about half of cumulative CO₂ emissions from human activity between 1750 and 2010 have occurred in the past 40 years. This has been driven by two main sources:

- the **burning of fossil fuels** to meet the electricity and transportation needs of individuals and businesses, which account for over a third of the world's greenhouse gas emissions
- **changes in land use** due to agricultural practices such as deforestation, irrigation, livestock farming and landfill, accounting for a further third of global emissions.

Because of the worldwide reliance on fossil fuels, there is a close link between increased economic growth and higher carbon emissions in most economies around the world. As standards of living improve, greater demands are being placed on limited natural resources to satisfy the world's energy and food supply needs. The average estimated increase in carbon dioxide emissions from 2001 to 2025 is 1.9 per cent per year. Large developing economies such as China and India are expected to account for much of the increase, with their emissions expected to rise by an average of 2.7 per cent every year over the same period.

Climate change is expected to have major consequences around the world and in Australia, as outlined in figure 12.5, unless action is taken. Australia is particularly vulnerable to the effects of climate change because it is already a hot, dry country. Australia is also vulnerable because of the importance of fossil fuels to energy production and exports, and our proximity to other countries that will be affected by increased temperatures and rising sea levels, such as Indonesia and Bangladesh.



Source: United Nations Intergovernmental Panel on Climate Change Report 2014

Figure 12.4 – Sources of greenhouse gas emissions

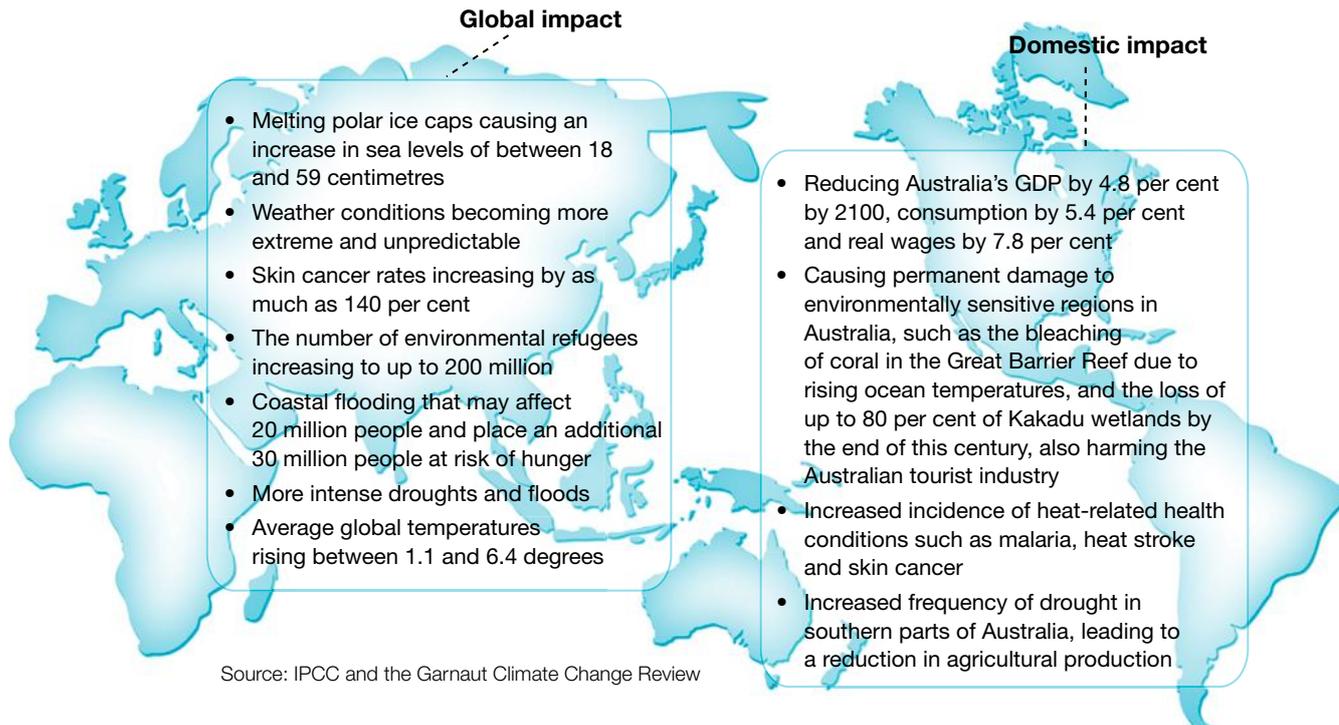


Figure 12.5 – Global and Australian impacts of climate change, 21st century

While there is a scientific basis for targeting reductions in carbon dioxide emissions, many nations, including Australia, have struggled to implement effective policy responses. This is because climate change is a global problem, and addressing climate change by reducing carbon emissions reduces economic growth, particularly in the short term. Nations have been reluctant to make decisions that could affect their economic potential, especially if they are unsure other nations will do the same. In chapter 16, when we examine policies for improved environmental management, we take a close look at policies to address climate change.

The depletion of natural resources

The depletion of natural resources is both an environmental and an economic problem. Without intervention, the market is likely to fail in this area and allow important resources to be overused.

The impact of the depletion of natural resources is greatest on future generations. Sustainable resource management aims to ensure that the present generation does not overconsume the stocks of renewable resources and minimises depletion of non-renewable resources. It may also ensure that new technology makes alternative resource use possible. In order to determine what level of resource use is sustainable, economists can estimate the optimal rate for the use of resources over time. An optimal rate of resource use may be calculated for both renewable and non-renewable resources.

For renewable resources, establishing an optimal rate of use means arriving at a **threshold exploitation** level that allows the resources to regenerate so that there is no long-term decline in these resources. For example, over-fishing, over-grazing, excessive farming of agricultural land and the over-exploitation of timber resources must be prevented if these resources are to be available in sufficient quantities for future generations. The critical water shortages experienced in many parts of Australia, in particular in areas relying on the Murray-Darling River System, reflect the long-term overuse of the renewable resource of fresh water.

For non-renewable resources, calculating an optimal rate of use involves determining a rate of decline that is acceptable for both the present generation and future generations. This starts with eliminating overuse and waste, but ultimately may result in taking action to recycle or curb consumption of these resources.



For more information about climate change and government policies, visit the websites of the United Nations Framework Convention on Climate Change: www.unfccc.int
The Garnaut Review: www.garnautreview.org.au Department of the Environment and Energy: www.environment.gov.au
The Finkel Review: <https://www.energy.gov.au/publications/independent-review-future-security-national-electricity-market-blueprint-future> and IPCC 2014 Report: www.ipcc.ch/report/ar5

Economists face two main challenges in calculating the optimal rate of resource use for a non-renewable resource. First, it can be hard for present generations to predict the needs of future generations. Second, it is often hard to assess the existing stock of a mineral or other resource. There may be limited or conflicting evidence about the quantity of that resource that remains available. It was often argued in the 1970s, for example, that the world's supply of oil would be exhausted by the end of the twentieth century.

AUSTRALIA'S RESOURCES: PAST, PRESENT AND FUTURE

Australia's economy has relied heavily on the exploitation of Australia's natural resources. For many years, abundant natural resources have underpinned our success as a primary commodity producer. In the nineteenth and twentieth centuries, Australia was considered the "bread-basket" of the British Empire because of its wheat exports, and the economy was able to "ride on the sheep's back" because of its dependence on wool exports. Since the gold rushes of the mid-nineteenth century, successive waves of commodity booms have played an important role in Australia's economic development, in population flows and in forming Australia's national character.

In more recent decades, Australia has relied on its unusually large concentrations of non-renewable mineral and energy resources. This includes the world's largest reserves of zinc, lead, bauxite, nickel and uranium, and major deposits of gold, coal, iron ore, copper, gas and oil. The global resources boom of the 2000s made the mining industry more central to Australia's economic prosperity, with mineral and metal exports surging from less than a third to over half of Australia's total export revenue.

Australia's economic reliance on primary commodity exports is looking less certain as global commodity prices have fallen from their previously record levels. Global growth levels have been more subdued in recent years, and developed countries are increasingly focusing on renewable energy sources and technologies. In the longer term, therefore, demand for primary commodities will be affected by many factors. While exporting non-renewable resources is still a significant contributor to Australia's current export mix, recent public debate has centred on whether Australia needs to diversify its production so it can achieve greater economic and environmental sustainability.

In recent years, increasing emphasis has been placed on the value of Australia's renewable energy resources, given Australia's favourable conditions for certain generation

types such as solar and wind energy. Policymakers, economists and politicians have wrestled with complex challenges relating to the security and reliability of Australia's energy supply, short-term shortages, rising prices and the carbon emissions intensity of Australian electricity generation. The share of Australia's electricity generated from renewable sources, has risen from 8 per cent in 2001 to 15 per cent in 2017, including hydro (5 per cent), wind (5 per cent) and solar (3 per cent). While renewable energy generation has increased over the past two decades, there has been volatility in the renewable energy sector as government policies relating to renewables have continued to change. Policy incentives to encourage uptake of rooftop solar photovoltaics (PV) supported employment growth in the renewable energy sector, which peaked at 19,220 in 2011–12. This employment growth was supported by policies under the Renewable Energy Target (RET) as well as feed-in tariffs offered by state and territory governments to incentivise customers to use rooftop PV systems to "feed in" power to the grid. The subsequent decline in employment in the renewable energy sector to 11,150 by 2015–16 was the result of a slump in the rooftop solar PV sector, as a result of policy uncertainty, reductions in the feed-in tariffs available for new and existing customers, reduction of the RET and the lapsing of existing schemes.

The recent findings of the Finkel review and the announcement of a National Energy Guarantee are intended to encourage further diversification and growth in Australia's energy sector, with increasing focus on a broad range of industries and technologies. The National Energy Guarantee is a market-based policy to achieve the dual objectives of reducing carbon emissions and improved energy reliability. While some experts have praised the Guarantee as technology-neutral, others in the renewable energy sector have criticised the policy for reducing incentives for renewables, as compared to the Renewable Energy Target.

reviewquestions

- 1 Outline TWO difficulties facing governments that seek to introduce policies to preserve natural environments.
- 2 Using the example of climate change, explain the concepts of market failure, externalities, public goods and free riding.
- 3 Examine the importance of renewable and non-renewable resources for the Australian economy and the environment.

12.6 Government policies and environmental sustainability



Details of Commonwealth environmental policies relating to climate change, conservation, water quality and land management are available from:

www.environment.gov.au

Policies specific to NSW and Sydney are available from:

www.environment.nsw.gov.au

or

www.epa.nsw.gov.au

In recent decades environmental sustainability has emerged as an increasingly important issue for policymakers worldwide. However, environmental issues have still tended to play a secondary role to other economic objectives, such as increased economic growth. The benefits of long-term environmental policies are often less apparent than the costs of improving environmental protection. This section outlines some key policies for environmental management, which are examined in more detail in chapter 16.

Government policies can influence environmental management by discouraging environmentally harmful activities, and providing incentives for firms and individuals to act in an environmentally responsible manner.

A **ban on the production** of a particular good or service is the most extreme action a government can take to achieve improved environmental management. For example, since 2002 it has been illegal to sell leaded petrol in Australia, and motorists who formerly used leaded petrol must use lead-replacement petrol instead. Banning a product will eliminate all externalities associated with the use, to the extent that its use can be stopped. Government bans can also impose severe costs on firms and individuals, particularly those whose employment depends on the production of the product. Consequently, governments generally only consider this option if a particular product is causing severe environmental or social damage, or where a suitable substitute product exists. For example, all of Australia's state and territory governments except NSW have introduced bans on the retailers providing single-use plastic bags since 2018.

Bans may also be used to prevent consumption or other activities that may harm the environment. For example, the Chinese Government recently banned imports of mixed recycled materials from other countries, to protect China's environment and improve public health. This ban had major flow-on effects for the Australian recycling industry, as around 30 per cent of Australia's recyclable waste was exported to China. As a result, prices in recycled waste markets dropped significantly, impacting the viability of the Australian recycling industry. The ban has also caused an oversupply of recyclable waste that has led to the dumping of recyclable materials in landfill.

Another measure governments can take to reduce the consumption of a particular good or service is to impose a **tax on its production or use**. For example, to curb Australia's greenhouse gas emissions, the Gillard Government introduced a tax on carbon emissions in 2012, although it was repealed by the Abbott Government two years later. The Commonwealth Government imposes a tax or excise on fuels such as petrol. This is recalculated every six months in line with increases in the Consumer Price Index. These taxes aim to internalise the externalities associated with a particular economic activity. That is, they require the firm or individual that causes the externality to pay for some, or all, of its costs. For example, a tax on petrol forces the owners of motor vehicles to pay some of the costs associated with air pollution and road maintenance.

Governments can also introduce policies to encourage firms and individuals to use more environmentally-friendly goods and services. In every major Australian city, governments provide **subsidised** public transport services such as buses, trains and ferries to offer individuals an alternative to motor vehicles. **Government funding** is also used to accelerate the introduction of new technologies that have environmental benefits but high establishment costs. For example, the Clean Energy Innovation Fund was established in 2016 with \$1 billion to encourage the availability of new energy technologies.

In the case of public goods, however, even government subsidies may lead to an under-provision of resources. In this case, the government may have to **provide these services itself**. For example, the government is investing \$30 million in a Threatened Species

Recovery research hub to support threatened species in Australia and help fight the extinction of at-risk plants and animals. This forms part of Australia's Threatened Species Strategy – a project that might not be viable as a privately funded venture.

Governments also seek to **monitor and measure** changes in the environment over time. For example, the federal government releases the *State of the Environment* report, which documents changes in key areas of Australia's environment over a five-year period, including the atmosphere, biodiversity, coasts, marine environment, inland water, land, heritage, Antarctic environment and built environment. The Australian Bureau of Statistics has also started recording the Australian Environmental-Economic Accounts, which document a series of measurements of Australia's stock of environmental assets, as an addition to the typical measures of assets within the economy. These types of records are important sources that provide the government with better information about the trade-offs involved in decision making to support and manage economic and environmental outcomes, particularly where there may be adverse economic or environmental consequences.

Overall, governments have shifted away from outright ban on directly providing public goods to using market mechanisms such as taxes and subsidies. One example against this trend has been the federal government's plan to expand Australia's renewable energy Snowy Hydro Scheme, which is owned by the federal, NSW and Victorian Governments. It is anticipated that the expansion will increase generation capacity by 50 per cent, an increase in current electricity generation to provide power for an additional 500,000 homes.

Just as most environmental problems take years or even decades to emerge, most solutions to those problems also take many years to have their impact. This can result in governments putting off dealing with environmental problems in favour of shorter-term priorities.

MURRAY-DARLING BASIN

The Murray-Darling Basin is one of the largest river systems in the world, covering 14 per cent of Australia's total land area across Queensland, New South Wales, Victoria and South Australia. Around 2 million people live in the basin and it is an important water source for communities, farmers and food production. However, by the beginning of the twenty-first century, decades of water overuse had depleted the health of the river system. It was a difficult problem to fix because responsibility for the basin was split between different state governments, and environmental groups, farming communities and scientists had different views on what needed to be done.

In 2007 the Murray-Darling Basin Authority was established to take overall responsibility to manage the rivers in the basin. But when a plan was announced in 2010 to return 3000 to 4000 gegalitres of water to the system, it provoked an angry reaction from communities along the river, who argued that reduced agricultural production would cause unemployment and threaten the viability of towns. In 2014,

an updated Water Recovery Strategy was released, establishing an annual target of 2750 gegalitres, with flexibility through the Sustainable Diversion Limit Adjustment mechanism, to be implemented in 2019. A greater proportion of water would come through on-farm efficiency measures like storage dam outlets rather than water buybacks from farmers, reducing the impact on agriculture. A total of \$12 billion has now been allocated to support water reform initiatives in the Murray-Darling Basin.

Ongoing problems relating to water allocation under the plan have been raised by environmental groups, academics, farming communities and irrigators. An investigation by ABC TV's *Four Corners* program in 2017 alleged that a group of irrigators was stealing massive amounts of water that had been bought by the government.

In 2018, a review of the controversial Murray-Darling Basin Plan was initiated, exploring a number of complex issues and perspectives in relation to the Basin Plan.

reviewquestions

- 1 Summarise government policy options to achieve environmental objectives and explain how they influence the behaviour of individuals and businesses.
- 2 Explain how a tax on the consumption of certain goods and services can be used to address negative externalities.

chapter summary

- 1** The **natural environment** represents the totality of the physical environment in which human society lives, and includes the land, water, climate and plant and animal life.
- 2** **Ecologically sustainable development** (ESD) is the concept of maintaining a level and quality of economic growth that does not result in long-term damage to the environment or depletion of limited resources.
- 3** The private interests of business, consumers and government often conflict with environmental objectives. **Market failure** occurs because the price mechanism only takes into account the private benefits and costs of production to consumers and producers, but does not take into account social costs (such as damage to the environment), also known as **externalities**.
- 4** The two characteristics of **public goods** are **non-excludability** and **non-rivalry**. A good is non-excludable where it is not possible to exclude individuals from enjoying the benefits of these goods once they are provided, even if they have not paid for them. A good is non-rival where an individual's enjoyment of a good does not reduce the ability of others to enjoy that good.
- 5** A major goal of environmental protection is to **preserve the natural environment**, by controlling development, limiting pollution, restraining the use of non-renewable resources and minimising any other negative effects of economic activity.
- 6** **Pollution** occurs where the natural environment is degraded in some way, such as by harmful chemical substances, noise or unattractive development. Pollution affects the atmosphere, water resources and land. Virtually all areas of economic activity, including manufacturing, agriculture and household consumption, contribute to the pollution of our environment.
- 7** **Climate change** is the increase in global temperatures and impacts on sea levels and weather patterns, believed to be caused by the emission of greenhouse gases such as carbon dioxide.
- 8** **Non-renewable resources** are those natural resources such as oil, coal and gas that are finite in supply and cannot be re-created in a short time frame. **Renewable resources**, by contrast, naturally regenerate themselves in a time frame that makes their use sustainable.
- 9** The sustainable use of resources is particularly important in Australia because of the significance of agriculture and mining to Australia's export base.
- 10** Government policies to address environmental problems include bans or taxes on environmentally-damaging goods and services, and subsidies for, or provision of, environmentally-friendly goods and services.

chapter review

- 1 Describe what is meant by the term *natural environment*.
- 2 Discuss why environmental sustainability is often in conflict with other economic objectives.
- 3 Explain what is meant by the term *ecologically sustainable development*.
- 4 Outline how market failure occurs in relation to managing the environment.
- 5 Explain what is meant by an *externality*. Give an example of an externality.
- 6 Describe what is meant by a *public good*.
- 7 Identify what methods a government might use to control the level of pollution.
- 8 Discuss the possible impacts of climate change on the natural environment and the economy.
- 9 Distinguish between *renewable* and *non-renewable* resources.
- 10 Examine what initiatives the government can undertake to preserve the natural environment.

TOPIC

4

ECONOMIC POLICIES AND MANAGEMENT

Issues

By the end of Topic 4, you will be able to examine the following economic issues:

- Analyse the opportunity cost of government decisions in addressing specific economic problems or issues
- Investigate structural changes in the Australian economy resulting from microeconomic reforms
- Apply economic theory to explain how a government could address an economic problem or issue in hypothetical situations
- Analyse alternative ways to finance a budget deficit

Focus

This topic focuses on the aims and operation of economic policies in the Australian economy and hypothetical situations.

Skills

Topic 4 skills questions can ask you to:

- Explain how governments are restricted in their ability to simultaneously achieve economic objectives
- Use (simple) multiplier analysis to explain how governments can solve economic problems
- Identify limitations on the effectiveness of economic policies
- Explain the impact of key economic policies on an economy
- Propose and evaluate alternative policies to address an economic problem in hypothetical and the contemporary Australian contexts
- Explain, using economic theory, the general effects of macroeconomic and microeconomic policies on an economy
- Select an appropriate policy mix to address a specific economic problem

Topic 4

Introduction

The first three topics of this book examined how Australia fits into the global economy and the kinds of economic issues that confront the Australian economy. This final topic examines *Economic Policies and Management* – looking in particular at the policies that can be used to address Australia’s economic problems.

In this section we examine both the theory and practice of economic management. Each chapter examines the theory behind the policy, reviewing how economic policies can operate in hypothetical situations. We then examine the **current policy environment** in Australia, including recent Australian policies and alternative approaches.

Chapter 13 In studying economic policy, it is important to remember that there is always a reason why a government implements or changes a policy. In other words, all economic policies are related to policy objectives. Chapter 13 examines policy objectives in Australia and the potential conflicts in objectives that a government may face in implementing the economic policy mix.

In deciding which policies to implement, governments choose between a range of policy alternatives. In general terms, a distinction can be made between the government’s use of macroeconomic policies, which are the broad policies that have overall impacts on the economy, and microeconomic policies, which are the policies designed to improve the operation of individual sectors and industries. The following chapters are divided between a discussion of macroeconomic and microeconomic policy instruments.

Chapters 14 and 15 These two chapters examine macroeconomic policy in Australia – fiscal policy and monetary policy – and how they can be used by the government to achieve its economic objectives.

Chapters 16 and 17 These two chapters look at microeconomic policies, with a focus on labour market policies in Chapter 17.

Chapter 18 The book concludes with an evaluation of how well these policies achieve their objectives. Like all kinds of economic decisions, economic management involves making difficult choices between competing aims. Because of the difficulty in achieving all policy objectives, governments must prioritise their goals and respond to changing conditions in the global economic environment. Australia has achieved many of its economic policy objectives during the past fifty years. However, Australia still faces a range of longer term, structural problems and may face difficulty in sustaining its recent successes over time.

13 The Objectives of Economic Policy

- 13.1 Introduction
- 13.2 The objectives of economic management
- 13.3 The goals of government policy in 2019
- 13.4 Conflicts in government policy objectives
- 13.5 The economic policy mix

13.1 Introduction

In managing an economy, the first priority for a government is to determine what it will pursue as its economic objectives. Governments can choose to pursue a range of policy goals, and often the priorities of government policy shift over time.

Economists have traditionally described the major objectives of economic management in the following three ways:

- **Economic growth:** An increase in the level of goods and services produced in an economy, which increases the number of material wants satisfied and raises the living standards of individuals in the economy.
- **Internal balance:** Pursuing the goals of price stability (low inflation) and full employment.
- **External balance:** Keeping the current account deficit, foreign liabilities and exchange rate at stable and sustainable levels.

In the following pages we review the main objectives of government policy generally, and then discuss the current objectives of economic management in Australia.

13.2 The objectives of economic management

Economic growth and quality of life

Economic growth involves an increase in the volume of goods and services that an economy produces. It is measured by the **annual rate of change in real GDP**, that is, the percentage increase in the value of goods and services produced in an economy over a period of one year, adjusted for the rate of inflation.

Economic growth offers substantial benefits to a nation, including:

- an increased standard of living for the population
- improved job prospects for the labour force
- the opportunity for increased public investment in infrastructure and services such as education funded through higher government tax revenues.

Economic growth also contributes to the general wellbeing of households, or **quality of life**, because it means there are more resources available for important contributors to quality of life, such as healthcare, education and programs to support the natural environment.

Quality of life refers to the overall wellbeing of individuals within a country according to their material living standards and a range of other indicators such as education levels, environmental quality and health standards.

Full employment

The objective of full employment involves the full use of all resources (land, labour, capital and enterprise), but in reality economists generally focus on the full employment of labour. This is because when labour resources are not fully utilised, some people will be unemployed – resulting in significant social and economic problems.

Full employment does not mean that there is no unemployment. Rather, it means that the economy is at its **non-accelerating inflation rate of unemployment**, otherwise known as the natural rate of unemployment. The concept of the non-accelerating inflation rate of unemployment reflects the fact that there is always going to be a certain level of frictional, seasonal, structural and hard-core unemployment in the economy. The natural rate of unemployment is therefore the level of unemployment that remains after the elimination of cyclical unemployment – the unemployment caused by the upturns and downturns of the economic cycle. This means that the non-accelerating inflation rate of unemployment is caused by supply side factors rather than deficiency in demand.

The government can reduce unemployment to its non-accelerating inflation rate by successfully implementing its macroeconomic policies. It may also use microeconomic policies to reduce the non-accelerating inflation rate of unemployment over the longer term. (*The different types of unemployment were discussed in more detail in Chapter 8.*)

The benefits of achieving full employment, or minimising unemployment, can be summarised as follows:

- Fully utilising the economy's current capacity to produce, and therefore increasing living standards.
- Minimising the adverse economic and social problems associated with unemployment (for example, personal and family problems, loss of workforce skills and greater inequality).

Price stability

Price stability refers to keeping inflation, or the sustained increase in the general price level, at an acceptable level. This does not mean that the government aims to eliminate inflation altogether; instead, it aims to sustain inflation at a level that will cause minimal distortion to the economy.

High inflation was a significant problem for industrialised nations in the 1970s and 1980s. More recently, most governments have been successful in sustaining lower inflation rates. In Australia, the Government and the Reserve Bank have made a commitment to sustaining the average rate of inflation at 2–3 per cent over the course of the business cycle. (*This objective, as well as the causes of inflation, were discussed in more detail in Chapter 9.*)

Inflation is seen as a problem because of its economic consequences. A high level of inflation may:

- reduce the real value of income and wealth
- reduce our international competitiveness, due to rising costs of production
- cause a depreciation in the exchange rate as foreign exchange markets lose confidence in an economy
- create uncertainty about future costs and distort economic decision making
- distort the pattern of resource allocation. Inflation encourages speculation in relatively unproductive activities (for example, the buying and selling of existing real estate) that simply redistribute income, and discourage savings and investment in productive activities that contribute to higher output.

External stability

Achieving external stability involves a country meeting its long-term financial obligations to the rest of the world so that its external accounts do not hinder it achieving its economic

The non-accelerating inflation rate of unemployment (NAIRU) refers to the level of unemployment at which there is no cyclical unemployment, that is, where the economy is at full employment.

Current account is the part of the balance of payments that shows the receipts and payments for trade in goods and services, as well as both primary and secondary income flows between Australia and the rest of the world in a given time period. These are non-reversible transactions.

Balance of payments is the record of the transactions between Australia and the rest of the world during a given period, consisting of the current account and the capital and financial account.

goals such as higher growth and lower inflation. This is also known as achieving “external balance”. There are six key measures of external stability:

- Achieving a sustainable position on the **current account** of the **balance of payments**. This means, over the long term, balancing our payments for imports of goods and services, as well as other income payments, with our receipts for exports of goods and services, as well as other income receipts. Any current account deficit should be kept at a level low enough to not have adverse economic effects.
- **Net foreign debt as a percentage of GDP**. Foreign debt must be kept at a level where an economy can afford to make interest payments on the debt and is not exposed to the risk of financial crisis because it is too reliant on foreign inflows from overseas. An economy’s capacity to service foreign debt is measured in net terms as a percentage of GDP. Sometimes, economists also look at the debt-servicing ratio – the percentage of export revenue that is spent on making interest payments on foreign debt.
- **Net foreign liabilities as a percentage of GDP**. Foreign investment in Australia can facilitate growth and create jobs. But it also creates income outflows over the long term. That is why net foreign liabilities is also a measure of external stability.
- **Terms of trade**. This reflects the relative prices of Australia’s exports and imports. Higher terms of trade improves external stability because it indicates that Australia is able to buy more imports with a given quantity of exports. That is why it is an important influence on external stability. Governments cannot directly target improving the terms of trade, but they can introduce policies that facilitate shifts of the economy’s resources towards industries that produce goods and services with greater value.
- **Exchange rate**. The value of the Australian dollar reflects a range of trade, financial and speculative factors. In the short term, the exchange rate is a measure of international confidence in the Australian economy. High volatility in the exchange rate usually reflects a lack of external stability. In the long term, it reflects Australia’s competitiveness. Therefore, it is an important measure of external stability.
- **International competitiveness**. Improving Australia’s international competitiveness is important for minimising the leakage from a trade deficit, reducing the current account deficit, and reducing the growth of foreign debt over time.

Although Australia has relatively large external imbalances, during recent decades this has not been a major concern for the Australian economy. Nevertheless, improving external imbalances is a policy goal as lower external imbalance will mean reduced vulnerability to adverse developments in global financial markets.

Distribution of income and wealth

An overall objective of government policy is to create a fairer **distribution of income and wealth** in the economy. Governments generally accept that when free markets operate without government intervention, they will produce unfair outcomes because some individuals and some groups in society have fewer opportunities than others.

While governments do not aim to remove all of the inequalities between individuals, it is widely agreed that societies should make provision for the needs of people who are not able to provide for themselves – such as aged persons, people with disabilities or illnesses, and people who are unable to find work. Government policies also generally aim to reduce some of the gap between higher and lower income earners through redistribution policies – such as higher tax rates for high income earners, and social security payments for lower income earners, especially those with families to look after. To address the problem of poverty or social disadvantage often passing from one generation to the next, government policies also aim to improve opportunities for younger Australians who grow up in disadvantaged areas or have limited educational opportunities. Specific policies such

as these are often needed to address specific areas of inequality, alongside macroeconomic policies to increase economic growth, keep inflation low and reduce unemployment.

Environmental sustainability

In the process of achieving a society's economic objectives, economic activity may create side effects such as pollution and the depletion of natural resources. In order to address these problems, governments may sometimes establish specific environmental objectives, such as a reduction in greenhouse gas emissions, an improvement in energy efficiency, a reduction in the use of old growth forests for the timber industry, or a limit on development in certain areas.

Environmental objectives are part of the government's overall framework of economic management, and a substantial amount of money is spent by Commonwealth and State governments on environmental programs. Traditionally, governments have been willing to trade-off some longer term environmental objectives in favour of the benefits of increased economic activity in the short term. However, with growing recognition of the serious impacts of economic activity on climate change, **ecologically sustainable development** has become an increasingly important economic objective.

Ecologically sustainable development involves conserving and enhancing the community's resources so that ecological processes and quality of life are maintained.

review questions

- 1 Describe the Government's economic objectives of internal stability and economic growth.
- 2 Discuss how effective you believe the Australian Government has been in achieving external stability in recent years. Has this goal conflicted with other economic objectives?

13.3 The goals of government policy in 2019

Although the broad objectives of economic policy remain largely the same from one year to the next, over time some objectives become higher priorities while other goals become less important. Changing economic conditions can especially influence which goals receive the highest priority at different times. This section examines the goals of current economic policy.

Maintaining sustainable economic growth

With the global economy continuing to experience below-trend growth, maintaining a steady rate of economic growth in Australia remains the key priority for economic policy. The sustainable rate of growth is estimated to be 3–3.25 per cent of GDP. The challenge for economic policy in Australia is to generate new sources of economic activity at a time when the strongest driver of growth in the past decade, investment in the mining sector has more recently been in decline. The 2018–19 Budget forecast growth rising to 3 per cent in 2018–19 and 2019–20, with mildly contractionary fiscal policy offset by expansionary monetary policy. The main sources of growth in the medium-term are likely to be business services, household consumption, housing and investment in non-mining sectors.

The 2018–19 Budget included a range of measures to support economic growth in the short- to medium-term, including a significant reduction in personal income tax, lower taxes for small- and medium-sized enterprises, and increased infrastructure spending such as the new Western Sydney airport, further developing the Snowy Hydro, and more road upgrades. These measures add to growth in the short-run by increasing public expenditure and in the long-run they should improve the productive capacity of the economy.

Supporting a sustained reduction in unemployment

In aiming for a lower level of unemployment, the main objective for governments is to reduce unemployment to the lowest level that is sustainable with low inflation (the NAIRU), chiefly by reducing cyclical unemployment. Unemployment has recently been relatively close to the NAIRU, so the focus of labour market policies has broadened to two other objectives.

- First, making structural changes that reduce the level of the NAIRU, such as by transitioning young parents off welfare into work by providing childcare and training. The 2018–19 Budget expanded the Universal Access to Early Childhood Education program by announcing \$428 million investment, which will benefit approximately 348,000 children and allow more women to return to work.
- Second, by addressing specific aspects of the unemployment problem, some of which is not captured in the official measure of unemployment – such as improving the job-readiness of young people who are only marginally attached to the labour market, or helping underemployed people to find more work.

Reducing the budget deficit and maintaining investor confidence

The Government's objective of returning the budget to surplus is designed to improve the sustainability of Commonwealth finances and maintain international investors' confidence in the Australia economy. By constraining the growth of government spending and allowing tax revenues to rise, the Budget deficit can be reduced so that the government is not detracting from Australia's national savings. The Morrison Government's 2018–19 Budget involves measures to restrain spending but with an expectation of only small surpluses in future years. The 2018–19 Budget forecast a small surplus of \$2.2 billion in 2019–20.

Increased national savings would reduce Australia's reliance on overseas sources to fund domestic investment, and strengthen the economy's resilience in the event of global economic instability. Australia's comparatively low level of net public debt continues to underscore investor confidence in the economy. However the Government has argued that current levels of growth in debt are not sustainable if they persist into the long run.

Keeping inflation stable, within the range of 2–3 per cent

The Government and the Reserve Bank are formally committed to keeping inflation within the target range of an average 2–3 per cent over the course of the economic cycle. Since the introduction of this formal target band in 1993, inflation has averaged 2.5 per cent and has been below the target range 24 per cent of the time, and above the target range 23 per cent of the time. Low inflation is a central priority because it helps reduce nominal interest rates, fosters investment, encourages a higher level of savings in the longer term, maintains international confidence and sustains economic growth. The goal of low inflation tends to take priority over other policy goals whenever inflation appears to be moving outside of the target range because economists generally believe that if inflation stays low, it is easier to achieve progress on other policy goals. The RBA forecast in 2018 that inflation will remain around the lower end of the target range for the next few years. This influenced its decision to keep the cash rate at a record low in 2018.

Increasing productivity and the sustainable rate of growth in the longer term

A major focus of the policy mix over the past three decades has been to implement structural changes that will allow Australia to afford a higher rate of economic growth in the long run. This required removing some of the constraints on economic growth such as low productivity growth, low workforce participation levels amongst some groups of the population, and capacity constraints from inadequate infrastructure. The purpose of lifting productivity growth is to maximise the sustainable rate of economic growth, an objective that has become more important as population ageing reduces labour force participation and threatens to reduce the Australian economy's sustainable rate of economic

growth. The Government has committed to lifting productivity growth by promoting competition in key sectors of the economy, replacing state-based economic regulations with national standards, reforming the delivery of government services, and increasing investment in infrastructure.

Improving distribution of income and wealth

Improving the distribution of income and wealth has been a long-term objective of policy which influenced several policy changes in the past decade, including education funding reforms (to assist disadvantaged schools), childcare reform (to improve access for lower income earners) and welfare changes (such as increases in the age pension). The National Disability Insurance Scheme is also intended to assist low income earners by establishing a national system across Australia for people with significant and permanent disability, reducing the out-of-pocket expenses. In recent years, debates about inequality have featured prominently in public debate. For example, the 2018-19 Budget's tax reductions were criticised by the Opposition and welfare groups for providing much larger tax reductions for higher income earners, while the Government defended its plan on the basis low and middle income earners would benefit the most from the first stage of the seven year plan. Concerns about inequality have played a greater role in election campaigns and economic debate in recent years.

Promoting environmental sustainability

Promoting environmental sustainability has been an important long-term objective of government policy. In general, there is a growing awareness that long-term prosperity depends on addressing environmental challenges, especially climate change and preserving diverse marine ecosystems. However, when protecting the environment has involved trade-offs for economic growth or cost of living increases for households, environmental objectives are generally given secondary priority to the goal of maximising economic growth. For example, a dispute within the Turnbull Government over its proposed National Energy Guarantee policy in August 2018 sparked a leadership challenge that led to Scott Morrison becoming Prime Minister. The NEG policy had taken more than a year to develop and had widespread support as a compromise policy, but a small group of government backbenchers refused to support the proposed legislation, arguing that it should focus only on reducing energy prices and not on reducing carbon emissions. Prime Minister Morrison subsequently appointed a "minister for lower energy prices" to come up with a revised policy.

CHANGING GOVERNMENTS AND CHANGING PRIORITIES

The 2016 Federal Election showed how political parties emphasise different economic objectives when making policy promises. The Turnbull Coalition Government's campaign prioritised "Jobs and Growth", saying its policies to cut business taxes and support investment were best for the nation. Meanwhile, the Opposition campaigned on "Health, Jobs and Education", arguing that it would "stand up for middle and working class families", emphasising greater social equality. Even so, it is important to recognise that while there are often different policies, all major parties in Australia have a similar set of core economic objectives to support economic growth, reduce unemployment, maintain low inflation, and lift living standards in the long run.

review questions

- 1 Outline the long-term objectives of government policy.
- 2 Briefly outline how successful Australia has been in recent years in achieving each of the economic goals listed above.

13.4 Conflicts in government policy objectives

Governments face significant conflicts in seeking to achieve the goals of economic growth, low inflation, low unemployment, environmental sustainability and external balance simultaneously. In attempting to achieve one goal, the government may limit its ability of achieving another. There are two major conflicts between the government's economic objectives:

1. Achieving a simultaneous reduction in unemployment and inflation

It is often argued that the government faces a trade-off between lower unemployment and inflation in the short to medium-term. Stronger aggregate demand causes job growth and reduces unemployment, but is also likely to put upward pressure on prices. Weaker aggregate demand forces businesses to restrain price rises, but also tends to increase unemployment. The **Phillips curve**, shown in figure 13.1, shows this inverse relationship between inflation and unemployment, highlighting the trade-off that governments face when making policy decisions. However, this relationship is not necessarily strong all the time. A Reserve Bank

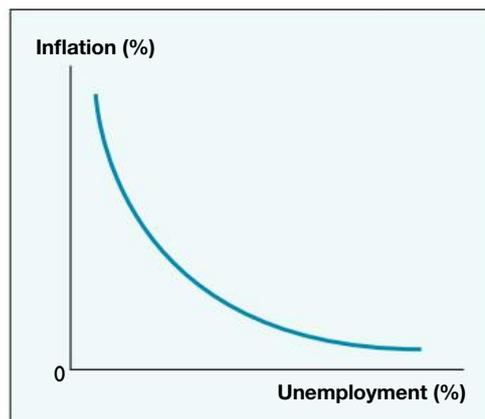


Figure 13.1 – The Phillips curve

research paper in 2015 concluded that inflation targeting had resulted in a “flatter” Phillips curve, in which lower unemployment now has a more mild impact on inflation. Credible inflation targeting can entrench inflation expectations and keep inflation relatively stable – even when unemployment changes. Since 1993, Australia has had a low inflation target of 2–3 per cent. By explicitly targeting a low rate, it can be said that low inflation has been given priority over lower unemployment.

2. Achieving economic growth and external balance

The government also faces the challenge of a conflict between economic growth and external balance. Strong economic growth often results in a deterioration in the current account on the balance of payments. Higher economic growth is usually associated with increased consumption and investment, which will cause the volume of imports to rise. This is known as the **balance of payments constraint**, which refers to the limitation on the rate of growth because of the impact of high growth on the current account deficit.

Other conflicts in objectives

The pursuit of economic growth can sometimes come at the cost of **environmental damage** and **greater inequality** in income distribution. A government that approves extensive mining projects or coal-fired power stations without regard to their environmental effects may achieve faster economic growth, but this could occur at a significant cost to the natural environment and could damage other industries such as tourism. Likewise, a government that attempts to reduce Australia's carbon emissions may impose costs on households and industries that slow down economic growth. Similarly, policies that encourage faster growth may have negative social effects, such as privatised companies sharply raising prices, or microeconomic policies leading to an increase in structural unemployment in the short run. This can worsen inequality. Environmental preservation and achieving a more equitable distribution of income and wealth are long-term challenges for government policy.

Appendix B: Advanced Economic Analysis at the back of this textbook looks at the Long Run Phillips Curve – a more sophisticated analysis of the relationship between unemployment and inflation.

The **balance of payments constraint** reflects the extent to which a high current account deficit limits the speed at which the economy can grow.

The government also experiences a range of other policy conflicts between **shorter-term** and **longer-term** objectives. The conflicts between short and long-term objectives result from the fact that the policies aimed at long-term goals often involve significant structural change and substantial costs in the shorter-term, such as an increased level of unemployment or additional costs to the government. Governments may often be more focused on short-term objectives because of political considerations such as avoiding unpopular policies, rather than long-term objectives that may not deliver benefits for some time.

review questions

- 1 Briefly outline which economic objectives can be achieved simultaneously, that is, where the Government does not face a conflict.
- 2 Describe TWO possible conflicts between the economic objectives of the government.
- 3 Using a diagram, explain the conflict between the government's internal stability objectives.

13.5 The economic policy mix

Governments have a variety of policy instruments that can be used to achieve their objectives. In a general sense, the instruments of economic policy are divided between macroeconomic and microeconomic policies.

- **Macroeconomic policies**, such as government budgets and changes in the level of interest rates, have an impact on the overall level of economic activity. These policies tend to influence the level of aggregate demand in the economy.
- **Microeconomic policies** involve specific measures to improve the operation of firms, industries and markets, by achieving change at the level of individual firms and industries. These policies tend to influence the aggregate supply of the economy – that is, improving productivity and efficiency so that the overall level of supply may be increased.

Governments normally use a combination of macro and micro policies in order to best achieve their economic objectives. This combination of policies is called the **economic policy mix**, a term which is intended to capture the overall impact of the range of macro and micro policy measures implemented.

Macroeconomic policy

The main role of macroeconomic policy is to manage the business cycle (changes in the level of economic activity). The level of economic activity is never constant. Economies are subject to the ups and downs of the business cycle, caused by changes in the level of aggregate supply and demand. This is shown in figure 13.2.

Government **macroeconomic management** is designed to minimise these fluctuations so that economies experience low rates of inflation and unemployment and relatively stable economic growth. Macroeconomic management can be defined as the use of government policies to influence the economy with the aims of reducing large fluctuations in the level of economic activity and achieving certain economic goals.

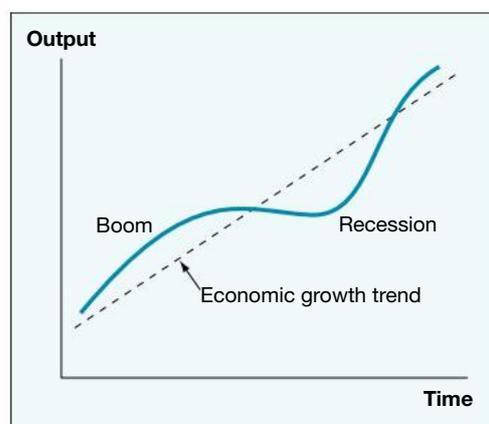


Figure 13.2 – The business cycle

Economic policy mix refers to the combination of macroeconomic (fiscal and monetary) and microeconomic policies used by the government to achieve its economic objectives.

Macroeconomic management refers to the use of government policies to influence the economy with the aims of reducing large fluctuations in the level of economic activity and achieving certain economic goals.

Government policies can help to **stabilise** the level of economic growth by smoothing the peaks and troughs of the economic cycle. This is why macroeconomic policies are also referred to as **counter-cyclical policies**. During periods of fast economic growth, it may be necessary to reduce the level of economic activity to avoid excessive inflation or a blowout in the current account deficit. Governments can increase the level of tax, reduce spending or raise interest rates in order to reduce the level of economic activity:

- Higher tax rates will reduce consumers' disposable income and reduce the level of spending and aggregate demand, also reducing pressures on inflation and the CAD.
- Reduced government spending will also lower the level of aggregate demand by lowering the level of aggregate expenditure in the economy.
- Higher interest rates make borrowing money less attractive and will discourage borrowing and spending by both consumers and businesses.

On the other hand, if the economy has experienced a sustained period of weak economic growth, a government may use macroeconomic policy to stimulate economic activity and raise the level of aggregate demand. This may be done through increased government spending, tax cuts and reductions in the level of interest rates.

One of the major lessons of Australia's economic performance over recent decades is that macroeconomic policy is not enough to achieve complex policy goals. Macroeconomic policy works effectively in either stimulating or dampening the economy in the short term, but it is much less effective in dealing with longer-term problems such as a lack of international competitiveness, low productivity growth, a low level of national savings or the need to reduce carbon emissions. However, macro and micro policies can be very effective when used together.

Microeconomic policy

Microeconomic policy refers to policies that are aimed at individual industries, seeking to increase aggregate supply by increasing the efficiency and productivity of producers.

Microeconomic policy is action taken by government to improve resource allocation between firms and industries, in order to maximise output from scarce resources. Microeconomic policies are central to the government's long-term aim of addressing potential constraints on growth such as the inflation and external imbalance.

Microeconomic policy over recent decades has reflected a change in the focus of economic management from influencing demand towards measures to influence supply. This economic strategy is known as **supply-side economics**. As governments have wrestled with the limited effectiveness of macroeconomic policies that mainly influenced the level of demand, they have turned to policies that focus on increasing the aggregate supply level by improving the competitiveness, productivity and efficiency of Australian industries, and raising workforce participation.

Microeconomic policy involves a range of specific policies varying from practices in individual government departments to policies for entire industries. The overall aim of microeconomic reforms is to **encourage the efficient operation of markets** and increase aggregate supply – by raising productivity, making the economy more adaptable to change and encouraging Australian producers to take on “world best” practices. The role of these policies is discussed in Chapter 16.

reviewquestions

- 1 Distinguish between the roles of macroeconomic and microeconomic policies in the Government's policy mix.
- 2 Discuss how macroeconomic policy responds to changes in the business cycle.

chapter summary

- 1 The main **objectives of economic management** are economic growth, low inflation, full employment, external balance, an equitable distribution of income and wealth, and environmental sustainability.
- 2 **Economic growth** involves an increase in the volume of goods and services produced in an economy over a given time period, measured by the rate of change in real GDP. Growth is generally considered to be the highest priority of economic management because of its relationship to improved living standards.
- 3 An economy is considered to be at **full employment** (or the non-accelerating inflation rate of unemployment) when cyclical unemployment is eliminated.
- 4 **Price stability** refers to keeping inflation, or the increase in the general price level, at a reasonable level. This is currently reflected in the Reserve Bank's target of an average of 2–3 per cent inflation over the course of the economic cycle.
- 5 **External stability** refers to a situation where Australia is meeting its financial obligations to the rest of the world and its external accounts – the size of its current account deficit (or surplus) and the size of its foreign liabilities do not hinder it from achieving other economic objectives. Australia has been less successful in sustaining external balance than in achieving other policy objectives.
- 6 With the Australian economy in a transition phase following the end of the mining investment boom and the continuing weakness of emerging economies around the world, the recent focus of policy has been supporting growth and employment in the short run and developing new sources to generate sustainable growth in the long run.
- 7 The main long-term aims of economic policy are to increase productivity growth to improve international competitiveness and the long-term sustainable growth rate of the economy, as well as increasing the overall level of national savings. Increasingly, environmental sustainability is also a long-term objective of policy.
- 8 **Conflicts** exist among the objectives of economic management, such as between keeping inflation low and achieving full employment, and between achieving faster economic growth and promoting environmental sustainability.
- 9 **Macroeconomic policies**, such as fiscal and monetary policies, attempt to reduce fluctuations in the business cycle by influencing the level of aggregate demand.
- 10 **Microeconomic policies** are aimed at promoting structural change by influencing the supply side of the economy. By improving productivity and workforce participation, microeconomic policies aim to raise Australia's sustainable rate of growth over time.

chapter review

- 1** Explain why economic growth plays a central role in a government's policy objectives.
- 2** Distinguish between internal balance and external balance.
- 3** Identify the key components of Australia's objective of external stability.
- 4** Identify how the Reserve Bank of Australia attempts to achieve price stability.
- 5** Explain why raising national savings is related to the aim of external stability.
- 6** Examine how the objectives of reducing inequality in the distribution of income and wealth and improving environmental sustainability objectives are related to the objective of increasing economic growth.
- 7** Discuss the current priorities of economic management.
- 8** Explain why the goals of low inflation and low unemployment are considered to be conflicting aims of economic management.
- 9** Distinguish between macroeconomic and microeconomic policy, with reference to the concepts of aggregate demand and aggregate supply.
- 10** Explain how the concept of sustainable economic growth represents a balance between the government's conflicting policy goals.

Fiscal Policy

14

- 14.1 The meaning of fiscal policy
- 14.2 Budget outcomes
- 14.3 Changes in budget outcomes
- 14.4 Methods of financing a deficit
- 14.5 The current stance of fiscal policy
- 14.6 The impact of recent fiscal policy

14.1 The meaning of fiscal policy

Fiscal policy is at the heart of the management of the economy. Although it generally plays a less important role than monetary policy in influencing economic growth, fiscal policy can influence the overall level of economic activity and have a targeted impact on specific sectors of the economy such as individual industries or parts of society.

Fiscal policy involves the use of the Commonwealth Government's Budget in order to achieve the government's economic objectives. By varying the amount of government spending and revenue, the government can alter the level of economic activity, which in turn will influence economic growth, inflation, unemployment and the external indicators in the economy.

Further, changes in government spending and revenue collection can also lead to a **reallocation of resources**, which changes the pattern of production in the economy, as well as **redistributing income** within the community.

The **Budget** is the annual statement from the Australian Government of its income and expenditure plans for the next financial year. It is normally released in May. The Budget includes all forms of **revenue** received by the Government, including both taxation and other revenue:

- direct tax (personal income tax and company tax)
- indirect tax (such as customs and excise duties and the Goods and Services Tax)
- other revenues (such as dividends from public trading enterprises).

The other side of the Budget is government expenditure. The major items of expenditure in the Budget are social welfare, health, education, general public services and defence.

In some years, governments make major policy changes in response to changing economic or political conditions. Although most policy changes are announced in the Budget, governments also usually make a series of smaller policy changes at other times. Governments attract more public attention (and therefore political advantages) when the spread out "good news" announcements such as new spending programs over a period of weeks or months before the Budget. On the other hand, "bad news" announcements such as tax increases or spending cuts will often be bunched together in the Budget.

Fiscal policy is a macroeconomic policy that can influence resource allocation, redistribute income and reduce the fluctuations of the business cycle. Its instruments include government spending and taxation and the budget outcome.

The Budget is the tool of the government for the exercise of fiscal policy. It shows the government's planned expenditure and revenue for the next financial year.

When governments make smaller changes to fiscal policy throughout the course of the year, the full costings of these decisions are set out afterwards, either in the next Budget, or in a statement released around December each year, known as the Mid-Year Economic and Fiscal Outlook statement (or MYEFO). This statement also provides updates to the Treasury's forecasts for the Budget and future economic conditions. Changes in economic conditions can significantly affect planned revenues and expenditures.

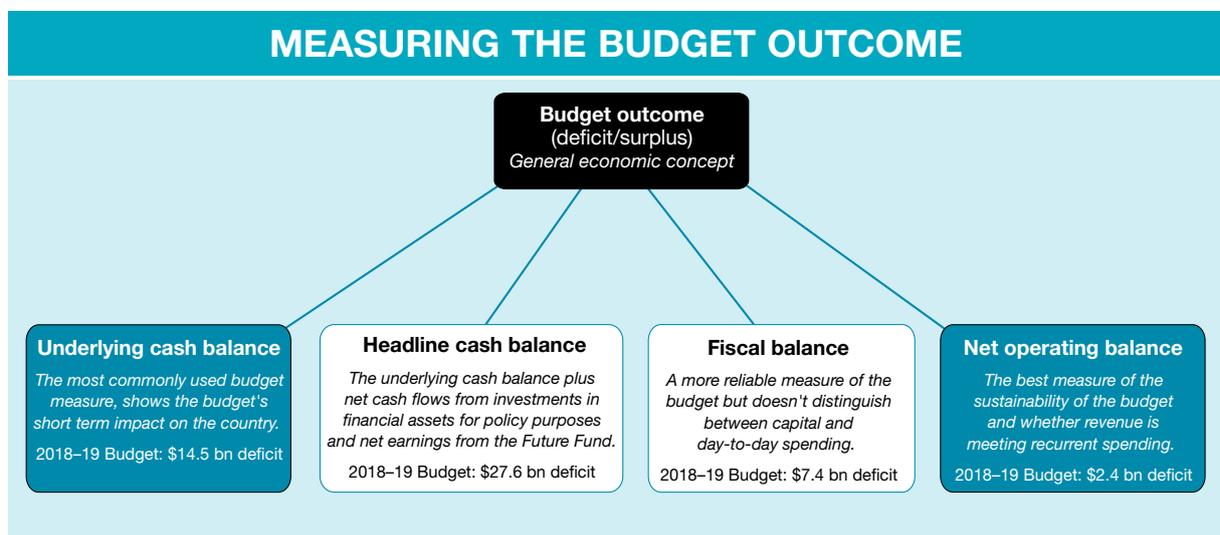
14.2 Budget outcomes

Besides the individual instruments of spending and revenue collection, the overall outcome of the Budget – known as the **budget outcome** – is itself an important feature of fiscal policy. The budget outcome gives an indication of the overall impact of fiscal policy on the economy.

There are three possible budget outcomes: a surplus, a deficit, or a balanced budget.

- **Budget surplus** – A positive balance that occurs when the Commonwealth Government anticipates that total government revenue (T) will exceed total expenditure (G) – that is, $T > G$.
- **Budget deficit** – A negative balance that occurs when total government expenditure exceeds total revenue – that is, $G > T$.
- **Balanced budget** – A zero balance that occurs when total government expenditure is equal to total revenue – that is, $G = T$.

The Government's main fiscal policy aim is to achieve budget surpluses, on average, over the course of the economic cycle. The Government's progress towards that goal is reflected in the four-year projections for budget outcomes that are provided in the Budget and other fiscal documents. In addition, since 2013–14 the Treasury has published a 10-year medium-term budget projection.



The Commonwealth Government's Budget includes four main measures of the budget outcome, which are the result of different accounting methods:

- The **underlying cash balance** (cash deficit or cash surplus) is the Treasury's preferred measure of the budget outcome because it gives the best indicator of the short to medium term impact of fiscal policy on the level of economic activity and the budget's call on cash resources from other sectors of the economy. It is calculated using the cash accounting method (which records revenues and expenditures when the money is collected or spent). However, it does not distinguish between the type of spending (for capital or recurrent purposes) and does not reflect international standards of accrual accounting.

