THE CPAP STUDY GUIDE TO VCE ECONOMICS

PART 2 (Unit 4)

16th edition 2022

Romeo Salla
Toby Robertson

ISBN: 978-1-921813-67-2

ABOUT THE AUTHORS

Romeo Salla holds Honours and Masters degrees in Commerce (Economics Major) from the University of Melbourne, Victoria. In the early 1990's, he worked as an economist with both the Commonwealth Department of Treasury in Canberra, as well as the Industry Commission (now Productivity Commission) in Melbourne. From 1995, he completed his Diploma of Education at Monash University and then commenced teaching VCE Economics. Since his move to the education sector, Mr Salla has been prominent in advancing the interests of the economics discipline and he has continued to undertake professional development to ensure that he can provide the best possible quality of education to students. He has taught VCE Economics for 18 years, is an experienced assessor of VCE Economics exams and presents at student lectures on an annual basis. He is the founder of both www.economicstutor.com.au and the popular smartphone App 'Economics Tutor'. He also provides professional development seminars to teachers, was longstanding Editor of the Economics section of ComNet, the official VCTA website, and is the co-author of the Year 12 economics text 'Economic Fundamentals in Australia' (CPAP), 'Humanities Alive 3' (Cambridge University Press) and the year 11 text 'Economics: from the ground up'.

Toby Robertson was born in Switzerland and has lived in England, America, France and Australia. Toby completed a degree in Economics at the Australian National University in 1986. He then worked for CRA (Rio Tinto) in Melbourne as a client advisor to various business units on economics and Foreign Exchange. He moved to State Bank Victoria to work as a Foreign Exchange and Options advisor to large Corporations and was posted to London in 1990 as a Foreign Exchange Trader, speculating in the Foreign Exchange markets. In 1992 he began work with Chase Manhattan Bank in London (one of the largest US banks) as a Vice President and ran their USDYEN Foreign Exchange Desk. In 1995 he moved back to Australia to become Chief Dealer of Chase Sydney. In 1999 he accepted voluntary redundancy and then ran his own proprietary trading business before entering the teaching profession in 2005. He has since contributed to a number of educational publications, presents to teachers across Victoria on behalf of the Victorian Commercial Teachers' Association and is an experienced assessor of VCE Economics exams.

ACKNOWLEGEMENTS

The publisher would like to thank the Commonwealth Department of Treasury for permission to use recent budget documents.

COMMERCE PRESENTATIONS AND PUBLICATIONS
206/1 Queens Rd
Melbourne Vic 3001
TEL: (03) 9866 2289
Fax: (03) 9005 2717
Email: cpap@commpap.com
ISBN: 978-1-921813-67-2
ABN: 19 619 387 012

TABLE OF CONTENTS

The Unit 4 Outline: Economic Management

The focus of this unit is the study of the management of the Australian economy, which concentrates on Budgetary/fiscal, monetary and microeconomic reform policies.

AREA OF STUDY 1: Aggregate demand policies and domestic economic stability

In this area of study students examine how the Australian Government and its statutory authority, the RBA, can utilise budgetary and monetary policy respectively to influence the level of aggregate demand in the economy. They evaluate the relative effectiveness of each policy by focusing on their strengths and weaknesses and explain how each policy has been utilised by the Australian Government in the past two years.

Outcome 1

On completion of this unit the student should be able to discuss the nature and operation of aggregate demand policies and analyse how the policies may influence the Australian Government's domestic macroeconomic goals and living standards.

Key knowledge

- the need for aggregate demand policies in terms of stabilising the business cycle.

Budgetary policy

- sources of government revenue including direct and indirect taxation, revenue from government businesses and the sale of government assets
- types of government expenses including government current and capital expenditure and transfer payments
- the budget outcome: balanced, deficit or surplus
- the ways government may finance a deficit or utilise a surplus
- the relationship between the budget outcome and the level of government (public) debt
- the role of automatic stabilisers (cyclical component of the budget) in influencing aggregate demand and stabilising the business cycle
- the role of discretionary stabilisers (structural component of the budget) in influencing aggregate demand and stabilising the business cycle
- the effect of automatic and discretionary changes in the budget on the budget outcome and government (public) debt
- the stance of budgetary policy: expansionary or contractionary
- the effect of budgetary initiatives from the past two years on the Australian Government's domestic macroeconomic goals of strong and sustainable growth, full employment and low inflation
- the strengths and weaknesses of using budgetary policy to achieve the Australian Government's domestic macroeconomic goals and how these goals may affect living standards

Monetary policy

- the role of the RBA with respect to monetary policy as outlined in its charter
- the role of open market operations in altering interest rates
- transmission mechanisms of monetary policy and their influence on the level of aggregate demand including savings and investment, cash flow, availability of credit, exchange rate movements and asset prices
- the stance of monetary policy: expansionary or contractionary
- the focus of monetary policy from the past two years on the levels of aggregate demand and the Australian Government's domestic macroeconomic goals of strong and sustainable economic growth, full employment and low inflation
- the strengths and weaknesses of using monetary policy to achieve the Australian Government's domestic macroeconomic goals and how these goals may affect living standards.

Key skills

- define and use key economic concepts and terms relating to the Australian Government's aggregate demand policies
- gather relevant data and information about the nature and operation of aggregate demand policies in Australia
- discuss and analyse the effect of contemporary factors on the setting of aggregate demand policies
- evaluate the strengths and weaknesses of aggregate demand policies in achieving the Australian Government's domestic macroeconomic goals.

CHAPTER 1: BUDGETARY/FISCAL POLICY

For the purposes of VCE Economics, budgetary policy refers to the federal government's use of its **budget** to achieve specified outcomes in the country, where the **budget** contains details of all income (or revenue) and expenditure (outlays) of the federal government for the next financial year plus the following three or more years. Budgetary policy is, therefore, the manipulation of federal government receipts and outlays in order to assist in the achievement of its economic and social objectives for Australia. As with all policies, the overriding objective is to improve the welfare or living standards of all Australians, and/or to achieve the most efficient allocation of the nation's resources.

The budget is the government's major fiscal document and is typically updated and released annually in May. However, the government can (and does) attempt to change the level (or composition) of income or expenditure at any time, with 2020 providing the perfect illustration. Due to the economic effects of COVID-19, the government announced a number of measures in March/April that were designed to stimulate the economy and which fall under budgetary policy. In addition, it postponed the delivery of the 2020-21 Budget from early May 2020 to the 6th of October 2020, and brought forward the delivery of the 2022-23 Budget to late March 2022 (due to the May federal election).

Exam Tip: It is worth remembering that there are two general types of budget figures or statistics: Budget figures that look ahead (i.e. estimates or forecasts of income and expenditure) and budget figures that look backward (i.e. actual income and expenditure that has taken place).

Objectives of Budgetary Policy

Budgetary policy is used to assist in the achievement of the following economic goals:

- Internal Stability (Economic Growth, Low inflation and Full Employment)
- Greater equity in the distribution and wealth
- External Stability
- Improvement in overall living standards

Exam Tip: The budget plays a major role promoting a more equitable distribution of income, primarily via the implementation of a progressive tax system combined with welfare spending designed to minimise poverty and promote a more dignified standard of living for Australians. However, in the current VCE Economics study design, students are no longer required to demonstrate an understanding how the budget can, or has, been used to achieve a more equitable distribution of income (or external stability). Despite this, any budgetary policy initiative that is designed to achieve greater equity can easily be linked to living standards. Accordingly, in the event that a question asks for how the budget can be used to lift living standards, it is feasible to refer to initiatives that are designed with 'equity' in mind (e.g. tax breaks for lower and middle income earners announced in recent budgets). But it is important to link the initiative to material and/or non-material living standards rather than remain focused on measures of equality (e.g. the gini-coefficient) that you may have learned in Unit 2.

The achievement of these economic goals will help to boost **living standards** and welfare for all Australians – which of course is the overriding objective of governments. In addition to these economic goals, the federal government also details its ***medium-term fiscal objectives*** in the budget each May. We will review this shortly, but first we need to focus on the structure and nature of the budget itself.

Budget outcomes

With every budget there can be three possible outcomes. To simplify, assume that the government raised exactly $300B in taxes in order to fund the provision of the services which cost $300B. This would result in a 'balanced budget'.

budget balance

Receipts (revenue) = outlays (expenses)

However, if the government raised $290B from taxes, but still wanted to spend $300B on government services, then it would result in a 'budget deficit'.

budget deficit

Receipts (revenue) < outlays (expenses)

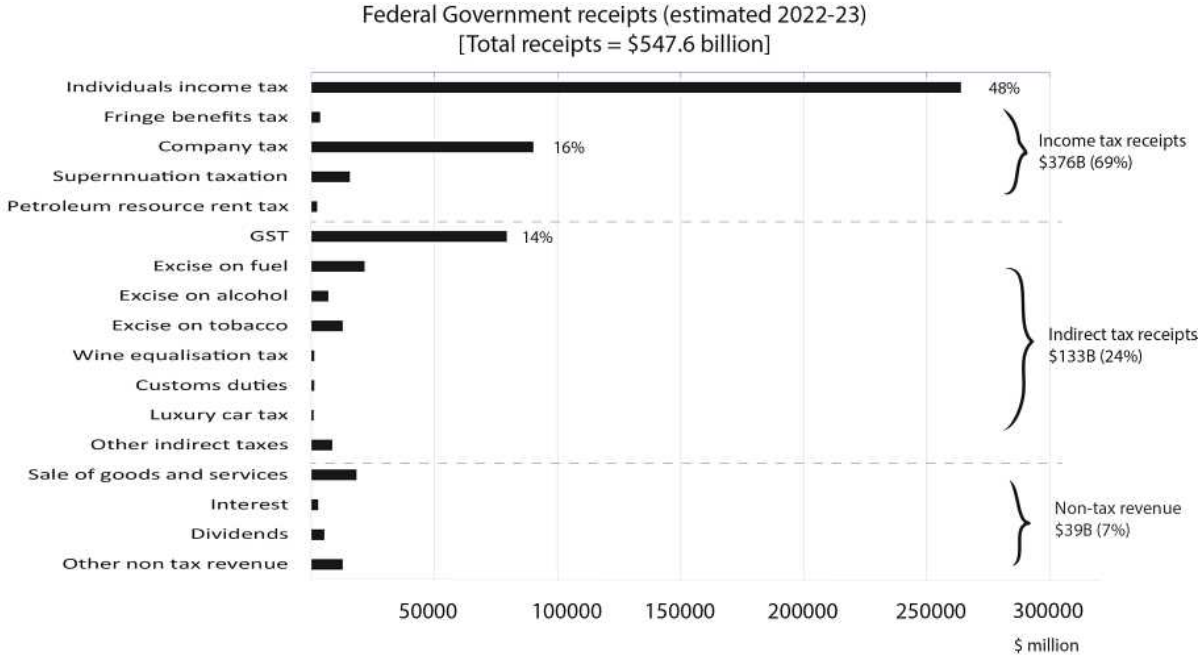
Alternatively, if the government raised $310B from taxes, and only spent $300B on government services, then it would result in a 'budget surplus'.

budget surplus

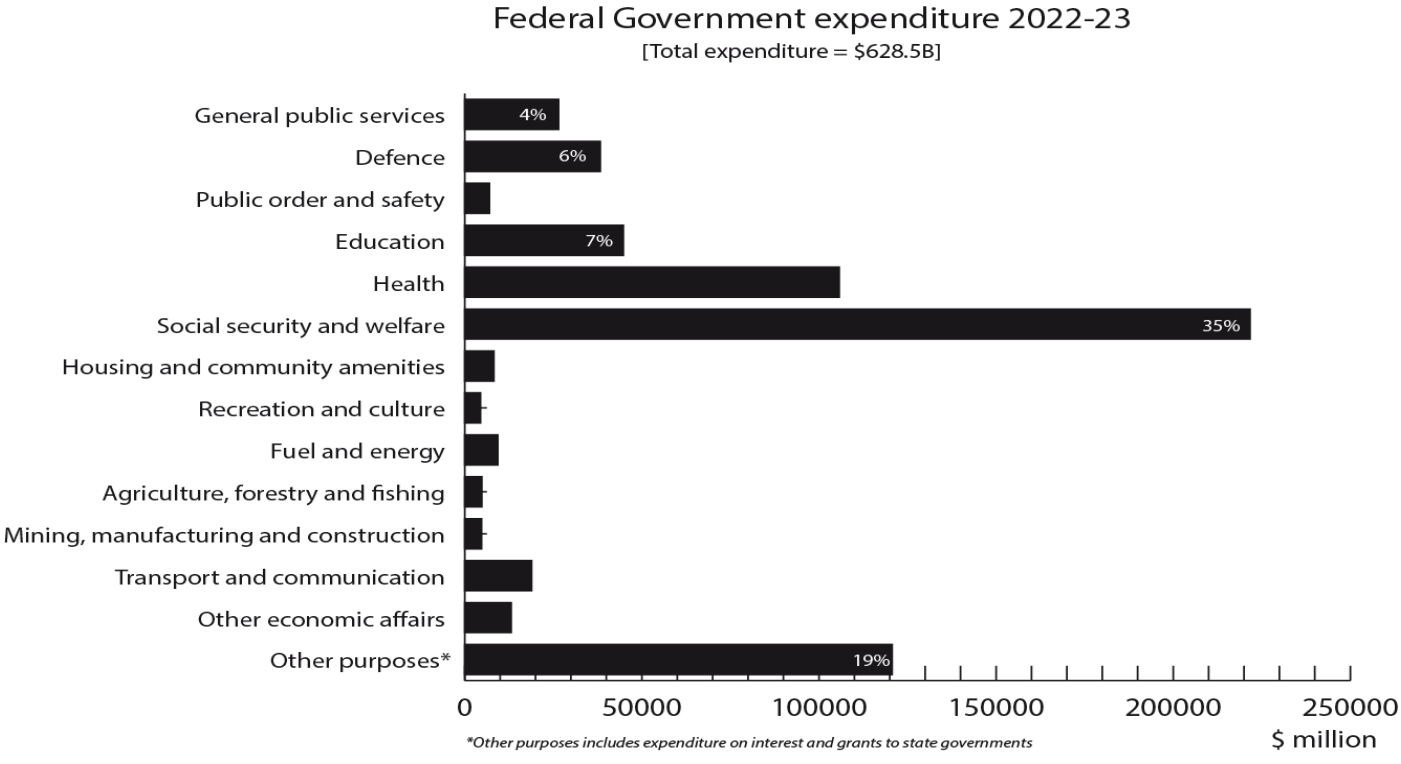
Receipts (revenue) > outlays (expenses)

Sources of Government receipts (revenue) and expenditure (expenses)

The most recent budget documents from the 2022-23 Budget reveal that the federal government expected to collect approximately $548B over 2022-23, with the vast majority coming in the form of taxation (93% or $508B). The three major sources of taxation revenue are individuals income tax ($264B), company tax ($90B) and the Goods and Services Tax (GST) of approximately $79B. In addition, total excise (on goods like fuel, tobacco and alcohol amount to $41B. Non-taxation revenue of $39B (7%) includes dividends from the RBA, earnings from the Future Fund as well as the sale of goods and services.



As shown in the chart below, the government also expected to spend a total of $628B. The major 'identifiable' expenses category is the $222B spent on Social Security/Welfare, accounting for 35% of total expenses. This spending is designed to provide support for the aged; families with children; those with disabilities; veterans; carers and unemployed persons. Approximately, $106B (17%) of all expenses occur in health, including Medicare Benefits Schedule (MBS) and Pharmaceutical Benefits Scheme (PBS) payments. The next major identifiable expenses item is the $45B (7%) spent on education, which includes funding support for government and non-government schools, as well as higher education and vocational education and training. The transfer of revenue to the States and Territories, which also includes further spending on education and health, is included in the 'Other purposes' category. This latter category ($121B) also includes the payment of interest on government debt as well as spending for natural disaster relief.



Recent budget outcomes

The latest budget figures appear in Table 1 below:

Budget figures (Budget 2022-23)					
	2021-22	2022-23	2023-24	2024-25	2025-26
Budget aggregates	(Estimate)	(Estimate)	(Estimate)	(Estimate)	(Estimate)
	$m	$m	$m	$m	
Cash receipts	556.6	547.6	585.2	615.2	643.9
less cash payments	636.4	625.6	641.7	662.3	687.0
Underlying cash balance	**-79.8**	**-78.0**	**-56.5**	**-47.1**	**-43.1**
as a % of GDP	-3.5%	-3.4%	-2.4%	-1.9%	-1.6%
Net cash flow from investment in financial assets	-5.9	-12.9	-3.9	-10.1	-6.8
Headline cash balance	**-85.7**	**-90.9**	**-60.4**	**-57.2**	**-49.9**
as a % of GDP	-3.8%	-4.0%	-2.6%	-2.3%	-1.9%
Revenue	566.4	560.9	595.7	621.7	655.2
Expenses	639.6	628.4	643.9	665.4	686.8
Net operating balance	**-73.2**	**-67.5**	**-48.2**	**-43.7**	**-31.6**
as a % of GDP	-3.2%	-2.9%	-2.0%	-1.8%	-1.2%
Net capital investment	11.1	11.3	10.6	7.4	8.2
Fiscal balance	**-84.3**	**-78.8**	**-58.8**	**-51.1**	**-39.8**
as a % of GDP	-3.7%	-3.4%	-2.5%	-2.1%	-1.5%

The table reveals that the receipts (revenue) and payments (expenses) can be calculated and reported in a number of different ways to result in a range of possible budget outcomes/balances:

- **The headline cash balance**
- **The underlying cash balance**
- **The fiscal balance**
- **The net operating balance**

The **headline cash balance**: in very simplified terms is the total cash received by the federal government less the total cash paid. For 2022-23 this is estimated to be a deficit of $90.9B.

The **underlying cash balance** is the Headline cash balance, but excluding net asset purchases ($12.9B for 2022-23 and referred to as 'net cash flows from investments in financial assets for policy purposes'. These asset purchases typically include investment in government assets such as the NBN and the provisions of loans for various policy purposes. For 2022-23, the underlying cash balance is estimated to be a deficit of $78.0B.

Exam Tip: The method of calculating the underlying cash balance has now changed. From 2020-21 Future Fund earnings are **not** taken away from the headline cash balance to arrive at the underlying cash balance (as in previous years). It will therefore be simpler for students to determine the underlying outcome in the event that a question surfaces on the exam, such as the poorly handled MC question from the 2020 exam (see Exam Tip below).

Exam Tip: Question 13 of the MC section of the 2020 examination relating to the difference between the headline and underlying outcomes was the most poorly handled question on the paper, with only 14% of students choosing the correct response. It required students to calculate the underlying cash surplus from the following hypothetical figures: total receipts $200B; total outlays $175B; net cash flows from investments in financial assets (IFAPP) $10B; and Future Fund earnings $5B. Students needed to recognise that the headline outcome was $200B - $175B = $25B surplus and that $15B of the total $200B of receipts needed to be excluded from the headline balance to arrive at an underlying figure. That is, $25B surplus less $15B (IFAPP and FFE) = $10B underlying surplus. Many students (39%) selected option B ($25B) which is simply the headline surplus and some (13%) chose D ($40B), making the mistake of adding $15B to the headline surplus rather than subtracting.

For 2022-23, you should recognise that once 'net asset sales' (which is actually net asset purchases of $12.9B) are extracted from the Headline deficit, we arrive at a figure for the underlying cash deficit of $78.0B (3.4% of GDP). This is summarised below:

Reconciliation of underlying and headline cash deficits estimates 2022-23	$B
Headline Cash deficit	90.9
less Net cash flow from investment in financial assets for policy purposes	12.9
Underlying cash deficit	78.0

This basically means that the estimated headline deficit of $90.9B would have been smaller by $12.9B (i.e. we would have had a smaller deficit of $78.0b) were it not for the expected net outflow of cash used to invest in non-financial assets for policy purposes. Of the two cash outcomes or balances, the **Underlying cash balance** provides a better indicator of the position and impact of budgetary policy. This is primarily because *Net proceeds from asset sales or purchases* are 'one off', non-recurring, transactions that will typically result in an offsetting future transaction, such as the repayment or provision of a loan, or the sale of/investment in a company such as the National Broadband Company (NBN Co). Accordingly, any cash inflows from asset sales make any budget outcome look better than it really is in 'core' or 'underlying' terms. Similarly,

any asset purchases (such as the equity investment in the NBN Co or the government's investment in the Northern Australia Infrastructure Facility) make the budget outcome look worse than it is in 'underlying' terms.

The **net operating balance** is an accrual measure (as distinct from the cash headline and cash underlying measures) which focuses on revenue (e.g. tax income) that has been earned over the relevant period minus the expenses that have been incurred over the period (i.e. expenses). It is different to the headline and underlying cash outcomes in that these outcomes record receipts and payments when the money is actually received or paid rather than when the money was earned or incurred. Importantly, the net operating balance excludes the actual spending on the purchase of capital assets (e.g. new stock of public housing or defence assets) and instead includes the depreciation (i.e. the using up or consumption of capital). It is regarded as the best measure of the sustainability of the government's financial position over time and therefore provides an indication of the ability of the government to sustain the existing level of government services into the future.

Exam Tip: The most important thing to remember is that a focus on the net operating balance helps the government to get a better handle on whether any given deficit truly reflects a situation where the government is 'spending beyond its means'. For if the government experiences an underlying cash deficit in tandem with a net operating surplus it suggests that the deficit for that year is unproblematic given that it has essentially been caused by spending on capital rather than recurrent items.

The **fiscal balance** is essentially the same as the operating balance (i.e. revenue earned less expenses incurred) but it includes the actual spending on the purchase of capital assets (e.g. new stock of public housing or defence assets) and excludes the depreciation of those assets (i.e. the using up or consumption of this capital). The fiscal deficit for any year will, therefore, be higher than the operating deficit when there has been net new capital investment by the government (ignoring any changes in depreciation).

Both the operating balance and the fiscal balance are like 'profit and loss statements' for the federal government and are the most accurate outcomes in terms of measuring the financial performance of the federal government or the longer term consequences of budget decisions for sustainable spending and balance of payments considerations.

Exam Tip: Don't be concerned if you are struggling to understand the differences between the fiscal and operating balances. The exam setting panel are extremely unlikely to include a question on these in the examination. However, reference to the operating balance could be useful in the event that an exam question requires students to unpack the differences between capital and current expenditure (see next section).

Current versus capital expenditure of the federal government

The chart provided earlier 'Federal Government Expenditure 2022-23' detailed the major expenditure (or expense) categories for the federal government. However, of the estimated $628B in expenses, there is no detail provided on the nature of expenditure taking place within each category. For example, of the $40B (approx) to be spent on Defence over the course of 2022-23, there is no indication of how much (or what proportion) of this money will be spent on physical assets (such as tanks and planes) compared to the proportion spent on consumables (such as the day to day running expenses of the relevant government department, such as wages, advertising, energy costs, etc.). The money spent on physical assets that will continue to provide benefits for Australia well into the future is referred to as capital spending, whereas the money spent on consumables is referred to as current or recurrent expenditure.

While the Budget papers have always included information on the split between current expenditure and capital expenditure, the situation changed somewhat in the 2017-18 Budget. The government decided to focus on its budget outcome in a way that more clearly distinguished the relationship between budget deficits and what has become known as **'good debt'** versus **'bad debt'**. In simple terms, the government also focuses on a type of budget outcome (referred to as the 'operating budget outcome) that excludes capital expenditure from its calculations. This means that the 'operating' budget deficit for any given year will be lower than the headline/underlying deficit by the amount of net capital expenditure made during that year. It therefore means that the government is freer to invest in capital (such as buildings, roads, rail, or infrastructure more generally - all of which have the potential to contribute to social and economic benefits well into the future) without being criticised for increasing the (operating) deficit and generating an increase in 'bad debt'.

This change in the way the budget outcome was reported followed pressure from economists and other government agencies, including the RBA, on the need for the federal government to switch its preoccupation with deficit reduction (or fiscal consolidation) and to embrace the need for much needed investment in national infrastructure assets, particularly transportation infrastructure. The consensus of opinion is that it is okay for the government's budget deficit to increase provided that any additional spending was put to good use, such as investing in assets (capital spending) as opposed to spending on the 'day to day' running of the government (recurrent spending). These thoughts were expressed by the RBA Governor in in the following way:

…it is important that we ensure our public finances are on a sustainable track. This requires a better balance to be established, over time, between recurrent spending and revenue. It is worth pointing out that this does not preclude government spending on infrastructure, where this is backed by a strong business case. Such spending can provide support for the economy and can help generate the productive assets that a prosperous economy needs. Done well, infrastructure spending is not inconsistent with establishing a better balance between recurrent spending and revenue.

***Source: RBA** Governor (P.Lowe) speech at the Committee for Economic Development of Australia (CEDA) Annual Dinner (15 /11/2016)*

Box A: Current versus capital spending: Bad versus Good debt

A useful way to think about the importance of the distinction between the government's current (or recurrent) and capital spending is to equate its finances to that of two typical households over a given year. Assume that the disposable income of two households (A and B) amounted to $100,000, while the total expenditure of each household was different: Household A's total expenditure amounting to $110,000 and Household B's amounting to $140,000.

The scenario is summarised in the table below:

Cash balances for Household A and B				
Household	**Income ($)**	**Expenditure ($)**	**Cash outcome ($)**	
A	100,000	110,000	10,000	Deficit
B	100,000	140,000	40,000	Deficit

On the face of it, the financial stability of Household A appears to be superior to Household B because its cash deficit is smaller by $30,000 and it will need to have borrowed $30,000 more to fund its cash deficit. [Let's ignore the possibility of selling assets to fund the deficit for simplicity]. In other words, it looks as though Household B is spending well 'beyond its means' compared to Household A.

To fully appreciate the implications of any cash deficit for an entity, it is really necessary to explore the nature of the expenditure undertaken over the course of the year. For any entity, whether it is a household, business or government, expenditure can be broken up into two broad types: **current** (or recurrent) expenditure and **capital** expenditure. For a household, current expenditure includes all items of spending that are necessary and mostly re-occur every year in order to keep the household running. This includes payments for gas, electricity, water, council rates/rent, food, entertainment, holidays, school fees, etc. These types of payments 'typically' provide benefits to the household in that year only – in other words, they are consumed within that year. In contrast, capital expenditure includes less regular payments for items or assets that continue to provide benefits for the household (or entity) into the future. For example, it includes the purchase of property, motor vehicles, whitegoods (e.g. a fridge or washing machine), furniture, electrical goods and/or computer equipment. It will even include the purchase of a (share in) small business, such as mum or dad buying a new car to provide Uber driving services.

Determining the split between recurrent and capital spending for each household will helps us to better understand the fuller implications of a cash deficit for each household. If we assume for simplicity that Household A spent nothing on capital items and Household B spent $40,000 in capital expenditure, then it should be clear that Household B's financial position is not as bad as first thought. Provided the $40,000 has been spent on genuinely useful capital items, that really do provide financial or social returns to the household in future periods, then it is possible (even likely) that household B is in a better position than Household A. For example, if Household B used $40,000 to purchase a new motor vehicle to be used as an Uber vehicle, then Household B's cash deficit of $40,000 will have led to an increase in **'good debt'** (e.g. a $40,000 loan) because it generates benefits for the household into the future (e.g. profits from the business come back into the household as additional income). In contrast, with no capital expenditure, Household A's cash deficit of $10,000 will have led to an increase in **'bad debt'** (e.g. a $10,000 loan) because it is being used to finance recurrent spending.

Overall, Household A is clearly spending beyond its means because it has an **operating deficit** of $10,000 that results in (bad) debt. If the same income and spending patterns were to continue into the future, then Household A is likely to experience financial difficulty as it will struggle to service its growing debt. In contrast, despite having a cash deficit of $40,000, Household B actually has no **operating deficit** at all (i.e. it has an operating outcome of $0). This is because the $40,000 capital investment in the motor vehicle/business is deducted from the $140,000 in cash expenditure to arrive at an operating expenditure figure of $100,000. Household B will therefore be less likely to be spending beyond its means because the capital expenditure is providing ongoing benefits for the household that are not enjoyed by Household A. In this hypotheitical scenario, Household B will be better able to service its (higher) debt given that the capital expenditure is providing financial benefits in the form of higher income from the use of the motor vehicle in the passenger transport industry.

Net operating balances for Household A and B				
Household	**Income ($)**	**Expenditure ($)**	**Operating outcome ($)**	
A	100,000	110,000	10,000	Deficit
B	100,000	100,000	0	Balance

The (Estimated) budget outcome compared to the Actual budget outcome

When the budget is released it is simply reported as an underlying outcome for the next financial year. For example, the 2021-22 Budget delivered in May 2021 reported an estimated underlying budget deficit of $106.6 (5% of GDP) for the financial year 2021-22. However, this refers to the estimated outcome for this (current) financial year – ending on the 30 June 2022. The actual outcome for 2021-22 will not be known until later this year (typically September). The actual outcome is invariably quite different to the estimated outcome because the estimated outcome depends heavily on the accuracy of a range of economic forecasts for key variables, such as growth in nominal and real GDP, wages growth, inflation, the rate of unemployment and key commodity prices like iron ore (which influence Australia's terms of trade and company profits). If the outcome for these variables is different to the government forecasts, then the actual budget outcome will deviate from the estimated budget outcome.

This is indeed the situation facing Australia in 2022. While the budget outcome for 2021-22 was estimated to be a large deficit of $106.6B, the actual budget deficit is now expected to be much lower ($78B) due to the better than expected economic recovery and stronger terms of trade, which increased actual receipts above estimated receipts and reduced actual expenditure below estimated expenditure. For example, on the receipts side, the government based its estimated corporate tax receipts on inaccurate forecasts, such as a forecast for the terms of trade to fall

by 8% over this financial year. However, the terms of trade has continued to surge by more than 10%. As a consequence, actual tax receipts are now estimated to be much higher than the original estimate ($512B compared to $446B), which exerts downward pressure on the 2021-22 budget deficit. Similarly, on the expenditure side, the government based its expenditure forecasts on estimates such as an unemployment rate of 5% (by 30 June 2022). With the unemployment rate falling much faster during 2022 (currently 4%), this is helping to reduce actual government spending below the original estimate, resulting in further downward pressure on the estimated budget deficit for 2021-22. Of course, the *estimated* budget deficit for 2022-23 of $78B will be markedly different to the *actual* deficit that will be reported in late 2023. If the economy continues to perform above expectations, then the deficit will be lower than $78B, but if the economy experiences further negative supply shocks (e.g. more natural disasters, a new Covid outbreak or even an escalation in global conflict) then the ensuing downturn will result in the actual budget deficit for 2022-23 being higher than the $78B forecast.

Overall, when economic activity is higher than anticipated, then the actual deficit is likely to be smaller (or surplus higher) than estimated at budget time because tax receipts will be higher than estimated and government expenditure lower than estimated. The reverse is also true if economic activity is lower than anticipated because the deficit is likely to be larger (or surplus smaller) than estimated at budget time because tax receipts (and other forms of income) should be lower than estimated and transfer payments (plus other forms of expenditure) higher than estimated.

Table 1.2 below contains some of the key forecasts upon which the current 2022-23 Budget figures are based.

Major parameters (forecasts/projection) upon which the budget figures depend				
	2020-21	**2021-22**	**2022-23**	**2023-24**
	(Actual %)	**(Forecast %)**	**(Forecast %)**	**(Forecast %)**
Real GDP growth	-1.5	4.25	3.5	2.5
Employment growth	6.5	2.75	1.5	1.5
Unemployment rate	5.1	4	3.75	3.8
Consumer Price Index	3.8	4.25	3	2.75
Wage Price Index growth	1.7	2.75	3.25	3.25
Terms of Trade (%change)	10.4	11	-21.25	-8.75

Exam Tip: It is possible that an examination question will ask students to determine the likely change to the budget outcome in the event of forecasting errors by the government. Indeed, a table similar to the one above might be included in a MC or structured question and students might be required to explain how changes in each (or some) of the variables will impact on the actual budget outcome. Students should familiarise themselves with how each of the variables are related to budget receipts/payments and the budget outcomes.

Financing a budget deficit or dealing with a budget surplus

When the budget is in deficit it means that the government needs to raise funds to finance the deficit. The Treasury department (via its subsidiary the Australian Office of Financial Management) determines the amount of money required and issues Australian Government Securities (AGS) in the form of Treasury bonds or Treasury notes. These are simply debt instruments where the purchasers of the bonds (or notes) effectively become lenders to the federal government and, in return, they receive interest on the bonds/notes. Generally, there are three types of purchasers (i.e. lenders) and the extent to which a budget deficit 'expands' an economy will depend on who purchases the AGS (i.e. who lends to the government). [As at 30 June 2022, total AGS issued in the market place is estimated to be $906B which simply means that the federal government 's stock of gross debt at this date is estimated to be $906B.]

Exam Tip: For the purposes of assessment in VCE Economics, it is not expected that students will know the difference between Treasury Bonds and Treasury Notes. For those curious, Treasury Bonds are longer term debt instruments, with repayment of the principal (i.e. face value of the bond) made out to a range anywhere up to 30 years. In contrast, Treasury Notes are shorter term debt instruments repayable within one year.

Selling bonds to the RBA

This is most expansionary (and most inflationary) as money that was previously not in the money supply is now released into circulation. This type of financing has become rare since the late 1980's because the government and the RBA were keen to have a clear separation of monetary and budgetary policies. This point was reiterated by the RBA Governor in 2020 when he clarified that the RBA's purchasing of AGS on 'secondary markets' (i.e. not directly from the federal government) during 2020 was an attempt to support budgetary policy efforts to stimulate the economy rather than an example of the RBA funding budget deficit(s) per se.

Selling bonds to Australian investors (lenders)

This is least expansionary because domestic bond sales place upward pressure on interest rates (because the demand for 'money' increases, which lifts the price of 'money'). These higher interest rates result in a ***crowding out*** of the private sector as consumers and businesses reduce Consumption and Investment. In addition, the higher interest rates force some local borrowers (e.g. corporations) to borrow from overseas lenders, resulting in capital inflow and a higher exchange rate. This contributes to *crowding out* of Australia's

tradables sector, where exporters and import competing businesses lose market share. The effect of crowding out constrains AD over time and reduces the expansionary impact of a budget deficit. This type of financing is the most common.

Selling bonds to overseas investors (lenders)

This results in capital inflow that exerts upward pressure on the value of the AUD, which in turn has a negative impact on net exports and AD. This reduces the expansionary impact of a budget deficit and relates to the point made earlier with respect to the contractionary nature of budget deficits. The degree to which Treasury issues bonds or notes in overseas markets depends on the state of financial markets and the confidence foreigners have in Australian 'sovereign debt'.

Exam Tip: In the 2018 exam, students were asked to outline two options available to the government when deciding how to finance a budget deficit. Many students erred by referring to an increase in taxes or a reduction in expenditure. These two measures will indeed help to reduce deficits in the future, but they are NOT means of financing an existing deficit. Be sure to avoid this mistake in the event that a similar question appears on this year's exam. The 25% of students who achieved full marks for this question will have adequately explained two of the above three means of financing a deficit.

Exam Tip: Question 2(b) of the 2014 exam required students to outline one economic implication for prolonged budget deficits. While this is a relatively old question, it could re-appear on the current exam. A common problem is to state that prolonged budget deficits will increase NFD! Always remember that NFD is made up of public and private sector debt and the budget deficit will only increase net government debt. [NFD may indeed fall if private sector debt levels decrease over time in response, at least in part, to higher budget deficits].

Dealing with a budget surplus

Budget surpluses can either be invested financial markets (e.g. putting money into an account held with the RBA, topping up the Future Fund or repay existing government debt). The latter primarily occurred over the early to late 2000s and *net government debt was eliminated,* allowing the federal government to focus on investing the surplus in financial markets. The government was able to invest in funds such as the *Future Fund***,** *Education Investment Fund (EIF), Building Australia Fund (BAF) and the Health and Hospitals Fund (HHF).* Billions of dollars were invested into a portfolio of investment assets (e.g. shares and bonds) that were to be used to pay for the government's future superannuation liabilities (Future Fund), to invest heavily in infrastructure such as transport and roads (BIF), and to provide for increased capital investment in educational institutions (EIF) and the health sector (HHF). Over recent years the government has introduced a number of other funds designed to achieve specific future goals. These funds include the Asset Recycling Fund (ARF), the Medical Research Future Fund (MRFF) and the DisabilityCare Australia Fund (DCAF).

Exam Tip: In examinations, it is common for students to argue that a budgetary policy measure to stimulate the economy is a reduction in interest rates. Interest rate manipulation is not a feature of budgetary policy – this is an instrument of monetary policy. However, budgetary policy can and does have an impact on interest rates via the size of the deficit or surplus - where a deficit places upward pressure on interest rates and a surplus places downward pressure on interest rates.

The relationship between the budget outcome and the level of government (public) debt

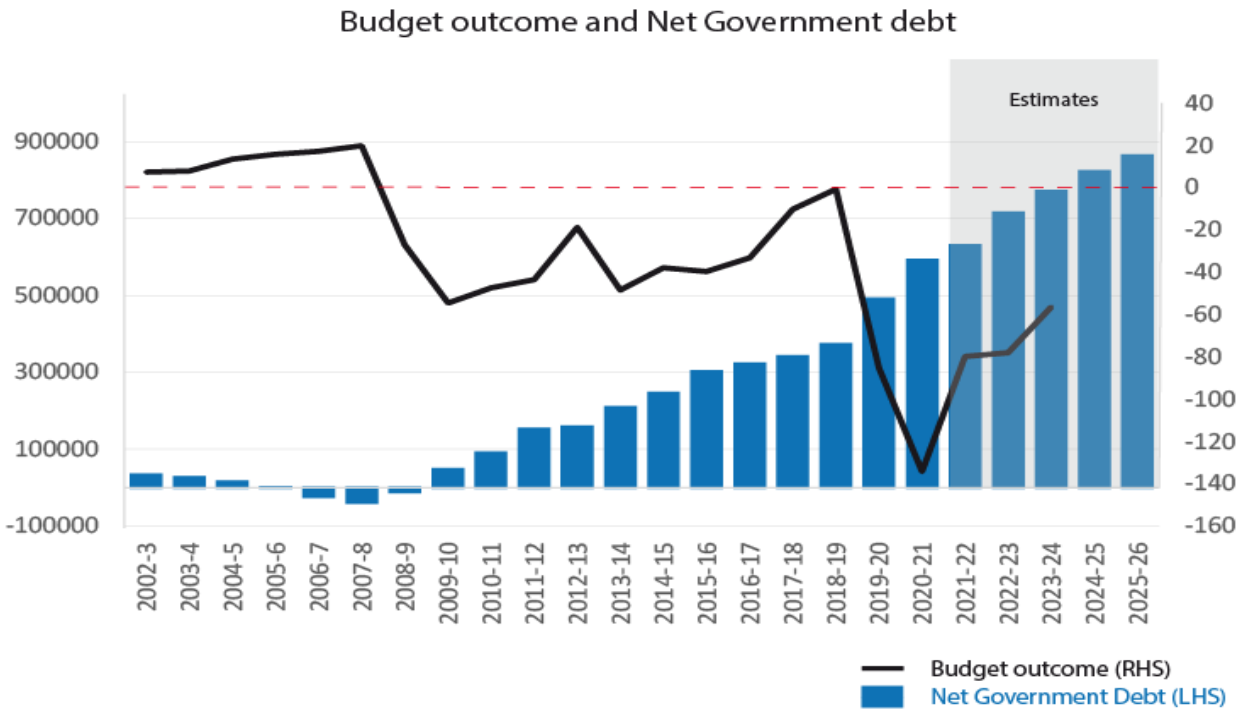
It should be clear from reading the previous sections that budget deficits will require funding in the form of debt (or the sale government equity over time) and budget surpluses will facilitate the repayment of government debt. Accordingly, continuing budget deficits over time will add to government debt which requires the repayment of both interest and principal into the future. This debt is recorded as a liability on the government's balance sheet and is generally considered to worsen the government's financial position in the sense that it makes the government less able to respond to economic shocks in the future. For example, the succession of budget surpluses up to 2007-8 resulted in the elimination of net government debt at the time. This meant that the government was in an excellent position to support the economy during the global economic downturn via the delivery of large budget deficits (lower taxes or higher levels of government spending). It is generally accepted that the strength of the government's balance sheet at the time was a factor behind Australia being one of the few advanced economies avoiding a recession during the global financial crisis.

Australia is currently emerging from a major economic downturn (recession) as a consequence of the negative supply and demand shocks emanating from the global response to the coronavirus pandemic, as well as the more recent natural disasters and war in Ukraine. These 'shocks' have resulted in substantial budgetary policy support (which we will examine shortly) that caused a budget 'blow out', with actual budget deficits of $85.2B and $134.2B for 2019-20 and 2020-21 respectively, and continuing deficits (albeit smaller) expected into the future. This is resulting in the issue of more CGS to fund the deficits and a corresponding increase in the size of public debt, with gross government debt expected to increase to $1.2 trillion by 2025-26 and net government debt expected to climb to $865B.

Exam Tip: The current VCE Economics Study Design specifically makes reference to the relationship between the budget outcome and the level of government (public) debt. Students should expect an examination question testing their understanding of this relationship, such as that in 2019 (see next Exam Tip). It is important that students are able to make a clear distinction between both (net) government debt versus (net) foreign debt (as mentioned in an earlier exam tip), as well as gross government debt versus ***net*** government debt. In particular, failure to pay attention to the ***'net'*** in net government debt could easily cost students an easy mark. Students should remember that government debt in isolation is not necessarily problematic. For example, if the government has a stock of lending assets (e.g. it has lent money to other entities by purchasing foreign government bonds for example) that exceeds its stock of government debt, then net government debt will not exist and it shows the government to be in a good financial position.

Exam Tip: Q2a of the 2021 exam and 3a of the 2019 exam required students to demonstrate an understanding of how the budget outcome influences the level of government (public) debt. In both exams, many students confused government debt with net foreign debt, as well as the budget deficit with the current account deficit. Some students also tried to argue that a smaller budget deficit (e.g. the estimated deficit falling from an actual deficit $134.2B for 2020-21 to an estimated $106.6 for 2021-22B leads to a lower level of government debt, ignoring the fact that a deficit still occurs, which requires more debt (not less).

The chart below highlights the relationship between budget outcomes and net government debt since 2002-3.



It clearly shows the inverse relationship between budget outcomes and (net) government debt, with an improved budget outcome leading to either a lower level of net debt (e.g. 2007-8) or slower growth in net debt, and a deteriorating budget outcome (e.g. 2020-21) leading to a higher level of net debt (or stronger growth in net debt). The budget surpluses prior to and including 2007-8, helped the government to repay debt to the point where net debt became negative (i.e. the government was a net lender). However, since 2008-9 the budget moved into deficit following the GFC and economic downturn, and has remained in deficit since then. As a consequence, the government's borrowing requirement increased, with the stock of net debt increasing to $374B, despite the *rate of growth* in net debt declining up to the end of 2018-19 (as a very small $0.7B deficit was recorded for that financial year). Since 2018-19, growth in net debt accelerated following the delivery of large budget deficits from 2019-20. Once the government is able to return the budget towards balance in the future, the rate of growth in net debt will continue to decline. It is only when the government delivers budget surpluses that the actual level of net debt will fall as it did between 2004-5 and 2007-8. However, it should be noted that neither the most recent budget papers (2022-23), nor the most recent intergenerational report (2021), forecast a return to budget surplus over the next 40 years. This largely reflects an ageing population and highlights the need for the government to undertake supply side reforms to the economy in order to mitigate the effects that an aging population has on both public debt levels and future generations of taxpayers. [This is covered in more detail in Chapter 4.]

The relationship between budget outcomes and government debt (both gross and net) is also highlighted in the adjacent table. It should be clear that continuing budget deficits will contribute to growth in government debt, with the level of gross government debt always exceeding net government debt to the extent that the government possesses a stock of financial assets (e.g. loans that it has provided to other entities). Given that the government's stock of financial assets is estimated to be $274.5B as at 30 June 2022, it means that the total value of gross debt of $906B overstates the extent to which the government is financially exposed to other entities. This is why 'net debt' ($906B - $274.5B = $631.5B) is the preferred measure when assessing the financial position of the government.

Table 1.2: Budget aggregates

	Actual	Estimates						Projections
	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	Total(a)	2032-33
	$b	$b	$b	$b	$b	$b	$b	$b
Underlying cash balance	**-134.2**	**-79.8**	**-78.0**	**-56.5**	**-47.1**	**-43.1**	**-224.7**	
Per cent of GDP	-6.5	-3.5	-3.4	-2.4	-1.9	-1.6		-0.7
Gross debt(b)	**817**	**906**	**977**	**1,056**	**1,117**	**1,169**		
Per cent of GDP	39.5	39.5	42.5	44.6	44.9	44.7		40.3
Net debt(c)	**592.2**	**631.5**	**714.9**	**772.1**	**823.3**	**864.7**		
Per cent of GDP	28.6	27.6	31.1	32.6	33.1	33.1		26.9

(a) Total is equal to the sum of amounts from 2022-23 to 2025-26.
(b) Gross debt measures the face value of Australian Government Securities (AGS) on issue.
(c) Net debt is the sum of interest bearing liabilities (which includes AGS on issue measured at market value) less the sum of selected financial assets (cash and deposits, advances paid and investments, loans and placements).

Cyclical and Structural components of the budget

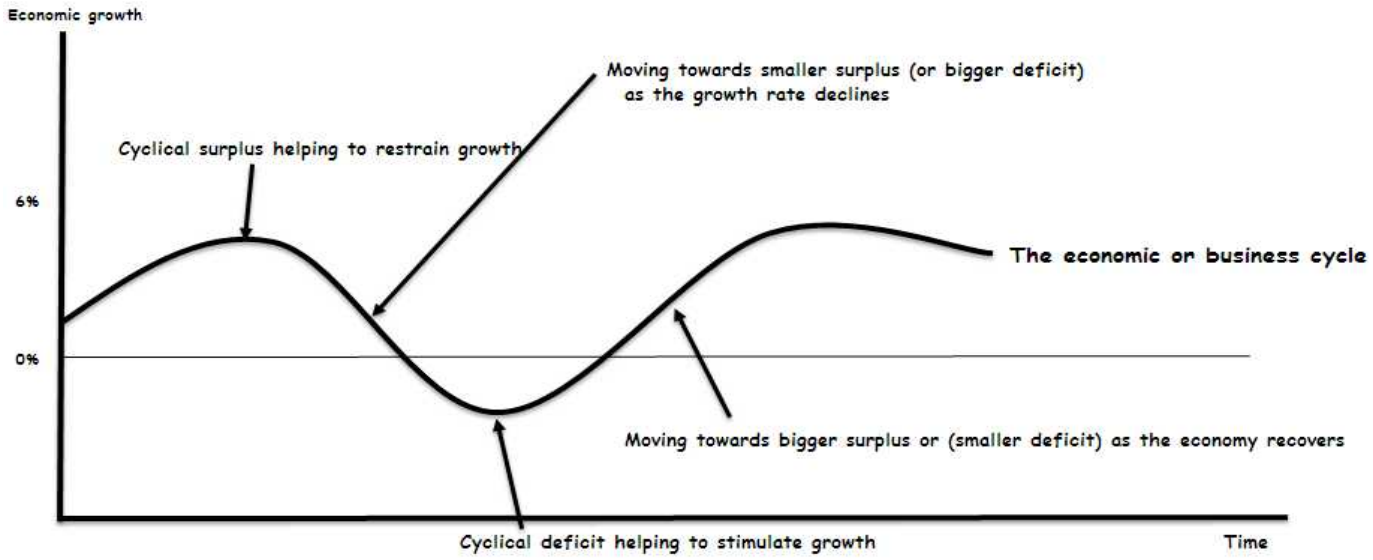
Any time the federal government decides to change the way it collects money or makes payments (composition of receipts/payments) or adjust the volume of its receipts/payments (level of receipts/payments) it will typically impact on the size of the budget outcome (e.g. increase or decrease the surplus/deficit). This change in the budget outcome reflects a deliberate attempt (i.e. an actual policy decision) to use the budget to change the allocation of resources or assist with the achievement of its goals. In this respect, the actual 'structure' of the budget is deliberately altered by the government. This represents the **structural** component of the budget and changes of this nature are sometimes referred to as **discretionary stabilisers**. For example, the reduction in the company tax rate for small to medium sized companies to 25% from the 1st of July 2021 is an example of a change to the structure of the budget (i.e. a discretionary stabiliser).