Year	Revenue \$bn	Expenses \$bn	Underlying cash balance		Fiscal balance		Net operating balance	
			\$bn	% GDP	\$bn	% GDP	\$bn	% GDP
2000–01	183.0	177.1	5.9	0.8	6.0	0.9	6.0	0.9
2001–02	187.6	188.7	-1.1	-0.1	-2.9	-0.4	-2.6	-0.3
2002–03	204.6	197.2	7.4	0.9	5.4	0.7	5.7	0.7
2003–04	217.8	209.8	8.0	0.9	6.1	0.7	6.8	0.8
2004–05	236.0	222.4	13.6	1.5	12.2	1.3	13.3	1.4
2005–06	255.9	240.1	15.8	1.6	16.4	1.6	18.9	1.9
2006–07	272.6	253.3	17.2	1.6	16.8	1.5	19.1	1.8
2007–08	294.9	271.8	19.8	1.7	20.9	1.8	23.5	2.0
2008–09	292.6	316.0	-27.0	-2.1	-29.9	-2.4	-25.9	-2.1
2009–10	284.7	336.9	-54.5	-4.2	-53.9	-4.1	-47.4	-3.7
2010–11	302.0	346.1	-47.5	-3.4	-52.2	-3.7	-46.9	-3.3
2011–12	329.9	371.0	-43.4	-2.9	-44.7	-3.0	-39.9	-2.7
2012–13	351.1	367.2	-18.8	-1.2	-23.9	-1.6	-22.9	-1.5
2013–14	360.3	406.4	-48.5	-3.0	-44.2	-2.8	-40.3	-2.5
2014–15	378.3	412.1	-37.9	-2.3	-40.8	-2.5	-38.1	-2.3
2015–16	386.9	423.3	-39.6	-2.4	-37.5	-2.3	-33.6	-2.0
2016–17	409.9	439.4	-33.2	-1.9	-35.0	-2.0	-32.1	-1.8
2017–18*	445.1	459.9	-18.2	-1.0	-13.4	-0.7	-12.6	-0.7
2018–19*	473.7	484.6	-14.5	-0.8	-7.4	-0.4	-2.4	-0.1
2019–20*	503.7	497.5	2.2	0.1	3.7	0.2	8.6	0.4
2020–21^	525.5	514.5	11.0	0.5	12.9	0.6	19.6	0.9
2021–22^	554.0	537.3	16.6	0.8	19.4	0.9	27.4	1.3

Source: 2018–19 Budget Paper 1, Statement 11, Tables 1 and 6; *Estimate ^Projection

Figure 14.1 – Recent Commonwealth Budget outcomes

- The **headline cash balance** reflects the underlying cash balance plus the government's purchase or sale of assets and net Future Fund earnings. In the past, this calculation was significant because of the number of government assets that were being sold. In more recent years, governments have invested in new infrastructure such as the National Broadband Network by creating new financial assets and borrowing to pay for these assets. This directly adds to gross debt, but the transaction is not recorded in the budget.
- The **fiscal balance** (fiscal deficit or fiscal surplus) calculates revenue minus expenses less net capital investment, based on accrual accounting. Accrual accounting measures expenditures and revenues when they are incurred or earned, rather than when a cash transaction actually occurs. For example, if the government's superannuation obligations to public servants increased by \$5 billion in one year, this would increase a fiscal deficit by \$5 billion for that year, even though the money might not actually be paid out until many years later. This is regarded as more accurate than cash accounting. However, the fiscal balance does not distinguish between spending for capital or recurrent purposes.
- The **net operating balance** (operating deficit or operating surplus) is regarded as the best measure of the sustainability of the budget because it shows whether a government is meeting its recurrent (day-to-day) obligations from existing revenue.

The net operating balance distinguishes between spending for capital or recurrent purposes, and it removes spending on capital from the balance (that is, resulting in a smaller deficit or increased surplus), although it includes the cost of depreciation (the run-down in the value of existing assets). The rationale for separating the two types of expenses is that capital spending is different from other spending because it adds to productive capacity and to the government's assets. Like the fiscal balance, the net operating balance is based on accrual rather than cash accounting. Although the government has always reported it, net operating balance has been given more prominence since the 2017–18 Budget.

reviewquestions

- 1 Explain the difference between a budget surplus and a budget deficit.
- 2 What is the difference between an underlying cash surplus and a net operating surplus?
- 3 Identify two key trends in recent budget outcomes and discuss the relationship between these trends and economic conditions. (Hint: consider the changes in some of Australia's key economic indicators at the time.)

14.3 Changes in budget outcomes

Each year, the levels of government spending and revenue collection, and thus the budget outcome, change. This reflects the impact of two key factors: changing economic conditions (known as cyclical or non-discretionary changes) and changes in government policy (known as structural or discretionary factors).

- **Discretionary changes in fiscal policy.** Discretionary changes involve deliberate changes to fiscal policy, such as reduced spending or changing taxation rates. If the government deliberately increased expenditure in order to stimulate demand, this would be an example of discretionary fiscal policy. Discretionary changes influence the **structural** component of the budget outcome.
- **Non-discretionary changes in fiscal policy.** The final budget outcome can be influenced by factors other than planned (discretionary) changes to government revenue and expenditure. These non-discretionary changes are caused by **changes in the level of economic activity**. When an economy is in recession, the budget deficit will increase, whereas during a period of strong economic growth the deficit will contract or the budget will shift into surplus. Non-discretionary changes influence the **cyclical** component of the budget outcome.

Budgetary changes that are influenced by the level of economic growth are also known as **automatic stabilisers**. Automatic stabilisers can be defined as those changes in the level of government revenue and expenditure that occur as a result of changes in the level of economic activity. They are referred to as “automatic” because they are built into the Budget, and they are activated by a change in the level of economic activity, **not by a deliberate change in government policy** relating to either revenue or expenditure.

There are two main automatic stabilisers:

- **Unemployment benefits.** When the economy moves into recession, the level of economic activity falls, causing a rise in unemployment. An increase in unemployment leads to greater government expenditure on unemployment benefits. Thus, a decline in the level of economic activity automatically leads to an increase in government expenditure. On the other hand, an increase in the level of economic activity would have the opposite effect – causing a decrease in unemployment, and less government expenditure on unemployment benefits.

Automatic stabilisers are policy instruments in the government's budget that counterbalance economic activity. In a boom period, they decrease economic activity, and, in a recession, they increase economic activity. The most common examples are transfer payments and a progressive tax system.

- The **progressive income tax system**. Progressive income tax means that people on higher incomes pay proportionately more tax than those on lower incomes. During an economic boom, employment opportunities are increasing and incomes are rising. Rising incomes move workers into higher income tax brackets, and previously unemployed persons start paying income tax. Both situations lead to an increase in government taxation revenue. On the other hand, a decrease in the level of economic activity would lead to a decrease in taxation revenue.

Automatic stabilisers are built into the Budget with a **counter-cyclical role**. When economic growth is high, demand is automatically slowed through higher tax revenues and reduced government expenditure. On the other hand, when the economy moves into recession, it is given a boost by increased government expenditure through unemployment benefits.

Nevertheless, it is important to realise that automatic stabilisers, on their own, are rarely strong enough to counter the effects of the economic cycle. Automatic stabilisers are not powerful enough by themselves to bring an economy out of a severe recession, or to curb an economic boom – they merely reduce the severity of the problem. Governments still rely upon discretionary policy measures to smooth the economic cycle as the Rudd Government did with the substantial fiscal stimulus implemented in 2008–09 and 2009–10, when Australia last faced a major economic downturn.

Counter-cyclical policies are economic policies designed to smooth fluctuations in the business cycle. Macroeconomic policies such as fiscal policy and monetary policy are usually used as counter-cyclical policies.

Impact on economic activity

The most significant short-term impact of fiscal policy is how it affects economic activity. The **budget stance** (not to be confused with the budget outcome) refers to the impact of fiscal policy on economic growth and can be described as expansionary, contractionary or neutral:

- An **expansionary** stance is one where the government is planning to increase the level of economic activity in an economy. This can occur through either a reduction in taxation revenue and/or an increase in government expenditure, creating either a smaller surplus, or a larger deficit than in the previous year. Expansionary fiscal policy leads to a multiplied increase in consumption and investment and stimulates aggregate demand, which will increase the level of economic activity.
- A **contractionary** stance is one where the government is planning to decrease the level of economic activity in an economy. This can occur through either an increase in taxation revenue and/or a decrease in government expenditure, creating either a smaller deficit or a bigger surplus than in the previous year. Contractionary fiscal policy leads to a multiplied decrease in consumption and investment, dampening aggregate demand, which will decrease economic activity.
- A **neutral** fiscal policy stance occurs when the government plans to maintain the gap between revenue and spending at around the same level as the previous year. A neutral fiscal policy should have no effect on the overall level of economic activity.

Impact on resource use

Fiscal policy changes can influence the allocation of resources in the economy directly or indirectly. Fiscal policy may directly affect resource use through government spending in a particular area of the economy, such as transport infrastructure (for example, the Western Sydney Airport construction) to help boost tourism growth. The indirect influence of fiscal policy covers tax and spending decisions that make it more or less attractive for resources to be used in a particular way – for example, removing taxes from ethanol production might encourage farmers to use more of their wheat, sugar and other crops to produce ethanol.

A public good is an item that private firms are unwilling to provide as they are not able to restrict usage and benefits to those willing to pay for the good. Because of this, governments generally provide these goods.

Governments are more likely to use direct measures to provide goods or services if they expect that markets will not provide the resources quickly enough without government intervention. For example, in an emergency situation such as a natural disaster, governments will usually step in and direct relief operations so that emergency resources are made available to the victims of a disaster. Similarly, the government might pay directly to provide **public goods**, because it is unlikely that the private sector will produce such goods, and it is difficult to prevent anyone else from enjoying the benefit of those goods. Examples of public goods include lighthouses, street lighting, national defence and environmental protection agencies that enforce clean air standards.

Governments use specific taxing and spending policies that lead to changes in resource use that meet the government's objectives. For example, if the government wants to discourage the consumption of products without banning them, it might apply high tax rates, as it does with tobacco products (which generate the negative externality of increased health care costs through tobacco-related diseases). This helps to discourage tobacco consumption, which in the longer term may reduce the costs to the health care system.

Impact on income distribution

From year to year, changes in fiscal policy play the most important role of any government policy in influencing the distribution of income in the economy. Australia has a **progressive income tax system** designed to create a more equal distribution of income. People on higher incomes pay higher rates of income tax, allowing the government to use this money for transfer payments, community services and other types of social expenditure, which in particular assist people on lower incomes.

Changes to taxation arrangements can affect income distribution significantly. For example, a reduction in tax rates at the upper end of the income scale would make the tax system less progressive and may create a less equal distribution of income. Likewise, introducing tax concessions (that is, exemptions from tax for certain types of income such as earnings from superannuation) might affect the distribution of income without actually changing the tax rates. Similarly, if the government were to increase the rate of the Goods and Services Tax (a regressive tax), this would make the tax system less progressive and would result in lower-income earners paying a relatively higher proportion of their incomes in tax, increasing income inequality.

Budgetary changes involving government spending can also influence income distribution significantly. Increases in spending on community services such as health care and labour market programs, or increases in welfare payments such as the age pension, will tend to reduce income inequality because they have a greater proportional benefit for low-income earners. On the other hand, government spending cuts often increase income inequality because low-income earners tend to be more reliant on income support payments and government services than higher-income earners.

Impact on savings and the current account deficit

A long-term relationship exists between the budget outcome and the size of the current account deficit and foreign debt. There has been debate over the extent of this relationship for many years (see also Chapter 10.5). Over the long term, a budget deficit decreases national savings because governments finance budget deficits by borrowing from private sector savings. A budget deficit (or more accurately, an overall public sector deficit) is a form of **negative savings**, or **dissavings**, that will reduce the level of national savings, which is composed of public savings plus private savings.

With a depleted national savings pool, the competition for a limited amount of savings to finance domestic consumption and investment will make it more difficult to access funds and place upward pressure on interest rates, making private sector investment more expensive. This is known as the **crowding out effect**. In a closed economy, this will lead to a decrease in private investment. However, in an open economy such as Australia, the crowding out effect is less pronounced as private sector borrowers may simply turn to overseas sources of funds to finance domestic investment and consumption. This will show up as an inflow on the capital and financial account and will increase the size of Australia's foreign debt. Alternatively, if the government borrows from overseas, the inflow of funds will directly lead to an increase in Australia's foreign liabilities. This will raise the net primary income deficit as the higher level of foreign liabilities is serviced with higher interest repayments. Thus when the government consistently runs large fiscal deficits over several years, the current account deficit will tend to be higher. However, there is very little evidence of any short-term relationship between budget deficits and current account deficits.

Australia's current account deficit is mainly related to persistent imbalances between private savings and private investment, rather than public sector borrowing. Nevertheless, one of the reasons for the objective of sustaining fiscal balance is so that fiscal policy is not contributing to higher current account deficits in the longer term.

Appendix B: Advanced Economic Analysis at the back of this textbook looks at the relationship between the budget and the current account in more detail.

review questions

- 1 Explain the role of cyclical and structural factors in influencing the Budget outcome from year to year.
- 2 If the government wished to slow the pace of economic activity, explain what changes it would make to revenue and expenditure and the impact on the size of: a) a budget deficit b) a budget surplus.
- 3 Outline how fiscal policy might affect the distribution of income.

14.4 Methods of financing a deficit

In this section, we look at where and how the government obtains the extra money it needs when it budgets to spend more money than it receives, as well as what the government does with surplus funds when revenue exceeds expenditure.

When the government budgets for a deficit, it is planning to spend more than it receives in revenue over the current financial year. In short, this deficit is financed through **borrowing** from the domestic **private sector**, from **overseas investors** or from the **Reserve Bank** (by printing money, known as monetary financing). Alternatively, the government can also sell government assets. In recent times, when it has run a deficit, the Australian government has relied almost exclusively on borrowing from the domestic private sector.

Borrowing from the private sector

The main form of deficit financing is through borrowing from the private sector by selling Treasury Bonds domestically under a tender system. Under this system, the government sets the value of bonds to be sold (determined by the size of the deficit to be financed), and the prospective purchasers tender to buy a certain quantity at a particular rate of interest. The government then accepts the tenders, starting with those offering to buy at the lowest rate of interest, through to the highest, until all bonds are sold. The advantages of this system are twofold: the government can always be certain that it will fully finance its deficit, and the market will set the interest rate on these newly issued bonds.

Crowding out effect

occurs where government spending is financed through borrowing from the private sector, which puts upward pressure on interest rates and “crowds out” private sector investors who cannot borrow at the higher rates of interest.

Appendix B: Advanced Economic Analysis at the back of this textbook looks at the theory of “crowding out” in more detail.

However, it is also worth considering the effect of a deficit financed by domestic borrowing from the private sector on private sector spending, and in particular on private investment. The **crowding out effect** describes how a budget deficit will soak up funds in Australia’s domestic savings pool, putting upward pressure on interest rates and leading to a reduction in private sector spending and investment (as discussed in the previous section). The private sector is “crowded out” of the domestic market by government borrowing, since lenders will prefer to lend money to the government. Under these circumstances, the private sector would have less access to domestic savings and may be forced to borrow overseas instead.

The strength of the crowding out effect depends on economic conditions. If the government increases the fiscal deficit when the economy is in recession, it is less likely to crowd out the private sector, since investment spending would be low at this time. But if the government continued to run a deficit during periods of strong economic growth, when substantial private sector activity is already occurring, it would be more likely to lead to a significant crowding out effect. However, in an era of globalised financial markets, the crowding out effect is now much weaker since many of the financial institutions that buy bonds on domestic financial markets are from overseas. Overseas investors are attracted by Australia’s low risk profile (reflected in the Australian Government’s AAA credit rating) and the interest rate differential between Australia and other advanced economies. Between 2009 and 2012, foreign holdings of Australian government securities rose from 50 to 75 per cent. By 2017, the proportion of Australian government securities held by overseas investors had fallen to 55 per cent, as Australia’s interest rate differential fell and Australia’s securities became less attractive.

Other methods of financing a deficit

While Australian governments have relied on financing deficits mainly through borrowing from the private sector, other methods are also available. These include borrowing from overseas, borrowing from the Reserve Bank and selling assets.

Borrowing from overseas

Governments may borrow from overseas financial markets in order to minimise the crowding out effect, while still stimulating growth. In an era of global financial markets, it is less likely to be necessary to raise funds on overseas markets since old distinctions between domestic and overseas borrowing are now less relevant, as there are now many overseas institutions that participate in Australia’s domestic financial markets. However, if the budget was in deficit the government could, at any time, borrow directly on overseas markets and in overseas currencies should this become a less expensive option than domestic borrowing. When the government borrows from overseas it directly adds to Australia’s foreign debt, with interest repayments recorded as debits on the net primary income account of the balance of payments.

Borrowing from the Reserve Bank (monetary financing)

The Government may simply borrow from the Reserve Bank to finance the deficit – this is sometimes referred to as “monetary financing or monetising the deficit”. In effect, this amounts to the government printing money in order to finance its expenditures. Since 1982, with the deregulation of the financial sector, the government has not engaged in this kind of deficit financing. The government has avoided monetary financing to ensure that it does not increase the money supply and add to inflation. This also means that there is no longer any direct connection between the implementation of monetary policy and fiscal policy (that is, they now operate independently of one another). However, as we will discuss in Chapter 18, the policy settings of fiscal and monetary policy are indirectly related.

Selling assets

An alternative to funding a deficit by borrowing is to sell government assets. Selling assets, such as Commonwealth land or the Commonwealth's share in businesses such as Medibank Private or Australia Post, does not reduce the level of such underlying cash deficit or the net operating deficit because these are adjusted to reflect one-off transactions like asset sales. However, in cash terms from year to year a government can create a headline budget surplus by selling assets. For example, if the government raises \$10 billion through asset sales, it simply means that it needs to sell \$10 billion less in Treasury bonds to finance its deficit. However, the demand for funds from Australia's pool of domestic savings remains essentially the same. This is because the buyers of the government asset will either reduce their savings by \$10 billion, or borrow \$10 billion, instead of the government borrowing that money. The overall effect on the pool of domestic savings is the same, but the financing burden is simply shifted from the public sector to the private sector.

Using budget surpluses

The alternative outcome to a deficit is a surplus. When the government budgets for a surplus, it is planning to receive more revenue than it spends in the current financial year. The government can use the surplus in three ways:

- Depositing it with the Reserve Bank;
- Using it to pay off public sector debt; or
- Placing the money in a specially established, government-owned investment fund.

For several years during the late 1990s and early 2000s, the government used surplus funds to pay off public sector debt. This reduces the size of public debt and frees up funds on financial markets for other purposes. For example, the increase in funds available for private sector investment may lead to economic activity that offsets the contractionary effect of the fiscal surplus.

During the period of budget surpluses before the global financial crisis, governments began to establish dedicated investment funds to store surpluses for future use. The largest of these, the Future Fund, is intended to help cover the government's superannuation liabilities. Its assets were valued at \$141 billion in 2018.

Public sector borrowing and debt

Although changes in the budget outcome provide an important measure of the underlying stance of fiscal policy, they do not represent the full impact of the public sector on the economy. To get the full picture relating to the public sector's revenue raising and expenditure activities, we must also consider the activities of the rest of the public sector in Australia – the state and local levels of government, as well as public trading enterprises (also known as government business enterprises) such as Australia Post, Sydney Water and Sydney Trains.

The overall impact of the public sector on the economy is reflected in the **public sector underlying cash outcome**. The public sector cash deficit or surplus shows the borrowing needs or surplus funds from all levels of government, as well as government authorities and public trading enterprises. It gives the most comprehensive indication of the fiscal impact of the public sector on the Australian economy. Figure 14.2 shows the public sector cash outcome as a percentage of GDP. A negative outcome means that there is an overall public sector deficit.

Year	Gen Govt [^] underlying cash outcome (% GDP)	PTEs [^] underlying cash outcome (% GDP)	Public sector underlying cash outcome (% GDP)	Public sector net operating balance (% GDP)
2008	1.4	-1.0	0.6	2.8
2009	-2.8	-1.5	-4.0	-1.9
2010	-5.4	-1.0	-6.2	-3.2
2011	-4.2	-1.1	-5.0	-2.7
2012	-4.3	-0.8	-4.8	-2.5
2013	-2.7	-0.9	-3.4	-1.6
2014	-3.8	-0.6	-4.3	-2.2
2015	-2.5	-0.6	-2.9	-1.8
2016	-2.6	-0.9	-3.3	-1.3
2017	-2.2	-0.8	-2.8	-0.9
2018*	-2.0	-1.0	-2.8	-0.2
2019*	-1.9	-1.0	-3.0	0.3

[^]General Govt includes Commonwealth, State and local; PTEs refers to Public Trading Enterprises within all levels of government.
 * Estimate. Source: 2018–19 Budget Paper No. 3 Appendix C, Tables C1, C2, C3, C5, C6

Figure 14.2 – Public sector outcomes

The public sector cash outcome was in surplus from the late 1990s until 2008–09. The reversal of the Commonwealth Government’s Budget position from surpluses throughout the 2000s decade to a deficit in 2008–09 was the main cause of the public sector cash outcome moving into deficit. The net operating deficit shows that since 2008–09 the public sector’s revenue has not met its recurrent spending.

Over a period of time, running a public sector deficit results in an accumulation of **public sector debt**. Public sector debt consists of the accumulated debt of the government sector, which is owed both domestically and overseas. This includes debt accumulated by the Commonwealth Government, State and local governments and government-owned businesses. As figure 14.3 shows, public sector debt in Australia rose during the recession of the early 1990s before declining steadily during the long growth cycle that followed. This reflected lower budget deficits and the privatisation of government businesses by Commonwealth and State governments (such as Telstra). With budget deficits since 2008–09, net public sector debt has risen sharply, although as the Budget returns to surplus, net debt is expected to stabilise and then decline.

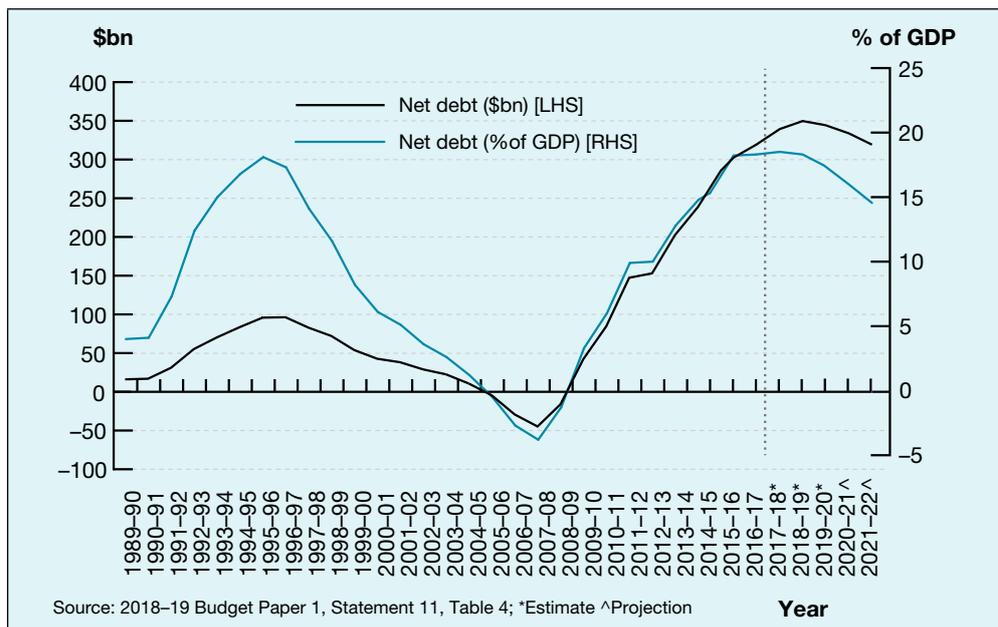


Figure 14.3 – Australia’s net public sector debt

It is important to distinguish the public sector debt from the foreign debt, which is the amount owed by both the public and private sectors to overseas lenders. Australia's foreign debt is much higher than our public debt, and it overwhelmingly consists of private sector borrowings. For most of the 2000s, general government debt was equal to around 5 per cent of net foreign debt, although in the 2010s it increased to around 20 per cent. When undertaking borrowings, governments generally source their borrowings from within Australia, although some of the participants in Australian financial markets are overseas-based institutions. By borrowing on domestic markets in Australian dollar securities, governments avoid being exposed to exchange rate movements that may increase their debt and interest servicing costs.

reviewquestions

- 1 Describe three ways in which a government might finance a budget deficit.
- 2 Explain the factors that could influence a government's decision about how to finance a budget deficit.
- 3 Outline which budget measure best reflects the overall impact of the public sector on the Australian economy.

14.5 The current stance of fiscal policy

Fiscal policy has played a changing role in the economic policy mix over the past decade. For a short period between 2008 and 2010, it was used aggressively to counter the impact of a global recession. However throughout the 2010s (as was the case before 2008) fiscal policy has played a smaller role in the policy mix, with governments focused on a medium-term goal of achieving fiscal balance over the course of the economic cycle. This has meant that since 2010 the stance of fiscal policy has been neutral or mildly contractionary as governments have sought to gradually reduce the budget deficit.

Between the mid-1990s and late 2000s, fiscal policy played a limited role in the economic policy mix. A long period of sustained economic growth and a boom in tax revenues from the mining boom during the mid-2000s, contributed to sustained budget surpluses and reductions in public debt. Rather than being used to achieve the macroeconomic goals of economic growth, unemployment, inflation and external stability, fiscal policy had a minimal role as public borrowing was reduced, and fiscal policy was used occasionally for specific policy changes in targeted areas of the economy. This low-key role for fiscal policy reflected what the Government considered to be its long-term purpose – playing a minor support role whilst monetary policy plays the major role in macroeconomic management.

In response to the global financial crisis in 2008, fiscal policy shifted towards an expansionary macroeconomic stance. The combination of discretionary stimulus spending and a cyclical fall in taxation revenue saw the fiscal balance deteriorate by \$75 billion, or 6 per cent of GDP in 2008–09 and 2009–10. This was a dramatic reversal from the mildly contractionary or neutral policy stances in budgets during the preceding years. After years of falling debt levels, public debt began to rise. The expansionary stance of fiscal policy was successful in averting a recession in Australia.

Since 2010–11 the stance of fiscal policy has been neutral or mildly contractionary, as Australia has made gradual progress on reducing the budget deficit. The 2018–19 Budget aimed to have a neutral effect on economic growth, with the underlying cash deficit almost unchanged from \$16.3 billion or 1.0 per cent of GDP in 2017–18 to \$18.5 billion or 0.8 per cent of GDP in 2018–19.

Governments generally follow a **fiscal strategy** that explains the guiding principles used to formulate Budget policy. Since the global financial crisis, successive governments have said that returning the budget to surplus is the priority for their fiscal strategy. The 2018–19 Budget identified as its fiscal strategy the goal of returning the budget to a surplus of 1 per cent of GDP. Besides some general objectives (restraining spending, giving priority to spending that increases productivity and workforce participation and reducing net debt), the 2018–19 Budget also continued a commitment not to allow tax receipts to rise above 23.9 per cent of GDP. Placing a “ceiling” on tax revenues as a percentage of GDP has been a regular feature of fiscal policy in Australia for several decades, and the most recent ceiling of 23.9 per cent is based on the average tax receipts that were collected between the introduction of the GST in 2000–01 and the onset of the global financial crisis in 2007–08.

Progress towards meeting the fiscal strategy of a surplus of 1 per cent of GDP was slow throughout the 2010s, and it is not expected to be achieved until 2026–27. The slow progress on balancing the budget reflects a combination of cyclical and structural factors. The cyclical influences on the Budget have reflected developments in the domestic and global economy in the past decade:

- The cyclical factors (resulting from the global recession) that drove the increase in the Budget deficit in 2008–09 and 2009–10 were very strong, as automatic stabilisers decreased Government revenue and increased Government expenditure. However, the positive cyclical influences that kicked in from 2010–11 were much weaker than in past periods of economic recovery. This reflected below-average levels of economic growth and a decline in the terms of trade after 2011. Economic growth was below its medium-term trend rate in the 2010s, resulting in lower company profits and taxation receipts.
- The labour market did not return to the strength it exhibited before the global financial crisis, and real wage growth was much slower than in the previous two decades. Unemployment also remained above its pre-crisis levels, even though it fell gradually. Together, these two factors meant that income tax receipts only recovered slowly compared to past periods of economic recovery, with stronger positive revenue effects only being felt from 2017–18.
- The global economy recovery in the 2010s was weaker than expected, and this meant that while external conditions were generally favourable for Australia, they were not as favourable as they had been in the 2000s. The terms of trade have nevertheless mostly exerted a positive impact on the fiscal balance, with higher than expected export prices helping to increase company profits and revenues. The significance of the terms of trade was highlighted in the 2018–19 Budget, with a Treasury calculation that if the price of Australia’s major exports (non-rural commodities) were to fall by 10 per cent, the resulting lower company profits and tax collection would increase the budget deficit by \$5.9 billion.

Structural factors – that is, discretionary government policy decisions – have also played an important role in the changing stance of fiscal policy during the past decade.

- The economic stimulus plan in 2008–09 and 2009–10 involved a \$77 billion package of expenditure to stimulate economic growth during a period of severe downturn, with most of this allocated to one-off infrastructure investments. These measures were estimated to have added 2 percentage points to economic growth in 2009–10.
- Since 2010–11, structural factors have helped to reduce the deficit as governments have sought to restrain expenditure in order to accelerate the return to fiscal balance. However, government spending has not decreased significantly since the global financial crisis. In 2018–19 government spending is expected to be around 25.4 per cent of GDP. This is only slightly lower than the 25.9 per cent of GDP recorded in 2009–10, during the height of the global financial crisis, and it reflects a range

of structural pressures that are requiring real spending increases, year after year, in several major areas of expenditure.

- Examples of these structural pressures include Australia's ageing population, which is increasing pressures on health, welfare and other services. Funding allocations for the the National Disability Insurance Scheme rose from \$8 billion in the 2017–18 Budget to an estimated \$21 billion for 2019–20. Defence spending priorities saw Australia's defence budget rise by \$13 billion in the five years to 2018–19 (to \$43 billion). The Government has also had difficulty getting support in the Senate for reductions in expenditure.
- A major reason for the slow recovery in tax revenues is that large structural reductions in personal income tax rates were made during the boom years of the 2000s, leaving Australia exposed after the revenue boom ended in 2008–09. The Abbott Government also repealed the carbon tax and the mining tax after it came to power in 2013. Further, measures to reduce personal income tax and company taxes announced in the 2017–18 and 2018–19 Budgets, once fully implemented, are expected to reduce revenue by \$24 billion and \$15 billion per year respectively.

“The Government's medium-term fiscal strategy is to achieve budget surpluses, on average, over the course of the economic cycle. The fiscal strategy underlines the commitment to budget discipline and outlines how the Government will set medium-term fiscal policy while allowing for flexibility in response to changing economic conditions ... The budget repair strategy is designed to deliver sustainable budget surpluses building to at least 1 per cent of GDP as soon as possible, consistent with the medium-term fiscal strategy.”

– 2018–19 Commonwealth Budget, Paper No.1, Statement 3

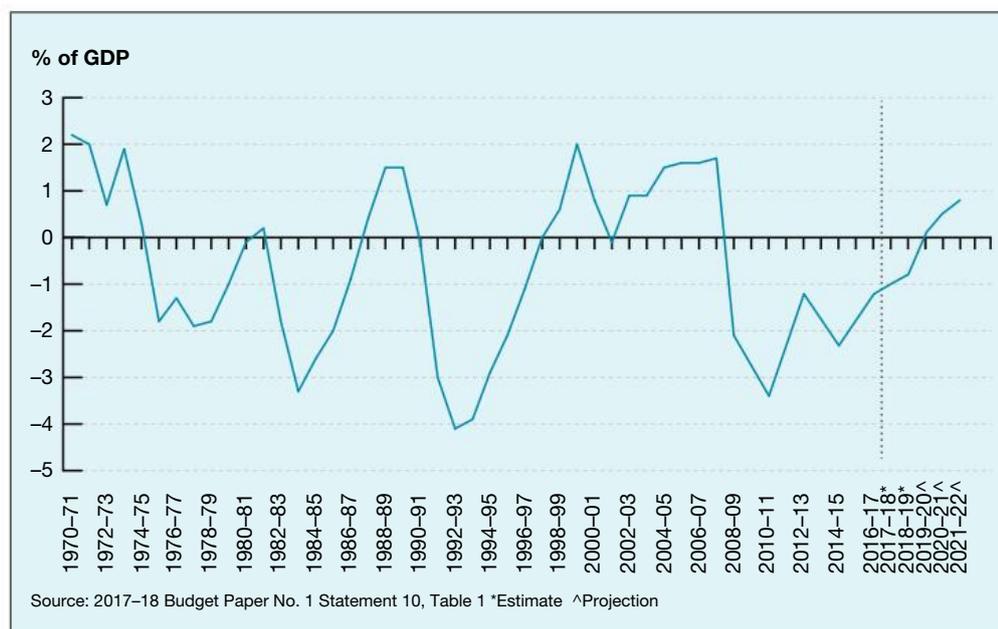


Figure 14.4 – Commonwealth underlying cash budget outcomes since 1970

review questions

- 1 Describe trends in Australia's budget outcome in recent years.
- 2 Evaluate the stance of fiscal policy in the current Federal Budget.
- 3 Explain the difficulties in reducing the Budget deficit in recent years.

14.6 The impact of recent fiscal policy

In the decade since it was used actively to prevent Australia going into recession in 2009, fiscal policy has been playing a smaller role in Australia's economic policy mix. It has not been playing a major role in influencing the business cycle from year to year. Instead, monetary policy has again been playing the central shorter-term role of influencing the level of economic activity and keeping inflation within its target range.

When evaluating the impacts of fiscal policy on the economy, it is also important to remember that Budgets play an important role in the Australian political cycle as well as in the economic cycle. Federal elections are held every three years in Australia. In most election years, the Budget plays an important role in highlighting the Government's priorities in the lead-up to the election. This means that the pre-election Budget sometimes brings larger increases in spending, or reductions in taxation, than in other years. The effect of political factors on fiscal and other economic policies is discussed in more detail in Chapter 18.

Economic growth

For many years, fiscal policy's most important impact was its influence on the level of economic growth. Keynesian economic theory, which dominated policy making between the 1940s and 1970s, argued that an expansionary budget involving increased spending or tax cuts would accelerate economic growth, while a contractionary budget involving reduced spending or higher taxes would reduce economic growth. Governments regularly adjusted fiscal policy to have a counter-cyclical impact on the level of economic growth.

In the early 1990s, the role of fiscal policy in influencing economic growth was reduced to an occasional role as counterbalance to the level of economic activity, as monetary policy became the main instrument in influencing growth. However, the threat of a severe recession during the global financial crisis saw fiscal policy again play a central role in managing the level of growth. A large fiscal stimulus saw spending increase by almost one-quarter in the 2008–09 and 2009–10 Budgets – the largest rate of spending increase since the mid-1970s.

The large fiscal stimulus of the 2008 and 2009 Budgets is generally regarded as one of the most successful examples of expansionary fiscal policy in recent economic history. The Government made an immediate injection into the economy through cash payments to households in December 2008 to help sustain household consumption, and then implemented a range of medium-term investments in infrastructure. Treasury estimated that the fiscal stimulus added 2 percentage points to economic growth in 2009, with the economy growing by 1.4 per cent rather than going into a recession and contracting by 0.7 per cent as it otherwise would have done. Australia achieved a higher rate of growth in 2009 than any other advanced economy, making it one of the most successful examples of expansionary fiscal policy in recent economic history.

Although fiscal policy may be effective in stimulating economic growth in the short to medium-term, its effectiveness may diminish if the accumulation of past budget deficits has created a large level of public debt. This is one of the arguments advanced for why Australia should not keep running a budget deficient indefinitely. The problem of sustained high deficits was seen in Europe after the global financial crisis in 2008. Many economies experienced a rapid escalation of their public debt levels, due to bank bailouts, stimulus packages and falling tax revenues as economies went into recession. The large increases in budget deficits in countries such as Greece, Iceland, Ireland, Portugal, Italy and Spain led to a crisis of confidence in the ability of their governments to service their soaring debt levels. Investors demanded higher interest rates on loans to those governments because of their concerns about the risk of those loans, which in turn undermined confidence in those economies and forced governments to take drastic steps to reduce their deficits by

cutting spending and increasing tax revenues. When an economy faces difficult conditions such as these, its prospects for economic growth over the medium-term might be improved through contractionary fiscal policy rather than expansionary fiscal policy, since a lower budget deficit might restore market confidence, lowering interest rates and encouraging greater private investment and economic growth. This situation represents a reversal of the crowding out effect.

The main goal of fiscal policy since 2010–11 has been to return the budget to surplus gradually, to sustain low interest rates and create greater scope for private investment and growth. This will help Australia sustain its low public debt levels relative to other economies (peaking at 19 per cent of GDP in 2017–18, around one-seventh of the average for advanced economies). Australia's budget priorities have also shifted towards supply-side policies such as boosting small business investment, increasing workforce participation and investing in infrastructure. Alongside gradually reducing the deficit, the Turnbull Government in its 2017–18 and 2018–19 Budgets announced two long-term plans to reduce taxation rates for businesses and individuals, as part of a commitment that taxation receipts should not rise above 23.9 per cent of GDP. The goal of reducing tax rates is to allow individuals to retain more of their income, and companies to retain more of their profits, in order to provide more incentive for work, investment, job creation and economic growth. The 2016–17 Budget contained a 10-year plan to reduce company tax from its general rate of 30 per cent to 25 per cent by 2026–27, beginning with a reduction from 2016–17 in the company tax rate for businesses with a turnover of less than \$10 million to 27.5 per cent. Treasury forecasts estimated that over a 10-year period, a reduction in company tax rate to 25 per cent could increase the level of GDP by 1 per cent (while increasing the Budget deficit around \$16 billion per year once fully implemented, according to an estimate from Deloitte Access Economics). Without these reforms to personal and company taxes, the Government argued that tax receipts would rise above the 23.9 per cent “speed limit”.

“We have imposed a speed limit on taxes in our Budgets that requires that taxes do not grow beyond 23.9 per cent of our economy...It's easy to keep spending more money if you think you can endlessly keep raising taxes...But this thinking forgets that if you tax your economy too heavily it begins to eat itself, like a snake eating itself from the tail...Our tax speed limit is not just a discipline to protect against uncontrolled spending, it's also an indicator of when tax relief is most urgent for the economy. It's a warning light.”

– Treasurer Scott Morrison, MP,
Address to Australian Business Economists, Sydney, 26 April 2018

In evaluating the impact of fiscal policy on economic growth, it is also important to take into account any impact that fiscal policy changes might have on monetary policy. Economists have differing views about the relationship between fiscal and monetary policies, but under an inflation-targeting regime changes in fiscal policy can clearly affect monetary policy decisions – and possibly reduce any impact that fiscal policy might have. To the extent that changes in fiscal policy impact on inflationary pressures, fiscal policy can affect the Reserve Bank's monetary policy decisions. The mildly contractionary stance of fiscal policy in recent years has created greater scope for the Reserve Bank to keep interest rates at very low levels. Expansionary fiscal policy settings during times of high inflationary pressures may force the Reserve Bank to tighten monetary policy more aggressively, and similarly a more contractionary fiscal policy can give more scope for reductions in interest rates.

Unemployment and workforce participation

The short-term impact of fiscal policy on unemployment is closely related to the impact of fiscal policy on economic growth. In stimulating aggregate demand, expansionary fiscal policy can help to reduce unemployment or, during an economic downturn, reduce the rate at which cyclical unemployment increases.

Specific Budget measures have been introduced in recent years to address some of Australia's longer-term labour market challenges – in particular, the challenge of an ageing population and the need to increase the participation rate and reduce structural unemployment. Many of these policies are aimed at boosting labour supply and reducing Australia's non-accelerating inflation rate of unemployment (NAIRU).

- The 2018–19 Budget introduced 'More Choices for a Longer Life', a package designed to assist older Australians. The package incorporated a number of measures involving jobs and skills initiatives to allow Australians to remain in the workforce for longer.
- The 2017–18 Budget announced that employers who bring overseas workers into Australia on temporary work visas would be required to pay a levy to a new "Skilling Australians Fund" to fund skills training and apprenticeships for Australians. Over four years an estimated \$1.5 billion will be provided to State and Territory governments to support up to 300,000 apprentices and trainees. The funding will give priority to emerging industries and regional areas.
- The 2017–18 Budget provided \$37.3 billion in funding for the 'Jobs for Families' childcare package. The centrepiece of the package was a simplification of the childcare subsidy by removing annual limits on families of incomes up to \$187,000 and introducing hourly rate caps. The government hopes that this package will put downward pressure on childcare costs, allowing more parents to return to work.
- The 2016–17 Budget introduced a Youth Employment Package that aims to assist 120,000 unemployed young people. Its centrepiece is a \$752-million Youth Jobs PaTH (Prepare, Trial and Hire) program, which aims to reduce youth unemployment by combining training obligations with monetary incentives for employers.

Resource use

Governments use expenditure and revenue measures to influence resource allocation less actively than in the past. In recent decades, governments have sought to give market forces rather than government policy the main influence in the way that resources are used across the economy. Direct subsidies to industries have declined to less than \$4 billion per year. In 2013 the Abbott Government decided not to step in to prevent the closure of Australia's automotive manufacturing sector, and in the 2014–15 Budget the government announced an end to subsidies for locally produced ethanol fuel.

With the shift away from governments directly influencing resource allocation, the factors that shape market forces – such as changing consumer preferences, changing business practices, new technologies and the forces of globalisation – generally have the greatest influence on resource use. There has been a decline in governments' direct provision of economic services such as road, rail and aviation transport, banking and electricity supply as key public trading enterprises have been privatised and "user pays" systems have been introduced. Nevertheless, some areas of government expenditure still have a significant effect on resource allocation. For example, the 2016–17 Budget included a \$30 billion increase in defence spending over 10 years, in part to pay for a new submarine building program based in Adelaide. The 2018–19 Budget contained a plan for \$75 billion in transport infrastructure investment over the 10 years from 2017–18, including the construction of the Western Sydney Airport, an inland rail between Melbourne and Brisbane and a rail link from Tullamarine Airport to Melbourne's CBD.

Besides temporary influences on resource use, governments still have a significant influence on resource allocation through ongoing policy settings, especially through regulations, tax concessions and exemptions. An example of regulation that influences resource use is the Renewable Energy Target that aims to ensure that around 23 per cent of energy generation

comes from renewable sources (through a system of renewable energy certificates). An example of a tax concession that influences resource use is the Government's tax concession for the cost of fuel for the farming and mining sectors that costs around \$7.5 billion every year. Another is the Private Health Insurance rebate. Since 1999 Australia has provided this rebate for buying private health insurance that costs the Budget around \$6 billion per year.

National savings and the current account deficit

Fiscal policy can influence an economy's level of national savings, either by increasing savings (through surpluses) or detracting from savings (through deficits). Rather than using the Budget directly to address Australia's large current account deficit, the Government is pursuing a goal of budget surpluses over the medium term so that the Government is not directly adding to Australia's savings imbalance. Over time, this should help contribute to reducing Australia's external imbalance.

The extent to which a budget deficit leads to a current account deficit (a relationship sometimes known as the "twin deficits" hypothesis) has been a matter of economic debate in Australia since the 1980s. In reality, the relationship between the budget outcome and the current account deficit is influenced by many other factors. As figure 14.5 shows, there is no obvious linkage between Australia's budget outcome and the current account deficit. In some periods, such as the mid-2000s, the current account deficit may increase even when Australia is recording sustained budget surpluses. This reflects that, although budget surpluses may have been contributing to higher national savings during this time, increased private investment was having a much larger effect of increasing Australia's savings and investment gap, in turn contributing to a larger current account deficit. Nevertheless, the specific impact of the policy of balanced or surplus budgets pursued by the Government should be a higher level of public savings and a higher level of national savings. In the longer term this should result in the current account deficit being lower than it would be if the Government were running budget deficits throughout the economic cycle.

Appendix B4:

Advanced Economic Analysis at the back of this textbook explains the twin deficits hypothesis.

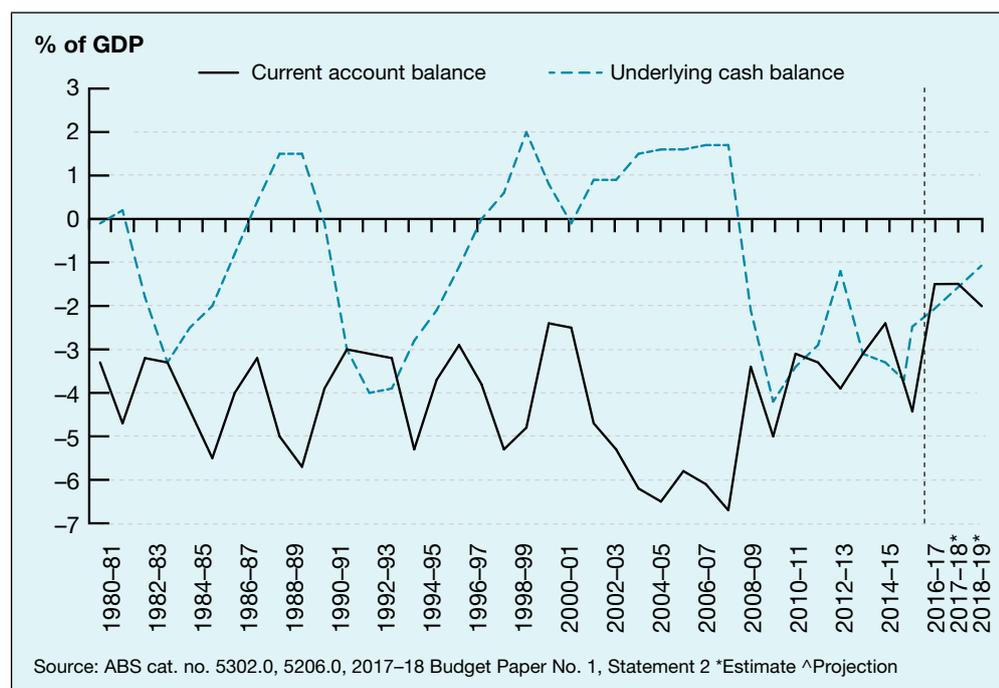


Figure 14.5 – The budget outcome and the current account deficit since 1980

Even during periods of budget deficit, the government can create assets and funds to increase the level of net national savings. In 2006, the Government used a surplus to create the Future Fund, in order to help pay for the Government's superannuation liabilities. The Fund was started with an initial outlay of \$61 billion in 2006. By 2018, it was worth \$141 billion.

Distribution of income

Fiscal policy decisions have significant impacts on the distribution of income, and the distributional effects of policy changes are often a major feature of debates about budget policies. The Budget can impact income distribution through specific tax and revenue measures, as well as through its broader impact on economic conditions.

Concerns about the distributional impact of proposed budget spending cuts have resulted in many of those measures being rejected in the Australian Senate. In 2017, after trying for three years to pass a series of spending cuts worth \$13.5 billion over four years, the Government abandoned those planned changes. Critics had argued that the measures would have had an unfair impact on the distribution of income, requiring low income to shoulder too much of the burden of reducing the deficit. The planned policies included the introduction of a \$7 co-payment for visits to the doctor and delaying unemployment benefits for six months for those looking for work.

More recently, budgets have contained fewer proposed spending cuts that could negatively impact lower income earners, with some measures aiming to reduce entitlements for higher income earners instead. For example, the 2016–17 reduced superannuation tax concessions for higher income earners, and the 2015–16 Budget tightened the assets test for age pensioners, so that to be eligible for the pension, couples must not have assets (other than their home) worth more than \$823,000.

The 2018–19 Budget the Government contained changes to personal income taxation, beginning with tax reductions for lower income earners. However, the longer-term income tax reduction plan was criticised for favouring higher income earners once fully implemented.

Accelerating technological change and automation are resulting in structural changes in the labour market and the erosion of job security for many Australians. Governments are likely to need to use taxation and spending policies to address the impacts of these far-reaching changes if they are to avoid further increases in inequality and avoid large numbers of people being excluded from the gains of economic growth. Alongside the challenges of an ageing population and a fall in workforce participation, this is likely to result in ongoing tensions between the objectives of fiscal sustainability and a more equal distribution of income.

THE PERSONAL INCOME TAX PLAN (PITP)

A major feature of the 2018–19 Budget was the Personal Income Tax Plan (PITP) which involves three stages of reform to reduce taxation and address 'bracket creep' (where inflation sees tax-payers income go into higher tax bands over time). The three stages are:

1. A tax refund of \$530 for low and middle income earners in the years from 2018–19 to 2021–22.
2. Changes to income tax brackets:
 - From 1 July 2018, the 32.5 per cent tax bracket will increase to \$90,000 will increase to \$90,000.
 - From 2022–23, the 19 per cent tax bracket will increase to \$41,000.
 - From 2022–23, the 32.5 per cent tax bracket will increase to \$120,000.

3. The abolition of the second-highest income tax bracket from 2024–25, resulting in a reduction in the marginal tax rate for many middle to higher income earners from 37 per cent to 32.5 per cent.

Rate (%)	Tax thresholds for 2017–18 Income range (\$)	Stage 1: New tax thresholds from 2018–19 Income range (\$)	Stage 2: New tax thresholds from 2022–23 Income range (\$)	Stage 3: New tax thresholds from 2024–25 Income range (\$)
Tax free	0–18,200	0–18,200	0–18,200	0–18,200
19	18,201–37,000	18,201–37,000	18,201–41,000	18,201–41,000
32.5	37,001–87,000	37,001–90,000	41,000–120,000	41,000–200,000
37	87,001–180,000	90,001–180,000	120,001–180,000	–
45	>180,000	>180,000	>180,000	>200,000
Low and middle income tax offset	–	Up to 530	–	–

Supporters of the reform argued that the reduction in tax should lead to increased consumption and incentives to work, increasing economic activity. They made the case that at a time when wage growth has remained subdued, reductions in tax become more important in increasing disposable income:

“It is a welcome development that the Government’s proposed income tax plan will deliver a flatter income tax schedule...A so-called “progressive” income tax system has a number of drawbacks... By confiscating a greater share of income as income increases, “progressive” income taxes discourage upward economic mobility. “

– Daniel Wild, *Institute of Public Affairs*
Submission to Senate Economics and References Committee, May 2018

Some economists argued that the lower tax levels were making it harder for future governments to balance the budget, especially if there was a downturn. Other, critics of the plan argued the PITP will increase income inequality in Australia (due to the removal of the 37 per cent bracket). According to an analysis by the Australia Institute, 62 per cent of the benefit of reductions in tax go to Australia’s highest income earners, while just 7 per cent goes to the 30 per cent of Australians on the lowest wages.

“[T]he removal of the third rate ... is a permanent change to the personal income tax rate structure that will make the income tax less progressive. It undermines the fundamental principle of our progressive income tax which aims to tax on the basis of ability to pay.”

– Professor Miranda Stewart and Emily Milane,
Submission to Senate Economics and References Committee, 4 June 2018

reviewquestions

- 1 Outline the main impacts of fiscal policy in recent years.
- 2 Identify two ways in which the recent Budget might impact the level of economic growth.
- 3 With reference to recent economic examples in Australia, identify two ways in which a fiscal policy change might affect the distribution of income.

chapter summary

- 1 Fiscal policy** involves the use of the Commonwealth Government's Budget to achieve the government's objectives by influencing economic activity, resource allocation and income distribution.
- The main tools of fiscal policy are government **spending, revenue collection** and the **budget outcome**. These are usually changed once each year in the Commonwealth Government Budget, which is released in May.
- The budget outcome can be a surplus, deficit or balanced. The budget stance gives an indication of the overall impact of fiscal policy on the state of the economy and can be described as **expansionary, contractionary** or **neutral**.
- The two main measures of the budget outcome are the **net operating balance**, which is calculated as revenue minus expenses, with capital expenditure removed, and the **underlying cash outcome**, which is calculated through a different accounting method, known as cash accounting and which includes capital spending.
- The **net operating balance** is the best indicator of the sustainability of the fiscal strategy because it shows the gap between recurrent expenses and revenue (that is, it distinguishes between capital spending and day-to-day spending). The **underlying cash outcome** is the best indicator of the short-term impact of fiscal policy on the level of economic activity because it shows actual cash revenue and spending in a year.
- Spending, revenue and budget outcomes are affected by **discretionary** or **structural** factors, involving policy changes by the government, and **non-discretionary** or **cyclical** factors, which relate to the impact of changing economic conditions on the levels of spending and revenue collection.
- Unemployment benefits and progressive income tax are known as **automatic stabilisers** because they are a built-in counter-cyclical component of the Budget.
- A **budget deficit** is usually financed through borrowing from the private sector, which reduces national saving and may put upward pressure on interest rates. It can also be financed by borrowing from overseas or from the Reserve Bank (printing money), or by selling government assets.
- Historically, fiscal policy has played a major role in stimulating economic growth through increased spending and reduced taxation. This role has changed since the mid 1990s, and governments generally aim to sustain balanced or surplus budgets (except in years of economic downturns).
- During the 2010s, fiscal policy has been neutral or mildly contractionary as governments have gradually reduced the Budget deficit. Both cyclical and structural factors have made progress in reducing the budget deficit slower than expected.

chapter review

- 1** Explain what is meant by *fiscal policy*.
- 2** Distinguish between the possible budget outcomes of surplus, deficit and balance.
- 3** Describe the major instruments of fiscal policy.
- 4** Distinguish between the underlying cash balance and the net operating balance. Explain what each indicates about the budget stance.
- 5** Explain how automatic stabilisers play a counter-cyclical role in the budget.
- 6** Outline how fiscal policy impacts on the following:
 - (a) economic growth
 - (b) resource use
 - (c) income distribution
- 7** Explain how the government can finance a budget deficit.
- 8** Distinguish between public debt and foreign debt.
- 9** Discuss the impact of recent changes in fiscal policy on the Australian economy.
- 10** Account for the persistence of budget deficits during the past decade.

15

Monetary Policy

- 15.1 Introduction
- 15.2 The objectives of monetary policy
- 15.3 The implementation of monetary policy
- 15.4 The impact of changes in interest rates
- 15.5 The current stance of monetary policy

15.1 Introduction

Monetary policy involves action by the Reserve Bank, on behalf of the government, to influence the cost and availability of credit in the economy. Monetary policy is a macroeconomic policy that may be used to smooth the effects of fluctuations in the business cycle and influence the level of economic activity, employment and prices.

Phillip Lowe was appointed Governor of the Reserve Bank of Australia in 2016, having worked there for all but two years since 1980. As Chairman of the Reserve Bank Board, which decides monetary policy settings, the RBA Governor is considered the most powerful person influencing economic conditions in Australia in the short to medium term.

Monetary policy in Australia is conducted by the **Reserve Bank of Australia (RBA)** without the direct control of the government. The RBA is Australia's central bank. As the primary monetary authority in the country, the RBA is the only organisation in the economy that is allowed to print banknotes. This gives the RBA some degree of control over the supply of money in the economy and gives it a special relationship with the financial sector. Control over the supply of money played an important role in the government's management of the economy during the 1970s and 1980s. This gradually gave way to the inflation targeting regime that underpins monetary policy in Australia today.

The main instrument of monetary policy is **domestic market operations (DMO)**, which influence the level of interest rates in the economy. A detailed explanation of how DMO work is covered later in this chapter. The Reserve Bank does not regulate the level of interest rates directly, but its actions influence market interest rates, helping it to achieve its objectives relating to the level of economic activity, inflation and unemployment.

Domestic market operations are actions by the Reserve Bank in the short-term money market to buy and sell second hand Commonwealth Government Securities in order to influence the cash rate and the general level of interest rates.

In the short term, a tightening of monetary policy through upward pressure on interest rates will slow down economic activity. Higher interest rates will cause a reduction in consumer spending, as consumers face higher costs for mortgages and consumer loans. Businesses also usually need to borrow money in order to purchase new capital equipment. Higher interests cause further reductions in consumer spending and business investment by increasing the servicing costs (interest repayments) that individuals and firms pay for their pre-existing loans. Higher interest rates will make borrowing more expensive so business investment will also decline. The overall effect will be a fall in aggregate demand and lower economic activity.

To boost aggregate demand and the level of economic activity, the Reserve Bank would need to loosen monetary policy by reducing interest rates, which increases both consumer spending and business investment in the economy.

15.2 The objectives of monetary policy

Monetary policy is the primary macroeconomic policy used to manage the level of economic growth. The Reserve Bank's policy stance can be described as **expansionary** or **contractionary**, reflecting its desired impact on economic growth.

If the RBA wished to boost economic activity, it could do so by **loosening** monetary policy (reducing interest rates). Lower interest rates would boost consumer and investment spending, resulting in a higher level of economic activity and a reduction in unemployment. However, if growth rises too fast, inflationary pressures will also increase, putting at risk the low inflation objective, which is not consistent with one of the government's long-term aims.

On the other hand, a **tightening** of monetary policy (increasing interest rates) would tend to reduce inflation, but slow down the rate of economic growth and increase unemployment.

Because of this tension between policy objectives, it is not always possible for the RBA to pursue all the goals of economic policy at once, at least in the short term. Instead, the government needs to identify its priorities and provide direction to the Reserve Bank as to which objectives are most important in the conduct of monetary policy.

The objectives of monetary policy are laid out formally in the *Reserve Bank Act 1959*, which states that in its implementation of monetary policy the RBA should aim for:

- The stability of Australia's currency – which now means **maintaining low and stable inflation** and preserving the purchasing power of the Australian dollar.
- The maintenance of full employment in Australia – which in effect means **reducing the level of unemployment**.
- Promoting the economic prosperity and welfare of the people of Australia – which means encouraging a **sustained level of economic growth**.

At times, it can be difficult for the RBA to achieve these three objectives simultaneously. In recent decades, the RBA has focused primarily on the first objective – particularly, the maintenance of low and stable inflation – and the government has used other elements of its policy mix to achieve its other objectives.

Inflation targeting

Since the early 1990s, Australia has followed the example of several other countries, including Canada and New Zealand, where the central bank sets a target range for inflation and then operates independently of the government in determining the interest rate movements necessary to keep inflation in this range. This reflects several important aspects of monetary policy:

- Monetary policy is particularly suited to fighting inflation, which is often related to monetary factors.
- When assigned a number of simultaneous goals in the past, monetary policy was often unsuccessful in achieving them simultaneously.
- Interest rate movements can be distorted by political pressures, particularly at times of elections, when politicians have the incentive to keep interest rates low even if the economy is at the peak of the business cycle. Giving independence to a central bank in its conduct of monetary policy helps to minimise such damaging political factors from distorting interest rate decisions.
- Countries where the central banks were given the responsibility of targeting inflation have achieved low inflation without necessarily incurring the cost of increasing unemployment.

In some countries, including New Zealand and Canada, the central banks are responsible for achieving a specified inflation target without needing to pay attention to any other policy objectives. In other countries, such as the US, the central bank conducts monetary

policy with the priority of sustaining low inflation, but does not have a formal target range and still has other economic goals such as growth and employment.

In adopting an inflation targeting framework in the early 1990s, the RBA hoped to sustain low inflation and avoid the higher interest rates (and higher unemployment) that may be necessary to reduce high rates of inflation. In addition, the RBA felt that adopting a credible inflation targeting regime would reduce the inflationary expectations of consumers and businesses, which can in themselves contribute to ongoing inflation. In the 25 years since the introduction of inflation targeting, Australia has largely managed to achieve its economic management objectives.

“...when we look back over the past 25 years: the inflation target has been achieved; real growth has been robust; average unemployment has declined through time; and nominal and real variability has been lower. So, I think it is reasonable to argue that the inflation-targeting framework in Australia does seem to have played some part in contributing to [its] improved outcomes.”

– Guy Debelle, RBA Deputy Governor,
“25 Years of Inflation Targeting in Australia”, 12 April 2018.

The RBA’s inflation target has been supported by both Labor and Coalition Governments. The objective was mostly recently set out in a revised Statement on the Conduct of Monetary Policy released after the Turnbull Government won office at the 2016 election:

“In pursuing the goal of medium-term price stability, both the Reserve Bank and the Government agree on the objective of **keeping consumer price inflation between 2 and 3 per cent, on average, over time**. This formulation allows for the natural short-run variation in inflation over the cycle and the medium-term focus provides the flexibility for the Reserve Bank to set its policy so as best to achieve its broad objectives, including financial stability. The 2–3 per cent medium-term goal provides a clearly identifiable performance benchmark over time.”

– *Statement on the Conduct of Monetary Policy, 19 September 2016.*

While this statement formalises the inflation target as a policy priority for the Reserve Bank, the original wording of the **Reserve Bank Charter** has not been changed. This means that the Reserve Bank continues to pursue its other two goals of reducing unemployment and promoting growth if its primary goal of price stability is achieved.

In his first speech as RBA Governor, Philip Lowe also endorsed the inflation target:

“...The medium-term inflation target is pursued as a way of achieving our broad goals as set out in legislation ... which was passed in 1959 ... our flexible medium-term target has served us well. The Reserve Bank can contribute to stability and confidence in the Australian economy by continuing to be guided by this framework, which has proved its worth for two decades now.”

– *Philip Lowe, RBA Governor, 18 October 2016.*

The RBA’s inflation target is a **flexible target**. Australia’s inflation targeting framework does not require that inflation must be kept between 2 and 3 per cent at all times and at all costs. It is recognised that inflation can emerge due to shocks and events outside of the Reserve Bank’s control and that such natural fluctuations should be accepted, so long as inflation is kept within the target on average over time. It is also recognised that other economic objectives should sometimes be prioritised temporarily over the inflation target in the short term. One example of this was when RBA targeted lower interest rates in the lead up to and during the 1997–98 Asian Financial Crisis to support economic growth - even though inflation was below 2 per cent at the time. The RBA also takes account of one-off factors such as the carbon tax, which was estimated to add 0.25 per cent to inflation in 2012–13 or the increase in fruit and vegetable prices following severe flooding and storms in 2011, which added around 0.4 per cent to inflation, and saw the headline inflation rate briefly rise above the Reserve Bank’s target band. At such times the RBA focuses more on its measures of underlying inflation pressures, discussed in chapter 9.2.

In making decisions about the future movements of interest rates, the Reserve Bank considers many indicators of the financial conditions and economic performance of the Australian economy, as well as its forecasts about these indicators in the near future.

The Board of the RBA is responsible for the direction of monetary policy. It considers how the economic and financial variables discussed in other parts of this textbook contribute to inflation not only in the short term, but also in the medium to long term.

- If wages growth is greater than labour productivity, it can add to inflation as businesses pass on increases in their real labour costs to consumers in the form of higher prices. While the Reserve Bank does not have a specific target or a desirable level for the exchange rate, a depreciation of the exchange rate adds to inflationary pressures through higher prices for consumer imports and imported inputs to the production process.
- While strong growth in economic activity and reductions in unemployment are in themselves positive, they can pose a significant threat to inflation if the economy is approaching its supply capacity. This is because growth in demand beyond full employment (or the non-accelerating inflation rate of unemployment) can only produce a rise in the general price level and not an increase in output and employment.

MAIN ECONOMIC INDICATORS TAKEN INTO ACCOUNT BY THE RBA

- The inflation rate
- Inflationary expectations
- Wages growth
- The rate of unemployment
- The rate of economic growth
- Interest rates
- The exchange rate
- Commodity prices
- Terms of trade
- Global economic growth

review questions

- 1 Outline the THREE broad objectives of monetary policy.
- 2 Define *inflation targeting* and discuss why it is used in Australia.
- 3 Briefly explain how the following events would impact on the RBA's decision-making process when it influences interest rates:
 - a) wage growth of 6 per cent
 - b) a sustained fall in business investment
 - c) a one-off spike in the value of the Australian dollar
 - d) predictions of a sharp increase in inflation in 15 months' time

15.3 The implementation of monetary policy

There are two possible instruments for implementing monetary policy:

- The RBA may control the growth in the **money supply** in the economy through its control over the money base (currency in the hands of the public and deposits of banks and other financial institutions with the RBA) – this form of monetary policy implementation is referred to as **monetary targeting**.
- The RBA may influence the general level of **interest rates** in the economy by setting the short run cash rate – sometimes referred to as rate-setting monetary policy.

Monetary targeting was used in Australia from the mid-1970s to the early 1980s at a time when the financial sector was closely regulated by the government and the RBA. However, this did not prove to be a successful way of implementing monetary policy. The monetary targets were regularly missed, and the money supply figures were distorted by the movement of funds from banks to other financial institutions that were not subject to RBA regulation and controls. Monetary targeting was abandoned in the mid-1980s, and now monetary policy in Australia (as in most other modern market economies) is implemented through an interest rate instrument.

In the current setting of a deregulated financial sector, the RBA does not directly control or regulate the market interest rates charged by banks to their customers. Instead the RBA attempts to set a short run interest rate, known as the cash rate, through its domestic market

Money supply is the total amount of funds in an economy that can be used as a medium of exchange, a measure of value, a store of value and a method of deferred payment. The Reserve Bank's measure of the money supply is M3.

operations, knowing that changes in the cash rate will then have an influence on the general level of market interest rates and yields in the financial sector.

“What history shows is that, if you have inflation pressure, you have to act against that with monetary policy, and the way central banks everywhere do that is by raising the rate of interest. It is true that it tightens up people’s budgets. That is the idea; that is how it works ... The idea is to constrain spending, relative to supply, and dampen the pressure on prices ... The system that does work—and this is shown all around the world—is that the central bank moves the short-term interest rate up and down and that affects the cost structure for borrowing, and that affects demand, and that affects inflation with the lag. That works. To my knowledge, nobody has found a system that works better, so that is the one that we stick with.”

– Reserve Bank Governor Glenn Stevens,
speaking to a parliamentary committee, 17 August 2007.

How domestic market operations work

Cash rate is the interest rate paid on overnight loans in the short-term money market.

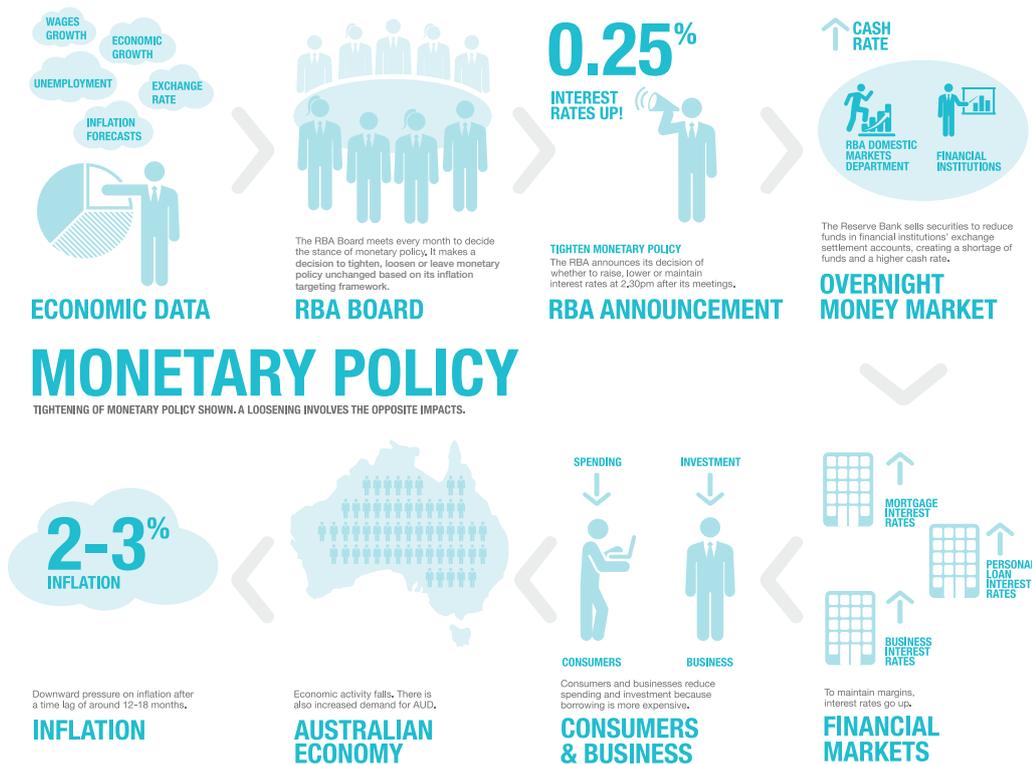
The Reserve Bank’s instrument of monetary policy is the **cash rate**, which is the interest rate in the **short-term money market** – the market for short-term loans between banks and other financial institutions. The cash rate is set by the forces of demand and supply, but the Reserve Bank can increase or decrease the supply of funds in the short-term money market through domestic market operations (DMO) and thus target the cash rate.

The Reserve Bank influences the cash rate by affecting balances and interest rates for the **Exchange Settlement (ES) accounts** that banks hold at the Reserve Bank. Banks need to hold a certain proportion of their funds with the Reserve Bank in ES accounts in order to settle payments with other banks and the Reserve Bank. For example, when a customer of the ANZ Bank uses a cheque to buy a good or service from a business that has a bank account at Westpac Bank, funds will flow from ANZ Bank’s ES account to Westpac Bank’s ES account. At the end of every trading day, these settlements between banks will cancel each other out (that is, – for every bank that gains funds, another will lose them), having no net impact on the supply of money. However, some banks will need to borrow in order to settle their daily transactions, while others will have surplus funds that they can lend to earn interest. This borrowing and lending takes place in the short-term overnight money market.

Even without RBA intervention, the total supply of money in the ES accounts fluctuates on a daily basis. Banks usually try to minimise the amount of money they store in ES accounts, but they will increase the size of their ES accounts if they expect to have a large net outflow of funds on any particular day. In addition, because the RBA is the Commonwealth Government’s bank, the collection of taxes and payment of social security benefits also affect the supply of funds in ES accounts. As with any other market, when the supply of funds held in the short-term money market is too high, the price of borrowing this money, the cash rate of interest, falls. On the other hand, when the supply of funds in the settlements market decreases, the cash rate will rise.

The RBA can exercise direct control over the supply of funds in the short-term money market through DMO. DMO is where the RBA buys or sells securities (such as second-hand **Commonwealth Government Securities**) to a financial institution. The transactions may either be outright purchases or sales of securities, or “repurchase agreements” for securities (also known as “repos”), where the seller agrees to buy the security back at a later date. This buying and selling in the money market has the effect of increasing or decreasing the supply of loanable funds in the banks’ ES accounts, and thus decreasing or increasing the cash rate.

When the RBA **buys securities** from a bank, it pays for them by depositing money in the seller’s ES account, adding to total ES balances. This increases the supply of settlement funds, which puts downward pressure on the cash rate. On the other hand, when the RBA **sells securities** to a bank, it withdraws money from the seller’s ES account, subtracting from total ES balances. This decreases the supply of settlement funds, which puts upward pressure on the overnight cash rate. In other words, by selling or buying government



securities, the RBA creates a shortage or surplus of funds in the short-term money market, thus affecting the cash rate of interest.

The RBA's involvement in DMO is not limited to changing interest rates. The demand of banks for ES funds changes on a daily basis. Consequently, the RBA constantly intervenes in the short-term money market to maintain the cash rate at its target level.

The RBA cash rate provides the foundation of the interest rate structure in the economy. An increase in the cash rate means that it becomes more expensive for financial institutions to obtain funds in the short-term money market. This increases the overall cost structure of borrowings, eventually flowing through to longer term and mortgage interest rates, as banks try to maintain their profit margins. Similarly, a reduction in the cash rate lowers the cost of borrowing for banks in the short-term money market, and competition between financial institutions causes them to pass this cost saving on to their customers in the form of lower lending interest rates. However other factors also influence the main interest rates in the economy (home loan rates, credit card rates, personal loans and commercial rates). These other factors include competition in the banking sector, regulations, conditions in global financial markets and risk assessments relating to economic conditions. While commercial interest rates move up and down with the RBA cash rate, the margin between the cash rate and those commercial rates can also change in response to these other factors.

The Reserve Bank can either **tighten** monetary policy, by raising interest rates, or **loosen** monetary policy, by lowering interest rates. The impacts of the Reserve Bank's domestic market operations are summarised in figure 15.1.

Monetary policy stance	Domestic market operations	Overnight money market	Cash rate	Market interest rate
Tightening	RBA sells government securities	Shortage of borrowable funds	Rises	Rise
Loosening	RBA buys government securities	Excess of borrowable funds	Falls	Fall

Figure 15.1 – The conduct of monetary policy

While announcements of changes in the cash rate are the most important statements by the RBA, other releases such as Board minutes and speeches by key RBA officials are also



Whenever the RBA changes the cash rate, the Reserve Bank Governor releases a statement to explain the RBA's decision, and the minutes from the meeting are released two weeks later. These documents, along with a range of other useful information, are available on the RBA's website: www.rba.gov.au

Using the RBA's statistics page, identify the most recent statistics for inflation, growth, unemployment and wages. Explain how these indicators justify the current level of interest rates in the Australian economy.

scrutinised closely by markets. Financial markets often interpret small changes in the RBA's description of economic conditions as a signal of future interest rate movements. Markets can “price in” a future interest rate increase or decrease even before it has happened, with banks sometimes changing key home loan rates in anticipation of a change in the cash rate.

reviewquestions

- 1 Explain how interest rates are determined in Australia with reference to *domestic market operations*, *exchange settlement accounts* and the *cash rate*.
- 2 Describe what action the RBA takes to tighten and loosen monetary policy.
- 3 Identify the impact of the following transactions on the supply of funds in the short-term money market and their impact on the cash rate.
 - a) The Reserve Bank buys Commonwealth Government Securities from a bank.
 - b) The Reserve Bank sells Commonwealth Government Securities to a financial institution.

15.4 The impact of changes in interest rates

The main effect of a change in the general level of interest rates is to change the demand for credit. Higher interest rates make borrowing more expensive, which is likely to deter borrowing, while lower interest rates will encourage it.

Economists sometimes describe the process through which monetary policy impacts upon the economy as the **transmission mechanism**:

Transmission mechanism explains how changes in the stance of monetary policy pass through the economy to influence economic objectives such as inflation and economic growth.

- Downward pressure on interest rates through DMO makes borrowing cheaper for both consumers and businesses. Consumers often need to borrow to make major purchases such as housing and consumer durables. Similarly, businesses borrow for the purposes of investment in capital, plant upgrades and expansions. In addition, the interest rate they can obtain by investing in financial assets represents an opportunity cost of investing funds in the business for business owners. Thus, a fall in the level of interest rates should **encourage borrowing by both businesses and consumers**, leading to rising consumption and investment demand in the economy, thus increasing the level of spending and raising the level of economic activity.
- Reduced interest rates also have an effect on businesses and consumers that already have loans since the cost of servicing existing loans becomes cheaper. This means that existing borrowers now need less money to service those loans, and this could lead to **additional spending**.

THE TRANSMISSION MECHANISM AND HOUSEHOLD CONSUMPTION

The monetary policy transmission mechanism is not always as straightforward as it appears to be. For example, changes in interest rates do not uniformly affect consumption across all households in exactly the same way. Lower interest rates boost consumption expenditure from indebted households (by reducing the amount of income required to service existing debt) as well as those wanting to fund more purchases by borrowing money. However, other households rely on interest payments from the money that they keep in bank accounts for income. With lower interest rates, these payments fall, which in turn can reduce consumption expenditure from such households. Research from the RBA in 2016 found that the positive effect of lower interest rates on “borrower” households more than offsets the negative consumption impact on “saver” households. Overall, economic activity increases because of higher consumption, but interest rate changes have different effects on households and their consumption behaviour.

- A fall in the level of interest rates also discourages financial inflow into Australia and, as discussed in chapter 5, leads to a **depreciation** of the currency. A depreciation of the Australian dollar makes Australian goods relatively more competitive in both domestic markets (since imports are more expensive) and overseas markets. This unintended consequence of a fall in the level of interest rates also has the effect of stimulating aggregate demand and economic activity, and adding to inflation.
- The **increase in aggregate demand**, which results from lower interest rates, will lead to either higher output and employment (if, for example, the economy was previously in recession) or will spill over into higher prices and wages if the economy is close to full employment.
- The rise in aggregate spending that results from a fall in the level of interest rates will lead to an increase in the **demand for money**, which will be accommodated by the Reserve Bank raising the supply of money (in equilibrium, the demand for and supply of money will be equal).

Thus, monetary policy can be either tightened or loosened depending on whether the government wishes to dampen or boost the level of economic activity.

A **tightening of monetary policy** would involve DMO putting upward pressure on interest rates, which would have the effect of dampening consumer and investment spending, resulting in a lower level of economic activity, with lower inflation and the possibility of higher unemployment.

On the other hand, a **loosening of monetary policy** would put downward pressure on interest rates, boosting consumer and investment spending, resulting in a higher level of economic activity, with falling unemployment, and often an increase in inflationary pressures.

While a change in monetary policy can be implemented almost immediately (that is, it does not require legislation or parliamentary approval) it can take considerably longer for that change to bring about the desired impact on economic growth, inflation and unemployment. Monetary policy can have a **time lag** of somewhere between 6 and 18 months before the full impact of interest rate changes are felt in the economy. This time lag can sometimes pose problems for policymakers. Economic circumstances can change during the relatively long lag period and make current monetary policy inappropriate. For example, a series of interest rate increases that has reduced consumption and investment may still be dampening economic activity at a time when a sudden global slowdown means that looser monetary policy is needed to avoid recession. This is why the RBA needs to focus on the likely economic conditions in 12 to 18 months' time when it sets interest rates.

Appendix B: Advanced Economic Analysis at the back of this textbook looks at the implementation and limitations of monetary policy in more detail.

reviewquestions

- 1 Explain what is meant by the monetary policy *transmission mechanism*.
- 2 For each of the following scenarios, explain how DMO might be used to influence the economy and what impact these changes would have.
 - a) A shortage of skilled workers is putting upward pressure on wages growth and creating inflationary pressures.
 - b) Global economic growth is raising demand and prices for raw materials and commodities that are used as inputs to production.
 - c) A fall in consumer and business confidence causes reductions in consumption and employment growth.
- 3 Describe the role of time lags in the conduct of monetary policy in Australia.

15.5 The current stance of monetary policy

On the first Tuesday of each month (other than January) the Board of the Reserve Bank meets to decide whether to increase, decrease or maintain the same level for the cash rate. Its decision is announced at 2.30pm of the day of the meeting. To make its monetary policy decision-making process transparent, it also publishes official minutes from its meetings two weeks after they occur. The stance of monetary policy is revealed by interest rate changes in the economy. As is indicated by figure 15.2, interest rates have varied considerably over time as monetary policy has been altered to respond to varying economic conditions.



Figure 15.2 – Australian cash rate

Aside from the one-off impact of the GST, which pushed inflation to 6 per cent, the RBA has generally been successful in controlling the level of inflation. Inflation has averaged 2.5 per cent since the adoption of inflation targeting in the early 1990s. As the experience of recent years has shown, monetary policy can still play an important role in supporting economic growth and employment in the short term.

There are five main factors that help to explain the stance of monetary policy:

1. **The low inflation objective:** Both the government and the Reserve Bank are committed to maintaining the RBA's inflation target – an average rate of inflation between 2 to 3 per cent over the course of the business cycle. Monetary policy is the major tool used to achieve this outcome. The Reserve Bank argues that Australia will achieve higher economic growth in the longer run by raising interest rates when there are rising inflationary pressures. If the RBA sees inflation moving too far outside the target range, it will tighten monetary policy.
2. **Inflationary expectations:** One key element in the government's strategy of achieving low inflation is reinforcing expectations of sustained low inflation. If inflationary expectations remain low, businesses will plan lower price increases and unions will push for lower wage rises. The RBA will raise interest rates and maintain high interest rates if this is necessary to reduce inflationary expectations.
3. **Labour costs:** Future interest rate movements are dependent upon movements in the level of inflation, and one of the most significant determinants of inflation is the cost of labour trends in productivity growth. The best indicator of wages growth is the Wage Price Index.
4. The RBA remains committed to the two other objectives of the charter, those of economic growth and lower unemployment.

Late 1980s	Contractionary monetary policy, with interest rates of almost 18 per cent, used to reduce demand, inflation and the current account deficit.
Early 1990s	Expansionary monetary policy used to stimulate growth during the recession, with unemployment rising to 11 per cent.
Mid-1990s	Pre-emptive interest rate rises used to prevent inflationary pressures re-emerging during the recovery of the mid-1990s.
Late 1990s	A long decade of relatively stable interest rates (in the 4 per cent to 7 per cent band) begins with lower interest rates to support economic growth.
Early 2000s	Monetary policy is tightened to deal with the inflationary consequences of the depreciation of the exchange rate and the introduction of the Goods and Services Tax.
Mid-2000s	Expansionary monetary policy to support growth during a mild downturn, followed by gradually increasing interest rates as inflationary pressures emerge during the boom in commodity prices.
2008–2009	Concern about the potential impacts of the global financial crisis on Australia sees the RBA slash the cash rate to 50-year lows of just 3 per cent.
2009–2011	Monetary policy returns to a more neutral position as the crisis eases, with the cash rate rising to 4.75 per cent by late 2010. The domestic recovery and strong mining sector growth sees the RBA refocus on containing inflationary pressures.
2011–2018	Monetary policy became expansionary, with the cash rate falling to 2.5 per cent by mid-2013 and then to 1.5 per cent by mid-2016, where it remained into the second half of 2018. The RBA aimed to support growth, which had fallen below its long-term trend partly due to greater risks and uncertainty in the global economy. While interest rates remained low by historic standards, rates began rising in the US and other economies from late 2016 in response to a pick-up in economic growth and tighter labour markets.

Once the RBA believes that it has locked in low inflation, it will have greater scope to reduce interest rates to help achieve its objective of lower unemployment. The level of growth and unemployment are also important indicators of whether the economy is close to its supply constraint. If the economy is operating at a point that is close to capacity (that is, close to full employment of labour and other resources), continued growth in spending and demand will not lead to higher output and employment, and will instead spill over into higher prices. Therefore, if the RBA feels that the level of unemployment is approaching the natural rate, it is likely to tighten monetary policy to prevent excessive spending feeding into higher prices and wages.

- External factors:** Australia's integration with the global economy means that international conditions consistently influence RBA monetary policy settings. For example, if global conditions deteriorate, Australia is more likely to face slower economic growth and higher unemployment, and the RBA may move to reduce interest rates to prevent a downturn. More broadly, the RBA monitors conditions in global financial markets for any early warning signs of inflationary pressure or economic volatility so that it can move pre-emptively to change monetary policy settings. Overseas interest rate movements also influence policy settings in Australia. For example, the official cash rate fell to a record low of 1.5 per cent in 2016 at the same time that global interest rates had fallen to record lows (and had even become negative in some countries).

review questions

- Examine recent changes in the stance of monetary policy in Australia.
- For each of the following scenarios, propose an appropriate monetary policy response (and justify your decision).
 - A rise in fuel prices increases inflation but lowers consumer spending.
 - A recession overseas causes the Australian dollar to depreciate and increases domestic unemployment.
- Explain how wages growth may impact monetary policy decisions.

chapter summary

- 1** **Monetary policy** involves actions by the **Reserve Bank of Australia** to influence the cost and supply of money and credit in the economy, in order to achieve the government's policy objectives.
- 2** Monetary policy is the main **macroeconomic policy** instrument used to influence the level of economic activity in the short to medium term.
- 3** Monetary policy has three main **objectives**: low inflation, economic growth and reducing the level of unemployment. Its primary goal is to contain inflation within a target range of 2–3 per cent on average, over the course of the economic cycle.
- 4** Like many other industrialised nations, Australia adopted an **inflation-targeting** monetary policy regime in the early to mid-1990s which has proved highly successful.
- 5** The **objectives** of monetary policy are often in conflict since faster economic growth and job creation tend to be associated with higher levels of inflation.
- 6** Monetary policy is implemented through **domestic market operations** – the purchase and sale of second-hand government securities by the Reserve Bank in the short-term money market for the purpose of influencing interest rates.
- 7** When the RBA sells government securities in the short-term money market, it reduces the supply of funds, and this results in higher interest rates. The RBA implements this policy when it wants to slow down the level of economic growth and reduce inflationary pressures. Alternatively, if it wants to accelerate growth, the RBA buys government securities, increasing the supply of funds and reducing interest rates.
- 8** Interest rate changes affect the economy through the monetary policy **transmission mechanism**, in which lower interest rates encourage increased consumer spending and business investment, raising the level of aggregate demand. Higher interest rates dampen aggregate demand by discouraging consumer spending and business investment.
- 9** In making monetary policy decisions, the **RBA's** Board considers a number of economic indicators that are likely to affect its policy goals over the coming year, including inflation, inflationary expectations, wages growth, the rate of economic growth, the unemployment rate, interest rates overseas, the exchange rate and the balance of payments.
- 10** Interest rates may also influence the value of the exchange rate by affecting the demand and supply for Australian dollars in the foreign exchange market. However, the effectiveness of monetary policy in influencing exchange rates has diminished in recent years.

chapter review

- 1 Define *monetary policy*.
- 2 Outline the broad objectives of monetary policy.
- 3 Identify what is meant by *inflation targeting* and why it has been implemented in Australia.
- 4 Explain what is meant when we describe Australia's inflation target as a *flexible target*.
- 5 Identify the economic indicators monitored by the government and the Reserve Bank to determine whether a change in monetary policy is necessary.
- 6 Explain how the RBA conducts *domestic market operations*.
- 7 Outline what action the Reserve Bank would take if it wanted to:
 - a) tighten monetary policy
 - b) loosen monetary policy
- 8 Discuss how changes in interest rates influence the level of economic activity.
- 9 Discuss how Australia's growth and inflation levels have influenced the conduct of monetary policy in recent years.
- 10 Outline how time lags influence the implementation of monetary policy.

16

Microeconomic and Environmental Policies

- 16.1 Microeconomic policies and aggregate supply
- 16.2 Microeconomic policies and individual industries
- 16.3 Environmental management policies

16.1 Microeconomic policies and aggregate supply

Microeconomic policies are policies that are aimed at individual industries, seeking to increase aggregate supply by improving the efficiency and productivity of producers.

Microeconomic policy is action taken by government to improve resource allocation between firms and industries, in order to maximise output from scarce resources. Microeconomic policy is central to the government's long-term aim of increasing the level of sustainable growth in Australia and reducing the extent to which inflation and external imbalances constrain economic growth.

Microeconomic policy has become more important in recent decades because many of Australia's economic problems are caused by structural factors that cannot be addressed through macroeconomic policies, which simply aim to manage the level of economic activity. In the years following the mining boom in the 2000s, for example, Australia's ability to transition to new knowledge- and services-based industries has been constrained by structural factors. A lack of workers with digital technology skills, inadequate incentives for entrepreneurs and business investment, low international competitiveness and non-tariff barriers to international trade are among the many factors cited for Australia's below average productivity growth and relatively sluggish economic growth during this period. Signs of a rebound from this have only emerged quite recently. The solution to issues like this is not to make changes to macroeconomic policy settings, but to undertake microeconomic reforms such as improving the education system, tax reform and technology infrastructure.

Microeconomic policy is different from macroeconomic policy because instead of influencing demand, microeconomic policy influences supply. It is sometimes called **supply side economics**. The focus of supply side economics is reducing business costs, which should have the effect of shifting the aggregate supply curve to the right – that is, more goods and services should be provided at lower prices. This is shown in figure 16.1. Policies that focus on increasing the level of aggregate supply do so by improving the competitiveness, productivity and efficiency of Australian industries.

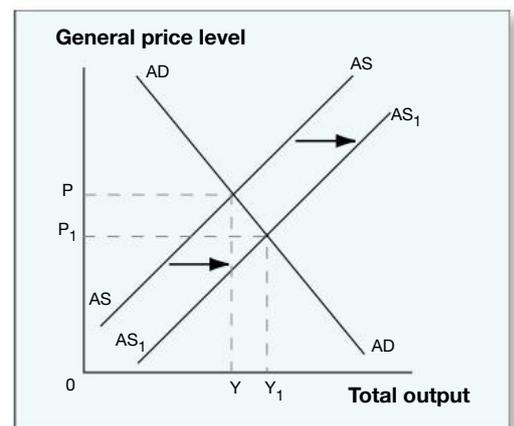


Figure 16.1 – Increasing supply as a result of microeconomic reform

Microeconomic policies are closely associated with structural change. **Structural change** refers to shifts in the pattern of production that reflect changes in technology, consumer demand, policy, global competitiveness and various other factors. It results in some products, processes and even entire industries disappearing, whilst facilitating the emergence of others. Microeconomic policies promote structural change and assist the Australian economy in dealing with the challenges and taking advantage of the opportunities that it can present by making product and factor markets work more efficiently. **Product markets** include the market for goods, such as motor vehicles, and services, such as transport. **Factor markets** are markets for the inputs to production, such as the labour market and financial markets. Markets work efficiently when goods are produced at the lowest cost and resources flow to areas where they have the highest value.

Structural change involves changes in the pattern of production that reflect changes in technology, consumer demand, global competitiveness and other factors. It results in some products, processes and even entire industries disappearing, while others emerge.

Microeconomic theory says product and factor markets will work more efficiently if there is greater competition between private businesses and the market forces of supply and demand are able to operate without interference from government rules. Therefore, much of microeconomic reforms hinge upon the removal of “distortions” that can be created by government policies. For example, electricity is a major input to production and a necessity for households. The price of electricity is highly regulated. This leads to lower prices for households in the short term but also results in lower investment in new energy generation facilities due to the prospect of lower profits than can be earned with a regulated price. In the long run, this could result in insufficient investment in the energy sector, less reliable energy supply, lower productivity and higher energy prices. Advocates of microeconomic reform would regard price regulation in the electricity sector as a distortion of market forces.

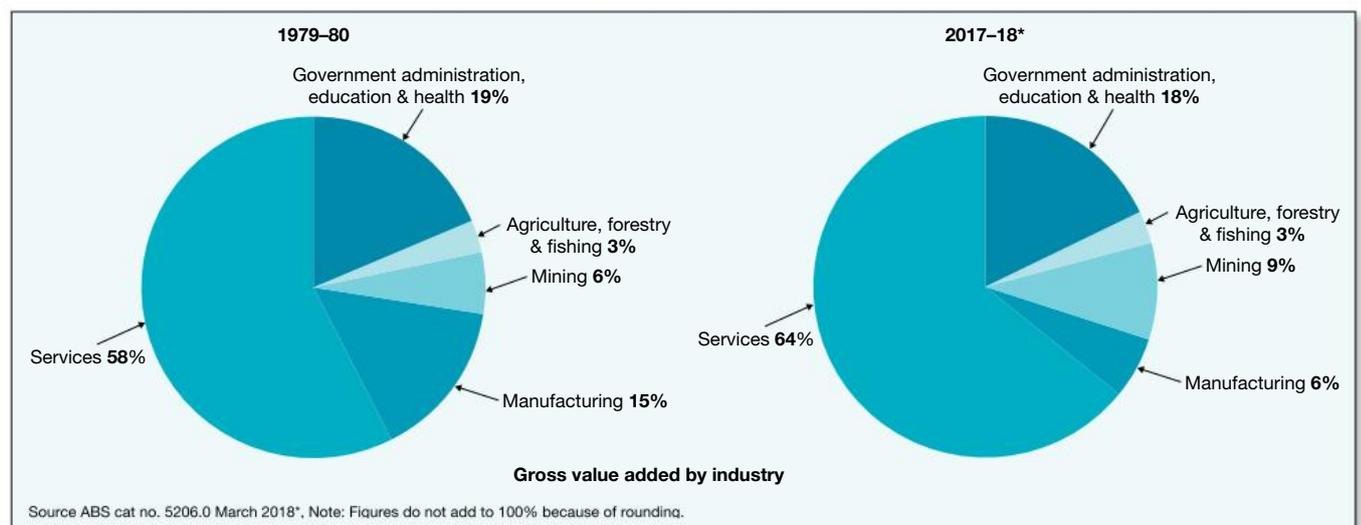


Figure 16.2 – Australian industry structure

The structure of the Australian economy has changed in recent decades because of improvements in technology, changes in patterns of consumer demand and the implementation of wide-ranging microeconomic policies since the early 1980s. Figure 16.2 shows that since 1979–80, the two main shifts in the allocation of resources in Australia have been the reduction of the relative size of manufacturing and the strong growth in mining and services industries. As we will see in the next section, each of these trends can at least be partly explained by the implementation of microeconomic policies.

Microeconomic policies operate on different levels, from decisions by an individual government official about a single company to sweeping policies for entire industries. The overall aim of microeconomic reform is to **encourage the efficient operation of markets** – to lift productivity, improve flexibility and responsiveness to change, and encourage Australian firms to take on “world best” practices in order to increase aggregate supply. This happens when efficiency is achieved in three different ways: allocative efficiency, technical efficiency and dynamic efficiency and innovation.

While efficiency can be divided into three parts – allocative, technical and dynamic – many microeconomic policies will have impacts on all three aspects of efficiency simultaneously, potentially blurring the distinctions between the concepts. For example, reforms to Australia’s telecommunications industry have increased competition, forcing companies to become more technically efficient to maintain and improve market share. The forces of competition have also encouraged innovation and dynamic efficiency, attracting more investment to the telecommunications industry (a sign of allocative efficiency). Nevertheless, as we look at specific sectors in section 16.2, it is important to think about

ALLOCATIVE EFFICIENCY

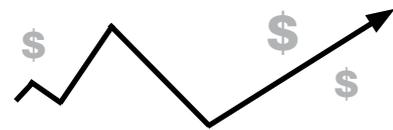
Allocative efficiency refers to the economy’s ability to shift resources to where they are most valued and can be used most efficiently.

By minimising the distortions to the market economy (such as the impact of government regulations, tax loopholes, subsidies and anti-competitive behaviour) the operation of market forces should bring about a more efficient allocation of resources. In a free market economy, resources should shift to those producers who have the greatest capacity to pay, and that capacity to pay will reflect relative efficiency and value to the economy (more efficient producers stand to make greater profits from production and so are willing to pay more for resources). Achieving allocative efficiency promotes structural change by allowing resources to flow to those areas where they are used most efficiently. For example, economists argue that the removal of tariff protection has led to a reallocation of resources away from inefficient producers who could only survive behind tariff barriers towards the more efficient producers who are competitive without protection.

TECHNICAL EFFICIENCY

Technical efficiency refers to the economy’s ability to produce the maximum level of output from a given quantity of inputs.

Technical efficiency is the ability of an economy to achieve the maximum level of output from a given quantity of inputs. Technical efficiency is measured by the productivity of a business or an economy, that is, how much output can be produced from a given quantity of inputs. Greater productivity means that businesses can produce output more cheaply, which makes them more competitive in domestic and global product markets. Businesses operating in a competitive market therefore have very powerful financial incentives to maximise technical efficiency. They will be more inclined to adopt the latest production technology and use the least cost combination of resources to produce.



The **Finance and Insurance industry** achieved higher multifactor productivity growth (measured across both labour and capital inputs) than most other sectors in Australia during the period from 1997 to 2017, recording average annual productivity increases of 1.9 per cent. Some of the changes that have contributed to this include online banking for customers, reductions in branch staff numbers, shifting business processes online or overseas, organisational restructures and more recently the low interest rate environment in Australia. The drivers of these changes can be traced back to policy decisions and structural changes in the 1980s and 1990s, including deregulation, privatisation and increased competition for traditional financial institutions.

DYNAMIC EFFICIENCY AND INNOVATION

Dynamic efficiency refers to the economy’s ability to shift resources between industries in response to changing patterns of consumer demand.

The elimination of distortions such as excessive government regulation and subsidies improves dynamic efficiency and accelerates positive structural change. Dynamic efficiency means that producers are able to respond quickly to changing patterns of demand in both the domestic and global economy. In addition, producers who are dynamically efficient are able to adopt new technologies and innovative business practices. One of the major ways in which microeconomic reforms can increase dynamic efficiency is by increasing the level of competition in industries, which will tend to force producers to be more responsive to changes in demand and supply.

how specific microeconomic policies have contributed to allocative, technical and dynamic efficiency in the Australian economy.

In the following section we look at industries and how they have been affected by a range of microeconomic policies, including deregulation, reforms to public trading enterprises and competition policy. In section 16.3 we look at the national and global context for environmental management. Although the ultimate objectives of environmental policies are different to microeconomic policies, they are included in this chapter because of the similar way in which they impact households, businesses, sectors of industry and the economy. It is also important to note that as well as the policies covered in this chapter, there are a range of microeconomic policies that are covered in other sections of this textbook.

MICROECONOMIC REFORM POLICIES	
Deregulation	Reducing protection – see chapter 6
Reforms to public trading enterprises	Tax policy – see chapter 14
Competition policy	Labour market policy – see chapter 17
Environmental management	

reviewquestions

- 1 Define *microeconomic policy*.
- 2 Describe the three different types of efficiency that microeconomic policies aim to improve.
- 3 Explain how microeconomic policies promote structural change and increase aggregate supply.

16.2 Microeconomic policies and individual industries

Deregulation

Deregulation involves the simplification or removal of rules that constrain the operation of market forces, and it aims to improve the efficiency of industries. The shift towards industry deregulation since the early 1980s has seen extensive structural change across many industries.



Financial sector

The financial sector plays an important role in ensuring that businesses can access funds for investment and growth, and investors can have the confidence to make their funds available for new investments. Microeconomic policies in the financial sector in the 1980s were aimed at making the sector more efficient and competitive. The first step in financial deregulation was the floating of the Australian dollar and the removal of the Reserve Bank's direct monetary controls over banks. The second step was the removal of barriers to foreign banks entering Australia.

Financial deregulation has resulted in a more competitive environment for many financial services. The benefits of a more competitive financial sector are spread across the entire economy as consumers and businesses pay lower prices for their access to finance.

The global financial crisis resulted in some businesses in the financial sector collapsing or being acquired by other businesses, reducing competition in the financial sector. In many countries, the financial crisis was blamed on governments having gone too

far in deregulating the financial sector, allowing banks to take too many risks with depositors' money. This highlights the need for a balance between the goals of efficiency and competition (which favour deregulation) and the goals of consumer protection and financial system stability (which favour regulation).

Finding this balance was the overarching aim of the Financial System Inquiry, a policy review of Australia's financial sector, also known as the Murray Review, conducted in 2014. This was largely reflected in the mix of recommendations that were made, including increasing the minimum capital requirements of banks to levels among the safest in world to reduce the potential impact of future financial crises, leveling the playing field for smaller banks by making regulatory requirements more competitively neutral rather than advantaging the big banks, and strengthening consumer protection laws on financial product design and distribution. Legislative progress on writing these recommendations into law has been slow (like with most reviews), although consumers have benefited since 2016 from laws banning excessive credit card surcharges. Some of the more important recommendations – including giving the Australian Securities and Investment Commission (ASIC) more explicit powers and a more direct mandate to consider competition issues – have not been implemented yet.

The 2018 Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry uncovered a range of dishonest practices, including breaches of industry codes of practice, failings on contracts, and widespread mistreatment of customers. Beyond individual examples of problems, the Royal Commission found widespread governance problems at senior levels in financial institutions and revealed significant problems in how the industry was regulated by ASIC. To the extent new regulations are introduced in the wake of the Royal Commission it further reflects the industry's inability to regulate itself when governments trusted the power of market forces to protect consumers.



Agricultural industries

Deregulation in the agricultural sector has created more competition in markets for farm produce. In the past, single government-owned businesses or industry cooperatives had a monopoly on buying farmers' produce in areas such as dairy, wheat and wool. With deregulation those monopolies ended and farmers were given new incentives to innovate and diversify their outputs. While the total production of farms has been increasing, the total number of farms is falling. Over the past decade, farm production has increased by almost 50 per cent while the number of farms has fallen by over 30 per cent. Nevertheless, in the last 20 years, growth in agricultural productivity has slowed significantly, falling to an annual average of 0.9 per cent from its average of 2 per cent in the second half of the 20th century. According to the Australian Bureau of Agricultural and Resource Economics and Sciences, however, there is evidence that much of this decline in recent years can be attributed to deteriorating climate conditions rather than a failure to innovate.



Transport industries

Transport industries are crucial to Australia's economy because of the large distances both within Australia and between Australia and other nations. Two key examples of deregulation in Australia's transport industries are:

1. Australia's **domestic aviation** industry was deregulated in 1990, ending the Two Airline Policy that since 1952 had seen the aviation industry divided between two companies. Several airline businesses have entered the Australian aviation market since 1990, but after consolidation within the industry, as of 2018 we still had two dominant airline groups: Qantas/Jetstar and Virgin Australia/Tigerair.
2. **Rail:** The efficiency of the rail freight industry has been improved by a range of reforms over the past decade. In 1997, the Commonwealth and State Governments

established the Australian Rail Track Corporation (ARTC) to manage the 10,000-kilometre national interstate rail network. The ARTC sells access to privately owned freight businesses such as Pacific National and oversees maintenance of the network and new capital works.



Telecommunications industry

Telecommunications is an important contributor to business productivity and as a sector contributes around 3 per cent of economic output. Until the early 1990s, the telecommunications industry was dominated by Telecom Australia (now Telstra) as the monopoly provider of services to businesses and consumers. The market was opened up to competition in the 1990s, resulting in many new telecommunications businesses entering the market and reducing telecommunications costs dramatically, particularly in competitive areas of the market such as long distance calls. Nevertheless, Telstra still has the largest market share for landline calls and mobile telecommunications.

For many years Telstra was accused of making it difficult for competitors to gain access to its local monopoly over residential phone connections. For this reason, the decision was made during the rollout of the National Broadband Network to separate the wholesale business of providing access to the infrastructure from the retail businesses that offer telecommunication services to households and businesses. This will increase competition between retailers in the telecommunications industry.

Continuing regulation

Effective deregulation involves striking a balance between competing policy goals. Excessive regulation can impose additional costs, constrain economic growth and undermine competitiveness. On the other hand, excessive deregulation (or to put it another way, inadequate regulation) can lead to market failure and economic instability (such as when a business collapses).

While Australia has repealed many regulations that reduced competition, most industries still operate with a significantly regulated framework. Environmental regulations play a significant role in the agricultural and mining industries. Industries like construction and transport have comprehensive safety regimes. Pricing and investment decisions are overseen by regulators in industries such as electricity, gas, water, postal services, and telecommunications. Professional services industries, such as law and accounting, exist in part to help businesses comply with and navigate regulation. When new areas of business emerge, such as ridesharing services offered by Uber, homesharing through Airbnb, or online services through Facebook and Amazon, governments have responded with new transport, planning, privacy, tax and other laws. So while Australia's economy has been in once sense 'deregulated', in another sense, we have simply changed the focus of regulation.

Reforms to public trading enterprises

Microeconomic policies have promoted efficiency in Public Trading Enterprises (PTEs) – also known as Government Business Enterprises – through two main approaches: **corporatisation** of PTEs and **privatisation** of PTEs.

Corporatisation of PTEs

Corporatisation aims to encourage PTEs to operate independently from the government, as if they are private business enterprises. This involves eliminating political and bureaucratic supervision and making public enterprise managers accountable for enterprise performance. Corporatised public enterprises attempt to achieve a rate of return on assets comparable to private sector companies, and they often operate in competitive markets (although in some cases they continue to operate as regulated monopolies). In doing so, they must still comply with competitive neutrality laws that try to ensure that PTEs do not receive

artificial competitive advantages over private businesses just because they are publicly owned. Examples of PTEs that have been subject to corporatisation are Australia Post, Energy Australia and the Sydney Water Corporation.

Privatisation of PTEs

Examples of privatised public trading enterprises are:

Telstra, Qantas, Airports, GIO, Commonwealth Bank, Victorian Electricity, State Banks, NSW Ports, and Queensland Rail.

Privatisation takes corporatisation a step further by selling off PTEs so that they do in fact become private enterprises, either in whole or in part. Australia has undertaken extensive privatisation in recent decades, and the total value of privatised businesses is among the highest in the world. The most recent significant privatisation by the Federal Government was health insurer Medibank Private, which after 38 years in government ownership was sold for \$5.6 billion in 2014. In recent years, State Governments have also privatised assets to free up capital for other purposes such as transport projects. This was a factor in the NSW Government's 2015 plan to privatise its \$20 billion electricity "poles and wires" business, with the proceeds set aside for a range of transport infrastructure projects, including a second harbour rail crossing, a light rail project and extension of the North West Rail Link. Governments have implemented privatisation with the aim of raising one-off revenues, increasing competition, encouraging more rational management and pricing behaviour and forcing businesses to become more efficient.

In a departure from the trend of privatisation, in 2009 the Federal Government established a new public trading enterprise to build and operate an optical fibre telecommunications system, the National Broadband Network. By 2016, the cost of building the network was expected to be between \$46 billion and \$56 billion. When construction is completed, the NBN company will be one of the largest in the country.

National Competition Policy

National Competition Policy is an agreement between Australia's Commonwealth and State Governments signed in 1995 to encourage microeconomic reform throughout the Australian economy.

Competition policy aims to promote competition in markets so that firms increase efficiency and lower prices for consumers. Although Australia has always had laws about business practices, they went through a major shake-up after 1995 when the Commonwealth and State Governments agreed to **National Competition Policy**. Under these reforms, governments agreed to implement reforms that would increase competition in the sectors where they operated monopolies, such as electricity, gas, water and rail and road transport. Governments also agreed to remove special provisions that gave publicly owned enterprises an advantage over private sector competitors (what is known as the "competitive neutrality" principle). The national competition watchdog, the **Australian Competition and Consumer Commission (ACCC)**, was also established.

An important aspect of the reforms was the establishment of a national regime to regulate the cost of **access to infrastructure**. This meant that where businesses owned a monopoly infrastructure asset (such as owning an airport, rail line or telecommunications network) they were required to give competitors access to that network at a reasonable price.

Workable competition is the government's objective to achieve the maximum level of competition within an industry that is compatible with the market structure and specific conditions of the industry, that is, a situation where all markets are contestable.

A key principle of competition policy in Australia is **workable competition**. While governments generally aim to maximise competitive forces, workable competition may sometimes mean that in order to achieve international competitiveness, it may be necessary to reduce the number of firms in an industry. Those remaining firms can then operate on a larger scale and achieve the lowest possible long run average costs of production. An example of the ACCC's enforcement actions in 2018 was its successful imposition of \$10 million in penalties against the Ford Motor Company for refusing to issue refunds and replacements for faulty vehicles that the car buyers were entitled to under consumer protection laws. In 2016–17, the ACCC was responsible for over \$16 million of penalties from pursuing cases like this.

The Turnbull Government updated Australia's competition policy regime in 2017, principally by expanding the laws on misuse of market power. Businesses are banned from reducing competition in the market by lowering prices, refusing to supply goods or services or other behaviours. Previously for regulators to find a business guilty of misusing market it must have intended to harm competitors, but the law now has a

wider scope. “Concerted practices” are also banned; they include actions such as sending price information to competitors, even if there is no formal agreement to collude to raise prices. Other regulatory processes governing mergers, joint ventures, and interactions with the ACCC.

The 2017 reforms were based on a substantial review of competition policy conducted by Professor Ian Harper and other experts that concluded in 2015. The review’s two bigger recommendations were to embed competition principles in a broader range of regulatory, government service delivery and procurement processes, and to extend competition to human services such as health and aged care. A Productivity Commission report found that the areas where competition would help improve outcomes the most included social housing, public hospitals, services in remote Indigenous communities, and family and community services. However, in other areas a more limited concept of “contestability” was more appropriate – that is, the assessment of providers and ability to remove poor providers rather than normal market competition. With the public sector spending around \$200 billion a year on human services, it is an area where reforms could have big impacts on provision and outcomes. Professor Harper estimated that the aggregate impact of the recommended reforms would be of a similar magnitude to the reforms implemented after the Hilmer Report.

BUSINESS PRACTICES THAT ARE OUTLAWED BY THE COMPETITION AND CONSUMER ACT INCLUDE:

- **Monopolisation**, which occurs when a firm uses its dominant market position to eliminate competition, such as through temporary price cutting.
- **Price discrimination**, which occurs when a firm sells the same type of good or service in different markets at different prices (for reasons not related to different costs such as for transport).
- **Exclusive dealing**, which occurs when a firm sets conditions for supply that exclude retailers from dealing with other competitors.
- **Collusion and market sharing** occurs when firms get together to fix prices or agree on a market sharing arrangement that reduces effective competition between firms.

Future of microeconomic policy

The period from the mid 1980s to the early 2000s witnessed extensive microeconomic reforms that saw industries change dramatically in Australia. Since the early 2000, policies priorities have shifted to other areas such as managing the mining boom and the global financial crisis, and governments have found it more difficult to achieve the consensus needed for reform. Business and economic commentators and organisations regularly criticised the lack of policy change. Government policies have been reviewed and changed on a fairly consistent basis, but without the same long-term benefit of previous reforms. The Rudd and Gillard Labor Governments implemented a range of “seamless national economy” reforms to make it easier to do business, but they achieved poor take-up by the states. The Abbott Coalition Government commissioned a major audit of the budget in 2013, but measures to cut spending did not achieve political support. A major review of the energy sector in 2017 was led by Dr Alan Finkel, but a significant range of issues about Australia’s mix of energy sources and regulation of the market remain uncertain. One of the more successful attempts at reform was the adoption of a need-based school funding model in 2017, which is intended to improve education outcomes especially in disadvantaged areas.

The Productivity Commission outlined Australia's future microeconomic reform priorities in a significant report, *Shifting the Dial*, in 2017. It estimated that the increase in productivity resulting from the changes could eventually lift Australia's GDP by \$80 billion a year. Some of the key areas included:

- Health reforms such as making regional health funding more flexible, reducing support for health services with little impact, making the patient the centre of care, using information better, changing the structure of pharmacy, and reforming alcohol tax
- Education reforms such as aiming for proficiency not just competency, extending consumer laws to cover universities, independent assessment of skills at university, and extending access to learning options
- City reforms including changing public infrastructure funding, using competition principles for land use, introducing charges for road use, and improving the assessment of development assessments
- Market reforms including for energy, encouraging innovation, better cooperation between the Commonwealth and State Governments, tax reform, public sector reform and improving public sector capabilities.