Clearly, the structural changes (or discretionary stabilisers) do not account for all the changes in budget outcomes. This is because the budget outcome also changes automatically in response to changes in the level of economic activity. Lower levels of economic activity should negatively impact on the budget outcome as receipts from taxation (primarily individual and company taxes) are likely to fall and the payments for government services or transfer payments (such as unemployment benefits) should increase. In essence, the budget outcome will change in line with the economic or business cycle, with the surplus falling during downturns and increasing during recoveries. This represents the **cyclical** component of the budget and is sometimes referred to as **automatic stabilisers**. For example, a reduction in the amount of tax actually received by the government (as distinct from a change in the tax rate) will tend to reduce receipts relative to expenditure and therefore result in an automatic increase in the size of the deficit.

Exam Tip: In the 2018 examination, MC question No. 2 was the second most poorly handled MC question on the paper, with 53% of students selecting the incorrect response. Essentially, the question required students to have some understanding of the relationship between monetary and budgetary policies. It required students to appreciate that expansionary monetary policy [at this stage simply think of this as low(er) interest rates] would tend to cause an automatic decrease in government expenditure on welfare. This is because low interest rates stimulate AD, economic growth and employment, which then helps to reduce both unemployment and government welfare (income support) payments. Those students who chose the incorrect response to this MC question are likely to have struggled to understand the cyclical component of the budget outcome.

These cyclical stabilisers help the budget to automatically respond to changing economic conditions by slowing growth rates during periods of high economic activity (e.g. booms), as the budget moves into greater surplus, and slowing the rate of decline during periods of low or negative growth (e.g. a recession), as the size of the surplus falls. This is highlighted in the diagram below:

The movement in the cyclical component of the budget outcome over time



Exam Tip: Part B of the examination regularly features questions related to automatic and discretionary stabilisers. When trying to explain the cyclical component of the Budget, be very careful that you tailor your response to the question being asked. This is because automatic stabilisers can be explained in terms of the impact they have on budget outcomes (e.g. during downturns the Budget automatically moves towards a deficit) and also the impact they can have on the economy (e.g. during downturns, a lower tax burden helps to prevent spending or AD from falling to even lower levels).

Exam Tip: In the 2021 exam, students were asked to explain the difference between the role of the budget's automatic and discretionary stabilisers, using an example of how each type of stabiliser may have operated recently. Many students ignored the need to establish a key point of difference between the two types of stabilisers and some of the examples used highlighted a misunderstanding of the role and nature of the stabilisers. For example, some students referred to changes in interest rates and tax rates as examples of automatic stabilisers and made inappropriate reference to disposable incomes rising during a downturn.

Exam Tip: In the 2020 exam, many students failed to appreciate that Q2b required them to show an understanding of how the budget (i.e. automatic stabilisers) impacted on the economy, rather than how the economy impacted on the budget (which would have been relevant for the previous Q2a). In addition, for a 5 mark question, students should have reasonably expected to explain the impact on both the revenue and expenditure sides of the budget. Too many responses focused on only one side of the budget and therefore struggled to achieve full marks.

Exam Tip: In relation to Q2a in the 2020 exam, students were asked to describe two economic reasons why the Australian Government might find it difficult to achieve a budget surplus in the short to medium term. While the Chief Assessor's Report makes it clear that students were afforded some flexibility (e.g. able to refer to any logical economic reason such as rising trade sanctions imposed by China, slow wages growth and weak consumer confidence), the best students will have recognised that the budget will deteriorate for either cyclical or structural reasons. Framing one's response around these general reasons for a continuing deficit into the future will have served students well. However, it is insufficient to simply say that the budget is expected to deteriorate for cyclical and structural reasons. It is necessary to explain how automatic stabilisers are expected to cause the budget deficit to continue to fall (or rise) and how the need for discretionary stabilisers contributes to the continuing deficit. It would also not be optimal to focus on two examples of automatic stabilisers given that the best students will have demonstrated breadth of knowledge by referring to both cyclical and structural factors. Finally, it is important not to make the common mistake of confusing the current account deficit with a budget deficit!

Exam Tip: Qb of the 2019 exam required students to 'select one example of a budgetary policy automatic stabiliser and describe how it operates to influence aggregate demand and the rate of economic growth'. Some students made the mistake of examining the impact that automatic stabilisers have on the budget outcome and therefore made no reference to how it helps to influence AD and the rate of economic growth.

Structural vs cyclical stabilisers over recent years

Over the course of 2020-21, there was a huge decline in economic activity in response to the negative demand and supply side effects of the coronavirus. Government lock-down and social distancing measures resulted in a large-scale reduction in the demand for most goods and services (shifting AD to the left), combined with a reduction in productive capacity as many businesses were forced to close or reduce hours of operation (shifting AS to the left). This caused negative economic growth over 2020 (and even a recession between January and June) as well as a significant increase in unemployment. The negative growth and higher unemployment naturally resulted in lower income tax revenue for the federal government and a much higher level of expenditure on income support (e.g. unemployment benefits). This happened *automatically*, leading to an increase in the size of the budget deficit for cyclical reasons (e.g. 'cyclical stabilisers' contributed to the 2019-20 budget deficit to rise to $85.3B).

However, during 2020, the federal government provided significant budget stimulus to the economy that primarily involved spending initiatives and tax relief that further increased the size of the budget deficit for 2019-20 (and 2020-21). These measures represented deliberate attempts to manipulate the budget outcome and did not happen automatically - referred to as 'discretionary stabilisers'. These discretionary measures led to an increase in the size of the structural budget deficit (i.e. the government made changes to the structure of the budget that caused the budget deficit to rise by a significant amount). Overall, the large deterioration in the size of the budget deficit from $0.7B in 2018-19 to a $85.3B deficit in 2019-20 and $134.1BB for 2020-21 was due to a combination of cyclical factors (i.e. automatic stabilisers) and structural factors (discretionary stabilisers).

In relation to the 2021-22 Budget, the original estimated deficit at the time of delivering the budget (May 2021) was $106.6B. However, this deficit is now estimated to be $26.8B lower at $79.8B, with the improved outcome being entirely attributable to cyclical stabilisers. This is because the economic recovery was better than anticipated, owing largely to the record increase in commodity prices (or terms of trade) and the fall in the unemployment rate. However, this cyclical improvement to the budget outcome would have resulted in a much more improved outcome (i.e. an even smaller deficit) were it not for additional discretionary stabilisers implemented by the government over the past year. Since May 2021, the government has made a further $39.6 billion worth of net stimulus measures (e.g. further tax cuts and spending initiatives) that exerted upward pressure on the budget deficit. Without these additional discretionary stabilisers, the 2021-22 budget outcome would be an estimated $40.3B. In effect, this means that the government has decided to 're-inject' approximately two-thirds of the automatic/cyclical improvement to the budget outcome instead of allowing it to flow through to the bottom line. This is also another way of saying that the 'cyclical deficit' has decreased while the 'structural deficit' has increased for 2021-22, which has implications for the stance of budgetary policy (covered later).

Automatic stabilisers and government debt

We have already seen that automatic stabiliers represent the cyclical component of the budget. Growth in economic activity will cause government taxation receipts to rise, government welfare expenditure to fall, and the budget deficit to decrease as a result. It therefore stands to reason that periods of strong rates of economic growth are likely to result in an automatic reduction in the level of government debt. This is precisely what occurred in the last boom, the period up to 2007-8, when Australia experienced a prolonged period of strong economic growth that contributed to both large cyclical budget surpluses, which were then partly used to repay government debt to the point where net government was eliminated. Of course, over 2020-21 the reverse occurred, with negative rates of economic growth leading to cyclical budget deficits that required government borrowing (i.e. the issue of bonds) and a growing stockpile of (net) government debt (to $592B by 30 June

2021. The cyclical improvement to the budget outcome that has occurred over the past year, in isolation, helps to reduce the rate of growth in government debt.

Exam Tip: The effect of automatic stabilisers on government (public) debt is specifically listed in the VCE Economics Study Design and students can reasonably expect a question on this relationship. If a question does appear on the exam about the impact of automatic stabilisers on the deficit OR government debt, it is important that students read the question carefully. It is likely that some students will err by focusing on the wrong variable. For example, some will establish the link between an economic downturn and the *deficit* (when government *debt* was the target variable in the question) or vice versa. This is likely to prevent students from achieving full marks.

Using the Budget to stabilise the business cycle

Over many years (since the 1980's), budgetary policy was not specifically used to manage or manipulate the *business cycle*. Whilst 'automatic stabilisers' did work in a counter-cyclical fashion, the budget was rarely used to contract the economy when growth (or inflation) was too high, or expand the economy when growth was too low. This counter-cyclical arm of policy making was left primarily to the RBA and monetary policy.

This approach changed slightly following the election of the Labor government in late 2007. First, Prime Minister Rudd declared that budgetary policy had a real role to assist monetary policy efforts to fight inflation. Accordingly, its first budget adopted a 'contractionary stance' to help ease capacity constraints and dampen inflationary pressures. More profound, however, was the government's response to the onset of the global financial crisis and the global economic downturn in 2008-9. Recognising the need for budgetary policy intervention, the government noted:

> ***In normal times, monetary policy is the main tool for stabilising the economy. But these are not normal times. Extraordinary times call for extraordinary macroeconomic policy measures. In the current circumstances, monetary policy action alone will not be sufficient to restore growth within a reasonable time period……The extraordinary speed and scope of the deterioration in the global economy means that there is a much greater macroeconomic stabilisation role for discretionary fiscal policy than would normally be the case.***
>
> ***Source:*** *Updated Economic and Fiscal Outlook, February 2009 www.budget.gov.au*

Accordingly, over 2008-9, the government adopted a much more interventionist or 'Keynesian' approach to budgetary policy, which included the delivery of large budget deficits between 2009-10 and 2011-12. The continuing sluggish performance of the economy since then, triggered by the significant fall in commodity prices (up until 2016), resulted in persistent (albeit smaller) budget deficits during a period where the government was keen to implement fiscal consolidation. For example, the budget deficits up until 2018-19 were estimated to be smaller than the preceding year and, despite the government's commitment to its fiscal strategy, they contained a number of measures that were designed to provide 'fiscal stimulus' to the economy. More recently, the budget stimulus measures implemented since the onset of Covid-19 highlights a clear demonstration of the willingness of Australian governments to use 'Keynesian' stimulus to support the economy and 'stabilise the business cycle'. The enforced lockdown to counter the pandemic meant that many firms were forced to close or reduce hours, and many workers effectively had their jobs "removed". This made it impossible for many people to support themselves, resulting in the need for significant government support as the economy entered a recession.

Overall, the focus during an economic downturn is to prevent large falls in economic growth and higher unemployment - the budget will typically move into an expansionary phase (see next section). But this will be reversed once the economy starts to recover, as the government will become concerned with the need to reduce the size of the debt that was built up during the downturn (or recession). As the budget eventually returns towards a surplus over time, it then becomes imperative that the surpluses are wisely invested as a form of insurance against the next economic downturn, which would again allow the budget to move into structural deficit, as was the case after the global financial crisis and the recent Covid induced downturn. Despite growing levels of public debt, Australian government debt is relatively low as a percentage of GDP compared to most of our major trading partners and this has provided Australia with the ability (or flexibility) to deliver discretionary stimulus measures that are a larger proportion of GDP than our peers.

Exam Tip: It is useful to remember that the increase in the size of the structural deficit (see previous section) is arguably motivated less by a need to assist with economic stabilisation and more by a need for the current government to win votes in the forthcoming 2022 federal election. This highlights a potential weakness associated with budgetary policy as a stabilisation tool compared with monetary policy. The imperative for the incumbent government to 'sweeten the electorate' has the potential to cause budgetary policy to become pro-cyclical rather than countercyclical.

The importance of fiscal discipline in the context of budgetary policy's stabilisation role was highlighted by the RBA Governor in early 2017 and again in 2020.

> ***The final issue that I will mention this evening is that of ensuring that our public finances are on the right track. Australia has a good historical record here. Net government debt, as a share of GDP, is still low, although it is higher than it used to be. Our good record has provided us with a form of insurance. It meant that when difficult times did strike last decade, fiscal policy had the capacity to play a stabilising role. We had options that not all other countries enjoyed.***
>
> ***Source:*** *RBA Governor, Philip Lowe, in remarks to A50 Australian Economic Forum, 9 February 2017*
>
> ***Australia's long record of responsible fiscal policy has allowed the government to use its balance sheet to help smooth out the income shock and to offer protection to those most affected. In doing so, it is making a major difference.***
>
> ***Source:*** *RBA Governor, Philip Lowe, in speech titled 'An Economic and Financial Update' 21 April 2020.*

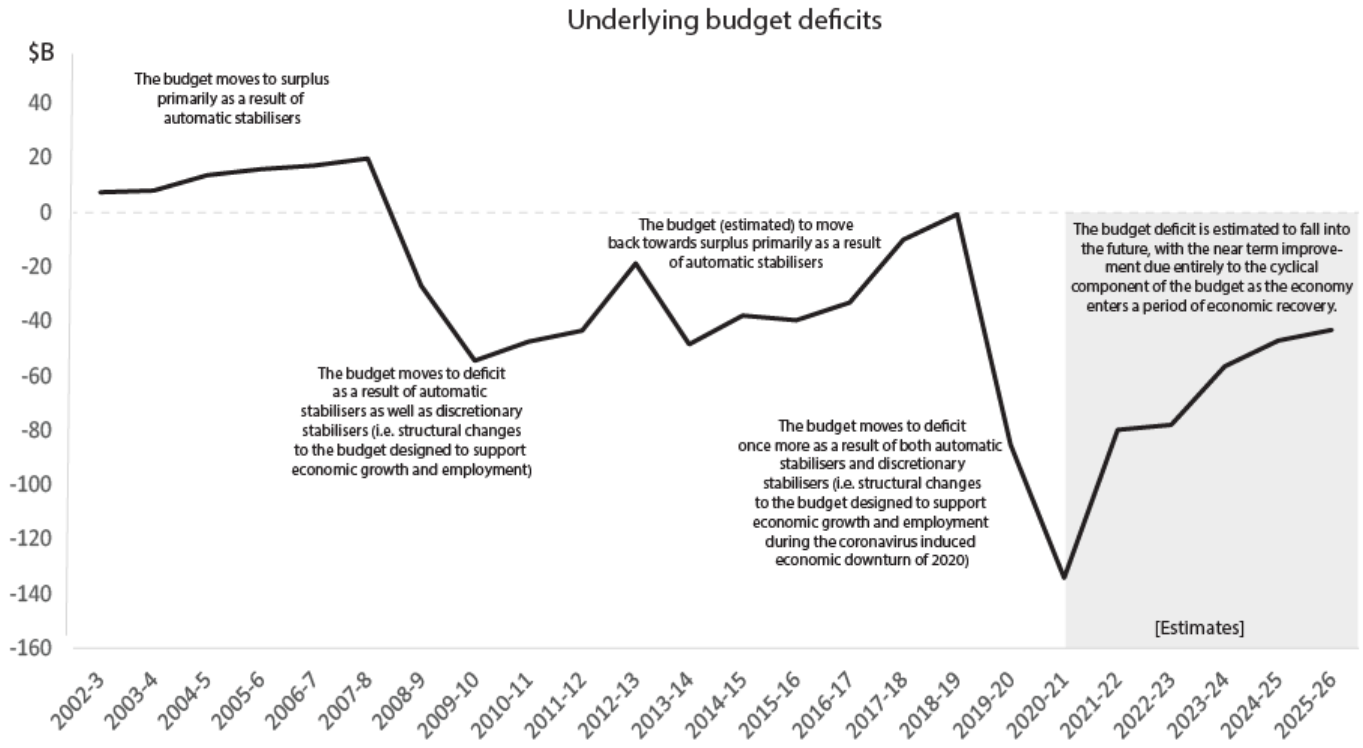
Exam Tip: A key knowledge point in the Study Design is 'the need for aggregate demand policies in terms of stabilising the business cycle'. Students should remember that any reference to 'aggregate demand policies' necessarily requires attention being given to both budgetary and monetary policies. Q3d of the 2017 required students to 'explain how aggregate demand policies have influenced 'jobs and growth' in 2016–2017'. Unfortunately, too many students made either no (or little) reference to monetary policy (no doubt because earlier parts of Q3 focused on budgetary policy). Students should always remember to focus on both BP and MPpolicies when asked about 'aggregate demand policies'. In addition, students should avoid referring to budgetary policy supply side measures when answering questions related to 'aggregate demand policies'.

Exam Tip: As noted in an earlier Exam Tip, Q2b of the 2020 exam required students to explain the role of automatic stabilisers in influencing aggregate demand and stabilising the business cycle in 2020. Many students failed to appreciate that it required them to show an understanding of how the budget (i.e. automatic stabilisers in this context) impacted on the economy, rather than how the economy impacted on the budget (which is a common mistake). Importantly, however, for a 5 mark question, students should have explained the impact stemming from both the revenue and expenditure sides of the budget. In relation to the latter, don't make the mistake of arguing that the 'government increased its welfare payments during the recession', which implies that it is a discretionary action on behalf the government. Instead, it is necessary to refer to 'welfare payments automatically increasing in response to higher levels of unemployment'.

Exam Tip: In the 2021 exam, Q2b students were required to explain the difference between the role of automatic and discretionary stabilisers in influencing AD and stabilising the business cycle. Some students were able to show how the stabilisers help to increase AD during a downturn but then failed to make the necessary link to how the stabilisers actually help to 'stabilise the business cycle'.

The relatively sluggish rate of economic growth over the last decade prior to Covid-19 meant the RBA lowered interest rates to (at the time) record lows to stimulate the economy. However, since Covid-19 and the further reduction in the Target Cash Rate to 0.1%, any further stimulus from lower interest rates was likely to be negligible, with negative interest rates expected to bring significant unintended consequences. This meant that traditional use of monetary policy would have struggled to stimulate the economy in the event of an ongoing downturn and that budgetary policy played a more prominent role in stabilising the business cycle over the past few years.

The use of the budget to stabilise the economy over many years is highlighted in the chart below:



In addition to managing the business cycle in this way, budgetary policy has the flexibility to assist with the achievement of all our economic goals, such as the use of government funds to address market failures (such as climate change) or to directly preserve our living standards (such as funding for national security). This highlights that budgetary policy's ultimate goal is to improve the welfare or living standards of all Australians.

Expansionary or contractionary Budgets

The following table provides a 'general rule of thumb' to help one determine whether a budget is expansionary or contractionary.

Budget outcome (or change of outcome)	Expansionary/contractionary
Deficit	Expansionary
Surplus	Contractionary
Smaller deficit	Less expansionary (or contractionary)
Bigger deficit	More expansionary
Smaller surplus	Less contractionary (or expansionary)
Bigger surplus	More contractionary

While the table provides a good starting point from which to analyse the nature and impact of a budget, there are a number of possible exceptions to the general rule.

Can a surplus be expansionary?

It is more common to refer to budget deficits as expansionary, however some economists will argue that a budget surplus can be expansionary over the longer term. This is because a surplus means that the government becomes a net lender for that year (rather than a borrower) and this leads to less pressure on funds in financial markets. This should then lead to a reduction in interest rates (and/or exchange rates), which increases Consumption, Investment, (net exports), AD and economic growth. This is sometimes referred to as the **'crowding in'** argument (or the opposite of the **'crowding out'** argument related to budget deficits). In addition, some argue that reduced deficits (or increased surpluses) could be evidence of the government interfering less in the operation of the free market (e.g. less subsidies, less expenditure on regulation, etc.) which further encourages an increase in private sector Investment.

In addition, the movement in the budget outcome from a big surplus one year to a smaller surplus the next year could be evidence of an expansionary stance, particularly if the change in the budget outcome has occurred for structural rather than cyclical reasons. While a surplus would still exist in the second year, its smaller size may have been due to a reduction in tax rates and/or an increase in discretionary spending that will have an expansionary effect on the economy.

Can a deficit be contractionary?

Those economists who argue that a surplus can be expansionary over time will also argue that a deficit can be contractionary in the long term. This time, the deficit leads to 'crowding out' of the private sector, as the increased borrowing by the government exerts upward pressure on interest rates (and/or exchange rates), which then reduces AD and economic growth.

Exam Tip: It is highly unlikely that students will be asked to explain either the *crowding out* or *crowding in* argument in the VCE examination. In any case, there is some debate about the validity of the crowding out/in argument in relation to interest rates given that Australian borrowers (including governments) will typically have ready access to offshore funds. Assuming an almost perfectly elastic supply of loan funds from abroad, this means that bigger budget deficits will have a negligible impact on interest rates. Instead, the *crowding out* effect will occur via upward pressure on the exchange rate, which 'crowds out' the external sector, therefore reducing the net export component of AD.

In addition to the cost of financing budget deficits and the crowding out problem, budget deficits lead to a build-up of government debt over time. This creates additional problems for governments in terms of the impact on government credit ratings, which if downgraded (currently AAA), leads to higher borrowing costs and an even bigger deficit. Further, deficits must eventually be reined in over time, which may involve future restraint in the form of higher taxes and lower government spending, which then have negative consequences for economic and employment growth. Accordingly, to avoid future pain, governments need to achieve the right balance by delivering deficits that do just enough to fill the void in the economy when recession (or contraction) arrives, without imposing too big a burden on taxpayers and the economy in the future.

A movement in the budget outcome from a big deficit one year to a smaller deficit the next year could be evidence of a contractionary stance, particularly if the change in the budget outcome has occurred for structural rather than cyclical reasons. While a deficit would still exist in the second year, its smaller size may have been due to an increase in tax rates and/or a decrease in discretionary spending that will have a contractionary effect on the economy.

While the 2021-22 deficit is indeed estimated to be smaller than the year before, it is regarded as an expansionary budget because the previous (2020-21) budget deficit was inflated by more than $100B of measures (e.g. Jobkeeper and the Coronavirus supplement to Jobseeker) that were always earmarked as temporary measures to endure only for 2020-21. In addition, the cyclical improvement to the budget outcome for 2021-22 ($66B) has largely been injected back into the economy (to the tune of approximately $40B) resulting in a larger structural budget deficit for this year. This highlights the need to examine the changing composition or structure of the budget before determining whether it is expansionary or contractionary (see point 3 below).

Exam Tip: Q3c of the 2019 exam required students to identify the most recent budgetary policy stance [for 2019-20] and examine the impact on FE and PS. Unfortunately, too many students ignored or failed to comment on the recent stance, not appreciating that a return to estimated surplus in that year 'implied' a contractionary stance. Too many students failed to demonstrate an understanding of the goals in the question, and simply outlined how budgetary policy initiatives (such as tax cuts) might help to increase aggregate demand (economic growth and inflation). Importantly, very few students were able to make the link back to the government's budgetary policy stance.

Exam Tip: Question 4a of the 2015 exam required students to observe a table containing budget outcomes for three years and then describe the change in stance over two of those years (from a $41.1B deficit to a $35.1B deficit). If a similar question surfaces in this year's exam, it is best to approach the question in simple terms and ignore any reference to cyclical or structural factors that may have impacted on the outcomes over the relevant period. In other words, students only need to appreciate that the changed outcome represents a contractionary (or less expansionary) BP stance and then justify why this is the case.

Overall, to determine whether a budget is likely to *expand* or *contract* economic activity, it is important to do three things.

1. Examine the actual **size** of the outcome itself to determine its likely impact on the economy. A Deficit is generally considered expansionary because the government is injecting more money into the economy than it is extracting. Conversely, it is generally contractionary if there is a surplus because the government is extracting more funds from the economy than it is injecting. However, this is examining the budget impact from a relatively static point of view, ignoring any changes to the budget from the previous year.

2. Examine the **movement** of the budget outcome over two or more years to determine the *setting* and/or *stance* of policy. For example, a reduction in the size of a deficit 'generally' indicates a less expansionary (or contractionary) budget and a reduction in the size of the surplus indicates a less contractionary (or expansionary) one.

3. Examine the **changing composition or structure** of the budget itself and ignore any cyclical factors that caused the budget outcome to change. For example, in isolation, the replacement of $1B of foreign aid with $1Bm on infrastructure is expansionary, even though it will have no impact on the size of the budget deficit or surplus. Similarly, any changes to the precise nature of government spending within the budget can impact on the degree to which it expands or contracts the economy 'over time'. For example, replacing recurrent expenditure (e.g. spending on welfare) with capital expenditure (e.g. spending on infrastructure) will tend to be less expansionary in the short-term but more expansionary in the long term.

Exam Tip: In economics, the term 'fiscal multiplier' or 'Keynesian multiplier' is sometimes used to describe the effect that any increase in (net) government spending will have on real GDP. A multiplier of more than 1 suggests that higher government spending will ultimately boost real GDP over time. Accordingly, the bigger the multiplier, the bigger the expansionary impact of any increase in government spending. Interestingly, the size of the multiplier will be determined by the 'composition' of government spending. Consumption spending will have a lower multiplier than Investment spending, meaning that the expansionary/contractionary impact of any change to the budgetary policy will depend on the precise changes to spending programs in the budget. Having said all of this, you will not be examined on 'multipliers' in the VCE Economics examination, but it is useful to remember the importance of changes to the composition of the budget, as distinct from a change in the budget outcome.

Fiscal drag or bracket creep and the impact on the budget outcome

Fiscal drag, also referred to as '**bracket creep'**, occurs during times of inflation for countries with a progressive tax system. When inflation occurs it results in a decrease in 'real wages' and workers seek to protect their 'real wage' by demanding increases in their nominal wage. As nominal wages increase, it pushes some workers into higher marginal tax brackets. This increases the 'average' rate of tax paid by these taxpayers, having two major effects:

First, it increases the total personal income tax revenue received by the federal government, thereby increasing the surplus (or reducing the deficit). It is another cyclical component of the budget, but it does not rely on the growth rate in GDP to change the budget outcome automatically. Instead, it relies on the rate of inflation to change the budget outcome, with higher inflation rates working to increase the size of the surplus (or reducing the deficit).

Second, some taxpayers will experience a decline in their 'real disposable income' because they will be paying a higher average rate of tax on their 'nominal wage', which reduces the 'purchasing power' of their 'after tax and after inflation wage'. This has the effect of slowing the rate of spending (or consumption) and reduces the incentives to work.

Exam Tip: The difference between nominal and real wages is similar to the difference between nominal and real GDP. Assume that a person receives an annual salary (or wage) of $100,000 for the 2021 year. If they receive the same wage over 2022, and inflation was 10%, then the purchasing power of this $100,000 is less in 2022 compared to 2021. The 'real wage' will be $90909, which means that a worker will need a 10% nominal wage increase (to $110,000) in order to purchase the exact same bundle of goods and services as they did in 2021. If this wage rise is granted, then the 'real wage' remains at $100,000, but the 'nominal wage' increases to $110,000.

Exam Tip: The VCE Economics Study Design no longer requires students to have knowledge of 'the ways BP can be used to influence equity in the distribution of income'. Australia's progressive personal income tax system is an important means by which the government's budget is used to transfer income from higher to lower income earners. Students traditionally struggle defining a progressive tax system and it remains possible (although it is unlikely) that students will be required to demonstrate an understanding of this term in this year's exam, particularly in relation to fiscal drag/bracket creep and the announced changes (flattening) to the tax system proposed by the Liberal Government. Always remember that it refers to a system where the rate (or proportion) of tax payable on a person's income (i.e. their marginal tax rate) rises as their income rises. It is not defined as 'the more one earns the more tax they pay (note that this could also describe a proportional tax system (where the same rate of tax applies to all income earners).

Federal governments, both Labor and Liberal, have been fully aware of 'bracket creep' and have been happy to accept an *automatic* rise in the tax burden over time. For example, over recent years, the growth in wages (albeit relatively low) has pushed many workers into higher tax brackets, resulting in windfall gains for the government. However, the government also recognises that a reliance on fiscal drag to help return the budget to surplus will tend to stifle incentives and have a negative impact on participation and productivity. In this context, the government announced changes to the tax system over recent years will see a 'flattening' of the tax system by 2024. This is expected to result in the following outcomes:

- 94% of taxpayers facing a marginal rate of 30% or less;
- 60% of all personal income tax being paid by the highest earning 20%; and
- an income earner on $200,000 will pay around 10 times more tax than someone earning $45,000.

The current and proposed tax changes are detailed in the table below:

Table 3: New personal tax rates and thresholds

Rate (%)	2017-18 tax thresholds Income range ($)	Current tax thresholds From 1 July 2018 Income range ($)	New tax thresholds From 1 July 2018 Income range ($)	New tax thresholds From 1 July 2022 Income range ($)
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 - 37,000	18,201 - 45,000
32.5	37,001 - 87,000	37,001 - 90,000	37,001 - 90,000	45,001 - 120,000
37	87,001 - 180,000	90,001 - 180,000	90,001 - 180,000	120,001 - 180,000
45	>180,000	>180,000	>180,000	>180,000
Low and middle income tax offset	-	Up to 530	Up to 1,080	-
LITO	Up to 445	Up to 445	Up to 445	Up to 700

Rate (%) From 1 July 2024	New tax thresholds From 1 July 2024 Income range ($)
Tax free	0 - 18,200
19	18,201 - 45,000
30	45,001 - 200,000
45	>200,000
LITO	Up to 700

Source: www.budget.gov.au (BP No. 1)

**The new tax thresholds to be introduced from 1 July 2022 were brought forward and are the tax rates applicable today.*

The government claims that the tax reductions/changes announced in previous budgets are partly designed to 'protect middle-income Australians from bracket creep'. [Remember, however, that the tax cuts are also being delivered for political reasons given that a federal election took place shortly after the delivery of the 2019-20 Budget and another election is due in May 2022]

The government's medium-term fiscal strategy

While the overriding goal is to improve living standards, the government outlines its medium-term fiscal strategy which enables it to better achieve its ultimate goal. Up until 2020, the government felt that the best way to promote Australian living standards was to maintain fiscal discipline and ensure there was a return to budget surplus over time. The key elements of which included a commitment to reducing the government's share of the economy over time in order to free up resources for private investment, as well reducing government expenditure (as a proportion of GDP) over time and strengthening the government's balance sheet. The overriding emphasis was clearly budget repair/fiscal consolidation. Accordingly, the medium-term fiscal strategy at the time was to *achieve budget **surpluses**, on average, over the course of the economic cycle*.

However, the arrival of Covid-19 and the 2020 recession caused the government to focus less on fiscal consolidation and more on the need to repair the economy. The **medium-term fiscal strategy was changed to '***achieve budget **balance**, on average, over the course of the economic cycle*. The medium-term fiscal strategy was supplemented by the temporary **COVID-19 Economic Recovery Plan**, which focused on achieving a strong recovery to quickly reduce the unemployment rate. It intended to achieve this via:

- allowing the budget's automatic stabilisers to operate, to support AD;
- temporary, proportionate and targeted fiscal support (e.g. tax measures that incentivise private sector investment);
- structural reforms to improve the ease of doing business and increase the economy's long-term growth potential; and
- continuing to improve the efficiency and quality of government spending.

The government claimed that the 'COVID-19 Economic Recovery Plan' would remain in place until the unemployment rate is at pre crisis levels [i.e. approximately 5%] or lower. Given that the pace of economic recovery over the past year has been faster than anticipated, and unemployment has fallen towards 4%, the government has switched its attention away from emergency fiscal support of the economy to what it refers to as 'the second phase' of its economic and fiscal strategy. One which involves slowly withdrawing support for the economy over time and allowing the budget deficit to reduce over time, with the longer-term goal of 'reducing debt and rebuilding fiscal buffers'. This is consistent with achieving a budget balance, on average, over the course of the economic cycle and helps to ensure that Australia is better able to respond to economic shocks (such as COVID-19, the floods and global conflicts) in the future.

'The Government has transitioned to the medium-term phase of the Economic and Fiscal Strategy in light of the strength of the recovery and having achieved the objective of low unemployment. The time for emergency fiscal support has passed and it is appropriate for fiscal settings to normalise with a focus on growing the economy in order to stabilise and reduce debt.'

Source: www.budget.gov.au/bp1_2022-23 Statement 3

In the 2022-23 Budget, the strategy has been re-worded to place greater emphasis on the need to reduce government debt levels. Today, the medium term fiscal strategy is couched in the following terms:

'Over the medium term, the fiscal strategy will be focused on growing the economy in order to stabilise and reduce debt. This underlines the commitment to budget and balance sheet discipline and provides flexibility to respond to changing economic conditions. The Strategy is underpinned by the following elements:

- *stabilising and then reducing gross and net debt as a share of the economy*
- *targeting **a budget balance, on average, over the course of the economic cycle** that is consistent with the debt objective. This will be achieved by:*
  - ***controlling expenditure growth**, while maintaining the efficiency and quality of government spending and guaranteeing the delivery of essential services*
  - ***supporting revenue growth** through policies that drive earnings and economic growth, while maintaining a sustainable tax burden consistent with a tax-to-GDP ratio at or below 23.9 per cent of GDP*
  - *using the Government's balance sheet to **support productivity-enhancing investments** that build a stronger economy, support private investment and create jobs*
  - *ongoing **structural reforms** to boost economic growth.'*

The economic rationale for returning the budget to surplus – the argument for fiscal consolidation.

Fiscal consolidation refers to the government consolidating its finances by returning the budget to surplus (consistent with its fiscal strategy) and therefore enjoying the economic benefits this provides. The potential for a budget surplus to have expansionary effects was briefly discussed earlier in relation to the downward pressure a surplus places on interest rates and the stimulus this gives to Investment and AD over the longer term. Other economic arguments to support a return to surplus include the following:

- A surplus is consistent with the government's medium-term fiscal strategy, facilitating debt reduction and helping to buffer Australia against future economic decline
- A surplus helps to generate greater international investor confidence in the Australian government finances thereby preserving Australia's excellent AAA credit rating and reducing the cost of future debt issues
- A surplus allows the cyclical component of the budget to do its job of automatically buffering the economy when economic growth declines in the future
- A surplus allows monetary policy to better manage the economy (particularly the rate of inflation) as the RBA can loosen policy with less fear about its inflationary effects
- A surplus is usually a sign of strength and boosts confidence which further stimulates economic activity.

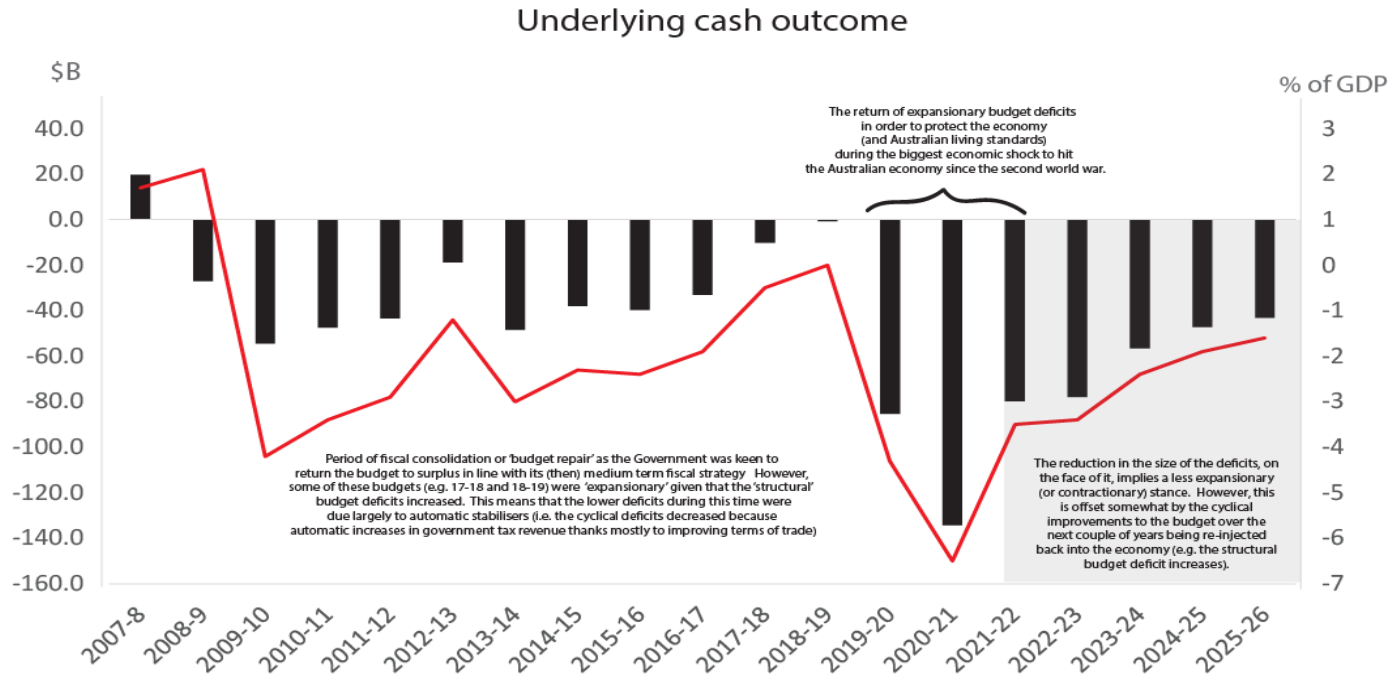
Exam Tip: In the 2018 examination, students struggled with Q4c (average score of 43%) which effectively asked students to outline the economic rationale for returning the budget to surplus. This was virtually identical to Q2b of the 2011 exam that was equally troublesome for students. In both cases, students misread the question and outlined 'how the government could return the budget to surplus' or outlined 'the likelihood of returning the budget to surplus'. It was also common for students to confuse the budget deficit with the current account deficit. Students should ensure that they understand precisely what is being asked in the event that a similar question surfaces on this year's exam.

Exam Tip: Question 2c of the 2011 examination required students to explain two government policy actions that *might* be used to return the budget to surplus. This type of question could resurface this year and it is important not to make the mistakes of those in the past. The use of the terms 'government policy actions' is prone to confuse students into thinking that they need to talk about two different arms of policy (e.g. monetary and budgetary policies). This was not a requirement of the question and makes it difficult to answer the question effectively. Instead, students simply needed to focus on two specific budgetary policy actions or measures (such as raising particular tax rates or reducing government expenditure, such as welfare). The use of the word 'might' in the first sentence also makes it easier to respond as students were not required to focus on actual policy initiatives (although reference to actual policy initiatives was desirable). Finally, it was tempting to make reference to increases in government spending on things like infrastructure in order to boost Aggregate Supply and economic growth. Whilst this does have the capacity to return the budget to surplus in the long term (via automatic stabilisers), an omission of any reference to the short term impact would be costly.

Recent budgetary policy stances

You should recall that the current government's *medium-term fiscal strategy* is to achieve budget balance, on average, over the course of the economic cycle. This strategy involves automatic stabilisers being allowed to push the budget back towards surplus as economic growth increases in the future and for any surplus to fall as the economy enters its next downturn in the future. The relatively large budget deficits that have been delivered since 2019-20 (due to the combination of cyclical and structural stabilisers) are clear examples of the budgetary policy stance being expansionary for recent budgets – ones that have been designed to stimulate economic growth and reduce unemployment.

The actual and estimated budgets since 2007-8 are highlighted in the chart below.



The movement from surplus to deficit and then back towards surplus reflects the cyclical nature of the budget, with a strong surplus when the economy was going well (i.e. up to 2007-8) being replaced by deficits when the economy entered a downturn (i.e. after 2007-8 following the effects of the global financial crisis and again over 2020-21 following the COVID-19 induced recession). The cyclical changes in the budget outcome over this period were mostly supported by structural changes (e.g. tax relief and increased discretionary spending) that further helped the budget to stabilise the economy. Between 2013-14 and 2018-19, the budgets generally became less expansionary (or even contractionary) in nature, evidenced by lower budget deficits (and the expected return to surplus) as the government was keen to consolidate its finances (i.e. pursue fiscal consolidation) and allow monetary policy to focus more on economic stabilisation. However, periods of below trend rates of growth, caused by the significant fall in the terms of trade (between 2011 and 2016), caused automatic stabilisers to increase budget deficits above that which would have otherwise occurred (i.e. the government deliberately allowed automatic stabilisers to buffer or support the economy). In addition, the few budgets leading into 2019-20 were less aggressive in their attempt to achieve fiscal consolidation, with a number of expansionary or stimulus measures introduced, particularly the 2019-20 'election budget'. The rationale for the stimulatory measures pre-2020 was partly economic, as the government was keen to support a sluggish economy, and partly political, particularly given the unpopular contractionary 2014-15 Budget (which contained a number of contractionary initiatives that did not receive Senate approval) as well as the need to 'win votes' in both the previous 2016 election and the later 2019 election. From 2019-20, budgetary policy became highly expansionary, evidenced by very large budget deficits as the government departed from its previous strategy, which centred around fiscal consolidation, and became more concerned about economic recovery.

The most recent budgets

The most recent **2022-23 Budget** was delivered earlier than normal in March 2022 (so as to make way for the federal election in May 2022). On the face of it, this Budget appears to be mildly less expansionary (or contractionary) given that there is expected to be a small reduction in the size of the budget deficit from $79.8 billion for 2021-22 to $78B for 2020-23. However, the estimated deficit would have been significantly smaller than the previous year's deficit (and therefore more contractionary) were it not for the additional $24B worth of additional stimulus measures (both on the tax and expenditure sides) introduced in this Budget. This means that the size of the structural deficit increased in the 2022-23 Budget, making it an expansionary budget. Another way to examine this is to focus on the cyclical improvements to the budget that are anticipated for 2022-23 as a consequence of the faster than expected economic recovery and the associated acceleration in income tax receipts and reduction in welfare payments. The estimated deficit for 2022-23 would have automatically fallen to approximately $54B if the government made no structural changes to the Budget (i.e. if it introduced no discretionary stabilisers in the 2022-23 Budget). The fact that the government delivered an estimated deficit of approximately $78B (instead of the $54B that would otherwise have occurred) means that the budgetary policy stance is expansionary for 2022-12.

Similarly, the 2021-22 Budget was also expansionary, despite the fall in the budget deficit from the previous year. This is because the previous 2020-21 budget deficit was inflated by more than $100B of temporary measures (e.g. Jobkeeper and the Coronavirus supplement to Jobseeker) that were always earmarked as temporary measures to endure only for 2020-21. In addition, the cyclical improvements to the budget outcome

for 2021-22 ($66B) have largely been injected back into the economy (to the tune of approximately $40B) resulting in a larger structural budget deficit for 2021-22.

The 2021-22 Budget followed a very late **2020-21** Budget that was delivered only 7 months earlier on the 6th of October 2020 and the **2019-20 Budget** was delivered one year earlier in late April 2019. This means that since mid-April 2019, the government has handed down four budgets, all of which have been expansionary. Importantly, however, a number of the initiatives announced during 2020 were introduced outside the normal budget timeframes (i.e. annually in April/May) and delivered as stimulus packages containing **discretionary budgetary policy measures** worth more than $200B that were primarily included in the budget figures for 2019-20 and 2020-21. They were primarily delivered via the following three separate stimulus packages and are summarised under the heading *'A selection of budgetary policy initiatives announced in the October 2020-21 Budget or via the stimulus measures introduced during 2020'.*

Exam Tip: Student should appreciate that the ability to introduce additional stimulatory measures during emergencies is a strength of budgetary policy because typically the Senate will support additional spending measures when the economy is hit with unforeseen events like Covid!

A selection of budgetary policy initiatives announced in the 2022-23 Budget (March 2022)

- An increase in the low and middle income tax offset (LMITO) providing an additional $420 for low and middle income earners
- A $250 **cash payment** for eligible pensioners and welfare recipients
- A 50% **reduction in excise** on fuel (from $0.44 per litre to $0.22 per litre)
- A **Technology Investment Boost** for small businesses via a 120% tax deduction on business expenses that support digital uptake
- A **Skills and Training Boost** for small businesses via a 120% tax deduction on the cost of external training courses
- a further investment of $2.8 billion over five years to **upskill apprentices** (including the development of the new **Australian Apprenticeships Incentive Scheme**)
- Spending $46.8m to establish the **ReBoot** scheme that is designed to create a pathway to employment and training for young Australians at high risk of becoming long term unemployed
- The creation of a $2.2B **University Research Commercialiaation Action Plan** Devoted to research in clean energy, medical products, defence and other high priority manufacturing areas
- Investing a further $328M in the pre-announced **Modern Manufacturing Strategy** that supports in high-value and high-priority areas involving the adoption of innovative and new technologies
- Investing $200M in the Regional Accelerator Stream of the **Supply Chain Resilience Initiative** that will assist regional businesses to address supply chain vulnerabilities as well as additional funding for the CSIRO
- Spending $346M over five years to introduce an enhanced **Paid Parental Leave Scheme**
- Committing $56M to **support women** entering a greater array of occupations, Including trade occupations and fields within STEM (Science Technology Engineering and Maths)
- Spending $60 million on the **Tourism Marketing Recovery Plan** to attract more international tourists to Australia
- Spending $76 million on the **Consumer Travel Support Program** that provides assistance to travel agents and tour arrangement service providers (helping them to respond to rising demand for international travel)
- Committing to an increase in the lending capacity of the National Housing Finance and Investment Corporation (NHFIC) in order to increase the **supply of affordable dwellings** for vulnerable Australians
- Expanding the Government's **Home Guarantee Scheme (HGS)** by 50,000 places to support first home buyers in their quest to enter the housing market
- Spending an additional $6B on **disaster relief** in relation to the floods in parts of QLD and NSW
- Spending $7B in 'transformational **infrastructure** to help Australia push into new frontiers of production and growth', including infrastructure that unlocks the Northern Territory's exports through Darwin's gateway to Asia
- Additional spending of $17.9B committed to **road, rail and community infrastructure projects** across Australia, including $3.1B for the Melbourne intermodal terminals that are designed to boost productivity and take trucks off Victorian roads as well as $3.7B for faster rail projects in NSW and QLD.
- Spending an additional $812M on the new **Connecting Regional Australia** initiative that is designed to address mobile blackspots and improve the overall resilience of Australia telecommunications infrastructure
- the provision of an additional $600M to improve **productivity in the agricultural, fisheries and forestry sectors**, which includes assistance to farmers to help diversify income streams and better protect the environment
- Spending an additional $468 million to implement the Government's response to the Royal Commission into **Aged Care** Quality and Safety (including spending on pharmacy services for aged care facilities
- Committing $1.3B to support delivery of the new **National Plan to End Violence against Women and Children**
- Committing $228M to improve the **educational outcomes** of Australian school students
- Committing an additional $1.7B to improve the **affordability of child care** for about 250,000 families by removing the annual cap on the Child Care Subsidy and increasing the rate for families with two or more children in care
- Committing further funding to **protect the environment**, such as $1B to promote the health and resilience of the Great Barrier Reef and $200M to support an expansion of the Environment Restoration Fund
- Investing a further $839.9 million to maintain Australia's **scientific leadership in Antarctica**
- Committing funding designed to expand **Australia's defence capabilities**, including an increase in the defence workforce by 18,500 personnel (by 2040) and investing in new defence assets, such as new tanks and re-supply vehicles
- Investing $10B (over 10 years) in Australia's intelligence and cyber capabilities via the **Resilience, Effects, Defence, Space, Intelligence, Cyber and Enablers (REDSPICE) package.**

A selection of budgetary policy initiatives announced in the 2021-22 Budget (May 2021)

- An additional $7.8 billion in **tax cuts** for low and middle-income earners, worth up to $1,080 for individuals or $2,160 for dual income couples via the extension of the low and middle income tax offsets
- An additional $15.2 billion over ten years to fund **infrastructure** commitments, including $2.0 billion to support delivery of the Melbourne Intermodal Terminal and $2.6 billion for the North-South Corridor — Darlington to Anzac Highway in South Australia
- Reducing the **tax rate** for small and medium companies, from 30 per cent in 2014-15 to 25 per cent from 1 July 2021
- Extension of the temporary full expensing (**instant asset write off**) of business assets for an additional year until 30 June 2023
- Investing in the settings and **skills** to grow Australia's digital economy by delivering a comprehensive Digital Economy Strategy and investing $1.2 billion in Australia's digital future
- To protect Australian farmers from pest and weed outbreaks, the Government is committing $414.5 million to enhance Australia's biosecurity which should help to boost farm **productivity** and output
- $1.2 billion **support for aviation and tourism support** (e.g. subsidised airfares and financial support to travel agents)
- **Support for education** via an additional 5,000 Commonwealth supported short course places in 2021-22 for non-university higher education providers, extending fee relief for international education providers and $53.6 million to support Australian education providers most reliant on **international students**
- The Government is also continuing to invest record funding in **Australian schools** as part of its ongoing commitment to education. Recurrent annual funding provided by the Government for schools has increased from $13.8 billion in 2014 to $23.4 billion in 2021
- Approximately $300 million to support the successful re-opening of Australia's **creative and cultural sector**
- Extension of **JobTrainer** until 31 December 2022 and investing an additional $500 million to expand the JobTrainer Fund
- investing an additional $2.7 billion to extend and expand the Boosting Apprenticeship Commencements (BAC) **wage subsidy**
- **Wage subsidies** available through jobactive, Transition to Work and ParentsNext will be increased to $10,000 and the Local Jobs Program will be expanded and extended to 51 employment regions
- The Government is investing in women's economic outcomes with a $1.9 billion **Women's Economic Security Package**. This package includes $1.7 billion over five years for an increased **Child Care Subsidy** for families with second and subsequent children aged five years and under
- $9.5 billion to enhance the **social security safety net** by increasing support for unemployed Australians while strengthening their **obligations** to search for work
- Measures to **support home ownership**, such as establishment of the Family Home Guarantee to support single parents with dependants (predominantly women) to enter or re-enter the housing market sooner, with a deposit of as little as 2 per cent and the temporary extension of the First Home Loan Deposit Scheme and the First Home Super Saver Scheme to support first home buyers
- Investing a further $1.9 billion in the **COVID-19 vaccination roll-out**
- Providing $17.7 billion to **fund aged care reforms** and ensure older Australians are treated with respect, care and dignity
- $2.3 billion for improved and expanded **mental health care** and suicide prevention
- Supporting people with disability by **fully funding the NDIS** with an additional $13.2 billion
- The Government will provide $615.5 million over six years for the Preparing Australia grants program to support **natural disaster** risk reduction activities
- Provision of $3.5 billion to help ensure reliable **water supply** in regional Australia, including $1.3 billion investment in off-farm irrigation **infrastructure**
- Investing $1.6 billion to fund priority **clean energy technologies**, including a $1.2 billion Technology Co-Investment Facility being established to invest in priority technologies (e.g. $539.2 million for hydrogen and carbon capture use and storage projects)
- $1.3 billion over ten years to the Australian Security Intelligence Organisation (ASIO) to further boost its ability to **protect Australia** and Australians from threats to our **security**

A selection of budgetary policy initiatives announced in the October 2020-21 Budget or via the stimulus measures introduced during 2020.