“This inquiry is the first in a regular series of inquiries into productivity, undertaken at five-yearly intervals. Its aim is to shift the dial on underlying productivity, jolting it out of the mediocre trajectory of recent history. To do so will require a package of initiatives. No one change is sufficient, as demonstrated by the need for a combination of reforms to make a difference in the 1990s (floating the dollar, tariff cuts, workplace relations, water reforms, competition policy and effective intergovernmental relations)...

[I]t is time to take out the microeconomic garbage — those practices that have been seen as in the ‘too hard basket’ to change. These can be big and important — like tax reform and flaws in the way different governments interact with each other. Or small — like restrictions on the entry of Uber, some messy remnants of trade barriers, and the relic of trading hour restrictions that still persists in some jurisdictions. The cumulative impacts of changes to all the collective things that stymie people's lives, income generation, and other endeavours is large. In a messy house, there are many cobwebs, and so we document these carefully.”

– Productivity Commission (2017) *Inquiry Report 84: Shifting the Dial*.

Overall impacts

Microeconomic policies have been embraced by successive Australian Governments because they are seen as the main long-term tools to lift economic growth and living standards, whilst also addressing Australia's external imbalance and relatively high inflation levels. In the past, microeconomic reform has resulted in short-term costs: jobs were slashed as governments made their businesses more competitive, subsidies were withdrawn and many older manufacturing businesses closed down. As a result, many micro reforms were met with strong opposition, especially from those sectors that stood to lose out from the changes. Microeconomic policies nevertheless achieved extensive long-term benefits, which have become clearer over time.

According to research by the Productivity Commission (PC), Australia's microeconomic policies have been crucial to lifting **productivity growth** because they have provided businesses with greater flexibility and incentives to improve production processes and business management. The Productivity Commission cites the high productivity growth in sectors affected by microeconomic reform in the years following implementation, such as telecommunications and financial services in the 1990s, as evidence of the importance of promoting competition and reducing regulation.

Higher productivity growth from microeconomic policies has contributed to an **increase in economic output** and lower unemployment. According to the Productivity



For more information on microeconomic policies, visit the following websites: www.pc.gov.au (Productivity Commission) www.accc.gov.au (Australian Competition and Consumer Commission).

Outline some areas the Productivity Commission has investigated for possible future microeconomic policies.

Commission, Australia’s GDP was around 2.5 per cent or \$25 billion higher in 2005–06 as a result of Australia’s extensive national competition policy reforms of the 1990s. This translated into **higher living standards** of around \$1200 per person. While significant, this payoff from microeconomic reform is nevertheless lower than the 5.5 per cent boost to GDP that was promised in 1995 when these reforms were introduced.

Australia achieved weaker productivity growth from 2000, around the time that the pace of microeconomic reform slowed. This has led many, including the Productivity Commission, the IMF and the OECD, to argue that further reform is needed to achieve above average productivity growth in the long run and the higher living standards that result.

Another major benefit of structural change is **lower inflation**, resulting from greater competitive pressures in sectors affected by microeconomic reforms. The Productivity Commission estimated that since the early 1990s, rail freight rates have fallen by as much as 42 per cent, whilst both port and telecommunications charges have dropped by up to 50 per cent. Other Commission research has concluded that because of lower prices and higher wages, the benefits of microeconomic policies have been relatively evenly shared between individuals and businesses.

Microeconomic policies are not without critics. Some argue that so-called reforms have simply replaced one problem with another. For example, the chairman of the Australian Competition and Consumer Commission, Rod Sims, in 2017 argued that privatisation was “severely damaging” the Australian economy because governments were selling vital assets such as ports and airports to private sector monopolies, resulting in higher one-off sale prices but then large increases in prices to consumers. Another common criticism is that reforms have often benefited wealthy investors while costs have been borne unevenly by lower-income earners. Critics also question whether the productivity statistics exaggerate the benefit of microeconomic policies. For example, research has demonstrated that many workers are experiencing an increase in **work intensity** – that is, people working longer hours without extra pay. This means that some of the claimed increase in labour productivity may in fact disguise the fact that people are now working longer hours than in previous decades but these extra work hours are not recorded.

BENEFITS	COSTS
Greater efficiency and productivity growth	Higher unemployment in the short term
New business and job opportunities	Closure of inefficient businesses
Higher economic growth and living standards	Greater work intensity
Lower inflation	Less equal distribution of income

reviewquestions

- 1 Using one industry as an example, explain how microeconomic policies deliver better outcomes for consumers. Identify why businesses in this industry might resist microeconomic reform.
- 2 Summarise the microeconomic policies that have been implemented in individual sectors of the Australian economy.
- 3 Explain how microeconomic policies can lead to improved economic performance in the long term. Identify any costs of microeconomic policies.
- 4 Outline three areas for future microeconomic policies in Australia and explain how they might boost economic growth and productivity.

16.3 Environmental management policies

Environmental management policies are designed to address environmental sustainability issues. These issues include the preservation of natural environments, pollution and climate change, and managing the use of renewable and non-renewable resources. As we saw in chapter 12, environmental issues tend to be a lower priority in the Australian economy than other economic objectives such as maintaining growth and reducing unemployment, but their significance has risen in recent years.

While environmental management policies address different objectives than microeconomic policies, they are included in this section of the textbook because they operate similarly. Like microeconomic policies, environmental policies aim to influence the behaviour of individual households, businesses and industries. The two main policy tools for environmental management are regulations and market-based policies to influence behaviour and reduce environmental impacts. Like other areas of economic policy, environmental management is guided by research bodies such as the Productivity Commission, targets set by governments and influenced by international agreements between governments from around the world.

Targets

The Australian Government uses many targets to guide its environmental policies. For example, efforts to increase the use of renewable energy are supported by a Renewable Energy Target (RET) of sourcing 23.5 per cent of Australia's electricity supply from renewable energy sources like solar and wind power by 2020. The RET is not just an "aspirational target" (that is, a goal that may be desirable but has no legal force). Rather, the RET places a legal obligation on electricity companies to contribute to the target by producing or paying for renewable energy.

One of Australia's most important long-term policy targets is to reduce the "carbon intensity" of the Australian economy and lower Australia's carbon emissions. This has proved to be the most difficult area of policymaking in the past decade in Australia, with several Prime Ministers losing office after a backlash over their policies relating to energy prices and emission reductions. In 2015 the Abbott Government announced an emissions reduction target of 26–28 per cent on 2005 levels by 2030. A mix of different policies were announced to help achieve this target, including the Emissions Reduction Fund, the National Energy Productivity Plan and the announced National Energy Guarantee (NEG).

In 2017, the findings of the "Finkel Review" were released, a major review by the Australian Chief Scientist into the future security of Australia's National Energy Market. This review recommended a Clean Energy Target (CET) to further incentivise the generation of electricity from renewable energy sources beyond 2020. A target-based approach was recommended partly in response to the success of the existing RET in reducing CO₂ emissions.

Instead, the Turnbull Government announced later in 2017 a different policy mechanism known as the NEG. The NEG strategy involved a combination of Commonwealth and State government measures to meet the objectives of emissions reduction, reliable energy supply, and to reduce prices. It required electricity retailers to buy or generate based on a set level of emissions intensity to achieve Australia's emissions reduction target, known as the "emissions guarantee" and set a level of "dispatchable" electricity to ensure sufficient capacity in the system to meet demand, known as the "reliability guarantee". This approach is different from the target approach as it does not require a minimum level of any particular type of energy source. Instead, it allows electricity retailers to choose any mix of sources, as long as they do not exceed the set level of emissions. The status of this policy was unclear in late 2018 after Scott Morrison replaced Malcolm Turnbull as Prime Minister, following a backlash against the NEG within the Coalition Government.

Regulations

Environmental **regulations** are the traditional policy tool for achieving environmental sustainability goals. Regulations are laws or rules that govern economic behaviour. Regulations may prohibit a person from doing something that causes environmental damage, such as littering or producing polluting chemicals. Alternatively, regulations may specify how a good or service is produced or consumed, such as rules relating to agricultural or mining techniques. In Australia, environmental regulations can be made by local, state or federal governments, or by their agencies.

Some regulations impose requirements that the quality of goods meet environmental standards. For example, the Fuel Quality Standards Act 2000 regulates the quality of fuel for Australia. The aim of the legislation is to reduce the levels of pollutants and emissions from fuels that may cause environmental and health problems.

THE GREAT BARRIER REEF

The Great Barrier Reef is the largest living structure in the world, covering 344,400 km² in area, with 3000 coral reefs, 1625 types of fish, 133 types of sharks and rays, and 600 types of coral. As the world's largest coral reef ecosystem, the Great Barrier Reef became a UNESCO World Heritage site in 1981 and is the most biodiverse heritage site, indicating its significant scientific and intrinsic importance. The Great Barrier Reef is also a major tourist destination, with over 2 million visitors each year, which contributes approximately \$6.4 billion to the economy each year.



However, there have been significant challenges to the health and sustainability of the reef in recent years. In particular, pressures include a series of marine heatwaves, poor water quality, and other marine threats such as the crown of thorns starfish. A recent aerial survey of the reef indicates that around two-thirds of the reef has now suffered from coral bleaching (around 1500 km of the total 2300 km length), and it will take many years to recover from the death of the coral, even without further water temperature rises.

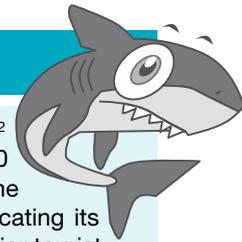
In response to these increasing challenges, and potential actions by the UNESCO World Heritage Committee, the Reef 2050 Long-Term Sustainability Plan was developed by the Federal and Queensland Governments. This plan provided \$140 million in funding to create a Reef Trust to protect the reef, and it was submitted to the UNESCO World Heritage Committee, as a response to the recommendations for management and protection made in a monitoring report from the World Heritage Centre. The Reef 2050 Plan was developed on the basis of a two-year strategic assessment of the reef, with priorities across ecosystem health, biodiversity, heritage, water quality, community benefits, economic benefits and governance. In particular, key actions undertaken to date within the Plan include, for example:

- establishing the \$40 million Great Barrier Reef Trust
- banning the disposal of material from capital dredging projects within the Great Barrier Reef Marine Park, as well as restricting these activities to limited surrounding areas
- providing additional protections for turtles and dugongs through anti-poaching laws, improved sustainability agreements and funding to reduce marine debris
- reversing the decline in water quality associated with agriculture, through \$35 million in ongoing funding and an additional \$100 million over five years to support water quality initiatives, scientific research and transition current business practices
- reducing the presence of the crown of thorns starfish to support coral populations.

Under this plan and across other initiatives, the Federal and Queensland Governments are jointly investing a total of \$2 billion to protect the reef.

In 2018, the Federal Government also announced \$500 million to protect the reef, support its viability and boost employment, with a \$444 million agreement provided to the Great Barrier Reef Foundation to improve and monitor the health of the reef, improve community engagement, and conduct research.

Scientists warn that given the effects of climate change, these processes may continue. Research found significant evidence of coral bleaching from marine heatwaves that caused the death of around 50 per cent of the coral between 2015 and 2017.



Regulation can require firms and individuals to follow certain environmental procedures. For example, the Environmental Protection and Biodiversity Conservation (EPBC) Act provides a framework for the protection and management of matters of national environmental significance. This includes the protection of World and National Heritage sites, Commonwealth marine areas, nationally threatened species and ecological communities and migratory species. States and territories have responsibility for all other matters of state and local significance. Under the EPBC Act, developers must provide an environmental impact assessment of a proposal if it has the potential to harm a matter of national environmental significance. The government can then accept or reject the proposal, depending on the impact on the environment.

Market-based policies

In recent years, policies designed to create market-based incentives for environmental protection have been increasingly used in Australia and other economies. Market-based policies involve financial incentives and disincentives (such as subsidies and taxes) to influence the behaviour of households and businesses.

As we saw in chapter 12, many environmental problems arise because of market failure. Environmental costs (or benefits), known as externalities, are borne by all of society and are not taken into account by producers and consumers in the marketplace. In the case of negative externalities, this results in the equilibrium price being too low and production being too high. Figure 16.3 shows the demand and supply for goods with negative environmental externalities.

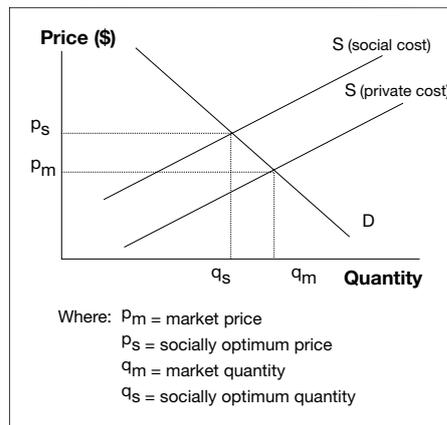


Figure 16.3 – Negative externalities

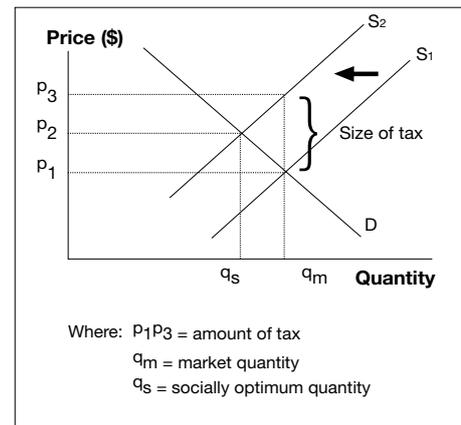


Figure 16.4 – Taxing the externality

A market-based response to this scenario would be to levy a tax or fee on production that is approximately the same as the environmental costs associated with this economic activity. This should move the supply curve to the left, increasing the market price and reducing the amount consumed in the economy.

Figure 16.4 shows how a tax equal to the vertical distance between the curves shifts the supply curve from S_1 to S_2 and influences the market. This is sometimes called “internalising the externality” because it makes consumers and producers pay for environmental costs. Likewise, governments can provide subsidies to consumers or producers to encourage production of environmentally beneficial goods and services.

Governments generally prefer taxes over subsidies when they want to influence economic behaviour. Aside from discouraging environmentally damaging activities, taxes also raise government revenue that can be used for other environmental programs. For example, through the Product Stewardship for Oil Program the Government imposes a 8.5 cent per litre levy on the purchase of oil to help fund the recycling of old oil. Environmental tax revenues constitute a varying proportion of government tax revenues in OECD countries,

ranging from less than 3 per cent in the United States to 9 per cent in the Netherlands. Australia's revenues from environmental taxes are just over 7 per cent.

Governments also face difficulties in calculating the size of the tax required, given challenges in estimating the full cost of an externality.

CLIMATE CHANGE POLICIES

The most serious environmental problem for the global economy is the increasing impact of climate change. As we saw in chapter 12, climate change is believed to be caused by emissions of carbon dioxide. Scientists predict it could have devastating consequences on the natural environment, including rising sea levels, more intense droughts and floods and more extreme and unpredictable weather events. Despite widespread agreement that climate change is a problem, it has been very difficult for governments around the world to agree on how to respond and who should bear the costs of the structural changes required to reduce carbon emissions.

International agreements

The global threat of climate change was recognised in December 1997 when 160 nations reached an agreement in Kyoto, Japan. The agreement limited emissions of carbon dioxide and other greenhouse gases. The Kyoto Protocol is an international agreement that requires industrialised countries to set internationally binding emission reduction targets. In its first commitment period, the Protocol required industrialised nations to reduce their average national emissions by approximately 5 per cent below 1990 levels over the period 2008–2012.

In late 2012, 37 members of the United Nations Framework Convention on Climate Change (UNFCCC) agreed to extend the Protocol to a second commitment period from 2013–2020. These countries pledged to reduce their average national emissions by at least 18 per cent below 1990 levels over 2013–2020. However, their emissions only comprise about 15 per cent of total global emissions due to the lack of participation of several key countries such as Canada and the United States.

At the 2015 UNFCCC Conference in Paris, an historic agreement was negotiated with representatives from nearly 200 countries, to keep “the increase in global average temperature to well below 2 degrees Celsius above pre-industrial levels”. This is the benchmark scientists believe is necessary to prevent the most dangerous impacts of climate change. A key challenge in climate change negotiations is achieving a compromise between the interests of high-income and developing countries. High-income countries have large per capita greenhouse gas emissions, where developing countries have lower but rising levels of emissions and rely on using cheap fossil fuels to expand their output and improve living standards. The agreement, to become effective in 2020, was significant because, for the first time, it included developing nations such as China and India, alongside the United States, (although President Trump announced in 2017 that the United States would withdraw from the Paris agreement). The Paris Agreement has greater inbuilt mechanisms for transparency and monitoring progress, with the intention of encouraging countries to meet their respective contribution to global emissions reduction. The Paris Agreement came into force in November 2016, with 178 of 197 parties having ratified it by mid-2018.

Targets

Targets are an important part of the policy response to climate change. According to scientists, if too much carbon dioxide is emitted, it will raise the amount of CO₂ in the atmosphere to unsustainable levels, with severe environmental consequences. Australia's current emissions target is a 26–28 per cent reduction on 2005 levels by 2030. This target was announced in the lead-up to the 2015 UNFCCC Paris Conference.

Australia's target is comparatively low when matched with other developed countries. However, some economists argue that Australia also has a higher cost of emissions abatement, meaning that the cost of reducing each unit of emissions in Australia is higher than in many other countries. This is mainly due to Australia's reliance on emissions

intensive industry and energy production based on fossil fuels. Australia's targeted reduction in emissions is intended to be achieved through the Emission Reduction Fund, Renewable Energy Target, investments in low emissions technologies through the Australian Renewable Energy Agency (ARENA) and the Clean Energy Finance Corporation, the National Energy Productivity Plan and general technological improvements over time. The findings of the 2017 Finkel Review into the security of Australia's National Energy Market also recommended the adoption of a Clean Energy Target, to support Australia's emissions reduction target and to further encourage the adoption of renewable energy sources for electricity generation beyond the Renewable Energy Target for 2020.

Australia has carbon emissions targets for the short, medium and long term. For the short term, perhaps the most important target, Australia will reduce its emissions by between 5 and 25 per cent from 2000 levels by 2020, depending on the targets set by other countries. Australia's medium-term target, as defined by the Paris Agreement, is a 26 to 28 per cent reduction by 2030. This is below the advice from the Climate Change Authority (CCA), an independent government agency that recommended a 30 per cent reduction in carbon emissions by 2025 and a 40–60 per cent reduction by 2030.

Market-based policies

Individual governments have implemented a range of market-based policies to meet emissions reductions targets. The most well-known example in Australia was the Gillard Government's carbon pricing scheme in 2012. It put a price on each tonne of carbon dioxide emitted as part of energy or industrial production processes. Adding a price factored the cost of carbon pollution into the cost of production, giving Australia's 500 largest polluters a financial incentive to switch to comparatively cheaper, lower-emissions processes. The carbon price was initially fixed and was due to be replaced by a "cap and trade" emissions trading scheme (ETS). In 2014, the Abbott Government abolished this scheme, arguing it was adding to business and household costs and damaging economic growth.

Emissions trading is used across the world, including in the EU and New Zealand. China is also seeking to implement emissions trading. Under an ETS, businesses are issued permits or need to buy permits for the emissions of greenhouse gases. Such a scheme can be "internationally-linked", meaning that businesses with excess emissions may buy permits internationally from businesses that produce fewer emissions and hold spare permits. This system of trading permits effectively puts a price on the emission of greenhouse gases and incorporates the real cost of carbon emissions into the price mechanism. It is a market-based mechanism to create incentives for businesses to develop new technologies and processes to reduce emissions. However, critics argue that acting ahead of other economies creates the risk of "carbon leakage" – where emissions-intensive industries simply move to countries with no emissions target, increasing domestic unemployment, but with no overall reduction in emissions.

In 2014, the Abbott Government announced a Direct Action Plan policy to replace the carbon pricing policy, in which firms are paid out of an Emissions Reduction Fund to reduce emissions from their production processes. The aim is to reduce emissions at the lowest cost of abatement. Projects are submitted by businesses to the government's Clean Energy Regulator. Once approved, firms enter an auction, bidding to sell their emissions reductions at the lowest level. The lowest price emissions are purchased by the government. After seven rounds of auctions, the Emissions Reduction Fund has funded 192 million tonnes of CO₂ abatement, at an average cost of \$13.52, with further reductions planned through future auction rounds. While environmental groups criticised the policy, saying too much was being spent too quickly to achieve the 2020 target of a 5 per cent reduction in emissions on 2000 levels, the environment minister at that time, Greg Hunt, described the auction as a "stunning success" and said it would achieve the largest reduction in emissions in Australia's history. However the policy does not impose any costs or constraints on other businesses that increase their carbon emissions, so there is no guarantee that it will produce an overall emissions reduction.

Regulations

Regulations also act to ensure that newly produced goods meet environmental standards that are consistent with Australia's aim to reduce greenhouse gas emissions. For example, to help reduce energy consumption, the Federal Government in 2007 introduced new standards that effectively banned older style incandescent light bulbs, replacing them with more energy-efficient options such as fluorescent and LED bulbs. In 2010, several states introduced legislation that requires newly constructed homes to comply with six-star energy ratings to be achieved through high standards of insulation, water recycling and other features.

Subsidies are grants provided by the government to producers with the aim of reducing costs of production and promoting environmentally beneficial activities. For example, the Federal Government's Australian Renewable Energy Agency (ARENA) provides funding for research and development, as well as large scale renewable energy projects.

International agreements

For environmental management policies to be successful they often require international cooperation. Collective action is often necessary because individual nations cannot successfully address global environmental problems on their own. Additionally, when addressing environmental issues, individual nations are often reluctant to impose strict environmental management policies on their own economy if other nations are not willing to do the same.

One of the best-known global pollution problems is the **depletion of the ozone layer** (the atmospheric layer that filters out dangerous ultraviolet radiation). This is related to the emission of chlorofluorocarbons into the atmosphere from industry refrigeration units and aerosols. To reduce this problem, an international agreement, known as the Montreal Protocol, committed members to phasing out the production of ozone-depleting products by 2000. According to the United Nations Development Programme, over 98 per cent of ozone-depleting substances were eliminated between 1987 and 2014. As a result, scientists predict that the ozone layer should recover to pre-1980 levels between 2050 and 2065.

A number of other international environmental agreements are also in force. In many cases, international agreements are required to prevent the overuse of common international resources. This is an issue known as the **tragedy of the commons**. For example, the United Nations Fish Stocks Agreement, to which Australia is a signatory, was developed to ensure the long-term conservation and sustainable use of highly migratory fish stocks.

Australia's participation in international treaties	
Treaty	Year signed
The CITIES Convention on International Trade in Endangered Species of Wild Fauna and Flora	1976
The Vienna Convention for the Protection of the Ozone Layer	1987
The Montreal Protocol for Chlorofluorocarbon Control	1989
The Convention on Biological Diversity	1993
The Convention to Combat Desertification , to address land degradation in the world's drylands	2000
The Stockholm Convention for the protection of human health and the environment from organic pollutants	2004
The Kyoto Protocol on climate change	2008
The Paris Agreement on climate change	2016

review questions

- 1** Outline the impact of international agreements on Australia's environmental management policies.
- 2** Explain the tools available to policymakers to achieve environmental sustainability.
- 3** Analyse the role of market-based environmental management policies in improving the economy's environmental sustainability.

chapter summary

- 1 **Microeconomic policy** is action taken by government to improve resource allocation between firms and industries, in order to maximise output from scarce resources and promote structural change. Microeconomic policy can help to accelerate the process of structural change by making the economy able to move factors of production from one area to another more quickly.
- 2 By reducing costs and increasing efficiency, microeconomic policies should have the effect of shifting the aggregate supply curve to the right so that more goods and services are produced at lower prices.
- 3 Since the 1980s, microeconomic policy has played a critical role in the Government's economic strategy. This reflects the limitations of macroeconomic policy in dealing with longer-term structural problems in the economy.
- 4 Microeconomic reform improves the efficiency of the operation of markets on the supply side of the economy. This results in an improvement in **allocative** efficiency, **technical** efficiency and **dynamic** efficiency.
- 5 **Deregulation** involves the removal of legislation and other rules that constrain the operation of market forces, and it aims to improve the efficiency of industries. In the past three decades, Australia has deregulated its financial services, telecommunications, electricity, gas, aviation and agricultural industries. This has had both positive and negative consequences.
- 6 Reforms to **public trading enterprises** have included **corporatisation**, putting the organisations at arm's length from government so they run like private sector businesses, and **privatisation**, which involves selling the business to the private sector.
- 7 **National Competition Policy** reforms introduced since 1995 have increased the level of competition across many sectors of the economy. The rules for business practices and prohibitions on anti-competitive behaviour are set out in the *Competition and Consumer Act 2010*, which is enforced by the Australian Competition and Consumer Commission.
- 8 Most economists agree that microeconomic policies have contributed to Australia's improved economic performance since the 1980s, with higher levels of productivity and economic growth and lower inflation and unemployment.
- 9 Environmental sustainability has been increasingly recognised as an important policy objective in the context of managing the economy. **Environmental management policies** such as targets, market-based policies and regulations aim to improve the environmental sustainability of the Australian economy.
- 10 The environmental issue that has received the most attention in recent years is **climate change**. International agreements such as the **Paris Agreement** have encouraged individual nations to reduce greenhouse gas emission and promote the use of renewable energy sources.

chapter review

- 1** Explain how microeconomic policies aim to increase economic growth.
- 2** Discuss how microeconomic policies contribute to greater efficiency in the economy.
- 3** With the aid of a diagram, explain how microeconomic policy influences aggregate supply in the economy.
- 4** Outline the main areas in which the government has implemented microeconomic policies.
- 5** Outline how and why the government regulates specific sectors of the economy.
- 6** Explain what is meant by deregulation. Using two specific examples, discuss the benefits of deregulating major industries.
- 7** Examine the benefits and costs of microeconomic policies.
- 8** Describe three environmental management policies that have been implemented in Australia.
- 9** Evaluate the effectiveness of regulations compared with market-based policies in achieving environmental sustainability.
- 10** Outline the influence of targets and international agreements on environmental management in Australia.

Labour Market Policies

17

- 17.1 Introduction
- 17.2 The role of national and state industrial systems
- 17.3 Australia's wage determination system
- 17.4 Dispute resolution
- 17.5 Decentralisation of the labour market
- 17.6 Education, training and employment programs
- 17.7 Evaluating labour market outcomes in Australia

17.1 Introduction

In this chapter we examine the role that governments play in the labour market to influence the process or outcomes of wage determination. Governments intervene in labour markets for several reasons, including:

- Achieving **macroeconomic objectives such as low inflation** and macroeconomic stability (since wages growth is a major influence on inflation).
- Achieving **microeconomic objectives such as productivity growth** and improved competitiveness for Australian businesses, and resolving disputes that arise in the workplace. The cost of labour generally represents around 60 per cent of business costs, so policy changes that influence labour costs are a major influence on the economy.
- Achieving objectives relating to the **distribution of income and wealth**, such as ensuring that fair minimum standards apply to all employees (since wages are the main source of income for most households).

Historically, wage determination in Australia has not been left to the free operation of the forces of supply and demand in the labour market. Rather, the government has played an important role in influencing wage outcomes either directly or through independent industrial courts and tribunals. The extent of government regulation of the labour market has been a matter of ongoing debate in Australia since Federation in 1901, and was especially controversial in the period from 2005 to 2010.

reviewquestions

- 1 Define the term *productivity*.
- 2 Outline THREE economic objectives of labour market policies.

17.2 The role of national and state industrial systems

Australia has traditionally regulated its labour market through a mix of federal and state laws, with significant overlaps between the different systems. This is because the Australian Constitution does not give the Commonwealth government the power to legislate directly over industrial relations – instead, it only gives the Commonwealth the power to resolve industrial disputes that cross state boundaries. Nevertheless, the Commonwealth has gradually expanded its role in labour market policies over the past century through other constitutional powers.

Over time, Australia developed separate industrial relations systems – with six different state systems, plus the federal system. These systems established minimum wages and conditions for employees through a system of **industrial awards** for employees, based on their industry or their occupation. Some awards were made at a Commonwealth level, while others were made at a state level. Many employers had to comply with both federal and state systems, because some of their employees were covered by state awards and others by federal awards. Employers with workers in different states would also need to comply separately with the laws of each state, which might apply different award standards.

The inefficiency of separate state and federal systems created growing pressure to move towards a national industrial relations system. After the commonwealth attempted to legislate for a single nation system in 2005, a High Court decision established that the Commonwealth now has the power to regulate industrial relations for employees of incorporated businesses. This left around 15 per cent of employees in state systems – including state government employees, local council workers and employees of sole traders.

The *Fair Work Act* (2009) expanded the coverage of the federal system to include private sector employees in all states except Western Australia from 2010. It was estimated at the time by Access Economics that creating a single national industrial relations system for the private sector would reduce compliance costs by \$4.8 billion in the decade to 2020.

	Corporations	Partnerships and sole traders	Local Government	State Government Public Sector	Federal Government Public Sector
NSW	✓	✓	✗	✗	✓
QLD	✓	✓	✗	✗	✓
SA	✓	✓	✗	✗	✓
VIC	✓	✓	✓	✓	✓
ACT	✓	✓	✓	✓	✓
NT	✓	✓	✓	✓	✓
TAS	✓	✓	✓	✗	✓
WA	✓	✗	✗	✗	✓

Figure 17.1 – Coverage of employees under the national industrial relations system

In addition to the national workplace relations system, the Commonwealth replaced most state-based awards with simpler federal awards and also established a national system of occupational health and safety legislation, replacing separate state systems. State and Territory regulation of the labour market is now limited mostly to state government employees and to a smaller range of specific issues such as the regulation of workers' compensation, public holidays and long service leave. The national system is overseen by the Fair Work Commission (which was initially called Fair Work Australia).

review questions

- 1 Explain the role that national and state systems have traditionally played in the regulation of the Australian labour market.
- 2 Outline the benefits of shifting towards a national system of industrial relations regulation.

17.3 Australia's wage determination system

Australia's national wage determination system directly covers 71 per cent of people in employment, or over 9 million, while 29 per cent of working people are outside of this system. The rules of the national system are set out in the *Fair Work Act 2009* and related regulations, and it establishes three main streams that determine the pay and conditions of employees – industrial awards, collective agreements and individual employment contracts. A snapshot of the labour market shows that among Australian employees:

- 36 per cent of employees are covered by some kind of collective agreement (compared to 38 per cent 10 years before).
- 36 per cent of employees are covered by an individual agreement (compared to 35 per cent 10 years before).
- 24 per cent of employees are covered only by industrial awards (compared to 19 per cent 10 years before).

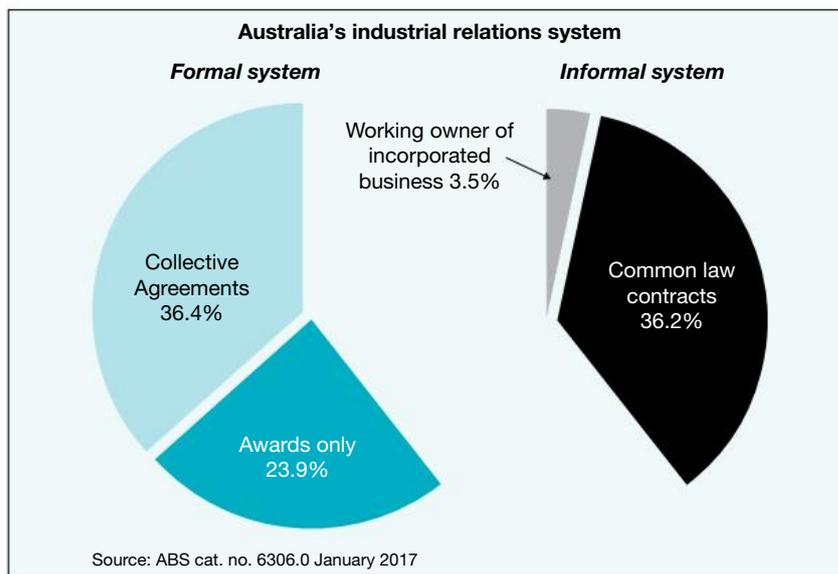


Figure 17.2 – Proportion of employees by type of employment contract, 2016

Around 29 per cent of Australian workers (3.5 million people) are outside of the national wage determination system but their conditions can still be influenced by the national system. These workers are divided into two main groups:

- Individuals whose conditions are unregulated (18 per cent of Australian workers), divided evenly between independent contractors (8 per cent) and other business operators (10 per cent).
- Individuals whose conditions are regulated by a state workplace relations system (12 per cent of Australian workers), divided between state public sector employees (11 per cent) and Western Australian employees of small businesses that are not incorporated (1 per cent).



For a detailed review of Australia's wage determination system, visit the Productivity Commission's website and download the Workplace Relations Framework report from December 2015: www.pc.gov.au/inquiries/completed/workplace-relations/report

Minimum employment standards

Australian employees have 10 guaranteed employment conditions, which are set out in law through a document called the **National Employment Standards**. These provisions include:

- *Maximum weekly hours of work:* A full-time employee's hours of work must not exceed 38 ordinary hours per week, plus reasonable additional hours of work.
- *Right to request flexible working arrangements:* Parents or carers may request a change in working arrangements to assist them for caring for a child, such as changes to start and finish times, split shifts, job sharing and working from home. Employers can only refuse on "reasonable business grounds", and must justify their actions in writing.
- *Leave:* Employees have the right to paid annual leave, public holidays, and carers and compassionate leave. They further have the right to unpaid parental, community service and long service leave.
- *Notice of termination and redundancy pay:* Employers are required to give between one and four weeks of notice of a job termination, determined by how long a person has been employed. In addition, in most circumstances workers are entitled to redundancy pay, determined by the duration of their employment.

Minimum wages

In addition, a **national minimum wage** provides a safety net for any employee not covered by an award. A specialist Minimum Wage Panel within the Fair Work Commission is responsible for setting minimum wages and casual loadings. The Panel conducts a wage review annually, with its decision announced around June each year and coming into effect from July 1. The *Fair Work Act* requires the panel to consider both economic and social objectives when determining the minimum wage. The panel must assess the performance and competitiveness of the national economy, and consider the macroeconomic impact of its decision. It must also balance the needs of both unemployed people and low paid workers, because high minimum wages can discourage employers from hiring additional employees. The panel is empowered to commission research into wage-related issues prior to making a wage decision.

"The range of considerations we are required to take into account calls for the exercise of broad judgment rather than a mechanistic or decision rule approach to wage fixation ... We remain of the view that modest and regular minimum wage increases do not result in disemployment effects or inhibit workforce participation. Recent Australian research published by the RBA ... provides support for our view.

The prevailing economic circumstances provide an opportunity to improve the relative living standards of the low paid, and to enable them to better meet their needs ... We accept that ... those in full-time employment can reasonably expect a standard of living that exceeds poverty levels. The increases we propose to award will not lift all NMW and award-reliant employees out of poverty (measured by household disposable income below a 60 per cent median income poverty line). But to grant an increase to the NMW and modern award minimum wages the size necessary to immediately lift all full-time workers out of poverty ... is likely to run a substantial risk of adverse employment effects."

– *Fair Work Commission Statement, Annual Wage Review 2017–18,*
1 June 2018.

In June 2018, the Fair Work Commission announced an increase in the national minimum wage and all modern award minimum wages of 3.5 per cent. This delivered a real wage increase of 1.4 per cent, the same level as in 2017 but slightly above the average increase over the past decade. The decision raised the hourly minimum wage rate by 64 cents to \$18.93 per hour or \$719.20 per week. The Commission noted that the economy was growing, unemployment had declined slightly, business profits remained positive, and wage growth continued to be subdued.

EMPLOYEES OR INDEPENDENT CONTRACTORS? THE DILEMMA OF WORK IN THE “GIG ECONOMY”

Perhaps the greatest challenge to Australia’s labour market policies today is the transformation of work taking place because of the rise of new business models in what has become known as the “sharing economy” or the “gig economy”. Sharing economy businesses provide a platform for customers to interact directly with individual workers who provide services such as fast food delivery, transport, cleaning, general household assistance and graphic design.

Although workers often rely on these platforms for most of their income and in some cases do not set the price for their services, sharing economy businesses usually classify their workers not as employees, but as individual contractors. This means that the businesses have far fewer obligations to those workers, because only employees have a right to minimum wage rates and other conditions outlined in the National Employment Standards.

The Fair Work Commission has begun to deal with these issues in recent years, and in December 2017 it issued a landmark ruling that identified the key factors that determine whether a worker is an employee or independent contractor (see figure 17.3). The ruling determined that drivers on the Uber platform are independent contractors, and not employees. This means that Uber does not have obligations to them if their earnings over the course of a period of work are lower than the minimum hourly wage rate. It also means that they need to collect Goods and Services Tax (GST) on their fares through the Uber platform.

In some instances, sharing economy platforms have introduced their own minimum standards. Australia’s largest online personal services platform is Airtasker, which began in 2012 and by 2018 was facilitating transactions worth \$15 million. Airtasker links individuals together for services as diverse as cleaning, furniture assembly, gardening, computer support and proofreading. Although its service providers are independent contractors, in 2017 Airtasker announced steps to ensure that jobs advertised on its site pay at least the minimum wage.

	EMPLOYEE	INDIVIDUAL CONTRACTOR
Control over how work is performed	Less control	More control
Hours of work	Standard or set hours	Controls hours of work
Bears financial risk	No risk	Bears the risk of making a financial loss on each task
Superannuation	Employers pay	Pays themselves
Entitled to receive paid leave	Yes	No
Expectation of work	Ongoing expectation	Engaged only for specific tasks
Tools and equipment	Provided by employer	Uses their own
Source: https://www.fairwork.gov.au/how-we-will-help/templates-and-guides/fact-sheets/rights-and-obligations/independent-contractors-and-employees		

Figure 17.3 – How the FWC distinguishes employees from independent contractors

Awards

Awards are a set of pay and conditions that are specific to an employee’s work or industry sector (such as a shop assistant or a construction industry worker). Awards provide a safety net of minimum wages and conditions. Many employers pay above award wage rates, but awards set the minimum rates of pay and entitlements. This means that instead of having

Awards establish the minimum wage and working conditions for employees.

a single minimum wage rate, Australia has different minimum pay rates in different awards. The Fair Work Commission sets these minimum award wage rates.

In the past, awards were comprehensive documents outlining in detail the wages and working conditions within certain industries and firms. Under the *Fair Work Act*, Australia's award system was restructured and streamlined from around 4300 awards to 122 awards (although some state awards continue to operate). These consolidated awards are now referred to as "modern awards". In the retail sector, one of Australia's largest industries, the *Fair Work Act* replaced 41 federal and state awards totaling 2082 pages with just 2 awards with a total of 76 pages. Among the 122 modern awards, 107 are based on an industry classification (for example, the Pest Control Industry Award) and 15 on an occupational classification (for example, the Nurses Award).

A 2013 Workplace Research Centre report, "Award Reliance", found that awards continue to be an important part of the industrial relation system. It found that while only 19 per cent of non-public sector organisations at the time relied on awards for employees, a further 21 per cent were employed under "over-award" arrangements – employees with individual or collective agreements where awards influence or guided employment arrangements in some way. In total, 40 per cent of employees had "award-based" arrangements.

MINIMUM WORK HOURS FOR AFTER-SCHOOL JOBS

Following the introduction of Australia's system of modern industrial awards, one area of debate focused on minimum shift hours for school students doing after-school work. Wage rates for workers under the age of 21 are based on age, with employees paid a percentage of adult wages (for example fast food workers under the age of 16 are paid 44 per cent of the adult minimum wage, or \$8.05 per hour). Previously, some states required employers to pay students a minimum three hours' work – because they felt it was unfair for an employer to expect a student to travel to work, and then only get paid for working for one or two hours. Other states were concerned that such rules would discourage employers from hiring school students.

In developing a national standard for the retail industry, the Fair Work Commission decided that the General Retail Industry award should protect students by requiring that whenever they work, students are paid for a minimum three-hour shift. Employer groups argued this was unfair on employers, since by the time students arrive at a shop after school, there is often less than three hours' work to perform. Employers claimed the award would discourage them from hiring students.

After these criticisms, Fair Work Australia in 2011 announced changes to the General Retail Industry award to allow employers to employ students for shifts for minimum periods of just one and a half hours.

Modern awards extend the protections of the National Employment Standards, with provisions tailored to the needs of the specific industry or occupation. These may include types of employment, arrangements for when work is performed, overtime and penalty rates, annualised wage or salary arrangements, allowances, leave related matters, superannuation and procedures for consultation, representation and dispute settlement.

Further, modern awards (as well as enterprise agreements) must now include a clause that allows for an **individual flexibility agreement (or IFA)**. This clause enables an individual employee and employer to vary the effect of an award to meet their individual needs without negotiating a separate agreement. The flexibility clause can only vary certain specific award (or enterprise agreement) terms, such as when work is performed, overtime rates, penalty rates and leave loading. The clause must leave the employee better off overall. Flexibility clauses can only be made after the employee has commenced employment and cannot be offered as a condition of employment. Flexibility clauses are intended to make it easier to

adjust work arrangements to the particular needs of firms and individuals, while preventing employers from using flexibility arrangements to reduce pay and conditions. Research by the Productivity Commission in 2015 concluded that around 2 per cent of workers have entered into an individual flexibility agreement.

Enterprise agreements

The most common method of wage determination in the formal system in Australia is a workplace agreement that is negotiated collectively between an employer (or employers) and employees, usually represented by unions. These agreements are known as Enterprise Agreements (previously called Collective Agreements or Certified Agreements). The *Fair Work Act* introduced a right for employees to engage in enterprise bargaining with employers. Employers can be required to engage in bargaining discussions if a majority of employees vote in favour of seeking a collective agreement.

As a minimum, all agreements must comply with the National Employment Standards, and cannot offer pay rates below that mandated by the equivalent award. Workplace agreements must also pass the “Better Off Overall Test” (BOOT), requiring that the employees be made better off overall by an agreement compared to an applicable award. This test is administered by the Fair Work Commission. The BOOT also applies to any individual flexibility agreement, a clause that can be negotiated as part of the enterprise agreement (usually to vary working hours).

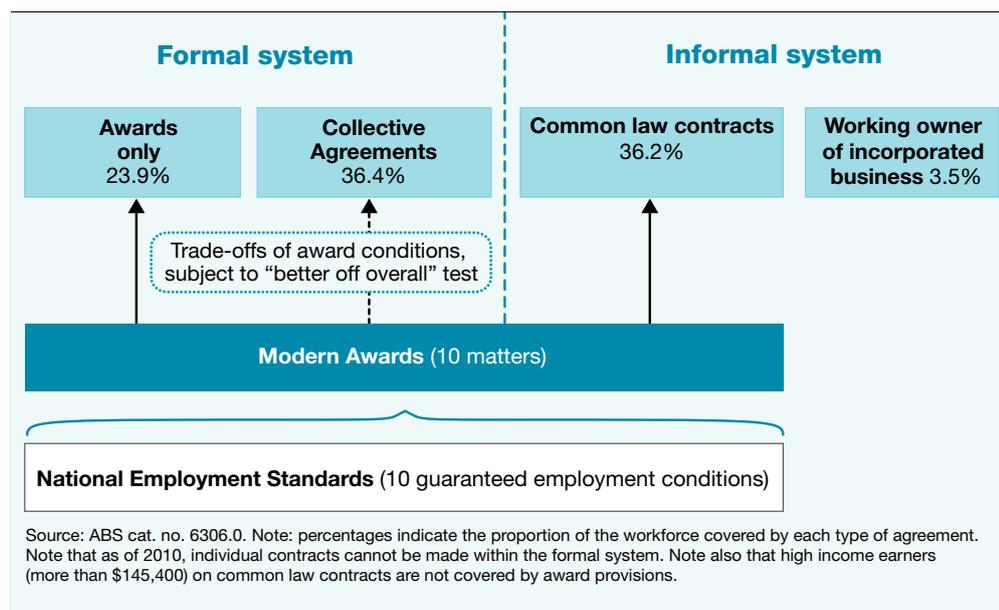


Figure 17.4 – The industrial relations framework

Collective enterprise agreements usually cover all of the workers up to management level in a company or workplace. Unions usually negotiate these agreements on behalf of all of the employees in a workplace, even though in most workplaces less than half of the employees belong to the union. Collective agreements normally cover issues such as wage increases, loadings for additional work hours, changes to workplace practices and other changes that are intended to increase productivity. Since the early 1990s, collective agreements have generally produced annual wage increases averaging around 4 per cent, although more recently annual increases have been fallen to around 2.5 per cent. Figure 17.4 shows how the National Employment Standards and modern awards together provide the basis for the three main ways of determining pay and conditions for employees.

Employment contracts for high income earners

One of the most important changes introduced by the *Fair Work Act* was the abolition of individual contracts as part of the formal industrial relations system. These individual contracts, known as Australian Workplace Agreements, had been criticised as unfair because employers have much greater bargaining power than individual employees, so that AWAs were often imposed on employees with no genuine negotiation process. In some cases, employers used Australian Workplace Agreements to remove entitlements that employees had previously enjoyed under enterprise agreements and awards, such as the right to penalty rates and additional pay for working overtime.

Although the *Fair Work Act* abolished individual contracts, it made an exception for **employment contracts for high income earners**. Under the Act, modern awards do not apply where an employee is earning in excess of a threshold (set in 2018–19 at an annual salary of \$145,400 and adjusted each year). Instead, such employees are only covered by the provisions in the agreement they make with their employer, which is known as a **common law contract**, and by the National Employment Standards. The rationale behind excluding such workers from modern awards is that the award system is intended to establish a safety net for lower income workers, and employees on high incomes do not need the protection of the award system.

More generally, common law contracts cover more than one-third of the workforce who have informal contracts that provide extra pay or conditions in addition to their award entitlements. The key differences between common law contracts and enterprise agreements is that common law contracts are made individually, and they generally cannot remove or trade off minimum award conditions such as penalty rates. In other words, employers must still comply with all award requirements that apply to such employees. Common law contracts are especially common in small businesses and are often just one or two pages long with employment terms contained in an offer of employment. These contracts are enforced through ordinary law courts, rather than through industrial tribunals, and are not considered to be part of the formal industrial relations system.

reviewquestions

- 1 Identify the THREE main ways in which the wages and conditions of Australia's employees are determined.
- 2 Describe how minimum wages and conditions are determined.
- 3 Explain the difference between an enterprise agreement and an individual contract.
- 4 Explain how an employer can make an individual contract with an employee.

17.4 Dispute resolution

One of the most important roles of an industrial relations system – alongside determining wages and work practices – is to resolve disputes that arise from time to time between employers and employees (commonly described as the “parties” to an agreement). Disputes can arise because of disagreements over many issues, including changes to wages, work conditions, business restructuring and specific actions of employers that employees consider wrong or unfair, such as a decision to sack an employee or some employees. Disputes can lead to different forms of industrial action that interrupt work, including:

- strikes, where employees withdraw their labour and refuse to work
- work bans, where employees refuse to undertake a certain aspect of their work
- lockouts, where employers refuse to give employees access to their workplace.

One of the aims of an industrial relations system is to solve these disputes quickly, efficiently and fairly, because industrial action can result in reduced productivity, lower output, lower profits and damage to a business’s customer relationships.

The processes for resolving industrial disputes in Australia have undergone major change in recent decades. Since the early twentieth century, Australia has mostly relied on a unique system of specialist industrial tribunals to administer dispute resolution processes. The specialist tribunals aimed to avoid drawn-out disputes that occurred in other countries, and allowed for an independent umpire to make a judgment based on fairness and business conditions. The two main forms of dispute resolution that have been practiced in Australia are:

- **Conciliation** – a process whereby an industrial tribunal tries to help the parties to a dispute reach a mutual agreement. The tribunal does not impose a resolution on the parties, but once the parties reach an agreement, they might undertake proceedings with the tribunal to formally implement their respective sides of the agreement.
- **Arbitration** – when an industrial tribunal makes a ruling that resolves a dispute and is legally binding on the parties. This occurs after the tribunal has given both parties the opportunity to put forward their arguments. Where conciliation is unsuccessful, arbitration can end an industrial dispute by resolving the dispute and requiring employees to return to work.

An **industrial dispute** occurs when employers or employees take action to disrupt the production process in order to highlight a disagreement between employers and employees.

Conciliation is a dispute resolution process in which firms and employees meet to discuss their differences in the presence of a third party (such as from an industrial tribunal) who attempts to bring the parties to an agreement.

Arbitration is a dispute resolution process in which an industrial tribunal hands down a legally binding ruling to firms and employees.

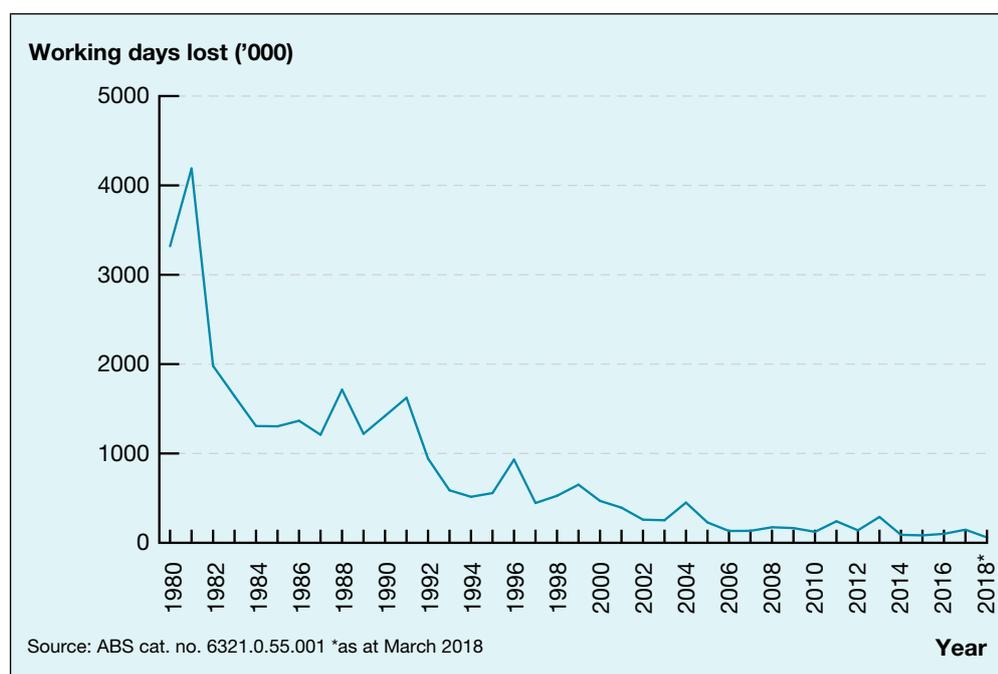


Figure 17.5 – Number of working days lost due to industrial disputes in Australia, 1980–2018

Australia has shifted from resolving industrial disputes mainly through compulsory arbitration to a system where arbitration is only used in rare circumstances. In most instances, employers and employees take responsibility for resolving their disputes. Under the *Fair Work Act*, the Fair Work Commission only intervenes to resolve disputes in specific circumstances:

- **Compulsory dispute settlement terms:** The *Fair Work Act* requires that all awards and enterprise agreements must include a term explaining the process that the parties will adopt if they have a dispute relating to their agreement. A common feature of such a term is that if parties cannot resolve a dispute between themselves, they must refer it to a third party organisation that can assist in resolving the dispute. This third party might be the Fair Work Commission or it can be a non-government organisation that offers dispute resolution services.
- **Bargaining in good faith:** Good faith bargaining aims to reform the conduct of negotiations. It obliges employers and employees to adhere to certain provisions when at the bargaining table. The six good faith obligations include participating in all meetings, disclosing relevant information, giving genuine consideration to all proposals, and refraining from conduct that would undermine collective bargaining. If these provisions are not adhered to, the Fair Work Commission can make legally binding orders, although these powers are rarely used (less than 100 bargaining orders are issued each year). In rare circumstances the Fair Work Commission can also arbitrate an agreement. The threshold for access to arbitration in these circumstances is high. The aim of the bargaining rules is to put pressure on both parties in a negotiation to be constructive and reach agreement, rather than adopting the traditional approach to disputes, based on conflict with employers.
- **Resolving industrial action:** Industrial action is permitted during the process of enterprise bargaining. The Fair Work Commission is only able to step in to suspend or terminate such industrial action if special circumstances exist, including where there is threat of significant harm to the economy or the population, or the industrial action has been going on for a long period of time and is causing damage to the bargaining parties.

One measure of the effectiveness of an industrial relations system and its dispute resolution processes is the level of disputes and strikes. As figure 17.5 shows, Australia has experienced a very low level of days lost in industrial disputes since the early 2000s. The fall in industrial disputes reflects the way in which employer/employee relations changed in recent decades, with increased competitive pressures, changes in industry structures and lower levels of union membership. There is now less conflict and a stronger focus on employers and employees (often represented by unions) working together and resolving disputes themselves through cooperative processes. In addition, since the 1990s the right to strike has been curtailed by laws that mostly limit the right to industrial action to those periods of time when employers and employees are engaged in a formal bargaining process. During the period that an enterprise agreement is in place (generally around two to three years), employees are only permitted to go on strike in very limited circumstances. Nevertheless, the Productivity Commission's report on Australia's industrial relations system in 2015 concluded that industrial disputes still play a positive role in reducing power imbalances between employers and employees and can in fact lead to efficiency gains in the long term.

IF MEN AND WOMEN'S WORK IS WORTH THE SAME, WHY ISN'T IT PAID THE SAME?

One aspect of Australia's industrial relations system that has recently been tested through industrial action is the pay gap between men and women. Female workers in Australia earn on average 15.3 per cent less than males. One reason for this gap is that male-dominated industries, such as mining and construction, tend to pay more than industries with higher proportions of female workers, such as health and education.

A recent campaign of industrial action in the child-care sector attempted to challenge the pay gap. As a result of strikes, in 2018 the Fair Work Commission ruled on a union application for an **equal remuneration order**, which is a decision under the *Fair Work Act* requiring employers to pay men and women workers equal pay for work of equal or comparable value. The application compared the pay of child-care workers, which is generally award-based, to the pay of manufacturing workers, who are more often paid above-award rates as a result of enterprise bargaining.

The application required the FWC to determine whether the reason for the pay gap between child-care workers and manufacturing workers was because of gender or the nature of the work performed. The FWC rejected the union application on technical legal grounds. However, it noted that the nature of child-care work has evolved from "child minding" to one of early child development, learning, care and education and left the door open for another application on different legal grounds.

reviewquestions

- 1 Describe TWO ways in which disputes between employers and employees might be solved.
- 2 Explain how the role of industrial tribunals in dispute resolution has changed in recent years.

17.5 Decentralisation of the labour market

Australia's industrial relations system has undergone a historic shift in recent decades from a highly centralised wage determination system for most of the twentieth century, to a system where wages are mostly determined through enterprise bargaining at the level of individual businesses or workplaces. This reflects a shift from using **non-market forces** to a greater reliance on **market forces** to determine wage outcomes.

A **centralised** labour market is one in which wages and other labour market outcomes are primarily determined by a government, or a government-appointed tribunal such as the Fair Work Commission. A **decentralised** labour market determines wage outcomes at an enterprise or workplace level, with a more limited role for industrial tribunals. This means that market forces of supply and demand for labour, as well as the individual firm's capacity to pay, play a greater role in determining wage increases. This ensures that there is more flexibility, and wage levels can change between different firms and industries.

Early in the twentieth century, Australia developed a centralised system of wage determination that differed from most other nations. This reflected a strong cultural ethic of fairness and egalitarian values, and a belief that a centralised system would create a fairer society, where workers were paid the same rate of pay for doing the same work. It also reflected the influence of the union movement, with most workers belonging to a union. At a national level, this industrial tribunal was known from 1904 to 1956 as

the Commonwealth Court of Conciliation and Arbitration (now known as the Fair Work Commission), and similar tribunals also existed at a state level. Governments believed that allowing the market to set wage levels would result in some workers being underpaid and exploited. Instead, a system of tribunals could deliver fairer and more consistent outcomes, often through a formal process in which representatives of employers and unions presented their arguments for or against a wage increase or a change in working conditions.

By the early 1990s, the centralised system was regarded as no longer appropriate for the needs of a modern economy. Economists argued that greater flexibility was needed so that wages could increase faster in more efficient sectors (to attract more labour), and wage increases needed to be more closely tied to productivity growth so that employees had the incentive to improve their skills and work practices. As a result, from 1991 Australia began shifting to a labour market where wages were mostly set through enterprise bargaining, while the highly centralised award system would only provide a safety net of minimum wages and conditions.



Figure 17.6 – Centralised and decentralised wage determination systems

Arguments in favour of decentralisation

- A decentralised system can lead to a more **efficient allocation of resources** and structural change. Firms that are more efficient can afford to pay more and therefore attract higher skilled employees. In contrast, centralisation can slow down the pace of structural change. If the same wage increase occurs across all industries, wages in one industry are less likely to change significantly in comparison with wages in another industry. This makes it more difficult for more profitable and growing industries to attract more highly skilled labour from less profitable and declining industries – therefore slowing down the process of structural change in the economy. For example, between 2005 and 2015, the Wage Price Index for the mining industry grew by 53 per cent, compared to 40 per cent for workers generally, reflecting the boom conditions in the resources sector for much of that time.
- A decentralised system can promote **productivity**. It gives employees the incentive to work more efficiently, because they can be rewarded directly for their productivity improvements through arrangements at the workplace level. Conversely, under a centralised wage determination system employees in individual workplaces may not have enough incentive to implement productivity improvements if they are already guaranteed a uniform wage increase, regardless of whether or not they improve their skills or adopt more efficient work practices. Higher productivity also helps to reduce **inflationary pressures** in the economy.
- Wage flexibility can help the labour market adjust when the economy is affected by negative shocks, which helps keep **unemployment** at a lower rate. If a recession causes a reduction in the aggregate demand for goods and services, therefore decreasing the demand for labour, a flexible labour market can allow wages to fall while keeping people in jobs. This might help to minimise job losses or reductions in corporate profits during a downturn.

Arguments against decentralisation

- Decentralisation tends to lead to greater **inequality** through increased “wage dispersion”. Workers doing the same job in different industries or firms may receive different rates of pay and working conditions. Those employees who are in an industry or firm where unions have little power are less likely to achieve wage increases, regardless of their productivity, because they lack bargaining power with employers.

In practice, wage increases may reflect the bargaining power of employees rather than productivity improvements. This is particularly the case for low-skilled workers, who are easier to replace and are less able to demand pay rises from their employers.

- A decentralised labour market may be vulnerable to the emergence of **wage-push inflation** when economic growth is strong and the labour market is close to full employment, or by weakening the bargaining power of unions it may result in such low wage outcomes that economic growth is slowed down. Traditionally, economists have been more concerned about employees using their bargaining power in decentralised systems to demand high wage rises and cause an inflationary spiral. More recently, however, economists have been concerned that low union membership levels and restrictions on strikes have weakened employees' bargaining power too much. As a result, low wage growth in more recent years has contributed to weaker consumer spending and a slower economy.
- Enforcement of wage entitlements becomes more difficult under a decentralised system. Australia is experiencing increasing problems with enforcement of wages due to the increasingly fragmented nature of workplace relations. As one illustration of this, in May 2017 the Fair Work Ombudsman, Natalie James, dedicated almost half of her speech to the annual meeting of the NSW Industrial Relations Society, to the issue of enforcing wages in the pizza industry, which employs 14,000 Australians who are mostly younger, less educated and lower paid. The Ombudsman had conducted audits of Australia's two leading pizza chains, Pizza Hut and Domino's, and noted major difficulties in achieving compliance with wage standards (24 out of 34 Pizza Hut stores that were audited had broken the law). The Ombudsman noted that achieving compliance was made harder by the decentralised nature of employment in the fast food sector – with many employees working for small franchisees and some drivers being wrongly classified as contractors not employees.
- Centralised wage determination provides an additional policy tool that the government can use to achieve its economic objectives, such as lower inflation and reduced unemployment. For example, it could restrain wages growth to avoid cost-push inflation, or trade-off a tax cut in exchange for lower wage increases.

reviewquestions

- 1 Explain the difference between a centralised and decentralised industrial relations system.
- 2 Discuss the advantages and disadvantages of centralised and decentralised wage determination systems.

17.6 Education, training and employment programs

Governments also influence labour market outcomes through their policies relating to education and training, apprenticeships, social security (welfare benefits) and employment services. These policies aim to increase participation in the workforce and to improve the productivity of the workforce. Labour market policies can use a wide range of policy instruments to improve skills and increase participation, including funding individual employees to obtain training, subsidising employers for staff training, wage subsidies to encourage employers to hire specific certain workers (for example, apprentices), and funding for employment agencies to place people who are out of work into jobs.



For further information on industrial relations issues and policies, visit the following websites:

www.job.gov.au
(Department of Jobs and Small Business)

www.fwc.gov.au
(Fair Work Commission)

www.humanservices.gov.au/customer/dhs/centrelink
(Centrelink)

Education and training

Governments play a central role in shaping the education system, ranging from pre-school and school education through to vocational education and training, university and postgraduate research programs. From an economic perspective the most successful education system is one that provides students with a broad range of skills that will help make them more productive and able to adjust to changing economic conditions. Overall, the economy will be more productive and grow faster if it has a higher quality and more responsive education and training system.

One of the major challenges for education and training policies is to address the large mismatch in the labour market between of the skills demanded by a fast-changing job market and the capacities of workers, most of whom finished their formal education or training decades before. Research published by the OECD in 2015, in its *Survey of Adult Skills*, found that around one-quarter of workers report a mismatch between their existing skills and those required for the job. The OECD concluded that government policies have a significant influence on the size of the skills mismatch in the economy, in particular through encouraging lifelong learning and training.

Several new education and training programs and reforms have been introduced during recent years with the goals of increasing productivity in the long term and increasing employment levels:

- Early childhood education standards have been increased and placements have been made available for all children before starting school.
- Facilities such as trades training centres have been built adjacent to high schools and secondary colleges.
- Training places for students pursuing careers in trades have been increased, providing more flexible opportunities to those in the workforce to complete a trade or technical qualification.
- Students are more easily able to obtain loans for vocational education courses.
- Goals have been set to halve the number of people in the workforce who do not have a minimum skill qualification level, increase school retention rates to 90 per cent by 2020 and raise the number of 25–34 year olds with a university degree to 40 per cent by 2025.

Secondary education (high school) policy has also been at the centre of policy debate in recent years. As the OECD's 2017 economic survey of Australia noted, 15-year-olds in Australia perform comparatively well in tests of reading, mathematics and science proficiency. However their performance has declined since the early 2000s, and it is now only just above average, and there are especially large gaps between the performance of Australian students from high and low income backgrounds. An enquiry in 2012 (the Gonski Review) outlined a plan for needs-based funding for all schools, especially targeting disadvantaged areas whose students have the weakest job prospects. The plan required a \$9.8 billion funding increase over six years, and unusually, the policy won across-the-board support from school groups and the wider education sector. The focus of the Gonski reforms is to increase funding for students and schools in greatest need, consistent with international economic evidence that improved access to educational opportunity is one of the most critical measures to reducing inequality and increasing social mobility. After some years of policy debate, an amended plan to continue funding the Gonski reforms (widely known as "Gonski 2.0") was agreed in the Senate in 2017, with a plan to increase funding by up to \$23.5 billion over a further 10 years. The Gonski reforms aim to replace 27 separate school funding arrangements between different states with a nationally consistent funding system that is expected to bring an additional \$2300 per student. There has also been extensive debate about the Coalition Government's proposals to deregulate universities. These plans have been rejected in the Senate because of concerns that university deregulation would lead to excessive increases in fees for students.

Labour market programs

Governments deliver a range of labour market assistance programs that aim to improve people's readiness for the labour market and increase participation and productivity. A wide variety of programs operate to deal with individual circumstances that might make it harder for a person to find suitable work – including a disability, mental illness, language barriers or having been out of the paid workforce for a long period of time. These programs are increasingly integrated with income support (or welfare) payments, so that the ability of individuals to receive continued income support is often tied to them making genuine efforts to find paid work. In Australia, a national agency called Centrelink oversees individuals' access to income support and their interaction with labour market programs.

Employment services – matching people to jobs and giving them adequate training – are provided through organisations that are contracted through **Jobactive**, a federally-funded network of employment agencies. The 42 agencies that belong to the Jobactive network are paid on the basis of getting results in placing the unemployed into jobs, with a \$1.3 billion budget in 2019. Service providers are paid higher amounts of money for success in placing people who have been out of work for a long time into permanent work. In 2018 the Government established an expert panel to advise on a future employment services model to address the changing dynamics of the labour market since Jobactive was established in 2015. The expert panel released a discussion paper in July 2018 that outlined possible changes but nevertheless broadly endorsed the existing model of rewarding employment agencies that place unemployed people into sustainable jobs, with payments based on how long an employee stays in a job.

A major long-term goal of labour market policies is to increase and sustain participation in the workforce. Australia is beginning to experience a long-term decline in workforce participation, driven by the ageing of the population. Higher levels of participation among people of working age (broadly, 15–64) will be required to offset the growing costs of the ageing population. Some of the measures taken in recent years to increase workforce participation include:

- Increased restrictions on government benefit payments, which are intended to give individuals incentives to move off welfare and into the labour market.
- Increased efforts to make young workers better prepared for the job market, such as the Youth Jobs PaTH program (Prepare, Trial and Hire) announced in 2016, which aims to lift youth participation in the labour market through a mandatory program of employability skills training for jobseekers under 25, voluntary internships, and wage subsidies for employers willing to hire an unemployed person under 25 who has been out of work for more than six months.
- Increased funding to reduce the gap in opportunities for people in regional Australia (outside of major cities) and for future growth industries. The 2017–18 Federal Budget allocated an additional \$1.6 billion for the new “Skilling Australians Fund” for these purposes.
- Increased wage subsidies for individuals at greater risk of long-term unemployment or dropping out of the workforce altogether, including Indigenous Australians, the long-term unemployed, young workers and job seekers over 50 who have been out of work for more than six months.
- The introduction of a national minimum scheme of paid parental leave in 2011, which is intended to make it easier for women to stay in the workforce after starting a family.
- Increased child-care subsidies and an expansion in child-care places, making it easier for both parents in a family to maintain paid employment and take care of children.
- Reforms to the interaction of the tax and welfare systems, to reduce high “effective marginal tax rates” (EMTRs). High EMTRs mean that for every extra dollar that welfare recipients earn, they have to pay tax as well as lose a portion of their welfare benefit, and this can undermine incentives to find paid work.

Jobactive is the federally-funded network of employment services agencies, providing employers with recruitment assistance and helping job seekers find work.

THE PRODUCTIVITY COMMISSION'S REVIEW OF WORKPLACE RELATIONS

The most comprehensive review of the Australian labour market in recent years was conducted by the Productivity Commission in 2015. Its report noted that the main elements of the workplace relations system – modern awards, the National Employment Standards, enterprise agreements and individual flexibility clauses – are functioning well, and Australia's labour market is relatively flexible. Many of the criticisms of Australia's industrial relations system, it concluded, are inaccurate.

The report noted that the outcomes in Australia's labour market – in terms of wages growth, the level of industrial disputes, productivity growth – demonstrate that Australia has been successful in modernising its labour market, while also protecting the interests of employees. As one example, it noted that the surge in wages in the mining sector during the resources boom had little “contagion” to other sectors. It also noted that while Australia's minimum wage relative to median wage levels is high by comparison with most other countries, it has actually declined faster over the past decade than in any other OECD country.

The Commission made a number of proposals for reform, including making the Fair Work Commission less legalistic, and separating the role of wage determination from the FWC by creating a new Workplace Standards Commission to set the national minimum wage and make award determinations. It also proposed changes to simplify some administrative and compliance processes and floated the idea of a new type of agreement called an “enterprise contract”, targeted at small businesses, that would allow them to vary awards without having to negotiate with each individual employee. The Commission's most controversial recommendation was that Sunday penalty rates should be reduced and aligned to the same rates as Saturday.

“Labour is not just an ordinary input. There are ethical and community norms about the way in which a country treats its employees. Without regulation and an ability to act collectively, many employees are likely to have much less bargaining power than employers, with adverse outcomes for their wages and conditions ...

Contrary to perceptions, Australia's labour market performance and flexibility is relatively good by global standards, and many of the concerns that pervaded historical arrangements have now abated. Strike activity is low, wages are responsive to the economic cycle and there are multiple forms of employment arrangements that offer employees and employers flexible options for working. Set against that background, Australia's WR system is not dysfunctional — it needs repair not replacement.”

– *Productivity Commission, Workplace Relations Framework, December 2015.*

reviewquestions

- 1 Discuss the potential impact of increasing the quality of education of the labour market.
- 2 Identify THREE government policies that aim to shift people from unemployment into work.
- 3 Explain why increased workforce participation is a priority for labour market policy.

17.7 Evaluating labour market outcomes in Australia

Australia's labour market has a hybrid system of wage determination that has an emphasis on **market** forces through enterprise bargaining, while still retaining some role for **non-market** forces such as labour market institutions like the Fair Work Commission. In concluding this chapter we review some of the evidence about the performance of the system in recent years.

In overall terms, under enterprise bargaining Australia has sustained moderate wage increases, low inflation, and relatively strong employment growth. The shift to a decentralised industrial relations system appears to have contributed to Australia's recent economic outcomes in several ways:

- **Wages growth and inflation:** A key objective of industrial relations policy is to control wage growth at a level that does not contribute to cost-push inflation. Wage outcomes during recent years have been consistent with sustained low inflation. Despite Australia's low unemployment rate, average weekly earnings grew by only 4 per cent on average between 1997 and 2015. In more recent years, the Wage Price Index has recorded a fall in annual wage growth, which by mid-2018 was close to the lowest level on record in nominal terms with wages growth of just 2.1 per cent. In 2018, however, the Wage Price Index rose back up to 2.1 per cent. The flexibility of the decentralised system has allowed larger wage rises in specific areas where strong wage pressures exist, without this spilling over to wage increases across the board. In fact, wage outcomes have fallen so far that in 2017 Reserve Bank Governor Philip Lowe urged employees to advocate more strongly for wage increases, in order to increase spending and strengthen economic growth.
- **Work practices and productivity:** The deregulation of the labour market since the 1990s has helped to bring about major changes in Australian work practices. Since wage negotiations are based on the specific conditions of individual workplaces, they have encouraged employers and employees to trade-off specific productivity improvements for wage increases. Australia experienced its best sustained productivity growth performance on record during the 1990s, as enterprise agreements eliminated old, outdated work practices. Annual labour productivity growth averaged 2.1 per cent per year during the growth cycle of the 1990s, compared to 1.2 per cent during the previous growth cycle in the 1980s. Although annual productivity growth fell back to around 1 per cent during the 2000s, in the past decade it has risen to around 1.5 per cent, close to its historic average.
- **Unemployment:** Reforms to the industrial relations system have provided Australian workplaces with greater flexibility to adjust to variations in the business cycle. In overall terms, Australia has been successful in combining lower unemployment with rising wages and productivity since the early 1990s. In 2018 Australia's unemployment was the same as the average for advanced OECD economies, despite the fact that minimum wage levels in Australia are higher than in many other countries. The labour market has shown an ability to respond flexibly to changing circumstances over the past decade, from global slowdowns to mining booms and big variations between regional conditions.
- **Income inequality:** One of the main effects of decentralised wage determination is an increase in the degree of wage dispersion – that is, a widening of the gap between higher and lower income earners. Workers with greater skills and who belong to stronger unions tend to receive larger wage increases under enterprise agreements, while those with lesser skills and in weaker bargaining positions receive the smaller safety net wage adjustments. Although the past two decades of enterprise bargaining have resulted in a widening of income equality, the safety net of awards and minimum

wage increases has modestly increased real wages for the lowest income earners. In the decade to 2018, while consumer prices rose 25 per cent, the national minimum wage rose 28 per cent and the overall wage price index rose by 32 per cent.

For well over a century, Australians have been debating how the economy should set wages and conditions for workers. At the heart of this debate are different views of the role of market forces and non-market forces in Australia's wage determination system. People disagree over the issue of whether wage and work conditions issues should be left to employers to negotiate with their employees (that is, the market forces). Historically, Australian governments have believed that because employers possess unequal bargaining power over individual employees, non-market institutions such as industrial tribunals should be created to ensure outcomes that are fair to employees. In fact, Australia was among the first nations in the world to recognise minimum entitlements for employees, such as the eight-hour day and the right to a minimum wage that was high enough to support a decent standard of living for a family.

The continued debate over industrial relations demonstrates that workplace issues remain as much a part of Australian economic policy debate now as they were more than a century ago, when Australia was first developing a national industrial relations system. The processes for determining wages, work conditions and work practices are among the most important aspects of economic policy because they have such wide impacts on the economy and on people's lives. For this reason, the debate over industrial relations policies and their impacts is likely to continue for many years to come.

reviewquestions

- 1 Explain the relationship between the industrial relations system and productivity outcomes.
- 2 Discuss the advantages and disadvantages of Australia's shift to a decentralised system of wage determination.
- 3 Analyse the impacts of industrial relations changes on employers and employees.

chapter summary

- 1** While the Australian labour market has traditionally been governed by a combined system of federal and state laws, Australia now has a unified national system for the private sector under the **Fair Work Act**. This system covers around 7 in every 10 Australian workers.
- 2** Australia's industrial relations system consists of three main streams – awards, collective agreements and individual contracts (common law contracts).
- 3** The **National Employment Standards** set out in law the minimum employment entitlements of all Australian employees. It includes maximum weekly hours of work, annual leave, personal leave (including sick leave), parental leave, a right to request flexible working arrangements if caring for a child and a requirement of notice before termination and a right to redundancy pay.
- 4** **Modern awards** are a set of pay and conditions that are specific to an employee's work or industry sector, that provide a safety net of minimum wages and conditions. They include flexibility clauses so that employers and employees can vary the effect of an award.
- 5** **Enterprise bargaining** is a method of wage determination where a workplace agreement is negotiated collectively between an employer and employees, often represented by unions.
- 6** **Common law contracts** are individual employment contracts that play a role outside of the formal industrial relations system. They apply automatically and to employees who have informal employment contracts that provide above-award conditions.
- 7** In recent decades, Australia has shifted from a system in which industrial tribunals played the main role in **dispute resolution** to a system where employers and employees are largely responsible for resolving their own disputes.
- 8** **Decentralisation** refers to a situation where instead of decisions about wages being made by a government or a central industrial tribunal, they are made in individual workplaces such as through enterprise bargaining.
- 9** Decentralisation of wage determination can increase productivity and help prevent a flow-on of wage rises from one sector of the economy to another, but as a result can also contribute to greater inequality in the distribution of income.
- 10** **Labour market programs** are implemented to address unemployment that is related to supply-side factors such as frictional, structural and long-term unemployment. These programs attempt to reduce the non-accelerating inflation rate of unemployment by improving the skills, job-readiness and employment opportunities of people who are currently out of work.

chapter review

- 1** Outline the main features of Australia's national industrial relations framework.
- 2** Outline how the minimum entitlements of employees are determined.
- 3** Define *enterprise bargaining*. Explain the role of enterprise bargaining in Australia's labour market.
- 4** Explain the role of individual contracts in Australia's labour market.
- 5** Discuss how wage earners who do not have a workplace agreement can achieve wage rises.
- 6** Describe how disputes between employers and employees are resolved under Australia's industrial relations system.
- 7** Explain the difference between a centralised and decentralised system of wage determination.
- 8** Describe the relationship between wage outcomes and productivity.
- 9** Discuss the arguments for and against increasing the use of individual contracts within the labour market.
- 10** Analyse the effectiveness of labour market policies in achieving government economic objectives in recent years.

Effectiveness and Limitations of Economic Policy

18

- 18.1** An overview of the effectiveness of economic management
- 18.2** Limitations of economic policy
- 18.3** Evaluating the effectiveness of specific policies

This chapter concludes our study of the Australian economy with a discussion of the effectiveness and limitations of economic policies. This ties together some of the themes of topic 3 and topic 4, as well as reviewing some aspects of the global economy from the first half of the book that impact the effectiveness of economic policies.

As a starting point, we can evaluate the effectiveness of government policies against the six objectives that were discussed in chapter 13:

- 1** Achieving a sustainable rate of economic growth
- 2** Sustaining a low level of inflation
- 3** Reducing the level of unemployment
- 4** Maintaining external balance – keeping the current account deficit and net foreign debt at sustainable levels
- 5** Ensuring a fair distribution of income and wealth
- 6** Preserving the environment for future generations.

It is also important to consider the limitations of economic policy including time lags, political constraints and global influences. We conclude the chapter by outlining how to evaluate specific policies, with reference to their objectives, implementation, and outcomes, and provide a general overview of the effectiveness of macroeconomic and microeconomic policies in Australia in recent decades.

18.1 An overview of the effectiveness of economic management

To examine the effectiveness of economic policies, it is important to evaluate their outcomes against the objectives that they were implemented to achieve. Policy objectives change over time, and at different times in recent decades governments have changed how they prioritise different objectives. Policymakers often need to choose between conflicting objectives (as discussed in chapter 13). Before considering the effectiveness of policy in addressing specific economic issues, it is important to consider the wider context of the effectiveness of economic management in Australia.

Since the early 1990s, the roles of different economic policies have been defined in fairly clear terms. Overall, **macroeconomic policy** has aimed to achieve the maximum sustainable rate of economic growth, currently around 3 to 3.25 per cent (although the range was 3 to 4 per

Macroeconomic policies are policies that affect the economy as a whole with the aim of minimising fluctuations in the business cycle. Also referred to as demand management or counter-cyclical policies.

cent earlier in the current cycle). Achieving this goal has required balancing the objectives of stronger growth and lower unemployment, against the objectives of keeping inflation within the 2 to 3 per cent target range, and avoiding an unsustainable blowout in the current account deficit. The goal of **microeconomic policies** has been to improve productivity and competitiveness, with the outcome of achieving a higher level of economic growth over the longer term (that is, lifting the sustainable rate of economic growth).

Australia's most remarkable economic achievement in recent decades is that it has sustained the longest unbroken run of economic growth on record anywhere in the world. Compared to other similar countries, Australia has achieved a higher level of growth and lower unemployment over the long run, while sustaining low inflation. Australia also ranks well on comparative measures for living conditions and economic development. For example, Australia ranks second in the world on the Human Development Index. Global investment bank Credit Suisse in its 2017 Global Wealth Report ranked Australians the second richest people in the world, with median adult wealth of US\$195,400 surpassed only by Switzerland at US\$229,000. Australia was also ranked ninth in the world on the global Prosperity Index in 2017 (although it ranked sixth the year before). The Prosperity Index, which is published annually by the Legatum Institute in Dubai, ranks countries on the basis of a range of statistical factors including economic growth, education, health, governance, human rights and environmental standards.

Another indicator of the improved effectiveness of economic policies since the 1990s is the fact that the government has managed the conflicts between economic policies better, and has generally not been forced to sacrifice one macroeconomic objective in order to achieve another. There has been less volatility in the economy, and the government has been able to strike a balance between its goals for growth, inflation, unemployment and external balance. In contrast, economic management in the 1970s and 1980s was characterised by constant tensions over whether priority should be given to maintaining low inflation or reducing the level of unemployment, both of which remained high during those two decades.

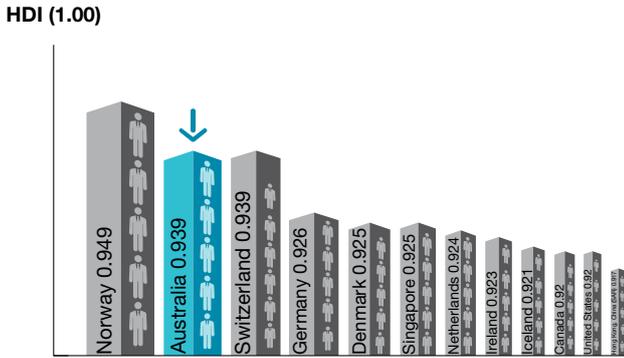
However, it is important to recognise that Australia's impressive record can also be attributed in part to favourable economic circumstances compared to most other economies. The rapid growth of the Chinese economy increased global commodity prices significantly in the 2000s, contributing to a surge in Australia's terms of trade to a level almost double its average during the last quarter of the century. A Reserve Bank research paper in 2014 estimated that the terms of trade boom had added an extra 13 per cent to real per capita household disposable income and raised real wages by 6 per cent by 2013. Although the terms of trade have fallen from their peak, they remain above their long-term average. Australia has also benefited from strong population growth (the highest rate in OECD since the global financial crisis) with a migration program that focuses on skilled migrants who contribute directly to increasing the economy's productive capacity.

Outcomes for growth, inflation, unemployment and external balance

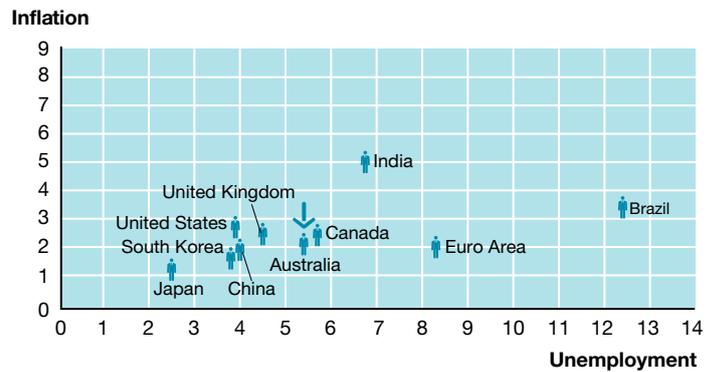
By examining specific economic outcomes over recent decades, we can assess how effective economic policies have been in achieving their goals. Australia has sustained **economic growth** since the recession of the early 1990s. Australia has avoided extreme business cycle fluctuations, where a boom in growth triggers a surge in inflation, which then needs to be curbed by contractionary policies such as high interest rates that might trigger recession. As we noted above, from 1991 to 2019, Australia has experienced 28 years without recession, which is the longest unbroken run of growth of any country in the world. While many industrialised economies have had relatively weak growth since the global financial crisis of 2008 (average annual for OECD countries for the decade to 2018 was just 1.5 per cent), Australia has continued to sustain moderate growth (at 2.6 per cent for the same period), an achievement that reflected a combination of successful

HOW AUSTRALIA STACKS UP

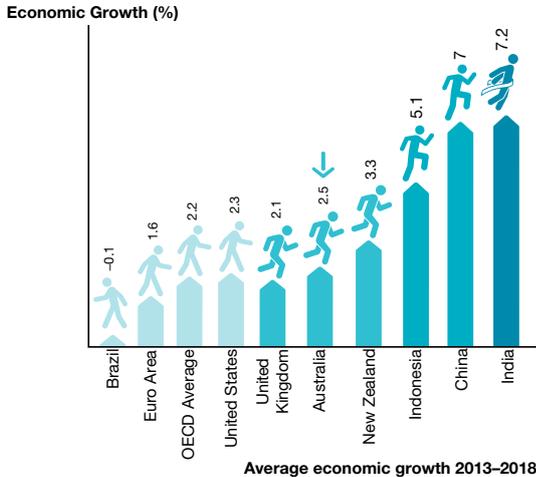
OVERALL, AUSTRALIA IS AMONG THE BEST PLACES TO LIVE IN THE WORLD – WITH A VERY HIGH HUMAN DEVELOPMENT INDEX.



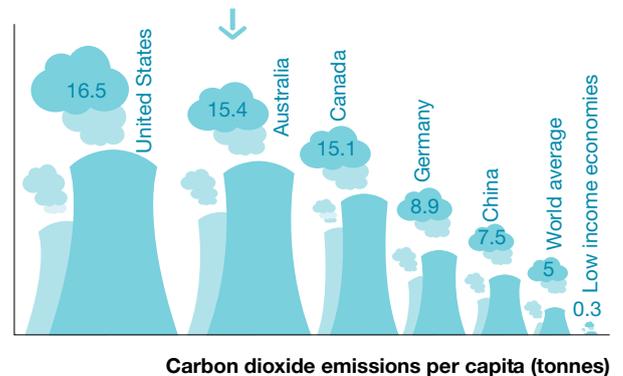
UNEMPLOYMENT IS BELOW THE OECD AVERAGE, AND LIKE OTHER ADVANCED ECONOMIES, INFLATION IS LOW AND STABLE.



OUR ECONOMY HAS SUSTAINED STRONGER GROWTH THAN MOST COMPARABLE COUNTRIES, AND HAS NOT HAD A RECESSION FOR 27 YEARS.



AS MANY NATIONS TRANSITION TO LOWER CARBON ECONOMIES, AUSTRALIA FACES BIG ADJUSTMENTS AS ONE OF THE LARGEST PER CAPITA EMITTER OF GREENHOUSE GASES.



Sources: World Development Indicators 2018 Table 3.8

macroeconomic policy stimulus, the resilience of commodity prices that underpinned export revenue, and high population growth for an advanced economy. These factors should continue supporting growth in the near future. However, increases in growth and living standards in the long run will require stronger productivity growth and sustained efforts to lift workforce participation.

Australia's **inflation** record since the early 1990s has been outstanding. After averaging 10 per cent during the 1970s and 8 per cent during the 1980s, inflation has averaged 2.5 per cent since the introduction of inflation targeting in the early 1990s.

A clear and transparent framework for monetary policy, lower tariff barriers, increased competition across many industry sectors, price reductions resulting from new technologies and cheaper imports, moderate wage outcomes and a period of strong productivity growth in the 1990s have all contributed to the outcome of sustained low inflation. Even during the mining boom, which brought about cost pressures and capacity constraints, Australia

was successful in controlling inflationary pressures. Figure 18.1 shows Australia's economic performance since 1990.

Australia's unemployment rate is marginally lower than the average level for other OECD economies. While official unemployment has been relatively low at around 5.5 per cent, underemployment has been growing in recent years and was 8.7 per cent of the labour force in 2018. Australia has a higher level of underemployment than many other countries, due to our high level of part-time and casual jobs. Some economists argue that further reductions in unemployment and underemployment could be achieved through removing rigidities in the labour market, while others argue that the government should improve its training and education system, especially for individuals at greater risk of joblessness because of social disadvantage.

Favourable external conditions in recent decades have also helped Australia to manage its large **external imbalances**. For two decades from the 1980s to the 2000s, many economists were concerned about Australia's high current account deficit and rising foreign liabilities. However Australia's external balances improved during the 2010s as a result of three major developments: China's emergence as Australia's largest export market, a remarkable turnaround in Australia's terms of trade and a long period of record low global interest rates. An IMF report in 2018 concluded that these factors should put Australia onto a pathway towards keeping the CAD within an average of 2.5–3 per cent, which would allow net foreign liabilities to stabilise at around 55 per cent of GDP. Australia still has a high level of foreign liabilities and remains vulnerable to adverse external developments, such as a slowdown in China or rising global interest rates, but its external outlook is arguably better now than at any time in a generation.

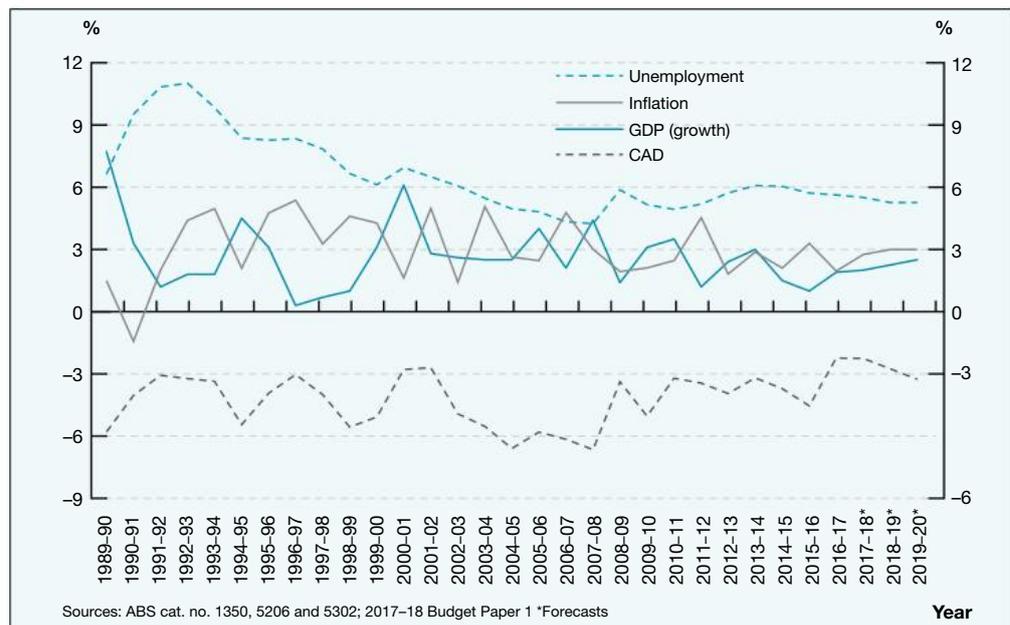


Figure 18.1 – Australia's economic performance since 1990

Another longer-term concern is that despite a long period of sustained economic growth and falling unemployment, Australia is experiencing rising inequality in its **distribution of income and wealth**. On some measures, inequality now is greater than at any time in 70 years. Like other advanced economies, Australia has experienced a shrinkage of middle-level jobs alongside growth in earnings at the top end, and an expansion of lower-paid service industry jobs. The impact of these changes on inequality has been intensified by a decline in wage growth during recent years.

Since 2015, wage growth in Australia has been below the average for OECD economies after a long period in which Australians became accustomed to some of the highest levels of real wage growth in the world. Together, these factors are expanding the number of

TIME FOR A PARADIGM SHIFT IN ECONOMICS?

For many decades, the economic reform debate in advanced economies has been dominated by the “Washington consensus” policies: reduced government intervention in markets, deregulation, trade liberalisation and privatisation of public assets. Those policies have been advocated by think tanks, business lobby groups and international bodies such as the International Monetary Fund and World Bank. More than any other organisation, those policies have been championed by the Organisation for Economic Cooperation and Development (OECD) – an organisation that brings together many of the world’s leading economists to advise on economic policy for advanced economies, and which has been a major influence on Australian economic policy. Although the OECD never advocated a complete “laissez-faire” approach of governments not intervening in free markets, it paid limited attention to questions of inequality and focused strongly on increasing economic growth.

In recent years this has changed dramatically. The OECD now argues that its past approach failed. The world has seen weak growth and increasing inequality in the decade since the global financial crisis. In addition, there is a widespread backlash against globalisation. This has been seen in disruptive political events such as the election of President Trump in the United States, Britain’s vote to leave the European Union and growing resistance to open trade in many countries.

The OECD is now calling for a major paradigm shift in economic policy around the world. It is urging member countries such as Australia to focus on an agenda of inclusive growth. This approach emphasises issues of income and wealth distribution and economic opportunity, alongside growth. The inclusive growth agenda does not abandon the OECD’s historic commitment to market-based mechanisms. But it requires a more active long-term role for government in addressing the inequalities that now pose a growing threat to the stability and social cohesion of many countries. Among other policies, the OECD’s Inclusive Growth Initiative urges governments to:

- remove distortions in tax systems that are contributing to inequality (such as capital gains tax concessions, loopholes exploited by multinational companies and the exclusion of housing and inherited wealth from tax systems)
- invest in early childhood development programs (currently, a child born to parents who did not complete high school has a 15 per cent chance of going to university, while there is a 60 per cent chance for a child born with at least one parent who has a university degree)
- support young firms and small and medium-sized enterprises by reducing the barriers to entry to markets, encouraging research and development and making it easier to obtain finance.

“For years, we counted on economic growth as the only engine of prosperity, failing to realise that this model was leaving many behind: specifically, the bottom 40 per cent ...

In a context where global markets and increased connectivity of economic structures were skewed to benefit a minority of people and firms, disempowered citizens and communities called a halt. This growth model failed us ...

[T]here is ... a growing sense that the global economy is rigged to work in favour of the few and not the many and that governments are not able to respond to challenges that open trade raises ...

For too long, the benefits of globalisation and rapid technological change have been interpreted within an overly simplistic economic framework, a framework that relied too heavily on averages – blurring differentiated outcomes for distinct income groups ...

The OECD’s Inclusive Growth Initiative seeks to take these lessons on board. We need to move away from averages, to look at how policies impact different income groups, and focus on the bottom 40 per cent. Acknowledge that inequalities – far from being just negative externalities – are central features of the way our economic systems function ...

If we want to save openness and interconnectedness of people and places, we need to re-write the rules of the economic system to make them work for everyone. We also need to bring back fairness to the heart of the policy debate. The role of governments is key to this discussion. We need to redefine and re-image their responsibilities, to ensure that they are set up to empower all people to contribute and make the most from economic growth.”

– OECD, 2017. *Time to Act: Making Inclusive Growth Happen*.

Australians who feel left behind by globalisation and technological change. In addition, Australia has several pockets of entrenched social disadvantage, especially among Indigenous Australians and people who are excluded from the labour market.

Sustained economic growth has also continued to affect the **environment**. While there is no easy way to make an assessment of a nation's success or failure in dealing with the environmental effects of economic activity, Australia clearly faces significant environmental challenges. Australia has a poor record in preserving biodiversity, protecting natural environments, managing scarce water resources and overusing agricultural land. It also faces substantial challenges in adjusting to climate change. Australia is more vulnerable to climate change than most advanced economies because of its exposure to drought and natural disasters. Australia also faces a more difficult challenge in reducing its carbon emissions because it is one of the world's highest emitters of greenhouse gases per capita, and it is heavily reliant on carbon-intensive fossil fuels for both energy generation and export income. Political disagreements over the economic policy response to climate change and frequent policy changes have also created greater uncertainty and further complicated Australia's pathway to reducing emissions.

review questions

- 1 Discuss the extent to which the goals of economic management have been achieved in Australia in recent years.
- 2 Assess the role of macroeconomic policies, microeconomic policies and international factors in influencing Australia's economic performance in recent years.

18.2 Limitations of economic policy

Several factors can constrain the effectiveness of economic policies, and can affect whether or not the policies achieve their goals. Below we note three key factors that can influence the effectiveness of policies: time lags, political constraints and global influences.

Time lags

There are two types of time lags that can limit the effectiveness of economic policies. **Implementation time lags** exist when it takes time for the government to make change to or introduce new economic policies. **Impact time lags** exist where it takes time for a new policy or a policy change to have an impact on the economy. Both of these time lags are summarised for different policies in figure 18.2. A change in **monetary policy** can be implemented very quickly. The Reserve Bank meets on the first Tuesday of each month. The outcome of the meeting is announced to financial markets at 2.30pm on the day of the meeting. In some extreme situations, however, the RBA Governor may be given the discretion to change interest rates if conditions change during the period of time between RBA meetings. Once the decision is announced, it has an immediate effect on the cash rate.

Policy	Implementation time lag	Impact time lag
Fiscal	Medium term (annual budget)	Short term (a few months)
Monetary	Short term (monthly RBA meeting)	Medium term (6–18 months)
Microeconomic reform	Long term (a few years)	Long term (up to 20 years)

Figure 18.2 – Policy time lags

On the other hand, the implementation of **fiscal policy** can take a substantial amount of time. Major changes to fiscal policy usually occur on an annual basis with the Budget that is released in May. Substantial changes to spending or revenue collection are mostly made at the time of the Budget, although a government can also announce major fiscal policy changes between budgets, as it did when faced with the global financial crisis in 2008–2009. Most spending and revenue changes need to go through a complex process of budget committee meetings and will be scrutinised by several government departments before being approved. The process of developing each year's Budget starts early in the year and runs for several months until the Budget is finalised in May. It can then take several months for budget legislation to pass through Parliament, and as discussed in more detail below, political constraints can sometimes stop governments from implementing their budget proposals.

Changes to **microeconomic policies** similarly can take a long period of time. This is often because of the extensive planning and detail involved in microeconomic policies. Often microeconomic policy occurs in response to a major government study into a particular issue – for example, the introduction of a price on carbon emissions in 2012 occurred four years after 2008 because of the time required to finalise a policy and then achieve majority support in Parliament (and it was then abolished in 2014 after a change of government). Microeconomic policy can also take a lot of time to implement if it is necessary to secure the support of state governments as well as the Commonwealth. For example, processes such as introducing a national energy policy, reforming Australia's system for schools funding, implementing uniform consumer protection laws and introducing a national disability insurance scheme all required the support of the six states and two territory governments. The process of negotiating these changes through the Council of Australian Governments often takes a considerable time because of the different interests of each state.

Policies can also take time to achieve their aims due to the differing time lags in their **impacts**. Some policies will take effect in a relatively short time period – for example, while it takes a long time to implement changes in fiscal policy, these changes can have a quick effect on economic activity. A tax reduction can immediately affect income levels or prices, and an increase in government spending can quickly affect economic conditions. The impacts of shorter-term changes in the stance of fiscal policy can generally be seen within a year. Fiscal policy therefore becomes more important during a downturn, as fiscal policy's shorter time lag in impacting the economy makes it the most effective policy to achieve an immediate boost in aggregate demand. This was evident in the government's rapid expansionary fiscal policy response in 2008 and 2009 during the global financial crisis, which helped Australia to avoid recession.

On the other hand, there is a time lag of around 6 to 18 months for monetary policy changes to have an impact on the economy. This is because it takes some time for changes in the level of interest rates to feed through to changes in the borrowing and savings behaviour of consumers and businesses. This makes it more difficult for the Reserve Bank to make the right adjustments to monetary policy, because it needs to take account of the anticipated level of inflation and other economic conditions in a year to 18 months' time, rather than simply looking at the level of inflation at the time when it is making the policy decision. This explains why in 2015 the Reserve Bank reduced the cash rate even though underlying measures of inflation were still in the 2 to 3 per cent range, because it was anticipating the likelihood of inflation falling over the following months (which then happened). This could also explain why the Reserve Bank may choose to raise interest rates even when inflation is below the target range, as it did in 2010.

The impacts of microeconomic policies can probably only be assessed after a period of several years – and perhaps decades if we are to get a fuller picture of the effectiveness of these policies. This is because the benefits of structural change can take several years to become apparent as resources are reallocated from one sector to another within the economy, and the full effects of those changes are felt in terms of costs, business profits, export growth

and productivity. In addition, it can be difficult to accurately measure the impact of microeconomic policies since several microeconomic policies might be implemented at the same time and it may be hard to distinguish the impacts of one reform from another.

Political constraints

In studying economic policy, it is important to remember that economic policy decisions are made in a political context. This means that when governments are making policy decisions, they must be sensitive to whether the policy is likely to have public support or not. Governments will also take into account whether a policy direction will be supported by their own political party, and by other stakeholders, including the influential business or union groups who contribute substantially to the party's campaign funds. Typically, governments implement longer-term (and less popular) policies in the first year of the three-year governments (as the Abbott Government attempted in its 2014–15 budget). Around halfway through their three-year term they begin preparing for the next election. In their final year before an election, governments can become more reluctant to make unpopular decisions and are often under pressure to implement policies that may be popular with the electorate but may not have long-term economic benefits.

The constraints on implementing **unpopular policies** are a major consideration for economic management. For example, one of the reasons why countries have been slow in addressing the profoundly serious crisis of climate change, despite the consensus of the scientific community, is that the policies required to address climate change are often unpopular because of their costs. However, in some instances governments will consider an economic reform to be such a high priority that they will risk unpopularity in order to implement it. For example, the Gillard Government went ahead with the introduction of an unpopular carbon tax in 2012 because of the priority of reducing Australia's carbon emissions, just as the Howard Government went to the 1998 election with the unpopular policy of introducing the Goods and Services Tax because of its priority as an economic reform. Another way that a government might try to avoid being held responsible for unpopular decisions is to delegate its authority to independent government agencies. Examples include the Reserve Bank making interest rate decisions and independent authorities approving pricing decisions in regulated sectors like postal services and electricity prices. If the government was directly responsible for making these decisions, it would be under political pressure to make decisions that are popular in the short term, which might not be consistent with long-term economic objectives.

Another aspect of the political constraints on government is the role of the Australian Parliament, and especially the **Senate**. Many economic policies can only be implemented through legislation, including budget measures, changes to the industrial relations system, and changes to business laws. Under the Australian parliamentary system, legislation must receive a majority of votes in both the House of Representatives (the Lower House) and the Senate (the Upper House). Historically, it has been uncommon for a government to have a majority in the Senate and as a consequence governments have often been forced to make compromises to win the support of other senators, either from the Opposition or from minor parties, in order to pass the proposed legislation. The 2016 election resulted in the Turnbull Government returning to office with a razor-thin majority of just one seat, as well as not holding a majority in the Senate. This made the government more unstable because for each bill in parliament, it needed the support of every government MP. In 2018 Prime Minister Malcolm Turnbull was deposed by his party after a rebellion by a small group of government MPs meant that he could not get the National Energy Guarantee legislation through parliament. In the Senate, the Turnbull Government needed to persuade at least 9 members of other political parties to support its legislation, because it only held 30 out of 76 Senate seats. The previous Labor Government faced even greater political constraints from 2010 to 2013, because it did not have a majority of seats in either House and required the support of other parties or Independent members of Parliament to pass legislation.

Australia's system of federalism can act as another political constraint on the Commonwealth Government. The Commonwealth and state governments share responsibility for major parts of the economy, including energy policy, the education system, health care, aged care, infrastructure such as roads, and business regulation. This means that to implement major changes, the Commonwealth must often win the cooperation and agreement of some or all of the states.

When the Commonwealth and the states are unable to agree on a policy compromise, the Commonwealth might try to impose changes on the states, a step that can lead to lengthy constitutional challenges in the High Court. In 2006, for example, the Commonwealth won a major constitutional case where the states challenged its takeover of their industrial relations powers. The High Court has generally favoured an expansive interpretation of the power of the Commonwealth over the States in recent decades, but the States still retain significant powers under the Australian Constitution.

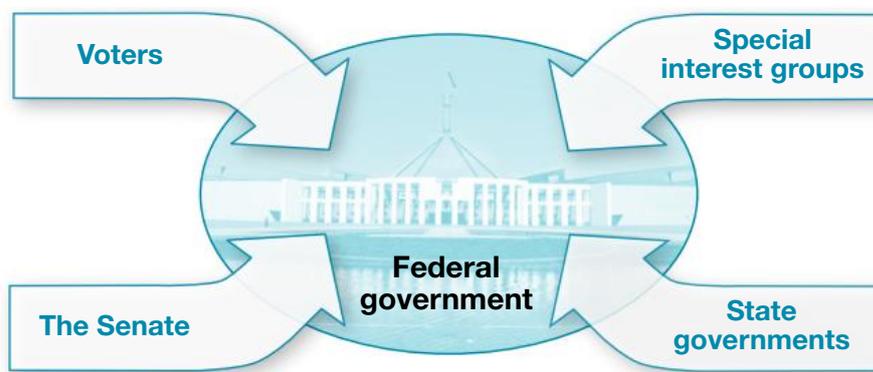


Figure 18.3 – Political constraints on economic policy

Special interest groups can also play an important role in government policymaking. Often, political parties have strong relationships with supporters – business groups tend to have significant influence on the policies of both major political parties, especially the Coalition parties, while unions have a close relationship with the Labor Party. Large businesses often employ lobbyists to influence government policies because of the potential financial impacts of policy decisions on their activities.

In the 2016 Federal election, the Australian Medical Association (a professional association for doctors) ran a nationwide campaign opposing the government's cuts in Medicare funding, while unions ran a campaign in several important seats against plans to reduce penalty rates for work on Sundays, which had surfaced during the Coalition Government's previous term in office. Both campaigns were seen as effective and contributed to the Turnbull Government losing 14 of its 90 seats in the House of Representatives. The highest profile special interest group campaign against a government policy in the past decade was the mining industry's campaign to defeat the proposed Resources Super Profits Tax in 2010. The mining industry threatened to spend as much as \$100 million to defeat the government at the election that was due later that year. In fact the mining industry had only spent a fraction of that money before the government backed down on its proposal just weeks before the 2010 election, replacing it with a much lower Mineral Resources Rent Tax that was negotiated with the mining companies.

Global influences

As the Australian economy has become more integrated with the global economy, global factors have become a greater constraint on economic policy. The constraints imposed by globalisation work at many levels. Conditions in the global economy have a more immediate impact on Australia. Economies often face immediate consequences for economic mismanagement (mainly through the reaction of financial markets, as Turkey experienced with the collapse of the lira in 2018 after the President appointed a relative to lead the central bank). From a longer-term perspective, Australian governments also voluntarily accept constraints on their own economic policy in order to win concessions from other nations, such as through trade agreements.

In a global environment in which exchange rates and economies are vulnerable to sudden shifts in financial flows, governments place a high priority on maintaining the confidence of international investors and **global financial markets**. This has become particularly important in recent years with global financial markets experiencing enormous volatility in the period following the global financial crisis. As we saw in chapter 5, foreign exchange markets tend to support policies that open economies to foreign investment and involve minimal government intervention. These policies include:

- reduced government spending and reduced budget deficits
- low rates of corporate taxes and capital gains taxes, and less progressive income tax rates
- reduced trade barriers and removal of restrictions on foreign investment
- deregulation of the financial sector, including the removal of restrictions on international financial flows
- deregulation across most areas of the economy, with the aim of increasing competition
- privatisation of government-owned businesses
- deregulation of labour markets and reducing entitlements to social welfare
- trade agreements that give overseas businesses the power to sue national governments for policy changes that undermine the profitability of their investments.

This creates a difficult environment for governments that wish to pursue policies that differ from the generally accepted formula for good economic management. Most advanced economies have adopted a similar policy mix in recent years. Critics argue that global financial markets effectively restrict the policy options available to governments (although others argue that financial markets provide a helpful discipline on governments that might otherwise make bad policy decisions). Any government that adopts alternative policies may face a loss of foreign investor confidence and a fall in their currency. For example, when the United Kingdom voted in June 2016 to leave the European Union, its currency (pound sterling) immediately fell by over 10 per cent and foreign investors froze their investment plans, worried that the UK economy would now lose many of the benefits of integration with European economies.

Global financial flows and overseas interest rates can also directly influence the conduct of monetary policy. In a situation where interest rates are rising in other countries, if a country does not also raise its interest rates, its rate of return will be relatively less attractive for overseas investors. This might result in an outflow of funds and a depreciation in the currency, which in turn may add to inflation and undermine confidence. In order to prevent this occurring, governments will often adjust interest rates in response to changes in the interest rates in other economies. Market interest rates in Australia can also be directly affected by changes in overseas interest rates, because Australian banks rely on borrowing from overseas to fund their loan portfolios. Rising global interest rates prompted Australian banks to review their lending rates in 2018 even though there was no immediate prospect of a rise in the RBA cash rate.

The **international business cycle** can also restrict the scope of policymaking within individual countries. It is difficult for a country to significantly increase its level of economic growth if the rest of the world economy is going through an economic downturn. Faster domestic growth will cause an increase in imports while export growth weakens, resulting in a substantial increase in the current account deficit. This can force the government to slow down the economy through tighter fiscal and monetary policy, risking a more severe recession. This is one reason why industrialised countries generally keep their economic growth in step with the international business cycle and the regional business cycle.

Finally, **international organisations** can have a direct influence on domestic macroeconomic and microeconomic policies. The **World Trade Organisation** can influence individual trade policies because of its enforcement powers. Its ability to place trade sanctions on economies that do not comply with international trade agreements can have significant consequences for a country's trade policy. On occasion, the WTO has forced the Australian Government to change export assistance policies or Australia's strict quarantine regulations – such as when Australia was forced to abandon its ban on fresh salmon imports from Canada.

Decisions of the **Group of Seven (G7)** nations and the **G20 group** (see chapter 2) can have a significant influence over the global economy and over the domestic macroeconomic policies of small countries such as Australia. The growing integration of economies through globalisation leaves limited scope for small countries to adopt a different macroeconomic policy stance to that adopted by the major industrialised economies.

review questions

- 1 Explain how time lags limit the effectiveness of economic policies.
- 2 Outline two major economic policy initiatives undertaken by the government during the past year and for each:
 - Summarise arguments for and against the initiative as raised by any special interest group or the media.
 - Discuss how the initiative may have been influenced by political factors.
- 3 Discuss how the separation of monetary policy decisions from the control of the Commonwealth Government to the Reserve Bank might influence the effectiveness of the policy mix in Australia.
- 4 Briefly discuss how global economic conditions have constrained or assisted Australia's economic performance in the past year.

18.3 Evaluating the effectiveness of specific policies

To examine the effectiveness of economic policies we must look at individual policies and determine whether or not they have been effective in achieving their goals in comparison with other policies. This can be a challenge because it is often difficult to isolate the specific effects of one policy compared with another. However, we can assess the effectiveness of policies by analysing:

- the specific objectives of a policy
- whether the policy was implemented effectively
- the relevant economic outcomes, and how they compare with the objectives
- time lags

- other factors that may have affected outcomes during that period, including external factors
- whether there were any side effects associated with the implementation of particular policies.

In evaluating whether a policy has been effective, we need to identify the policy's original objective. For example, in evaluating the effectiveness of monetary policy we would firstly identify that the Reserve Bank's goal is to keep inflation within a target range of 2 to 3 per cent over the medium term. If its target was to achieve zero inflation, then we would conclude that it has failed to achieve its objective. However, since its target has been 2 to 3 per cent, monetary policy over the past two decades at the very least would appear to have been successful.

The next question to ask is whether the government **actually implemented** the policy that it had originally set out to implement. Policies might be changed before they are fully implemented, such as because a government is voted out of office or has changed its priorities and has not fully implemented a policy. In addition, sometimes governments have economic policies that they are not able to implement because of political constraints. For example, the Turnbull Government abandoned its planned corporate tax cuts for large businesses in 2018 after they were rejected by the Senate. It would not be fair to judge the outcomes of government policies against their objectives if important parts of the policy are not implemented.