Stimulus package No. 1 (12th March 2020)

The government announced a $17.6 billion economic plan to support the Australian economy. The package was focused on keeping Australians in jobs and helping small and medium sized businesses to stay in business. The package had four parts:

Supporting business investment

- $700 million to increase the instant asset write off threshold from $30,000 to $150,000 and expand access to include businesses with aggregated annual turnover of less than $500 million (up from $50 million) until 30 June 2020. For example, assets that may be able to be immediately written off are a concrete tank for a builder, a tractor for a farming business, and a truck for a delivery business.

- $3.2 billion to back business investment by providing a time limited 15 month investment incentive (through to 30 June 2021) to support business investment and economic growth over the short term, by accelerating depreciation deductions. Businesses with a turnover of less than $500 million will be able to deduct an additional 50 per cent of the asset cost in the year of purchase.

Cash flow assistance for small and medium sized business

- $6.7 billion to Boost Cash Flow for Employers by up to $25,000 with a minimum payment of $2,000 for eligible small and medium-sized businesses. The payment will provide cash flow support to businesses with a turnover of less than $50 million that employ staff, between 1 January 2020 and 30 June 2020. The payment will be tax free. This measure will benefit around 690,000 businesses

employing around 7.8 million people. Businesses will receive payments of 50 per cent of their Business Activity Statements or Instalment Activity Statement from 28 April with refunds to then be paid within 14 days.

- $1.3 billion to support small businesses to support the jobs of around 120,000 apprentices and trainees. Eligible employers can apply for a wage subsidy of 50 per cent of the apprentice's or trainee's wage for up to 9 months from 1 January 2020 to 30 September 2020. Where a small business is not able to retain an apprentice, the subsidy will be available to a new employer that employs that apprentice.

Stimulus payments to households to support growth

- $4.8 billion to provide a one-off $750 stimulus payment to pensioners, social security, veteran and other income support recipients and eligible concession card holders. Around half of those that will benefit are pensioners. The payment will be tax free and will not count as income for Social Security, Farm Household Allowance and Veteran payments. There will be one payment per eligible recipient. If a person qualifies for the one off payment in multiple ways, they will only receive one payment.

Assistance for severely-affected regions

- $1 billion to support those sectors, regions and communities that have been disproportionately affected by the economic impacts of the Coronavirus, including those heavily reliant on industries such as tourism, agriculture and education. This will include the waiver of fees and charges for tourism businesses that operate in the Great Barrier Reef Marine Park and Commonwealth National Parks. It will also include additional assistance to help businesses identify alternative export markets or supply chains. Targeted measures will also be developed to further promote domestic tourism. Further plans and measures to support recovery will be designed and delivered in partnership with the affected industries and communities.

Stimulus package No. 2 (22nd March 2020)

The government released the second stage of its economic plan with a further $66B to cushion the economic impact of the coronavirus and help build a bridge to recovery. This includes:

Coronavirus supplement

- The Government is temporarily expanding eligibility to income support payments and establishing a new, time-limited (6 months) Coronavirus supplement to be paid at a rate of $550 per fortnight. This will be paid to both existing and new recipients of the JobSeeker Payment, Youth Allowance jobseeker, Parenting Payment, Farm Household Allowance and Special Benefit.

Payments to support households

- In addition to the $750 stimulus payment announced on 12 March 2020, the Government will provide a further $750 payment to social security and veteran income support recipients and eligible concession card holders, except for those who are receiving an income support payment that is eligible to receive the Coronavirus supplement.

Early release of superannuation

- The Government will allow individuals in financial stress as a result of the Coronavirus to access up to $10,000 of their superannuation in 2019-20 and a further $10,000 in 2020-21.

Boosting Cash Flow for Employers

- The Government is providing up to $100,000 to eligible small and medium sized businesses, and not-for-profits (including charities) that employ people, with a minimum payment of $20,000. These payments will help businesses' and not-for-profits' cash flow so they can keep operating, pay their rent, electricity and other bills and retain staff. Under the enhanced scheme from the first package, employers will receive a payment equal to 100 per cent of their salary and wages withheld (up from 50 per cent), with the maximum payment being increased from $25,000 to $50,000. In addition, the minimum payment is being increased from $2,000 to $10,000.

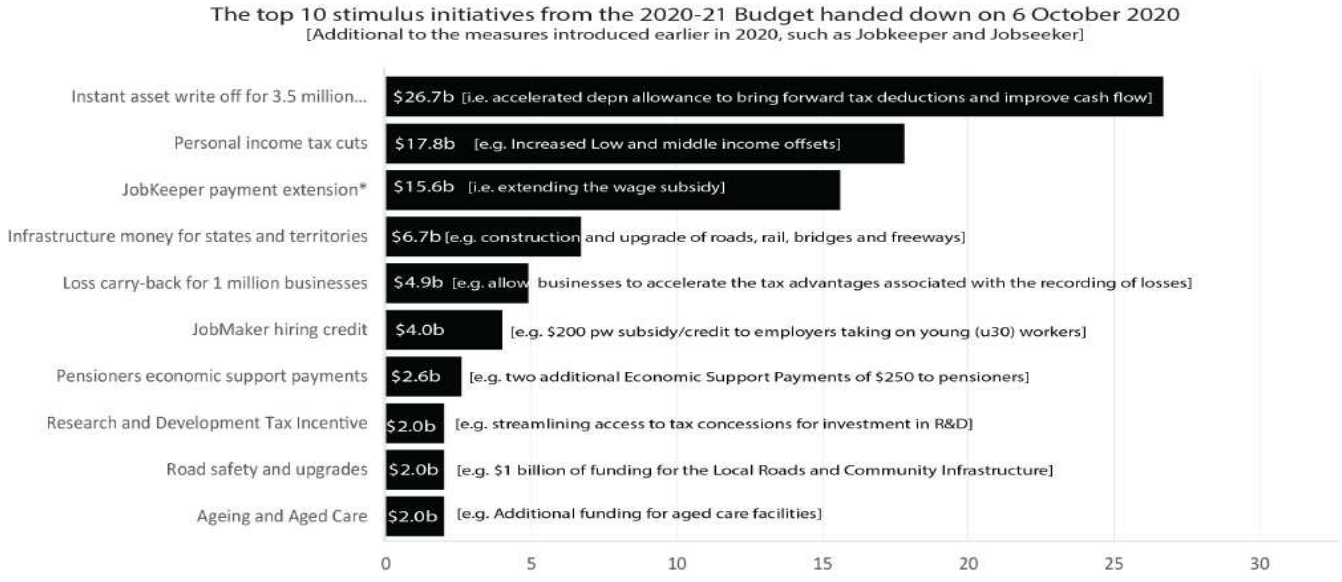
Stimulus package No. 3 (30th March 2020)

The government provided a temporary (6 months but extended to 12 months) wage subsidy referred to as the JobKeeper payment to around 6 million workers who received a flat payment of $1,500 per fortnight through their employer, before tax. The JobKeeper payment was designed to keep Australians in jobs and was open to businesses that experienced a significant drop in revenue (more than 30%) caused by the coronavirus. The payment provided the equivalent of around 70 per cent of the national median wage and helped to ensure that eligible employers and employees stayed connected while some businesses moved into hibernation. The many businesses facing reduced sales did not have to make their workers redundant because the costs of their wages were being met by the government. This policy was changed later in the year because some part time and casual workers actually received a pay rise which caused unintended consequences such as some people on Jobkeeper not wanting to find alternative work that would effectively reduce their income, making it hard for some businesses to find new employees even during a time of rising unemployment. In September 2020 those working more than 20 hours received a reduced $1200 per fortnight and those working less than 20 hours a week received $750 a fortnight.

Exam Tip: Typically, the provision of a (wage) subsidy for employers is provided by the government in order to generate aggregate supply benefits to the economy (e.g. by reducing costs of production and increasing the ability and willingness of businesses to supply goods and services). While this generally remains true in relation to the Jobkeeper wage subsidy, it was largely designed to lift household income and support consumption spending (and therefore AD). In this respect, it is fair to say that the measure offers support to AD and AS in the economy. The same can also be said about many of the other measures that were designed to stimulate business investment. As a consequence, these business support measures can be considered in the context of key knowledge from Unit 4 AOS 1 (AD policies) or AOS 2 (AS policies). Importantly, students need to be discriminating when responding to examination questions. They must focus on the AS side benefits if a question relates to AS policies (e.g. linking to costs of production/productivity, etc) and AD side benefits if a question relates to AD policies (e.g. linking to Investment and AD).

Exam Tip: To illustrate the above Exam Tip, Q4d of the 2018 exam required students to 'examine the likely effect of one budgetary policy tax initiative announced in the 2018–2019 Budget on AD and on the achievement of one of the government's domestic economic goals.' While students were free to focus on any BP initiative, those identifying 'recent tax cuts' as the chosen initiative erred by making no reference to the impact on AD. Instead, they tended to focus exclusively on the AS benefits of tax cuts, making it difficult to achieve full marks.

Following on from the three stimulus packages delivered during the year, the government then delivered the 2020-21 Budget in early October 2020. The key stimulus measures introduced in that Budget are highlighted in the chart below.



A selection of budgetary policy initiatives announced in the 2019-20 Budget (April 2019)

- Extending the **'Personal Income Tax Plan'** to provide further reductions in individual income tax rates, including immediate tax relief to low-and middle-income earners of up to $1,080 for single earners or up to $2,160 for dual income families (via the low and middle income tax offsets) as well as increasing the threshold of the 19 per cent tax bracket from $41,000 to $45,000 by 2022-23 and reducing the 32.5% rate to 30% for taxable incomes between $45,000 and $200,000 on 1 July 2024.
- Extending and expanding the ATO's **Tax Avoidance Taskforce**, which will help ensure multinationals, trusts and high wealth individuals pay the right amount of tax in Australia - estimated to raise $4.6 billion in additional tax liabilities over time.
- Further **reducing taxes for small and medium-sized businesses** by increasing the instant asset write-off threshold to $30,000 (from $20,000) and expanding access to it alongside fast-tracking the company tax rate cut to 25% for small and medium sized companies.
- Establishing the $2 billion **Australian Business Securitisation Fund**, which will enhance small businesses' access to finance.
- **Boosting infrastructure** spending to $100 billion over the next decade, on assets such as a $2 billion contribution to the Melbourne-Geelong fast rail project; $15.6 billion for additional road and rail projects across the country; and $500 million for a Commuter Car Park Fund to improve access to public transport by funding park and ride facilities at rail stations.

- The **Delivering Skills for Today and Tomorrow package** invests $525.3 million in vocational education and training, including 80,000 new apprenticeships and employer payments/subsidies ($4,000).
- Providing **more affordable access to medicines** by increasing the list of items on the Pharmaceutical Benefits Scheme (PBS).
- The provision of $736.6 million over seven years for **mental health services**, including a commitment of $461.1 million for youth mental health.
- Creating **new drought resilience and emergency response funds** that are designed to support Australians during drought and natural disasters (e.g. $6.3 billion of assistance and concessional loans).
- Spending $3.5 billion in a new **Climate Solutions Package**, including a $2 billion Climate Solutions Fund that is designed to support projects that will diversify regional economies and help reduce emissions by an anticipated 103 million tonnes by 2030.
- The provision of $284 million for a one-off, income tax exempt payment to over 3.9 million Australians to assist with **power bills and cost of living pressures**.

Exam Tip: With some government initiatives, it will be very difficult to establish a direct link to one of the three domestic macroeconomic goals listed in the Study Design, but much easier to establish a link to 'living standards'. For example, more funds committed for the strengthening of national security or defence might create more jobs and assist with Full Employment – this is clearly not the rationale behind the initiative. However, this initiative is directly designed to re-allocate resources to areas of national interest and address a market failure (without governments, the private sector will be unlikely to provide national security or defence services). Accordingly, if an exam question directed students to provide an example of a government policy that is *designed to* reduce unemployment, it could be inaccurate to refer to an increase in spending on national security/defence. This is because the spending is designed to strengthen security/defence rather than create jobs, even though job creation is a useful by-product of the policy initiative.

The effect of budget initiatives from the past two years on the Australian Government's domestic macroeconomic goals

In this section will examine how the budget has been used to assist in the achievement of:

- Low inflation
- Full Employment
- Economic Growth

Exam Tip: Technically, the past two years encompasses budget initiatives from the 2020-21 Budget handed down in October 2020, as well as the BP measures introduced during 2020 (e.g. the stimulus packages 1-3) and the 2021-22 Budget delivered in May 2021. It is important to note that students are not expected to be aware of all of the initiatives delivered in these budgets. Instead, students should be in a position where they can outline, describe, explain, discuss, analyse or evaluate a few 'recent' budgetary policy initiative in terms of the impact on the government's macroeconomic goals and living standards.

The simultaneous achievement of Price Stability, Strong and Sustainable Economic Growth and Full Employment means that we have achieved ***stability in the level of domestic economic activity.*** This is also referred to as either ***internal stability*** or ***domestic economic stability***. However, always remember that the government's overriding goal is to achieve the best (or most efficient) allocation of the nation's resources. This occurs when the nation's resources are used in such a way that national welfare and living standards are maximised – both in material and non-material terms. Accordingly, *every* budgetary policy initiative will, in some way, change the allocation of resources in an effort to reach the ideal outcome (or the pareto optimal allocation of resources). Some initiatives, such as many environmental policies, are designed to improve the allocation of resources via their impact on the goal of sustainable economic growth. However, others such as increased spending on defence and national security, are designed to improve the allocation of resources by rectifying market failures rather than their impact on the goal of sustainable economic growth.

When examining how budgetary policy can be used to assist with the achievement of the government's goals it is useful to focus on two things:

1. **specific initiatives** that could be implemented (e.g. reducing a particular tax rate or introducing a new tax, such as the reductions in some taxes in recent budgets); and
2. changes to the **overall budget outcome** (e.g. targeting for a higher or lower surplus).

The following section provides you with examples of how particular budgetary policy initiatives from each of the last three budgets can assist in the achievement of each goal. [Note that no attempt has been made below to distinguish between Aggregate Demand or Supply initiatives. The section is purely designed to provide students with examples to draw upon if asked to highlight how budget measures can assist with the achievement of a particular domestic economic goal. As a general guide, BP initiatives that are designed to assist with the achievement of low inflation will be 'supply side' driven. Supply side BP initiatives will be examined more closely in Area of Study 2]

From the 2022-23 Budget

- ***Full employment:*** The cash handouts provided to pensioners and welfare recipients (in addition to the increase in the LMITO) will raise disposable incomes, encouraging more Consumption demand which leads to an increase in real GDP, a higher demand for labour, more employment and a lower unemployment rate,

- ***Strong and sustainable Economic growth:*** The accelerate depreciation allowances provided to small businesses who invest in digital technologies will help to stimulate Investment, AD and real GDP.
- ***Low inflation***: The 50% reduction in the fuel excise immediately reduces production costs and allows petroleum companies to reduce the price of petrol, which helps to reduce the rate of growth in the CPI.

From the 2021-22 Budget

- ***Full employment:*** The $7.8B in tax cuts for low and middle-income earners boosts disposable incomes, encouraging more Consumption demand which leads to an increase in real GDP, a higher demand for labour, more employment and a lower unemployment rate,
- ***Strong and sustainable Economic growth:*** The extension of the instant asset write-off provisions will stimulate Investment, AD and real GDP.
- ***Low inflation***: The extension of JobTrainer should help to increase the quality of Australia's human capital, boosting productivity and help to prevent inflation from climbing above 3% once the economy recovers

Exam Tip: Students should note that any initiative that is designed to stimulate AD and economic growth can also be used as an initiative to achieve full employment. Students simply need to establish a connection between real GDP and the rate of unemployment by focusing on the increased demand for labour and greater employment that will typically stem from growth in real GDP.

Exam Tip: Examination questions relating to budgetary policy will sometimes direct students to focus on either the demand or supply side in their responses. Those students who fail to pay close attention to the specific requirements of the question will be at a distinct disadvantage. For example, Q3b of the 2016 exam required students to explain how a change in personal income and company tax influence **aggregate supply** and economic growth. Too many students erred by focusing (exclusively) on the demand side, such as saying that lower (personal) income taxes will stimulate AD, real GDP and economic growth, without paying attention to the supply side benefits that can stem from the greater incentive to work (and/or become entrepreneurial) and the links to productivity/efficiency.

Exam Tip: While students are expected to have a knowledge of specific BP initiaves over the last two years, they are not expected to remember the fine detail contained in all of the measures. However, they will be expected to broadly draw upon some of the recent measures to support their analysis or explanation of how budgetary policy has been used to achieve the domestic macro goals. For example, knowledge of tax breaks given to small businesses in the last two budgets can be used to support an explanation of how the budget can be used to stimulate Investment, AD and Economic Growth. It is unrealistic to expect students to deliver the fine detail relating to how these tax breaks were provided! Although, a reference to the write off of capital asset purchases to the value of $150,000 and the reduction in the corporate tax rate in July 2021 to 25% for small companies would enhance the quality of a response.

From the 2020-21 Budget or stimulus packages 1-3

- ***Full employment:*** The wage subsidy (via the JobKeeper payments) not only ensured that workers 'remained on the books as employees of businesses', it also helped to stimulate Consumption demand in the economy, which supports growth in AD/GDP and helped to further support the demand for labour and employment beyond that which would otherwise have occurred.

Exam Tip: It is worth remembering that the JobKeeper payment, as part of the March 2020 wage subsidy, is strategically designed to prevent the 'recorded level' of unemployment from climbing to historically high levels. It is able to achieve this because employees are kept 'on the books' despite working very few hours (or none at all) during the relevant period. As a consequence, unemployment statistics will be a less useful indicator of both the degree of spare capacity in labour markets and the success of discretionary budgetary measures introduced by the government. A more useful indicator is the labour force underutilisation rate (including measures of unemployment and underemployment), which will rise by much more than the unemployment rate during the coronavirus pandemic.

- ***Strong and sustainable Economic growth:*** $6.7 billion to Boost Cash Flow for Employers by up to $25,000 with a minimum payment of $2,000 for eligible small and medium-sized businesses., which helps to simulate business Investment, AD and economic growth.
- ***Low inflation***: The increase in the instant asset write off threshold from $30,000 to $150,000 should encourage an increase in capital investment which has the potential to boost productivity/efficiency and reduce cost inflationary pressures.

Exam Tip: One could justifiably argue that, in the current climate, the stimulus measures introduced over 2020-21 can actually assist with the achievement of price stability given that inflation has been below or at the lower end of the RBA's target 2-3% range. For example, given that the underlying rate of inflation (trimmed mean) for the year to end March 2021 was 1.1%, one could argue that without the government stimulus measures, the rate of (underlying) inflation could fall dangerously low, even to the point where deflation is recorded. In this context, stimulus measures that stimulate AD and inflation can actually support the achievement of the price stability goal.

Some other important exam tips relating to budgetary policy and the achievement of the government's domestic macroeconomic goals

Exam Tip: When answering questions related to any policies, remember that students who incorporate into their responses a reference to recent policy examples are likely to be rewarded with more marks – ceteris paribus – than those who do not. It is necessary to develop an understanding of some recent budgetary policy measures and how or why they have been introduced. When examining recent budgets, check for measures or initiatives that assist in the achievement of each economic goal, remembering that every BP initiative should be designed to lift material or non material living standards. Notice that in recent exams, many questions have required a knowledge of recent policy initiatives. Those students that have not worked hard to develop an understanding of recent policy use will be at an disadvantage.

Exam Tip: In past exams, many students found it difficult to discuss the likely effects of a bigger budget surplus on full employment. First, don't make the common mistake of discussing how FE is likely to impact on the surplus. Second, don't argue that a surplus means more funds are available for spending *in that year* to create jobs and reduce U/E (why not?). Finally, there are a number of ways to answer the question, with the easiest being to argue that a bigger surplus is likely to be 'contractionary' and therefore is unlikely to assist in achieving FE.

Exam Tip: Students are likely to be asked questions like: 'Discuss how budgetary policy can be used to assist in the achievement of the government's economic growth and full employment goals'. After you demonstrate knowledge of the goals, you will need to fully analyse how these types of measures operate to improve the key variable underpinning the goals – i.e. real GDP and the unemployment rate. Along the way you need to fully explain the 'links in the chain' just as you are required to do for all the demand and supply factors affecting the goals (Unit 3). For example…….. 'lower business tax rates lead to higher levels of Investment which stimulates AD and real GDP, thereby assisting with the achievement of the Economic Growth (EG) goal (which is defined as…….) The resulting higher EG is likely to lift the demand for labour, create employment and reduce the unemployment rate, bringing us closer to Full Employment (which is defined as.....')

Exam Tip: Often examiners will ask questions like 'discuss two examples of budgetary policy actions that have been used over the past year to support 'economic growth and jobs.' Q2c from the 2020 exam was a case in point. It is tempting to think that assessors are only looking for a discussion of the nature of the policy initiative itself, rather than how the initiative works to support growth and jobs. Whilst it is important to show an understanding of the nature of the particular policy initiative, don't overdo it!! Assessors will actually be looking for a clear discussion of how the chosen policy initiative actually supported economic growth and employment!!

Exam Tip: Be careful if you are asked to describe one example of a discretionary budgetary policy that could be implemented to reduce the rate of **structural** unemployment (e.g. 2014 exam). In that exam it was common for students to simply focus on any policy that boosts AD and reduces unemployment without making any attempt to discuss those policies that tackle the underlying causes of structural unemployment. Students should have focused on policies that are designed to improve the skills set of those structurally unemployed, which makes them more employable. For example, funds for re-training of manufacturing workers who have been made redundant over recent years.

Exam Tip: Be careful when examining how a reduction in marginal tax rates is likely to impact upon unemployment. A common mistake is to assert that a lower tax burden will boost employment because more people will seek work. While it is true that more people are encouraged to work or seek employment, this fact will actually serve to increase the unemployment rate in the shorter term, as the participation rate increases. Unemployment may decrease over time if the increased labour supply exerts downward pressure on wages (or lifts labour productivity) and increases the demand for labour. The safer way to start answering a question like this is focus on the 'demand' side and illustrate how lower marginal tax rates work to increase disposable income, increasing C, AD, GDP, EG, D for L and reducing unemployment.

Exam Tip: Be careful when examining how a reduction in welfare payments impacts upon unemployment. Commonly, students will argue that lower welfare payments increases the incentives to work and causes more people to get jobs. As noted in the previous Exam Tip, the increased willingness of people to look for work causes an increase in the participation rate, pushing up the unemployment rate. Again, it is only if the increased labour supply exerts less pressure on RULCs and induces an increase in the demand for labour that the unemployment rate will come down. Indeed, some may even argue that lower welfare payments increases unemployment via the negative impact on Consumption.

Exam Tip: When relating budgetary policy measures to inflation it is easy to make the mistake of thinking that any factor causing an increase in AD will be inflationary and jeopardise the achievement of price stability (assuming that inflation is at or around 3%). Whilst it is true that an increase in I or G2 will add to 'demand inflationary pressure' in the short term, this is likely to be reversed if and when the 'investment' results in an increase in 'aggregate supply' or 'productive capacity'. Further, if we are below the inflation target, then additional stimulus is likely to raise inflationary pressures and may push us back into the target range of 2-3% CPI (and therefore assist with the achievement of price stability).

Budgetary policy, living standards, and efficiency in the allocation of resources

Remember that the ultimate goal of all policies is to improve the efficiency in the allocation of resources (***allocative efficiency***) so that living standards or welfare are maximised. In this respect, initiatives designed to lift economic growth, reduce unemployment, control inflation, improve equity and achieve external stability are all intermediate goals that are necessary if Australia is to experience an increase in general living standards. Arguably, every single measure announced in the budget is unlikely to exist if a proper functioning government did not believe it would result in our resources being shifted around in such a way that our collective welfare or living standards is improved.

An alternative way to think about how the budget impacts on living standards is to tap into your knowledge of Unit 3 material, in particular, ***market failures.*** Indeed, many of the initiatives that are announced and delivered through government (Federal and State) budgets occur in an effort to address *market failures*. For example, a handful of recent initiatives that attempt to address (in full or in part) failures in the market include:

- Funding for national security and defence;
- Funding to improve the safety of Australian communities;
- Amending S46 of the Competition and Consumer Act to prevent abuse of market power;
- Increased funding for aged care;
- Flood and cyclone assistance as well as funding for drought relief;
- Maintaining the level of Official Development Assistance (foreign aid);
- Funding for border protection and/or refugee assistance;
- Funding to expand drugs listed on the Pharmaceutical Benefits Scheme;
- Funding to support home ownership and address the housing affordability issue affecting many Australians;
- Funding for environmental measures (including direct action initiatives and the recent 'Climate Solutions Package');
- Increased funding for health (including mental health) and education;
- The recent increases in the excise on tobacco;
- Plain cigarette packaging laws;
- Funding for the national disability insurance scheme;

Any supply side budgetary policies that are designed to improve productivity or reduce costs of the private sector (such R&D tax concessions, spending on national infrastructure, privatisation of GBEs, as well other microeconomic reforms implemented through the budget) will assist in lifting ***technical*** and ***dynamic efficiency***. An improvement in these types of efficiency will necessarily result in a more efficient allocation of resources and improved living standards.

Budgetary policy measures involving major shifts in the savings and spending patterns of the public and private sectors (e.g. superannuation incentives and the investment in the *Future Fund*) should also improve ***intertemporal efficiency*** and, by extension, result in a more efficient allocation of resources and improved living standards in the long run. This also applies to those policies that are designed to achieve more sustainable development over time, such as measures to address climate change which result in slower growth today in exchange for stronger growth in the long term.

When we examine the most recent budgets, you should discover that any initiative or measure that you could not relate directly to other economic goals, can be related to the overriding goal of governments – to boost national living standards or welfare.

Budgetary policy: external stability and the distribution of income

Budgetary policy plays an important role in helping to achieve the government's goals of external stability and greater equity in the distribution of income. However, the current VCE Economics Study Design no longer requires students to demonstrate an understanding of how the policies are used, or have been used, to tackle these goals. Instead, the focus from 2017 onwards is the policy impacts on the domestic macroeconomic goals of strong and sustainable economic growth, full employment and low inflation (price stability).

Strengths and weaknesses of Budgetary Policy

Some **strengths** of budgetary policy include the following:

- it can target particular sectors or industries of the economy (unlike monetary policy);
- it can target a greater range of economic goals better than monetary policy;
- the impact lag (the time it takes for the implemented policy to change economic activity) is relatively short compared to monetary policy;
- there are many parliamentary 'checks and balances' in place to help reject any policy measures that are 'ill-designed' (e.g. the budget Bill must pass through both houses of parliament);
- the 'budget' is open to significant public scrutiny, helping to make policy makers more accountable and transparent, making it 'less likely' (but not impossible) that bad policy decisions are made; and
- it can be very responsive to the needs of the electorate, which is a feature of our democratic system of government, making it more likely that average living standards are improved.
- In times of economic emergency "mini" budgets can be initiated such as those last year to stimulate the economy which are likely to be passed by the Senate due to their urgency which typically prevents politics interfering.

Exam Tip: The VCE Economics Study Design requires students to have a ***knowledge of*** the strengths and weaknesses of BP to achieve the government's domestic macroeconomic goals and how these goals may affect living standards. Remember that a strength of a policy refers to an aspect that makes it a particularly powerful tool (when compared to another policy for example). Similarly, a weakness or constraint of policy refers to an aspect that makes it less effective or powerful. Accordingly, in the event that you are specifically asked to provide a strength or weakness of policy, such as Q2c of the 2021 exam, more is needed than a simple listing of a generic strength and weakness. It is important to link the strength/weakness to how each makes budgetary policy more or less effective at achieving the goal in question. Remember that reference to strengths and weaknesses in this context is not about the success/failure of the policy in achieving a particular goal. Rather it is about what makes the policy particularly potent or otherwise as a tool for governments in achieving particular objectives.

Some **weaknesses** of budgetary policy include the following:

- it can be subject to political hurdles that prevent good policies from being implemented (e.g. parts of the 2016-17 company tax cuts remain blocked in the Senate and might never become law);
- it is prone to political bias, particularly around election time, where bad policy decisions can be made in the process of trying to 'buy' votes;
- the implementation lag can be long (compared with monetary policy) given that the budget Bills must pass through both houses of parliament;
- like all federal government policies, they are weakened by the fact that many policies require state government cooperation (given that State governments have sole or joint control in a number of areas, such infrastructure, health, education, etc). Further, if State governments have different objectives then policy can pull in opposite directions, such as the Victorian State Labour Party raising Stamp Duty and Land Taxes in its own State budget to try and balance its budget which works counter to the Federal Government's efforts to stimulate the economy with tax cuts; and
- *most* budgetary policy initiatives are announced in the annual May budget, resulting in the policy becoming (generally) less responsive to the needs of the electorate.

Exam Tip: When discussing the respective strengths and weaknesses of policies it can be useful to compare and contrast the strengths or weaknesses of one policy relative to another. For instance, saying that budgetary policy is superior to monetary policy in that it can can target particular sectors or problems in the economy. In this respect, one policy's strength becomes another policy's weakness.To illustrate, BP is much more effective at targetting the housing affordability problem because it can focus on both the demand and supply side of the problem (as it attempted to do in the 2017-18 Budget), whereas MP is blunt and one dimensional, limited in its ability to do much more than offer interest rate relief, which only serves to further increase house prices and do little to solve the problem.

REVIEW QUESTIONS 1 – Nature and operation of budgetary policy

1. ***Explain what is meant by budgetary policy.***
2. ***Outline the goals of budgetary policy.***
3. ***List the three major components of government revenue and government expenditure.***
4. ***Distinguish a budget surplus from a budget deficit.***
5. ***Distinguish a headline budget surplus from an underlying budget surplus and identify the underlying and headline budget outcomes for the 2022-23 Budget.***
6. ***Distinguish the 'cyclical' and 'structural' components of the budget.***
7. ***Explain how an 'estimated' budget surplus can become an 'actual' budget deficit.***
8. ***Analyse the hypothetical impact on the budget deficit for 2022-23 if growth in wages is higher than the 3.25% forecast.***
9. ***Analyse the hypothetical impact on the budget deficit for 2022-23 if the terms of trade does not fall by 21.25% as forecasted.***
10. ***Outline how 'bracket creep' can assist with the current government's effort to achieve continuing budget surpluses in the future.***
11. ***Distinguish an 'expansionary' budget from a 'contractionary' one.***
12. ***Outline how the government can finance the estimated $78B budget deficit for 2022-23.***
13. ***Assuming that the budget outcome does return to surplus sometime in the future, outline how the government can use this budget surplus.***
14. ***Describe the relationship between the budget deficit and net government (public) debt.***
15. ***Explain how it is possible for a bigger surplus to be consistent with expansionary budgetary policy.***
16. ***Explain how it is possible for a bigger deficit to be consistent with a contractionary budgetary policy.***
17. ***Outline how the invasion of Ukraine might be influencing the budget outcome for 2021-22. In your answer, make reference to automatic stabilisers.***
18. ***Explain why the 2021-22 Budget has become more expansionary since it was handed down in May 2021. In your answer, refer to both the cyclical and structural components of the Budget as well as the 'structural budget deficit'.***
19. ***Describe the federal government's 'medium-term fiscal strategy' and explain how this strategy is likely to impact on future budget outcomes.***
20. ***Recent budgets have been consistent with the government's medium-term fiscal strategy and simultaneously were expansionary in nature. Discuss.***
21. ***Outline one BP measure from recent budgets that has been designed to influence the Price Stability and Economic Growth.***
22. ***Identify two recent budgetary policy measures that might assist with the achievement of Full Employment.***

23. ***Discuss how drought assistance and increased funding for the National Disability Insurance Scheme (NDIS) can improve Australian living standards.***
24. ***Outline how a reduction in the company tax rate to 25% for smaller companies is likely to impact on Economic Growth and Full Employment.***
25. ***Explain how an increase in the excise on cigarettes and the temporary reduction in excise on fuel are designed to improve living standards.***
26. ***Explain how lower individual tax rates might influence economic growth.***
27. ***Discuss whether increased funding for defence and national security in recent budgets can both stimulate employment growth and enhance Australian living standards.***
28. ***Without using the same examples provided in earlier responses, provide two examples of policies that have been introduced in the 2022-23 Budget that are designed to boost Australian living standards.***
29. ***Discuss two strengths and two weaknesses associated with the use of budgetary policy.***

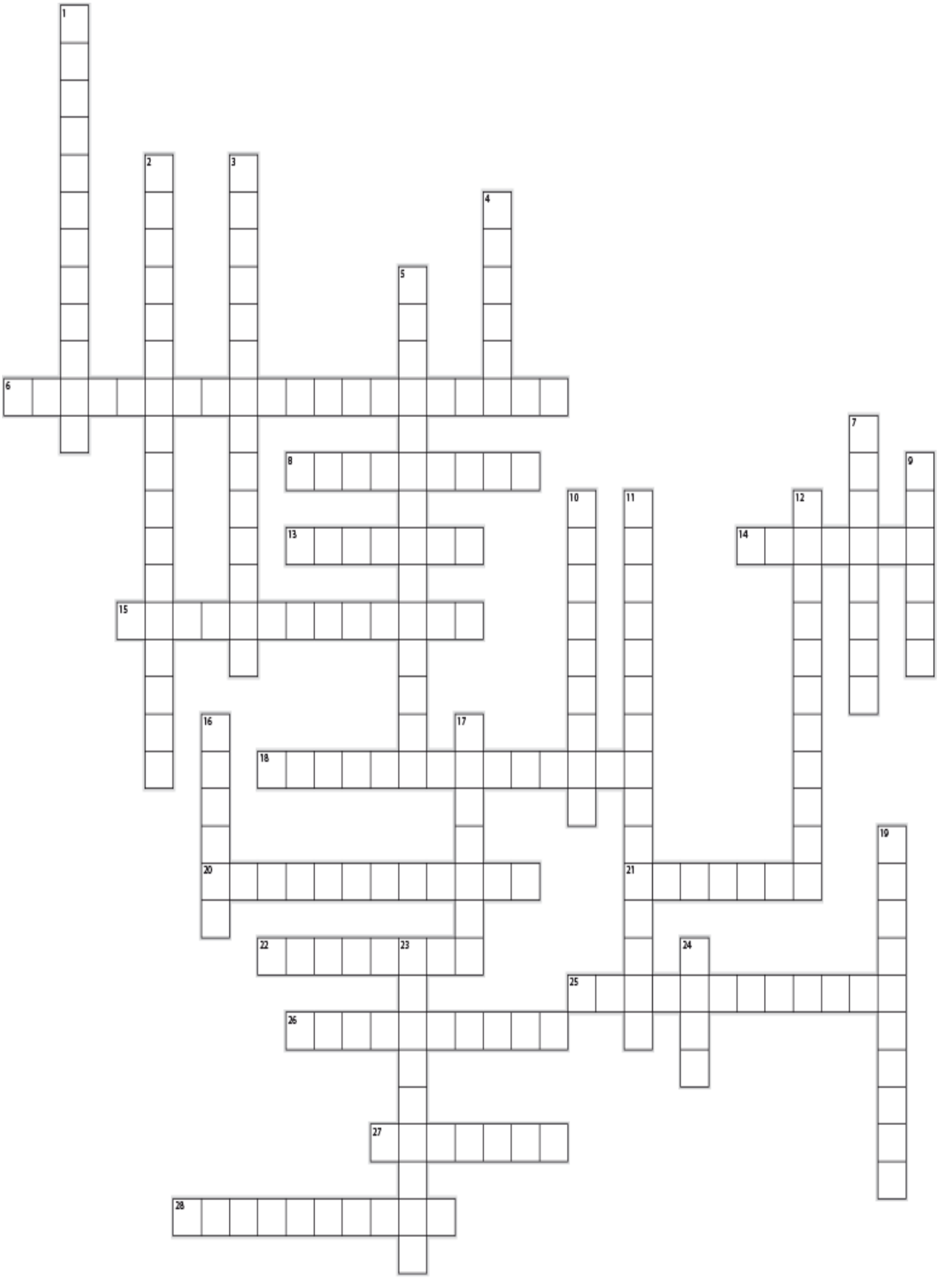
Quick revision crossword No 1: Budgetary policy

Across

6. A reason why the underlying budget deficit is projected to fall over the next few years (2 words)
8. These stabilisers relate to the cyclical component of the Budget
13. The budget outcome when Receipts (revenue) = outlays (expenses)
14. The budget outcome when Receipts (revenue) > outlays (expenses)
15. These changes to the Budget are related to the structural component of the Budget
18. A budget surplus can be used to reduce this (2 words)
20. Generally, this describes a budget deficit (or an increase in the structural deficit)
21. The Budget outcome when Receipts (revenue) < outlays (expenses)
22. In terms of budget outcomes, this is the total cash received by the federal government less the total cash paid
25. The short-term strategy employed by the government in order to achieve its medium-term goal of budget surplus on average over time (2 words)
26. This component of the Budget will only change in response to deliberate policy decisions by the government
27. The largest component of government expenditure (2 words)
28. Also referred to as 'bracket creep' and occurs during times of inflation for countries with a progressive tax system because of the increase in the 'average' rate of tax paid by taxpayers (as their nominal wages increase in line with inflation) (2 words)

Down

1. Infrastructure investment in the budget aims to boost this as a means of increasing the nation's productive capacity
2. The simultaneous achievement of Economic Growth, Low inflation and Full Employment (2 words)
3. Generally, when the Budget is in surplus (or when the structural surplus has increased)
4. A fund established to pay for the federal government's future superannuation liabilities
5. This particular lag represents a weakness of budgetary policy given that budget Bills must pass through both houses of parliament
7. This component of the Budget will change in line with changes in economic activity
9. The budget outcome that relates to revenue that has been earned over the relevant period compared to expenses that have been incurred
10. How budget deficits are typically financed (2 words)
11. The overriding objective of government policy initiatives (2 words)
12. When budget deficits place upward pressure on interest rates and result in reduced Consumption, Investment and net exports (due to the relationship between interest rates and the value of the $A (2 words)
16. The major fiscal document released each May containing details about all income (or revenue) and expenditure (outlays) of the federal government.
17. The government has attempted to reduce this impediment to the growth of many businesses (2 words)
19. In terms of budget outcomes, it is the Headline balance but excluding those 'non-core' items like net asset purchases for policy purposes and future fund earnings
23. The largest component of government revenue (2 words)
24. One of these has been introduced in the banking industry and another has been increased in order the fully fund the national disability insurance scheme.



m

CHAPTER 2: NATURE AND OPERATION OF MONETARY POLICY

Objectives of monetary policy and the role of the Reserve Bank of Australia (RBA)

Monetary policy is a policy operated by the RBA, on behalf of the government, that is designed to manipulate key financial variables in the economy (primarily interest rates) in order to achieve specific objectives. These objectives are outlined in the RBA's charter, which requires the Bank to implement monetary policy in a way that best contributes to:

- the stability of the currency of Australia [price stability];
- the maintenance of full employment in Australia; and
- the economic prosperity and welfare of the people of Australia.

Exam Tip: In the exam, students should not say that the RBA's goal is to maintain stability in the value of the Australian dollar (or the Australian currency). Even though the RBA's charter refers to 'stability of the currency of Australia', the RBA has made it clear that it is interpreting 'currency' to mean 'prices' and that its principal medium-term objective is to control inflation. However, any monetary policy action will take into account its effect on value of the Australian dollar.

The RBA's overriding objective is to increase the economic prosperity and welfare for all Australians. However, the RBA's medium-term objective is to achieve price stability, which the RBA currently defines as *consumer price inflation between 2 and 3 per cent, on average, over time.* Once price stability is achieved, the RBA will then focus on policy decisions that assist in the attainment of other economic goals (in particular, full employment and economic growth), so long as these measures pose no threat to low inflation.

Exam Tip: In its May 2021 monetary decision, it was noted that the RBA places a high priority on a return to full employment and is therefore prepared to provide further stimulus in order to reduce unemployment and stimulate inflation. Despite a 'high priority' given to full employment, this remains consistent with the RBA's charter. The RBA is simply prioritising full employment given that actual (and expected) inflation is below the target range.

Monetary policy is the key macroeconomic policy that is designed to achieve stability in the level of domestic economic activity (i.e. internal stability), where it will generally be used in a counter-cyclical way to boost activity when inflation and growth are low and restrain activity when inflation and growth are high.

Exam Tip: From early 2020, to help combat the negative economic effects of Covid-19, the RBA introduced less conventional measures of stimulating the economy, which can be referred to as 'quantitative easing'. While these measures will be covered later, students are not 'specifically' required to demonstrate an understanding of 'quantitative easing for the purposes of assessment in VCE Economics. However, the KKP in the Study Design - 'the focus of monetary policy from the past two years on the levels of aggregate demand' - arguably opens up the possibility (albeit small) that reference to these measures could be made on the exam. The safest approach for students is perhaps to spend a small amount of time familiarizing themselves with the nature of these broad measures and how they stimulate AD in a slightly different way to the traditional means of implementing expansionary monetary policy.

Implementation of monetary policy (open market operations)

The traditional and most conventional way that the RBA implements monetary policy primarily via the manipulation of interest rates. Whilst the RBA has no *direct* control over all interest rates in the economy, its ability to directly manipulate the 'cash rate' enables it to indirectly affect all other interest rates. [In early 2020, as part of the unconventional monetary policy measures referred to in the above Exam Tip, the RBA also started to target the interest rate on 3-year Government bonds. This will be explored later, under the heading: *The RBA's expansionary measures/quantitative easing over 2020-21*.]

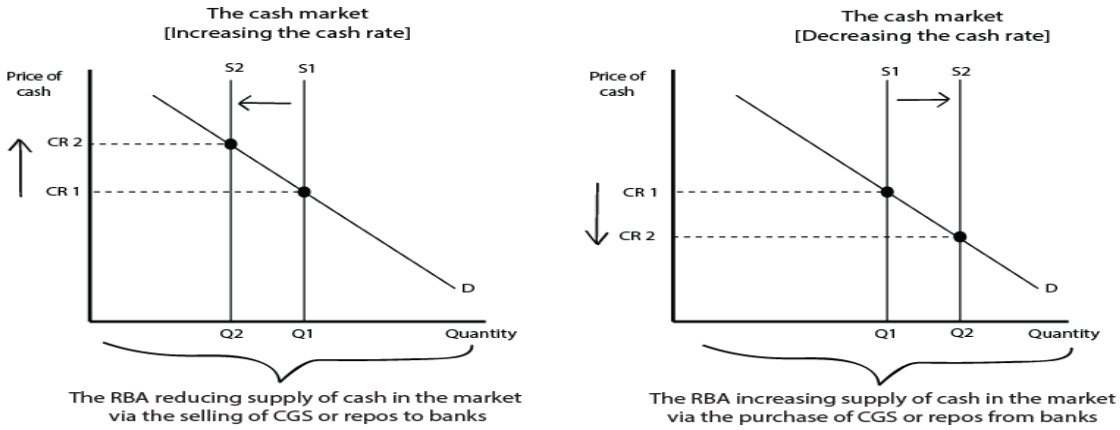
The **cash rate** is the interest rate that applies to borrowing and lending by banks in the overnight money market (also called 'cash market'). The RBA directly manipulates the supply of cash in the cash market by buying and selling financial instruments such as Commonwealth Government Securities (CGS), or repurchase agreements (repos), to participants in the cash market (e.g. banks). RBA purchases of these financial instruments injects cash into the market (increases supply) and reduces the cash rate while RBA sales of these instruments withdraws cash from the market (reduces supply) and increases the cash rate. This manipulation of the cash market is commonly referred to as **open market operations (OMOs)** or domestic market operations.

Exam Tip: In the exam, you are unlikely to be expected to know the difference between government securities and repurchase agreements. Simply remember that the government uses these instruments (as well as foreign exchange swaps) to manipulate the supply of cash and therefore the cash rate. In reality, the RBA primarily uses repos when manipulating the market, but this is not required knowledge for the purposes of VCE Economics.

Each Australian bank is legally required to have an exchange settlement account (ESA) with the RBA in order to settle interbank transactions at the end of each day. This is because there are millions of transactions involving banks and their customers and there needs to be a systematic

and organised way of settling the amounts that are owed from one to the other at end of the day. At the conclusion of each day, some banks will have surplus balances in their ESAs (because they have received more than they paid) and others will have a deficit. Those with surplus balances in their ESAs will be seeking to lend this money to those banks with deficits in their ESAs, which of course means that those banks with ESA deficits will be seeking to borrow from those banks with ESA surpluses. Accordingly, there is a market for 'overnight' cash, with demand by those banks willing to borrow and supply by those banks willing to lend. Like any market, equilibrium will occur where the price of cash (i.e. the cash rate) is such that demand = supply.