The next step in evaluating policies is to review the **economic outcomes**, and how closely they relate to the policy objectives. Sometimes it is difficult to determine whether a policy has been successful, because governments do not always set themselves specific targets or objectives when they implement a policy. For example, governments have set targets for economic growth and inflation during recent years, but have not set targets for the level of unemployment other than having a general aim of reducing the rate. Without specific goals, it is more difficult to measure the effectiveness of policies.

The next step to is ask **whether other factors significantly affected the economic outcome**. Government economic policy is always at the mercy of other developments, and economic policy is often just one of many factors that determines economic outcomes. Economists often speak of policies being effective in terms of the Latin phrase "*ceteris paribus*" – meaning "with everything else being the same" or effectively, "if nothing else changes". The problem in measuring the effectiveness of policies is the fact that other things do change. For example, per capita growth in greenhouse gas emissions fell in the years after Australia abandoned the carbon tax in 2014. However economists mostly believe this happened not because of the changes in Australia's policies on carbon emissions, but despite them. Other factors had a larger effect, including reduced emissions from fossil fuels due to the closure of large-scale manufacturing, oil refineries and aluminium smelters, reduced household demand due to higher energy prices and the rapid take-up of residential solar power.

Some of the factors that might affect economic outcomes include:

- changes in global economic conditions or the economy of a major trading partner
- overseas interest rate movements
- a sharp movement in the value of the currency
- developments that might affect future expectations, such as a crisis in a particular industry or region of the world
- changes in commodity prices, such as a large increase in oil prices or a fall in iron ore prices
- seasonal factors, including droughts, floods, natural disasters and outbreaks of infectious diseases
- industrial unrest, such as a major dispute between a union and a major Australian company



For further information on Australia's economic performance and policies, visit the OECD website: www.oecd.org and the Treasury website: www.treasury.gov.au

- new technologies or shifts in consumer preferences
- a shift in sentiment relating to the Australian economy, for example, as a result of a downward adjustment in Australia's credit rating.

The final question to be considered is whether a policy had any **other consequences** or side effects. This is especially important to ask if there are signs that the policy was reasonably effective in achieving its main aim. At this point we might ask the question, at what price was this achieved? Was another part of the economy badly affected by this policy? This highlights the fact that there is a trade-off between policy objectives because of the **conflicting objectives** of economic management. For example:

- Reducing inflation is a primary economic objective when inflation exceeds the Reserve Bank's 2 to 3 per cent target band, but to reduce inflation it is necessary to raise interest rates, resulting in a short-term contraction in economic activity and increased cyclical unemployment. When faced with this short-term trade-off between reducing inflation and reducing unemployment, it may be tempting for the government to avoid taking action against inflation using contractionary macroeconomic policy, particularly during an election year. This is why the Reserve Bank operates independently from the government, to prevent political considerations from constraining the conduct of monetary policy in achieving price stability.
- On several occasions in recent years the Reserve Bank of Australia has raised concerns about excessive growth in housing prices in Sydney and other cities, and whether Australia's household debt levels are sustainable. Some economists have argued that the RBA should impose greater prudential controls on residential lending, or keep interest rates at higher levels. However, such measures would also result in lower levels of economic activity and household incomes.
- After the global recession of 2008 and 2009, many overseas governments (especially in Europe) had to make difficult trade-offs between reducing their budget deficit (to address financial market concerns about their soaring public debt levels) and the risk that contractionary fiscal policy could put their economy back in recession. Australia was fortunate in being able to mostly avoid this difficult trade-off, because it had much lower deficits and debt levels than other advanced economies.
- Decentralisation of wage determination was effective in raising productivity levels and growth in incomes in the 1990s. However, it has also contributed to increasing inequality in the distribution of income (because the rate of wage growth for higher-income earners is greater than for lower-income earners), increased work intensity and less job security for individuals.
- Economists have historically accepted that there is a trade-off between achieving higher levels of economic growth and increased inequality in the distribution of income and wealth. In particular, "boom" periods (such as the recent resources boom in Australia, or the rapid growth in the Chinese economy in the past two decades) often generate income and wealth that is distributed very unevenly. Conventional wisdom has accepted that countries must accept higher levels of inequality if they wish to achieve faster growth. However, organisations such as the OECD and IMF now emphasise the need for a more inclusive approach to economic growth, because of the negative economic and social effects of increasing inequality. Advocates of inclusive growth argue that many of the policies that promote greater income equality will also promote economic growth (because measures to increase the incomes of lower-income earners will boost consumption and lift economic growth). This suggests that there is no longer a clear trade-off between increased equality and increased growth.
- Large long-term reductions in Australia's carbon emissions will be necessary if Australia is to make its contribution to the global response to climate change. However, this area of policy has proved very difficult for governments for more than a decade. On several occasions governments have changed their policy plans, and policy proposals have been rejected in Parliament. There has been extensive debate about how policies that

Appendix B: Advanced Economic Analysis at the back of this textbook looks at "crowding out", the twin deficits hypothesis and the quantity theory of money – theories that explain the limitations of macroeconomic policies.

put a price on carbon emissions might affect different parts of the economy, especially carbon-intensive industries in regions like Wollongong, Newcastle and the Hunter Valley. Governments have been forced to make trade-offs between the long-term goal of greenhouse gas emissions and the short-term impact of imposing a price on carbon, including higher energy prices, slower economic growth and potential job losses.

By examining the side effects of economic policies, you can achieve a more balanced assessment of the effectiveness of the policy mix.

Economic management in Australia: Past, present and future

Macroeconomic management

Macroeconomic management has mostly proved effective in achieving its **short- to medium-term goals** since the early 1990s. Australia has maintained growth despite sometimes difficult global economic conditions and Australia has also achieved low inflation and lower rates of unemployment. But this success has required policy to keep changing in response to economic conditions.

Monetary policy has worked well since the early 1990s in managing the growth cycle and achieving price stability. The inflation target has largely been achieved (notwithstanding occasional periods of inflation being below or above the 2 to 3 per cent target, as has recently occurred) and Australia has maintained stability in its management of economic growth.

Early 1990s: Expansionary	At the beginning of the 1990s, expansionary fiscal and monetary policies were needed to bring about a gradual economic recovery.
Mid-1990s: Contractionary	Monetary and fiscal policy were both successfully tightened, addressing growing pressures on inflation and the current account by 1996.
Late 1990s: Expansionary then contractionary	The macroeconomic policy mix changed as tighter fiscal policy was offset by looser monetary policy between 1996 and 1998, and interest rates began increasing to head off rising inflation rates with the introduction of GST in 2000.
Early 2000s: Expansionary	As the global economy dipped into recession in 2001, Australia shifted to expansionary fiscal and monetary policies – with interest rates falling to their lowest levels in 30 years – and avoided recession.
Mid-2000s: Contractionary	As the Australian economy returned to normal growth rates, both fiscal and monetary policy became less expansionary to avoid excessive growth and increasing inflationary pressures owing to the boom in commodity prices: by 2007 monetary policy was contractionary.
2008–2009: Strongly expansionary	With the onset of the global financial crisis in late 2008, policy settings were reversed to provide a large expansionary stimulus for a weakening economy. Interest rates were reduced to their lowest level in 50 years, and the government embarked on a massive fiscal stimulus to cushion Australia from the full force of the recession.
2010–2018: Neutral stance	By late 2009, the Australian economy was emerging from the global recession with only a mild contraction in economic activity. As growth recovered, interest rates were returned to more neutral levels, whilst fiscal policy became mildly contractionary. Since 2012, mildly contractionary fiscal policy has been offset with expansionary monetary policy. In 2016 interest rates were reduced to record lows.

The effectiveness of monetary policy relies on the overall **policy mix**. The main limitation of monetary policy is that it is rarely effective when it is used on its own – it needs to be supported by similar fiscal policy settings. It was less effective against rising inflationary pressures in 2008, when inflation rose to 5 per cent, because fiscal policy was moving in the opposite direction – while interest rates were rising, their contractionary impact was being undermined by a series of income tax cuts that were having the opposite effect.

The past two decades have also shown that monetary policy is generally more effective in implementing contractionary macroeconomic policy than expansionary policy. During periods of major economic downturn, low interest rates are generally not enough to stimulate economic activity and lower unemployment. Nevertheless, low interest rates can play a supporting role while expansionary fiscal policy plays the main role in boosting economic growth. This is because fiscal policy has a direct impact on aggregate demand while monetary policy relies on households and businesses responding to interest rate incentives. This was the case after the global downturn that began in late 2008, with very expansionary fiscal policies playing the main role in directly contributing to economic growth. With interest rates in some European countries falling below zero in recent years, central banks around the world have argued that on its own, expansionary monetary policy cannot restore economic growth, and that expansionary fiscal policy is needed to play the main role in kick-starting growth. Monetary policy in Australia is likewise becoming less effective in stimulating growth. Even though the real cash rate was 1.9 percentage points lower in the decade from 2008 to 2018 than in the previous decade, annual average economic growth fell from 3.5 per cent to 2.6 per cent during the same period.

The other main limitation of monetary policy is that it is a **demand management** policy – that is, it can influence aggregate demand but not the structural (or supply side) causes of certain problems. During the global commodity boom of the mid-2000s, the Reserve Bank highlighted the fact that inflation was increasing because of capacity constraints – with the economy getting close to its full capacity. While higher interest rates can reduce demand pressures, they do not deal with the supply side problem of capacity constraints and cost-push inflation. Monetary policy can also struggle with conflicting goals, especially in its impact on demand and asset prices. The Reserve Bank has in recent years noted the tension between raising interest rates in order to curb a potentially dangerous housing price bubble and wanting to encourage stronger economic growth. Monetary policy is a blunt policy instrument, and has limited effectiveness when policymakers may want to support growth in one sector or region of the economy, while restraining growth in another.

Monetary policy also cannot successfully address the problem of a high current account deficit, because it cannot bring about a structural improvement in international competitiveness or the level of national savings. In fact, even though monetary policy is intended to sustain low inflation, it can do little to address inflationary pressures other than those driven by demand from consumers and businesses. Raising interest rates to address other sources of inflation such as a falling currency would be attempting to solve the inflation problem by attacking something other than its real cause.

Monetary policy can also face an additional strain during periods of sustained economic growth, because it is also the tool of last resort if wages are growing too quickly. In the absence of an incomes policy that can control wage increases directly, the most effective tool to limit inflation and wage rises is tighter monetary policy. In past times when wages growth threatened to push inflation above its target range, the Reserve Bank warned that it would if necessary increase interest rates in response to high wage growth. However this has not been a concern for economic management for more than a decade.

Fiscal policy is the most effective policy to stimulate the economy and job creation during a downturn, but less effective in slowing it down when the economy is overheating. Australia was successful in using fiscal policy to avoid recession in 2009, when it implemented one of the largest programs of fiscal stimulus in its history in response to

the global downturn. The aim of this strategy was to immediately strengthen aggregate demand before the global downturn had a dramatic impact on Australia. Fiscal policy was effective, with the Treasury concluding that the stimulus added 2 per cent to economic growth in 2009, resulting in growth of 1.3 per cent instead of a 0.7 per cent contraction in GDP. But these measures can also require a budget deficit and can draw savings away from private investment. Economists generally agree that sustained higher budget deficits over the longer term can contribute to higher long-term interest rates, lower national savings and an increased current account deficit.

In the broadest sense, the government's **macroeconomic policy mix** has been successful in sustaining more than a quarter-century of economic growth in which Australia has progressively reduced unemployment, kept inflation low and enjoyed rising living standards. Nevertheless, macroeconomic policy has not been able to address all of Australia's structural problems. Australia has rising inequality, weak productivity growth, high levels of household debt and foreign debt, a growing dependency on one major economy (China) and a significant number of working-age Australians who are either unemployed, underemployed or outside the labour force. In addition, Australia is facing major long-term threats from climate change and water shortages.

Microeconomic management

Australia's extensive **microeconomic reforms** since the 1980s are widely regarded as having been successful. Microeconomic policy has made it possible for the economy to grow at a faster rate for a longer time period, improving living standards and reducing unemployment. The Australian economy has become more internationally competitive, and inflationary pressures have been contained. Australia's economy is generally regarded as one of the world's more open and successful economies, despite our geographic isolation from the major centres of activity in the global economy.

Some economists have criticised the lack of ongoing microeconomic reform since the 1990s. Compared with the rapid pace of micro reform in the 1990s – when governments implemented national competition policy, enterprise bargaining, major industry deregulation, accelerated tariff cuts and the introduction of the GST – microeconomic reform has moved ahead slowly in recent years. To some extent, this is inevitable since many of the reforms of the 1990s involved once-off structural changes that could not be repeated. Nevertheless, economic agencies such as the Treasury and the Productivity Commission have argued that more needs to be done to accelerate microeconomic reform. For example, the Grattan Institute in 2016 highlighted more than 50 microeconomic reform policy options in *Priorities for the Next Commonwealth Government*. However, many of the recommended policies would face political constraints, including opposition from state governments, resistance from special interest groups and the difficulty in getting legislation through Parliament when the government does not have a majority of seats in either the House of Representatives or the Senate.

Critics argue that despite Australia's relatively successful economic performance, the economy has structural weaknesses. They make the case that Australia has become too reliant on its resources exports to China and other developing economies. Productivity growth has remained lacklustre since the 1990s, and economic growth has been below its long-term trend for the past decade. Australia's ranking on various measures of competitiveness has also slipped in recent years (for example, falling from 4th in 2004 to 19th in the 2018 World Competitiveness Yearbook, and from 7th in 2003 to 21st in the World Economic Forum's 2017–18 Global Competitiveness Index). A success of leadership changes and policy backflips, especially around climate policy, have added to uncertainty. Australia also faces significant looming challenges, including an ageing population, declining workforce participation, the impact of climate change and the risk of a sustained slowdown in China. All these factors underline the need for continued microeconomic reform, diversification of the economy and investments in education, early childhood programs and infrastructure to underpin future productivity growth.



For discussion of the recent conduct of monetary policy, visit the Reserve Bank website www.rba.gov.au and view the speeches section. In particular, look at the Hansard transcript of the Governor's parliamentary testimony given every six months (around February and August).

In the longer term, the success or failure of the government's policy mix will be measured by our capacity to **sustain growth** in the economy, employment and living standards, while achieving a **sustainable** position on the external accounts, distributing the rewards of economic growth more equitably and addressing environmental challenges, in particular climate change and water shortages.

The effectiveness of economic policies cannot ultimately be judged by reference to economic outcomes alone. Economic policies affect the kind of society we live in and how we lead our lives. Should we question our assumption that increasing GDP will increase people's happiness? Should we always pursue increased material wealth and GDP growth no matter what its effects on families, communities and the environment? Do we have a responsibility to future generations to act with more urgency in reducing our carbon emissions and slowing down our consumption of non-renewable resources? Is it fair that one person who grows up in a poor family has far fewer opportunities than someone who has grown up in a prosperous family? Is it fair that Australians enjoy such good living standards compared to other nations when so many people are dying of easily preventable diseases in developing countries? These are more than just technical economic issues. They are issues that go to the heart of what we think is important in life – and answering these questions requires us to go beyond an economics textbook.

review questions

- 1 Identify two major global events in recent years and explain how they have influenced Australian economic policy.
- 2 Describe an example of a recent government policy that illustrates the conflicts in economic policy objectives.
- 3 Critically analyse which economic policy instruments have been most effective in recent years in achieving their goals.

chapter summary

- 1** Since the early 1990s, the main goal of the economic policy mix has been to achieve the maximum **sustainable economic growth rate** in the short to medium term (through macroeconomic policies), while implementing policies that will raise the long-term sustainable growth rate (through microeconomic policies). In overall terms, this policy mix has been reasonably successful.
- 2** Economic policies differ in their **implementation** time. While monetary policy decisions can be implemented immediately, major changes to fiscal policy are only usually announced in the annual Budget, and microeconomic policies can often take several years to implement.
- 3** Economic policies can differ in the **time lag** involved before they impact on the economy. While fiscal policy changes such as tax cuts can have an immediate impact on the economy, monetary policy changes take 6–18 months to have their full impact and microeconomic reforms can take many years to have their full effect.
- 4** In the short term, the main **global influences** on the Australian economy are the international business cycle, overseas interest rates, financial market conditions and commodity prices.
- 5** In the long term, some of the most important global influences on Australia reflect global trends in economic management. Examples of the influence of global trends include the shift away from government intervention to deregulation and privatisation in the 1980s, the adoption of inflation targeting in the 1990s, and the adoption of policies to reduce carbon emissions during the past decade.
- 6** **Political constraints** can have a significant impact on economic management, including the three-year political cycle, the unpopularity of some policies and the difficulty governments often experience in getting legislation through Parliament.
- 7** Effective economic management often requires governments to trade-off some objectives against others and to strike a balance between **conflicting goals** such as achieving both low inflation and low unemployment.
- 8** The goal of achieving a **sustainable rate of economic growth** in the short term balances the objectives of inflation, growth, unemployment and external balance. The longer-term goal of raising the sustainable growth rate involves improving international competitiveness, workforce participation and productivity, and ensuring that Australia's economic growth is compatible with fairness in the distribution of income and wealth and environmental outcomes.
- 9** **Microeconomic policy** is generally regarded as having succeeded in boosting productivity, economic growth and living standards over the recent decades. However, some economists argue that Australia has not undertaken enough microeconomic reform in recent years.
- 10** Governments often face a **trade-off** between the goals of **equity** and **efficiency** in economic management. Inclusive growth policies aim to overcome this tradeoff by simultaneously supporting growth and reducing economic inequality.

chapter review

- 1 Identify which economic objectives have had the highest priority in recent years.
- 2 Explain to what extent time lags affect the operation of monetary, fiscal and microeconomic policies.
- 3 Explain two ways in which global influences affect the conduct of economic management in Australia.
- 4 Discuss how a major downturn in the global economy might affect the key economic indicators in Australia.
- 5 Explain how political constraints can influence economic policymaking.
- 6 Evaluate the effectiveness of the government's policy mix in sustaining economic growth and low inflation during the past decade.
- 7 Identify a policy objective that has been achieved during recent years and explain the factors contributing to that success.
- 8 Discuss the relationship between economic growth and increased inequality in the distribution of income and wealth.
- 9 Evaluate the extent to which economic management in Australia has been more successful in recent years compared with preceding decades. Analyse the extent to which this is the result of global or domestic factors.
- 10 Critically evaluate the extent to which equity and environmental outcomes have been sacrificed to achieve other economic objectives in recent years.

Key Economic Skills

- A.1** Introduction
- A.2** Drawing and interpreting economics diagrams
- A.3** Equations and calculations in economics
- A.4** Interpreting economic data and information

A.1 Introduction

Economics is a subject that requires you to understand the relationships between different economic indicators, such as trade flows, exchange rates, unemployment and interest rates, and the role of different actors in the economy such as transnational corporations, international organisations, and government agencies. It is a mix of social science, with an emphasis on human activities, and scientific analysis, where we can test our theories of how economies operate by analysing the relationships between different economic indicators.

Throughout the 18 chapters of this textbook, you've probably found that one of the most challenging aspects of economics is that it is neither a "writing" subject nor a "numbers" subject, but a unique blend of both qualitative and quantitative analysis. In the Year 12 exam, the expected length for each extended response is 800 words, although you will not be penalised for writing more. This is the same as for other courses such as Business Studies and Geography.



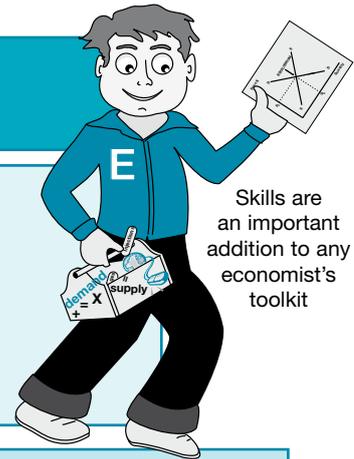
For further information on skills and assessment in Economics, or a full copy of the Economics Syllabus, visit the website of the NSW Education Standards Authority: <http://educationstandards.nsw.edu.au>

Studying economics is not simply about memorising a lot of information. You must also learn a range of skills to understand how modern economies function, and predict how changes in one part of the economy can affect other parts. For this reason, **applying economic skills is central to the Year 12 Economics Course**. Each topic of the course contains between 3 and 8 skills, and there are 23 skills in total for the whole course.

It is best to learn economic skills as you learn the content of the course. For this reason, each of the economic skills is listed at the beginning of each topic area in this textbook, and the skills are incorporated into the chapter material. **The aim of this section is to reinforce your grasp of economic skills** because of the crucial role that these skills play in economic analysis for the Year 12 Course.

**YEAR 12
COURSE
TOPIC**

SYLLABUS SKILLS



The Global Economy

- analyse statistics on trade and financial flows to determine the nature and extent of global interdependence
- assess the impact on the global economy of international organisations and contemporary trading bloc agreements
- evaluate the impact of development strategies used in a range of contemporary and hypothetical situations

Skills are an important addition to any economist's toolkit

Australia's Place in the Global Economy

- calculate the main components of Australia's balance of payments
- analyse the relationship between the balance of the capital and financial account and the net income balance
- explain the relationship between the current account balance and the balance of the capital and financial account
- use supply and demand diagrams to explain how the value of a currency is determined under different exchange rate systems
- analyse the impact of changes in the components of the balance of payments on the value of the Australian dollar

Economic Issues

- identify and analyse problems facing contemporary and hypothetical economies
- calculate an equilibrium position for an economy using leakages and injections
- determine the impact of the (simple) multiplier effect on national income
- explain the implications of the multiplier for fluctuations in the level of economic activity in an economy
- calculate the unemployment rate and the participation rate using labour force statistics
- interpret a Lorenz curve and a Gini coefficient for the distribution of income in an economy
- use economic concepts to analyse a contemporary environmental issue
- assess the key problems and issues facing the Australian economy

Economic Policies and Management

- explain how governments are restricted in their ability to simultaneously achieve economic objectives
- use (simple) multiplier analysis to explain how governments can solve economic problems
- identify limitations of the effectiveness of economic policies
- explain the impact of key economic policies on an economy
- propose and evaluate alternative policies to address an economic problem in hypothetical and the contemporary Australian contexts
- explain, using economic theory, the general effects of macroeconomic and microeconomic policies on an economy
- select an appropriate policy mix to address a specific economic problem

Source: NSW Board of Studies, Official Notice BOS 47/09, 2009

Figure A.1 – Economic skills in the Year 12 Economics Course

Knowledge and understanding of course content is worth 40 per cent of Year 12 assessment. The other 60 per cent is divided equally between three other components – each of which you can strengthen with the material in this chapter: *stimulus-based skills* (20 per cent); *inquiry and research* (20 per cent); and *communication of economic information, ideas and issues in appropriate forms* (20 per cent).

The course skills can be divided into three main areas:

- drawing and interpreting economics diagrams
- equations and calculations in economics
- interpreting economic data and information.

A.2 Drawing and interpreting economics diagrams

Being able to draw and interpret diagrams is an essential skill in the Year 12 Economics course. Some diagrams, like supply and demand in the foreign exchange market, are explicitly referred to in the syllabus. Other diagrams, such as those representing the labour market and market failure, are not explicitly referred to in the syllabus but are nevertheless useful for deepening your understanding of how economies operate. Some diagrams are useful for representing the macro-economy at the “big picture” level, while others are useful for analysing the microeconomic impacts of changes in specific parts of the economy.

In this section, we review the skills of the Course where diagrams can be used to help explain how economies operate.

Assess the impact on the global economy of international organisations and contemporary trading bloc agreements

Global protection levels have been significantly affected by international organisations and trade agreements. The World Trade Organisation (supported by the International Monetary Fund and World Bank) has tried to achieve reductions in trade protection levels, such as tariffs, by facilitating trade negotiations. The impact of these organisations on tariff levels can be shown in a simple supply and demand diagram (see figure A.2). For an individual economy, the removal of a tariff lowers the domestic price of products (from P^T to P^W), and increases the amount of foreign products available (from Q_2Q_3 to QQ_1). The contraction in domestic supply from import-competing firms (from $0Q_2$ to $0Q$) may cause a (short-term) rise in domestic unemployment.

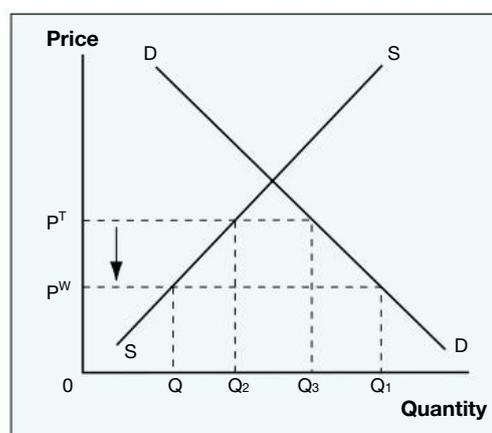


Figure A.2 – International organisations and trade agreements may result in lower tariff levels

The impact of contemporary trading bloc agreements is more complex. They may work to reduce tariff levels for all their trading partners (as is the goal of the APEC forum), or they may only reduce tariff levels for members of the trading bloc (as is the case in NAFTA). In some cases, such as the European Union, however, trading blocs may not only maintain high tariff levels to shield producers from outside competition, but may also increase production subsidies, the effects of which can be shown in a diagram (see figure A.3). The production subsidies reduce the cost of production, shifting the industry’s supply curve to the right, causing an oversupply of products and depressing global price levels, which will have adverse impacts on exporters outside the trading bloc that do not receive government subsidies.

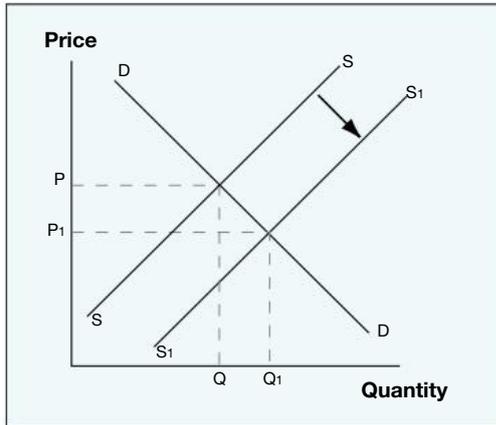


Figure A.3 – Trading blocs may increase subsidies and depress global price levels

Analyse the relationship between the balance of the capital and financial account and the net income balance

If a nation experiences a current account deficit (CAD), it must be offset by a capital and financial account (Kafa) surplus if it has a floating exchange rate system (because the supply and demand for currency must always be equal). In simple terms, the financial inflow on the Kafa must either come from overseas borrowing, which adds to the foreign debt, or through the sale of assets to overseas investors, which adds to foreign equity. Either way, a build up of debt and equity (together known as foreign liabilities) must be serviced through either interest repayments or dividend payments on the primary income account of the CAD. If a nation continues down this path, it can result in the “debt-trap” cycle, which can be difficult to break because further borrowing is required just to service past borrowings.

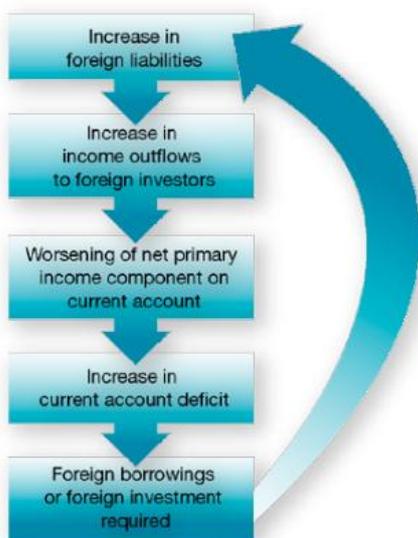


Figure A.4 – The “debt-trap” cycle

Use supply and demand diagrams to explain how the value of a currency is determined under different exchange rate systems

Supply and demand diagrams can be used to show how the value of a currency is determined. In the case of a floating exchange rate mechanism, the factors affecting the supply and demand for a currency, such as interest rates, international competitiveness, inflation rates, economic conditions and the sentiment of foreign exchange market speculators, will determine the value of the currency. Changes in these factors can be shown by shifts to the right or left of either the supply or demand curves, which will cause either an appreciation or depreciation of the currency.

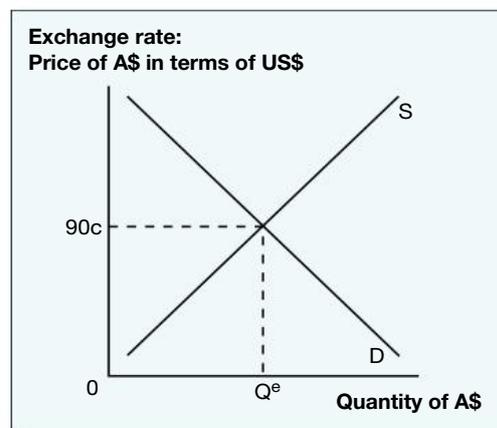


Figure A.5 – Exchange rate determination under a floating exchange rate system

A fixed exchange rate system can be explained using a similar diagram (see figure A.6). For this exchange rate mechanism, the fixed rate is drawn above or below the exchange rate that would prevail under a floating system, known as the “market rate”. The government or central bank need to buy the excess currency (Q_1Q_2) if the fixed rate is above the market rate, or sell currency if the fixed rate is below the market rate.

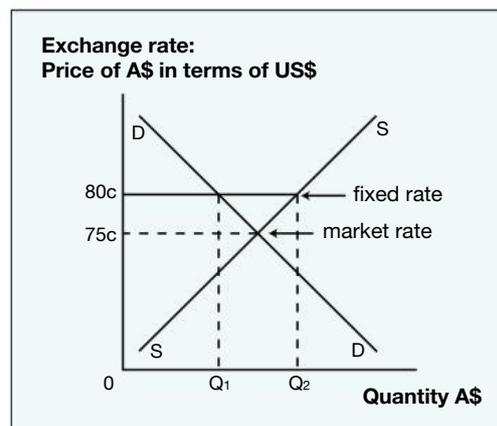


Figure A.6 – Exchange rate determination under a fixed exchange rate system

Analyse the impact of changes in the components of the balance of payments on the value of the Australian dollar

The balance of payments comprises the current account, and the capital and financial account. Any credit on the balance of payments, such as an increase in exports, increase in primary or secondary income received, or an increase in capital or financial inflow, will increase demand for the Australian dollar, causing an appreciation. Alternatively, any debit on the balance of payments, such as an increase in imports, increase in primary or secondary income payments, or an increase in capital or financial outflow, will increase the supply of the Australian dollar, causing a depreciation.

Figure A.7 shows that an increase in demand leads to an appreciation of the exchange rate. Figure A.8 shows that an increase in supply leads to a depreciation of the exchange rate.

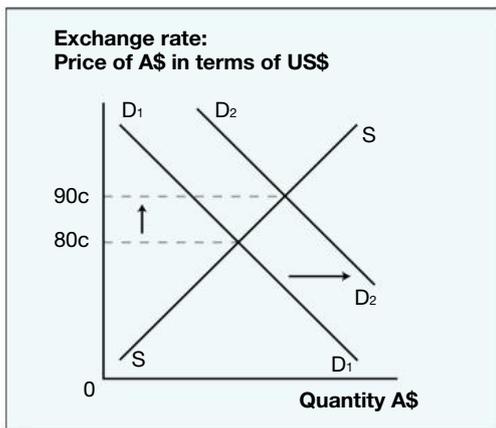


Figure A.7 – An increase in demand and appreciation of the Australian dollar

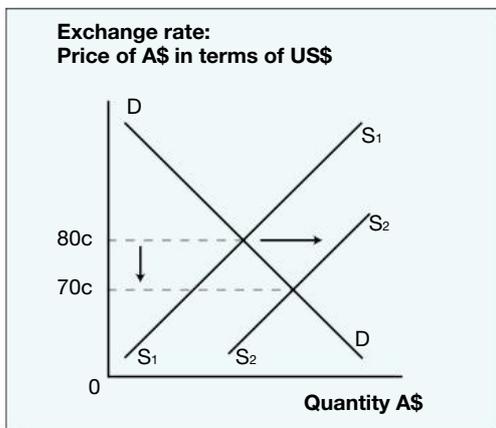


Figure A.8 – An increase in supply and depreciation of the Australian dollar

Interpret a Lorenz curve and a Gini coefficient for the distribution of income in an economy

The Lorenz curve shows us the cumulative proportion of income that is received (vertical axis) by the cumulative proportion of income recipients (horizontal axis). If income were distributed evenly across the whole population, the Lorenz curve would be the diagonal line through the origin of the graph. The further the Lorenz curve is away from this line, the greater the degree of income inequality in society.

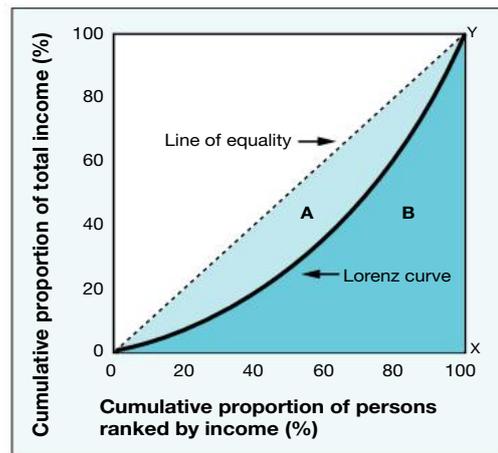


Figure A.9 – A hypothetical Lorenz curve

The Gini coefficient is a single statistic that summarises the distribution of income across the population, calculated as the ratio of the area between the actual Lorenz curve and the line of equality (area A in figure A.9) and the total area under the line of equality (A+B). The Gini coefficient ranges between zero when all incomes are equal, and one when a single individual receives all the income. The smaller the Gini coefficient, the more even is the distribution of income.

$$\text{Gini coefficient} = \frac{A}{A + B}$$

Use economic concepts to analyse a contemporary environmental issue

A key concept in explaining contemporary environmental issues such as pollution, climate change and preserving natural environments is externalities. Externalities occur because the price mechanism takes account of private benefits and costs of production to consumers and producers but does not take account of wider social costs and benefits borne by all of society. Negative externalities are a cost to society and can be shown as in figure A.10.

The society's supply curve is above the producer's supply curve. The socially optimum price is above the market price and the socially optimum quantity is below the market quantity.

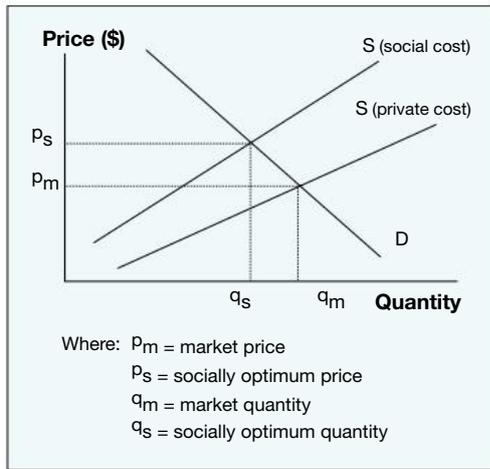


Figure A.10 – Negative externalities

Explain how governments are restricted in their ability to simultaneously achieve economic objectives

Governments face many trade-offs when trying to simultaneously achieve their economic and other policy objectives, not all of which can be demonstrated by the use of diagrams. The best known diagram that shows these conflicts is the Phillips curve diagram, which demonstrates, in the short term at least, that governments face a choice between achieving their goal of price stability (low inflation) or full employment (low unemployment) (see figure A.11). Implementing expansionary macroeconomic policy is likely to see the economy move up the curve to the left (with lower unemployment but higher inflation), while contractionary macroeconomic policy settings may see the economy move down the curve to the right (with lower inflation but higher unemployment).

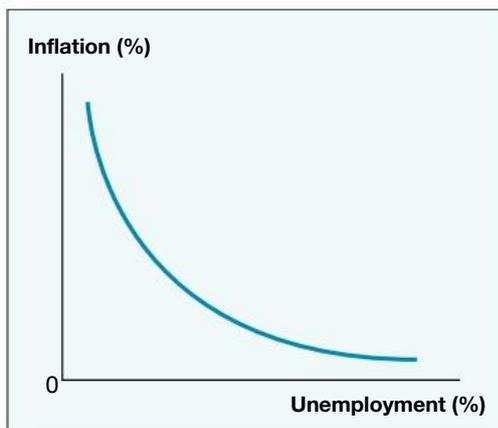


Figure A.11 – The Phillips curve

The government may also face a trade-off in its goals of full employment and a fair distribution of income. If the government imposes a minimum wage rate above the market clearing wage level, such as W_1 in figure A.12, it may reduce the level of income inequality between workers, but may also see some workers remain unemployed ($L_s - L_D$) if the real wage rate is too high to achieve equilibrium in the labour market.

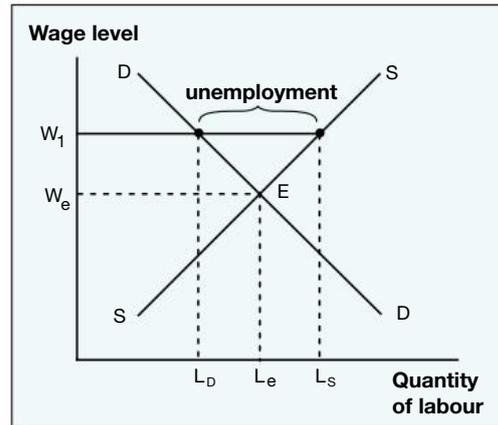


Figure A.12 – High minimum wages may cause unemployment

The government may also face a trade-off between its short-term objective of economic growth and its longer-term objective of ecologically sustainable development. If economic growth is unsustainable because of poor production techniques or the rapid depletion of natural resources, it may over time reduce the productive capacity of the economy. This can be shown by a production possibilities curve moving towards the origin because fewer goods and services can be produced.

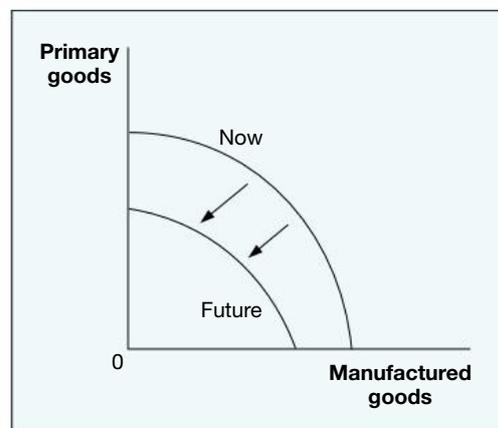


Figure A.13 – Unsustainable economic growth may reduce productive capacity in the long term

Explain the impact of key economic policies on an economy

No single diagram will show all of the economic effects of any single policy. Here are some suggestions of how diagrams explained in this section could be used to illustrate the impacts of key economic policies on particular economic indicators:

- The general impacts on output and price levels of macroeconomic and microeconomic policies can be demonstrated using the aggregate supply and aggregate demand diagram.
- The expansionary and contractionary impacts of macroeconomic policies on inflation and unemployment can be shown using the Phillips curve.
- The impacts of reducing protection levels on prices, imports, and production levels of import-competing firms can be shown using the tariff diagram.
- The impact of central bank intervention in foreign exchange markets, or of abandoning a fixed exchange rate system, could be illustrated using the exchange rate diagram.
- The impact of labour market reforms or income policy changes, such as a rise or fall in the minimum wage rate and fall or rise in unemployment, could be illustrated using the labour market diagram.
- The impact of policies on income inequality could be illustrated using a Lorenz curve.
- The impact of environmental policies to conserve or better use natural resources could be illustrated using a production possibility curve.

Explain, using economic theory, the general effects of macroeconomic and microeconomic policies on an economy

The aggregate supply and aggregate demand diagram (known as the AS-AD diagram) can be used to show the impacts of changes in macroeconomic policy, also known as demand-management policy, and microeconomic policy, also known as supply-side policy. The AS-AD diagram graphs the impacts of changes in aggregate demand and supply on the general price level and the total output (or income) of the economy.

Expansionary macroeconomic policy (such as a reduction in interest rates, a reduction in taxation or an increase in government spending) increases aggregate demand, shifting the AD curve to the right (see figure A.14). At the new equilibrium, total output and income have increased, so unemployment will fall, and there is a rise in the general price level (higher inflation).

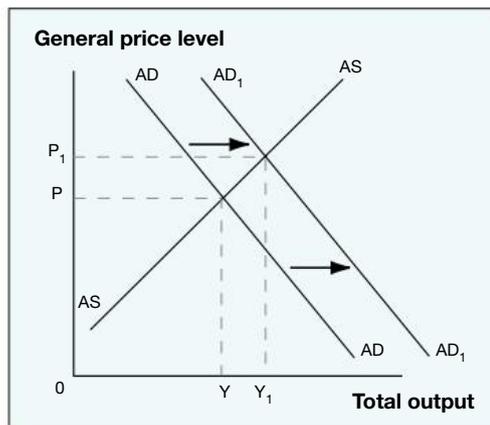


Figure A.14 – Expansionary macroeconomic policy shifts AD to the right, causing a rise in output and inflation

Contractionary macroeconomic policy (such as an increase in interest rates, an increase in taxation or a decrease in government spending) reduces aggregate demand, shifting the AD curve to the left (see figure A.15). At the new equilibrium, total output and income have decreased, so unemployment will rise, and there is a fall in the general price level (lower inflation).

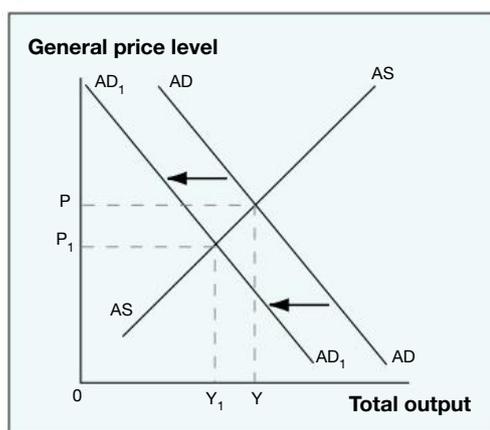


Figure A.15 – Contractionary macroeconomic policy shifts AD to the left, causing a fall in output and inflation

Microeconomic policies, such as reducing protection, deregulating markets or increasing competition, should in the long term increase aggregate supply, shifting the AS curve to the right (see figure A.16). At the new equilibrium, total output and income have increased, so unemployment will fall, and there is a fall in the general price level (lower inflation).

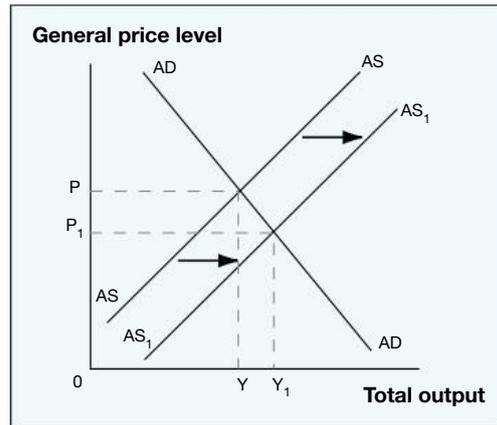


Figure A.16 – Microeconomic reform shifts AS to the right, causing a rise in output and a fall in inflation

A.3 Equations and calculations in economics

Mathematical skills play a small but important role in the Year 12 Economics course. Compared with natural sciences, the “mathematical” component of economics is relatively straightforward, involving only a handful of calculations and equations. But compared with other humanities (essay writing) subjects, like History and English, studying economics does require a greater understanding of how numbers operate, or more technically, how quantitative information can be used to understand how economies operate. Equations and calculations can be used to examine the economy as a whole, such as through the injections and leakages equations, or to quantify specific economic outcomes, such as the terms of trade index and the level of unemployment. In this section, we review the skills that require equations and calculations.

Calculate the main components of Australia’s balance of payments

Explain the relationship between the current account balance and the balance of the capital and financial account

The current account and the capital and financial account are the two main components making up the balance of payments, and the sum of these two accounts adds up to zero under a floating exchange rate system. The numerical value of the current account is equal to the capital and financial account, but one account will have a positive value (in surplus) and the other will be negative (in deficit). If there is an increase in the value of the current account deficit there would be an equal increase in the value of the capital and financial account surplus.

<p>The current account is calculated as:</p> <p>net goods + net services (the balance on goods and services)</p> <p>+</p> <p>net primary income + net secondary income</p>
<p>The capital and financial account is calculated as:</p> <p>capital account + direct investment + portfolio investment</p> <p>+</p> <p>other investment + reserve assets + financial derivatives</p>
<p>The balance of payments is calculated as:</p> <p>current account + capital and financial account</p> <p>+</p> <p>net errors and omissions = 0</p>

Figure A.17 – Calculating the balance of payments

If you are provided a limited number of components of the balance of payments you can use the formulas shown in figure A.17 to calculate unknown components. For example, if you are provided with values of the capital and financial account surplus, and the net primary income deficit and net secondary income deficit, you can calculate the balance on goods and services.

Calculate an equilibrium position for an economy using leakages and injections

An economy is in equilibrium if savings, taxation and import leakages are equal to investment, government spending and export injections. If you are provided with the values of all six leakages and injections, you can test to see whether the economy is in equilibrium or not. If you are told that the economy is in equilibrium and you are provided with the values of five items, you can calculate the sixth item. If you know the economy is in equilibrium and you are provided with the value of three of these items and either the trade deficit

($X-M$), the budget deficit ($G-T$) or the savings-investment imbalance ($S-I$), you can also calculate the remaining item. **Remember** – the leakage and injection equation is only true when the economy is in equilibrium. Therefore, it is sometimes called an equilibrium condition.

$$S + T + M = I + G + X$$

Leakages = Injections

S	= saving by households
T	= taxation by the government
M	= spending on imports
I	= investment spending by businesses
G	= government spending
X	= export revenue

Note: If you are given a question and you are provided with or need to calculate the level of consumption (C), aggregate demand (AD), or income (Y , also known as aggregate supply), the leakage/injection equation will not help because C , AD and Y are not in that equation. In this case you need two other equations – those for aggregate demand and aggregate supply. The equation for aggregate demand is consumption plus investment plus government spending plus “net exports”. The equation for aggregate supply (income) is consumption plus savings plus taxation. Both the AD and AS equations are **identities**, in that they are always true regardless of whether the economy is in equilibrium or disequilibrium. If you set AD and AS equal to each other, that is, for equilibrium, a simple substitution and rearrangement of the equation gives the leakage and injection equation.

$$AD = C + I + G + (X - M)$$

Where:

AD	= aggregate demand
C	= consumer spending by households
I	= investment spending by businesses
G	= government spending
X	= export revenue
M	= spending on imports

$$Y = C + S + T$$

Where:

Y	= aggregate supply or national income
C	= consumer spending by households
S	= saving by households
T	= taxation by the government

Equilibrium occurs when:

$$\text{Aggregate Supply} = \text{Aggregate Demand}$$

$$Y = AD$$

Substituting for aggregate demand gives:

$$Y = C + I + G + (X - M)$$

Substituting for aggregate supply gives:

$$C + S + T = C + I + G + (X - M)$$

By rearranging the equation:

$$S + T + M = I + G + X$$

$$\text{Leakages} = \text{Injections}$$

It is a good idea to become very familiar with the various combinations of these equations that can be used to calculate the values of economic indicators.

Determine the impact of the (simple) multiplier effect on national income**Explain the implications of the multiplier for fluctuations in the level of economic activity in an economy****Use (simple) multiplier analysis to explain how governments can solve economic problems**

The multiplier shows that if equilibrium in the circular flow is disrupted by an injection or leakage, it will have a more than proportional impact on national income. An injection of export revenue to businesses, for example, initially results in a proportional increase in income for individuals. When individuals spend this income on consumption, it further boosts firm revenue and individual income – multiplying the effect of the export injection. However, the increase in individual income will also increase individuals’ savings, taxation payments and spending on imports (which are all leakages). These all reduce the “speed” of the multiplier.

For the Year 12 Course, we limit our concern to the “simple” multiplier, which only takes into account the savings leakage. The multiplier is calculated as 1 divided by the “speed limit” – the marginal propensity to save. To calculate the total impact on national income of an injection or leakage, multiply the initial change in the injection or leakage (the change in aggregate demand) by the multiplier.

$$k = \frac{1}{\text{MPS}} \quad (\text{k being the symbol for the multiplier})$$

or

$$k = \frac{1}{1 - \text{MPC}} \quad (\text{since } \text{MPC} + \text{MPS} = 1)$$

$$\Delta Y = k \times \Delta \text{AD}$$

The size of the multiplier is an indication of how much economic activity will fluctuate in the event of an economic shock. A lower marginal propensity to save increases the multiplier and makes economic fluctuations larger. Conversely, a higher marginal propensity to save decreases the multiplier and reduces economic fluctuations.

$$\uparrow k = \frac{1}{\downarrow \text{MPS}}$$

Lower savings leakage increases the multiplier and economic fluctuations

A higher multiplier generally makes life more difficult for governments. The economy will experience greater fluctuations when there are economic shocks of increased injections or leakages, suggesting the economy will need more active macroeconomic (counter-cyclical) policies. And

A.4 Interpreting economic data and information

Our study of economics would be incomplete (and fairly boring) if we only ever looked at diagrams, equations and economic theories without reference to how economies operate in the real world. Analysing the nature of economic relationships and the performance and structure of economies in the real world is central to the Year 12 Course. In broad terms, the Syllabus highlights the importance of researching information from a variety of sources; analysing, synthesizing and evaluating that information; and being able to communicate economic information, ideas and issues. In the final section of this chapter, we look at the key skills in the Year 12 Syllabus that require individual research and how you can **find, interpret and explain economic data and information**.

In what follows, we **focus on the use of the internet and websites**, highlighting the role of online resources on economic research methods and techniques. For each of the key skills highlighted in the Syllabus, we have identified a range of useful websites, and information on how to best use them. There are six broad categories of websites that

yet the economy with the higher multiplier will also be more responsive to policy instruments, making “fine-tuning” more difficult. When the multiplier is lower, fiscal policy adjustments (government spending and taxation) and monetary policy adjustments (interest rates, which mainly affect investment and consumption flows) are less necessary and have a smaller impact.

Calculate the unemployment rate and the participation rate using labour force statistics

Two important labour market outcomes require a calculation. The first is the labour force participation rate, which is the total number of people employed or unemployed, divided by the working-age population. The second is the unemployment rate, which is the total number unemployed, divided by the labour force.

$$\text{Labour force participation rate (\%)} = \frac{\text{Labour force}}{\text{Working-age population (15+)}} \times \frac{100}{1}$$

$$\text{Unemployment rate (\%)} = \frac{\text{Number of persons unemployed}}{\text{Total labour force}} \times \frac{100}{1}$$

we discuss – latest news, Australian Government sites, financial institutions, community sector organisations, international organisations, and educational bodies.

Analyse statistics on trade and financial flows to determine the nature and extent of global interdependence

Global interdependence is a complex phenomenon that can not be adequately described by a couple of statistics showing that trade flows and financial flows have increased in recent decades. Appreciating the more subtle features of global interdependence requires an understanding of specific trends in trade and financial flows, such as the pace and volatility of trade growth, the level of interdependence between regions and countries, the extent of changes to financial flows, and identifying who and what are the most important drivers of global economic flows. The World Bank website provides sample tables of globalisation statistics and links to other websites and documents. Most major international organisations have their own statistical databases, and key economic publications: the World

Development Indicators (from the World Bank), the World Trade Report (from the World Trade Organisation), the Trade and Development Report and the World Investment Report (from the United Nations Conference on Trade and Development), and the World Economic Outlook (from the International Monetary Fund).

World Bank: www.worldbank.org

World Trade Organisation: www.wto.org

United Nations Conference on Trade and Development: www.unctad.org

International Monetary Fund: www.imf.org

Evaluate the impact on the global economy of international organisations and contemporary trading bloc agreements

Globalisation has increased the importance and role of organisations that operate across the borders of different economies. Most of these bodies are trade-related – from the global influence of the World Trade Organisation to the regional influence of the Association of South-East Asian Nations, to the local influence of bilateral trade deals. Each of these organisations and agreements has a website that outlines their basic functions, explains how they have influenced economic policies in member countries and provides research and publications analysing their economic impact. Several organisations such as Oxfam provide websites with information and arguments that are critical of the current structure of global trade. The World Bank's website has a wealth of analysis and statistics about the global economy and its activities. Australia's free trade agreements are also explained on a government web page.

World Trade Organisation: www.wto.org

International Monetary Fund: www.imf.org

World Bank: www.worldbank.org

United Nations: www.un.org

European Union: europa.eu/index_en.htm

North American Free Trade Agreement: www.nafta-sec-alena.org and www.naftanow.org

APEC Forum: www.apec.org

Association of South-East Asian Nations: asean.org

Free Trade Agreements: www.dfat.gov.au/trade

Evaluate the impact of development strategies used in a range of contemporary and hypothetical situations

One of the most complex tasks faced by economists is assessing whether or not development strategies in individual economies have been successful. A central requirement in the Year 12 Course is that you must undertake a case study of an economy other than Australia. *The Economist* magazine offers analysis of development strategies and the economic performance of individual countries (although not all information is free). The United Nations Development Programme and United Nations Conference on Trade and Development publish a lot of material about development strategies. The Organisation of Cooperation and Development publishes economic briefings for OECD and some non-member economies. The Centre for Global Development in Washington is one of the world's most highly regarded think tanks on development issues.

United Nations Development Programme: www.undp.org

The Economist: www.economist.com

OECD: www.oecd.org

United Nations Conference on Trade and Development: www.unctad.org

Centre for Global Development: www.cgdev.org

Use economic concepts to analyse a contemporary environmental issue

At a general level, some of the environmental issues facing the Australian economy include preserving natural environments and controlling pollution of land, water and the air. More specific problems include dry-land salinity and the sustainable use of water for agricultural, household and business use. Useful Government websites include the federal Department of the Environment and Energy and the NSW Office of Environment and Heritage. At a global level, the main contemporary environmental issue is climate change. You can get information about climate change and policies from a range of sources, including the United Nations.

Australian Government Department of the Environment and Energy: www.environment.gov.au

Australian Conservation Foundation: www.acf.org.au

United Nations Framework Convention on Climate Change: www.unfccc.int

www.environment.nsw.gov.au

Identify and analyse problems facing contemporary and hypothetical economies

Assess the key problems and issues facing the Australian economy

Identify limitations of the effectiveness of economic policies

Propose and evaluate alternative policies to address an economic problem in hypothetical and the contemporary Australian contexts

Select an appropriate policy mix to address a specific economic problem

These final five economic skills are of a general nature, covering the second half of the Course – Topic 3 Economic Issues and Topic 4 Economic Policies and Management. Interpreting economic data and information for these skills is a potentially endless job. So instead of limiting you to a few websites, we would recommend you consult widely from a range of sources. In visiting some of the following websites, you should be able to explain, using statistics and other evidence, the key features of economic problems and how government policies are (or could) addressing these problems.