The RBA can manipulate the cash rate via its control of ESA balances (i.e. its control of supply or cash in the overnight cash market). It can drive the cash rate down by increasing supply of cash in the market via the purchase of CGS or repos. The supply of cash increases because banks will be holding more cash and less CGS. Alternatively, the RBA can drive the cash rate up by reducing supply of cash in the market via the selling of CGS or repos. In this case, the supply of cash decreases because banks will be holding more CGS and less cash. Diagrammatically, this can be shown as follows:

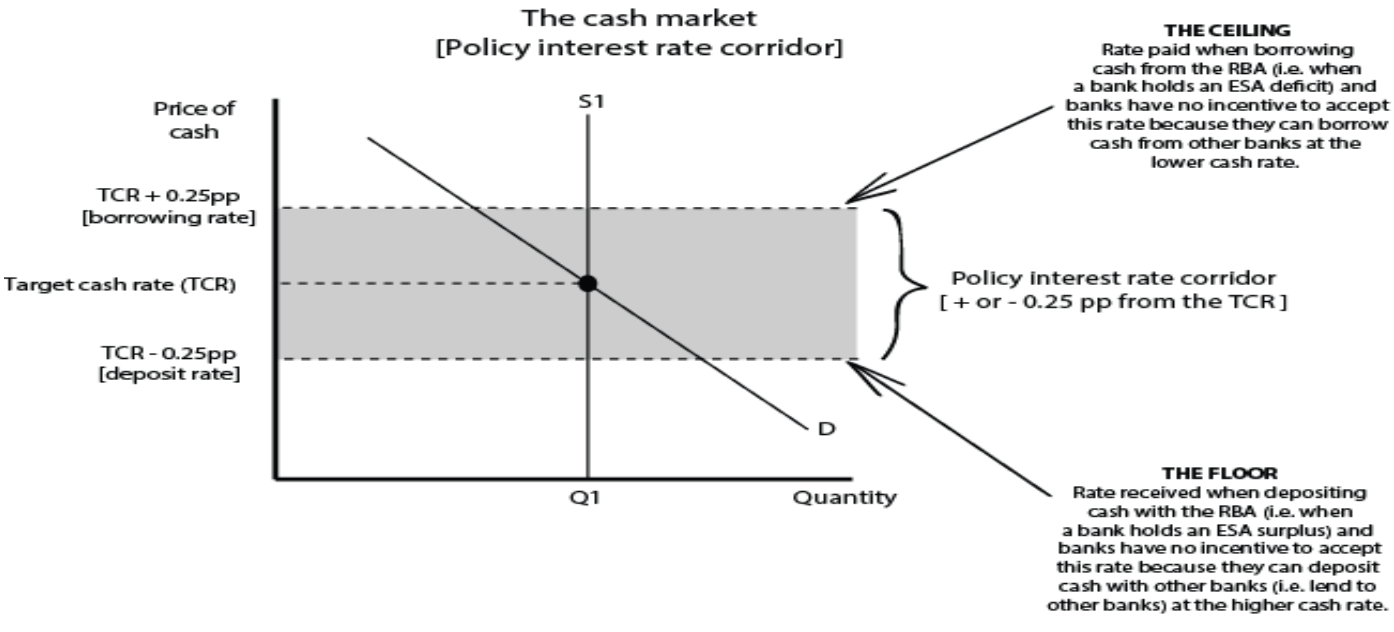


The role of the target cash rate

To ensure that it has complete control of supply in the market (which results in a vertical supply curve), the RBA creates maximum financial incentive for borrowing and lending to take place in the market. The RBA achieves this by setting a 'target cash rate' and then imposing financial disincentives upon banks for holding surpluses or deficits in ESAs. These financial disincentive are in the form of below 'market rates of interest' on both deposits with the RBA (i.e. surplus balances) and loans from the RBA (deficit balances). Specifically:

- Banks with surplus balances (i.e. depositing cash with the RBA) will be paid a rate of interest equivalent to 0.25% points (i.e. 25 basis points) below the target cash rate; and
- Banks with deficit balances (i.e. borrowing cash from the RBA) will be required to pay the RBA a rate of interest equivalent to 0.25% points above the target cash rate.

This arrangement effectively forces the banks to lend any surpluses to other banks at the prevailing cash rate and borrow deficits from other banks at the prevailing cash rate, and therefore ensure that they are never borrowing or lending cash from the RBA. To do otherwise would be irrational given the effective penalties imposed by the RBA for maintaining surplus or deficit balances. This means that there is a range or band within which the cash rate will stay within, which is referred to as the **'policy interest rate corridor'**. There is no incentive for the banks to either borrow or lend outside of this interest rate corridor. Diagrammatically, this can be shown as follows:



Exam Tip: Currently in Australia, the TCR rests at 0.1%, which implies that the bottom of the policy interest rate corridor (i.e. the rate at which banks are paid on ESA balances with the RBA) must be -015%. However, following the unconventional quantitative easing measures introduced by the RBA, the RBA decided not to penalise banks with a negative interest rate on ESA balances. This is because there was a huge inflow of exchange settlement funds (i.e. cash) into the system, some of which remained in ESA balances. The RBA was keen, therefore, not to burden the banking system with increased costs. While this information has been included for the sake of accuracy, it will not be examinable directly and students can safely ignore it if it appears too complicated.

Overall, given the existence of the policy interest rate corridor, the banks with surplus funds deposit their cash in the cash market (i.e. lend to other banks) and banks with deficit funds borrow from the cash market (i.e. borrow from other banks).

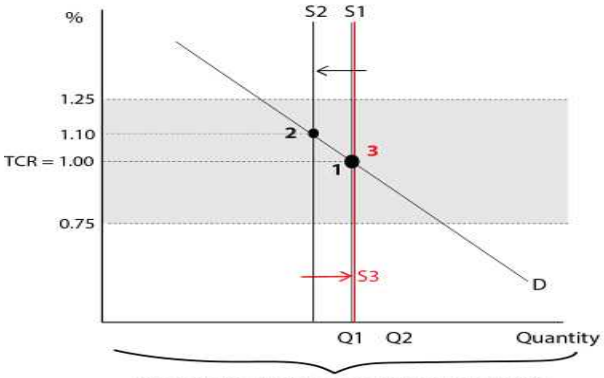
On balance, deficits and surpluses would cancel each other out if we didn't consider the **financial activities of the federal government**. Given that payments made by the government (such as welfare payments) effectively increase ESA balances (because there is a net injection of cash into the economy) and money received by the government (such as the receipt of tax revenue) decrease ESA balances (because there is a net leakage of cash into the economy) the liquidity in the cash market is changing on a daily basis, which affects the demand for cash by banks in the cash market. Accordingly, every day, **the actual cash rate will move in response to changing market conditions**.

If the supply of cash increases (e.g. there is a net surplus in ESAs), then the actual cash rate will start to move below the target cash rate. Conversely, if the supply of cash decreases (e.g. there is a net deficit in ESAs), then the actual cash rate will start to move above the target cash rate. To ensure that the actual cash rate hits the target (or is as close as possible to the target), the RBA will manipulate the supply of cash via the purchase or sales of CGS (or repos).

If the market is short of cash, it exerts upward pressure on the cash rate. To prevent this rise, the RBA will increase liquidity in the market (i.e. increase supply) by buying CGS or repos, which decreases the cash rate to towards its previous level. In contrast, if the market is flush with cash, it exerts downward pressure on the cash rate. To prevent this fall, the RBA would decrease 'liquidity' in the market (i.e. reduce supply) by selling CGS or repos, which increases the cash rate to towards its previous level. These 'open market operations' (OMOs) are summarised in the following two diagrams. For simplicity, we will assume that the target cash rate was 1.00% and the initial market position (i.e. equilibrium) occurs at point 1 on each diagram.

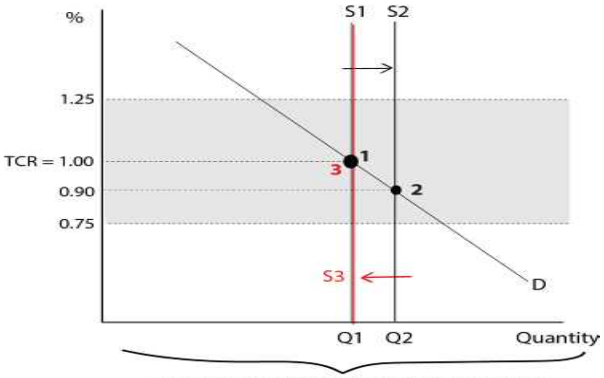
Open market operations after market shortage or surplus of cash

Scenario A
[Market short of cash]



The cash shortage is represented by the supply of cash decreasing from S1 to S2 and there is pressure for the CR to climb towards 1.10%. To offset the effect on the CR, the RBA injects liquidity by purchasing securities/repos, increasing supply back to the previous level, from S2 to S3. This ensures that the actual CR returns to 1.00%

Scenario B
[Market flush with cash]



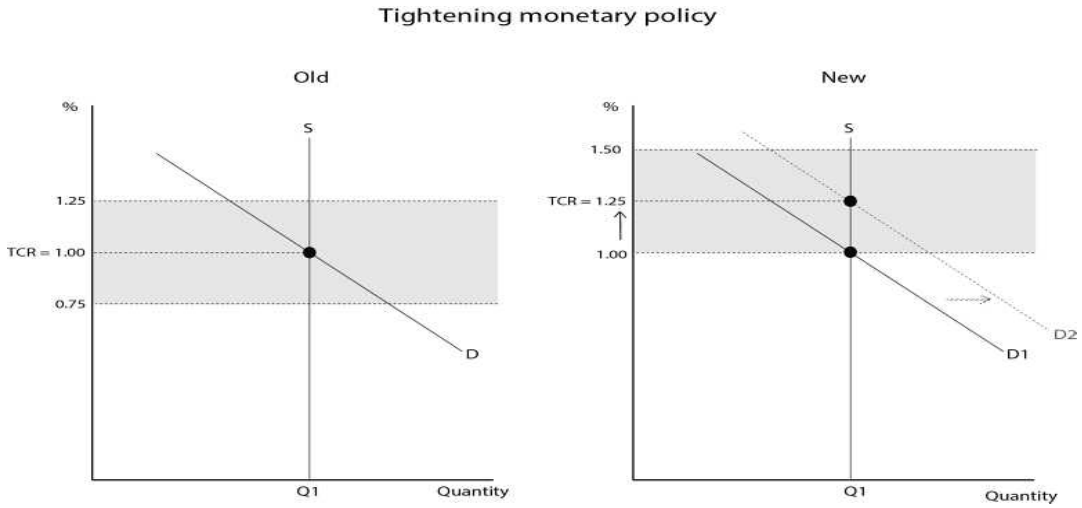
The cash surplus is represented by the supply of cash increasing from S1 to S2 and there is pressure for the CR to fall towards 0.90%. To offset the effect on the CR, the RBA reduces liquidity by selling securities/repos, increasing supply back to the previous level, from S2 to S3. This ensures that the actual CR returns to 1.00%

Exam Tip: For the purposes of assessment in VCE Economics, there is no problem for students to use conventional demand and supply diagrams (i.e. with an upward sloping curve) to demonstrate how the RBA uses OMOs to manipulate the cash market.

Exam Tip: The market can also be in shortage or surplus at the end of any given day because of a movement in the demand for cash by the private sector (i.e. as opposed to changes in supply as a consequence of RBA cash transactions as depicted above). The analysis for how the RBA returns the cash rate towards the market will be the same.

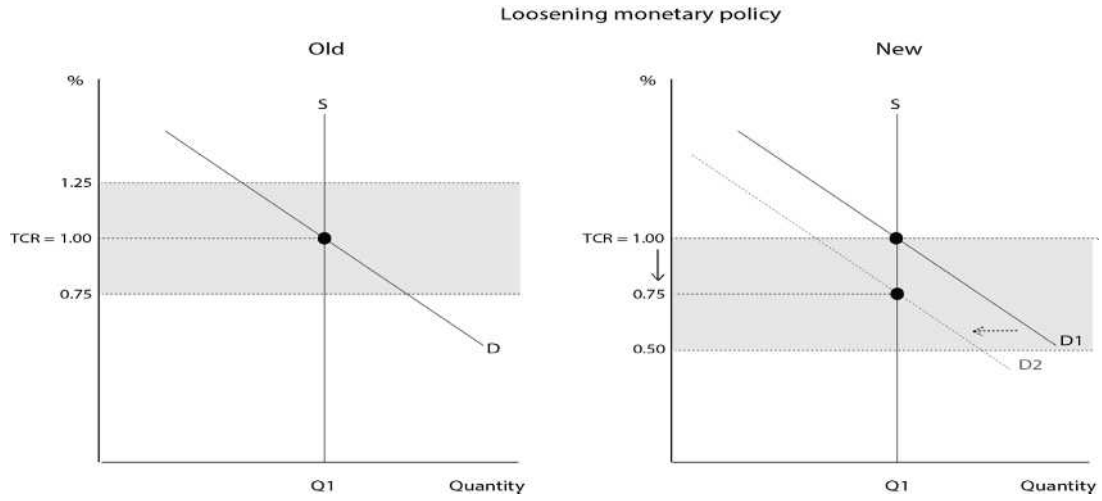
Tightening and loosening of monetary policy

A **tightening** of monetary policy involves the RBA announcing a higher target cash rate the afternoon of its monthly Board meetings. If it decides to increase the target cash rate (e.g. from 1.00% to 1.25%) it will simply move the policy interest rate corridor up by 25 basis points as shown in the diagram below:



There is no need for the RBA to actually enter the cash market and engage in OMOs in order to restrict liquidity and force the cash rate up to the new TCR of 1.25%. This is because the market will automatically adjust to the new interest rate corridor. There will be no incentive for the banks to transact (borrow and lend) outside the new range, and the actual cash rate will gravitate to the new target, with the new demand curve (D2) intersecting the existing supply curve at a rate of 1.25%. This is because banks will be willing to borrow more from the market given that it is more expensive to borrow from the RBA. Importantly, the RBA only needs to engage in OMOs to ensure that the actual cash rate hits the target cash each day thereafter. It does not actually engage in OMOs to give effect to a monetary policy tightening.

A **loosening** of monetary policy involves the RBA announcing a lower target cash rate the afternoon of its monthly Board meetings. If it decides to decrease the target cash rate (e.g. from 1.00% to 0.75%) it will simply move the policy interest rate corridor down by 25 basis points as shown in the diagram below:



As before, there is no need for the RBA to actually enter the cash market and engage in OMOs in order to increase liquidity and force the cash rate down to the new TCR of 0.75%. This is because the market will automatically adjust to the new interest rate corridor. Once again, there will be no incentive for the banks to transact outside the new range, and the actual cash rate will gravitate to the new target, with the new demand curve (D2) intersecting the existing supply curve at a rate of 0.75%. This is because banks will be unwilling to borrow at any range above 1.00% given that they can borrow from the RBA at this new cheaper rate.

Exam Tip: It is important to remember that the RBA does NOT need to manipulate the cash market by buying or selling CGS or repos when it decides to change the cash rate. The RBA simply needs to alter the 'policy interest rate corridor' and the market will automatically adjust to the new rate. The RBA will from that point in time use OMOs to ensure that the actual cash rate remains as close to the target as possible.

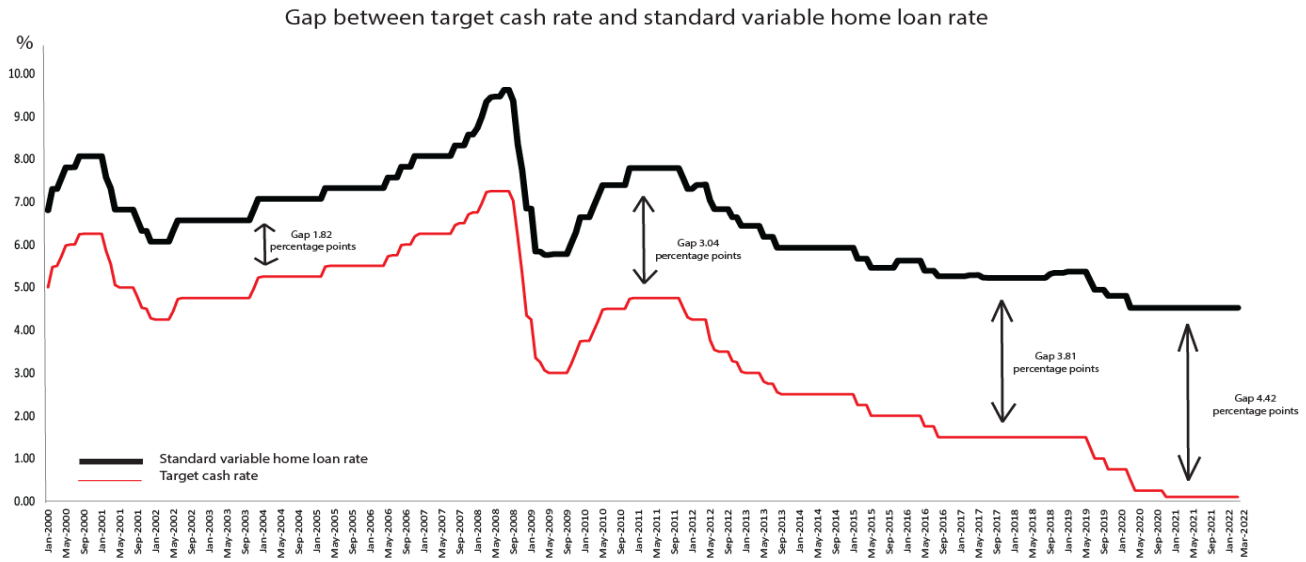
The transmission mechanism

The transmission mechanism (or transmission channels) refers to the way a change in the RBA's cash rate will ultimately affect economic activity and inflation. The RBA describes the process in two stages, with stage 1 referring to how a change in the cash rate affects market interest rates and stage 2 referring to how the change in interest rates affects economic activity and inflation.

Stage 1: How other interest rates respond to a change in the cash rate

Assume that the RBA has tightened monetary policy and the cash rate increased. The price of money that is close to cash (e.g. 30 day bank bills or deposits) will also increase, otherwise lenders (or depositors) will be less inclined to invest in Bank Bills (or bank deposits) and more inclined to invest in the cash market. Similarly, other interest rates will also move up in order to retain market share. Accordingly, the *competition for funds* forces other rates to increase in line with the increase in the cash rate. Similarly, if the cash rate increases, the cost of funds increases for lenders of money in the 30 – 90 day market. As they essentially face higher costs of production, they pass on this increase in the form of higher interest rates. This process continues to affect longer term rates in the economy.

Given that market rates of interests are determined primarily by the demand and supply for funds in each particular debt market, their movement will not always coincide precisely with movements in the target cash rate (sometimes referred to as the policy rate). For example, as shown in the chart below, between 2009 and 2019, the gap between the cash rate and a specific home loan rate (Variable, standard, owner-occupier) increased from 1.82 to 3.81 percentage points because the banks (allegedly) experienced relatively higher wholesale funding costs during this time (e.g. they were paying relatively more to source funds from abroad). However, since late 2019, the gap has further widened to 4.42 percentage points following the RBA's adoption of the most expansionary policy stance in history, which limited the capacity for banks to reduce lending rates by the same magnitude (as deposit rates could not be further reduced and banks needed to protect margins).



It illustrates that the RBA has only indirect control over interest rates, as noted by the previous RBA Governor:

> ***'The cash rate is still powerful, but it is not the only factor at work. On occasion we are going to see banks move their rates a little bit differently to what we did, or maybe move a little bit when we did not move. I do not find that terribly surprising given the sort of funding environment that the whole banking system of the world has faced in this time.'***

Exam Tip: Careful when talking about a change in interest rates. Higher interest rates do not necessarily mean a tightening of monetary policy has occurred, and similarly, lower interest rates do not necessarily mean a loosening of monetary policy has occurred. Competitive market pressures (movements in demand or supply) can and will cause a change in interest rates without a change in monetary policy settings.

Stage 2: How the change in interest rates affect economic activity and inflation

Once the RBA effectively manipulates interest rates across the economy, there are five generally recognised ways in which a change in interest rates will impact on economic activity. This transmission occurs via the effects on:

1. **The cost of credit (savings and investment)**
2. **Cash flow**
3. **Availability of money and credit**
4. **Asset prices and wealth**
5. **Exchange rate**

Assuming that interest rates increase, the **cost of credit** channel works by making it more costly to borrow money (and more attractive to save). This higher cost of credit should reduce the willingness of households to borrow money for the purchase of goods and services. In particular, it reduces the demand for consumer durables, and overall, it is likely to reduce Consumption in the economy. Similarly, businesses are likely to

reduce or delay Investment as higher borrowing costs make any investment spending less viable. The reduction in Consumption and Investment then works to reduce Aggregate Demand and Economic Growth.

The **cash flow** channel works to impact on the spending power of those economic agents with existing levels of debt. In particular, householders with mortgages will immediately suffer a fall in their *cash flow* (or discretionary income) as more of their disposable income is required to repay the interest component of their mortgage. The business sector will also experience a drop in cash flow as they spend more to service their debt. These factors will result in a fall in Consumption and Investment, further reducing Aggregate Demand.

Exam Tip: The VCE Economics Study Design only refers to the 'transmission mechanisms of monetary policy …including savings and investment, cash flow, availability of credit, exchange rate movements and asset prices'. No distinction is made between stages 1 and 2 of the 'Transmission of Monetary Policy'. Accordingly, if students are asked to explain how two monetary policy transmission mechanisms might have operated to affect the level of AD (as was the case in the 2018 exam), then it would not be necessary to discuss the link between the cash rate and interest rates (i.e. Stage 1). However, if the question was broader, such as 'Explain how a tightening of monetary policy is expected to impact on AD', then the best responses will be those making some meaningful reference to Stage 1 of the transmission mechanism.

Exam Tip: The RBA now only describes four (not five) channels of MP transmission - there is no longer any reference to the availability of credit channel. However, this should have no bearing on how students approach questions on the examination. All five channels will be accepted.

Exam Tip: Students are highly unlikely to be asked to explain all five (or four) transmission mechanisms/channels. However, you should expect to be able to draw upon two channels when discussing how a change in monetary policy is likely to affect AD. (The first two channels are the most common and easiest to discuss.) The nature of the question will generally provide one with a guide as to how many channels to discuss. If the question directly asked students to explain how 'looser MP can help to increase AD,' then a discussion of two transmission channels would be a minimum and reference to Stage 1 of the transmission mechanism would enhance the quality of student responses.

Exam Tip: To the extent that there is any price rise in response to higher interest rates, it will only prevail in the short term, and will be reversed once the demand side effects of higher interest rates set in over time. Indeed, businesses are less likely to pass on the cost increase if they anticipate that higher interest rates will start to negatively impact on their sales level. Accordingly, avoid saying that higher interest rates will increase inflation!

The **availability of money and credit** in the economy is likely to fall in times of higher interest rates because it makes it less likely that some households or businesses will meet the lending criteria established by financial institutions because the risk of default increases. In short, financial institutions are more likely to reduce the number of loan approvals when interest rates rise.

Higher interest rates are likely to induce a fall in **asset values and wealth.** This is because the demand for property, shares and other investment assets should decrease when the costs of borrowing rise. This reduces *wealth*, Consumption, AD and economic activity. For example, to the extent that relatively high interest rates cause less demand for housing and lower house prices, it is fair to expect a slowdown in the rate of spending by some property owners who experience a decline in the value of (perhaps) their biggest asset. In the event that there is a tightening of monetary policy in 2022, this transmission channel is likely to play a bigger role in dampening AD (compared to previous years) given the (household) debt fueled growth in property prices.

Exam Tip: During 2021, much was said about growth in the housing market despite the recession. While government stimulus payments have been a factor contributing to strong demand for houses, it is also true that the lowest interest rates in history are fueling the market. This is partly how an expansionary monetary policy stance is designed to work, via the asset values channel, to stimulate AD as households feel 'wealthier' and are more likely to spend on goods and services. The increasing relevance of this monetary policy channel may influence the Exam Setting panel to include a question on it in this year's exam.

The **exchange rate** will generally be positively correlated to interest rates, such that a rise in interest rates is expected to cause an appreciation of the exchange rate. This is because higher domestic interest rates (relative to those on offer overseas) attract foreign funds (capital inflow) in search of higher rates of return. As the foreign funds enter Australia, they are exchanged into Australian dollars, exerting upward pressure on the value of AUD. The higher exchange rate then reduces the international competitiveness of Australia's tradables sector, reducing net exports (X-M) and decreasing AD and inflationary pressure. In addition, a higher exchange rate makes imports relatively cheaper and reduces the prices of imported consumer and producer goods. This further reduces inflationary pressure in the economy.

Exam Tip: In the 2020 exam, Q1a required students to describe how a lower cash rate in Australia puts downward pressure on the value of the exchange rate. Many students ignored the link between a lower cash rate and interest rates more generally, but more importantly, too many students struggled to describe how lower interest rates contribute to a depreciation of the AUD. This was also a problem experienced by students in the 2015 exam when attempting to demonstrate an understanding of the exchange rate transmission mechanism. The best responses are those where the student makes meaningful reference to important concepts such as 'interest rate differentials', 'capital flows' (e.g. capital outflow) and changes in 'demand/supply for the AUD in foreign exchange market' (e.g. an increase in supply causing the price of the AUD to fall).

Exam Tip: When attempting to explain the exchange rate channel, it is important that students do not make the mistake made by many answering Q2b in the 2018 exam. These students placed too much emphasis on the supply side effects of higher interest rates (e.g. the resulting appreciation helping to reduce the costs of production for businesses relying on imported inputs) with balancing this against the negative (and more dominant) demand side effects stemming from the appreciation's negative impact on international competitiveness. (the rule of thumb is that the AD effects of an exchange rate change outweigh the AS effects).

Exam Tip: The 2015 exam was the first time that students were asked to refer to two specific transmission mechanisms (cash flow and exchange rate) when analysing how a lower official interest rate will assist with the achievement of full employment . The biggest problem was students' referencing the cost of credit channel instead of the cash flow channel. In addition, many students failed to demonstrate an understanding of how lower interest rates resulted in a depreciation of the AUD. Finally, a number of students forgot to link the growth in AD to the goal of full employment.

Exam Tip: When analysing how a tightening of monetary policy can affect aggregate demand, many students proceed in the following manner: '……an increase in interest rates will decrease consumer confidence and therefore decrease AD.' Whilst it is true that interest rates will impact on confidence, it is not the main transmission mechanism. You need to draw upon the impact that an increase in interest rates will have on the cost of borrowing and the effect on cash flows of households and businesses. (If you can remember the other three transmission mechanisms, this can enhance the quality of your answer). Then show how these factors impact on consumption, investment, etc. Only then should you refer to how confidence fits into the picture.

Exam Tip: In the 2019 exam, students were once again tested on their understanding of the transmission mechanisms. However, there was a slight twist in the question that caught many students off guard. Students were asked to use two monetary policy transmission mechanisms to explain the role of monetary policy in countering a slowdown in rates of economic growth (6 marks). Most students did not appreciate the importance of 'the role of monetary policy', as noted in the question, and therefore simply wrote about two transmission mechanisms. The highest scoring responses were those making reference to 'why the RBA would be interested or motivated to stimulate economic growth' (e.g. a reference to the RBA's role as outlined in its charter would have been ideal).

Exam Tip: The 2021 examination once again required students to demonstrate an understanding of a monetary policy transmission channel. Students should not make the mistake of identifying one transmission channel and then explaining another. nor should they refer to aspects of monetary policy that are unrelated to the question at hand, such as open market operations.

Monetary policy settings

The RBA will set monetary policy so that it is either *neutral* (monetary policy neutrality), *expansionary* or *restrictive*.

Monetary policy neutrality

If monetary policy is neither expansionary nor restrictive, it is considered to be 'neutral' or 'normal'. ***Monetary policy neutrality*** describes a situation where the level of the cash rate is neither working to stimulate nor contract the economy. That is, monetary policy is neither having an *expansionary* or *contractionary* effect on the economy and the cash rate is at a level that is consistent with macroeconomic stability (or the achievement of internal stability). Given the changing relationship between the cash rate and market interest rates (as described earlier), the level of the cash rate at which monetary policy neutrality exists will change over time. Over 2011, monetary policy neutrality occurred when the CR was approximately 4.5%. However, this has fallen since then for the following main reasons:

- the difference between the cash rate and market interest rates has typically widened due largely to cost of funding pressure for banks.
- the growth in household indebtedness to high levels has meant that people are less likely to be incentivised by further cuts in interest rates. This means that the RBA needs to loosen monetary policy by more than before to encourage households to undertake more credit based consumption.
- The decline in the Australian economy's 'potential growth rate' (the long run sustainable rate of growth consistent with low inflation and full employment) over the past 20 years has meant that interest rates need to be lower to stimulate economic activity.

Currently, monetary policy neutrality involves a target cash rate of approximately 3.5%. This is the target cash rate one would expect to see if the economy's growth rate was running at a strong but sustainable rate (approximately 3.25%), with inflation under control (within the target range of 2-3%) and full employment achieved (approximately 5% unemployment). A target cash rate below approximately 3.5% suggests that the monetary policy stance is expansionary and a rate above 3.5% suggests that the stance is restrictive.

Exam Tip: Knowing the precise level at which monetary policy neutrality occurs (e.g. at 2.5,%3.0%, 3.5% or 4.0%) is less important than an understanding of what it implies. Some economists even argue that monetary policy neutrality occurs at a rate lower than 3.5%.

Exam Tip: Do not make the mistake of thinking that MP neutrality occurs when the RBA has not changed the target cash rate for a relatively long period of time. For example, it is incorrect to argue that the RBA's current MP stance is neutral given that the TCR has remained at 0.1% since November 2020. The RBA inaction during this time simply meant that the RBA preferred to persist with its expansionary stance.

Exam Tip: You might see reference in the Press to a neutral cash rate of approximately 1%. This rate is actually the real neutral rate (the nominal rate less the rate of inflation).

Expansionary monetary policy

An ***expansionary monetary policy*** occurs when the level of the cash rate is at a low enough level to be stimulating the economy. In other words, the RBA has manipulated interest rates to a low enough level such that it is helping to encourage growth in AD and real GDP. The RBA will often refer to an expansionary monetary policy setting as an *accommodative stance*. Currently, monetary policy is considered to be expansionary/accommodative if the target cash rate is below approximately 3.5%.

It is possible for monetary policy to become relatively more expansionary/accommodative even without a loosening of policy. This can occur if the economy is growing strongly, or indeed overheating, and the RBA does not change the cash rate. In addition, an expansionary policy can still exist even if there is a tightening of monetary policy. For example, if the RBA raises the target cash rate in 2022, as expected, from 0.1% to 0.25%, this tightening of monetary policy is not inconsistent with the monetary policy stance remaining expansionary – it would simply be less expansionary than before. In other words, the interest rate setting in the economy would still remain low enough to be exerting a stimulatory effect on real GDP, despite the tightening of the policy over the period.

Also note that monetary policy can become more expansionary even without a change in the TCR if the RBA decides to adopt less conventional expansionary measures, such as quantitative easing (QE). This is precisely what has occurred since March 2020, as the RBA recognised the inherent limitations associated with traditional expansionary policy levers given that the TCR at the time was very close to zero (i.e. 0.25%). QE is covered later under the heading *'How monetary policy has influenced AD and domestic economic stability'*.

Exam Tip: Question 3(b) of the 2014 exam required students to analyse the MP stance adopted over 2014 and explain how this impacted on the goals of strong and sustainable economic growth and full employment. It was wrong to argue (as some did) that the RBA adopted a more expansionary or accommodative stance by loosening policy. While the stance was indeed expansionary, the RBA did not change the cash rate (i.e. loosen policy) over the relevant period. It was best to focus purely on how relatively low interest rates supported the achievement of the stated goals. A similar question was asked in the 2021 exam (Q1c) and it too would have been inaccurate to say that the RBA adopted a more expansionary MP stance via a further reduction in the target cash rate over 2021.

Restrictive (contractionary) monetary policy

A ***restrictive monetary policy*** occurs when the level of the cash rate is at a high enough level to be restricting or restraining economic activity. In other words, the RBA has manipulated interest rates to a high enough level such that it is helping to discourage growth in AD and real GDP. Currently, monetary policy is considered to be restrictive if the target cash rate is above 3.5%.

A restrictive monetary policy is usually associated with a policy tightening where it is expected that the higher cash rate (or higher interest rates) will work to restrain growth in the level of AD and economic activity in an effort to contain inflationary pressure. However, it is also possible for monetary policy to become more *restrictive* even without a tightening of policy. This can occur if economic growth is low, or declining rapidly, and the RBA does not change the cash rate. This scenario is commonly referred to as a *less accommodative stance* of monetary policy. It is also possible for monetary policy to remain restrictive even when policy is loosened. For example, between March and October 2008, the RBA loosened policy by reducing the cash rate from a restrictive 7.25% to a less restrictive 6.00%, but the policy stance remained a restrictive one (until the RBA eventually reduce the cash rate to a low of 3.00% in early 2009).

Monetary policy and domestic economic stability (DES)

The RBA's charter directs it to focus on the economic prosperity and welfare of Australians. It does this by focusing on the achievement of **price stability** as it is considered the key ingredient for longer term sustainable economic growth and employment creation and the maximisation of Australian living standards.

Once inflation or inflationary pressures are considered to be under control (or even too low as it has been over recent years), the RBA will switch its attention to stimulating **economic and employment growth** in the shorter term. To illustrate, over 2010-11, the RBA remained concerned about inflation and maintained a mildly restrictive monetary policy stance. However, over the course of 2011-12 it became clear that inflation was 'under control' and signs emerged to suggest that the economy's growth and employment rates were under threat in light of global economic uncertainty. The RBA then changed monetary policy settings from restrictive (with a cash rate at 4.75% in October 2011) to expansionary (with a cash rate at 2.5% in August 2013). It remained at this expansionary level over 2014 before the RBA decided to loosen policy in February and May of 2015 and again in May and August of 2016, reducing the cash rate to 1.5%. The cash rate remained at this expansionary level until May 2019, after which the RBA loosened monetary policy three more times over 2019, reducing the TCR to 0.75% by November 2019.

Three further easings of policy occurred in 2020 (along with less conventional expansionary measures), with the cash rate falling to 0.1% in November, as the RBA was keen to assist Australian government efforts to support the economy during the coronavirus pandemic.

Overall, the more expansionary stance up to the start of 2020 stemmed from the RBA view that inflationary pressures remained benign and that the economy required stimulus in order to support growth and jobs. In other words, the RBA was acting in accordance with its charter and switched its focus towards full employment given that inflationary pressures were absent. Since early 2020, however, the adoption of further monetary policy stimulus (making it the most expansionary in history) was a direct response to the Covid-19 induced recession and its negative impact on jobs and growth.

By the end of 2021, and into the early part of 2022, it was apparent that the economic recovery was well underway, evidenced by a very strong rate of economic growth for the December quarter of 3.4% (annualised 13.6% rate of growth), the re-emergence of inflationary pressures (headline rate above 3%) and a reduction in the rate of unemployment to an extremely low 4%. As a consequence, the RBA scaled back its bond buying program over the last few months of 2021 and stopped targeting the yield on 3 year bonds (which is effectively a de-facto tightening of monetary policy) and is on the cusp of (formally) tightening monetary policy via an increase in the target cash rate, which is predicted to begin in June 2022 - but even with monetary policy tightening over 2022, the setting of policy will remain highly expansionary.

Exam Tip: A key knowledge point in the Study Design is 'the need for aggregate demand policies in terms of stabilising the business cycle'. Students should remember that any reference to 'aggregate demand policies' necessarily requires attention being given to both budgetary and monetary policies. Q3d of the 2017 required students to 'explain how aggregate demand policies have influenced 'jobs and growth' in 2016–2017'. Unfortunately, too many students made either no (or little) reference to monetary policy (no doubt because earlier parts of Q3 focused on budgetary policy). Students should always remember to focus on both monetary and budgetary policies when asked about 'aggregate demand policies'. In addition, students should avoid referring to budgetary policy supply side measures when answering questions related to 'aggregate demand policies'.

Monetary policy to achieve low inflation

A **restrictive monetary policy stance** will typically involve a tightening of policy that leads to an increase in interest rates across the economy. These higher *interest rates eventually reduce inflationary pressure in three main ways:*

- **First**, via containment or restrictions in the growth of AD via the five transmission channels referred to earlier.
- **Second**, the higher exchange rate (which typically results from higher interest rates) will reduce the prices of imported consumer goods and immediately decrease pressure on the CPI. In addition, there should be a fall in the prices of producer imports (such as imported robotics or machinery) which assist in containing the CPI over the medium-term once the lower costs of production are passed onto consumers.
- **Third**, the policy tightening helps to contain *inflationary expectations.*

Exam Tip: Always remember the demand and supply side effects of interest rate changes (as discussed in Unit 3). When interest rates rise, the cost of borrowing increases, adding to the costs of production and increasing inflationary 'pressure'. However, interest rates mainly affect inflation on the demand side. Hence, while high interest rates can actually increase inflationary pressure, they reduce inflation via the negative impact on AD over time as well as the immediate effect on inflationary expectations (i.e. to reduce them). You must remember that the demand side impact always outweighs the supply side impact when there is a change in monetary policy.

Monetary policy to promote growth and jobs when low inflation is achieved

The RBA will adopt an **expansionary monetary policy** stance to stimulate the economy and create jobs once it is confident that inflation is either under control or too low (i.e. below 2%). This is precisely the scenario that has existed up until the end of 2021, with inflation generally below the bottom end of the RBA's target range and the RBA focused on the need to stimulate the economy to create jobs and reduce unemployment. The current setting of monetary policy in 2022 remains highly expansionary, despite the 'de-facto tightening' referred to earlier (as the RBA withdrew some of the non-conventional monetary policy stimulus to the economy).

An expansionary stance will typically be delivered via a loosening of policy, which involves a reduction in interest rates across the economy which then works to stimulate AD via the five transmission channels referred to earlier. As AD is stimulated via these channels, as well as the associated boost in consumer and investor confidence, it results in an increase in real GDP and economic growth. This then helps to boost the demand for labour and employment, exerting downward pressure on the unemployment/underemployment rate. In this way, the loosening of monetary policy will help to stabilise the economy during a downturn and contribute to the achievement of both strong and sustainable growth and full employment.

Exam Tip: For questions relating to MP it is common for students to provide detail about MP that is unrelated to the question being asked. For example, in the 2011 examination, Q3 required students to demonstrate an understanding of how a more 'cautious consumer' is likely to influence RBA decision making. Students only need to explain whether this information is likely to make the RBA more or less likely to loosen monetary policy and/or adopt a more expansionary setting. There is no need for students to explain how the RBA loosens MP or how a loosening of MP helps to stimulate the economy!!!

Exam Tip: When examining relationships between economic variables in the exam, you must ensure that you get the sequence of events correct to be guaranteed full marks. For example, if the question asked how expansionary monetary policy may affect the achievement of price stability, it is not uncommon for students to make silly mistakes like: '….the reduction in interest rates causes AD to increase which causes Consumption and EG to increase, resulting in a rise in Investment, prices and inflation …….'. Whilst the general thrust of the answer is correct, the sequence of events is incorrect.

Exchange rate intervention and the cash rate

To manipulate the value of the AUD, the RBA directly enters the foreign exchange market and either buys or sells Australian dollars in exchange for another currency (typically the USD). When it purchases (demands) the AUD, it increases its value and when it sells (supplies) the AUD it decreases its value.

Unlike inflation, the RBA does not target a particular level for the value of the AUD. Instead, it prefers to intervene in order to smooth out any **persistent volatility** in the exchange rate. It will occasionally intervene in the foreign exchange market if it believes that that the AUD has clearly overshot (e.g. if the AUD was rising too much, pushed along by speculation, when its underlying value was lower). Similarly, the RBA would intervene to prevent the AUD from falling well below its fundamental value, such as late 2008 when the RBA made large scale purchases of the AUD to prevent it falling below USD0.60. Overall, since the floating of the Australian currency in 1983, the RBA has, on balance, not systematically changed the value of the currency. In other words, the purchases and sales of the AUD since 1983 have tended to cancel each other out such that the RBA has neither been a net purchaser or net seller of the currency since 1983.

Exam Tip: The RBA will generally not tighten policy to increase the exchange rate nor loosen policy to reduce the exchange rate. However, it will take into account the impact that a higher/lower cash rate will have on the exchange rate. Accordingly, the exchange rate is one of many factors the RBA Board takes into account when determining monetary policy settings. Indeed, in recent times, some commentators claimed that the RBA reduced the TCR in order to bring the AUD down. Whilst the RBA acknoweldged that it would exert downward pressure on the AUD, it claimed that the MP loosening was implemented to provide respite to those industries (e.g. manufacturing and tourism) that have been suffering under the weight of a high exchange rate - respite in the form of lower interest costs.

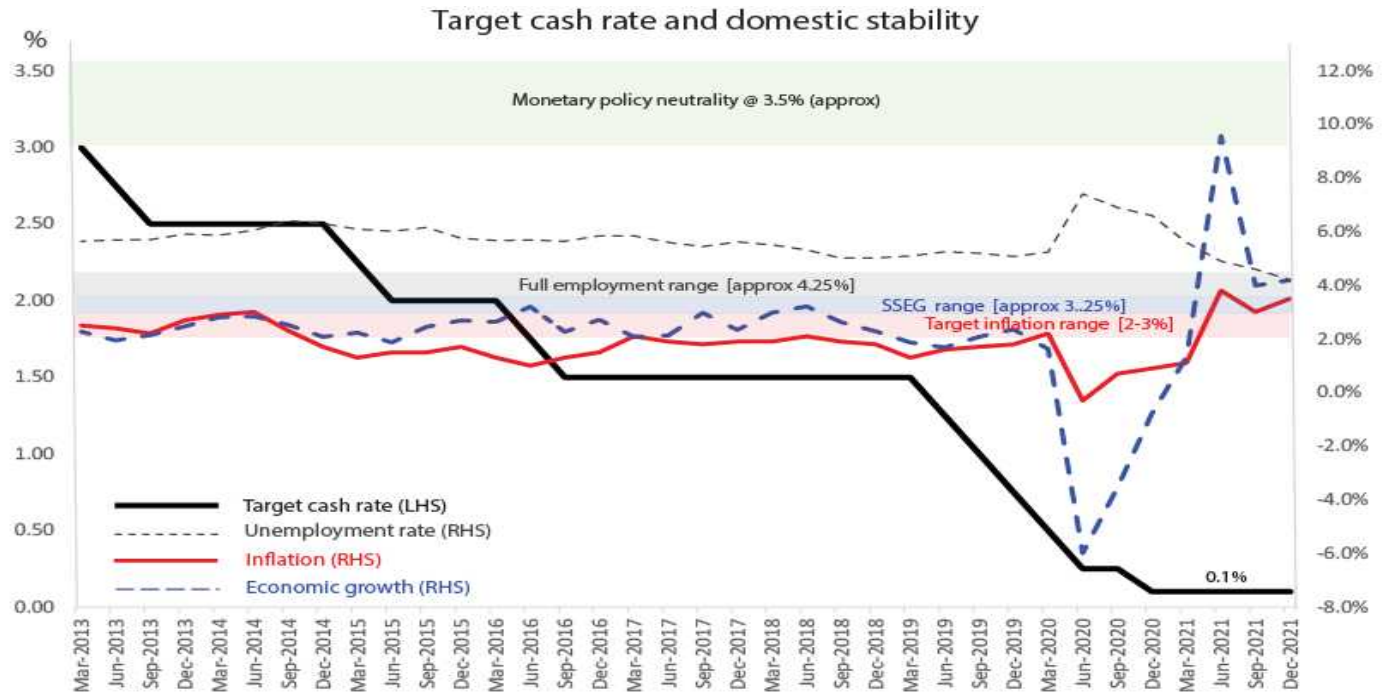
The loosening of monetary policy over recent years might be seen by some analysts or commentators to represent an attempt to reduce the value of the AUD towards its 'fundamental value'. [However, precisely what is the fundamental value of the AUD is debatable, with many arguing that is typically around USD0.75.] While it is true that lower interest rates did indeed help to reduce the value of the AUD up until 2020 (because Australian interest rates become 'relatively' lower than overseas rates which reduces capital inflow and encourages capital outflow), the RBA continues to maintain that policy easings are designed to boost AD and achieve stronger rates of economic growth – not to reduce the value of AUD per se.

Exam Tip: Students should note that the overall appreciation of the AUD since 2020 is a result of booming commodity prices (primarily the world price iron ore), 'relatively' lower interest rates abroad and the generally weaker US dollar. This is despite the fact that interest rates also fell in Australia. Being aware of this information might prove useful in the event that the 'exchange rate' features heavily in the 2022 exam as it did in 2020.

Exam Tip: With respect to the relationship between interest rates and capital inflow it is usual to argue that higher interest rates attract capital inflow as foreign investors chase higher returns being offered in Australia. Understand that the 'investment' being referred to is overseas groups lending to Australia; and they do this because (ceteris paribus) the interest they receive is relatively higher than that on offer in their own country. Students should not make the common mistake of arguing that low interest rates will attract foreign capital because funds are cheaper!

How monetary policy has influenced AD and domestic economic stability

The chart below describes how monetary policy has been implemented since 2013 and comparing this to the changes in the key variables underpinning the achievement of each of the government's macroeconomic goals.



Over the entire period, it is evident that the RBA's monetary policy stance has been expansionary, simply because the TCR has been below the monetary policy neutrality during this time. However, monetary policy has become 'more expansionary' because the TCR has fallen from 3% in March 2013 to 0.1% in May 2021. In addition, the RBA has employed other non-traditional expansionary measures that are not evident if one simply focuses on movements in the cash rate. [See 'Unconventional monetary policy measures over 2020-21' below.]

Over 2015 and into 2016, economic growth picked up (with growth of just below 3% recorded for 2015-16) and unemployment rate dropped to relatively lower levels (5.7%). In addition, continuing low oil (and petrol) prices, a rebound in some commodity prices (such as iron ore and coal), lower savings rates and the positive wealth effect stemming from higher property prices were all helping to stimulate AD and economic growth. In isolation, these factors would most likely result in a tightening of monetary policy. However, other signals suggested that further monetary stimulus was required. This included lower mining investment, continuing slow growth overseas, evidence of spare capacity in labour markets (such as slow wages growth), an overvalued exchange rate and continuing fiscal consolidation by both state and federal governments. The RBA felt that, on balance, an easing of monetary policy was required to support economic growth and jobs over the medium term, particularly given the absence of inflationary pressure (evidenced by deflation recorded for the March quarter 2016). It reduced the TCR to 1.5%, to make monetary policy very expansionary at the time, which helped to support growth and jobs as well lift inflation back into the target range, which it managed to do in 2017 for a short time.

During 2017, the RBA was presented with numerous signals that a further loosening of monetary policy was needed to stimulate the economy, including continuing below trend rates of economic growth, very low growth in wages, sluggish retail sales levels, spare capacity in labour markets (e.g. continuing high underutilisation rates despite lower unemployment rates) and an appreciating exchange rate. However, the RBA was particularly concerned about the property market boom and the growing household debt levels (which was influenced heavily by record low interest rates). Accordingly, the RBA Board decided against any further loosening of policy over 2017-18 and the cash rate remained at 1.5%

Over the course of 2018, signs emerged that the economy was rebounding and that a possible tightening of monetary policy was not too far away. These signs included a depreciating exchange rate, stronger employment growth, a further rebound in commodity prices, growth in public (government) sector demand, stronger consumer confidence and a reduction in the rate of unemployment to 5%. Indeed, the RBA signalled the possibility of a monetary policy tightening in in the middle of 2018. However, during 2019, despite some continuing signs of economic expansion (such as the benefits of a lower exchange rate, high commodity prices and low rates of unemployment), the RBA became increasingly concerned about the negative economic impacts associated with events such as the growing global trade tension, low wages growth, continuing high levels of household debt, low consumer confidence and bushfires affecting many Australian regions from the middle of 2019. As a consequence, economic growth fell below 2% for most of 2019, which contributed to growth in the rate of unemployment from the 2018 low of 5%, and the rate of inflation continued to hover below the RBA's target range. In this disinflationary, low growth environment, the RBA reduced the cash rate three times over the second half of 2019, with the TCR falling to a highly expansionary setting of 0.75% by October 2019.

Of course, 2020 commenced with the continuing economic damage imposed by bushfires, which was then closely followed by the arrival of the Covid-19 and its well documented economic effects, both on the demand and supply sides of the economy. This resulted in the recession of 2020, with a large fall in economic growth of 28% for the June quarter of 2020 (or -6.3% year on year), deflation of 1.9% for the same quarter (or 0.3% year on year) and the unemployment rate climbing to 7.4% (or an the 'effective' rate of unemployment climbing to approximately 14%). In this environment, the RBA was impelled to assist budgetary policy stimulus efforts. It reduced the TCR in both March and April to 0.25%, before further decreasing the cash rate to 0.1% in November – the lowest in history – as well as introducing less conventional expansionary measures, (e.g 'quantitative easing').