- **Government agencies** like the Australian Bureau of Statistics, the Reserve Bank, the Productivity Commission and the Australian Competition and Consumer Commission, and Government departments like Treasury and Foreign Affairs and Trade all publish statistics and analysis of Australian economic problems and policies.
- **Research bodies** like the National Centre for Social and Economic Modelling and the Melbourne Institute (attached to universities), the Grattan Institute (independent), and the Economic Society of Australia and Australian Business Economists (professional associations) publish more specialised (and more difficult to understand) economic papers.
- **Private sector organisations** such as commercial banks and financial services companies are good sources for up-to-date and market-oriented commentary about Australia's economic policy and performance.
- **Economic media** sources such as the *Australian Financial Review* and Australian Policy Online have some of the most concise and up-to-date commentary on Australian economic issues and policies.
- **Think tanks, industry associations, trade unions and community organisations** often focus on a small number of economic issues, and can have highly relevant commentary for some parts of the Course. Examples include The Australia Institute, the Australian Industry Group, the Business Council of Australia, the Committee for the Economic Development of Australia, the Australian Council of Trade Unions and the Australian Council of Social Services.

If you still haven't had enough of economics, check out some of the following websites:

www.economics.com.au – the blog of Core Economics has commentary on current economic issues from a range of authors.

www.institutional-economics.com – website with views on economics and financial markets run by Dr Stephen Kirchner.

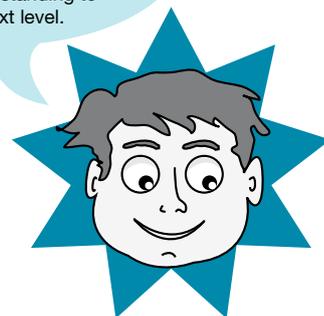
<https://www.nytimes.com/column/paul-krugman> – blog of one of the world's leading economic commentators, Princeton Economics Professor and *New York Times* Columnist Paul Krugman.

<https://thekouk.com/blog.html> – blog of one of Australia's leading economists

Advanced Economic Analysis

- B.1** Comparative advantage and gains from trade
- B.2** Income-expenditure diagram
- B.3** Long-run Phillips curve
- B.4** Limitations of macroeconomic policy

The analysis in this section is not specifically required by the Year 12 Economics syllabus and is intended as an extension for students that want to take their understanding to the next level.



B.1 Comparative advantage and gains from trade

In sections 2.1 and 2.2 of chapter 2 we examined the advantages and disadvantages of free trade and the reasons for protection. In this section we take our analysis further, looking at how countries can achieve gains from trade when they specialise in the production of goods and services in which they have a comparative advantage.

Absolute advantage

By way of background, it is important to note that in the field of economics, few topics have generated quite as much debate as the issue of free trade. These debates returned to centre stage in global affairs after the 2016 election in the United States, with protectionist policies at the top of President Trump's agenda. Among economists, debates over trade policy are mainly concerned with a range of more subtle issues, such as whether protection is justified for certain industries or during certain circumstances; which methods of protection are better and worse for the economy; and whether bilateral and regional trade agreements play a constructive role in achieving global free trade. Most fierce, however, are the debates inside the World Trade Organisation negotiations in recent years about the process by which freer global trade should be achieved.

Trade theory traces its origins back to the writings of Scottish economist Adam Smith, a man generally regarded as the founder of modern economics. In his 1776 book, *The Wealth of Nations*, Smith argued against the prevailing wisdom of the time, known as **mercantilism**, which stated that countries should

use heavy protectionist methods to maximise their exports and minimise their imports, thus achieving a trade surplus and an inflow of wealth in the form of gold and silver (used for international transactions at the time). Adam Smith, by contrast, argued that this strategy would produce inflation because the inflow of gold and silver might not be matched by an increase in the production of goods and services. Smith argued that it was better for a country to specialise in the production of goods it could produce efficiently, and import goods from other countries if they could produce them more efficiently.

Adam Smith's argument for free trade is known as **absolute advantage**. This theory states that achieving an increase in a nation's wealth requires the removal of protection and encouraging specialisation in those products in which the economy has an absolute advantage. An economy has an absolute advantage if it can produce a greater quantity of a product with a given level of resources than another economy is able to. Smith argued that by reducing protection, consumers would gain access to more goods and services at lower prices, which would improve standards of living.

"If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it of [sic] them with some part of the produce of our own industry, employed in a way in which we have some advantage."

– Adam Smith, *An Inquiry Into the Nature and Causes of the Wealth of Nations*, Book IV.

However, the theory of absolute advantage is not a sufficient basis for global free trade. It suggests that countries that are unable to produce any product with an absolute advantage (perhaps due to a lower skilled labour force or poor production techniques) have no basis for trade.

Comparative advantage

The theory that best illustrates the benefits of free trade is **comparative advantage**, which was developed by another British economist, David Ricardo, writing almost half a century after Adam Smith.

Comparative advantage states that an economy should specialise in the production of goods and services that it can produce at a **lower opportunity cost**, even if it cannot produce a greater quantity than another economy. Comparative advantage is focused on the relative efficiencies of production. When an economy specialises in production of a good in which it has a comparative advantage, it can trade with other economies using the income from its exports to pay for imports of products in which it does not have a comparative advantage.

The theory of comparative advantage can be illustrated using a simple model with a few assumptions. There are two economies, Australia and France, which produce two products, grapes and cheese, of identical quality and each economy has the same resource endowment. Each economy has a different set of production techniques, which leads to different output quantities. In the example in figure B.1, Australia can produce a maximum of 300 tonnes of grapes or a maximum of 100 tonnes of cheese. France can produce a maximum of 400 tonnes of grapes or 300 tonnes of cheese.

	Grapes (tonnes)	Cheese (tonnes)
Australia	300	100
France	400	300

Figure B.1 – A simple two-good two-economy model

In the example above, France has the absolute advantage in the production of both grapes and cheese since with the same level of inputs it can produce a greater quantity of each compared with Australia. Under the theory of absolute advantage there is no basis for trade between the countries.

To determine which economy has a comparative advantage we must calculate the opportunity costs within each economy. We first determine which economy has a comparative advantage in grapes. To do so, we must calculate the opportunity cost of growing grapes in Australia and then in France.

In Australia:

$$\begin{aligned} \text{Opportunity cost of grapes} &= \frac{\text{Cheese}}{\text{Grapes}} \\ &= \frac{100}{300} \\ &= \frac{1}{3} \text{ tonnes of cheese} \end{aligned}$$

In France:

$$\begin{aligned} \text{Opportunity cost of grapes} &= \frac{\text{Cheese}}{\text{Grapes}} \\ &= \frac{300}{400} \\ &= \frac{3}{4} \text{ tonnes of cheese} \end{aligned}$$

For Australia to produce an additional tonne of grapes it must give up production of one-third of a tonne of cheese, whereas France must give up three-quarters of a tonne of cheese. Since Australia had to give up fewer resources to produce grapes, Australia has a comparative advantage in grapes.

We will now determine which economy has a comparative advantage in cheese. As we did before, we calculate the opportunity costs of making cheese in Australia and then in France.

In Australia:

$$\begin{aligned} \text{Opportunity cost of cheese} &= \frac{\text{Grapes}}{\text{Cheese}} \\ &= \frac{300}{100} \\ &= 3 \text{ tonnes of grapes} \end{aligned}$$

In France:

$$\begin{aligned} \text{Opportunity cost of cheese} &= \frac{\text{Grapes}}{\text{Cheese}} \\ &= \frac{400}{300} \\ &= 1\frac{1}{3} \text{ tonnes of grapes} \end{aligned}$$

For Australia to produce one additional tonne of cheese it must give up producing three tonnes of grapes, whereas France must give up only one and a third tonnes. Since France had to give up fewer resources to produce cheese, France has a comparative advantage in cheese.

You will notice from the previous example that it is impossible for one economy to have a comparative advantage in both products. If one economy is relatively better at producing one product, then it must be relatively worse at producing the other.

Following the theory of comparative advantage, Australia ought to specialise in the production of grapes and import cheese from France. France ought to specialise in the production of cheese and import grapes from Australia.

Ordinarily, the level of consumption within an economy is limited by its production possibilities curve. In a closed economy (one which does not trade), the economy will consume all that it produces. In the Preliminary Economics Course we saw that if an economy is at full employment of resources, it cannot produce on a point outside the production possibilities curve. The only way to increase production levels is to improve production methods or discover new resources.

However, an economy is able to consume at a point above its production possibility curve through international trade. By specialising in the production of goods and services in which the economy has a comparative advantage and trading with another economy, there will be a greater amount of goods and services available in the global economy, allowing for higher consumption in each economy.

Gains from trade

To examine the gains from trade we return to our example where Australia was specialising in grapes and France was specialising in cheese. Remember that Australia could produce 300 tonnes of grapes

or 100 tonnes of cheese and France could produce 400 tonnes of grapes or 300 tonnes of cheese. These production possibilities are shown in the production possibility curves (unbroken lines) in figure B.2.

To calculate gains from trade we must now also consider the **prices** of the two products. Let us suppose that cheese is twice as expensive as grapes – that is, one tonne of cheese will purchase two tonnes of grapes or one tonne of grapes will buy half a tonne of cheese.

Australia begins by producing 300 tonnes of grapes. It exports some of its produce. For each tonne of grapes that Australia exports it is able to import half a tonne of cheese. If Australia exports all of its grapes, it will be able to import a total of 150 tonnes of cheese. This is illustrated graphically in Australia’s **consumption possibilities curve** (the broken line in figure B.2). The consumption possibilities curve begins at the country’s point of specialisation (in this case, 300 tonnes of grapes) and extends out to the maximum number of imports the country can afford (150 tonnes of cheese).

Similarly, imagine France begins by producing 300 tonnes of cheese. It exports some of its produce. For each tonne of cheese it exports, it is able to import two tonnes of grapes. If France wants to purchase all of Australia’s grapes, it only has to sell 150 tonnes of cheese. This is illustrated in France’s consumption possibilities curve.

Notice that in figure B.2 for each economy the consumption possibilities curve is higher than the production possibilities curve, allowing each economy to consume a greater quantity than it could without trade.

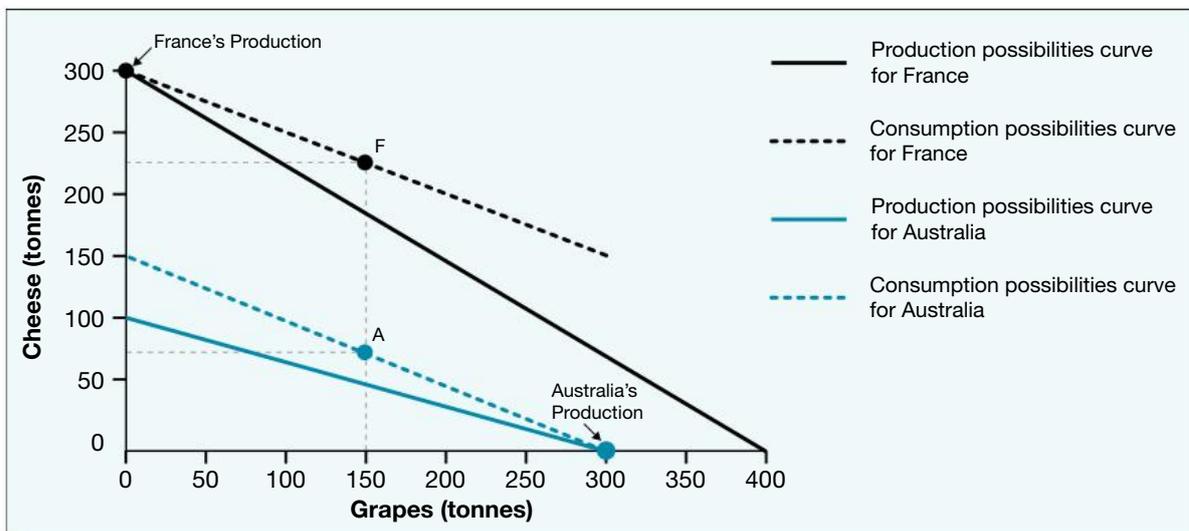


Figure B.2 – Gains from trade

The actual consumption combination will be determined by consumer demand within each economy. Suppose, for example, that given the price of cheese, Australia sells 150 tonnes of grapes to buy 75 tonnes of cheese. Australia will consume at point A on its consumption possibilities curve, and is able to consume 25 more tonnes of cheese than it could produce itself. France sells 75 tonnes of cheese and purchases 150 tonnes of grapes, consuming at point F, also above what it could have produced itself.

Terms of Trade

The consumption possibilities curve is determined by the **terms of trade**, which measures the price level of an economy’s exports relative to the price of its imports. If the terms of trade improve, an economy is able to purchase more imports with a given quantity of exports. If the terms of trade deteriorate, the economy can purchase fewer imports with the same level of exports.

A movement in the terms of trade will alter the consumption possibilities curve. Suppose now that Australia’s terms of trade improves, and when Australia sells 150 tonnes of grapes it can purchase 100 tonnes of cheese. Australia’s consumption possibilities curve will shift upward – the improvement in the terms of trade means that for every tonne of grapes Australia exports it can now import a higher quantity of cheese.

However, since France exports cheese, which has fallen in price, its terms of trade will have deteriorated. Its consumption possibilities curve will fall since every tonne of grapes that France wishes to import must be paid for with a higher quantity of cheese. However, France’s consumption possibilities curve is still higher than the production

possibilities curve, and so France will continue to trade with Australia so long as the gains from trade exist.

The theory of comparative advantage provides a powerful argument in favour of free trade. Not only will firms benefit from increased levels of output, but overall levels of consumption can rise throughout the world, improving the standards of living for millions of people in absolute poverty, and overcoming some of the limits imposed by the natural scarcities within individual countries.

This does not mean, however, that the arguments supporting protection (examined in section 2.2) are all invalid or that continued use of protectionist policies in the global economy is surprising. In the simple model above, for example, we assumed the free movement of labour and capital between the grape and cheese industries in Australia, depending on changes in consumer tastes and price levels.

The real world is very different: if cheese production were to grind to a halt overnight, dairy industry workers would not simply leave their Victorian cheese factory to take up a job on a South Australian vineyard. It might be too far away. They may not have the right skills. The former dairy worker might be unemployed for a long period of time. The grape and cheese example also does not consider the impact of a shrinking grape industry on French culture and farm life, for example, or how a surge in imported grapes will affect the French economy’s trade balance or exchange rate. While it is one of the most powerful theories in economics, comparative advantage has clearly not ended all disagreements about trade policy in the global economy.

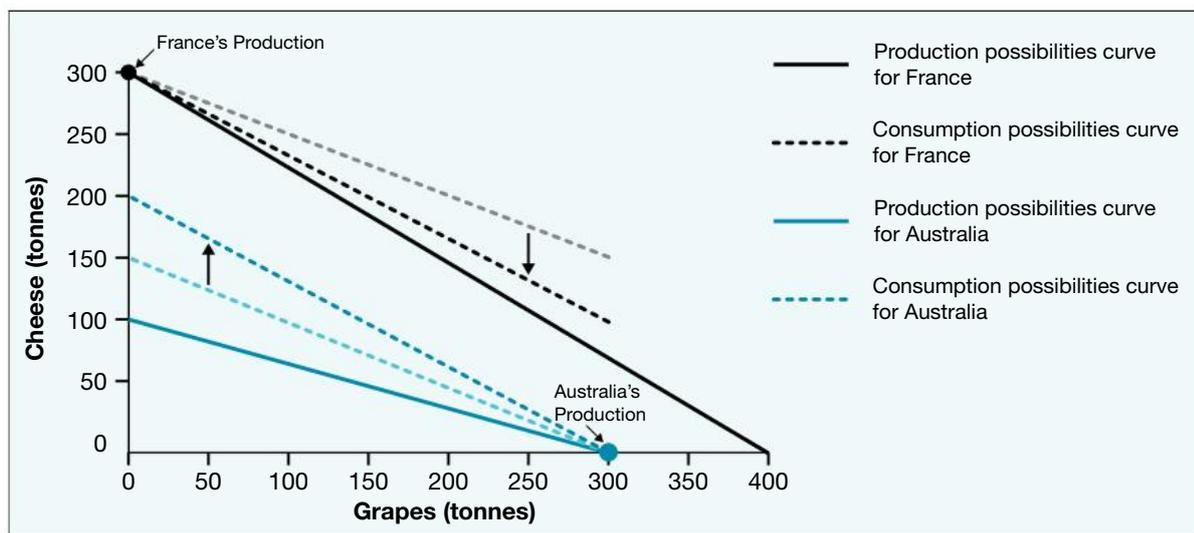


Figure B.3 – Effect of terms of trade

B.2 Income-expenditure diagram

In sections 7.2 and 7.3, we examined the conditions for equilibrium in the economy, the components of aggregate demand and supply, and the multiplier process through which changes in aggregate demand cause the economy to grow. In this section we examine these economic principles through the income-expenditure diagram.

The income-expenditure diagram is shown in figure B.4. It has income (Y) on the x-axis and expenditure (E) on the y-axis. And on the income-expenditure diagram there are two lines – the line of equilibrium and the line of aggregate demand.

First, the line of equilibrium. When expenditure (aggregate demand) is equal to income (aggregate supply), the economy is in equilibrium. This means that whenever the economy is on a point on the $Y = E$ line, that is the **45-degree diagonal line**, the economy's injections equal its leakages, and the economy is in **equilibrium**.

Another relationship between income and expenditure is shown in the **aggregate demand line**. When there is a change in income, there is a change in expenditure by individuals across the economy.

In section 7.2, we looked at a simple version of the aggregate demand equation:

$$AD = C + I + G + (X - M)$$

So, what is the relationship between aggregate demand and income? In our most simple model, investment, government spending, and net exports are considered independent of income (that is, they do not rise or fall when income changes). Therefore, it is **via consumption** that income and expenditure are related. When income increases so too does consumption, and hence, overall expenditure in the economy. However, not all additional income is spent on consumption; some is leaked into savings. And even when income is very low, individuals will still spend a small amount on necessities, paid for out of their savings, or by borrowing money. Consumption is equal to this “autonomous consumption”, C_0 , plus the proportion of income that is spent on “induced consumption”, calculated as the marginal propensity to consume multiplied by income.

$$C = C_0 + mpcY$$

Therefore,

$$AD = C_0 + mpcY + I + G + (X - M)$$

Putting these three factors together, the aggregate demand line is **upward sloping** (because higher income means higher expenditure), **flatter than 45 degrees** (because of the savings leakage) and **cuts the y-axis above the origin** (because investment, government spending, net exports and autonomous consumption are independent of income). Figure B.4 shows the income-expenditure diagram. Where the aggregate demand line cuts the 45 degree line, the economy is in equilibrium, at Y_1 .

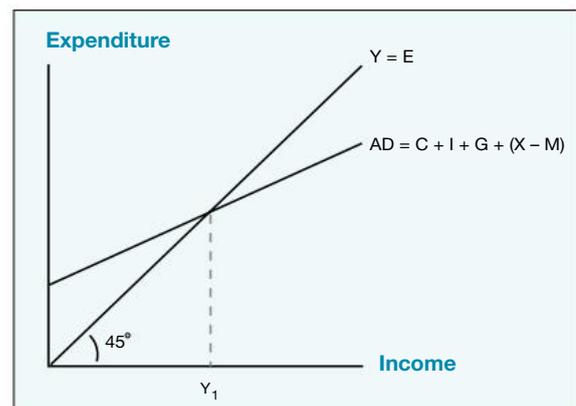


Figure B.4 – Income-expenditure diagram

If there is a change in any of the components of aggregate demand (for a reason other than a change in income), the AD line will move upwards or downwards.

- A rise in consumption, investment, government spending, exports (or a fall in imports) will shift the AD line upwards.
- A fall in consumption, investment, government spending, exports (or a rise in imports) will shift the AD line downwards.

Also note that the AD line will become steeper if there is a rise in the marginal propensity to consume and flatter if there is a decrease in the marginal propensity to consume.

Figure B.5 shows that a rise in aggregate demand (such as from a rise in investment caused by an increase in business confidence) shifts the AD line upwards from AD_1 to AD_2 . Equilibrium will be achieved when income increases from Y_1 to Y_2 . Note that income has increased by more than the initial change in aggregate demand because changes in AD have a multiplied impact on national income. If you were to calculate $Y_2 - Y_1$ divided by $AD_2 - AD_1$, this would give you the size of the multiplier in the economy.

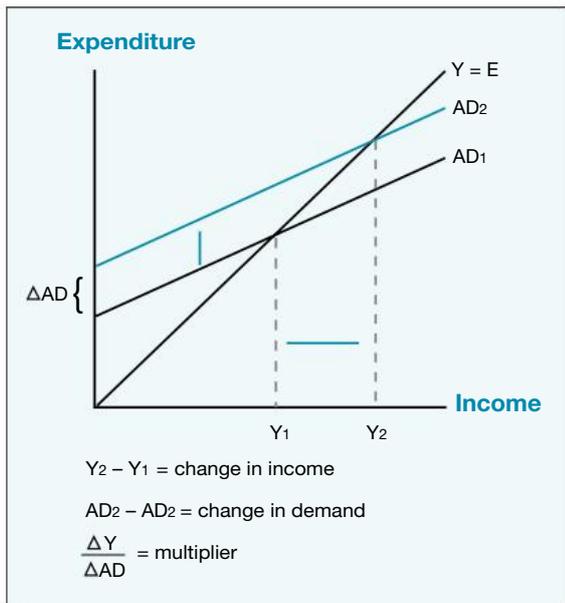


Figure B.5 – An increase in aggregate demand and national income

With the orderly adjustment process outlined above, it is not immediately obvious why governments decide to intervene in the operation of the economy. Each time there is a shock, the multiplier process does its magic, and the economy adjusts to its new level of equilibrium income and expenditure. Why should governments use macroeconomic policies to increase or decrease aggregate demand if the multiplier process can already do the job?

The answer, as outlined by British economist John Maynard Keynes, is that there may be a difference between the equilibrium level of income determined by the forces of demand and supply, and the level of income consistent with full employment. Put another way, it is possible for the economy to reach an equilibrium, that is, there be no tendency to change, and for the unemployment rate to still be high. In figure B.6, the **current equilibrium level of income**, Y_e is below the **full employment level of income** Y_f . The difference between AD_1 and the 45 degree line at Y_f is called the **deflationary gap**.

In this economy, the government may want to increase government spending, G , to increase aggregate demand and raise income to its full employment level. Figure B.6 shows that the government, by increasing government spending from G_1 to G_2 , can increase aggregate demand from AD_1 to AD_2 and boost income from its initial equilibrium level Y_e to the full employment level of income, Y_f .

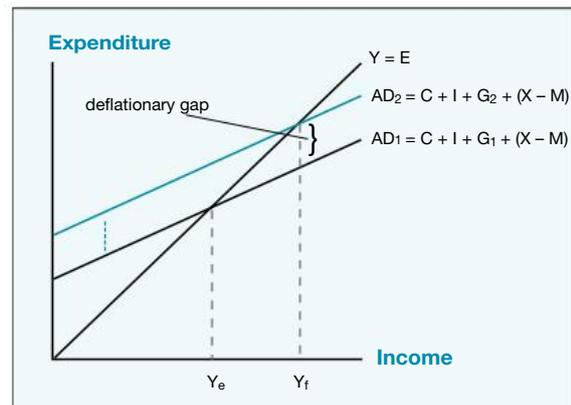


Figure B.6 – Full employment equilibrium and the deflationary gap

Alternatively, if the full employment level of income was below the current equilibrium level (that is, Y_f was to the left of Y_e), there would be an **inflationary gap**. The government may want to decrease government spending, G , to reduce aggregate demand and income to contain inflationary pressures in the economy. Therefore, macroeconomic policies are important to achieve the government's objective of reducing unemployment and inflation. The relationship between the output of the economy, unemployment and inflation is discussed in further detail in chapters 8, 9 and 13.

B.3 Long-run Phillips curve

The Phillips curve shows the trade-off governments face in trying to simultaneously achieve the economic objectives of low inflation and low unemployment. While higher economic growth creates jobs and reduces unemployment, it can also lead to excessive demand in the goods market, pushing up prices. It can also create extra demand in the labour market, causing an increase in wages, which will add to inflation as businesses raise prices to protect profit margins. The principle of a trade-off between low inflation and low unemployment was an important part of macroeconomic policy setting in the decades following the Second World War. In the economy shown in figure B.7, for example, expansionary government policies could reduce the unemployment rate from 6 per cent to 3 per cent, but only at the cost of increasing the rate of inflation from 2 per cent to 4 per cent (that is, moving from point A to point B).

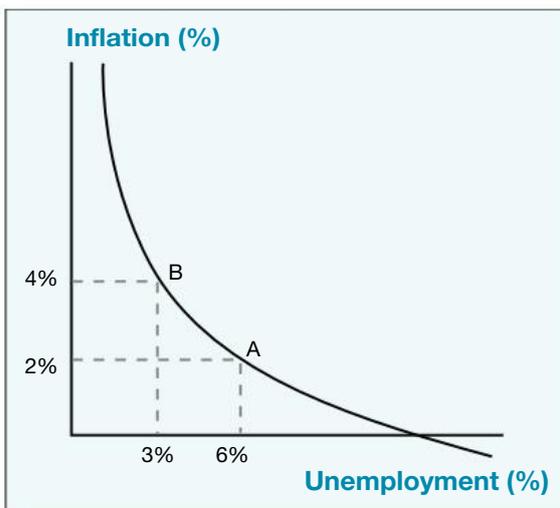


Figure B.7 – Phillips curve

In the 1970s, however, this relationship between unemployment and inflation broke down. (In reality, it never existed as neatly as the theory suggested). In Australia, as in many other industrialised nations, inflation levels increased and remained high even when the economy was stagnating and unemployment was high – a situation called **stagflation**. It was not clear whether governments should be loosening macroeconomic policies to reduce unemployment or tightening macroeconomic policies to combat rising inflation. At one level, the new crisis simply demonstrated that inflation

has cost-push causes, such as the world oil price spikes of the time, as well as demand-pull causes, such as faster economic growth. However, the high rates of inflation and unemployment were such an intractable problem for governments that it prompted an entire rethink of the relationship between unemployment and inflation.

The outcome of this rethink was the **Long-run Phillips curve** (also called the Friedman-Phelps Expectations Augmented Phillips curve). This new curve was based on the inclusion of two long-term economic principles in the explanation of the relationship between inflation and unemployment: the natural rate of unemployment and inflationary expectations. The **natural rate theory** says that there will always be some level of frictional, structural, seasonal, and hard-core unemployment, U_n , that cannot be addressed through demand-management or macroeconomic policies. If a government uses expansionary macroeconomic policies to lift demand and reduce unemployment, it will result in an increase in wage levels and inflation. As workers become used to the higher level of inflation, they will begin to demand even higher wages, which, if granted, will see the unemployment rate return to its natural level. Their **inflationary expectations**, however, will remain high. As a result, in the “long-term” (defined here as the time it takes for workers’ expectations of inflation to catch up to the new level), expansionary macroeconomic policy is not effective in reducing unemployment because unemployment is locked-in at the natural rate. The only long-term impact of expansionary policy is a permanently higher level of inflation.

Figure B.8 shows the Friedman-Phelps Expectations Augmented Phillips curve. The Long-Run Phillips curve is a vertical line at the natural rate of unemployment, U_n , which is equal to 5 per cent in this hypothetical economy. The economy starts on Short-Run Phillips curve P_1 , at point A, with an unemployment rate of 5 per cent and 0 per cent inflation. If the government operates expansionary macroeconomic policy, such as through an increase in government spending, the economy will move to point B, with a lower rate of unemployment at 3 per cent, but higher rate of inflation at 2 per cent.

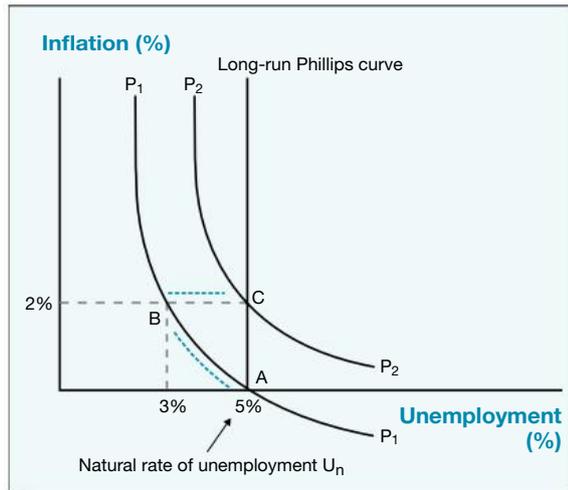


Figure B.8 – Friedman-Phelps Expectations Augmented Phillips curve

However, when workers realise inflation is now 2 per cent, they will demand higher wages to offset the increase in the cost of living. Businesses, realising that the prices of other goods have also risen by 2 per cent, and facing higher wage costs, are likely to cut back production and reduce their workforce. Unemployment will slowly creep back up to the natural rate, but inflationary expectations will remain high. The economy jumps from one Short-run Phillips curve to another – from P_1 to P_2 . In the long term, the expansionary policies have simply raised inflation to 2 per cent with the same level of unemployment – that is, the economy will be at point C.

In theory, the processes outlined above can be reversed through the adoption of contractionary macroeconomic policies. Tight macroeconomic policies will move the economy downwards to the right along a Short-run Phillips curve. Inflation will fall and unemployment will rise. When the inflationary expectations of businesses and workers fall, the economy will gradually return to the natural level of unemployment, but with a lower level of inflation. The economy will have shifted onto a lower Short-run Phillips curve and move back to where it started. This would suggest that any damage done (to inflation) by short-term policies to expand the economy and reduce unemployment can be easily reversed.

However, macroeconomic policy experience has found that this is not the case. Contractionary economic policies, which raise the level of unemployment in the short term, also tend to increase the natural rate of unemployment.

This phenomenon, called **hysteresis**, is where the cyclically unemployed lose their skills, job contacts and motivation while unemployed, and subsequently find it difficult to get a job even when economic conditions pick up (that is, they become structurally unemployed). In figure B.8, hysteresis would be shown by a **rightward shift** of the Long-run Phillips curve when unemployment is higher than the natural rate.

The analysis of the Friedman-Phelps Expectations Augmented Phillips curve has **profound implications for macroeconomic policy**:

1. Expansionary macroeconomic policy cannot reduce the level of unemployment in the long run.
2. Expansionary macroeconomic policy will only increase the level of inflation in the long run.
3. Contractionary macroeconomic policy may increase the level of unemployment in the long run through hysteresis.
4. The only way to reduce unemployment in the long run is through supply-side or microeconomic policies.
5. It is important to contain inflationary expectations.

This analysis led policymakers to give priority to reducing inflation, putting a higher priority on long-term measures to reduce unemployment.

Australia's policy mix reflects some of the lessons of the Friedman-Phelps Augmented Phillips curve. The most important macroeconomic policy, monetary policy (the setting of interest rates), is generally focused on fighting inflation first, and has an **inflation target band** to guide its policy decisions and which acts as an anchor for inflationary expectations. While it does not produce an estimate of the non-accelerating inflation rate of unemployment (NAIRU), the Reserve Bank watches very closely for any signs of excessive demand in the labour market when setting interest rates. The other macroeconomic policy, fiscal policy, plays a support role in managing aggregate demand during periods of slower economic growth such as in 2009 and 2010. Expansionary fiscal policy was also being used to create jobs and stop unemployment rising during the global recession, but generally, low unemployment is pursued through microeconomic policies such as training policies, reform of the tax and welfare systems, and promoting market forces in the economy.

B.4 Limitations of macroeconomic policy

In this section we look at three examples of the limitations of macroeconomic policy: how the success of expansionary fiscal policy may be limited by its impact on interest rates (the **crowding out effect**) and the current account deficit (the **twin deficits hypothesis**) and how the success of expansionary monetary policy may be limited by its impact on inflation (the **quantity theory of money**).

Crowding out effect

Expansionary fiscal policy occurs where the government increases spending or reduces taxation to boost aggregate demand and promote growth in the economy. The objective of this policy stance is to raise living standards and create jobs. Some economists, however, argue that increased public sector economic activity simply “crowds out” the private sector and cannot achieve its intended objectives.

In its most simple form, the “crowding out” theory says that if a government moves from a balanced budget to a deficit budget position, it will have to borrow money from the private sector. If there is a limited supply of borrowable funds, that is, savings, in the economy, then government borrowing will raise the demand for money and put upward pressure on interest rates. As interest rates rise, some businesses will not be able to borrow to fund their investment and expansion plans – that is, they will be crowded out. As a result, the move by the government to boost growth simply shifts activity from the private sector to the public sector, and leaves the economy with higher interest rates.

In modern, open economies like Australia, this version of the crowding out theory does not describe how the economy really works. Interest rates in Australia are indirectly set by the Reserve Bank independently of the level of government borrowing, and access to global capital markets generally means there is no shortage of borrowable funds.

However, this does not mean that government borrowing (fiscal policy) and interest rates (monetary policy) are unrelated. If a government was to shift from a contractionary fiscal stance to an expansionary fiscal stance at a time when economic growth was already high, it will add to demand pressure in markets for labour, for raw materials, and final goods and services. For example, if the government announces large tax cuts that people spend on

renovating their houses, it will increase prices for building materials and wages for construction workers. If these pressures feed through into a higher overall inflation rate, the Reserve Bank may raise interest rates to defend its 2–3 per cent inflation target band. As interest rates rise, private sector business activity will contract as it is crowded out.

Some economists also point out that if government spending fuels inflation and interest rate rises, it will also attract foreign financial inflows. As the exchange rate appreciates, and the international competitiveness of exporters falls, the government may be crowding out private sector export activity.

Indirectly, therefore, fiscal policy and monetary policy are related. To the extent that there is a speed-limit on how fast the economy can grow each year, governments face a trade-off: increased public sector activity or a shift to expansionary fiscal policy may simply crowd out private sector activity. Note: if the government shifted fiscal policy to contractionary settings, it would put downward pressure on interest rates and encourage private sector activity (known as the “reverse crowding out effect”).

In recent decades in Australia, the potential for a “crowding out effect” has been limited because the shifts in the stance of fiscal policy (measured by changes in the budget balance, as a percentage of GDP) were small. Where government spending has increased more rapidly, such as in 2009 and 2010, it has occurred when private sector activity has been weak and unemployment has been rising. Additionally, some government borrowings, such as for railway infrastructure, may encourage private sector activity, such as construction of homes near train stations. This is known as the “crowding in effect”. And while potentially adding to activity and inflation in the short term, government investments in education, research and development and physical infrastructure also add to the economy’s growth potential in the long term.

Twin deficits hypothesis

Another potential limitation on the effectiveness of expansionary fiscal policy in promoting economic growth and reducing unemployment is the twin deficits hypothesis. The twin deficits hypothesis says that budget deficits, used to stimulate the economy, cause current account deficit, and therefore should be minimised.

The hypothesis is derived from the equilibrium condition that injections equal leakages. By rearranging the injections and leakages equations, we see that the trade balance ($X - M$) must be equal to the savings-investment imbalance plus the budget balance. If one assumes that the savings-investment imbalance is not affected by the government's spending and revenue decisions (that is, is constant), then it can be shown that an increase in the budget deficit causes an increase in the trade deficit. (Although the theory is usually quoted as saying it will cause a current account deficit).

$$\begin{aligned} \text{Injections} &= \text{Leakages} \\ I + G + X &= S + T + M \\ (X - M) &= (S - I) + (T - G) \\ \text{Holding } S - I &\text{ constant,} \\ \Delta(T - G) &= \Delta(X - M) \end{aligned}$$

Increase in budget deficit causes increase in current account deficit

"The fiscal balance measures the Australian Government's investment-saving balance. It measures in accrual terms the gap between government savings plus net capital transfers, and investment in non-financial assets. As such, it approximates the contribution of the Australian Government General Government Sector to the balance on the current account in the balance of payments."

– 2018–19 Budget Paper 1, Statement 10.

There are, however, limitations of this theory. First, it is based on an equilibrium economy. If the economy is not in equilibrium, the budget deficit and trade deficit do not have to be equal. Second, the savings-investment imbalance is not constant or unaffected by the budget balance. If the crowding out theory is true, an increase in the budget deficit will actually cause investment to fall relative to savings, potentially leaving the trade balance unchanged. Alternatively, if the government achieved a surplus, the resulting lower interest rates may simply increase the savings-investment imbalance and leave the trade balance unchanged. Evidence from the Australian economy over the past decade supports the view that the twin deficits hypothesis is not a very useful theory. In the late 1990s, the government argued that the primary reason for shifting the budget balance from deficit to surplus was to reduce the current account deficit. Yet even when modest surpluses were achieved,

Australia's current account deficit grew larger. The government no longer uses fiscal policy to target a reduction in the current account deficit.

Quantity theory of money

Efforts to use expansionary monetary policy to increase the level of aggregate demand and reduce unemployment also face limitations. According to the quantity theory of money, expansionary monetary policy has no long-run impact on the level of economic activity and unemployment and instead only has the impact of increasing the level of inflation. Put another way, changes in the "money" side of the economy (the money supply and interest rates) do not have impacts on the "real" side of the economy (output and employment). Under this theory, revived in the 1970s by Milton Friedman (the same economist who developed the Friedman-Phelps Expectations Augmented Phillips curve), unemployment in the long term is fixed at the natural rate, with an associated fixed level of national output and income.

The quantity theory of money, much like the twin deficits hypothesis, relies on applying a range of principles and assumptions to an equation. The **equation of exchange** says that the money supply multiplied by the velocity of circulation (the volume of times of the money supply is used) must equal the total volume of goods and services purchased, multiplied by the price level. For example, if the money supply in Australia was \$200 billion and it was used five times in a year, total transactions would equal \$1 trillion, and this would be equal to the sum of the prices of all the goods and services produced in the economy over the same period (that is, GDP).

$$MV = PT$$

Where:

M = money supply P = price level
V = velocity of circulation T = volume of transactions

The quantity theory then makes **two assumptions**: that velocity of circulation is fixed and that the volume of transactions (that is, the output of goods and services) is fixed. If these assumptions are accurate, then any increase in the money supply (through a reduction in interest rates) will simply cause an increase in the price level.

The quantity theory of money was used by **monetarist economists** in the 1970s to argue that central banks should target the growth rate of the money supply to contain the level of inflation. After a brief use of monetary targeting in the

late 1970s and early 1980s, it was abandoned in Australia in 1985 because the targets were not achieved and inflation was not contained.

The main problem with the quantity theory is that the assumptions do not hold – that is, the velocity of circulation could be influenced by behavioural changes in consumers or businesses and not be constant, and factors that expand the productive capacity of the economy will increase the amount of output and transactions. Since the adoption of interest-rate setting monetary policy in Australia, the Reserve Bank does not even have direct control of a money supply measure that could be used to influence the level of inflation, making the theory even less useful.

The one lesson of the quantity theory of money that maintains relevance today is that it is not possible to use consistently expansionary monetary policy to achieve increases in output and employment. To the extent that the economy has a **speed limit determined by structural factors** such as technology levels, education levels, market flexibility, international competitiveness and efficiency, macroeconomic policy cannot keep the economy above this speed limit without adding to inflationary pressure. Long-term economic challenges require the government to implement successful microeconomic policies and invest in the long-term drivers of economic growth.

Glossary

A

Absolute poverty refers to the condition of people with the lowest living standards in the global economy, and is measured by an income level of less than US\$1.90 per day. See also, *relative poverty*.

Advanced economies refers to high income, industrialised or developed economies. The group of advanced economies includes 35 economies across North America, Europe and the Asia-Pacific.

Aggregate demand refers to the total demand for goods and services within the economy. Components of aggregate demand are: consumption (C); investment (I); government spending (G); and net exports (X-M).

Aggregate supply refers to the total productive capacity of an economy, that is, the potential output when all factors of production are fully utilised.

Allocative efficiency refers to the economy's ability to shift resources to where they are most valued and can be used most efficiently. See also, *dynamic efficiency and technical efficiency*.

Appreciation is an increase in the value of an economy's currency in terms of another currency. See also, *depreciation*.

Arbitration is a dispute resolution process in which an industrial tribunal hands down a legally binding ruling to firms and employees. See also, *conciliation*.

ASEAN-Australia-New Zealand Free Trade Area (AANZFTA) is a regional trade agreement in effect from 2010.

ASEAN Free Trade Area (AFTA) is a regional free trade agreement signed in 1992 that now covers 10 South-east Asian economies: Singapore, Thailand, Malaysia, Philippines, Indonesia, Brunei, Vietnam, Laos, Myanmar, and Cambodia.

Asia Pacific Economic Cooperation (APEC) forum is a group of 21 Asia-Pacific economies including Australia that promotes free trade and economic integration.

Association of South-East Asian Nations (ASEAN) was established in 1967 to reduce regional tensions and to develop cooperative approaches in dealing with outside countries. Its members are: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam.

Australia-New Zealand Closer Economic Relations Trade Agreement (ANZCERTA) is a bilateral free trade agreement between Australia and New Zealand, which came into effect in 1983.

Australia-United States Free Trade Agreement (AUSFTA) is a bilateral free trade agreement between Australia and the United States, signed in 2004.

Australian Competition and Consumer Commission (ACCC) is Australia's competition watchdog whose role is to enforce the *Competition and Consumer Act 2010* and ensure that businesses do not engage in anti-competitive behaviour

Australian Council of Trade Unions (ACTU) is the peak trade union body in Australia, covering most trade unions.

Australian Industrial Relations Commission (AIRC) is the old name of the peak industrial tribunal at the federal level. It has been replaced by Fair Work Commission. See also, *industrial tribunals*.

Australian Prudential Regulation Authority (APRA) is the government body established to regulate all deposit-taking institutions, life and general insurance organisations and superannuation funds.

Australian Securities and Investments Commission (ASIC) is the government body with responsibility for corporate regulation, consumer protection and the oversight of financial service products.

Australian Trade Commission (Austrade) is a government organisation that assists Australian exporters to succeed in developing overseas markets.

Australian Workplace Agreements (AWAs) were a form of individual employment contracts between an employer and an individual employee that were phased out in 2013.

Automatic stabilisers are instruments inherent in the government's budget that counterbalance economic activity. In a boom period, they decrease economic activity and, in a recession, they increase economic activity. The most common examples are transfer payments and a progressive tax system.

Average propensity to consume (APC) is the proportion of total income that is spent on consumption. See also, *marginal propensity to consume*.

Average propensity to save (APS) is the proportion of total income that is not spent, but is saved for future consumption. See also, *marginal propensity to save*.

Average rate of tax is the proportion of total income earned that is paid in the form of a tax. See also, *marginal rate of tax*.

Awards establish the minimum wage and working conditions for employees depending on their industry, occupation or workplace. Restructured and streamlined awards are known as modern awards.

Balance of payments is the record of the transactions between Australia and the rest of the world during a given period, consisting of the current account and the capital and financial account.

Balanced budget is the budget outcome where the level of taxation revenue is equal to government spending.

Bandwagon effect refers to a situation where individuals desire a good or service because of its popularity, that is, where demand for a good or service increases as it gains more users.

B

Better off overall test (BOOT) is a test that enterprise agreements must pass in order to be approved under the *Fair Work Act*. It examines whether an employee is better off than they would be under the applicable industrial award.

Bilateral free trade agreement is an agreement between two economies to lower tariff levels and other trade barriers in order to encourage increased trade flows. See also, *multilateral free trade agreement* and *regional free trade agreement*.

Broad money is a measure of the money supply that consists of currency in circulation; all bank deposits, and deposits in non-bank financial intermediaries minus their holdings of bank deposits.

Brexit refers to the process of the United Kingdom ceasing to be a member of the European Union, following a 52–48 per cent vote of the British public in a referendum in June 2016.

Budget is the tool of the government for the exercise of fiscal policy. It shows the government's planned expenditure and revenue for the next financial year.

Budget deficit is a budget outcome where government spending is greater than revenue.

Budget surplus is a budget outcome where government spending is less than revenue.

Business cycle refers to fluctuations in the level of economic growth due to either domestic or international factors.

Business firm is an organisation involved in using entrepreneurial skills to combine factors of production to produce a good or service for sale.

C **Capital** is the manufactured products used to produce goods and services, commonly described as “the produced means of production”. See also, *labour*, *land*, *natural resources* and *enterprise*.

Capital and financial account records the borrowing, lending, sales and purchases of assets between Australia and the rest of the world. Financial inflow has the immediate effect of increasing the supply of foreign exchange to Australia while financial outflow reduces it.

Capital gains are the profits made by investors who sell their shares or assets at a price above the level that they originally paid for them.

Capital goods are items that have not been produced for immediate consumption but will be used for the production of other goods. See also, *consumer goods*.

Carbon tax is an environmental management policy where businesses must pay a price for each tonne of carbon dioxide emitted through energy or industrial production process. It is designed to discourage activities that contribute to climate change.

Cartel describes a situation in which individual firms have implicitly or explicitly agreed to restrict competition, such as through agreements to fix prices, segregate the market, or limit the quantity of goods produced.

Cash rate is the interest rate paid on overnight loans in the short-term money market. See also, *interest rates*.

Casualisation of work refers to the growth of casual employment (and the relative decline of full-time

permanent jobs) as a proportion of the total workforce. See also, *underemployment*.

Centralised incomes policy is a system in which a government or industrial tribunal determines wages and working conditions for all employees, regardless of which firm they work for. See also, *decentralised incomes policy*.

Centrally planned economy is an economic system whereby government planners make economic decisions and there is little scope for individual choice to influence economic outcome. See also, *market economy* and *mixed economy*.

Ceteris paribus is the concept in economics that in order to understand the relationship between two factors, we need to analyse the impact of one factor on another factor while assuming nothing else changes. It is a Latin phrase that means “other things being equal” or assuming that everything else is held constant.

Circular flow of income is a model that describes how economic activity occurs between the different groups in an economy. Saving, taxation and spending on imports represent leakages from the circular flow, that is, they decrease the level of economic activity. Investment, government spending and export revenue represent injections into the circular flow, that is, they increase the level of economic activity.

China-Australia Free Trade Agreement (ChAFTA) is a bilateral free trade agreement signed in 2015 and is awaiting treaty processes before coming into force.

Clean float is an exchange rate system where the Reserve Bank does not intervene in foreign exchange markets to influence the value of the Australian dollar. See also, *dirty float* and *dirtying the float*.

Climate change is the impacts on the natural environment such as rising temperatures and sea levels caused by emissions of greenhouse gases such as carbon dioxide, nitrous oxide and methane.

COAG is the Council of Australian Governments, the body that brings together Commonwealth, state, territory, and local governments to work together on areas of shared responsibility such as health care, water management and business regulations.

Collective agreement is a workplace agreement that is negotiated between an employer and a group of employees, usually through a union. See also *enterprise bargaining*.

Collective bargaining (see *enterprise bargaining*)

Collective wants are wants of the whole community. This will depend on the preferences of the community as a whole and not individuals. In Australia, collective wants such as parks and libraries are most commonly provided by the government. See also, *public good*.

Collusion occurs when firms agree on a pricing or market sharing arrangement that reduces effective competition between them, and tends to inhibit the entry of competitors into the market.

Common Agricultural Policy is a scheme used by economies in the European Union to promote European farm production through export subsidies and restrictions on imports from economies outside the EU.

Comparative advantage is the economic principle that nations should specialise in the areas of production in which they have the lowest opportunity cost and trade with other nations, so as to maximise both nations' standards of living.

Competition is the pressure on business firms in a market economy to lower prices or improve the quality of output to increase their sales of goods and services to consumers. See also, *pure competition*.

Competitiveness (see *international competitiveness*)

Complement is a good that is used in conjunction with another good. For example, DVDs would be a complement of DVD players.

Conciliation is a dispute resolution process in which firms and employees meet to discuss their differences in the presence of a third party (such as from an industrial tribunal) who attempt to bring the parties to an agreement. See also *arbitration*.

Constitution (Australian) is the document that provides the overall framework for Australia's system of democratic government and the relationship between the Commonwealth (or federal) and state governments.

Consumer goods and services are items produced for the immediate satisfaction of individual and community needs and wants. See also, *capital goods*.

Consumer Price Index (CPI) is a measure of the movement in the prices of a basket of goods and services weighted according to their significance for the average Australian household. It is used to measure inflation in Australia. See also, *inflation*.

Consumer sovereignty refers to the manner in which consumers, collectively through market demand, determine what is produced and the quantity of production.

Consumption function is a graphical representation of the relationship between income and consumption for an individual or an economy. It is usually upward sloping with a gradient less than one, and with a positive y-intercept.

Contracting out (see *outsourcing*)

Contractionary policies are government policies that attempt to reduce economic activity. Contractionary fiscal policy would involve decreasing government spending or increasing taxation. Contractionary monetary policy would involve an increase in interest rates.

Convergence (see *international convergence*)

Corporatisation occurs when the government changes the rules around how government-owned businesses are operated so that they behave more like private sector businesses, independent from the government. See also, *privatisation*.

Cost-push inflation occurs when there is an increase in production costs (such as oil price increases or wage increases) that producers pass on in the form of higher prices thus raising the rate of inflation.

Council of Financial Regulators is a coordinating body for financial market regulation that provides for cooperation and collaboration among its four members – the Reserve Bank of Australia, the Australian Prudential Regulation Authority, the Australian Securities and Investments Commission, and the Australian Treasury.

Counter-cyclical policies are economic policies designed to smooth fluctuations in the business cycle. Macroeconomic policies such as fiscal policy and monetary policy are usually used as counter-cyclical policies.

Credit is loans to individuals, businesses and governments for spending on consumption and investment.

Crowding out effect occurs where government spending is financed through borrowing from the private sector, which puts upward pressure on interest rates and “crowds out” private sector investors that cannot borrow at the higher rates of interest.

Current account is the part of the balance of payments that shows the receipts and payments for trade in goods and services, as well as both primary and secondary income flows between Australia and the rest of the world in a given time period. These are non-reversible transactions.

Current account deficit (CAD) is recorded when the debits in the current account (imports and income payments to overseas) are greater than the credits (exports and income payments from overseas).

Cyclical unemployment refers to those persons that have become unemployed due to a downturn in the business cycle.

Debt servicing ratio is the proportion of export revenue that is used to make repayments on foreign debt, and is a common measure of the sustainability of Australia's foreign debt level.

Decentralised incomes policy is a system in which wages and working conditions are determined through negotiations between individual firms and their employees. See also, *centralised incomes policy*.

Demand is the quantity of a particular good or service that consumers are willing and able to purchase at various price levels, at a given point in time.

Demand-pull inflation occurs when aggregate demand or spending is growing while the economy is nearing its supply capacity, so that higher demand leads to higher prices rather than more output.

Depreciation (of capital) refers to the “wear and tear” that all capital goods experience, which causes their value to fall over time.

Depreciation is a decrease in the value of an economy's currency in terms of another currency. See also, *appreciation*.

Deregulation is the removal of government controls over an industry that is intended to make business more responsive to market forces.

Devaluation occurs when the government (or central bank) lowers the value of a currency that operates with a fixed exchange rate. See also, *reevaluation*.

Developing economies are economies with a low level of material well-being and economic development, and which tend to have poor health and education standards, weak infrastructure and agriculture-based economies.

Diminishing marginal returns occur when a firm experiences a decline in additional output as it increases a factor of production (such as labour) while holding the amount of other factors of production constant.

Direct tax is a tax where the person upon whom a tax is levied must pay the tax because it cannot be passed onto someone else. For example, income tax. See also, *indirect tax*.

Dirty float is an exchange rate system where the value of the currency is mainly determined by demand and supply in foreign exchange markets, but the Reserve Bank occasionally intervenes to stabilise the value of the Australian dollar during periods of excessive volatility. See also, *clean float* and *dirtying the float*.

D

Dirtying the float is where the Reserve Bank buys and sells Australian dollars in foreign exchange markets to influence the value of the exchange rate. See also, *clean float* and *dirtying the float*.

Diseconomies of scale (see *internal diseconomies of scale* and *external diseconomies of scale*)

Distribution of income (see *income distribution*)

Diversification occurs when a firm enters a new industry that is not directly related to its existing business operations.

Dividends are the profit returns received by the shareholders (owners) of a business. See also, *profit*.

Division of labour (see *specialisation of labour*)

Domestic Market Operations are actions by the Reserve Bank in the short-term money market to buy and sell second hand Commonwealth Government Securities in order to influence the cash rate and the general level of interest rates. See also, *monetary policy*.

Dumping is the practice of exporting goods to a country at a price lower than their selling price in their country of origin.

Dutch disease is a term that refers to high commodity export prices driving up the value of the currency, making other parts of the economy less competitive, leading to a higher current account deficit and a greater dependence on commodities. The term was coined in 1977 by The Economist magazine to describe the impact of gas discoveries on the economy of the Netherlands.

Dynamic efficiency refers to the economy's ability to shift resources between industries in response to changing patterns of consumer demand. See also, *allocative efficiency*, *technical efficiency*.

E

Ecologically sustainable development involves conserving and enhancing the community's resources so that ecological processes and quality of life are maintained.

Economic cost (see *opportunity cost*)

Economic development is a broad measure of welfare in a nation that includes indicators of health, education and environmental quality as well as material living standards.

Economic growth occurs when there is a sustained increase in a country's productive capacity over time. This is commonly measured by the percentage increase in real Gross Domestic Product. See also, *Gross Domestic Product*.

Economic policy mix refers to the combination of macroeconomic (fiscal and monetary) and microeconomic policies used by the government to achieve its economic objectives.

Economic problem involves the question of how to satisfy unlimited wants with limited resources.

Economies of scale (see *internal economies of scale* and *external economies of scale*)

Efficiency (see *allocative efficiency*, *technical efficiency* and *dynamic efficiency*)

Elaborately transformed manufactures (ETMs) are technologically advanced and high value-added manufacturing products, such as motor cars, that generally command high prices on international markets. See also, *simply transformed manufactures*.

Elasticity (see *price elasticity of demand*, *price elasticity of supply*)

Elasticity of demand (see *price elasticity of demand*)

Elasticity of supply (see *price elasticity of supply*)

Emerging economies are economies experiencing the fastest rates of growth in the global economy with many undergoing rapid industrialisation. The group includes China, India, Brazil, Mexico, Egypt and Poland and many other economies across Asia, Latin America, Central and Eastern Europe, the Middle East and North Africa.

Emissions trading scheme is an environmental management policy where the government sets a cap on the amount of greenhouse gas emissions, requires companies to have a permit to emit gases, and allows permits to be traded between companies, providing an incentive to reduce emissions.

Employer associations are organisations that are formed to represent the interests of businesses, especially in industrial relations and in lobbying the government.

Enterprise involves the organisation of the other factors of production to produce goods and services. The entrepreneur makes the decisions and bears the risk of the business. The return for enterprise is profit. See also *land*, *natural resources*, *capital* and *labour*.

Enterprise bargaining refers to negotiations between employers and employees (or their representatives) about pay and work conditions at the level of the individual firm.

Environment is the totality of the physical environment in which human society lives, and includes the land, water, climate and plant and animal life.

Environmental management refers to actions to protect and enhance the natural environment, including protecting the quality of air, water and soil, preserving natural environments and biodiversity, ensuring the sustainable use of renewable and non-renewable resources, and minimising the negative environmental consequences of economic activity.