For much of 2021, despite signs of ongoing recovery, the RBA continued to communicate that the Bank remained focused on full employment while [underlying] inflation remained below the target and that the current expansionary policy setting would remain in place until at least 2024. This was articulated by the RBA Governor in October 2021 in the following way:

> ***The Board remained committed to maintaining highly supportive monetary conditions to achieve a return to full employment in Australia and inflation consistent with the target. It will not increase the cash rate until actual inflation is sustainably within the 2 to 3 per cent target range. The central scenario for the economy is that this condition will not be met before 2024. Meeting this condition will require the labour market to be tight enough to generate materially higher wages growth than at the time of the meeting.***

Since then, the economic recovery has gained momentum, evidenced by much stronger (annual) rates of economic growth by the end of 2021 (4.2% to the year ended December 2021), combined with a re-emergence of inflationary pressure (headline inflation of 3.5%) and an unemployment rate falling towards 4%. The strength of the economic recovery during the latter part of 2021 and the parts of 2022 has been evidenced by the following types of indicators:

- Strong growth in commodity prices/terms of trade
- Continuing strong growth in net export demand
- Large growth in job vacancies and job advertisements
- Strong employment growth
- Falls in the unemployment (and underemployment) rates
- Acceleration in wages growth
- Sizeable rebounds in both consumer and business confidence
- High levels of construction activity
- Growth in the housing and share markets
- Strong growth in lending to businesses and households
- Relatively high rates of capacity utilisation

With clear signs that the RBA underestimated the pace of Australia's economic recovery, the Bank then switched its rhetoric away from not expecting an increase in the target cash rate until 2024, towards an acceptance (and preparedness) to tighten monetary policy much sooner if the increase in inflationary pressures appear not to be transitory and wages growth accelerates in the face of a very tight labour market. Many economists expect at least one monetary policy tightening from May 2022 and financial (e.g. bond) markets have indeed factored in more than one increase in the target cash rate during 2022.

Unconventional monetary policy measures over 2020-21

Unconventional monetary policy measures such as quantitative easing (QE) have been used by other central banks around the world, including the USA, to stimulate their economies over recent years. It is typically used when the policy rate of interest (e.g. the Australian cash rate) is close to zero and traditional expansionary monetary policy becomes much less effective. This is because lower policy interest rates are less likely to stimulate much additional borrowing because the effect of low rates is already factored into business decisions, and many businesses/households have already borrowed at the previously record low rates of interest.

QE involves the central bank buying financial assets in the economy, typically government securities (or even shares), with money that it creates in digital form (which is equivalent to printing money). It results in more liquidity or money floating around in the economy and causes 'longer term' interest rates to fall and the availability of credit to rise. This encourages businesses and households to borrow more money, beyond that which would have occurred via a further reduction in the policy rate of interest. QE measures are usually reserved for those times when economic growth is extremely low and, importantly, disinflationary pressures are evident, which helps to prevent the QE measures from igniting inflation and cementing higher inflationary expectations.

In mid-March 2020, the RBA decided to implement a 'comprehensive package to help support jobs, incomes and businesses as the Australian economy deals with the coronavirus. While part of this package at the time involved a further reduction in the cash rate to 0.25%, the RBA announced that it would go further by injecting more liquidity or cash into the economy with the express purpose of further reducing the cost of funding (or interest rates). This is Australia's version of QE and involved the RBA purchasing government bonds in the secondary market (i.e. not directly from the government as this would represent funding of the budget deficit, which the RBA is keen to avoid) which effectively injects cash into the economy. This is because the sellers of the securities have cash in their possession rather than government securities. The RBA deliberately targeted 3 year bonds and continued to purchase these bonds until the yield (i.e. the interest rate on the bonds) fell to the same level as the TCR (at the time 0.25%.) This means that in 2021, the RBA has not only set a target for the cash rate (currently @ 0.1%), but also sets a target for the 3-year Bond rate at 0.1%. This has been designed to further reduce the cost of funding for banks (as well as businesses and households).

Exam Tip: Students should remember that there is always an inverse relationship between the price of a Bond and the yield on that Bond. This is why the large-scale purchase of second hand Bonds by the RBA drives the price of these Bonds up, which naturally results in the yield falling. For example, if a Bond was selling for $100 and the owners of the Bond are contractually promised a $5 return on that Bond every year, then the yield on the Bond is 5%. Once the demand for the Bond increases, the price rises above $100, let's say to $200 for simplicity, and this results in the yield falling to 2.5%.

The RBA also established a term funding facility for the banking system, which was expanded in 2021, with particular support for credit to small and medium-sized businesses. Authorised deposit-taking institutions (ADIs), including banks, have been given access to additional 'low cost' funding (as low as 0.1%) which is designed to further boost access to finance (i.e. the availability of credit) for many Australian businesses that struggled to survive during the economic downturn. In late 2020, the RBA also started to target bonds with maturities greater than 3 years (e.g. 5 year bonds) which was designed to help ensure there is downward pressure on long-term interest rates.

The combination of all these expansionary monetary policy initiatives have helped to provide further support to AD, thereby cushioning the fall in economic growth, and helping to reduce unemployment to 5.6% in March. In addition, by flooding the economy with liquidity, this ensures that interest rates will remain very low over the medium to long term, and therefore improves the ability of the federal government to finance the huge budget deficits that will be delivered over the next couple of years.

Exam Tip: The large injection of liquidity into the system (as a consequence of the above measures) actually made it more difficult for the RBA to maintain the cash rate at the TCR of 0.25% in 2020 (and again at 0.1% in 2021). The cash market was flooded with 'cash', resulting in 'surplus' exchange settlement balances, and a corresponding reduction in the cash rate below the TCR. The RBA allowed this to occur on numerous days and has therefore been less vigilant in restricting liquidity (via OMOs) to drive the cash rate back up towards the target. This information is technically not required knowledge for the VCE Economics exam and is included to provide a relatively complete picture of the unconventional RBA action during these unprecedented times.

As mentioned earlier, towards the end of 2021 and into 2022 the RBA stopped targeting the bond yield and scaled back its purchases of government bonds in response to a faster than expected economic recovery. While this does not represent a traditional tightening of monetary policy, it does represent action by the RBA that exerts upward pressure on market interest rates. In this respect, it can be considered a de-facto tightening of monetary policy.

Exam Tip: In the 2022 examination, students will not be expected to demonstrate an understanding of how the scaling back of QE measures represents I de-facto tightening of monetary policy. However, reference to this information does have the potential to add value in the examination provided it is communicated effectively.

Forces influencing RBA decision making over recent years

The table below summarises the competing forces influencing RBA decision making over recent years:

Statistics/factors supporting lower interest rates (disinflationary forces)	Statistics/factors supporting higher interest rates (inflationary forces)
• Continuing spare capacity in the economy evidenced by below trend rates of growth as well as loose markets (e.g. high unemployment and underemployment) up until 2021 • Continuing slow growth in wages and lower unit costs (e.g. since 2019) • Stronger competition in the retail sector (e.g. driven by technological advances) • Inflation rates below the target range up until the end of 2021 • The overall appreciation of the exchange rate since early 2020, despite the fall over 2021 (and including the appreciation over 2022 so far) • Tighter lending standards imposed by banks and declines in credit growth up to 2020 • Lower levels of household and business (non-mining) investment up to 2020 • The negative effects of natural disasters, such as droughts and floods as well as the Australian bushfires over 2021-22 • Very low levels of consumer and business confidence from mid 2019 through most of 2020 (and more recently into 2022) • The negative demand side effects of Covid-19 over 2020-21 • The rise in household savings ratio over 2020-21 • Slower population growth (e.g. due to closure of borders and impact on migration) and the impact on AD • Possible slowdown in export demand from China owing to a renewed outbreak of Covid-19 as well as political tensions and the impact on trade sanctions	• The rise in commodity prices/higher terms of trade since 2016, and particularly over 2020-21 • Continued strong growth in mining sector investment over recent years • Strong growth housing prices from 2020 impacting favourably on household wealth • Strong growth in net export demand over recent years • Large growth in property prices over 2021 impacting positively on household wealth and AD • Continuing high levels of household indebtedness • The reduction in net migration and the impact on skills shortages and productive capacity • Stronger growth in household consumption stimulated by lower savings ratio • The inflationary impacts of very loose monetary policy in Europe and the USA and stimulus in China • Stronger employment growth and lower rates of unemployment from 2021 onwards and the relationship with emerging growth in wages • Growth in private (non-mining) sector investment in 2021 • Stronger consumer confidence up to the middle of 2019 and again in 2021 • The weaker exchange rate over 2021 • The fall in household savings ratio over 2021 • The large Federal and Sate Budget Deficits which will continue to be highly expansionary • War in Ukraine putting upward pressure on fuel and food prices • Covid's upward pressure on prices due to supply constraints (e.g. microchip shortage and timber price rises)

Exam Tip: Q2a of the 2018 exam required students to describe how low wages might have influenced the stance and focus of monetary policy. Many students misinterpreted the question and focused on how the RBA can directly address low wages growth. Instead, they needed to focus the macroeconomic implications of low wages growth (e.g. it contributes to low inflation and may be symptomatic of low economic growth) and then determine how the RBA is likely to respond (i.e. the RBA will focus on the disinflationary implications and then decided to maintain its expansionary stance.)

Exam Tip: Q2d of the 2019 exam required students to explain how the setting of AD policies (both monetary and budgetary) might be influenced by the combination of 'a fall in the rate of unemployment but a weaker than expected growth in wages'. Many students were unable to reconcile how the combination of lower unemployment rates and slow wages growth might still imply slow(er) rates of economic growth and a need for a more expansionary monetary (and budgetary) policy setting. If a similar question surfaced, it is important to recognise that lower unemployment rates can be consistent with lower economic growth (and/or the existence of spare capacity in labour markets) when underemployment/casualisation of the labour force is rising).

Strengths of Monetary Policy

Some factors that make monetary policy a particularly powerful tool are the following:

- ***RBA Independence*** – this is an important strength that makes monetary policy superior to budgetary and microeconomic policies in terms of its ability to make policy decisions that are apolitical – that is, free from political bias. The relationship between the RBA and the government was clarified in a recent 'Statement on the Conduct of Monetary Policy' where it was highlighted that:

  'The government recognises the independence of the Bank and its responsibility for monetary policy matters and respects the Bank's independence as provided by statute'

  - Despite this, it is possible for the government of the day to override the RBA in the event that there is a material policy difference between the RBA and the government. In reality, this is a politically demanding process and is a course of action that is unlikely to be taken by any government.

- ***Short implementation lag*** – Compared to budgetary and supply side policies, it takes very little time to implement a monetary policy decision once the Board decides to change policy settings. For example, once the decision was made to loosen monetary policy in November 2020, the RBA announced the decision and immediately entered the cash market to decrease the cash rate towards its new 0.1% target. Financial markets then automatically started to adjust other interest rates as soon as the announcement was made.

- ***Influence on expectations*** – monetary policy is particularly powerful in influencing the expectations of economic agents. In some instances, concerns expressed by the RBA Governor (without actual changes to policy settings) can have a powerful influence on the behaviour of consumers, investors, borrowers or lenders.

- **Flexibility to some extent** – the use non-conventional measures over 2020-21 highlights that monetary policy is somewhat flexible enough to implement other expansionary measures (apart from a reduction in the TCR) in order to stimulate the economy.

- ***Supreme weapon to manipulate AD*** – whilst all policies will impact on levels of AD in the economy, monetary policy is traditionally the primary policy used to fine tune AD in an effort to achieve stability in the level of domestic economic activity. This is why monetary policy is regarded as the key macro-management policy. [It is likely to be very effective at reducing AD when inflationary pressures rise due to high household and business debt levels but, as noted below, it is becoming less effective at stimulating AD given that interest rates are at record lows.]

Weaknesses of Monetary Policy

Some factors that make monetary policy a less powerful tool are the following

- ***Blunt instrument*** – monetary policy is unable to discriminate across the economy as any effort to restrain or stimulate AD via a change to interest rates affects all sectors equally. Unlike budgetary policy, it is unable to restrain or stimulate activity in particular sectors if it feels this is required. For example, the two speed (or patchwork) economy that existed during the mining boom could not be managed by monetary policy. This was because an increase in interest rates to control inflationary pressures coming from the mining sector would only serve to further damage other sectors (such as manufacturing, retail and tourism) suffering under the strain inflicted by a high dollar. Similarly, monetary policy is unable to specifically re-allocate resources (e.g. to address market failures) nor improve equity by focussing on particular disadvantaged groups.

- ***Long impact lag –*** the time it takes for monetary policy actions to fully impact on the economy can be up to two years. This forces decision making to be very forward looking, relying on economic forecasts and estimates that may be incorrect or misleading. Accordingly, monetary policy can actually be pro-cyclical when it intends to be counter-cyclical. A good example of this occurred when the RBA tightened policy during the early part of 2008 to restrain growth, but the economy had already 'turned' and was on the downward phase of the business cycle (i.e. growth was declining). This meant that the increases in the cash rate in late 2007 and early 2008 actually contributed to Australia's economic downturn of 2008/9.

- ***No direct control over interest rates –*** The RBA typically only has direct control over the cash rate. The extent to which changes in the cash rate flow through to change all other rates depends on normal demand and supply pressures existing in financial markets. For example, between 2016-2019, there were instances where the banks increased interest rates despite the fact that the cash rate has remained at 1.5%. The banks claim it is because they experienced increased finding costs, but there is also likely to be an element of banks attempting to boost profit margins in markets where competition is relatively weak (e.g. small business lending market). This therefore changes the relationship between the cash rate and average interest rates across the economy.

Exam Tip: Over 2020-21, the RBA targeted rates on 3-year government bonds via large scale bond purchases to drive the bond rate down to 0.25% (2020) and then 0.1% (2021). This illustrates that the RBA is less limited in its ability to manipulate economy wide interest rates. However, it will only explore this option on the rarest of occasions – which is what Australia faced with the Covid-19 induced economic downturn/recession of 2020.

- ***Interest rate sensitivity is variable –*** Monetary policy becomes less effective when household debt climbs to high levels. This is because households are less likely to borrow additional amounts when interest rates fall as they are already heavily indebted. This means that the RBA needs to more aggressively loosen monetary policy in order to stimulate Consumption demand (e.g. via the cost of credit channel). Conversely, in the event that a tightening is required, smaller upward increments in interest rates will be required to restrain Consumption demand (e.g. via the cash flow channel).

- ***Interest rate preferences are variable –*** The impact of loose monetary policy can be variable or less certain, depending on the balance between those in the economy preferring higher interest rates (e.g. net savers and lenders) and those preferring lower interest rates (e.g. dissavers or borrowers). An ageing population (with more retirees) could mean that lower interests will be less and less effective at stimulating AD and economic activity.

Exam Tip: If a question requires students to evaluate one strength and one weakness of using budgetary policy and/or monetary policy in achieving increased 'jobs and growth', it is insufficient to simply list strengths and weaknesses without linking the strengths/weaknesses to the policy's ability to create jobs and growth. Accordingly, it is not good enough to simply say that 'a weakness of MP is that it is a blunt instrument and cannot easily target specific sectors or industries'. While this is indeed a weakness, it is necessary to extend the response to explain how this might negatively impact on the ability to achieve 'jobs and growth'. For example, the blunt nature of MP means that it is not an effective tool to create jobs for those who are unemployed for structural reasons (i.e. reduce structural unemployment). It can only attempt to create jobs for those who are unemployed for cyclical reasons (i.e. reduce cyclical unemployment).

Exam Tip: Question 1d of the 2021 exam required students to explain two weaknesses associated with using monetary policy to achieve full employment. Many students listed generic weaknesses, such as its bluntness, without adequately explaining how the weaknesses limits the effectiveness of monetary policy. For this type of question, students need to make it clear how the weakness(es) not only constrain(s) the ability of low(er) interest rates to stimulate AD, but also how this impairs the ability of monetary policy to achieve full employment.

- Ability to control economic activity is muted by the RBA's lack of influence over budgetary policy decisions, which ultimately means that both macroeconomic policies can be conflicting. For instance, it is very likely that the RBA will tighten policy over the coming year, during a time when the Federal Government continues to run a large expansionary budget deficits. So it can be argued that monetary and budgetary policy will be working against one another as the RBA seeks to tighten policy to contain inflationary pressures.

REVIEW QUESTIONS 2 – Nature and operation of monetary policy

1. ***Explain what is meant by monetary policy.***
2. ***Outline the goals of the RBA as set out in its charter.***
3. ***Outline the medium-term objective for monetary policy.***
4. ***Explain how monetary policy can be used in a countercyclical manner.***
5. ***Explain why the RBA focuses on the underlying rate of inflation instead of the headline rate when implementing monetary policy.***
6. ***Define the cash rate and distinguish it from the target cash rate.***
7. ***Explain why the cash rate can fluctuate daily.***
8. ***Explain how the RBA uses open market operations (OMOs) to increase the target cash rate. Use a D/S diagram to illustrate.***
9. ***Explain how the RBA uses open market operations (OMOs) to decrease the target cash rate. Use a D/S diagram to illustrate.***
10. ***Describe the relationship between the actual cash rate and the target cash rate.***
11. ***Explain the relationship between the TCR and market interest rates since 2019 and discuss the implications for monetary policy settings.***
12. ***Explain the process involved in a tightening of monetary policy. Make reference to the policy interest rate corridor.***
13. ***Explain the process involved in a loosening of monetary policy. Make reference to the policy interest rate corridor.***
14. ***Explain why other interest rates increase/decrease when the RBA tightens/loosens monetary policy.***
15. ***Distinguish expansionary monetary policy from contractionary monetary policy.***
16. ***Define 'monetary policy neutrality' and explain why the cash rate at which MP neutrality occurs is lower today than it was in the past.***
17. ***Explain how monetary policy can become more contractionary (or less accommodative) without a tightening of monetary policy.***
18. ***Explain how monetary policy can become more expansionary (or more accommodative) without a loosening of monetary policy.***
19. ***Discuss how the RBA has changed monetary policy settings over the past two years.***
20. ***Outline the five key transmission channels by which a change in monetary policy can influence AD.***
21. ***Explain why the RBA reduced the cash rate over the course of 2020.***
22. ***Describe how the RBA adopted a more expansionary monetary policy stance over 2020. Make reference to 'non-conventional measures' and the purchase of second-hand government bonds.***
23. ***Explain how monetary policy can be used to achieve low inflation.***
24. ***Outline at least two ways in which a more restrictive monetary policy stance is likely to reduce inflation.***
25. ***Discuss how a monetary policy tightening can help to reduce inflationary expectations.***
26. ***Explain how and when monetary policy can be used to increase economic growth.***
27. ***Explain how a tightening of monetary policy is likely to affect 'full employment'***
28. ***Explain why monetary policy actions need to be pre-emptive.***
29. ***Provide a list of four economic variables the RBA could monitor to assist with inflation forecasting.***
30. ***Explain why tighter monetary policy settings are likely to result in a higher value for the AUD.***
31. ***The RBA loosened monetary policy in early 2020 in order to reduce the exchange rate. Discuss.***
32. ***Explain how the successful use of monetary policy can help to enhance living standards of Australians.***
33. ***Explain how the RBA implemented a de-facto tightening of policy after October 2021 despite there being no increase in the TCR.***
34. ***Evaluate the strengths and weaknesses of using monetary policy to achieve economic growth and employment growth.***

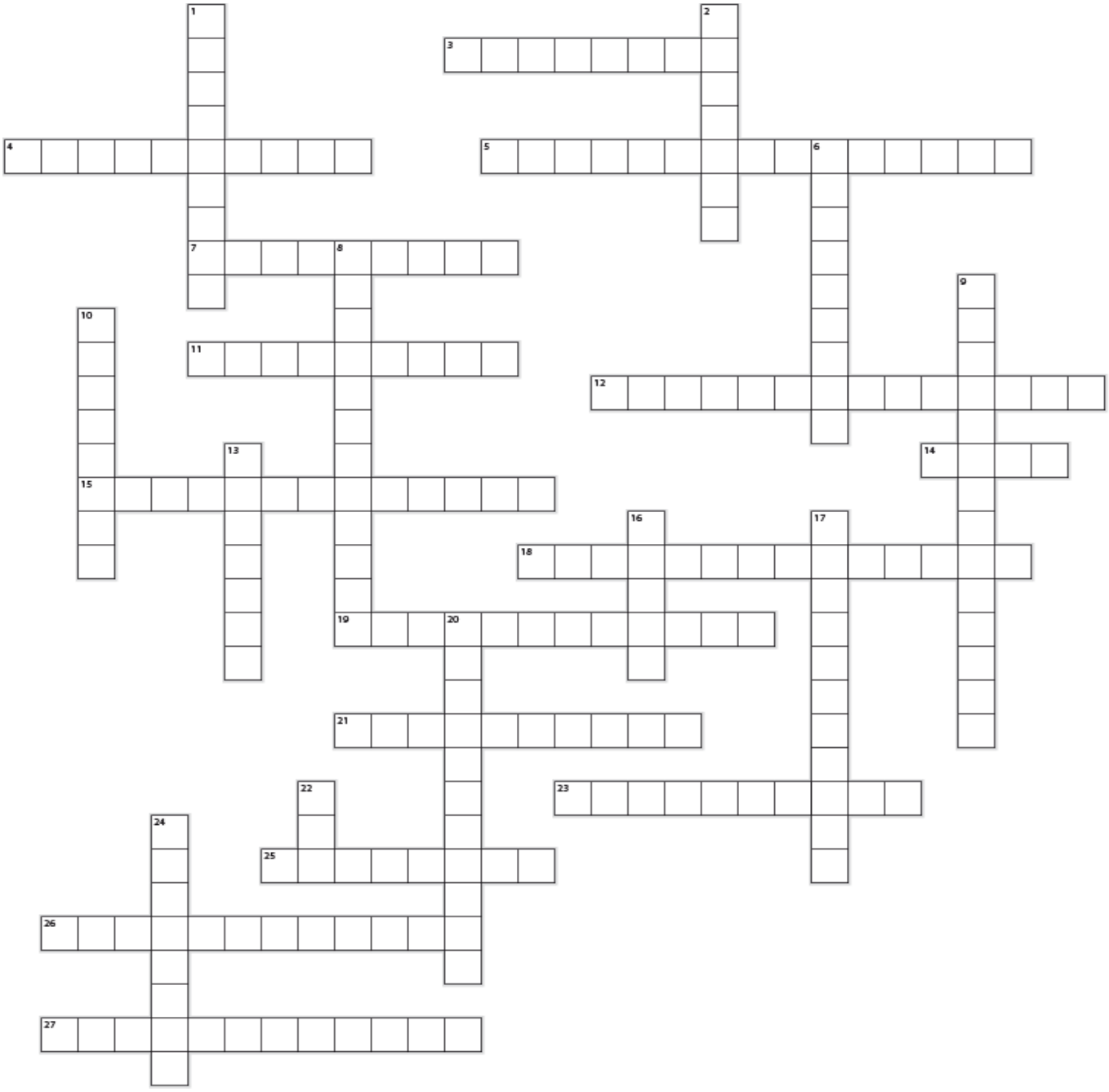
Quick revision crossword No 2: Monetary policy

Across

3. The target measure of inflation used by the RBA
4. The RBA Charter directs the Bank to conduct monetary policy in a way that contributes to the economic _____ and welfare of the people of Australia.
5. Monetary policy is used in this way to achieve its goals and it begins with C (2 words)
7. An increase in this within the cash market will tend to exert downward pressure on the cash rate
11. This occurs to monetary policy when the RBA reduces the target cash rate
12. The goal to keep consumer price inflation between 2 and 3 per cent, on average, over time (2 words)
14. The acronym used to describe the way the RBA manipulates the cash market
15. Monetary policy become more _____ if economic growth is high, or rising rapidly, and the RBA does not change the cash rate.
18. This time lag associated with monetary policy is quite short relative to budgetary policy
19. The monetary policy stance as at April 2022
21. The RBA does not target this measure of inflation, but uses it as a guide to determine the direction of the Headline rate in the future
23. This occurs to monetary policy when the RBA increases the target cash rate
25. The transmission mechanism/channel involving the impact on the ability of economic agents to service loans (2 words)
26. A transmissions mechanism that affects the tradables sector of the economy (2 words)
27. The transmission mechanism that involves a reduction in the demand for loans or credit (3 words)

Down

1. the RBA is particularly concerned about the property market boom and the growing _____ debt levels
2. The MP stance that exists when the level of the cash rate is neither working to stimulate nor contract the economy.
6. The rebound in these over 2016-17 was a contributing factor behind the rate of inflation climbing into the RBA target range
8. A potent strength of monetary policy, making it more powerful than budgetary policy, particularly around election time
9. The RBA will focus on this once inflation is under control (2 words)
10. A policy operated by the RBA on behalf of the government designed to manipulate key financial variables in the economy (primarily interest rates) in order to increase welfare and prosperity for all Australians.
13. The prices of these goods will fall following an appreciation of the AUD
16. This is one of the major criticisms relating to the impact of monetary policy
17. A large fall in capacity _____ may result in the RBA considering a loosening of monetary policy
20. One of the transmission channels of monetary policy that is currently linked to growing household debt
22. The RBA's control over these accounts enables it to manipulate the supply of cash in the overnight cash market (acronym)
24. The RBA manipulates this to give effect to either a tightening or loosening of monetary policy (2 words)



MINI EXAM NO. 1: AREA OF STUDY 1

UNIT 4 (Total marks = 65)

Section A
Multiple choice (total marks = 15)

Section B
Short answer questions (total marks = 50)

Section A: multiple choice

Answer the following fifteen multiple choice questions. You must **shade** correct box below:

1	A	B	C	D
2	A	B	C	D
3	A	B	C	D
4	A	B	C	D
5	A	B	C	D
6	A	B	C	D
7	A	B	C	D
8	A	B	C	D
9	A	B	C	D
10	A	B	C	D
11	A	B	C	D
12	A	B	C	D
13	A	B	C	D
14	A	B	C	D
15	A	B	C	D

1. Which of the following events is most likely to make the RBA consider a tightening of monetary policy?
a) A rise in the value of the Australian dollar
b) Stronger growth in the world economy
c) Rising levels of unemployment
d) An increase in the size of the budget surplus

2. Which of the following is likely to change the cyclical component of the budget?
a) Investing more money in the National Broadband Company during a period of sustained growth in the economy
b) The reduction in the company tax rate to 25% for those companies with turnover less than $50m
c) Increased funding for the super co-contribution
d) Increased personal income tax received due to stronger growth in economic activity

3. The ultimate goal of monetary policy is to
a) Achieve low inflation
b) Achieve stability in the value of the dollar
c) Promote economic growth
d) To maximise the economic prosperity and welfare of Australians

4. Which of the following is likely to cause the budget deficit to fall in the short term?
a) An increase in the tax-free threshold
b) Increased spending on national defence and security
c) The repeal of the carbon tax
d) Increasing the accelerated depreciation allowance for small businesses

5. Which of the following policy options are likely to be implemented in an effort to decrease demand inflationary pressure in the economy?
a) A reduction in personal tax rates and a higher cash rate
b) A rise in the budget surplus and a tightening of monetary policy
c) A reduction in both company and income tax rates
d) A higher budget deficit and a more accommodative monetary policy stance

6. Which of the following statements relating to the 2022-23 Budget is correct
a) The estimated underlying cash deficit rose from the previous period
b) Fuel excise was increased in order to reduce carbon emissions
c) The estimated structural budget deficit increased despite a fall in the estimated budget deficit
d) The government delivered a budget surplus to keep inflation low

7. Which of the following is most likely to result in the budget outcome moving from a surplus to a deficit?

a) The unemployment rate falls
b) There is a loosening of monetary policy
c) There is a fall in economic activity
d) Growth in China increases to very high levels

8. Which of the following policy actions below is <u>least</u> likely to be implemented to address the future problems associated with an ageing population?

a) Increased funding to address global warming
b) More favourable taxation treatment of superannuation
c) Increased funding for child care
d) Increased funding for training and education

9. Which combination of policy actions is most likely to assist in the achievement of economic growth

a) A reduction of the target cash rate, greater Investment spending by the government and higher company tax rates
b) A rise in the target cash rate, greater Investment spending by the government and lower marginal tax rates
c) A rise the target cash rate, greater Investment spending by the government and lower company tax rates
d) A reduction of the target cash rate, greater Investment spending by the government and lower marginal tax rates

10. Which of the following is <u>least</u> likely to be a target of monetary policy?

a) Increasing rates of economic growth to between 3% and 4%
b) Lowering rates of unemployment to approximately 5%
c) Price stability or low growth in the consumer price index
d) A low rate of inflation equal to 0% on average over time

11. Which of the following is the largest component of federal government expenditure?

a) Defence
b) Social security and welfare
c) Health
d) Education

12. Which of the following occurrences is <u>least</u> likely to contribute to a loosening of monetary policy?

a) An increase in the terms of trade
b) Low levels of consumer confidence
c) Relatively high rate of labour force underutilisation
d) Slow growth in wages

13. If the actual budget deficit for 2022-23 is higher than the estimated $78B, which of the following is likely to be a contributing factor?

a) Nominal GDP growth being higher than expected
b) The terms of trade being lower than expected
c) Wages growth being higher than expected
d) The rate of unemployment being lower than expected

14. Which of the following is <u>not</u> a generally accepted transmission channel for a loosening of monetary policy?

a) A fall in the value of the Australian dollar, boosting net exports
b) A fall in savings and an increase in Consumption and Investment
c) A fall in interest rates and resulting rise in the exchange rate which reduces net exports
d) A fall in the incidence of lenders rejecting loan applicants and consequent increase in Consumption

15. Which of the following best describes macroeconomic policy settings as at April 2022?

a) Expansionary monetary policy evidenced by a low cash rate and expansionary budgetary policy evidenced by a larger structural budget deficit
b) Expansionary monetary policy evidenced by a low exchange rate and contractionary budgetary policy evidenced by a smaller underlying budget deficit
c) Expansionary monetary policy evidenced by a low cash rate and an expansionary budgetary policy evidenced by growing levels of government debt
d) Expansionary monetary policy evidenced by a high interest rates and a contractionary budgetary policy evidenced by a larger structural budget deficit

STRUCTURED QUESTIONS

1. **Explain what is meant by monetary policy.** **(3 marks)**

2. **Explain how the RBA delivered a more expansionary monetary policy setting in late 2019. In your answer, make reference to the target cash rate.** **(4 marks)**

3. **Explain how a loosening of monetary policy is likely to affect the rate of unemployment in the short to medium term.** **(3 marks)**

4. **Explain how an increase in a budget surplus can represent an increase in public sector saving.** **(3 marks)**

5. **Explain how an increase in public sector savings can lead to a corresponding reduction in private sector savings.** **(3 marks)**

6. **Explain two ways in which the 2020 recession is likely to have influenced the cyclical component of the budget.** **(4 marks)**

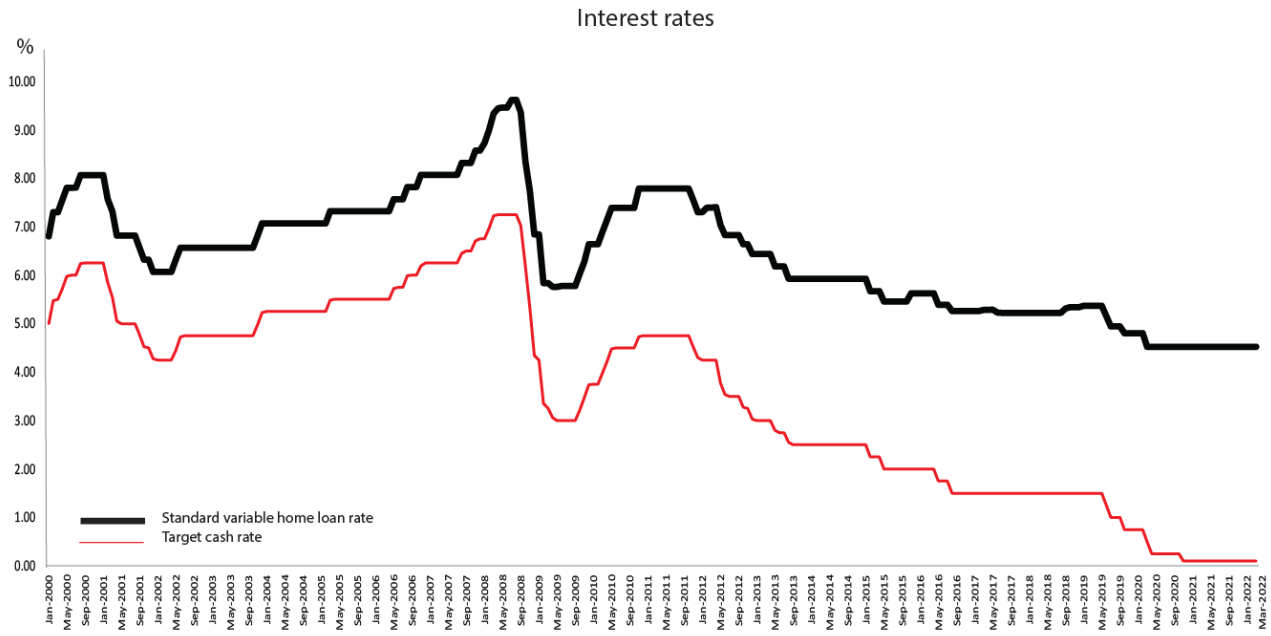
7. **Explain how a more expansionary monetary policy setting can affect Australian living standards. Distinguish the short-term from long-term impacts** **(6 marks)**

8. **If the economy were operating at close to productive capacity, outline the RBA's most likely response if the government cuts income tax and increases government spending.** **(4 marks)**

9. **Discuss the impact that a series of budget surpluses might have on economic growth and full employment.** **(4 marks)**

10. **Distinguish between a structural budget outcome and a cyclical budget outcome.** **(4 marks)**

11. **Referring to the chart below, answer the following questions:**



(a) Describe the movement in the target cash rate since the middle of 2019. **(2 mark)**

(b) Provide a valid explanation for the change in the monetary policy stance since 2019. **(4 marks)**

(c) Explain why a return to 'fiscal consolidation' can result in a more expansionary monetary policy setting. **(3 marks)**

(d) Describe how the lower exchange rate since early 2021 is likely to have influenced monetary policy deliberations. **(3 marks)**

TEST YOURSELF: 50 MC QUESTIONS (AOS 1)

PART A (AREA OF STUDY 1: AGGREGATE DEMAND POLICIES AND DOMESTIC ECONOMIC STABILITY)

1 The federal government seeks to use the budget to achieve all of the following, except
(a) Stronger rates of economic growth
(b) Lower interest rates
(c) Lower unemployment
(d) Lower inflation

2 Australia has a progressive personal income tax system. Which of the following characteristics best describes a progressive income tax system?
(a) high income earners pay more in tax than low income earners
(b) as income rises, the proportion paid in tax increases
(c) as income falls, the marginal rate of tax increases
(d) as income rises, the amount paid in tax increases

3 If the federal government wishes to reduce the level of economic growth, the most appropriate budgetary policy action would be to
(a) increase bond sales by the RBA to increase the cash rate
(b) decrease government spending and/or increase the level of taxation
(c) increase government spending and/or decrease the level of taxation
(d) decrease government spending and/or decrease the level of taxation

4 The most appropriate budgetary policy response to overcome demand inflation is to
(a) financing a budget deficit via bond sales to the public
(b) financing a budget deficit via bond sales to the RBA
(c) lower the rate of company tax to reduce business costs
(d) raise the cash rate to reduce aggregate demand

5 Which of the following budgetary policy measures would be most appropriate to assist the RBA's attempts to achieve low inflation?
(a) An increase in government expenditure
(b) An increase in the rate of sales tax
(c) A depreciation of the exchange rate
(d) A decrease in the rate of tariff protection

6 A budget deficit smaller than that originally estimated by the Australian government one year earlier, would be most likely to result from
(a) an unexpected natural disaster, such as a drought
(b) an unexpected increase in the wages of federal public servants
(c) an unexpected increase in tax avoidance
(d) an unexpected decrease in unemployment

7 Automatic stabilisers
(a) counter balance fluctuations in economic activity
(b) reinforce fluctuations in economic activity
(c) do not occur when the economy falls into recession
(d) cause the growth rate in the sales of automatic motor cars to stabilise

8 Bracket creep (or fiscal drag) is a phenomenon resulting in higher tax revenue for the federal government. It occurs during periods of inflation because
(a) Australia's income taxation system is progressive in nature
(b) real wages rise over time
(c) government expenditure is linked to inflation
(d) Australia's marginal income taxes fall as incomes rise

9 Two indicators of a tightening of fiscal/ budgetary policy would be
(a) higher tax rates and increased government spending
(b) higher tax rates and lower government spending
(c) higher interest rates and increased government spending
(d) higher interest rates and lower government spending

10 A budget deficit in any given year can be financed by
(a) a round of tax increases
(b) reducing the level of government expenditure
(c) reducing the level of income tax
(d) selling Commonwealth Government Securities (i.e. Bonds)

11 Which of the following recent budgetary policy initiatives is most likely to address market failure:

(a) A reduction in the company tax rate
(b) The removal of the 37% tax bracket by 2024-25
(c) Increased spending on national security and defence
(d) Tightening welfare eligibility

12. When preparing the budget, the government will estimate a GDP growth rate for Budgeted year. If the actual growth rate exceeded the estimated growth rate, then, ceteris paribus, which of the following is most correct:

a) Revenue will be higher, expenses lower and the surplus lower
b) Revenue will be higher, expenses lower and the surplus higher
c) Revenue will be lower, expenses higher and the surplus lower
d) Revenue will be lower, expenses higher and the surplus higher

13. In relation to the 2022-23 Budget, which of the following statements is correct?

(a) The government re-introduced a carbon tax
(b) Estimated government revenue was positively affected by higher commodity prices
(c) The budget outcome moved into surplus
(d) The company tax rate was reduced to 20%

14 The largest source of government revenue in the Australian federal budget is

(a) company tax
(b) GST
(c) personal income tax
(d) excise duties

15 If the Australian tax system were as follows

TAXABLE INCOME $	MARGINAL RATE OF TAX (%)
1 - 5400	10
5401 - 20700	20
20701 - 36000	25
36001 - 50000	30
50001 & OVER	35

This income tax system is described as

(a) regressive
(b) progressive
(c) proportional
(d) flexible

16 Taxes are most regressive when

(a) the total amount paid in tax rises as income rises
(b) the percentage of income paid in tax falls as income rises
(c) the percentage of income paid in tax rises as income rises
(d) the marginal tax rate rises as income rises

17 Fiscal policy refers to the manipulation of government income and expenditure to

(a) control the volume and price of money
(b) limit the rate of increase in incomes
(c) affect the value of AUD on world financial markets
(d) affect the level of total expenditure, output, employment and welfare of Australians

18 A federal budget surplus occurs when

(a) the value of inflows of goods and services into Australia exceeds the value of outflows
(b) public sector borrowings are less than in the previous year
(c) Commonwealth expenditure exceeds revenue in a year
(d) Commonwealth revenue exceeds expenditure in a year

19 An immediate policy problem with a federal government deficit is

(a) how taxes can be raised to pay for the deficit
(b) the problem of 'crowding out' of private investment
(c) The possibility of budget measures being rejected by the Department of Treasury
(d) whether to use the deficit to retire government debt

20 The better definition of the underlying budget outcome is

(a) the headline budget outcome less net asset sales/purchases and proceeds from the future fund
(b) the headline budget outcome less the rate of inflation
(c) the headline budget outcome less the cyclical component of the budget
(d) the headline budget outcome less the structural component of the budget

21 Which of the following was not a feature of the 2022-23 Budget?

(a) An increase in infrastructure spending
(b) An increase in interest rates
(c) Tax concessions to stimulate small business investment
(d) Increased spending on national security and defence

22 Market operations involve the Reserve Bank of Australia trading commonwealth government securities with

(a) financial institutions
(b) building societies
(c) companies
(d) foreign exchange dealers

23 If the Reserve Bank undertakes large purchases of commonwealth government securities (or repos) in the cash market, this will tend to:

(a) increase liquidity and reduce interest rates
(b) reduce liquidity and increase interest rates
(c) increase liquidity and increase interest rates
(d) reduce liquidity and decrease interest rates

24 Large market sales of commonwealth government securities by the Reserve Bank is likely to lead to

(a) an increase in economic activity
(b) a reduction in the level of aggregate demand
(c) an increase in the domestic money supply
(d) lower domestic interest rates

25 A loosening of monetary policy by the Reserve Bank will lead to

(a) higher interest rates and an expansion in the economic activity
(b) higher interest rates and a contraction in the economic activity
(c) lower interest rates and an expansion in the economic activity
(d) lower interest rates and a contraction in the economic activity

26 With respect to the transmission mechanism of monetary policy (i.e. how changes in monetary policy affect the economy), which of the following do not represent the common channels by which a change in interest rates affect the economy

(a) the affect on cash flows
(b) the affect on liquidity in the cash market
(c) the affect on savings and investment
(d) the affect on the exchange rate

27 Which of the following is a strength of monetary policy?

(a) time lags are short
(b) its able to quickly restore business confidence in a recession
(c) its 'independence' from political considerations
(d) its effect on consumer behaviour and economic activity are always predictable

28 The main medium-term policy focus of monetary policy has been to

(a) stability in the value of AUD on world currency markets
(b) to restore stability and confidence in the banking system
(c) control of medium-term inflation and inflationary expectations
(d) reduce levels of unemployment

29 One of the main weaknesses of monetary policy is the

(a) the precise impact on borrowing and lending behaviour is less clear
(b) inability of monetary policy to affect economic activity
(c) inability of monetary policy to affect inflation
(d) inability of monetary policy to influence the value of AUD

30 Which is the best monetary policy response for an economy with slow growth, higher unemployment and signs of inflationary pressures?

(a) raise interest rates
(b) purchase more Australian dollars
(c) lower interest rates
(d) adopt a wait and see approach (ie do nothing for the meantime)

31 The appropriate monetary policy response of the Reserve Bank when faced with low inflation and higher unemployment is to

(a) increase the cash rate
(b) purchase government securities in the cash market
(c) sell government securities in the cash market
(d) purchase Australian dollars on the foreign currency market

32 The main power of monetary policy lies in its ability to:
(a) regulate the behaviour of financial institutions
(b) regulate the level of household saving
(c) influence the level of economic activity
(d) control the value of AUD on world currency markets

33 The time lag between the implementation of monetary policy and its effect on the economy is known as the
(a) recognition lag
(b) decision lag
(c) implementation lag
(d) impact lag

34 Which of the following would be the most appropriate RBA response if the actual cash rate fell below the target cash rate?
(a) sale of government securities by the RBA
(b) purchase of government securities by the RBA
(c) purchase of foreign currency
(d) sale of the foreign currency

35 A more restrictive monetary policy can result in which of the following in the short term
(a) a higher level of economic growth
(b) a lower budget deficit
(c) a lower value of AUD
(d) an increase in welfare payments

36 A monetary policy tightening to curb inflationary pressure is likely to be most effective when it is accompanied by:
(a) an increase in the budget deficit
(b) large increases in the Terms of Trade
(c) tighter lending criteria by banks
(d) a large fall in the Trade Weighted Index

37 Tighter monetary is likely lead to
(a) an increase in the Terms of Trade
(b) a higher value of AUD
(c) a reduction in the Trade Weighted Index
(d) greater lending to foreigners by Australians

38 If economic growth climbed to 7% over 2022 and the RBA did not change the cash rate from its current low level, then the monetary policy stance could be considered?
(a) neutral
(b) more accommodative
(c) less accommodative
(d) unclear

39 If the RBA does not change the cash rate when the economy is growing very slowly, the monetary policy stance is said to become more:
(a) neutral
(b) expansionary or accommodative
(c) more restrictive or less accommodative
(d) unclear

40 Which one of the following events is most likely to be a factor influencing the RBA to increase the target cash rate above 0.1% over the second half of 2022?
(a) a fall in the exchange rate
(b) a fall in the terms of trade
(c) lower growth in the wage price index
(d) lower levels of business confidence

41. Which of the following is not an example of a recent monetary policy initiative that is designed to stimulate economic growth during an economic downturn?
(a) the provision of a wage subsidy for businesses
(b) a reduction in the target cash rate
(c) the purchase of second-hand government bonds from investors
(d) the provision of a long-term funding facility for banks to stimulate small business lending

42. A tightening of monetary policy is likely to contribute to
(a) Less pressure on aggregate demand, lower productivity and a reduction in inflationary pressure
(b) Less pressure on aggregate demand, lower rate of growth in real GDP and a reduction in inflationary pressure
(c) Less pressure on aggregate demand, lower interest rates and a reduction in inflationary pressure
(d) Less pressure on aggregate demand, lower rate of export growth and a reduction in inflationary pressure

43. Which of the following factors is unlikely to have contributed to the increase in the labour force participation rate above 65%?

(a) An increase in child care subsidies
(b) Lower personal income tax rates
(c) The ageing population
(d) The increase in the eligible aged pension age from 65 to 67

44. In relation to the 2022-23 Budget, which of the following statements is correct?

(a) The budget is expected to remain in deficit and government borrowing will increase
(b) The budget is expected to return to surplus and government borrowing will decrease
(c) The budget is expected to return to surplus and government borrowing will increase
(d) The budget is expected to remain in deficit and government borrowing will decrease

45. Which of the following was not announced in the government's budget over recent years?

(a) Further tax cuts for income earners
(b) Increased funding for childcare
(c) Funding to tackle the housing affordability problem
(d) The re-introduction of a carbon tax

46. The rising indebtedness of households tends to make any increase in interest rates:

(a) More powerful as households will more easily meet the interest commitments on their loans, leading to an increase in consumption expenditure, aggregate demand and economic growth
(b) More powerful as households will struggle to meet the interest commitments on their loans, leading to a reduction in consumption expenditure, aggregate demand and economic growth
(c) Less powerful as households will struggle to meet the interest commitments on their loans, leading to a reduction in consumption expenditure, aggregate demand and economic growth
(d) Less powerful as households will more easily meet the interest commitments on their loans, leading to an increase in consumption expenditure, aggregate demand and economic growth

47. A more expansionary budgetary policy has which of the following implications for monetary policy?

(a) It makes it easier for the RBA to control inflationary pressure
(b) It forces the RBA to tighten monetary policy in order to prevent the monetary policy stance from becoming relatively more accommodative
(c) It forces the RBA to tighten monetary policy in order to prevent the monetary policy stance from becoming relatively less accommodative
(d) It causes the RBA to delay any further monetary policy tightening in order to protect employment growth

48. Which of the following is most correct in relation to the 2022-23 Budget?

(a) The headline and underlying cash balance were identical
(b) The government delivered a contractionary budgetary policy stance because the underlying deficit increased
(c) The estimated deficit is lower than originally anticipated one year earlier due to a higher than expected terms of trade
(d) The government reduced the surplus because monetary policy remained highly expansionary

49. Which of the following is most likely to contribute to the achievement of strong and sustainable growth, low inflation and full employment?

(a) Fiscal consolidation (e.g. returning the deficit to surplus) and restrictive monetary policy
(b) Expansionary budgetary and monetary policies
(c) Lower tax rates, higher government spending and a lower target cash rate
(d) Fiscal consolidation (e.g. returning the deficit to surplus) and RBA monetary policy initiatives that have shown a commitment to controlling inflation

50. Which of the following does NOT adequately distinguish capital from current spending in the budget?

(a) Capital spending will generate benefits well into the future while current spending generates benefits that are consumed in the current year
(b) Capital spending includes spending on the training of workers while current spending includes wages of public servants
(c) Current spending will generate short-term benefits whereas capital spending generates benefits that last for several periods
(d) Current spending includes spending on government services whereas capital spending includes spending on infrastructure such as roads and rail

YOU BE THE ASSESSOR: UNIT 4 AOS 1

In this section, you are required to assess the two responses presented for each of the questions. You should assess each response and determine which one is likely to receive full marks. You should then justify your decision by annotating the responses, making it clear what was done well in the better response and what was deficient in the relatively poor response. Once complete, compare your evaluation to that of the authors [provided at the rear of the Study Guide].

1. Explain how the increase in the terms of trade is expected to impact on the ability of the government to achieve its medium-term fiscal strategy. 4 marks

Sample 1

The increase in the terms of trade (prices received for exports relative to the prices paid for imports) over 2016-17 has helped the government in its attempts to achieve its medium-term fiscal strategy for a budget surplus on average over the economic cycle. In particular, the higher prices received for commodities like iron ore and coal should be helping to raise mining company revenue (and profits) as miners receive more for any given quantity of mineral exports. This should help to boost wages and national income which ultimately lead to an increase in government tax revenue as well as a possible reduction in government expenditure as income/welfare support is likely to fall as the economy improves. This leads to a cyclical improvement in the budget outcome, with the underlying cash deficit falling over time which helps to return the budget to surplus and make the medium-term fiscal strategy more achievable.

Justification_____

_____

_____

Sample 2

The increase in the terms of trade is likely to reduce the budget deficit and/or increase the surplus. This occurs because commodity exporters will be making more money and therefore paying more company tax to the government. As the government receives more taxation revenue it is likely that existing government expenditure would be more easily covered by government revenue which allows the deficit to decrease. As the deficit decreases over time this means that the government will be more likely to achieve success in achieving its medium-term fiscal strategy. In addition, the government will be in a better position to introduce discretionary stabilisers that further help to reduce the size of the budget deficit. This might include higher tax rates or the introduction of new levies (such as the new bank levy announced in the 2017-18 Budget) and/or decreases in government expenditure.

Justification_____

_____

_____

2. Explain how monetary policy settings since 2016 may have contributed to the housing price boom. In your answer refer to one transmission mechanism/channel of monetary policy. 4 marks

Sample 1: *Monetary policy settings over 2016 have contributed to the housing price boom. The RBA lowered interest rates in the economy on two separate occasions over 2016. These monetary policy easings resulted in the monetary policy stance becoming accommodative or expansionary. The RBA achieved this reduction in interest rates by increasing the supply of cash in money markets, by purchasing government securities from the major banks, which eventually drove down interest rates down from 2.00% to 1.50%. These lower interest rates caused capital outflow and a reduction in the value of the Australian dollar as investors sought to take advantage of the relatively higher rates of interest in overseas financial markets. The lower exchange rate improved the international competitiveness of our exporters, causing net export demand to increase. This in turn led to an increase in AD, economic growth and employment, reducing the unemployment rate and moving more people from welfare income and towards higher wage income. Higher incomes earned then created an increased demand for many goods and services, including housing, causing an increase in the price of houses. In addition, the lower interest rates stimulated demand for housing as a result of the cheaper cost of borrowing (i.e. the cost of credit channel/savings and investment channel). Householders had financial incentive to reduce their savings (given the lower interest return) and increase their borrowing, making it more affordable to purchase a house with a mortgage loan. This added to the demand for housing and raised housing prices further.*

Justification_____

_____

_____

Sample 2: *Monetary policy became more expansionary over 2016, with two separate policy easings, as the RBA reduced the target cash rate from 2.0% to 1.75% in May and again from 1.75% to 1.5% in August. This historically low target cash rate remained at this level for the remainder of 2016 and into 2017. It resulted in the general structure of interest rates falling to very low levels which stimulated demand for goods and services, including housing, via a number of transmission mechanisms. In particular, the looser monetary policy helped to fuel growth in the demand for housing, as lower mortgage rates worked to increase the availability of credit. This is because lower interest rates have made it easier for borrowers to meet the repayment requirements of lenders, which then results in the provision of more housing loans (i.e. increased credit for housing) and an increased demand for and price of housing. Along with the lower cost of credit (i.e. the operation of the cost of credit channel), the lower interest rates resulted in large increases in housing prices, particularly in Sydney and Melbourne, where these markets are generally considered to be in boom territory. This has been a major factor behind the housing affordability crisis that is affecting younger Australians in particular.*

Justification_____

_____

_____

3. Discuss the likely implications for both the budget outcome and the target cash rate (TCR) if Australia enters a recession in 2019-20.
5 marks

Sample 1: *The budget outcome is likely to deteriorate and the TCR is likely to fall if the economy experiences two quarters of negative economic growth over the course of 2019-20.*

In relation to the budget outcome, the budget deficit is likely to rise due to the impact of both automatic and discretionary stabilisers. Negative growth will result in lower income tax revenue for the government as households and businesses earn less. In addition, higher unemployment and/or underemployment will result in more government expenditure in the form of income support (e.g. unemployment benefits). As a consequence, less revenue and more expenditure means that deficits will automatically increase. In addition, the government is also likely to implement discretionary changes to the budget, such as tax relief measures and additional infrastructure expenditure, further increasing the surplus in an effort to support economic growth and jobs.

In relation to the TCR, it is likely to fall as the RBA will adopt a more expansionary monetary policy stance, by loosening policy via a further reduction in the TCR below the current 1.5%. This is because negative economic growth for 6 months suggests that inflation becomes even less of a problem (in fact deflation becomes the risk) and the RBA will focus once more on stimulating economic growth and jobs in accordance with its charter. The lower TCR therefore becomes the means by which the RBA reduces general interest rates, which in turn stimulates AD, boosts both economic and employment growth and therefore helps to stabilise the economy and protect against the negative effects of a recession.

Justification_____

_____

_____

Sample 2*: if Australia enters a recession, then the most likely outcome is that the Commonwealth government will adopt a more expansionary budgetary policy stance in order to stimulate economic activity. The government is likely to provide tax relief for businesses and households, which might include the delivery of more tax concessions as well as the provision of tax bonuses such as those provided to taxpayers during the global economic downturn of 2008-9. In addition, the government is likely to increase government expenditure, including expenditure on infrastructure such as the additional spending on school buildings that was provided during the economic downturn of 2008 – 9. The combined effect of a lower tax burden and an increase in stimulus spending will help to counter the effects of the recession, preventing economic growth from falling too far and helping to limit the rise in unemployment. Interest rates are also likely to fall in the economy which will help to stimulate AD via a number of different mechanisms. For example, householders will have more cash available given that their mortgages will be easier to service (this is the cash flow channel) which stimulates consumption. In addition, households and businesses will be encouraged to borrow more money given that the cost of borrowing will be lower. This further stimulates consumption and also leads to more Investment, lifting AD once more, increasing economic growth and helping to prevent a decrease in real GDP.*

Justification_____

_____

_____

4. Distinguish public debt from private debt and outline how a budget deficit is likely to impact on net public debt

4 marks

Sample 1: *Public debt refers to the amount of borrowing that has taken place by Australian governments over a given period of time whereas private debt refers to the amount of borrowing that has taken place by Australia's private sector, which includes businesses households, charities and other not-for-profit organisations. A budget deficit means that the (government) is spending more than it receives (e.g. via taxes). This deficit will most likely lead to an increase in the borrowing requirement of the government sector which necessarily results in an increase in net public debt.*

Justification_____

_____

_____

Sample 2: *Public debt refers to the total stock of debt (money owed to another party as a result of past borrowing) held by Australian governments, whereas private debt relates to the debt held by non-government entities, such as households and businesses. A budget deficit occurs when government expenditure exceeds government receipts. It means that the government will typically need to borrow money in order to fund the shortfall (or deficit), which it does via the issue of government securities, such as Treasury bonds. This will increase the value of government securities held in the market place (by Australians and/or foreigners) which means that the stock/value of government or public debt will necessarily be higher than before. Assuming there is no change in the stock of debt owed to Australian governments, then it must hold that the increase in public debt will also lead to an increase in <u>net</u> public debt.*

Justification_____

_____

_____

5. Explain how the RBA loosens or eases monetary policy in response to very weak economic conditions 3 marks

Sample 1: *Weak economic conditions in the economy are likely to be evidenced by very low rates of economic growth, excessive unemployment and an absence of inflationary pressures, with inflation perhaps falling below the RBA's price stability target of 2 to 3% growth in the CPI on average over time. The RBA will, in accordance with its charter, attempt to stimulate the economy by adopting a more expansionary monetary policy stance. This will involve a loosening of monetary policy, where the RBA reduces the target cash rate and all other interest rates in the economy will fall in tandem. These lower interest rates will then help to raise AD via a number of different transmission mechanisms, including the savings and investment channel, where households and businesses will have a reduced incentive to save and an increased incentive to borrow and spend (or invest). In addition, with respect to the cash flow channel, households will experience an increase in the disposable income with some of this additional income being spent on goods and services. The overall increase in AD will help to stimulate economic growth and prevent the unemployment rate from climbing too high.*

Justification_____

_____

_____

Sample 2: *The RBA will announce a new lower target cash rate to the market and then enter the overnight cash market to increase liquidity (or supply of cash) in order to decrease the actual cash rate towards the new lower 'target cash rate'. It increases liquidity by purchasing government securities from participants (e.g. financial institutions) in the cash market. The financial institutions are encouraged to sell the securities to the RBA because of increasingly attractive terms (i.e. higher prices offered by the RBA). The supply of cash in the cash market (liquidity) is therefore increased because government securities are replaced by cash, which forces down the cash rate towards the new target. The RBA will stop buying securities once the actual cash rate reaches the new target and the RBA will be manipulating supply in the cash market on a daily basis to ensure that actual cash rate is as close as possible to the target. The lower cash rate within result in other interest rates in the economy falling by approximately the same amount which then helps to stimulate AD/real GDP and therefore improve economic conditions.*

Justification_____

_____

_____

6. Evaluate the effectiveness of one budgetary policy initiative that might be announced to assist with the achievement of full employment.
6 marks

Sample 2: *The federal government might decide to reduce income taxes in an effort to increase Consumption, AD, real GDP and economic growth. With an increase in the rate of economic growth it is expected that employment will increase and the rate of unemployment will fall, helping to achieve the government's full employment goal over time. The policy is likely to be very effective, particularly if the economy is experiencing a downturn and consumer confidence levels are very low. This is because lower tax rates will help to increase the disposable income of all households, which provide them with more money to purchase consumer durables, such as white goods, electrical goods and motor vehicles and non-durables, such as entertainment and potentially tourism services. While some of this increased spending will indeed spill over into imports and contribute to both a trade deficit and an increase in the current account deficit, there will certainly be an increase demand for Australian made goods and services and an increase in the volume of production will most likely take place. Greater production volumes necessarily leads to more workers needed to produce these goods and services which will reduce the rate of unemployment and assist with the full employment goal.*

Justification_____

_____

_____

Sample 1: *Full employment refers to the federal government's goal to achieve the lowest rate of unemployment that is possible before inflationary pressures become unacceptable (often referred to as the Non-Accelerating Inflation Rate of Unemployment or NAIRU which is approximately 5%).*

A budgetary policy initiative that can be used to target full employment is a reduction in income tax rates as part of the delivery of an expansionary budgetary deficit. This policy, once in force, is likely to lead to an increase in the disposable incomes of taxpayers and contribute to an increase in both Consumption and Investment as components of AD and lead to an increase in real GDP (i.e. economic growth). This should help to increase the demand for labour, add to employment levels and reduce the rate of unemployment towards the full employment rate. In addition, lower income tax rates can have supply-side effects by providing greater incentives for individuals (and businesses) to work harder and/or increase investment, which ultimately helps to increase productivity, reduce costs and prices, increase international competitiveness and contribute further to an increase in AD/real GDP and employment growth in the long run.

However, the initiative does have some potential weaknesses. First, there will typically be lengthy time lags between the announcement of the policy and its ultimate effects on the economy. Indeed, it is possible that the policy announcement (e.g. at budget time) will not become law if it is rejected by the Senate. This implementation lag of policy will also be compounded by the impact lag (i.e. the time it takes for the policy, once enacted, to have an effect on reducing the rate of unemployment) which can in some circumstances result in the policy becoming 'pro-cyclical' rather than 'counter cyclical'. This means that the policy might have inadvertently added to inflationary pressures if the economy had already self-corrected by the time the policy effects came into force. Second, to the extent that the lower tax rates resulted in a budget deficit, there is always the possibility that in the long run the net gains to employment growth will be eroded by the 'crowding out effect' of budget deficits. In particular, the increase in public sector debt that is required to finance the deficit will tend to increase pressure on interest rates and/or exchange rates as the demand for money increases. This in turn tends to reduce both Consumption and Investment in the longer term, reducing AD and real GDP and reversing some or all of the earlier employment gains. Third, there is no guarantee that households (or businesses) will spend the additional disposable income, particularly if confidence is very low and they decide to increase savings. Fourth, there is always a possibility that the increased demand for labour that results from the lower tax rates will reduce the underemployment rate rather than the unemployment rate (e.g. employers might ask employees to work longer hours rather than take on new workers). Despite these shortcomings, it is likely that lower tax rates will indeed have a net-beneficial impact on the rate of unemployment and help to achieve full employment

Justification_____

_____

_____

AREA OF STUDY 2: Aggregate supply policies

In this area of study students examine the important role of aggregate supply policies in creating a stronger macroeconomic environment so that domestic macroeconomic goals can be more easily achieved. They investigate the different approaches that government may take to promoting competition and efficiency. Should the Australian Government intervene in the market? Is it better to rely more on the market to promote productivity growth and improvements in the quality and quantity of the factors of production? Students evaluate each of these approaches, highlighting their strengths and weaknesses and drawing conclusions about the short-term and long-term consequences in terms of the domestic macroeconomic goals and living standards.

Outcome 2

On completion of this unit the student should be able to discuss the nature and operation of aggregate supply policies and analyse how the policies may influence the Australian Government's domestic macroeconomic goals and living standards.

To achieve this outcome the student will draw on knowledge and related skills outlined in area of study 2.

Key knowledge

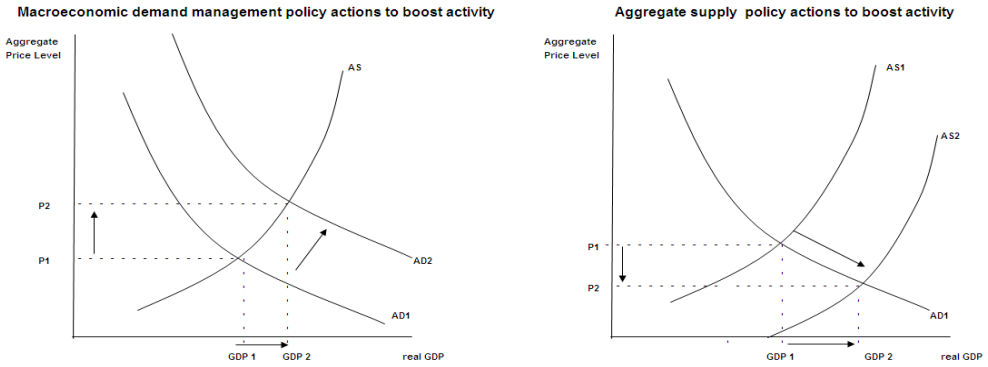
- the nature, operation and aims of aggregate supply policies and their relationship to the domestic macroeconomic goals, international competitiveness and living standards
- the relationship between the efficient allocation of resources and aggregate supply
- how the following aspects of budgetary policy are designed to influence aggregate supply and the achievement of domestic macroeconomic goals:
    - spending on training and education
    - research and development grants
    - subsidies
    - investment in infrastructure
- how welfare and tax reform policies are designed to influence aggregate supply and living standards
- the effect of immigration policies on the labour market and aggregate supply, and the way in which this influences the achievement of domestic macroeconomic goals
- the strengths and weaknesses of using aggregate supply policies to achieve the Australian Government's domestic macroeconomic goals and how these goals may affect living standards

Key skills

- define key economic concepts and terms and use them appropriately
- describe the aims of aggregate supply policies in terms of the domestic macroeconomic goals and living standards
- gather relevant data and information about the nature and operation of aggregate supply policies in Australia
- analyse the effect of aggregate supply policies on the domestic macroeconomic goals and living standards
- discuss the strengths and weaknesses of aggregate supply policies.

The nature, operation and aims of aggregate supply policies

Aggregate Supply represents the total volume (or real value) of goods and services that has been produced and supplied to markets over a period of time and is heavily influenced by the quality and quantity of resources available for production. It is also a measure of the ability of an economy to make available the goods and services to meet (aggregate) demand and is effectively the sum of all goods and services that has (or can be) supplied to markets across the economy. Aggregate supply (AS) policies refer to any measure designed to reduce the costs of production and/or improve supply conditions for businesses. This includes measures that directly reduce business costs, such as a reduction in business taxes or measures that are designed to improve the productivity or efficiency of businesses, such as government incentives for investment in new technology (e.g. immediate deduction for capital investment for small businesses). All AS policies work on the supply side of the economy and involve improving the **quality** and/or **quantity** of resources available for production and effectively involve a shift to the right of the AS curve. This is in contrast to AD policies, which work on the demand side of the economy and involve a shift to the right of the AD curve. This contrast between AD and AS policies is highlighted in the AD/AS diagrams below:



Governments are increasingly paying attention to the need for AS policies in an effort to expand the nation's productive capacity and ensure that our resources can continue to meet the growing needs of our population. By raising the nation's productive capacity (or improving supply conditions for industries), AS policies facilitate higher output and employment, alongside lower inflation. This occurs because lower production costs enable firms to reduce prices for any given output level, or increase output at any given price level – all without sacrificing profits. Alternatively, an increase in AS (or a larger productive capacity) facilitates greater national output before capacity constraints (and inflation) become a problem. In this respect, AS policies allow **strong growth** rates to be more **sustainable** into the future as inflationary pressures are minimised. AS policies will be an important tool for managing the economy in the "post coronavirus" world with forced lockdowns and social distancing/isolation having the potential to cause many businesses to close down, resulting in supply side shocks and AS shifting to the left.

The growing importance of aggregate supply policies

Governments announce new measures in most budgets that are designed to boost AS and ultimately enhance Australian living standards. With an ageing population and an end to the mining boom, the role of AS policies has become all the more important. Well targeted AS policies that ultimately boost Australia's productivity over time are needed to fill the void. Without productivity enhancements, Australia's future rates of economic growth will be limited and average living standards will be compromised. The importance of productivity is summarised in the recent 2021 Intergenerational Report:

> ***Labour productivity growth is essential to improving national income and real wages. People can use their growing wages to buy more goods and services, save and invest, and have greater freedom to choose how they spend their time. In turn, higher wages increase tax revenues and the capacity of government to deliver services to the community. Labour productivity has been the most important source of income growth in Australia over the past 30 years, contributing over 80 per cent of growth in real gross national income (GNI) per person. It is projected to remain the most important source of income growth in the future.***
>
> ***Source**: Commonwealth Treasury, 2021 Intergenerational Report Australia in 2055*

This sentiment was also summed up recently by the Productivity Commission:

> ***… almost all of Australia's long-term increases in income are due to labour productivity growth. The average Australian worker produces in one hour what took the typical worker seven hours at Federation, and this has been accompanied by an almost proportional increase in income. While the terms of trade or labour utilisation can make a difference, it is ultimately productivity growth that will determine our future living standards***
>
> *Source: Productivity Commission, PC Productivity Insights 2020: Australia's long-term productivity experience.*

Broadly speaking, increases in AS or productive capacity will be achieved if a nation improves the ***quantity*** and/or the ***quality*** of its factors of production. Improving the quantity of scarce resources that are available for production has been a key focus of government efforts to expand the nation's productive capacity. This includes:

- government initiatives that attempt to increase the amount of capital in the economy (i.e. capital widening/ deepening);
- find new sources of productive land (e.g. incentivise exploration of mineral resources); and/or
- measures designed to increase the size of the labour force either via natural increase (e.g. a baby bonus)
- measures designed to increase the size of the labour force via immigration (at least up until COVID-19).

Increasing the quantity of resources means that a greater volume of production can occur which shifts the AS curve to the right. However, as mentioned on the previous page, the key to achieving long-lasting gains to living standards is the ability of the nation to improve the quality of its resources or factors of production by lifting productivity or efficiency.

In a broad sense, **productivity** relates to the efficiency of our factors of production (primarily labour and capital) when producing goods and services. In a more technical sense, productivity refers to the volume of output (e.g. goods or services) that is produced from a given number of inputs (e.g. labour and capital resources).

From Unit 3 you should recall that l**abour productivity** is best defined as output over the number of labour hours worked; **capital productivity** is best defined as output over the number of capital hours used; and **multi-factor productivity** is defined as output over a combination of inputs, such as labour and capital.

When productivity increases across the economy it will result in firms being able to produce more goods and services, which therefore leads to an increase in efficiency, productive capacity and AS (e.g. the AS curve shifts to the right). In this respect, an increase in efficiency will typically lead to an increase in AS, where the improvement in efficiency can manifest in a number of different ways, including an improvement in technical (productive), intertemporal and/or dynamic efficiency.

- **Technical or productive efficiency** involves firms producing at the lowest possible long run (average) costs. It will usually mean that productivity is at a maximum.
- **Intertemporal efficiency** refers to a firm, government or indeed the nation having just the right balance between resources used for current as opposed to future use.
- **Dynamic efficiency refer**s to how a nation's firms or industries are able to respond to changing market conditions. If the response is quick, then dynamic efficiency is said to be high.

Exam Tip: In the 2020 exam, students were asked to explain the relationship between an efficient allocation of resources and AS and it proved to be a challenging question, with the average score a very low 2.1/4 and only 16% of students achieving full marks. This question came directly from a key knowledge point in the Study Design and the term 'relationship' implies that students need to know the relationship in both directions. As noted in the Chief Assessor's Report, 'the best responses were those that could explain how an increase in at least one type of efficiency (e.g. technical/productive efficiency) could contribute to (or has contributed to) an increase in the total volume or real value of goods and services that can (or has been) produced in the economy. Better responses also referred to an improved capacity for the economy to produce goods and services and even included an AD/AS diagram and/or production possibility diagram in the space provided below the lines to illustrate the relationship between efficiency and aggregate supply.

While it is true that improvements in efficiency or productivity will contribute to an increase in AS, it is also true that an increase in AS can help to boost efficiency. For example, assume that the nation's productive capacity has been expanded because of an increase in the size of the labour force (i.e. an increase in the quantity of factors of production). This will necessarily help to reduce the average costs of production for Australian businesses and therefore achieve a boost in rates of technical efficiency (e.g. because the real costs of employing labour should be lower). In addition, recall from Unit 3 that the most efficient allocation of resources requires that our resources are allocated in the best way possible in terms of providing the maximum net benefits (or greatest 'value') for Australians (i.e. allocative efficiency). Any improvements to AS or productive capacity that have the potential to increase material living standards as measured by real GDP per capita will therefore help to achieve a more efficient allocation of resources. In this respect, an increase in AS also contributes to an improvement in (allocative) efficiency.

Productivity and international competitiveness

Competitiveness often refers to the degree of competition that exists amongst different producers of goods and services in their goal to increase market share. This competition can be based on price or non-price factors (such as service or quality). **International competitiveness** therefore refers to the degree of competition that exists amongst different countries (and their producers) in the goal to increase world market share. An improvement in Australia's international competitiveness therefore means that Australian firms or industries in the tradables sector are producing goods and services at lower prices or higher quality compared to overseas competitors.

Exam Tip: In past exams, students found it difficult to define 'international competitiveness', instead defining 'competition'. Given that 'international competitiveness' is now specifically listed in the new Study Design, students should expect the concept to appear somewhere in the examination. If asked to demonstrate an understanding of the term in Section B of the exam (such as Q3b of the 2018 Exam) then students should be aware that competition refers to the number of competitors or sellers in a market. In contrast, competitiveness is a relative term, comparing one firm (or country's) ability to attract sales/market share compared to another, where this is based on both price and non-price factors (e.g. quality).

Generally, improvements in productivity should increase international competitiveness as average costs of production should fall, allowing businesses to reduce prices or improve quality. Ultimately, this is why a key feature of Australia's AS policies has been to expose Australian industries to a greater degree of domestic and international competition. An increase in competition actually forces businesses to seek productivity or efficiency gains and then to pass those gains onto the ultimate consumer in order to improve their competitiveness and retain

or boost market share. Accordingly, supply side policies or reforms that simply enable producers to improve efficiency or productivity, without any increased exposure to competition, are less effective at achieving the government goals outlined earlier.

Overall, productivity improvements are likely to increase competitiveness, but an increase in **competition** is necessary to provide businesses with the biggest incentive to increase productivity and reduce prices (or raise quality). This is a major reason for the existence of the Australian Competition and Consumer Commission (ACCC) – that is, to minimise the extent of anti-competitive behaviour that normally exists in a market capitalist economy.

Microeconomic Reform Policies

Microeconomic reform policies (MRPs) are specific AS policies that aim to improve the structure, operation and efficiency of 'markets' (or industries) in Australia such that productivity and competitiveness of Australian goods and services is improved and/or living standards are enhanced. They typically involve the removal of impediments to achieving greater productivity or efficiency of the Australian economy so we better utilise our resources and create an environment more conducive to productive investment. Ultimately, MRPs are aimed at improving the structure of the economy such that trade in goods and services both domestically and internationally is conducted in the most efficient way possible.

Exam Tip: Under the current study design, MRPs are no longer listed within the key knowledge and skills in Unit 4. However, a reference to MRPs is made in the general preamble to Unit 4 ['*Students assess the role of microeconomic reform in terms of its effect on economic prosperity and the achievement of the Australian Government's domestic macroeconomic goals*'].

AS policies and Stability in the level of domestic economic activity

Aggregate supply policies are ultimately designed to expand the nation's productive capacity, usually by increasing efficiency and productivity. Once an improvement in productivity/efficiency is achieved, we have already seen that it effectively reduces the average costs of production for businesses and allows them to either raise profits and invest more over time or reduce prices to gain more market share from their competitors. Either way, the growth in productivity/efficiency exerts downward pressure on prices over time which has flow on effects throughout the economy as price reductions lead to lower input costs for other firms and industries. Accordingly, the higher levels of productivity/efficiency will tend to reduce inflationary pressures in the economy and contribute to disinflation (or even deflation) as the AS curve moves right. Clearly, AS policies assist RBA efforts to achieve its **price stability** goal**.**

Exam Tip: The current study design requires students to demonstrate an understanding of the relationship that exists between AS policies and the government's domestic macroeconomic goals, international competitiveness and living standards. It is logical to start with the impact of an AS policy on efficiency/productivity, then international competitiveness (with a clear reference to the inflationary impact), then the government's goals, followed by the overall impact on living standards. Getting the sequence of events correct in an exam will help to improve the quality of the response.

Exam Tip: When answering examination questions relating to AS policies, it is important that students 'step out' their responses. Start with an explanation of the relevant supply side initiative and fully detail how it is intended to assist with the achievement of the macroeconomic goal(s) in the question. The section below is designed to assist you in this process. In particular how an increase in AS creates additional willingness/capacity to supply at any given price, leading to a fall in price (or rise in quality), which leads to an expansion (increase) in AD leading to greater economic activity.

Lower prices (or inflation) should encourage greater Investment and Consumption and also increase Australia's international competitiveness, boosting exports and limiting imports (i.e. raising net exports). The combined effect is an expansion in AD and real GDP – assisting the government's efforts to achieve a **strong** and sustainable rate of **Economic Growth.**

A more internationally competitive economy should result in a higher rate of economic growth over time. Accordingly, the demand for labour should increase, creating employment and lowering the rate of unemployment. While this should assist with the achievement of **Full Employment,** there are short-term (transitional) costs that are faced when implementing some AS initiatives that result in more intense competition (e.g. tariff reductions and/or withdrawal of subsidies). In particular, business closures are likely to be higher and organisational restructuring will be commonplace (indeed this restructuring allowed productivity enhancements to occur in the first place). In this environment, unemployment is likely to be higher in the short-term due to structural reasons (i.e. structural unemployment increase), jeopardising the achievement of Full Employment.

The government has embarked on many microeconomic or structural reforms in the past (such as trade liberalisation) with the strong conviction that the negative short-term impact on unemployment will be reversed in the longer term as a more robust, efficient and competitive economy experiences higher growth rates than would otherwise be the case. Overall, it is reasonable to argue that microeconomic reforms (and AS initiatives more generally) assist with the achievement of Full Employment.

Exam Tip: In the examination, when discussing policy options that may be used to achieve certain goals, it can be useful to distinguish the short run impact from any possible long run impact. For example, if you are asked to examine the impact on unemployment of reductions in trade protection (e.g. lower subsidies and/or tariffs), it would be useful to do something like the following: Unemployment is likely to increase in the short term as businesses restructure their organisations in an effort to become leaner and more efficient. This often involves labour redundancies and an increase in unemployment. However, over the longer term, productivity improvements take effect and costs fall across the economy, allowing for containment of prices (or decreases in some prices) which encourages growth in AD (e.g. an increase in net exports) and real GDP. This induces an increase in the demand for labour and a corresponding reduction in unemployment.

Aggregate supply policies and living standards

The whole purpose of AS policies (like all policies) is to improve the welfare or living standards of Australians. In general**, material living standards,** as measured by real GDP per head, should improve as the nation produces better quality goods and services and/or more goods and services at lower prices. The ability for AS policies to assist with the achievement of the government's macroeconomic goals over time, by extension, means that material living standards should be enhanced in the long term.

With respect to the impact on **non-material living standards**, AS policies can help to advance these if productivity improvements result in less waste or depletion of resources. This includes, AS policies that result in better technology or machinery that uses less energy, produces less pollution and is much faster than existing technology. However, non-material living standards can deteriorate for those individuals who are working longer and harder, and the environment can suffer if the AS or MRP has involved a depletion of resources (e.g. tax reform that encourages greater investment in new production facilities, such as mines, that can have a negative impact on both native flora and fauna, as well as intertemporal efficiency.)

In a recent Productivity Commission publication (*PC Productivity Insights 2020: Australia's long-term productivity experience*), the Commission highlighted that, since Federation (i.e. 1901), almost all of Australia's GDP per capita increases are attributable to productivity growth. This highlights the importance of productivity growth, and by extension, the value of well devised and targeted AS policies, in generating improvements to Australian living standards over time.

REVIEW QUESTIONS 3 – Nature, operation and aims of Aggregate Supply (AS) policies

1. ***Explain what is meant by Aggregate Supply (AS) policies.***
2. ***Use an AD/AS diagram to highlight the general benefits of AS policies.***
3. ***Explain how the implementation of AS policies is likely to boost productivity and 'efficiency' in the economy.***
4. ***Describe the relationship between AS and efficiency in the allocation of resources.***
5. ***Explain how the effective use of AS policies can assist with the achievement of the government's economic goals of strong and sustainable growth, full employment and low inflation. In your response, refer to international competitiveness.***
6. ***Explain what is meant by microeconomic reform policies (MRPs) and illustrate how these may increase AS and productive capacity.***
7. ***Explain how the promotion of competition in the economy helps to extract the full benefits from AS policies.***
8. ***Outline how AS policies are expected to contribute to an improvement in material living standards.***
9. ***Explain how AS policies can reduce non-material living standards.***

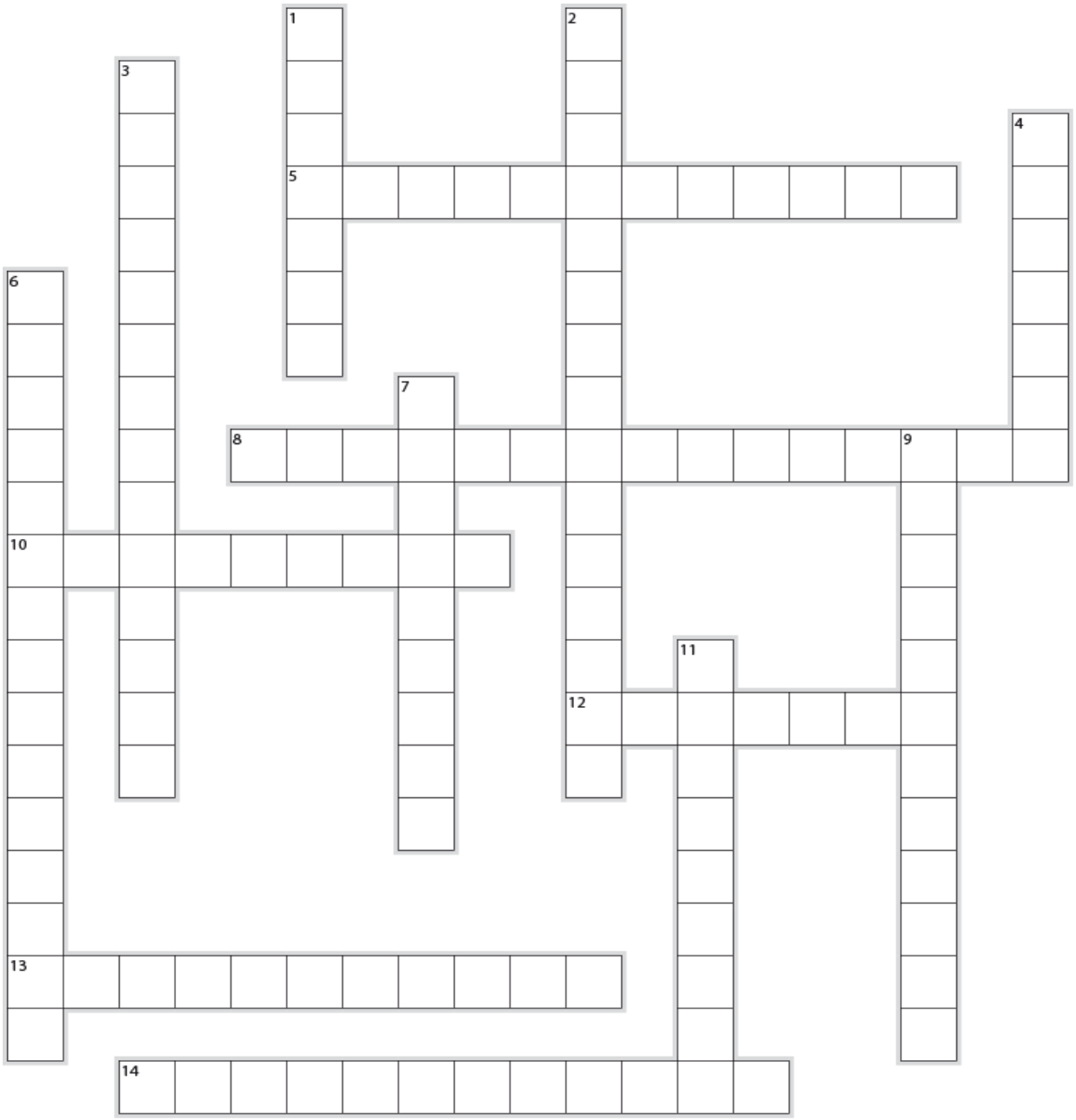
Quick revision crossword No 3: Nature, operation and aims of AS policies

Across

5. One problem with the Australian economy that highlighted a greater need for AS policies
8. An increase in this is consistent with a bigger productive capacity, lower prices and higher levels of real GDP (2 words)
10. AS policies will often result in an increase in this type of efficiency as average production costs fall
12. This type of efficiency will have improved following the implementation of aggregate supply policies if firms are more responsive to changing market conditions
13. Aggregate supply policies can help to make economic growth more _____
14. This can fall over time once AS policies result in an increase in economic growth but the short-term impact can be negative

Down

1. These have been reduced over many years and are an example of trade liberalisation as a microeconomic reform which has increased competition, lifted productivity and boosted the nation's productive capacity
2. The ultimate goal of aggregate supply policies (like all policies) is to improve these (two words)
3. Many AS policies involve an increased investment in this in order to expand the economy
4. These taxes have been reduced in order to promote investment and expand productive capacity. The rate is expected to fall to 25% over time.
6. AS policies can help to improve this over time, leading to an improvement in net export demand, national income and material living standards.
7. The government continues to invest billions of dollars in this network in order to boost AS and international competitiveness
9. One of the key targets of aggregate supply policies
11. The use of Aggregate Supply policies helps to reduce this over time, assisting RBA efforts to achieve price stability.



Budgetary policy supply side initiatives to influence AS and macroeconomic goals

As discussed earlier in the section on budgetary policy as a demand management tool, there are numerous examples where the government's use of the budget is designed to achieve supply side improvements to the macroeconomy. In particular, the use of the government's tax and transfer system, along with incentives to increase spending on infrastructure and education (including direct government provision via an increase in G2), are seen as important arms of government policy in order to improve the quality and quantity of resources and hence boost the productive capacity of the economy. It is generally accepted that without government incentives, or direct provision, the private sector will tend to under-invest in infrastructure and education. This is particularly the case for large infrastructure projects requiring substantial funding, or where there is some *public good* element associated with the investment. This includes projects such as ports, roads, railways and communication networks. In addition, the private sector will tend to under-invest in research and development expenditure (see *market failures*) that is a crucial building block for the advancement of productivity and efficiency over time.

Exam Tip: Students should recognise that BP supply side initiatives will typically boost AD in the short to medium term before the supply side benefits begin to materialise. For example, the increase in G2 spending on the 'National Broadband Network' or the large transport infrastructure projects currently in the pipeline, will exert AD side pressures to the economy, boosting growth and employment (and adding to inflationary pressure). The boost to productive capacity, or supply side benefits, will only be realised once the network/transport infrastructure is operational and economic agents enjoy the benefits of faster broadband services/better quality roads and rail. In this respect, it is important not to be confused about the role of AD when discussing many AS policies.

Spending on training and education and macroeconomic goals

When the government decides to spend more money on training and education it is intended to increase the quality of human capital, raise labour productivity/technical efficiency and increase the nation's productive capacity and living standards. As highlighted in Chapter 1, the federal government spends a significant proportion of its budget on education (in addition to state government spending) in the form of both **capital spending** (e.g. the provision of funds for new school/university buildings and/or equipment) and **current spending** (e.g. the provision of new training programs for academic staff).

To the extent that the government is efficiently 'investing in education and training' it should boost the quality of human capital, increase productivity and/or (technical) efficiency, and contribute to the achievement of the government's domestic macroeconomic goals in the following ways:

Price stability: the better quality workforce and higher labour productivity ultimately leads to lower average costs for businesses, reducing pressure on prices, leading to a lower rate of inflation and making it more likely that the rate of growth in the CPI remains within 2 to 3% on average over time. In addition, the better quality labour force increases the willingness and ability of businesses to supply more to the market, which raises AS and further reduces pressure on prices.

Strong and sustainable rates of economic growth: the lower prices work to increase international competitiveness which raises AD and contributes to more sustainable (non-inflationary) growth in real GDP.

Full employment: the increase in international competitiveness and economic growth results in more demand for labour, boosting employment and reducing the rate of unemployment and/or underemployment (on the demand side). [Note: to the extent that an increase in spending on training and education includes the need for more teachers, trainers or academics, it will also tend to increase the demand for labour in the short run.] In addition, education and training expenditure naturally improves the employability of labour and has the potential to reduce rates of structural and/or long-term unemployment (on the supply side).

Exam Tip: When examining the possible policy responses to achieving particular outcomes it is important that students pay careful attention to the precise wording within the question. For example, the final question of the 2016 exam required students to explain how BP might be used to lower the rate of long-term unemployment. Too many students failed to pay attention to the key words 'long-term' and therefore provided examples of BP initiatives that simply served to reduce unemployment (e.g. expansionary BP initiatives and the demand side impact). The key to successfully answering a question like this is to focus on BP initiatives that are designed to improve the employability of the long term unemployed (i.e. focus on the supply side impact). This therefore requires a consideration education and training initiatives that are delivered through the Budget.

Federal government spending on education represents approximately 7.3% of total government expenses and includes spending on higher education institutions (e.g. universities), vocational education and training providers (such as technical and further education institutions), as well as public (government) and private (independent) schools in Australian states and territories. A selection of education and training spending initiatives announced in the **2022-23 Budget** are contained below:

- $954.0 million over 5 years from 2021 22 to introduce a new Australian Apprenticeships Incentive System from 1 July 2022, providing support to employers and apprentices in priority occupations
- $365.3 million to extend the Boosting Apprenticeship Commencements and Completing Apprenticeship Commencements wage subsidies by 3 months to 30 June 2022, to further support employers taking on and retaining new apprentices
- $52.8 million over 5 years from 2021 22 to deliver the new ReBoot initiative and support Workforce Australia to support up to 5,000 disadvantaged young Australians to develop employability skills, providing a pathway to employment services and training opportunities
- $3.7 billion over 5 years from 2022 23 (and $284.6 million per year ongoing from 2027 28) to work with states and territories, to agree a new National Skills Agreement under the Heads of Agreement for Skills Reform to invest in the skills system to support economic growth and resilience
- $49.5 million over 2 years from 2022 23 to provide an additional 15,000 low and fee free training places in aged care courses under the JobTrainer Fund
- $44.6 million over 2 years from 2022 23 to continue support for businesses who employ mature aged Disability Employment Services program participants through the Restart Wage Subsidy
- $505.2 million over 5 years from 2021 22 (and around $182.3 million per year ongoing) to establish Australia's Economic Accelerator (AEA) grants to support university research projects from proof of concept and proof of scale through to commercialisation.
- $295.2 million over 5 years from 2021 22 (and around $142.8 million per year ongoing) to establish new research training pathways for students and researchers, creating new opportunities to work with industry through new Industry PhDs and Fellowships, and deliver reforms to the Australian Research Council's Linkage Program from 2026 27
- $62.4 million over 2 years from 2022 23 to extend the National Schools Reform Fund and Non Government Support Reform Fund to support national educational reforms in the schools sector.

These initiatives should, on the face of it, help to improve the quality of resources, or the skills of our (future) workforce, and therefore lead to AS benefits for the economy. To the extent that these measures lead to higher productivity over time, they will help to maintain or boost

Australia's international competitiveness such that the key macroeconomic goals are more likely to be achieved and living standards will be enhanced.

Exam Tip: The Study Design (key knowledge) requires students to understand how spending on training and education is designed to influence aggregate supply and the achievement of domestic macroeconomic goals. In addition, students are also required (key skill) to analyse the effect of aggregate supply policies on the domestic macroeconomic goals and living standards. Students should therefore expect to analyse how spending on education can help to boost AS, achieve economic growth, full employment and price stability, as well as lift living standards. A good approach would be to provide a generic explanation for how education spending boosts the quality of human capital and hence labour productivity and then provide a contemporary example (e.g. JobTrainer) to illustrate how it lifts AS, assists with the achievement of the goals and boosts living standards. There is no need to determine if recent education/training spending measures have actually achieved the desired goals.

Exam Tip: In the 2020 exam, students were required to explain how spending on training and education might influence AS and the achievement of strong and sustainable economic growth. Unfortunately, many students spent too much time explaining how this type of spending contributed to a stronger rate of economic growth on the demand side (e.g. linking increased skills/improvement in human capital with the increased employment, higher income and the resulting increase in C and AD). Instead, students needed to focus on how the improvement in human capital helped to improve supply conditions for business (e.g. via lifting labour productivity) and then how this helps to achieve a stronger and more sustainable growth.

A sample of recent specific budgetary policy initiatives relating to education and training have been taken from previous budgets:

Initiatives announced in previous budgets

- The Delivering **Skills for Today and Tomorrow package** invests $525.3 million in vocational education and training, including 80,000 new apprenticeships and employer payments/subsidies ($4,000)
- The Government is providing an additional 5,000 Commonwealth supported short course places at non-university higher education providers in 2021
- Investing an additional $500 million to expand the **JobTrainer Fund** until 31 December 2022 that is intended to deliver a further 163,000 places, support 10,000 digital skills training places, as well as 33,800 places for existing and new aged care workers to upskill
- Investing an additional $2.7 billion to extend and expand the **Boosting Apprenticeship Commencements (BAC) wage subsidy** which is expected to benefit an additional 70,000 apprentices and trainees above the original 100,000 when the measure was announced in the 2020-21 Budget
- An increase in **schools funding** – to $309.9 billion to the end of 2030. The budget papers noted that 'this record funding for Australian schools will ensure all students are prepared for the future.'
- $146.3 million over five years for programs which is intended to improve **educational outcomes for vulnerable and disadvantaged young Australians** and ensure those leaving school have the skills needed to help drive the economic recovery.
- Continued support and extra funding ($453.2 million until the end of 2021) to enable access to 15 hours per week of quality **preschool education** for each Australian child.
- The **JobTrainer Skills Package** which included $1 billion to support up to 340,700 training places to help school leavers and job seekers access short and long courses to develop new skills in growth sectors.
- The **Delivering Skills for Today and Tomorrow package** invests $525.3 million in vocational education and training, including 80,000 new apprenticeships and employer payments/subsidies ($4,000).

Research and Development (R&D) Grants and macroeconomic goals

Every year, the Commonwealth government provides funding grants for a host of different R&D programs across a range of different functions, from the Health sector, to the University sector and to industries more generally. In addition to this funding, the government also provides significant tax incentives (e.g. the 150% tax concession for R&D expenditure) to ensure that R&D activity across the economy is optimal in the sense that it contributes to the most efficient allocation of the nation's resources.

Efficient and effective investment in R&D by both the government and the private sector will contribute to technological advances and/or new ways of producing goods and services that ultimately boost the nation's supply potential via improvements to the quality and/or quantity of our resources. This contributes to the achievement of the government's domestic macroeconomic goals in the following ways:

Price stability: the better capital/technology leads to lower average costs for businesses, reducing pressure on prices, leading to a lower rate of inflation and making it more likely that the rate of growth in the CPI remains within 2 to 3% on average over time.

Strong and sustainable rates of economic growth: the lower prices work to increase international competitiveness which boosts AD and contributes to more sustainable (non-inflationary) growth in real GDP.

Full employment: the increase in international competitiveness and economic growth results in more demand for labour, boosting employment and reducing the rate of unemployment (and/or underemployment). [Note: to the extent that R&D funding includes the need for more researchers, it will also tend to increase the demand for labour in the short run.]

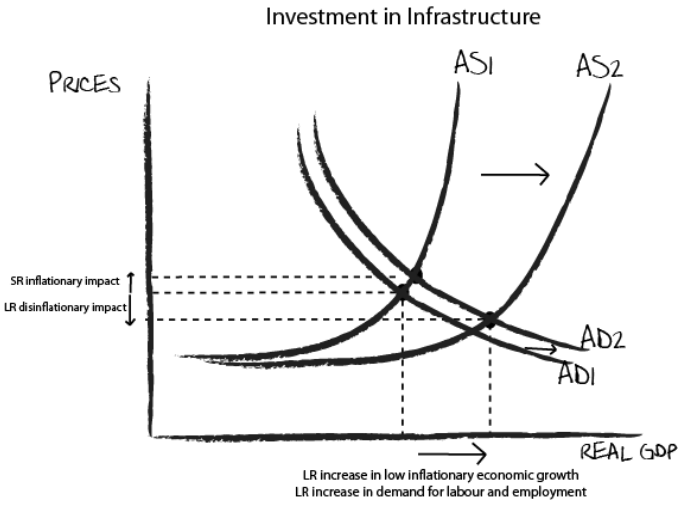
The Productivity Commission notes in the latest Trade and Assistance Review (July 2021) that support for business R&D is a major form of industry assistance delivered through the Budget, representing approximately 32% ($3.8B) of the total assistance provided to Australian businesses. The Commission notes that the majority of the R&D support is in the form of the demand driven R&D Tax Incentive ($2.4B), with the remainder representing outlays for research institution funding, such as CSIRO.