Equilibrium is achieved in an individual market when any consumer who is willing to pay the market price for a good or service is satisfied, and any producer who offers their goods or services at the market price is able to sell their produce. It occurs when quantity demanded is equal to quantity supplied, that is, when the market clears.

Equilibrium level of income refers to the level of income, output and employment at which the spending plans of the various sectors of the economy are identical to the aggregate production plans of the economy, that is, aggregate demand is identical to aggregate supply. Alternatively, it may be thought of as the level of aggregate income where total leakages from the economy are identical to the total injections into the economy.

Ethical decision-making is when business decisions about production methods, employment and other matters are made to improve outcomes for the broader society and the environment, and not simply to maximise profits for the firm.

European Union (EU) is an economic and political association of 28 European nations that has a single market for goods, services, finance and labour.

Eurozone refers to the monetary union of 19 countries of the European Union.

Excess capacity refers to the situation where a firm or economy is operating below maximum potential output.

This is due to unemployed or under-utilised resources, that is, the economy is producing inside its production possibility curve.

Exchange rates are the price of one currency in terms of another economy's currency.

Exchange settlement accounts are the funds held by banks with the Reserve Bank of Australia (RBA) in order to settle payments with other banks and the RBA.

Expansionary policies are policies that attempt to increase aggregate economic activity in the economy. Expansionary fiscal policy would involve increasing government spending or reducing taxation. Expansionary monetary policy would involve a reduction in the interest rates.

Exports are goods or services that are produced domestically and purchased by overseas consumers. See also, *imports*.

External diseconomies of scale are the disadvantages faced by a firm because of the growth of the industry in which the firm is operating, and are not the result of a firm changing its own scale of operations. See also, *internal diseconomies of scale*.

External economies of scale are the advantages that accrue to a firm because of the growth of the industry in which the firm is operating, and are not the result of the firm changing its own scale of operations. See also, *internal economies of scale*.

External stability is an aim of government policy that seeks to promote sustainability on the external accounts so that Australia can service its foreign liabilities in the medium to long run and avoid currency volatility.

Externalities are external costs and benefits that private agents in a market do not consider in their decision making process. For example, airlines and passengers do not consider aircraft noise when negotiating airfares. See also, *market failure, positive externality, negative externality*.

F **Factors of production** are any resources that can be used in the production of goods and services. The four main types are natural resources (or land), capital, labour and enterprise.

Factor market is a market for any input into the production process, including land, labour, capital and enterprise. See also, *labour market* and *product market*.

Fair Work Commission is the government agency that regulates industrial relations in Australia. It combines the functions of an industrial tribunal (such as the Industrial Relations Commission) with a role of education and promotion of enterprise bargaining.

Fair Work Ombudsman is the government agency that investigates complaints and enforces compliance with Australia's workplace laws.

Financial aggregates are the Reserve Bank of Australia's three main indicators of the money supply – money base, M3 and broad money.

Fiscal policy is a macroeconomic policy that can influence resource allocation, redistribute income and reduce the fluctuations of the business cycle. Its instruments include government spending and taxation and the budget outcome.

Fixed exchange rate is when the value of the economy's currency is officially set by the government or the central bank.

Flexible peg is an exchange rate system where the currency's value is fixed at a pre-announced level, but it can be changed by the central bank in response to the forces of supply and demand in foreign exchange markets.

Floating exchange rate is when the value of a economy's currency is determined by the forces of demand and supply in foreign exchange markets.

Foreign debt refers to the total level of outstanding loans owed by Australian residents to overseas residents. See also, *foreign equity, foreign liabilities, net foreign debt*.

Foreign direct investment (FDI) refers to the movement of funds between economies for the purpose of establishing a new company or buying a substantial proportion of shares in an existing company (10 per cent or more). FDI is generally considered to be a long-term investment and the investor normally intends to play a role in the management of the business.

Foreign equity is the total value of Australian assets such as land, shares and companies in foreign ownership. See also, *foreign debt, foreign liabilities, net foreign equity*.

Foreign exchange market (or forex market) refers to the market in which currencies are traded.

Foreign liabilities are Australia's total financial obligations (foreign debt plus foreign equity) to the rest of the world. See also, *net foreign liabilities*.

Free riders refers to when groups or individuals benefit from a good or service without contributing to the cost of supplying the good or service. As a consequence, the good or service is likely to be under-supplied in relation to the total demand.

Free trade is a situation where there are no artificial barriers to trade imposed by governments for the purpose of shielding domestic producers from foreign competitors.

Frictional unemployment are those who are unemployed due to time lags involved in the transition between jobs.

Full employment occurs when it is no longer possible to achieve a sustained reduction in unemployment through stronger economic growth. See also, *natural rate of unemployment*.

Future Fund is a Commonwealth Government investment account that receives the proceeds of budget surpluses and asset sales and invests them in order to generate returns to meet the Commonwealth Government's future superannuation liabilities.

General Agreement on Tariffs and Trade (GATT) was a multilateral trade promotion process that began in 1947. The final round of GATT negotiations finished in 1993, and agreed to replace GATT with the World Trade Organisation in 1995. See also, *World Trade Organisation*.

Geographical mobility refers to the ability of labour to move between different locations to gain higher wages or improved employment opportunities.

Gini coefficient is a number between zero and one that measures the extent of income inequality in an economy. It is calculated by measuring the degree to which the Lorenz curve deviates from the line of equality. See also, *Lorenz curve*.

Global economy refers to the sum of the interactions between the economies of individual countries that are now increasingly linked together into one larger economic system.

G

Global financial crisis describes the period of extreme volatility on world financial markets in 2008 and 2009 that caused the deepest recession in the world economy since the Great Depression of the 1930s.

Globalisation refers to the integration between different countries and economies and the increased impact of international influences on all aspects of life and economic activity.

Goods and Services Tax (GST) is a 10 per cent sales tax imposed on most goods and services in Australia.

Government Business Enterprises (GBEs) (*see public trading enterprises*)

Government expenditure is an injection in the circular flow of income. It includes all money that the government spends to provide services such as health and education.

Government procurement refers to the policies and procedures for purchasing goods and services for the use of the government and public trading enterprises.

Gross Domestic Product (GDP) is the total market value of all final goods and services produced in an economy over a period of time. *See also, economic growth.*

Gross National Income (GNI) is the total income earned by domestically owned factors of production over a period of time. *See also, gross domestic product.*

Gross World Product (GWP) refers to the sum of total output of goods and services by all economies in the world over a period of time.

Group of Seven (G7) refers to the seven largest industrialised nations who meet annually to discuss economic and political issues and wield tremendous influence over the global economy. Its members are the US, UK, France, Germany, Italy, Canada, and Japan.

Growth (*see economic growth*)

G20 is the group of the world's 20 largest economies. It was formed in 1999 and has played an increasingly important role in addressing the reform of the global financial system and macroeconomic coordination. It incorporates the G7 economies, plus the European Union, Argentina, Australia, Brazil, China, India, Indonesia, Mexico, Russia, Saudi Arabia, South Africa, South Korea and Turkey.

Hard-core unemployment refers to long-term unemployed people who may be considered unemployable by employers because of personal circumstances such as drug use or mental or physical disabilities.

Heavily Indebted Poor Countries (HIPC)s are a group of developing countries, mostly in Africa, that suffer extreme external debt sustainability problems.

Hidden unemployment refers to those people who can be considered unemployed but do not fit the official definition of unemployment and are thus not reflected in the unemployment statistics.

Horizontal integration occurs when a firm takes over another business involved in the same kind of production, that is, one of its competitors.

House of Representatives is the main chamber of the Australian Parliament. When a party coalition has a majority of votes in the House of Representatives it forms a government under a Prime Minister who is also one of the 150 members of the House of Representatives.

Household savings is the proportion of total household disposable income not spent on consumption.

Human capital is the economic concept that the supply of labour cannot be simply measured by the size of the labour force, but also by its quality, which can be increased through education and training.

Human Development Index (HDI) is a measure of economic development devised by the United Nations Development Program. It takes into account life expectancy at birth, levels of educational attainment and material living standards (as measured by Gross National Income per capita).

Hysteresis is the process whereby unemployment in the current period results in the persistence of unemployment in future periods as unemployed people can lose their skills, job contacts and motivation to work.

Imperfect competition is any market structure that is not a perfectly competitive market, which gives individual firms the ability to influence price levels.

Imported inflation occurs when there is an increase in the price of imports either due to inflation in the economies of our trading partners or because of a depreciation of the A\$ which results in higher prices of consumer imports and imported inputs.

Imports are goods and services that are produced overseas and purchased by domestic consumers. *See also, exports.*

Income is the amount of money, or other benefits measured in money terms, which flow to individuals or households, usually for their contribution to the production process or as a direct payment from the government over a period of time.

Income distribution refers to the way in which a economy's income is spread among the members of different social and socio-economic groups.

Indirect tax is a tax that is levied on an aspect of economic activity other than a person or an organisation's income, such as sales tax. *See also, direct tax.*

Industrial dispute occurs when employers or employees take action to disrupt the production process in order to highlight a disagreement between employers and employees.

Industrial relations refers to the relationship between employers, employees, and their representatives. *See also, industrial relations system.* Also known as workplace relations

Industrial relations system involves the laws, institutions and processes established to manage relations between employers and employees. The structure of the industrial relations system determines the process of wage determination and conflict resolution in the Australian labour market. Also known as workplace relations system.

Industrial tribunals are government agencies that oversee the industrial relations system and attempt to prevent or resolve workplace conflict between employees (usually represented by unions) and employers (sometimes represented by employer associations). Fair Work Commission is the main industrial tribunal in Australia

Industry is the collection of firms involved in making a similar range of items that usually compete with each other, such as the financial services industry or the car industry.

Industry policy involves measures to support the development of key industries and increase the competitiveness of domestic industries against foreign competitors.

Inelastic demand (see *price elasticity of demand*)

Inelastic supply (see *price elasticity of supply*)

Infant industry argument refers to the argument that newly established or “infant” industries during the early years are not competitive with established industries in other countries and may need protection from overseas competition in order to survive.

Inflation is the sustained increase in the general level of prices over a period of time, usually one year. This is commonly measured by the percentage change in the Consumer Price Index (CPI).

Inflation targeting occurs when a central bank implements monetary policy with the aim of achieving a particular level of inflation. In Australia, the Reserve Bank has an inflation target of 2-3 per cent, on average, over the course of the economic cycle.

Inflationary expectations is where inflation may be perpetuated by the expectations of workers and firms that it will occur.

Infrastructure Australia is the expert national body that advises the Government on national infrastructure planning.

Injections into the circular flow model of income are those flows of money that increase aggregate income and the general level of economic activity. The three injections are investment, government spending and exports. See also, *leakages*.

Interest is the reward to the factor of production capital for its use in the production of goods and services. See also, *wages, profit and rent*.

Interest rate differential is the difference between two interest rates, either between two economies' interest rates or between a financial institution's borrowing and lending interest rates.

Interest rates are the cost of borrowing money expressed as a percentage of the total amount borrowed.

Intermediate goods are semi-finished goods that are transformed into higher-value goods before sale to consumers (for example, steel is an intermediate good in the production of motor vehicles). See also, *capital goods and consumer goods and services*.

Internal diseconomies of scale are the cost disadvantages (specifically, the increase in marginal costs per unit) faced by a firm as a result of the firm expanding its scale of operations beyond a certain point. Its output level is above the technical optimum. See also, *external diseconomies of scale*.

Internal economies of scale are the cost saving advantages that result from a firm expanding its scale of operations. They occur when a firm's output level is below the technical optimum. See also, *external economies of scale*.

International business cycle refers to fluctuations in the level of economic activity in the global economy over time.

International competitiveness refers to the ability of an economy's exports to compete on global markets. An economy may be competitive by selling products of a higher quality or a lower price than its competitors.

International convergence refers to the increasing similarity of economic conditions in different economies during the globalisation era, in terms of economic systems, performance and structure, and living standards.

International division of labour is how the tasks in the production process are allocated to different people in different countries around the world.

International Monetary Fund (IMF) is an international agency that consists of 189 members and oversees the stability of the global financial system. The major functions of the IMF are to ensure stability of exchange rates, exchange rate adjustment and convertibility.

Investment is any current expenditure where the benefits will be obtained in the future. Most typically, this injection will involve the purchase of capital goods or the build up of stock or inventory.

J-curve effect is an economic concept that suggests that a depreciation of a currency will lead to a short-term deterioration of Australia's trade balance (as exporters receive lower revenue for a given quantity of exports and import spending rises for a given quantity of imports) and a long-term improvement in the trade balance as exports become more competitive and imports less competitive, so that export volumes rise and import volumes fall.

Jobactive is the federally-funded network of employment services agencies, providing employers with recruitment assistance and helping job seekers find work.

Korea-Australia Free Trade Agreement (KAFTA) is a bilateral free trade agreement between Australia and Korea signed in 2014.

Kyoto Protocol is an agreement signed by 187 nations since 1997 designed to lower emissions of carbon dioxide and other greenhouse gas emissions in order to combat global warming.

Labour is human effort, both physical and mental, used to produce goods and services. The return for labour is wages. See also *land, capital and enterprise*.

Labour force consists of all the employed and unemployed persons in the country at any given time. Also known as the workforce.

Labour force participation rate (LFPR) (see *participation rate*)

Labour on-costs (see *on-costs*)

Labour market is where individuals seeking employment interact with employers who want to obtain the most appropriate labour skills for their production process.

Labour market policies are microeconomic policies that are aimed at influencing the operation and outcomes in the labour market, including industrial relations policies that regulate the process of wage determination as well as training, education and job-placement programs to assist the unemployed.

Labour productivity refers to the quantity of output produced in a production process per unit of labour per unit of time. See also, *multifactor productivity*.

J

K

L

Land is the natural resources used to produce goods and services. The return for land is rent. See also, *capital*, *land* and *enterprise*.

Leakages are the items that remove money from the circular flow of income, decreasing aggregate income and the general level of economic activity. The three leakages are savings, taxation and imports. See also, *injections*.

Least Developed Countries (LDCs) are those economies that suffer from low living standards (as measured by GDP per capita levels less than around US\$900 per year) and longer term impediments to economic development.

Liquidity is the ease with which a financial asset can be transformed into cash so it can be used as a medium of exchange.

Local content rules specify that goods must contain a minimum percentage of locally made parts to qualify for trade protection assistance.

Long-term unemployment refers to a person being unemployed for a period of one year or longer.

Lorenz curve is a graphical representation of income distribution, plotting the cumulative increase in population against the cumulative increase in income. See also, *Gini coefficient*.

M

M3 is a measure of the money supply that consists of all currency in circulation, bank deposits with the Reserve Bank and private sector deposits in banks.

Macroeconomic policies are policies that affect the economy as a whole with the aim of minimising fluctuations in the business cycle. Also referred to as demand management or counter-cyclical policies.

Malaysia-Australia Free Trade Agreement (MAFTA) is a bilateral free trade agreement between Australia and Malaysia signed in 2012.

Managed exchange rate is an exchange rate system where the value of the currency is determined or substantially influenced by central bank intervention in the foreign exchange market, but where the level of exchange is not held at a permanently fixed level.

Marginal propensity to consume (MPC) is the proportion of each extra dollar of earned income that is spent on consumption. See also, *average propensity to consume*.

Marginal propensity to save (MPS) is the proportion of each extra dollar of earned income that is not spent, but saved for future consumption. See also, *average propensity to save*.

Marginal rate of tax is the proportion of each extra dollar earned that must be paid in tax. See also, *average rate of tax*.

Market clearing occurs when there is equilibrium in the market, that is, when the demand and supply curves intersect, when quantity demanded equals quantity supplied and there is no tendency for change.

Market economy is an economic system whereby all major economic decisions are made by individuals and private firms, which are both motivated by self-interest, without government intervention. See also, *centrally planned economy* and *mixed economy*.

Market equilibrium (see *equilibrium*)

Market failure occurs when the price mechanism takes into account private benefits and costs of production to consumers and producers, but it fails to take into account indirect costs such as damage to the environment.

Market learning (also known as learning by doing) is where a business becomes more efficient at producing a particular good or service as it gains more experience producing that good or service. This will shift the business's average cost curve downwards and shift its supply curve to the right.

Merit goods are goods that are not produced in sufficient quantity by the private sector because private individuals do not place sufficient value on those goods, that is, they involve positive externalities that are not fully enjoyed by the individual consumer. Merit goods include education and health care.

Microeconomic policies are policies that are aimed at individual industries, seeking to increase aggregate supply by improving the efficiency and productivity of producers.

Migration is the movement of people between countries on a permanent or long-term basis, usually for 12 months or longer.

Microeconomics is concerned with the study of economics at the level of individual economic actors or sectors of industry.

Mixed economy is an economic system where the decisions concerning production and distribution are made by a combination of market forces and government decisions. See also, *market economy* and *centrally planned economy*.

Mobility of labour (see *geographical mobility*, *occupational mobility*)

Monetary aggregates (see *financial aggregates*)

Monetary policy is a macroeconomic policy that aims to influence the cost and supply of money in the economy in order to influence economic outcomes such as economic growth and inflation. The Reserve Bank of Australia (RBA) administers monetary policy by influencing the level of interest rates.

Monetary union is where two or more countries share a common currency.

Money is the medium of exchange in most modern economies.

Money base is a measure of the money supply that consists of all currency in circulation and all bank deposits with the Reserve Bank.

Money wage (see *nominal wage*)

Money supply is the total amount of funds in an economy that can be used as a medium of exchange, a measure of value, a store of value and a method of deferred payment. The Reserve Bank's measure of the money supply is M3.

Monopolistic competition is a market structure where there are many sellers producing differentiated products, and there are no significant barriers to entry. This is not the same as monopoly.

Monopoly describes an industry where there is only one seller producing a unique product. There are high barriers to entry, so the monopolist has market power and can determine price or output (but not both). See also, *natural monopoly*.

Multifactor productivity refers to the quantity of output produced in a production process per combined input of labour and capital per unit of time. See also, *labour productivity*.

Multilateral free trade agreement is an agreement between a number of countries, usually in a region, to lower tariff levels and other forms of protection in order to encourage increased trade flows. See also, *bilateral free trade agreement* and *regional free trade agreement*.

Multinational corporations are firms that sell and produce goods or services in more than one country. See also, *transnational corporations*.

Multiplier is the greater than proportional increase in national income resulting from an increase in aggregate demand.

N

National Broadband Network is the optical fibre telecommunications system being built and operated by a company that is owned by the Commonwealth Government.

National competition policy is an agreement between Australia's Commonwealth and State Governments signed in 1995 to encourage microeconomic reform throughout the Australian economy.

National saving is the proportion of national income not spent by consumers, firms or the government.

Natural monopoly is a market situation where only one operator can operate efficiently in an industry, usually because of extremely high barriers to entry, for example, the capital cost of a railway network.

Natural rate of unemployment refers to the level of unemployment at which there is no cyclical unemployment, that is, where the economy is at full employment. See also, *full employment*, *non-accelerating inflation rate of unemployment (NAIRU)*.

Natural resources include all the resources provided by nature that are used in the production process. These are often simply referred to as "land". The reward (return) to the owners of natural resources is called rent. See also, *land*, *capital*, *labour*, *enterprise*.

Necessities (see *needs*)

Needs are individual desires for the basic necessities of life, such as food and shelter.

Negative externality is an unintended negative outcome of an economic activity whose cost is not reflected in the operation of the price mechanism. See also, *positive externality*.

Net errors and omissions is the entry on the balance of payments that ensures that the sum of the current account and the capital and financial account equals zero.

Net foreign debt refers to the level of outstanding loans owed by Australian residents to overseas residents minus the level of outstanding loans owed by overseas residents to Australian residents. See also, *foreign debt*.

Net foreign equity is the value of Australian assets such as land, shares and companies in foreign ownership minus the value of foreign assets in Australian ownership. See also, *foreign equity*.

Net foreign liabilities are equal to Australia's financial obligations (foreign debt plus foreign equity) to the

rest of the world minus the rest of the world's financial obligations to Australia. See also, *net foreign debt* and *net foreign equity*.

Net primary income is a component on the current account of the balance of payments calculated by subtracting primary income debits from income credits. Primary income debits include interest payments, dividends and rent paid by Australians on foreign liabilities, while income credits consist of similar payments by foreigners to Australians.

Net secondary transfers is a component of the current account that includes all transactions in which products or financial services are provided without a specific good or service being provided in return. This includes items such as aid to developing nations.

Newly industrialised countries (NICs) refers to economies that experience rapid economic growth in national output over an extended period, some of which now have living standards which are similar to advanced industrialised countries.

No disadvantage test is a requirement applied to workplace agreements to ensure that employees are not made worse off under an agreement than under their applicable award. This test is now known as the Better off Overall Test (BOOT).

Nominal wage is the pay received by employees in dollar terms for their contribution to the production process, not adjusted for inflation. See also, *real wage*.

Non-accelerating inflation rate of unemployment (NAIRU) refers to the level of unemployment at which there is no cyclical unemployment, that is, where the economy is at full employment. See also, *natural rate of unemployment*.

Non-excludable goods are goods or services whose consumption cannot be restricted to those willing to pay for them, such as clean air and national defence. The private sector is generally unwilling to provide non-excludable goods because individuals may not pay for using them. See also, *free riders*, *public good*.

Non-renewable resources are inputs to production where the stock of the resource is reduced in the process of production and consumption, for example, petroleum and coal. See also, *renewable resources*.

Non-rival goods are goods and services whose consumption by one individual does not reduce the ability of other individuals to also consume the good or service. See also, *public good*.

North American Free Trade Agreement (NAFTA) is a free trade agreement between the United States, Canada and Mexico that has been in effect since 1994.

Non-wage outcomes are the benefits that many employees receive in addition to their ordinary and overtime payments, such as sick leave, superannuation, a company car, study leave or arrangements for employees to work from home for part of the week.

Occupational mobility refers to the ability of labour to move between different occupations to gain higher wages or improved employment opportunities.



Okun's Law explains the relationship between unemployment and economic growth, showing that to reduce unemployment, the annual rate of economic growth must exceed the sum of percentage growth in productivity *plus* increase in the size of the labour force in any one year.

Oligopoly describes a market structure consisting of a few large firms producing slightly differentiated products. There are significant barriers to entry and each firm engages in non-price competition.

On-costs are the additional costs to business of employing labour (beyond their wage rates) such as sick leave and workers' compensation.

Open Market Operations (see *Domestic Market Operations*)

Opportunity cost represents the alternative use of resources. Often referred to as the "real" cost, it represents the cost of satisfying one want over an alternative want. This is also known as economic cost.

Organisation for Economic Cooperation and Development (OECD) is an organisation of 36 developed countries that seeks to promote economic growth and free markets amongst its members.

Outsourcing occurs when an organisation pays another business to perform a function that it does not regard as a core part of its business focus. Also known as subcontracting or contracting out.

Outlay method (see *total outlay method*)

P **Participation rate** refers to the percentage of the population, aged 15 and over, in the labour force, that is either employed or unemployed.

Perfect competition (see *pure competition*)

Perfectly elastic demand is where consumers demand an infinite quantity of a good or service at a particular price but nothing at all at a price above this. This situation can be represented by a horizontal demand curve.

Perfectly elastic supply is where producers are willing to supply an infinite quantity of a good or service at a particular price but nothing at all at a price below this. This situation can be represented by a horizontal supply curve.

Perfectly inelastic demand is where consumers are willing to pay any price in order to obtain a given quantity of a good or service. This situation can be represented by a vertical demand curve.

Perfectly inelastic supply is where producers are willing to supply a given quantity of a good or service regardless of price. This situation can be represented by a vertical supply curve.

Phillips curve is a graphical representation of the theory that the economy faces a trade-off between low levels of inflation and low levels of unemployment.

Policy mix (see *economic policy mix*)

Pollution occurs when the natural environment is degraded in some way, such as by harmful chemical substances, noise or untreated rubbish.

Portfolio investment refers to the short-term movement of funds between economies for loans or the purchase of small share holdings (less than 10 per cent of the total value of a company).

Positive externality is an unintended positive outcome of an economic activity whose value is not reflected in the operation of the price mechanism. See also, *negative externality*.

Poverty (see *absolute poverty, relative poverty*)

Precautionary motive is the demand for money for the purposes of unpredictable circumstances and emergencies for which people need to have liquid assets such as cash.

Price ceiling is a maximum price set by the government for which a good, service or factor of production can be sold, usually resulting in market disequilibrium as market demand will be greater than market supply.

Price discrimination is when a firm sells the same good or service in different markets (or to different consumers) at different price levels.

Price floor is a minimum price set by the government for which a good, service or factor of production can be sold, usually resulting in market disequilibrium as market supply will be greater than market demand.

Price elasticity of demand measures the responsiveness of quantity demanded to a change in price. It is calculated as the percentage change in quantity demanded divided by the percentage change in price.

Price elasticity of supply measures the responsiveness of quantity supplied to a change in price. It is calculated as the percentage change in quantity supplied divided by the percentage change in price.

Price mechanism is the process by which the forces of supply and demand interact to determine the market price at which goods and services are sold and the quantity produced.

Price stability is a goal of government economic policy seeking to restrain the growth rate of the general price level, essentially meaning low inflation.

Prices and incomes policy is a government macro-economic policy that seeks to control the growth rate of prices and/or wages and expand employment by imposing restraints on wages growth.

Primary financial markets are markets in which firms raise funds by selling financial assets, such as shares or debentures, to investors.

Private good is a good that is temporarily or permanently used up when someone consumes it and is easy to exclude people who are unwilling to pay for its benefits. See also, *public good*.

Private sector refers to those sectors of the economy that concern private individuals, that is, the household, the firm and the financial sector.

Privatisation occurs when the government sells public trading enterprises to the private sector. See also, *corporatisation*.

Product differentiation is when firms try to make their good or service look different from competitors (such as through packaging or product image) to increase brand loyalty and give the firm some degree of price setting power.

Product market is the interaction of demand for and supply of the outputs of production, that is, goods and services.

Production possibility frontier is a graphical representation of all the possible combinations of the production of two goods and services (or two types of goods and services) that the economy can produce at any given time.

Productivity refers to the quantity of goods and services the economy can produce with a given amount of inputs such as capital and labour. See also, *labour productivity* and *multifactor productivity*.

Profit is the return to the factor of production enterprise for its role in the production of goods and services. See also, *interest*, *rent* and *wages*.

Profit motive refers to the process by which a business seeks to maximise profit by using the lowest cost combination of resources and charging the highest possible price.

Progressive tax system is a tax system where higher income earners pay proportionally more tax. As income increases, the average rate of tax increases.

Proportional tax system is a tax system where all income earners pay proportionally the same amount of tax. The average rate of tax remains constant as income rises.

Protection refers to government policies that give domestic producers an artificial advantage over foreign competitors, such as tariffs on imported goods.

Public company is an entity whose shares are traded freely on the share market, and are not subject to any restrictions on being transferred to other parties.

Public good is an item that private firms are unwilling to supply as they are not available to restrict usage and benefits to those willing to pay for the good. Because of this, governments should provide these goods. See also, *private good*.

Public sector refers to the parts of the economy that are owned or controlled by the government. It includes all tiers of the government as well as government business enterprises.

Public sector goods are goods and services provided by the government such as train services and hospitals. See also, *public good*.

Public Trading Enterprises (PTEs) are businesses owned and managed by a government at either the Commonwealth or state level.

Purchasing power parity (PPP) states that exchange rates should adjust to equalise the price of identical goods and services in different economies throughout the world.

Pure competition describes the theoretical market structure where there are many buyers and sellers. They each sell a homogeneous product and there are no barriers to entry into the industry. They are price takers, as individually they have no power to influence price.



Quality of life refers to the overall well-being of individuals within a country according to their material living standards and a range of other indicators such as education levels, environmental quality and health standards. See also, *standards of living*.

Quantitative easing involves a central bank creating new money electronically, and then injecting it into the money supply through buying assets, usually government bonds, from investors such as fund managers and banks. By increasing liquidity and lowering interest rates, quantitative

easing aims to increase borrowing and stimulate economic activity in the private sector.

Quotas refer to restrictions on the amounts or values of various kinds of goods that may be imported.

Real Gross Domestic Product is the total value of all final goods and services produced in an economy over a period of time, adjusted for changes in the general price level.

Real cost (see *opportunity cost*)

Real wage is a measure of the actual purchasing power of money wages (that is, adjusting nominal wages for the effects of inflation). See also, *nominal wage*.

Recession is the stage of the business cycle where there is decreasing economic activity, defined as two consecutive quarters (six months) of negative economic growth, that is, a fall in GDP.

Regional business cycles are fluctuations in the level of economic activity in a geographical region of the global economy over time.

Regional free trade agreement is a multilateral agreement between three or more economies within a geographic region to lower tariff levels and other forms of protection in order to encourage increased trade flows. See also, *bilateral free trade agreement* and *multilateral free trade agreement*.

Regressive tax system is a tax system where lower income earners pay proportionally more tax. As income increases, the average rate of tax falls.

Regulation is the collection of government rules and institutions that influence the operation of markets and the participants in markets.

Relative poverty refers to those whose standards of living is substantially lower than the average for the economy as a whole, and is often defined as a level of income below 30 per cent of average earnings. See also, *absolute poverty*.

Renewable Energy Target (RET) is the policy to increase Australia's production of electricity from renewable energy such as solar, wind, and geothermal energy to 33,000 gigawatt hours per year by 2020.

Renewable resources are inputs into the production process that reproduce themselves, ensuring that present consumption of these resources does not necessarily reduce the ability of future generations to consume these resources in the future, for example, timber. See also, *non-renewable resources*.

Rent is the return to the factor of production natural resources (land) for its use in the production of goods and services. It does not just include rent from property but all income rewards derived from the productive use of natural resources. See also, *wages*, *interest* and *profit*.

Reserve assets refers to holdings of foreign currency and gold held by the Reserve Bank to use in foreign exchange markets in order to influence the value of the Australian dollar.

Reserve Bank of Australia (RBA) is Australia's central bank. Its main roles are to conduct monetary policy and oversee the stability of the financial system.



Returns to production are the payments made to factors of production to compensate for their use. The returns to production include: wages to labour, rent on land, interest on capital and profit on enterprise.

Revaluation occurs when the government, or central bank, increases the value of a currency that operates with a fixed exchange rate. See also, *devaluation*.

S

Salary (see *wages*)

Satisficing behaviour is the idea that firms will attempt to pursue a satisfactory level in all goals (profit maximisation, sales maximisation etc.) rather than maximising any single goal.

Savings represents the amount of disposable income that is not spent on consumption. Savings is a leakage from the circular flow of income, which is necessary to fund investment. The reward for savings is interest.

Seasonal unemployment affects those persons unemployed due to the seasonal nature of their work. Their jobs are only available at certain times of the year such as fruit picking or being a shopping centre Santa Claus.

Secondary financial markets are markets in which investors trade financial assets, such as shares or debentures, with other investors.

Share is a type of financial asset that provides an individual with ownership over part of a business or company.

Share market is a market for the sale of equity interests in companies.

Simply transformed manufactures (STMs) are low-value added manufacturing goods that generally command low prices on international markets, such as socks and singlets. See also, *elaborately transformed manufactures*.

Singapore-Australia Free Trade Agreement (SAFTA) is a bilateral free trade agreement between Australia and Singapore that was signed in 2003.

Snob effect refers to a situation where individuals desire a good or service because of its exclusivity, that is, where demand for a good or service decreases as it gains more users.

Social welfare payments are payments from the government to assist people with basic costs of living. A number of terms are commonly used for transfer payments including: transfer payments, government benefits, social security, income support and Centrelink payments.

Specialisation occurs when an economy concentrates on producing a particular set of goods or services in which it has a comparative advantage.

Specialisation of labour occurs when the volume of production is large enough for workers to concentrate on a particular stage of the production process.

Speculators are investors who buy or sell financial assets with the aim of making profits from short-term price movements. They are often criticised for creating excessive volatility in financial markets.

Stagflation occurs when the rate of inflation and the rate of unemployment rise simultaneously.

Standards of living refers to the material wellbeing of individuals within a country, usually measured by Gross National Income (GNI) per capita. See also *quality of life*.

Structural change involves changes in the patterns of production that reflect changes in technology, consumer demand, global competitiveness and other factors. It results in some products, processes and even industries disappearing, while others emerge

Structural unemployment describes those persons unemployed because of a mismatch between their skills and those skills demanded by employers. This occurs due to factors such as technological change and rapid changes in consumer demand, where labour skills cannot adapt quickly enough to such changes.

Stock exchange is an organisation that provides facilities for investors to trade shares and other financial assets. See also, *share market*.

Sub-contracting (see *outsourcing*)

Subsidies are cash payments from the government to businesses to encourage production of a good or service and influence the allocation of resources in an economy. Subsidies are often granted to businesses to help them compete with overseas produced goods and services.

Substitute is a good that consumers may choose to buy in place of another good, such as butter and margarine or tea and coffee.

Superannuation is a form of saving that individuals cannot access until they reach retirement age.

Supply is the quantity of a good or service that all firms in a particular industry are willing and able to offer for sale at different price levels, at a given point in time.

Tariffs are taxes on imported goods imposed for the purpose of protecting Australian industries.

Tax (see *taxation*)

Tax base is the items that are taxed by the government, such as income, wealth or consumption.

Tax-free threshold refers to the level of income below which income tax is not payable.

Taxation is a leakage from the circular flow model of income. It refers to the amount of revenue that the government obtains from different sectors and activities in the economy.

Technical efficiency is the ability of an economy to achieve the maximum level of output for a given quantity of inputs. See also, *allocative efficiency* and *dynamic efficiency*.

Technical optimum is the most efficient level of production for a firm. At this point, average costs of production are at their lowest possible level.

Technology transfer occurs when falling global barriers to trade and financial flows allow developing economies to access more advanced technology from overseas.

Terms of trade measures the relative movements in the prices of a economy's imports and exports over a period of time. The terms of trade index is calculated as export price index divided by import price index multiplied by 100.

T

Thailand-Australia Free Trade Agreement (TAFTA) is a bilateral free trade agreement between Australia and Thailand signed in 2003.

Total outlay method is a way to calculate the price elasticity of demand by looking at the effect of changes in price on the revenue earned by the producer. If price and revenue move in the same direction, demand is inelastic; if price and revenue move in the opposite direction, demand is elastic; and if revenue remains unchanged in response to a price change, demand is unit elastic.

Trade bloc occurs when a number of countries join together in a formal preferential trading agreement to the exclusion of other countries.

Trade liberalisation is the process of reducing tariffs, subsidies and other barriers to trade in order to encourage increased linkages between economies.

Trade union is an organisation that represents the interests of workers, primarily by seeking to improve their wages and working conditions.

Trade Weighted Index (TWI) is a measure of the value of the Australian dollar against a basket of foreign currencies of major trading partners. These currencies are weighted according to their significance to Australia's trade flows.

Tragedy of the commons refers to a situation where the failure of the market to assign costs to individuals leads to an overuse of resources such as the natural environment, which have no single owner.

Transactions motive is the demand for money for day-to-day purchases for which people need to use money.

Transfer payments (see *social welfare payments*).

Transatlantic Trade and Investment Partnership (TTIP) is a possible trade agreement between the United States and the European Union that has been under negotiation since 2013 and by 2016.

Transition Economies are former socialist economies that are now becoming market economies, and are concentrated in Central and Eastern Europe and Asia.

Transmission mechanism explains how changes in the stance of monetary policy pass through the economy to influence economic objectives such as inflation and economic growth.

Transnational Corporations (TNCs) are global companies that dominate global product and factor markets. TNCs have production facilities in at least two countries and are owned by residents of at least two countries.

Treasury is the Australian Government department responsible for developing fiscal policy through the Federal Budget, and advising the government on financial stability issues.

U **Underemployment** refers to those persons who are working less than full time (and therefore not unemployed) but would like to work more hours.

Underlying inflation is a measure of the increase in the general price level that removes the effect of one-off or volatile price movements.

Unemployment refers to a situation where individuals want to work but are unable to find a job, and as a result labour resources in an economy are not utilised.

Unemployment rate is the number of people officially unemployed as a percentage of the labour force.

Union (see *trade union*)

Unit elasticity of demand is where a change in price causes a proportional change in quantity demanded such that total spending by consumers on a good remains unchanged.

United Nations is a global organisation of 193 member states established in 1945 with a broad agenda covering the global economy, international security, the environment, poverty and development, international law, and global health issues.

Utility is the satisfaction or pleasure that individuals derive from the consumption of goods and services.

Valuation effect is where an appreciation (or depreciation) of the currency causes an immediate decrease (or increase) in the Australian dollar value of foreign debt.

Voluntary export restraints are agreements to restrict the number of exports to another country in exchange for a similar concession from the other nation.

Wages are the return to the factor of production labour for its use in the production of goods and services. These not only include wages but also salaries, fees, commissions and other earnings. See also, *interest, profit, rent*.

Wants are material desires of individuals that provide some pleasure when they are satisfied. This will depend on personal preferences. Wants are said to be unlimited. See also, *collective wants*.

Wage Price Index is a measure of growth in hourly rates of pay that is released quarterly by the Australian Bureau of Statistics. It is regarded as the most reliable indicator of underlying wage growth as the index is not affected by changes in bonuses or the quality or quantity of work.

Wealth is the value of the stock of assets held by individuals at a point in time.

Wealth effect occurs when an increase in the price of assets such as property and shares leads to an increase in consumption. This occurs because rising asset prices make the owners of these assets feel wealthier and so more willing to spend a greater a proportion of their income.

Welfare (see *utility, social welfare payments*)

Workable competition is the government's objective to achieve the maximum level of competition within an industry that is compatible with the market structure and specific conditions of the industry, that is, a situation where all markets are contestable.

Workforce (see *labour force*).

Workforce participation rate (see *participation rate*)

World Bank is a financial institution owned by 188 member countries that assists poorer nations with economic development through loans (often at little or no interest rates) to fund investment and reduce poverty. See also, *Heavily Indebted Poor Countries (HIPC)*.

World Trade Organisation (WTO) is an organisation of 164 member countries that implements and advances global trade agreements and resolves trade disputes between nations.

V

W

Index

A

absolute poverty 54–55, 73, 246
advanced economies 15–16, 18, 24, 54, 65–66, 106, 357–358
aggregate demand 163, 164–172, 176, 179, 205–206
aggregate supply 164, 166, 172–173, 180, 279, 314–315
allocative efficiency 315–316
ASEAN–Australia–New Zealand Free Trade Agreement (AANZFTA) 32, 36, 147–148
ASEAN–Australia–New Zealand Free Trade Area 32, 33, 35, 96
Asia Pacific Economic Cooperation (APEC) 32, 33–35, 96, 147, 148–149
Asia Pacific Economic Cooperation forum 32, 33, 35, 96, 147, 148–149
Association of South-East Asian Nations (ASEAN) 32, 35, 96, 147, 148–149
Australian Trade Commission (Austrade) 146
Australia–United States Free Trade Agreement (AUSFTA) 32, 147
automatic stabilisers 286–287, 294
average propensity to consume (APC) 167
average propensity to save (APS) 167
awards 336–337, 339, 340–341, 350

B

balance of payments 112–127, 141–143, 272
Australia 112–118, 120–127
constraint on economic growth 127, 173, 278
should always sum to zero 116
Bank Indonesia 92, 101
Better Off Overall Test 341
bilateral trade agreements 34, 37–38, 147–148
brain drain 15, 16
budget balance 196
budget, Commonwealth 179, 200, 283, 284–285, 294
budget deficit 276, 284, 288–290, 292–294, 364
budget surplus 92, 99, 126, 286, 291, 295, 299
business cycle 17–20, 72, 90, 121, 175, 192, 279, 283, 287, 355

C

capital account 114, 116

capital and financial account 112, 114, 116–117, 119, 141, 274, 289
cash rate 304, 307–309, 310, 311, 312
ceteris paribus 366
Circular Flow of Income model 166
climate change 53, 70, 255–256, 263–264, 266, 327
Closer Economic Relations Trade Agreement (CERTA) 32, 37, 147
collusion and market sharing 321
commodity prices 18–19, 78, 102, 122–123, 132, 135–136, 177, 225–226
Common Agricultural Policy 37, 154
Commonwealth Government Budget
see **budget, Commonwealth**
comparative advantage 16, 23, 24, 25, 27, 109, 122, 144
comparative efficiency 23
composition of global trade 6–7
consumer expectations 167
Consumer Price Index (CPI) 77, 202–203, 204, 266
consumer spending 121, 166, 171, 210, 227, 304
consumption, influences on 166–167
corporatisation 319–320
Council of Australian Governments (COAG) 361
counter-cyclical policies 280, 355
crowding out 227, 289–290, 297, 367
current account 79–80, 113–119, 127, 141, 142–143, 220, 274
current account deficit 113, 118–119, 126–127, 180, 216–220, 274, 278
and national savings 299–300
impact on savings 288–289
cyclical factors 118, 120, 124, 294
cyclical unemployment 188, 190, 192, 199–200, 205, 273, 276, 297, 367

D

debt trap 117, 221
defence and self-sufficiency argument 26
demand management 355, 369
deregulation 359, 364, 370
agricultural industries 318
Australian financial flows 111–112
financial sector 317–318
Indonesia 95, 97
telecommunications industry 319
transport industries 318
developing economies 16, 18, 31, 35, 54–56, 58, 65, 83–84, 191
direct investment 111, 115–116
see also **foreign direct investment**

dirtying the float 138
discrimination 198, 238–239
price 321
distribution of income 167, 208, 231–254
age impacts 237–238
education impacts 237–238
family structure impacts 240–241
gender impacts 238–239
geography impacts 242
occupation impacts 238–239
distribution of wealth 232–234, 237–238, 242, 250–251
Doha Round see **World Trade Organization**
domestic market operations (DMO) 304, 308–309
dumping 25–26, 87, 146
Dutch disease 218
dynamic efficiency 315, 316–317

E

ecologically sustainable development 175, 256–257, 275
economic development 41, 48–102
economic growth 6, 17–20, 55, 64, 65–66, 127–128, 164–182
employment 173
environmental impacts 174
external stability 174
income distribution 49–51, 167, 174
inflation 173
living standards 173
policies to sustain 179–180
economic policy mix 279–280
economic policy objectives 272–282
conflicts in government policy objectives 278–279
economic growth 272
environmental sustainability 275
external stability 273–274
full employment 273
price stability 273
economies of scale 24, 25, 31, 217
education 348–349
elaborately transformed manufactures (ETMs) 123, 218
emerging economies 55
Enterprise Agreements 341
environmental management 94, 264, 266, 317, 324, 329
equilibrium 17, 116–117, 132, 141, 166, 169, 196, 258, 311
European Union (EU) 31–33, 35–36, 39, 84, 106–108, 147

- exchange rate/s** 10, 49, 80, 84, 92, 111, 116, 120, 124, 131–145, 209, 224–226, 272
- Exchange Settlement accounts** 310
- exclusive dealing** 321
- expansionary stance** 192, 287, 293
- export incentives** 30–31
- exports, Australian** 14, 27, 33, 35, 105, 112–113, 120–123, 132–133, 149, 152, 156–159, 169, 211, 218–219
composition of 107–110
- externalities** 256, 258–259, 266, 326, 359
- external stability** 104, 168, 174, 216–230
policies to achieve 227–228
- F**
- Fair Work Act** 200, 250, 336, 337, 338–342, 344, 345
- Fair Work Commission** 195, 250, 336, 338–339, 340, 341, 344, 345–346, 351
- federalism** 363
- financial account** 112, 114–119, 141, 274
- financial flows** 8–10, 18, 68–69, 103, 105, 111–113, 132–133, 364
- Financial System Inquiry** 318
- fiscal policy** 211, 227, 283–303, 368–370
effectiveness 360–361
impact of recent fiscal policy 296–301
impact on economic growth 168, 178, 179, 275–276, 287
impact on unemployment 164, 192
- floating exchange rate** 77, 84, 116, 132–137, 141, 226
- foreign direct investment (FDI)** 10–11, 97
see also direct investment
- Foreign exchange markets (forex)** 8, 131, 138, 139
- foreign liabilities** 117, 124, 126, 128, 216, 220, 221–224, 225, 274, 289
- free rider(s)** 260
- free trade** 23–24, 31–34
- frictional unemployment** 188, 201
- Future Fund** 291
- G**
- General Agreement on Tariffs and Trade (GATT)** 39
- Gini coefficient** 232–234, 251
- Gini index** 69, 75, 76, 89, 90
- global aid and assistance** 57, 59–60
- global goals** 42, 43, 53
- global influences in Australia's economy** 364–365
- global interest rate levels** 18, 19, 120, 124, 127, 222, 225, 313
- globalisation** 4, 5–8, 13–14, 78–81, 95–99
effect on Australia 156–157
effect on economic growth 56–60, 65–66
effect on environment 69–70
effect on inequality 61–64, 68–69
views on 61–64
- Goods and Services Tax (GST)** 204, 252, 283, 288, 313, 362, 363
- Gross Domestic Product (GDP)** 164–165
- Gross National Income (GNI)** 49
- Gross National Income per capita** 51–52, 54
- Gross world product (GWP)** 5
- Group of Seven Nations (G7)** 18, 19, 44, 365
- H**
- hard-core unemployment** 190–191, 273
- hidden unemployment** 188–189
- household savings ratio** 125–126
- Human Development Index** 52–53, 66, 357
- hysteresis** 196
- I**
- income distribution** 174, 208, 232–233, 241–242, 246, 288, 300
- individual flexibility agreement** 340
- inequality**
and globalisation 61–64
economic consequences 231–233, 236, 237, 245–247
global economy 50, 54, 56–60, 359, 367
impact of government policies 249–252
income inequality 68–69, 70, 204, 233, 239, 244, 248, 288, 351–352
social consequences 183, 196–198, 245–247, 249
- infant industries** 25
- inflation** 49, 59, 131, 133, 135, 164, 165, 173–174, 202–213
benefits 133, 210
causes 18, 19, 80, 81, 172, 195, 205–207
cost-push 206
deflation 210
demand-pull 205–207
effects 77, 142, 143, 168, 210–211
imported 207
inflationary expectations 206
inflation targeting 305–306
measures of underlying 203
measuring rate of 202–203
policies to sustain low 210–211, 273, 276, 280, 305
recent trends in 204–205
relationship to unemployment 193, 199, 273, 276, 278
- interest rates** 18–19, 80, 124, 127, 132, 133, 166–168, 176, 179, 192, 212, 225, 290, 297, 304–313, 368–369
- international business cycle** *see* business cycle
- international competitiveness** 24, 117, 133, 135, 209, 217, 218, 274
- international division of labour** 14–16
- International Monetary Fund (IMF)** 10, 39, 40–41, 43, 58–59, 69, 92
- international organisations** 19, 39–40
- international trade** 5, 37, 67, 314
- internet** 9, 13–14, 60, 225, 247
- investment flows** 5, 11, 18–19, 42, 64, 222
- J**
- Jobactive** 201, 349
- K**
- Keynesian economics** 165, 296
- Keynes, John Maynard** 61, 165, 170
- Korea–Australia Free Trade Agreement (KAFTA)** 32, 147
- L**
- labour force** 183–185, 187, 247
- labour force participation rate** 184
- labour market/s** 14–15, 64, 117, 185–186, 193, 194, 195, 200–201, 211, 250, 335–354
- Least Developed Countries** 55, 57, 58, 60
- local content rules** 30, 83, 95, 101, 110
- long-term unemployment** 188, 189, 197, 349
- Lorenz curve** 233
- M**
- macroeconomic management** 176, 249, 279, 293, 368
- macroeconomic policy** 19, 44, 82, 85–86, 192, 279–280, 283, 305, 316, 353, 368, 370
- managed flexible peg** 132, 140
- Marginal Propensity to Consume (MPC)** 170–171, 245
- Marginal Propensity to Save (MPS)** 170–171
- market failure** 256, 258, 319, 326
- merit goods** 259
- methods of protection** 28–31
- microeconomic policy** 87, 180, 249, 280, 314–332, 361, 370
- Millennium Development Goals** 43, 91
- minimum wage** 195, 250, 336, 338–339, 350, 352
- monetary policy** 18, 101, 138, 176, 179, 180, 192–193, 204, 210–211, 225, 227, 290, 296–297, 304–315, 368–369
- money supply** 205, 207, 290, 307
- monopolisation** 321
- multilateral trade agreements** 33, 148–149, 155
- multiplier** 169–171
- multiplier process** 169–171
- N**
- NAIRU (non-accelerating inflation rate of employment)** 190–191, 273, 276, 298
- National Competition Policy** 200, 320, 370
- National Employment Standards** 338, 340, 341, 350
- national income** 49, 52, 54, 78, 90, 166, 170–171, 216

- natural environments** 255, 261–262, 327, 360
- natural resources** 24, 57, 60, 62, 98, 109, 172, 177, 219, 256–257, 263–264, 275
- net foreign debt** 105, 217, 220, 221, 223, 274, 355
- net foreign equity** 221, 223
- net foreign liabilities** 221–222, 223, 224, 274
- non-accelerating inflation rate of unemployment** *see* **NAIRU**
- non-renewable resources** 255, 263–264, 265, 324, 371
- North American Free Trade Agreement (NAFTA)** 31, 32, 33, 37, 147
- O**
- offshoring** 16
- Okun's Law** 187
- opportunity cost** 16, 23, 168, 183, 196, 310
- Organisation for Economic Co-operation and Development (OECD)** 14–15, 31, 39, 43, 86–87, 154, 175, 193, 197, 200, 231, 233, 245–246, 256, 357, 359
- P**
- paid parental leave** 201, 349
- Phillips curve** 190, 209, 278
Long Run Phillips curve 278
- Pitchford thesis** 220
- policy mix** 276, 279–280, 291, 368, 369, 371
- political constraints** 355, 360, 361, 362–364
- pollution** 69, 71, 78, 94, 174, 255, 257, 258, 262, 266, 275, 328, 328, 329
- positive externalities** 258, 259, 260
- poverty** *see* **absolute poverty**
- prevention of dumping argument** 25
- price discrimination** 321
- price mechanism** 258–259, 260, 262, 328
- price stability** 272, 273, 306, 367, 368
- privatisation** 43, 200, 252, 292, 316, 319, 323, 359, 364
- productivity / productivity growth** 24, 54, 62, 178–179, 193–194, 195, 205, 213, 247, 276–277, 280, 316–318, 322–323, 335, 346, 350–351, 370
- progressive income tax** 251, 287, 288, 364
- protection / protectionism** 103, 145, 149–152
consumer 318
effects on firms 149–150
effects on governments 152–153
effect on individuals 151–152
environmental 79, 94, 257, 262, 266, 288, 326–327
global trade system 57
government reduction 145–146, 149–150
impact on Australia 154–156
Indonesia 95
methods 28–31
other economic effects 153
- overall effects 31
reasons for 25–27
trade agreements 34–36, 39, 95–96, 146–149
- public and private goods** 260–261
- Public Trading Enterprises (PTEs)** 292, 319
corporatisation of 319–320
privatisation of 319–320
- purchasing power parity (PPP)** 49, 50, 52, 55, 75, 89
- Q**
- quality-of-life indicators** 52
- quantity theory of money** 367
- quotas** 25, 29, 82, 145, 153, 262
- R**
- recession** 10, 17, 18, 26, 41, 58, 121, 175, 178, 186, 199, 286–287, 293–294, 296, 356–357, 367–368
Brazil 75–78
- regional business cycles** 17–20
- regressive tax** 288
- renewable resources** 263
see also non-renewable resources
- reserve assets** 115, 116
- Reserve Bank** 136, 138, 165, 176–177, 179, 203, 204, 209, 210–211, 276, 289, 290, 291, 297, 304, 361, 367, 369
foreign exchange intervention 138–133
monetary policy 304–315
- resources boom** 79, 109, 136, 150, 157, 177, 192, 193, 222, 265, 350, 367
- S**
- savings** 10, 19, 63
current account 77, 113–114, 220, 274, 299
household saving ratio 126
- Singapore-Australia Free Trade Agreement (SAFTA)** 32, 147
- sources of income** 235–236
- speculators** 8, 10, 133, 143
- stagflation** 77, 209
- structural factors** 19, 118, 120, 125, 294, 314
- structurally unemployed** 151, 187, 189, 191, 196, 199, 278, 297
- subsidies** 11, 25, 28, 30, 37, 70, 82, 92, 99, 123, 145, 146, 156, 200, 266, 298, 316, 326, 329, 347, 349
- superannuation** 125–126, 195, 208, 227, 234, 235, 236, 251–252, 285, 288, 291, 300, 340
- T**
- tariff quotas** 29
- tariffs** 25–26, 28–29, 30, 68, 82, 83, 87, 95, 144, 145, 149–155
- taxation** 166, 168, 171, 179, 183, 235, 249, 251, 283, 287, 294
- technical efficiency** 315, 316
- technology** 5, 6, 12, 13–14, 24, 57, 60, 63, 67, 104, 107, 150, 157, 172, 194, 264, 277, 314–316
- telecommunications** 13, 39, 68, 82, 101, 147, 316, 319, 320
- terms of trade** 62, 118, 132, 135, 175–176, 216, 219, 274, 294–295, 356
cyclical factors 120–122
- Thailand-Australia Free Trade Agreement (TAFTA)** 32, 147
- time lags** 123, 192, 311, 355, 360–361, 365
- trade agreements** 31–37
- trade bloc** 31–33, 36
- trade flows** 7, 18, 67, 82, 108, 111, 131, 156
- Trade Weighted Index (TWI)** 135–137, 217, 226
- transfer payments** 100, 113, 196, 235, 250, 286, 288
- transmission mechanism** 310–311
- transnational corporations** 5, 10–12, 18, 58, 64, 65, 66, 67–68
- Trans-Pacific Partnership (TPP)** 32, 33, 35, 148, 154
- twin deficits hypothesis** 297, 363
- U**
- underemployment** 185, 188–189, 250
- underlying cash outcome** 291–292
- underlying inflation** 203–205
- unemployment** 24, 25–26, 69, 71, 76–77, 92, 93, 151, 180
and full employment 273
and inflation rate 190–191, 211, 306–307
causes 191–195
ecologically sustainable development 256
environmental management 324
government policy 250, 252, 277, 278–279
impacts of 196–198
income distribution 300
interest rates 311
labour market 349, 351, 352
macroeconomic management 368, 370
measuring 183–184
microeconomic policy 321, 370
monetary policy 304, 305, 307, 309, 313
policies to reduce 199–201
recent trends 186–187
reducing 367, 370
supporting sustained reduction 276
types 187–190
wages 338, 347
workforce participation 297–298
- unemployment benefits** 286–287, 300
- United Nations (UN)** 42–43
- V**
- valuation effect** 124, 142–143
- W**
- workable competition** 320
- Workchoices policy** 200
- World Bank** 41–43
- World Trade Organization (WTO)** 39–40
Doha Round 40, 57, 60, 83, 96, 154