Examples of the most recent budgetary policy initiatives relating to R&D are contained below:

- The maintenance of the generous R&D tax concessions available every year, where businesses can deduct up to 150% of eligible R&D expenditure or take advantage of tax offsets up to 43.5%
- A Technology Investment Boost for small businesses via a 120% tax deduction on business expenses that support digital uptake
- The creation of a $2.2B University Research Commercialiaation Action Plan Devoted to research in clean energy, medical products, defence and other high priority manufacturing areas
- Investing $124.1 million to further develop Australia's AI capabilities, including by helping small and medium sized businesses with medium-high digital capability adopt AI
- Tax incentives to encourage companies to develop and apply their medical and biotechnology innovations in Australia. This incentive will tax corporate profits from Australian developed and patented medical and biotechnology innovations at a concessional 17 per cent effective corporate tax rate.
- The provision of grants to the value of $66 million for organisations researching and attempting to develop a vaccine and treatments for Covid-19 (as well as better preparing for future pandemics) in addition to an additional $6 million in funding to support research and development of three Australian Covid-19 vaccines
- Investing $387.2 million to build one of the world's largest radio telescopes in Western Australia as part of the Square Kilometre Array (SKA) project, enabling scientific discoveries in astronomy and generating spin-off technologies that can be applied in other fields, such as advanced manufacturing.
- Investing a further $19.5 million in a Space Infrastructure Fund to support priority projects across Australia. The Fund will address key space infrastructure gaps, building on the Government's 2018-19 Budget commitment to establish the Australian Space Agency and the International Space Investment program.

Investment in infrastructure and macroeconomic goals

Infrastructure refers to the key physical or organisational structures within an economy that provide the 'building blocks' around which economic activity takes place. It includes those key assets that are typically funded by governments such as roads and highways, dams, ports, electricity and telecommunications networks, as well as airports. The importance of infrastructure to an economy was highlighted by the RBA Governor:



I have long been talking about the benefits of infrastructure investment. In our economy it would benefit the demand side of the economy and it would add to the productive capacity of the nation… In Australia, but also globally, there is a lot to be said about further spending on infrastructure, so governments both here and right around the world should have their top drawers full of really good ideas that are 'shovel ready' in case global growth slows. …And we need to remember that interest rates are at record lows …so we need to be thinking of about ways of capitalising on that and building on infrastructure, adding to demand and increasing the supply capacity of the country.

***Source**: Philip Lowe, RBA Governor, Remarks at the ANU Crawford Australian Leadership Forum, Canberra (24 June 2019)*

A greater volume of infrastructure (e.g. more airports or more roads), combined with better quality infrastructure (faster telecommunications networks), will necessarily lead to an increase in productivity, efficiency and productive capacity. For example, the building of new highways (or the repair or widening of existing ones) will facilitate speedier travel times for freight (boosting productivity), which helps to reduce costs (lifting technical efficiency) and make Australia's exports more responsive to global markets (lifting dynamic efficiency). In the same way, greater government investment in telecommunications networks (e.g. the substantial investment in the broadband network) is expected to increase internet speeds (boosting productivity) and not only make existing Australian products more internationally competitive, but help to generate new products for international markets.

While the initial investment in infrastructure necessarily leads to an increase in AD, which increases both economic growth and prices, the stimulus to AS that occurs over the longer term will compound the benefits to economic growth. However, it should reverse the initial demand side inflationary impacts, such that infrastructure investment achieves more sustainable (low inflationary) rates of economic growth over time. This is highlighted in the adjacent AD/AS diagram.

State and federal governments invest in infrastructure as part of their capital spending within their respective budgets (which is initially classified as G2 as a component of AD). The importance of government infrastructure was highlighted in recent Budget papers:

A key element of the Government's fiscal strategy is investing in quality infrastructure to boost growth and productivity. … Accordingly, the Commonwealth seeks to prioritise resources towards investing in capital projects that support productivity

through improving access to markets, reducing congestion, improving safety, making it easier for businesses to prosper and supporting communities to achieve growth and productivity benefits.

Source: www.budget.gov.au/BP No 1 (Statement 4) 2019-20

However, governments also provide incentives for the private sector to increase their investment in infrastructure over time (which is initially classified as 'I' as a component of AD). These incentives might include the provision of (part) funding of the construction, operation or maintenance of the project, or alternatively the use of government regulations to ensure that the project remains viable over time. The government's need to support and supplement private sector provision of infrastructure was summarised in recent Budget papers as follows:

The Government has a role to provide infrastructure where it leads to net benefits for businesses and communities and where there are barriers that prevent individuals or businesses from investing themselves. Public investment, well targeted and efficiently delivered, supports productivity. …[without government intervention, some] projects with net positive social benefits may not be commercially viable for private firms because revenue streams do not match total benefits, or do not exist at all. Governments may be in a better position to realise the full value of a project from a whole-of-economy perspective that maximises net social benefits. In addition, private investment may not support the broader role of government in ensuring all Australians are able to access essential services.

Source: www.budget.gov.au/BP No 1 (Statement 4) 2018-19

Exam Tip: In the 2020 exam, students were required to explain how investment in infrastructure might influence AS and the achievement of strong and sustainable economic growth. Unfortunately, many students spent too much time explaining how the given AS initiative contributed to a stronger rate of economic growth on the demand side (e.g. linking growth in I or G2 to AD and real GDP growth) without exploring how the increased infrastructure investment influenced strong and sustainable growth. As noted in the Chief Assessor's Report, 'the highest scoring responses not only demonstrated how economic growth is likely to increase or become stronger, they made the important link to the sustainable aspect of the economic growth goal. These students were able to clearly show that these AS policies can effectively target this macroeconomic goal because they can contribute to an increase in low inflationary economic growth, which makes the growth more sustainable over time'.

Exam Tip: The federal government increasingly invests in infrastructure projects directly via equity investments (e.g. investment in the National Broadband Company, the Australian Rail Track Corporation, and Western Sydney Airport Co.). This effectively removes the relevant financial outlays from underlying budget figures (referred to as moving the expenditure off budget), which means the 'reported' deficit is lower (looks better) than otherwise would be the case. Some commentators refer to this as 'budget trickery', but it is largely irrelevant for the purposes of VCE Economics. The means of funding infrastructure is much less important than how the infrastructure projects produce benefits for the economy.

As noted earlier, infrastructure investment does indeed stimulate economic growth on the demand side when investment is being undertaken (e.g. the actual building of roads/highways and the increased demand for goods and services that occurs during the building phase). However, the economy wide benefits that take place over time will usually be more significant. Overall, an increase in infrastructure investment (including that provided by both the private and the public sector) will ultimately boost the nation's supply potential which contributes to the achievement of the government's domestic macroeconomic goals in the following ways:

Price stability: more or better quality infrastructure leads to lower average costs for businesses (e.g. better quality highways enables the transportation of goods to occur more quickly which ultimately reduces transportation costs), reducing pressure on prices, leading to a lower rate of inflation and making it more likely that the rate of growth in the CPI remains within 2 to 3% on average over time.

Strong and sustainable rates of economic growth: the lower prices work to increase international competitiveness which boosts AD and contributes to more sustainable (non-inflationary) growth in real GDP.

Full employment: the increase in infrastructure investment initially leads to an increase in AD and the demand for labour as more workers are required in the building/construction phase of the infrastructure investment. While these jobs will no longer exist once the infrastructure is operational, the eventual increase in international competitiveness and economic growth results in more demand for labour, boosting employment and reducing the rate of unemployment (and/or underemployment).

Examples of infrastructure investment announced in the recent budgets include:

- Additional spending of $17.9B committed to **road, rail and community infrastructure** projects across Australia, including $3.1B for the Melbourne intermodal terminals that are designed to boost productivity and take trucks off Victorian roads as well as $3.7B for faster rail projects in NSW and QLD
- $2.6 billion for infrastructure that unlocks the Northern Territory's exports through Darwin's gateway to Asia. A further $300.6 million from the Government's $8.9 billion **National Water Grid Fund** will help improve water security in the greater Darwin region.
- $1.7 billion for water **infrastructure and supply chain projects** in North and Central Queensland. This is in addition to the $5.4 billion the Government is providing for the Hells Gates Dam.
- $750.0 million for the Hunter region for **transport and port infrastructure projects** that will improve supply chain efficiency and boost exports.

- Spending an additional $812M on the new **Connecting Regional Australia initiative** that is designed to address mobile blackspots and improve the overall resilience of Australia telecommunications infrastructure
- An additional $15.2 billion over ten years to fund **infrastructure** commitments, including $2.0 billion to support delivery of the Melbourne Intermodal Terminal and $2.6 billion for the North-South Corridor — Darlington to Anzac Highway in South Australia
- $2.0 billion for the Great Western Highway Upgrade — Katoomba to Lithgow in New South Wales and other **road and rail commitments** such as, $400.0 million in additional funding for the Bruce Highway in Queensland, $380.0 million for the Pakenham Roads Upgrade in Victoria, and $237.5 million for the METRONET to support grade separations and the elevation of stations in Western Australia
- An investment of $480.0 million in **telecommunications infrastructure** via the upgrading of NBN Co's Fixed Wireless Network
- Investment of $2 billion to help deliver a **fast rail connection** between Geelong and Melbourne as well as co-funding five business cases with state governments for fast rail in other regions (e.g. Melbourne to Albury Wodonga and Melbourne to Traralgon).
- An additional $1 billion is being provided for the next phase of the **Roads of Strategic Importance initiative**, increasing total funding to $4.5 billion. This includes further investment in strategic corridors, associated feeder roads and other rural roads across the country. This will facilitate additional upgrades of key freight routes to better connect the agriculture and resource sectors to export markets and improve road safety.
- The Government is providing $2.2 billion for a Local and State Government Road Safety Package. This includes additional funding of $1.1 billion for the Roads to Recovery Program; $550 million for the Black Spots Program; $275 million for the **Heavy Vehicle Safety and Productivity Program**; and $275 million for the **Bridges Renewal Program**.
- The **Princes Highway** will benefit from a further investment of $1 billion across New South Wales, Victoria and South Australia
- The Government is making additional commitments to each of the states and territories, such as the additional $2.8 billion for projects in Victoria for upgrades of south eastern and northern suburban roads and $700 million for a rail upgrade from South Geelong to Waurn Ponds.
- The Government is actively working to expand the use of financing to support broader infrastructure priorities. We have committed to fully finance the **Melbourne to Brisbane Inland Rail project** by a combination of an additional $8.4 billion equity investment in the Australian Rail Track Corporation and a public private partnership for the most complex elements of the project.

Subsidies and macroeconomic goals

Subsidies were introduced in Part 1 of the CPAP Study Guide to VCE Economics in the microeconomic context of government intervention to prevent market failures. Subsidies were defined as a payment (or other form of financial assistance) to a producer or consumer that was designed to increase the production/consumption of a good or service. We will now re-examine subsidies in the context of their ability to help the government achieve its domestic macroeconomic goals.

Traditionally, subsidies to Australian producers were largely provided as part of a range of measures to protect Australian businesses from the rigours of international competition. Subsidies, quotas (restrictions on the volume of imports) and tariffs (a tax on imports) had the desired effect of increasing the relative price of imports and protecting local businesses and employment. This approach to trade policy in Australia was eventually discredited by mainstream Economists and policy makers who realised that protection could only be beneficial for the economy in the **short term**. It was argued that protected firms and industries became relatively less and less efficient over time in comparison to their international competitors, which imposed **long-term** net costs on the rest of the economy.

Increasingly, the government moved away from providing subsidy (or other) support unless it could be demonstrated that net benefits occur for Australia, as opposed to benefits for particular stakeholders. The value of providing assistance to industries was recently described by the Productivity Commission in the following way:

> ***While government assistance benefits the recipient businesses and industries, it invariably imposes costs on others. Subsidies must be funded through additional tax revenue, debt, or forgone government expenditure elsewhere. …The effects of measures that might confer assistance to industry on the overall wellbeing of the community depends on their type and design. Many measures are intended to stimulate activities that markets under provide (such as research and development, and certain environmental outcomes) and to promote social goals. Others, like tariffs, unequivocally impose negative net impacts on the wider community.***
>
> ***Source:*** *https://www.pc.gov.au/trade-assistance-review-2019-20*

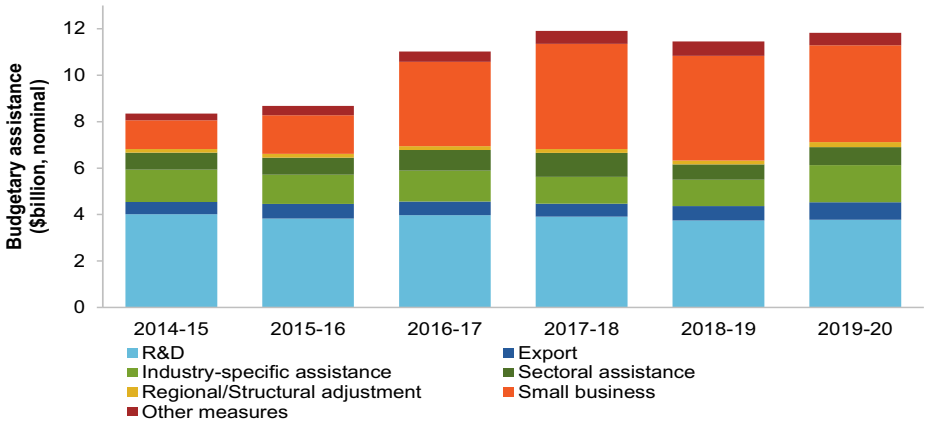
Clearly, assistance is required to achieve some economic, social and/or environmental objectives, such as the need to promote R&D expenditure and the need to address other market failures, including subsidies to account for positive externalities (e.g. subsidies to support business training or expenditure on 'green/ clean energy'). The current state of play in relation to industry assistance was summarised in the lates Productivity Commission's recent Trade and Assistance Reviews released in July 2021:

> ***There was a small increase in assistance provided to industry by the Australian Government in 2019-20 compared to the previous financial year. However, effective rates of assistance (ERAs) for most industries remain at, or near, historic lows.'***

The Productivity Commission's latest report highlighted that budgetary assistance (which includes tax concessions as well as subsidies) increased between 2014-15 and 2018-9 from approximately $9B in 2013-4 to approximately $12.5B over 2017-18. However, it fell to approximately $11.8B in 2018-19 and remained at this level for 2019-20 as shown in the chart below:

Figure 1.13 **Small business assistance is the largest type of budgetary assistance**

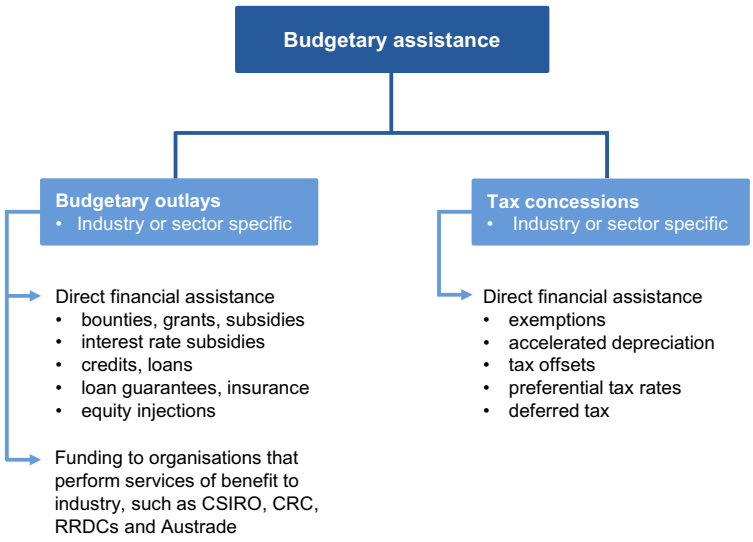
Value of budgetary assistance by type of measure, 2014-15 to 2019-20



Source: *https://www.pc.gov.au/research/ongoing/trade-assistance/2019-20/trade-assistance-review-2019-20.pdf*

The major forms of budgetary assistance are highlighted the diagram below.

Figure A.1 **Forms of budgetary assistance**



Overall, the provision of subsidies that are purely protectionist measures will tend to expand AS and help to assist with the achievement of the government's domestic macroeconomic goals in the short term. However, these protectionist subsidies will tend to result in a longer term negative impact on efficiency (e.g. technical and dynamic efficiency are likely to be lower than otherwise) which tends to reverse the short-term gains. In contrast, those subsidies that genuinely contribute to a long-term increase in productive capacity, such as subsidies/grants for R&D, will ultimately boost the nation's supply potential which contributes to the achievement of the government's domestic macroeconomic goals in the following ways:

Price stability: more or better quality productive resources leads to lower average costs for businesses (e.g. technological advances that lead to better quality capital and improve capital productivity), reducing pressure on prices, leading to a lower rate of inflation and making it more likely that the rate of growth in the CPI remains within 2 to 3% on average over time.

Strong and sustainable rates of economic growth: the lower prices work to increase international competitiveness which lifts AD and contributes to more sustainable (non-inflationary) growth in real GDP.

Full employment: the increase in international competitiveness and economic growth results in more demand for labour, boosting employment and reducing the rate of unemployment/underemployment over time. However, there is a possibility that unemployment will increase in the short-term as more efficient capital creates redundancies in some workplaces.

Exam Tip: Reference to subsidies in the new Study Design, as an example of a BP initiative designed to influence AS, provides students with scope to examine the short and long run implications stemming from protectionist subsidies. When referring to these subsidies in the exam, students should distinguish the short run beneficial impact from the long run detrimental impact. In relation to 'non-protectionist' subsidies (e.g. those for R&D investment), students can simply refer to the long term impact. The approach taken in the exam will ultimately depend on the nature of the subsidy in question. It is therefore legitimate to argue that some subsidies have a negative impact on the achievement of the government's macroeconomic goals in the long term.

Some examples of subsidies or assistance that either exist or have been recently announced include:

- Investing a further $328M in the pre-announced **Modern Manufacturing Strategy** that supports in high-value and high-priority areas involving the adoption of innovative and new technologies
- Investing $200M in the Regional Accelerator Stream of the **Supply Chain Resilience Initiative** that will assist regional businesses to address supply chain vulnerabilities
- Committing to an increase in the lending capacity of the **National Housing Finance and Investment Corporation** (NHFIC) in order to increase the supply of affordable dwellings for vulnerable Australians
- the provision of an additional $600M to improve productivity in the agricultural, fisheries and forestry sectors, which includes **assistance to farmers** to help diversify income streams and better protect the environment
- Committing an additional $1.7B to improve the affordability of child care for about 250,000 families by removing the annual cap on the **Child Care Subsidy** and increasing the rate for families with two or more children in care
- **The Jobkeeper wage subsidy** introduced in early 2020 designed to provide relief to businesses and prevent the huge increase in unemployment that would have otherwise occurred.
- The Government will provide a further $53.9 million in 2021 22 to extend COVID 19 **Business Support Payments** and access to the Pandemic Leave Disaster Payment.
- the **JobMaker Hiring Credit package**, introduced in 2020 designed to further support growth and jobs during the COVID-19 pandemic and involved subsidies to employers hiring eligible younger Australians (i.e. those under 35).
- Investing an additional $2.7 billion to extend and expand the **Boosting Apprenticeship Commencements (BAC) wage subsidy** which is expected to benefit an 170,000 apprentices
- Subsidies in the form of **concessional loans and cash grants** to rural producers who were impacted negatively by recent droughts and bushfires in Australia.
- **Other wage subsidies:** provided to employers who hire, train, and retain eligible jobseekers into sustainable jobs. This includes a $10,000 incentive to employ older Australians (e.g. over fifty years of age), the long-term unemployed and/or indigenous Australians. [A separate wage subsidy scheme also applies to encourage the employment of Australians with disabilities.]
- **Manufacturing subsidies:** Over $1B provided to specific Australian industries ranging from the Petroleum industry to motor vehicle and parts, petrol refiners and machinery and equipment manufacturing.
- **Primary production subsidies:** The provision of $6.3 billion of assistance and concessional loans to support those affected by drought and $3.3 billion to support those affected by flood.
- **Services industry subsidies:** Approximately $1.7B provided across a range of industries, including Arts and Recreation and financial services.
- **Emissions Reduction Fund/Climate Solutions Fund**: Australian businesses are offered incentives to adopt smarter practices that ultimately reduce the amount of greenhouse gases that are omitted. These businesses will earn carbon credit units for any reductions they achieve which then enables them to make money from selling those units to other businesses who have less success at pollution abatement.
- **Export market development grants:** provided to Australian businesses who have the potential to break into export markets and can occur in the form of reimbursement of export promotion expenses.
- **'Jobactive service providers'** to provide Australian businesses with free tailored recruitment services to connect them with relevant jobseekers. Services can include pre-employment training and work-related equipment as well as internship programs.

Exam Tip: Students should note that some subsidies can be used as an example of government efforts to specifically target a government objective rather than an attempt to increase AS. For example, wage subsidies are not designed to increase productive capacity, but instead designed to reduce particular types of unemployment and therefore assist with the achievement of the full employment goal.

Exam Tip: It is also useful to remember the link to Unit 3 and the fact that some subsidies can potentially be used as an example of government intervention that unintentionally leads to a less efficient allocation of resources. For example, it can be argued that the subsidies for the MV (parts) industry artificially attracts resources (e.g. labour and capital) to an industry that does not have a comparative advantage and away from more efficient industry (e.g. some service industries), ultimately reducing technical, dynamic and allocative efficiency.

Assistance provided during Covid-19

As a consequence of the Covid-19 induced economic downturn over 2020-21, all levels of government rolled out significant support measures designed to alleviate the negative impact on production, income and expenditure. Without support in the form of measures like the wage subsidies and low interest loans, the forced lockdowns and isolation measures would have resulted in many more businesses closing their doors and/or going bankrupt. This would have reduced Australia's productive capacity/AS and further threatened our ability to achieve domestic economic stability over time.

The federal government measures were typically designed to support AD, and these were detailed in Chapter 1 . However, given many of the initiatives also involved direct government financial support to Australian businesses (e.g. via JobKeeper and JobMaker), they can also be considered under the heading of AS policies. The government estimated that the total value of its economic support during Covid-19 [through to 2023-24] amounted to more than $500B. However, rather than providing industry specific support, the support measures introduced to counter the Covid downturn were typically considered to be economy-wide measures, such as wide subsidies and general business tax incentives. The table below summarises the key economy wide measures introduced during Covid-19.

Table 2.1 **Key economy-wide assistance in response to COVID-19**

Economy-wide measures
• JobKeeper wage subsidy, which provided payments of up to $1500 per fortnight per employee for eligible employers suffering a reduction in turnover
• payments to employing businesses under the Boosting Cash Flow for Employers measure
• JobMaker Hiring Credit, which provides weekly payments of up to $200 for each eligible new employee hired
• Supporting Apprentices and Trainees wage subsidy and Boosting Apprenticeship Commencements wage subsidy, which both provide subsidies of up to 50 per cent for eligible apprentices and trainees
• expansion of accelerated depreciation arrangements through changes to: the Instant Asset Write-off; the Backing Business Investment initiative; and the Temporary Full Expensing measure
• Temporary Loss Carry-Back arrangements to allow eligible companies to offset losses against previous income tax liabilities
• increases to the Research and Development Tax Incentive
• Supporting the Flow of Credit measures, which included government guarantees of credit, changes to lending obligations and measures to reduce funding costs
• regulatory changes to insolvency and bankruptcy arrangements to provide relief from the threats of insolvency

Source: Productivity Commission Trade and Assistance Review 2019-20

How welfare and tax reform policies are designed to influence AS and living standards

The adjacent table highlights that tax receipts make up the vast majority of total government receipts. For example, for 2022-23, the government's estimated tax receipts of $508.4B represent 93% of total receipts of $547.6B. Approximately half of these taxes ($264B) are from individuals (e.g. Pay As You Earn taxpaying employees), with company taxes ($90.2B) and the GST ($79.4B) the next two biggest sources of tax revenue.

While some of the taxes are designed to reallocate resources from one sector to another (e.g. excise on alcohol and tobacco) and therefore address market failures and tackle living standards directly, the bulk of the taxes are levied purely as a means of funding government expenditure – expenditure that is ultimately designed to improve the allocation of resources and lift both material and non-material living standards. When setting, changing or reforming taxes over time, the government is usually guided by a number of key principles, including:

- **Efficiency**: taxes need to be collected in a way that both minimises distortions in the economy (e.g. it doesn't stifle incentives too much) and is achieved at the lowest cost (e.g. the administrative burden of collecting taxes is achieved without waste and unnecessary cost).

- **Equity**: taxes need to be redistributive such that the burden of tax falls most heavily on those with the greatest capacity to pay (e.g. higher income earners) and the lowest income earners pay little or no tax and are protected by welfare support. [When reforming the tax system, the government must ensure that it achieves the right balance between efficiency and equity given that these goals are often in conflict.]

- **Fairness**: taxes need to be consistently applied across the economy such that one business or industry does not unnecessarily face a higher tax burden than another (which was the case prior to the GST when services industry were lightly taxed relative to industries producing tangible goods burdened by pervasive wholesale sales taxes).

Australian Government cash receipts

	Actual	Estimates	
	2020-21 $m	2021-22 $m	2022-23 $m
Individuals and other withholding taxes			
Gross income tax withholding	220,457	236,300	249,600
Gross other individuals	48,769	54,200	55,400
less: Refunds	36,265	38,200	41,100
Total individuals and other withholding tax	232,961	252,300	263,900
Fringe benefits tax	3,569	3,330	3,630
Company tax	98,786	109,100	90,200
Superannuation fund taxes	12,956	24,560	15,660
Petroleum resource rent tax	786	1,650	2,400
Income taxation receipts	349,058	390,940	375,790
Goods and services tax	72,932	72,782	79,432
Wine equalisation tax	1,119	1,140	1,170
Luxury car tax	914	880	880
Excise and customs duty			
Petrol	5,985	4,950	6,050
Diesel	12,740	11,720	12,880
Other fuel products	1,580	1,510	2,700
Tobacco	14,264	12,950	12,800
Beer	2,543	2,440	2,650
Spirits	3,160	3,280	3,080
Other alcoholic beverages(a)	1,301	1,440	1,220
Other customs duty			
Textiles, clothing and footwear	178	190	170
Passenger motor vehicles	372	330	310
Other imports	1,189	1,340	1,400
less: Refunds and drawbacks	729	800	700
Total excise and customs duty	42,582	39,350	42,560
Major Bank Levy	1,619	1,500	1,550
Agricultural levies	525	600	560
Other taxes(b)	5,101	5,289	6,458
Indirect taxation receipts	124,792	121,540	132,610
Taxation receipts	473,850	512,480	508,400
[redacted]			
Total receipts	519,913	556,626	547,632

- **Simplicity:** the tax system needs to be simple enough for households and businesses to pay the correct amount of tax with minimal effort.

- **Transparency:** the system is clear enough so that households and businesses both know their obligations and are aware of how their taxes are being used.

Exam Tip: If students are asked to outline a reason why the government believes the tax system needs to be reformed (as was the case in the 2016 exam) it is important to focus on those aspects of the tax system that are creating problems for the economy instead of focusing on how the tax system can (or has) been reformed. It could be useful to leverage off a couple of the key principles outlined above when answering the question. For example, a student might argue that the system is inequitable (i.e. related to the equity principle) because some of the lowest income earners are living in poverty and there remains a sizeable gap between the highest and lowest income earners. Alternatively, one could argue that the system is inefficient because marginal tax rates are too high across-the-board, which has a negative impact on incentives. Also many people on welfare payments face high "marginal tax rates" on any additional income they earn because not only do they pay tax on the additional income they lose some of their "benefits", this is often referred to as the "poverty trap" and acts as a disincentive to get a job or work additional hours.

With these principles in mind, the government has considerable scope to reform the tax system in order to increase the nation's AS or productive capacity. This can include reforms to the personal tax system in order to influence incentives, personal effort and productivity, such as tax cuts to encourage greater effort at workplaces, or increased entrepreneurial activity (as less of the financial rewards will be siphoned off by the government in tax). These tax cuts are increasingly necessary over time in order to compensate taxpayers for the effects of bracket creep (or fiscal drag), where taxpayers are pushed into higher marginal tax brackets and are forced to pay a higher average rate of tax. To the extent that changes to the personal tax system result in higher rates of (labour) productivity, the willingness and ability of businesses to produce more goods and services will increase, leading an increase in real GDP and national income and boosting material living standards.

Tax reforms might also include changes to business or corporate taxes that are designed to stimulate investment over time and/or accelerate the uptake of new technology. This includes recent budget initiatives such as the corporate tax rate falling to 25% for smaller corporations by July and more attractive accelerated depreciation allowances afforded to smaller businesses in the most recent budgets (the increase in the threshold for the instant asset write-off). To the extent that businesses increase their investment levels and/or purchase new high-tech capital equipment, these tax changes will tend to increase rates of (capital) productivity or technical efficiency, which also lead to an increase in the willingness and ability to supply goods and services and a bigger productive capacity. Again, economic growth and material living standards will be enhanced in the long run.

Exam Tip: It is important that students recognise the importance of non-material factors affecting living standards when being asked to examine the impact of tax reform on AS and or living standards. For example, tax reforms that lead to businesses incorrectly 'pricing the environment' into decision making (e.g. pollution taxes that are too low or too high) have the potential to cause a long-term deterioration in our quality of life. This type of reform would therefore lead to an inefficient allocation of resources and potentially make society worse off.

Exam Tip: It is useful to remember that any (proposed) change to the tax system will typically involve a trade-off between efficiency and equity. Efforts to improve efficiency will often have a negative impact on equity and vice versa. For example, the removal of the 37% tax bracket in 2024 (which reflects a flattening of the system to some extent), should help to improve efficiency given the positive effect on incentives. However, it has regressive effects and negatively impacts on equity. Accordingly, these tax reforms can help to boost aggregate supply (via the effect on efficiency) but negatively impact on living standards (given the growing divide between high and low income earners and the potential for less social cohesion). On this point, it is important to avoid making statements that are overtly political or unbalanced. Your responses should be guided by the requirements of the Study Design – which is to examine 'how welfare and tax reform policies are designed to influence aggregate supply and living standards'.

Social security and welfare represents the largest component of government expenses, accounting for $222B (35%) of the total $628B of government expenses. Most welfare spending is primarily motivated by the need to support vulnerable Australians in need of financial assistance, which ultimately boosts Australian living standards. This includes assistance to the unemployed, the aged, those with disabilities, and families (e.g. single parent families) earning insufficient levels of income. The government sees this is a reflection of society's values, where those with a capacity to help others during times of need do so through the tax and transfer system.

The adjacent table highlights how the expenses are distributed across the various types of welfare recipients.

Federal Government (estimated) expenses on social security and welfare

	2021-22 $m	2022-23 $m
Assistance to the aged	78,589	84,217
Assistance to veterans and dependants	7,358	8,144
Assistance to people with disabilities	62,643	68,003
Assistance to families with children	38,631	40,751
Assistance to the unemployed and the sick	15,783	12,548
Other welfare programs	17,063	1,628
Assistance for Indigenous Australians nec	2,666	2,803
General administration	5,066	3,592
Total social security and welfare	**227,800**	**221,685**

The fall in the estimated social security and welfare expenditure over the period is primarily a result of the ending of the temporary Covid-19 support measures, such as the coronavirus supplement (to Jobseeker allowance).

While the government is generally limited in its ability to use the welfare portfolio as an AS policy, there does exist some scope to manipulate or reform the system in a way that positively influences AS or productive capacity. For example, increases to the qualifying age to be eligible for the aged pension from 65 to 67 (by 2023) was specifically implemented to address the ageing population and the negative effect this was expected to have on both the size of the labour force and productive capacity. In addition, the government makes changes to the eligibility criteria in relation to some welfare payments such as newstart allowance (unemployment benefits), disability support pensions and single mothers' pension in an effort to reduce welfare reliance and encourage greater workforce participation. Further, the government can (and does) manipulate the assistance provided to families with children, most notably the changes announced in recent budgets (see below) as well as the higher rates of assistance to families in the past to partly encourage more stay at home parents to return to the workforce in some capacity. This includes government efforts to minimise distortions in the tax and transfer system that ultimately result in a reduced incentive for parents of young children to re-enter the workforce. [For example, a decision to re-enter the workforce by a stay-at-home parent will be influenced by the accompanying reduction in welfare income that results in very high effective marginal rates of tax on labour income (the "poverty trap")]

Exam Tip: It is worth remembering that the provision of funds for measures like DisabilityCare Australia was designed with equity and fairness in mind. However, it can also have supply side benefits to the economy as it permits many Australians to (re)enter the labour force. This includes many of those with disabilities, as well as carers, who will now have the time and ability to (re)enter the labour force. This helps to boost AS and partly offsets the negative impacts flowing from an ageing population in the future.

Recent examples of recent tax and welfare reforms that can help to lift AS and improve living standards

Personal income taxes

The current and proposed tax changes to tax thresholds that have been announced over recent years are detailed in the table below:

Table 3: New personal tax rates and thresholds

Rate (%)	2017-18 tax thresholds Income range ($)	Current tax thresholds From 1 July 2018 Income range ($)	New tax thresholds From 1 July 2018 Income range ($)	New tax thresholds From 1 July 2022 Income range ($)
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 - 37,000	18,201 - 45,000
32.5	37,001 - 87,000	37,001 - 90,000	37,001 - 90,000	45,001 - 120,000
37	87,001 - 180,000	90,001 - 180,000	90,001 - 180,000	120,001 - 180,000
45	>180,000	>180,000	>180,000	>180,000
Low and middle income tax offset	-	Up to 530	Up to 1,080	-
LITO	Up to 445	Up to 445	Up to 445	Up to 700

Rate (%) From 1 July 2024	New tax thresholds From 1 July 2024 Income range ($)
Tax free	0 - 18,200
19	18,201 - 45,000
30	45,001 - 200,000
45	>200,000
LITO	Up to 700

Source: www.budget.gov.au (BP. No. 1)

**The new tax thresholds to be introduced from 1 July 2022 were brought forward and are the tax rates applicable today.*

- The introduction of new personal income tax rates and thresholds will reduce average rates of tax paid by taxpayers and lift average disposable incomes. For example, reducing the effective tax rate for middle income earners by increasing the upper limit of the 32.5% tax threshold progressively from $87,000 to $120,000 is designed to keep full-time average wage earners on the lower rate for longer.
- In addition, by 2024-25, the Government will make a further structural change to the tax system by reducing the rate of the middle tax bracket from 32.5 per cent to 30 per cent. The government claims that this measure, together with the abolition of the 37 per cent tax bracket, will mean that 94 per cent of taxpayers are projected to face a marginal tax rate of 30 per cent or less in 2024-25.
- An additional $7.8 billion in **tax cuts** for low and middle-income earners announced in the 2021-22 Budget, worth up to $1,080 for individuals or $2,160 for dual income couples via the extension of the low and middle income tax offsets

To the extent that these types of tax measures help to incentivise people to work harder, or become more productive (as the rewards from working increase), it helps to raise productivity, and hence the quality of resources increasing AS. They also incentivise people to work longer hours, effectively increasing the quantity of labour further increasing our productive capacity and AS.

Exam Tip: Income Tax Offsets are mechanisms used by the government to provide tax relief to particular income groups. The Low Income Tax Offset (LITO) has been in operation for a number of years and it effectively raises the tax free threshold for low income earners without those same benefits accruing to higher income earners. The raising of the LITO (and introduction of the MITO) has been designed with equity (and votes?) in mind.

Business taxes

- A 50% reduction in **excise on fuel** (from $0.44 per litre to $0.22 per litre)
- A **Technology Investment Boost** for small businesses via a 120% tax deduction on business expenses that support digital uptake
- A Skills and Training Boost for small businesses via a 120% tax deduction on the cost of external training courses
- Extension of the temporary **full expensing** (**instant asset write off**) of business assets for an additional year until 30 June 2023
- Reducing the **corporate tax rate** to 25% for businesses with turnover of less than $50 million and offering equivalent benefits to unincorporated businesses (e.g. sole traders) with the increase in the unincorporated small business tax discount rate to 16% by 2021-22 (up to the cap of $1,000).

Welfare initiatives

- The provision of $1.5 billion in 2021-22 to provide a $250 economic support payment to eligible welfare recipients such as aged pensioners and those in receipt of payments such as the disability support pension, job seeker payment, youth allowance.
- The Government will provide $7.3 million over 2 years from 2022 23 to further support people with disability and their families.
- The Government will provide $346.1 million over 5 years from 2021-22 to improve economic security for women by enhancing the Paid Parental Leave scheme
- Committing an additional $1.7B to improve the affordability of child care for about 250,000 families by removing the annual cap on the Child Care Subsidy and increasing the rate for families with two or more children in care
- The government will effectively tighten welfare eligibility by extending income data matching activities between the Department of Human Services and ATO to enhance the integrity of social welfare payments.
- The Government is developing a new employment services model to deliver more intensive support for disadvantaged job seekers. The Government is developing a new employment services model to deliver more intensive support for disadvantaged job seekers.
- The Government is providing older Australians with more support, whether they choose to live in their homes longer or enter residential aged care. Total funding for aged care is estimated to increase by $3.7 billion from $21.6 billion in 2019-20 to $25.4 billion in 2022-23, helping to ensure quality and safe care.
- The government will increase the waiting period to four years for newly arrived migrants to access certain welfare benefits in an effort to support the sustainability of the welfare system [and help to boost labour force participation].
- The introduction of a Cashless Debit Card in some parts of Australia in an effort to break the cycle of welfare dependency by reducing the likelihood that welfare income is spent on demerit goods such as alcohol, drugs and gambling.
- The Government is strengthening participation requirements for welfare recipients to better drive participation outcomes. [For example, measures will be introduced that will provide additional incentives for those in receipt of unemployment benefits to be more aggressive in their pursuit of employment.] These will be coupled with a new targeted Job Seeker Compliance Framework that will apply stronger financial penalties to persistently non-compliant job seekers, whilst ensuring genuinely disadvantaged and vulnerable job seekers are supported.

REVIEW QUESTIONS 4 – Nature, operation and aims of Aggregate Supply (AS) policies

1. ***Explain how increased government spending on training and education can assist with the achievement of the government's domestic macroeconomic goals. In your answer, refer to one recent budgetary policy initiative.***
2. ***Define Research and Development (R&D) and explain how an increase in the provision of R&D grants can assist with the achievement of the government's domestic macroeconomic goals. In your answer, refer to one recent budgetary policy initiative.***
3. ***Explain how an increase in infrastructure spending can influence real GDP and inflation over time. Refer to the supply side and demand side effects and use an AD/AS diagram to illustrate your response.***
4. ***Describe how an increase in infrastructure spending can support jobs growth in both the short and the long run. In your answer, refer to one recent example of public sector infrastructure spending.***
5. ***Define a subsidy and outline the likely purpose of a subsidy.***
6. ***Explain why the provision of subsidies as a form of protection has been discredited. In your answer, refer to both the short-term and the long term.***
7. ***Explain how the use of subsidies can contribute to an increase in aggregate supply over time and assist with the achievement of the government's domestic macroeconomic goals.***
8. ***Outline the purpose of taxes and identify the key principles that underpin a good functioning tax system.***
9. ***Identify the importance of taxes as a means of raising government revenue.***
10. ***Describe how the manipulation of taxes (or tax reform) can achieve an increase in productivity, efficiency and productive capacity. Use an example from a recent budget to illustrate your response.***
11. ***Identify the proportion of total government expenses that are devoted to social security and welfare.***
12. ***Explain why governments spend substantial amounts on social security and welfare.***
13. ***Discuss how two recent budgetary policy measures have been directed at improving the quality of resources in order to lift productive capacity.***
14. ***Discuss how two recent budgetary policy measures have been directed at improving the quantity of resources in order to lift productive capacity.***
15. ***Outline two examples to illustrate how the government can reform the welfare system in order to increase aggregate supply/productive capacity.***

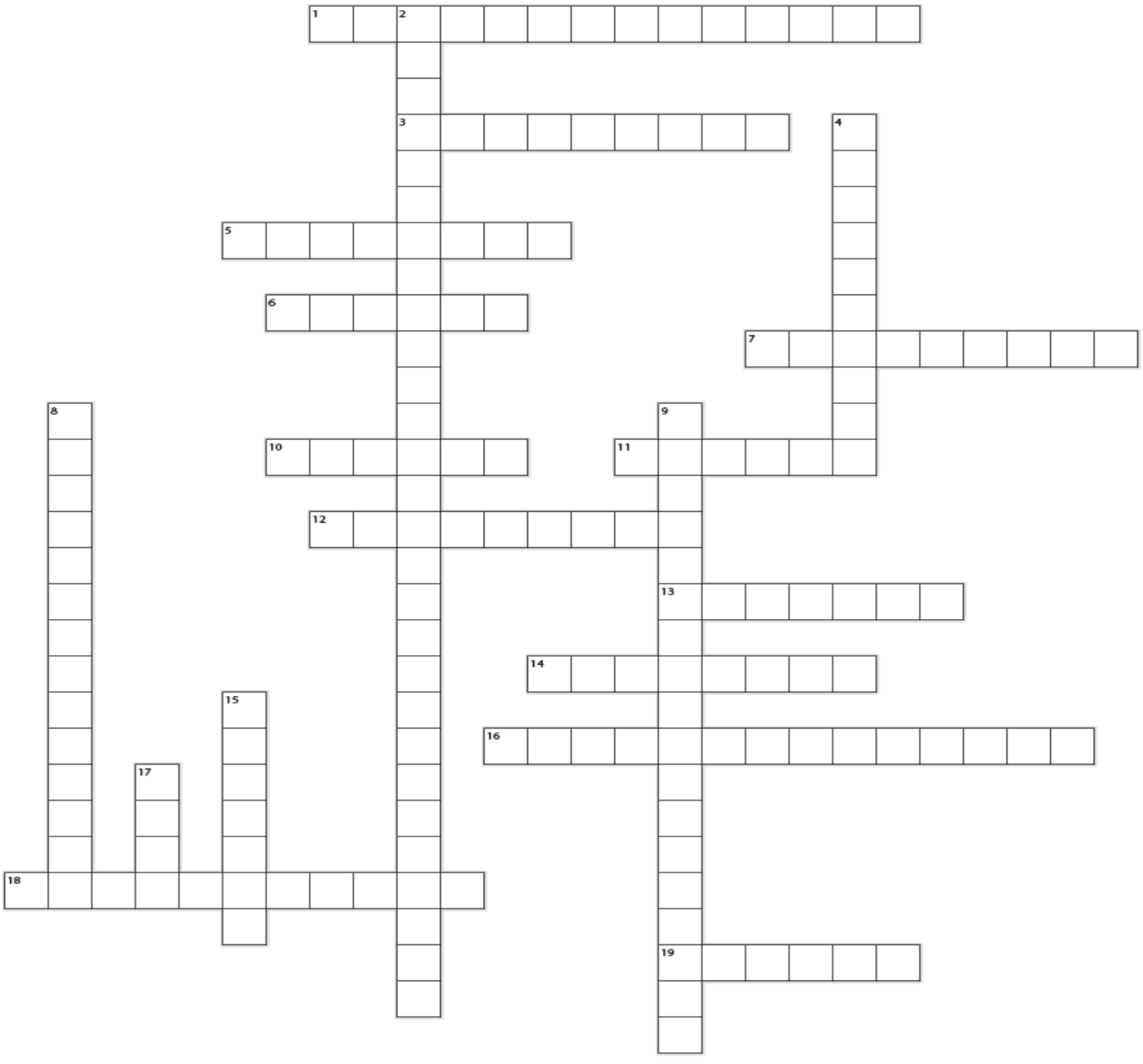
Quick revision crossword No 4: Nature, operation and aims of AS policies

Across

1. This goal is more likely to be achieved in the long run following the successful implementation of aggregate supply policies (two words)
3. Like training, spending on this will help to improve skills and increase labour productivity over time
5. This, along with the development, can help to improve the quality of both human and physical capital over time
6. One of the key principles behind Australia's tax system. It is often in conflict with efficiency.
7. Making this more affordable will help to increase labour force participation and lifts productive capacity (two words)
10. An increase in this will usually follow increased government spending on training and education
11. Like a subsidy, these represent sums of money or other forms of financial assistance, that are designed to incentivise some form of activity
12. Investment by the government in this network is designed to increase the efficiency of Australia's telecommunications network
13. This type of tax is expected to fall to 25% over time if it eventually passes through the Senate.
14. Increased government spending on this will help to improve the quality of human capital
16. A key domestic goal of the government that might be jeopardised in the short-term following the implementation of some aggregate supply policies
18. This, combined with research, will often result in technological advances that boost the nation's productive capacity
19. This type of tax is the most common in Australia

Down

2. This should increase in response to aggregate supply policies, which in turn results in greater net export demand (two words)
4. The current building of these in South Australia has received subsidy support from the federal government
8. Roads, rail and ports are examples of this
9. Sustained and efficient investment in infrastructure over time should lead to an increase in this (two words)
15. A common type of transfer or welfare income
17. These types of subsidies have recently been introduced to encourage greater employment of certain classes of workers



The effect of immigration policies

The Department of Home Affairs is the government body responsible for assisting in the development and coordination of Australia's immigration policy, which is closely related to Australia's population policy. Since 1945, more than seven million people have migrated to Australia, having a significant influence on society and the economy, with the population increasing from approximately 7 million to over 25.9 million in April 2022. The trigger for a large-scale migration program was the end of World War II and the need to act as a decent global citizen by taking refugees as well as the defense imperative of boosting the potential size of Australia's defense capacity. However, over time, the government's motivation for continuing large scale immigration switched towards an economic imperative. The development of the skilled migration program to complement the humanitarian and family programs has become a key component of government efforts to *grow the economy* on the supply side through boosts to Population, Participation and Productivity, commonly referred to as the *3Ps.*

The latest Intergenerational Report released by the government in 2021 noted the importance of (skilled) immigration in the context of current government economic policy:

> ***'…..attracting skilled migrants can provide both economic and social benefits to Australia. In an increasingly competitive global labour market, skilled migration that is well targeted and appropriately adjusted to our economic circumstances will support Australian employers and businesses, and provide benefits through a younger and more skilled population in which there are more workers supporting the rest of the community.'***

Similarly, the *Final Report of the Inquiry into Australia's Skilled Migration Program*, released in August 2021, highlighted the role that skilled immigration plays in addressing skills shortages in the following:

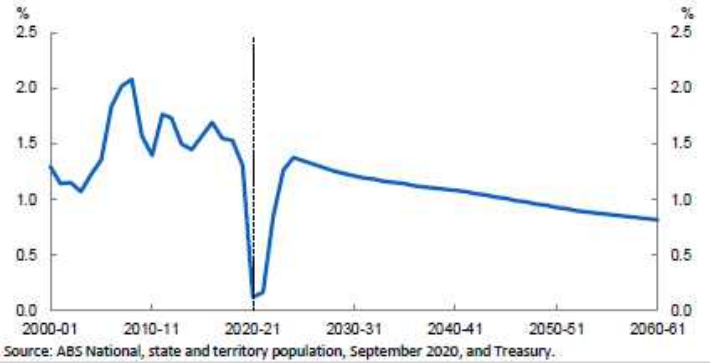
> ***'While skilled migration plays a role in increasing Australia's general human capital, it is also one of the policy levers that governments can use to address skill shortages in the Australian economy. Other levers include higher education, vocational education and employment services programs.'***

There is general consensus that skilled immigration plays an important role in helping to increase the quality of human capital available to Australian businesses, which in turn is instrumental in boosting productivity, productive capacity and living standards.

Australia's ageing population, immigration policy and the three Ps

The latest Intergenerational Report (2021) highlighted that annual population growth will fall significantly over the next 40 years. From an average growth of 1.3% over the past 40 years (and even exceeding 2% during the 2000s), it is projected to fall to 0.8% by 2060-61. The chart also highlights the impact of the closure of international borders due to Covid-19, where Australia experienced a period of net negative overseas migration during 2020-21, indicating that more people left Australia (emigration) than entered Australia (immigration).

Chart 2.1 Australia's population growth



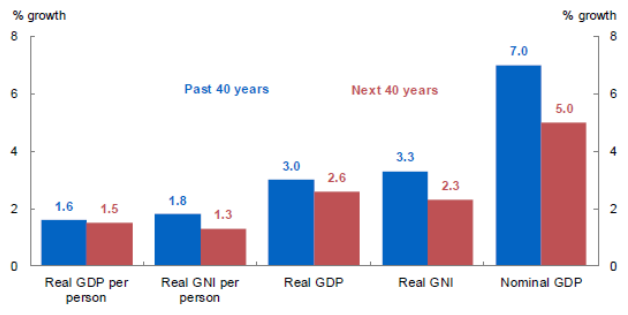
Source: ABS National, state and territory population, September 2020, and Treasury.

This decline in population growth is expected to be problematic for Australia given the aging population that is being caused by increased life expectancies and falling fertility rates. Australians over 65 are projected to more than double by 2060-61 to 8.9 million people, resulting in the proportion of the population over 65 increasing from 16% in 2020 to 23% by 2060. As a consequence, the participation rate is expected to fall from its current rate of 66.3% (April 2022) to 63.6% by 2060-61.

As discussed in *Part 1 of the Study Guide*, this has negative consequences for future rates of economic growth (and living standards) because:

- Labour force participation rates fall, which negatively impact on labour costs, labour productivity and economic growth;
- The likelihood of skills shortages increase, causing capacity constraints to set in earlier than otherwise; and
- Government finances will be under added pressure to support the ageing population, which results in either higher taxes; and/or an increased budget deficit (and higher interest rates).

Chart 1 Average growth rates



Source: ABS Australian National Accounts: National Income, Expenditure, and Treasury.

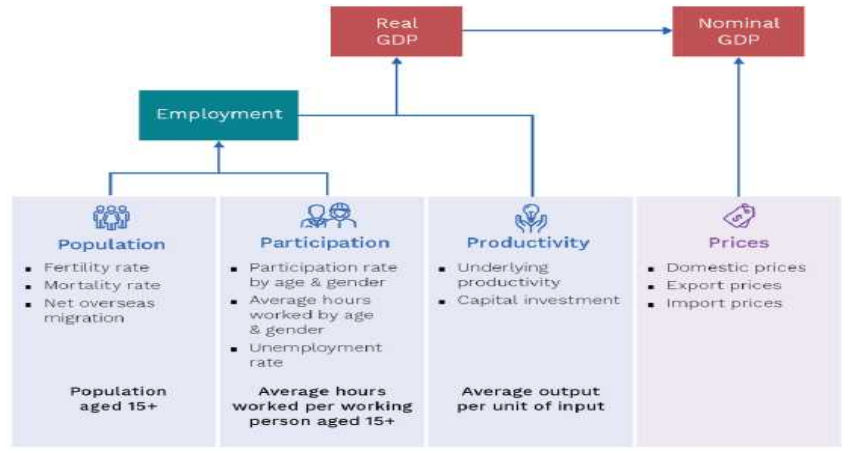
In recognition of the effects of an ageing population, the intergenerational report predicted that the average annual growth of real GDP is projected to be 2.6 per cent over the next 40 years compared with 3.0 per cent over the past 40 years. This translates to slower growth in material living standards with the average annual growth in real GDP per person, projected to be 1.5 per cent over the next 40 years compared with 1.6 per cent over the past 40 years. These estimates are highlighted in the adjacent chart.

Exam Tip: The VCE Study Design does not make reference to GNI and students are therefore not likely to be examined on this. For the curious, however, GNI and nominal GDP are expected to be significantly lower over the next 40 years because Treasury expects that growth in Australia's Terms of Trade (TOT) will be much lower over the next 40 years compared to past 40 years. Movement in commodity prices or the TOT more generally are the key difference between nominal GDP (and GNI) on the one hand and real GDP on the other. Growth in the TOT will therefore cause growth in GNI/nominal GDP to exceed real GDP growth (which is what happened over the past 40 years), while the reverse is true when the TOT falls, which is the expectation for the next 40 years.

Exam Tip: In a past exam (2013) students were required to explain how an ageing of the population might influence future rates of economic growth. Some students were able to correctly outline that productivity might fall in the future, but made the mistake of explaining it was due to 'older workers' being less productive. The link to lower productivity is better handled by focusing on the lower labour supply and the impact on skills shortages and/or incentives in the workplace. In addition, students once again made the mistake of assuming unemployment rises with an ageing population. While an ageing population can indeed lead to some job losses due to a fall in the demand for labour (when unit labour costs rise), it will be outweighed by the supply side effect of workers exiting the labour market due to retirement.

The three P's of Population, Participation and Productivity are considered the key drivers of sustained economic growth and improvements in longer term living standards. These three P's impact on the quality and quantity of resources available for production and hence our productive capacity and AS. The relationship between the three P's and real GDP is depicted in the adjacent diagram re-produced from the 2021 Intergenerational Report.

Figure 1.1 The 3Ps framework



Source: Treasury.

As has been the case over the past 40 years, productivity improvements are projected to be the primary driver of growth in real GDP per person. As well as having individual effects, the 3Ps interact with each other. For example, migration directly boosts population growth and, because migrants tend to be younger and higher skilled, this population growth can also support labour force participation and productivity.

The intergenerational report notes that since the late 1980's, immigration has made the largest contribution to growth in Australia's working age population. For Australia to address the problems associated with an ageing population, measures to support ongoing and effective immigration policy will play an important role.

Skilled immigration and population

Australia's ageing population has made it imperative that population growth increase in order to protect against the declines in the labour force participation rate that have already started to occur, and which are forecast to fall as low as 63.6% by 2061. A lower participation rate is projected to have a negative influence on AS, meaning that future economic growth will rely heavily on improvements that can be made to the size of the (skilled) population and the rate of productivity growth. Without a well targeted immigration program to boost the size (and quality) of the workforce and help offset falls in participation, Australia's growth in material living standards (as measured by changes in real GDP or real GNI per person) will likely be further compromised.

Skilled immigration and participation

Between 2000 and 2010, Australia's labour force participation rate increased from 63.1 per cent to 65.9 per cent, with 94% of the increase accounted for by the arrival of skilled migrants. Since then it has remained relatively high (currently 66.3%) due largely to the continuing high rates of skilled immigration (up until early 2020), as well as a number of government policies that have been designed to encourage greater workforce participation. This highlights the importance of immigration in helping to cushion the impact of an ageing population. Without immigration there is little doubt that Australia's participation rate would reach 63.6% long before 2061 as forecast in the 2021 Intergenerational Report. This would accelerate the decline in economic growth and budget pressures that are anticipated in the future.

Skilled immigration and productivity

Skilled migrants will tend to have a positive influence on Australian rates of productivity growth because, on average, they are more likely to be higher skilled than the average Australian worker and arrive with the experience and flexibility of having worked in different environments, conditions and circumstances. By definition, their entry into Australia is primarily based on their ability to *'fill a gap'* in the economy that has been created by a skills shortage. This of course helps to boost productivity if the role they perform would otherwise be left unfilled or undertaken by workers with an inferior skills set. Increasingly, foreign entrepreneurs are attracted to countries like Australia which have a relatively stable political and economic environment, as well as an enviable record of dealing with health pandemics, such as COVID-19. To the extent that incoming entrepreneurs help to foster growth in innovation and creativity, this further helps to boost productivity growth.

While the government recognises the need for a larger population and the role that immigration plays, it is cognisant of the demands placed on infrastructure, general services and the environment. Accordingly, it continues to undertake longer term planning in areas like infrastructure funding and support for housing development. Importantly, it seeks to ensure that Australia's immigration program is carefully targeted such that new immigrants can help to reduce the pressures that stem from an ageing population, rather than add to them.

Skilled immigration and COVID-19

COVID-19 resulted in more than 500,000 temporary visa holders leaving Australia, as well as the temporary halt in the skilled migration program due to the effective closure of international borders since March 2020. While the government allowed the entry of a limited range of skilled migrants since September 2020, this did not help to prevent an increase in skills shortages reported by Australian industries over the course of 2020-21, which had negative impacts on productivity and productive capacity. For example, the Australian Chamber of Commerce and Industry (ACCI) highlighted the extent of skills shortages by referring to a shortage of chefs in regional Australia and pointing to job vacancies reaching the highest level (254,000 nationally) in late 2020. Similarly, other business industry groups (e.g. Business NSW) report that skills shortages are increasingly evident in industries such as agriculture, forestry and fishing, construction and manufacturing, with shortages in occupations such as electricians, carpenters, mechanics; and fitters and turners.

In light of COVID-19 and the impact of closed borders on skilled migration, the government took the opportunity in early 2021 to highlight the contribution that skilled migrants have made to Australia over many years. It launched an *'Inquiry into Australia's skilled migration program'* to consider how the program meets Australia's needs into the future. The Report highlighted the skills shortages existing in Australia and the need for the government to make changes to visa arrangements that effectively make it easier for Australian businesses to source skilled workers from abroad. Citing the regulatory burdens associated with the current arrangements, the Inquiry's Interim Report noted that:

> *'It is clear from the evidence received that many businesses consider the administrative requirements of the skilled migration program to be overly complex, lacking transparency, and difficult to navigate. This lack of transparency creates particular difficulty for employers who cannot get on with their business without the relevant skilled workforce.'*

In a 'Dissenting Report', Labor Party members of the Inquiry opposed the recommendations to increase the flow of skilled migrants, noting amongst things that:

> *'Labor members are concerned that the Government members are enthusiastically rushing forward to expand the number of occupations on the skills shortage list for visa holders - in areas such as chefs, veterinarians, cafe managers, seafarers, motor mechanics, cooks, carpenters, electricians and other hospitality roles - without significant or thorough consideration for the impact that expansion would have on job opportunities for Australian workers.'*

The lack of immigration over the past couple of years is cited as one of the main reasons behind the tight labor market, evidenced by the lowest rate of unemployment seen in decades (currently 4%), very high vacancy rates and evidence of rising wages. The partial re-opening of Australian borders in November 2021 (and further re-opening in February 2022) has helped to alleviate some of these pressures and the government has highlighted in the Budget papers that over one million people have entered Australia since late 2021, including more than 130,000 international students, 190,000 tourists, 70,000 skilled migrants and 10,000 working holiday makers.

Exam Tip: A key skill in the Study Design is the requirement for students to discuss the strengths and weaknesses of AS policies. The information provided in the above section, in relation to the differing views expressed by Labor and Coalition Party members of the Committee, could be used in the event that an exam question required students to evaluate the use of skilled immigration as a means of achieving certain goals or boosting living standards.

Immigration and labour markets

Australia's 'permanent' migration program includes three major categories: *Skilled, Humanitarian and Family*, with the Skilled program representing the largest intake (approximately 68%) of all immigrants. In addition to the permanent program, an uncapped number of temporary migrants can enter the country on Temporary Visas, such as the Temporary Skills Shortage Visas enabling employers to address labor shortages by bringing in skilled workers on a short to medium term basis (maximum period four years in the majority of cases).

An effective and well targeted immigration program will help to ease stresses in those labour markets facing skills shortages. Leading into 2008, the Australian economy faced capacity constraints, partly due to a number of shortages in skilled areas such as Mining Engineers and Accountants. The tight labour markets constrained production levels (or Aggregate Supply), added to wage rates, and increased inflationary pressures. Australia increased the intake of skilled migrants (both permanent and temporary migrants) over this period, increasing the supply of labour, helping to boost employment and production, assisting in wage restraint. Once the economy entered the economic downturn over 2008-9, the government reduced the skilled migration intake in 2009-10 to minimise pressure on unemployment. However, as the economy

recovered over 2010-11, the government once again lifted the skilled immigrant intake to fill the skills requirement in regional communities in particular.

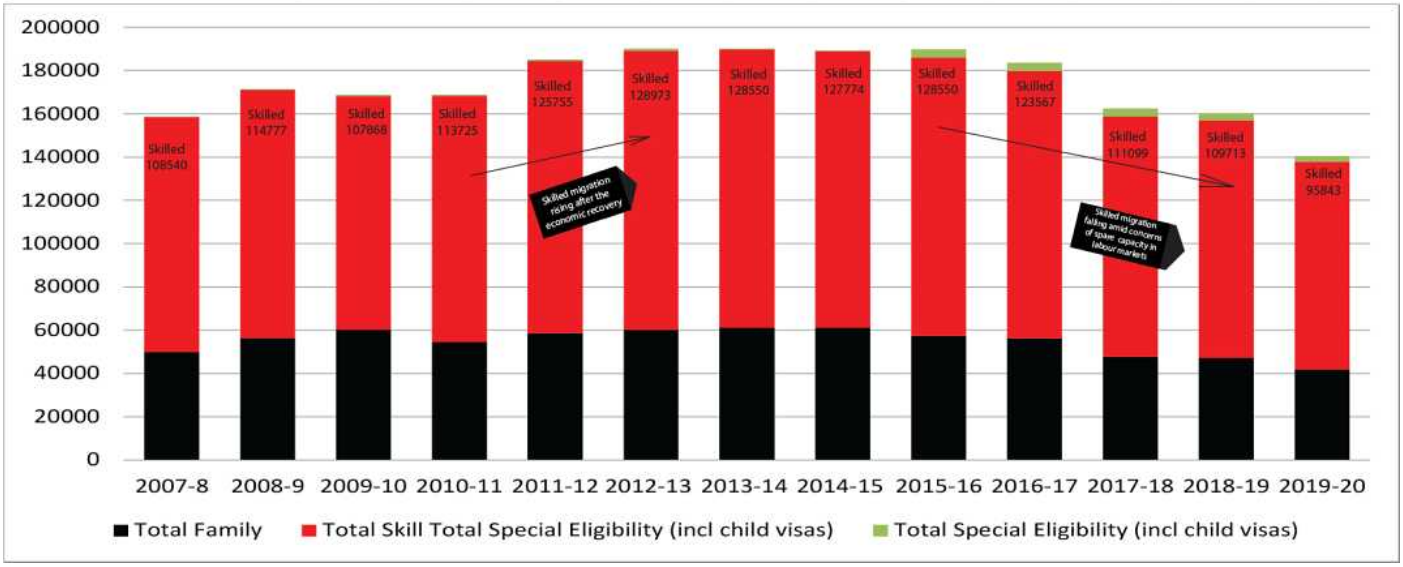
Between 2015-16 and 2019-20, the government reduced the skilled migrant intake amid concerns about the lingering spare capacity in labour markets as evidenced by low wages growth and relatively high rates of labour force underutilisation (and despite the relatively low unemployment rates). Of course, the impact of COVID-19 was the primary factor explaining the fall in migrant numbers over 2019-20 (i.e. with borders effectively closed since March 2020). Since June 2020 (i.e. for the year 2020-21), migration numbers will approach zero, which exacerbated skills shortages in Australia.

Generally, an effective and genuine skilled migration program, particularly when combined with access to those with temporary skills visas (see below), is an important tool which can be turned on or off relatively quickly in response to changing economic circumstances. It certainly helps to alleviate capacity constraints with benefits for economic growth and employment. However, the ability for businesses to source relatively cheap and abundant offshore labour effectively flattens the labour supply curve, reducing pressure on wages and contributing to the slow wages growth recorded in Australia over recent years.

The table and chart below summarises the changes to Australia's migration numbers 2007-8 and the closure of borders in 2020.

Australia's migration program statistics 2007-8 to 2019-20

	2007-8	2008-9	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Total Family	49870	56366	60254	54543	58604	60185	61112	61085	57400	56220	47732	47247	41961
Total Skill	108540	114777	107868	113725	125755	128973	128550	127774	128550	123567	111099	109713	95843
Total Special Eligibility (incl child visas)	220	175	501	417	639	842	338	238	3820	3821	3586	3363	2562
Total Program	158630	171318	168623	168685	184998	190000	190000	189097	189770	183608	162417	160323	140366



The key observations to note about the above chart and table as are follows:

- Australia's migration program increased from approximately 158,630 in 2007-8 to 190,000 in 2012-13 (the permanent migration cap/ceiling at the time) before falling significantly to approximately 160,000 in 2018-19 (the new permanent migration cap/ceiling).
- The large fall in program numbers below the cap of 160,000 for 2019-20 largely reflects the effects of COVID-19 on the numbers between March and June of 2020.
- The majority of migrant numbers over the period came in the form of 'skilled migrants' (68%).
- The rate of growth in (skilled) migration slowed between 2008-9 and 2010-11 as the effects of the GFC impacted on Australia.
- Growth in migration accelerated once more since 2010-11 as the government recognised the need for a continuing high (skilled) migrant intake to help Australia protect against an ageing population and the continuing skills shortages existing in a number of areas.
- The rate of growth in skilled migration leveled out between 2012-13 and 2015-16, and fell by 3.9% in 2016-17 as the economy continued to grow below trend.
- The government has reduced skilled migration since 2016-17 due in part to the ongoing concern about spare capacity in labour markets and low wage growth as the economy continued to grow 'below trend', but also due to population pressures more generally.

The fall in migration since 2016-17?

Despite the recognised need to have a larger population in the future to tackle an ageing population, the government felt the need to respond to community concerns related to the 'excessive' pace of population growth (or immigration more specifically) and the perceived negative impact on Australian communities [see *Immigration and living standards*] in the form of congestion (e.g. heavy traffic on roads), resource depletion, housing affordability, social division, unemployment and wages growth. Accordingly, the government released a plan titled *'Planning for Australia's future population'*, which detailed the way the government intended to better manage population challenges. While part of the plan involved increased investment in infrastructure and services in Australia's cities and regions, the plan also included the 2019-20 Budget measure to reduce the Migration Program ceiling (or cap) from 190,000 to 160,000 places for four years from 2019-20. The government also introduced two new regional visas for skilled workers requiring them to live and work in regional Australia for three years before being able to access permanent residence.

Of course, the closure of Australian borders between 2020 and 2021 resulted in both permanent and temporary migration levels effectively falling to zero, which ultimately caused negative net overseas migration (i.e. emigration exceeding immigration). This reduced the supply of labour to Australian businesses, accelerating labor shortages and contributing to upward pressure on labour costs.

Temporary skills visas

As mentioned earlier, Australia operates a temporary skilled visa scheme to provide a temporary fix to the problem of skills shortages that create capacity constraints and limit growth in Australia's productive capacity. The scheme is separate to Australia's permanent migration program already referred to above, and allows foreign skilled workers to work in an Australian business if it can be demonstrated that the business couldn't find an Australian citizen or permanent resident to fill the role. The scheme is designed to be uncapped and driven by the needs of the Australian labour market. Workers on the scheme are supposed to receive the same market rates of pay applicable to their occupation as Australian workers.

The current scheme in operation is referred to as **Temporary Skill Shortage (TSS) visa (Subclass 482) scheme** and it replaced the controversial **section 457 visa scheme** in response to criticisms that the section 457 visa scheme was being rorted by businesses to the detriment of both local and foreign workers. [See Box: the demise of section 457 visas.] The new scheme is designed to tighten up the conditions upon which foreigners can acquire these temporary skilled visas. For example, there are more than two hundred fewer eligible occupations, they will be valid for only two years for applicants (instead of four years) and there is no path to permanent residency, unlike the section 457 visas.

Despite the new scheme, there are arguably few substantive changes that impact on the ability of Australian businesses to access skilled labour that is in short supply. In fact, the union movement claims that the new scheme is essentially the old scheme with a new name and the rorting of the system will continue. Former ACTU Secretary, Ged Kearney noted that:

> ***'On the face of it, it looks like a cynical attempt to rebrand a wildly unpopular policy … It is unlikely Malcolm Turnbull's proposal will do anything to remedy the chronic exploitation of our work visa system ...Where workers can come to Australia and do entry-level jobs like retail shop assistants or kitchenhands, we still have a broken system'.*** ***Source**: www.actu.org.au*

In contrast, employer groups welcomed the scheme, arguing that the new TSS visas provided a good opportunity for Australia to regain confidence in the temporary skilled migration program. The Chief Executive of the Business Council of Australia, Jennifer Westacott said that:

> ***'The capacity for businesses to hire temporary workers to fill genuine skill shortages has been an overall boon for Australia, allowing the economy to ride out volatile economic cycles including in the mining industry'.*** ***Source**: www.bca.com.au*

The **TSS visa** allows foreign skilled workers to work in an Australian business for up to two years for the short-term stream (or four years for the medium-term stream) provided it can be demonstrated that the business can't find an Australian citizen or permanent resident to fill the role. The business must prove that a genuine skills shortage exists in their workforce and the scheme contains safeguards to prioritise Australian workers and reduce the chances of rorting that plagued the Section 457 visa scheme.

It is fair to say that temporary skilled visa schemes more generally (either section 457s or TSS visas) have the potential to reduce both capacity constraints and costs for Australian businesses, which in turn helps to boost the AS and/or productive capacity. However, these skills also help to constrain wages growth and contain any reduction in the numbers of unemployed *Australians* that would otherwise have occurred (particularly in the short term). Importantly, it highlights the labour market effects of allowing an increasing number of foreign workers into Australia. At the extreme, a totally unregulated global labour market would result in much lower wages and lower costs for businesses, helping to reduce inflation and promote economic/employment growth. However, it can have real consequences for equity/fairness and it has the potential to increase or prolong periods of unemployment for some groups.

Immigration and Aggregate Supply

As discussed, immigration is needed to assist in boosting population growth in order to offset the projected declines in labour force participation over the next 40 years. Immigration is designed to improve the quality and quantity of resources available and hence AS levels, in a number of ways. For example, a well targeted immigration program can:

- increase the supply of labour, placing downward pressure on wage rates, boosting employment and output;
- alleviate capacity constraints (or skill shortages) and help to maintain labour productivity levels above levels that would otherwise occur;
- further enhance productivity via the intake of young skilled professionals/entrepreneurs to replace the ageing population and retirees;
- result in 'economies of scale' benefits being enjoyed by some firms as a bigger population (with the accompanying improvement in demand) adds to output growth; and
- increases the connectedness with overseas markets, helping to facilitate export growth over time.

Exam Tip: Question 3(c) of the 2014 exam required students to explain how one immigration policy might operate to raise productive capacity. Some students successfully explained how productive capacity can increase, but then went on to explain how the larger population works to raise economic growth via the increased demand for goods and services. While not incorrect, the best approach is to stay on the supply side and explain how an increase in productive capacity results in stronger economic growth.

Exam Tip: The 2015 exam (Q1,d) gave students the opportunity to explain how Immigration Policy has, or could have been, implemented over the last four years to increase AS in Australia. Some students discussed the skilled migration program in general and said it increased AS. However it was important that students linked the skilled migration program to skills shortages and the quality/quantity of labour available, with skilled migrants raising productivity (quality) and the availability (quantity) of labour exerting downward pressure on real unit labour costs, boosting the ability and willingness to supply and hence increasing AS (shifting the AS curve to the right).

Immigration and the government's domestic macroeconomic goals

Strong and sustainable rates of economic growth

By boosting aggregate supply or productive capacity (as discussed earlier), immigration helps to increase ***rates of sustainable economic growth***. Without an effective immigration program to help offset the negative impact from an ageing population, future rates of growth will no doubt be lower. Australia's current migration program can benefit economic growth from the demand and supply sides of the economy. On the *demand side*, Australia's migration program will tend to:

- increase the number of consumers and therefore increase consumption demand in the economy;
- increase the number of entrepreneurs or people establishing businesses, which initially increases Investment demand in the economy;
- increase the willingness of Australian businesses to undertake investment given the increased supply of labour available;
- encourage growth in capital flows (from their country of origin) which can be used for Australian investment;
- make a net contribution to the government's budget given that they are mostly of a working age (e.g. paying taxes from working and not requiring welfare until much later in life) which adds to G1 and G2; and
- contribute to export demand given that the initial spending of migrants (e.g. temporary migrants) is classified as export income as well as the boost to export demand over time following family visits and the increased attractiveness of Australia as a tourist destination more generally.

Exam Tip: While the demand side benefits have been included, students should attempt to focus on the 'supply side' benefits given that immigration policy is included in the course as an AS policy. Importantly, exam questions will typically require students to focus on how immigration policies achieve the macroeconomic goals via a boost to AS or productive capacity, by raising the quality and or quantity of resources available. For example, Q3b of the 2017 exam asked how immigration policy, as an AS policy, might be implemented to increase 'jobs and growth'. A sole focus on how immigration can stimulate AD (and therefore real GDP and jobs) via an increase in Consumption and Export demand, would not satisfy the requirements of the question. If making a reference to any demand side benefits, they should be considered in the context of the ability for immigration to boost Business Investment, which becomes the precursor to AS benefits (see next Exam Tip).

On the supply side, the Australia's migration program will tend to:

- boost the *participation* rate and the available supply of labour by virtue of a larger working age *population;*
- boost average rates of labour *productivity* (e.g. through innovation, skills sharing and the general increase in the quality of human capital) given that the bulk of migrants enter through the 'skilled program';
- Increase entrepreneurial activity from migrants which ultimately adds to the supply of goods and services; and
- Expose Australia to more foreign markets, boosting trade and production.

Exam Tip: It should be evident that some of the above factors are listed as both demand and supply side benefits. This reflects the fact that many supply side benefits (or policies) are derived from the initial increase in Investment (as a component of AD) that precedes the boost to productive capacity or aggregate supply.

Economic research supports the view that immigration contributes positively to economic growth. The Productivity Commission's 2016 Report (*Migrant Intake into Australia*) estimated that GDP per person would be approximately 7 per cent higher in 2060 with net overseas migration (NOM) compared to a scenario of zero NOM. Similarly, the International Monetary Fund (IMF) in its 2017 *Regional Economic Outlook* estimated that Australia's current migration program would add up to one percentage point to annual average GDP growth over the period 2020 to 2050 by limiting the economic impact of Australia's ageing population.

The benefits of skilled immigration were summarised in the 2018 joint Treasury/Department of Home Affairs Report ['Shaping A Nation: Population growth and immigration over time'] in the following way:

> ***Australia's focus on skilled migration has demonstrated positive effects for economic growth, because our migrants on average lift potential GDP and GDP per capita through all of the three Ps of population, participation and productivity. In particular, migration has played an important role in ameliorating and delaying the adverse effects of our ageing population. Further, migrants generate jobs and***

economic opportunities for the population more broadly, because they lift aggregate demand through consumption and investment. Temporary migrants also lift our exports, particularly in the education sector.

While immigration adds to economic growth, it is more questionable whether the growth is 'sustainable' over time when we take into account its impact on factors such as congestion, pollution, resource depletion, housing affordability and social tension. [See *Immigration and living standards* on the next page].

Price stability

The extent to which demand inflationary pressure (coming from the added demand for goods and services by immigrants) is outweighed by the supply side benefits (coming from the addition to supply and productive capacity) depends on the nature of any immigration program. Given that Australia's emphasis is primarily biased towards skilled migration (rather than humanitarian or family), it is likely that current immigration will help to reduce inflationary pressure over time, thereby assisting with the government's goal for ***price stability***.

Exam Tip: Relatively high rates of immigration more generally have been cited by some Economists to be contributing to Australia's housing price boom (and influencing housing affordability). While this specifically relates to one of the microeconomic impacts of immigration (the impact on the housing market), it can easily be linked back to a macroeconomic impact by its effect to inflation (and therefore price stability) given that the cost of housing more generally is the largest component within the CPI. It is therefore not unreasonable for students to expect an exam question relating to the influence that immigration might have on housing prices (Unit 3 AOS 1) and inflation/price stability (Unit 4, AOS2). It is important to remember that immigration will have both demand and supply side effects. To the extent that immigration is contributing to the housing price boom it is because the growth in the demand for housing by immigrants is outpacing the growth in the physical supply of housing.

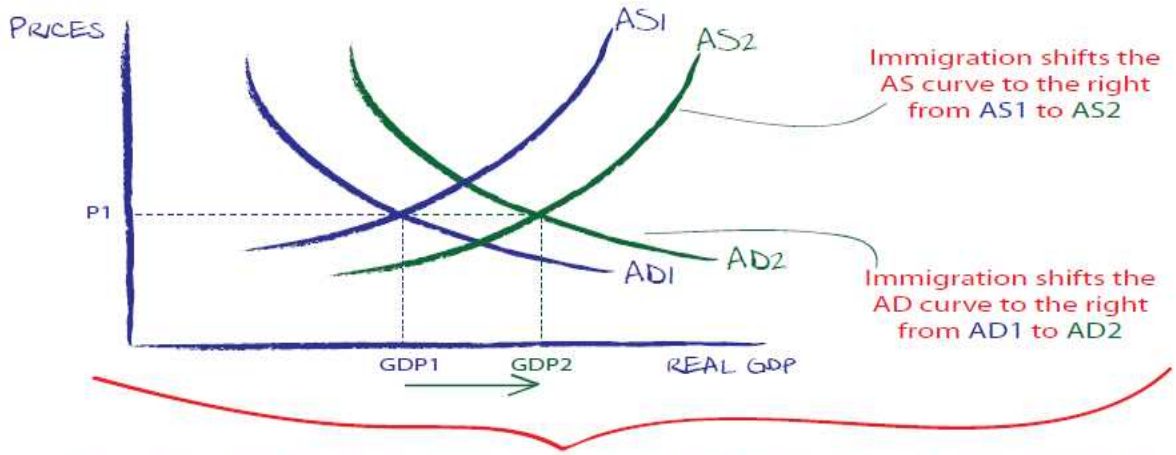
Full employment

With respect to ***Full Employment***, Australia's targeted program will tend to place downward pressure on the unemployment rate in the long run. This is despite the contention made by many observers (such as the union movement) that 'immigrants take Australian jobs.' Skilled migrants will take jobs that are largely unfilled and therefore help to restrain growth in wages and costs, which helps to maintain relatively low prices and create demand and employment for others. In addition, all migrants will add to AD (e.g. via the demand for food, clothing and shelter), increasing output and creating an increase in the demand for labour and employment.

The impact that immigration can have on the macroeconomy can be illustrated diagrammatically. Figure 13.3 is taken from *Economic Fundamentals in Australia (5th edition)* and it highlights both the demand side impact as well as the supply-side impact.

Figure 13.3

The effect of immigration on the macroeconomy



The economy ends up with stable prices (or low inflation) and a stronger and more sustainable rate rate of economic growth as it occurs without an acceleration of the rate of inflation. While employment will increase, the impact on the U/E rate will depend on changes in both the demand for and supply of labour in labour markets.

Exam Tip: Unlike the previous Study Design, the 'key knowledge' in the current Study Design makes no specific reference to the impact of immigration on living standards. Instead, the focus is on the effect of immigration policies on 'the labour market', 'aggregate supply', and 'the achievement of domestic macroeconomic goals'. However, a 'key skill' is the ability to 'analyse the effect of aggregate supply policies on the domestic macroeconomic goals and living standards. It is therefore possible that a question might surface requiring students to go beyond the impact on economic growth, full employment and price stability. It is for this reason that 'Immigration and living standards' is included below.

Immigration and living standards

Given that immigration will tend to boost rates of economic growth and help to overcome some of the problems associated with Australia's ageing population, it should help to increase 'material living standards' as measured by changes in real GDP per person. However, immigration also has a number of positive and negative impacts on the nation's *non-material living standards*. For example, in relation to the additional benefits of immigration, it can be argued that immigration tends to:

- add to the multiculturalism in Australia which increases diversity and brings numerous benefits such as greater tolerance, increased connectedness with the international community, greater exposure to different foods and cultures, etc.;
- provide for a better defence capability in light of a bigger population, combined with bigger size of real GDP (and government revenue);
- increased amounts of government revenue help to fund a host of government services, with the greater size of government programs helping the government to enjoy some benefits from 'economies of scale' in service provision;
- improve the 'quality of life' of existing Australians with migrant connections (via the family category of migration); and
- improve our sense of 'self-worth' and 'moral standing' in the international community by contributing to global efforts to assist in re-settlement of refugees (via the humanitarian category of migration).
- Potentially improves our access to new markets

In relation to the additional costs of immigration, it can be argued that immigration tends to contribute to:

- the strain on the nation's physical and natural capital, such as infrastructure like education, health and transport and natural resources, adding to congestion (especially in Melbourne and Sydney where most migrants settle) and additional resource depletion;
- the household affordability problem in Australia as the demand for housing further increases in a climate where supply of housing cannot keep up with existing demand;
- potential pressure on social cohesion (e.g. due to the difficulties/delays associated with assimilation of some migrant groups);
- the possibility of a decline in Australian working conditions and/or rates of pay as migrants enter Australian labour markets (e.g. those entering under the section 457 visa scheme and accepting below market rates of pay);
- the loss of important social infrastructure over time, such as reduced land use for parks and recreation;
- downward pressure on wages growth during a period when many are concerned about low wage growth; and
- a reduced need to train up low skilled Australian workers potentially making it harder for the structurally unemployed to return to work, boosting the potential for a rise in long-term unemployment.

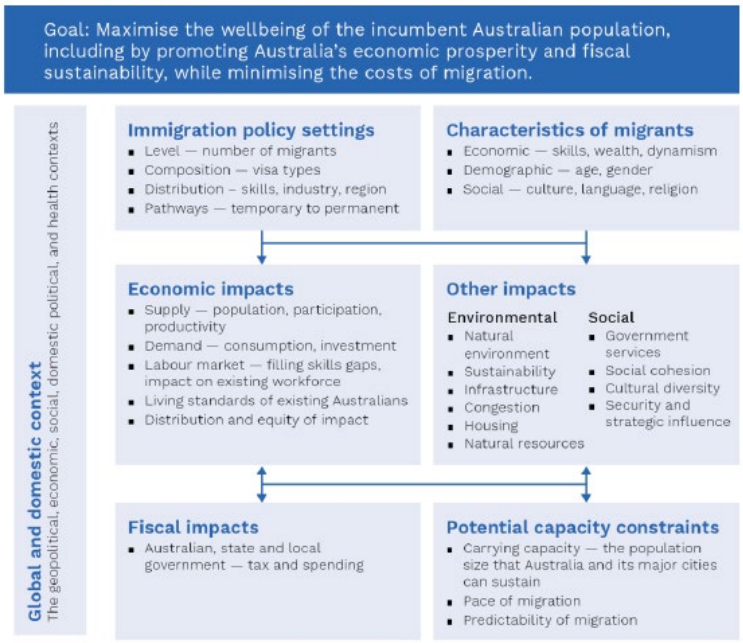
In responding to questioning at the Standing Committee on Economics in late 2021, the RBA Governor said the following about some of the benefits and costs of immigration:

> ***'…the fact that Australia has been able to draw people from right around the world is one of Australia's great advantages. We are the great immigrant country of the post-World-War-II period. The fact that people have come here and wanted to improve their lives has brought a dynamism to our economy we otherwise wouldn't have. It's boosted our connections with the rest of the world because we have people here who come from elsewhere. Their business and personal connections elsewhere are to our advantage. It's helped improve the nation's human capital. It's also delayed the ageing of the population. … [However] the fast population growth did put pressure on our infrastructure and it did put pressure on our housing market. The population growth picked up and the rate of housing construction took the better part of a decade to respond to that. So there are a multitude of effects. I think it did affect parts of the labour market as well [such as the contribution to low wages growth].***

It is for these types of reasons that the government continues to focus on effective planning and implementation of long-term infrastructure projects to ease the pressures that naturally stems from a bigger immigration program.

The adjacent chart below been taken from the 2021 Intergenerational Report. It provides a useful framework for unpacking the impacts on society of migration, separating the various impacts that are likely to felt by various stakeholder groups.

Figure 2.1 Framework for understanding the impact of migration



Strengths and weaknesses of aggregate supply (AS) policies

Generally, factors that make AS policies particularly powerful in the policy mix include the following.

- ***Simultaneous achievement of economic goals*** - AS policies can simultaneously achieve all goals, particularly in the long run. This is by virtue of the fact that they stimulate the economy and help achieve goals on the supply side of the economy. Policies that operate on the demand side (e.g. monetary policy) do not have this benefit.

- ***Flexibility to target and discriminate*** – like budgetary policies more generally, AS policies can focus on particular industries or sectors in order to achieve improved economic performance, unlike monetary policy. For example, the accelerated depreciation allowances for small businesses provided in recent budgets (i.e. the $20,000 instant asset write-off) is able to promote Investment by smaller businesses without providing the same benefits to large corporations. Similarly, the recent cut to the company tax rate (to 27.5%) for small to medium sized companies has a similar effect, therefore helping the stimulate Investment by those businesses most in need without providing possible 'windfall' benefits to large multi-national corporations.

Factors that limit the effectiveness of AS policies include the following.

- ***Implementation and Impact lags*** - it takes quite a long time for some AS policies to be implemented by governments given the various interest groups that must be dealt with and the legislative process that is typically followed (like budgetary policies). Similarly, it can take several years before the full impact, or benefits, of these policies are enjoyed by the economy. This is also linked to political constraints (see below)

- ***Stabilisation role is limited*** – AS policies are very limited in their ability to assist with shorter to medium-term stabilisation of the economy given the long impact lags involved. This function of policy is left to monetary and budgetary policies.

- ***Political constraints***

    - It can be politically unpopular to introduce reforms that remove comforts previously enjoyed by the electorate (e.g. reduced government ownership, reduced tariff protection, reduced welfare support for certain groups). In particular, the benefits of many AS policies tend to be widespread (enjoyed by the whole economy) whereas the costs are felt by relatively few (e.g. particular industries or sectors such as car manufacturing in the case of MRPs or particular welfare recipients).

    - In addition, to the extent that some AS policies will impact negatively on significant interest groups, there is the real possibility that the policy 'never sees the light of day' (e.g. it is blocked in the Senate). In the current context, the planned cut in the corporate tax rate to 25% was blocked in the Senate as opponents in the parliament argued that it simply provides a huge windfall to big corporations without generating sufficient benefits for growth and jobs. To the extent that this policy could provide AS benefits over time, these may never be realised because of political constraints.

    - Political constraints could also threaten further increases in the immigration intake given the disaffection felt by powerful political groups, such as the union movement, who are concerned about the impact on members' jobs and wage rates.

    - State governments may be targeting different goals to the federal government such as the Victorian Labor Party raising land taxes and Stamp Duty in an effort to rebalance their own Budget after the stimulus required during Covid which will act in a contractionary way on the economy, whilst the federal government runs huge budget deficits including tax cuts to stimulate the economy.

- ***Crowding out*** – given that many AS policies initially involve an increase in AD in short-term (e.g. investment in public infrastructure that increases G2), it may become problematic, particularly if the economy is already close to full employment. The demands for resources (such as labour and capital) might 'crowd out' the private sector because of an escalation in project costs. This is exacerbated if the infrastructure projects are funded by government debt, which exerts upward pressure on interest rates (and/or the exchange rate), which further crowds out the private sector.

- ***Conflict between economic goals*** – the impact that some AS policies have on other government objectives or goals can make its acceptance (short term) unemployment means that the pursuit of long-term growth comes at the expense of achieving full employment in the short term. Similarly, the pursuit of economic growth via more skilled immigration might come at the expense of jobs (in the short term) or non-material living standards (e.g. greater congestion affecting quality of life).

- ***Institutional constraints*** - it can be difficult to encourage organisations to accept the need for change. This is particularly the case when organisations have a vested interest in maintaining the status quo, which might involve the enjoyment of government assistance in some form (e.g. the motor vehicle sector and its reluctance to accept the need for lower subsidies) or the preservation of some wider social benefit (e.g. environmental groups and their opposition to policies that threaten the environment).

- ***Overseas constraints*** – AS policies in the form of MRPs (e.g. tariff cuts, or trade liberalisation more generally) are arguably damaging to Australian producers if overseas countries do not take similar steps to dismantle protection at the same rate as Australia. It also

becomes much more difficult for the government to 'sell' the policy to industries in the face of growing protectionist measures abroad (e.g. the USA's current reversion to more protectionist policies under Donald Trump's).

Exam Tip: Question 3c of the 2017 exam required students to outline one strength and one weakness of using either welfare reform policy, tax reform policy or immigration policy, to increase employment and rates of economic growth. Many students struggled with this question. Some simply outlined how the policy operated to increase employment and economic growth. Others simply listed general weaknesses/strengths of AS policies per se without specifically tailoring the strength or weakness to the policy in question. For example, it is insufficient to simply say that 'tax reform policy is subject to time lags which delays the full benefits of the policy being enjoyed'. Time lags could apply to virtually all policies, so it is necessary to be more specific about how they relate to tax reform. For example, reference to the current implementation lag related to the proposed reduction in the company tax to 25% would be good idea, where it is made clear why the policy's implementation is being delayed (e.g. reference to political constraints would be advisable) and how this means that the impact on employment and economic growth may not be felt for some time (if at all).

Market-based versus interventionist approaches to managing the supply side of the economy

The AS policies we have examined in this chapter have included a mix of market-based and interventionist approaches to managing the supply side of the economy. Market-based approaches are those that rely on the relatively free operation of markets to drive efficiency gains. This will therefore involve the government releasing its grip of control over various markets, such as removing regulations, privatising government businesses and/or reducing the burden of taxation, in order to improve supply conditions for business. In contrast, interventionist approaches involve the government becoming more actively involved in the operation of markets to ensure that the economy captures efficiency gains that would otherwise not have occurred. For example, without government intervention, we have already seen that there would be an under investment in R&D expenditure, which ultimately has a negative impact on efficiency and supply conditions over the long term. R&D grants or tax incentives are therefore examples of interventionist approaches to managing AS.

Exam Tip: While the difference between market-based and interventionist approaches has been addressed above it is questionable whether it is examinable in the current VCE Economics course. This is because there is no specific reference to these two approaches within the key knowledge or key skills of the study design. However, in the preamble to Unit 4, AOS2 on page 24 of the study design, reference is made to students investigating 'the role of both market-based and interventionist approaches to managing the supply side of the economy'. To reconcile this, students should be aware that they have indeed investigated both of these approaches when studying Unit 4 AOS2, but it is extremely unlikely that specific reference to 'market-based and interventionist approaches' will be made in the exam.

REVIEW QUESTIONS 5 – Immigration policies

1. ***List the '3Ps' that are crucial to long-term improvement in economic growth in Australia.***
2. ***Outline what is meant by 'an ageing population' and discuss how a focus on the '3Ps' may help to address the problems associated with an ageing population.***
3. ***Discuss one problem associated with a bigger population and provide an example of how the government seeks to address this problem.***
4. ***List the three categories of Australia's immigration program, identifying the category with the largest intake.***
5. ***Outline what is meant by the following statement: 'a skilled migration intake is an effective tool which can be turned on or off relatively quickly in response to changing economic circumstances.'***
6. ***Discuss how skilled migration or 'a well-targeted immigration program can alleviate capacity constraints, boost aggregate supply and assist with the goal for strong and sustainable growth.***
7. ***Describe how COVD-19 impacted on immigration levels in Australia and discuss the implications for Australia's labour market.***
8. ***Explain how a temporary skills visa scheme (e.g. temporary skills shortage visas) can help to alleviate (temporary) skills shortages that are having negative effects on productivity and prices.***
9. ***Discuss how 'rorting' of the section 457 visa scheme can have negative effects on living standards.***
10. ***In terms of inflation, the supply side benefits of immigration outweigh the demand side benefits. Discuss.***
11. ***Discuss how immigration can impact on the quality and quantity of resources and the achievement of 'Full Employment'***

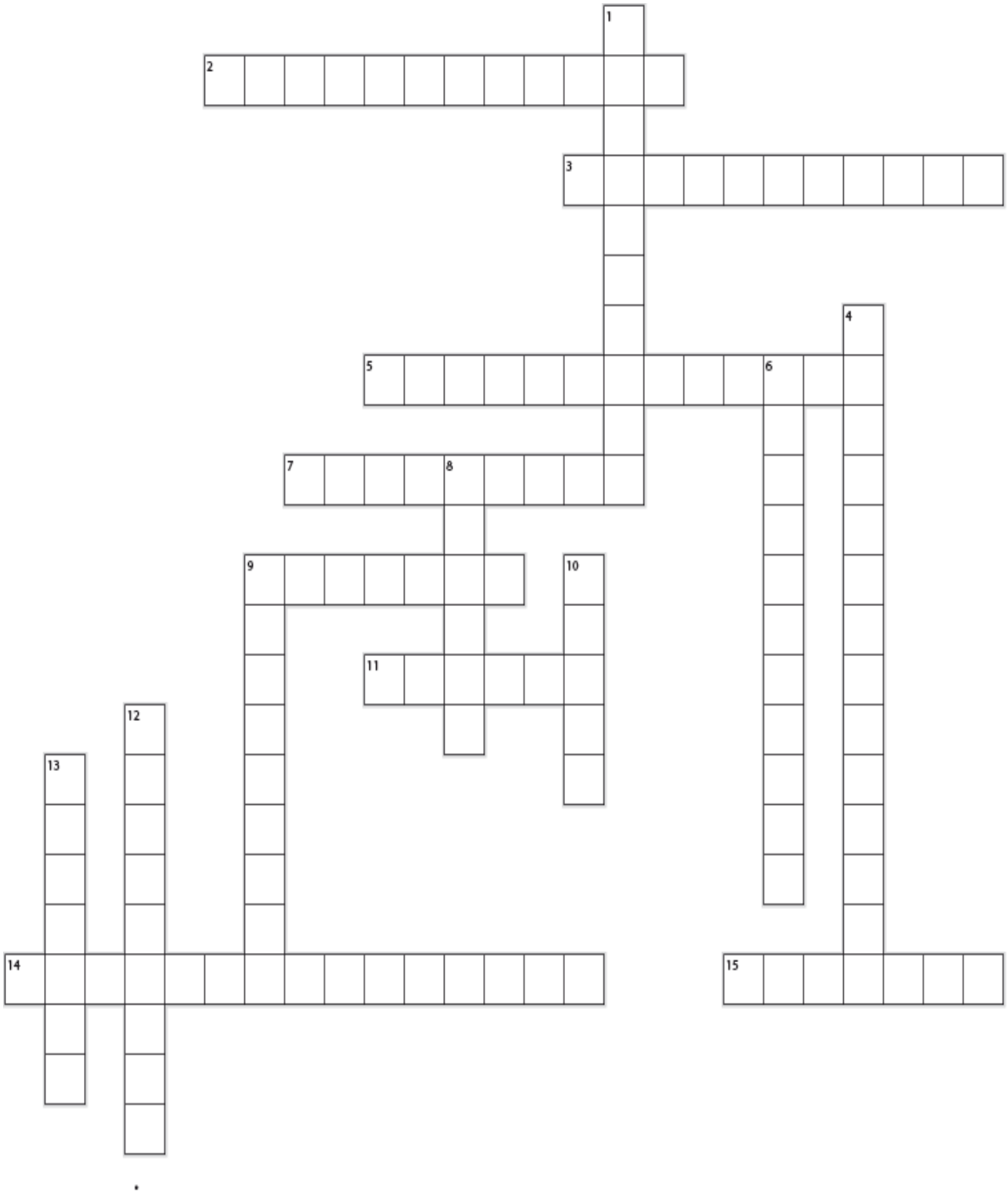
Quick revision crossword No 5: Immigration + strengths/weaknesses of AS policies

Across

2. The union movement claims that the use of temporary skills visas in Australia results in the _____ of some workers
3. Environmental policies helps to ensure that Australia's rates of economic growth are _____
5. Aggregate supply policies have no part to play in achieving this role of economic policies more generally
7. More skilled migration helps to reduce this
9. This category of migration is most useful for easing capacity constraints
11. An industry that has recently enjoyed the fruits of increased skilled migration
14. Immigration policies (like all policies) are designed to increase these over time (2 words)
15. A recognised weakness of aggregate supply policies

Down

1. Immigration policy forms an important means by which the government can promote this over time (one of the 3Ps)
4. Immigration and population growth increase the demands placed on this, therefore requiring substantial government investment
6. These policies relate to the size of the population
8. This problem with Australia's population has ensured that immigration policies are central to ensuring we can maintain strong growth rates into the future
9. Temporary skills visas are required because skills _____ exist in a number of labour markets
10. Immigration will typically exert downward pressure on these
12. These types of constraints can sometimes make it difficult for aggregate supply policies to be implemented
13. This market has boomed over recent years with some economists making a link to immigration as one of the causes



MINI EXAM NO. 2: AREA OF STUDY 2

UNIT 4

Total marks = 80

Section A
Multiple choice (total marks = 30)

Section B
Short answer questions (total marks = 50)

Section A: multiple choice

Answer the following fifteen multiple choice questions. You must **shade** in the most correct response below:

1	A	B	C	D
2	A	B	C	D
3	A	B	C	D
4	A	B	C	D
5	A	B	C	D
6	A	B	C	D
7	A	B	C	D
8	A	B	C	D
9	A	B	C	D
10	A	B	C	D
11	A	B	C	D
12	A	B	C	D
13	A	B	C	D
14	A	B	C	D
15	A	B	C	D

1. Generally speaking, aggregate supply policies are designed to:
(a) reduce levels of productivity, lower inflationary pressure, increase economic growth and lower unemployment
(b) increase levels of productivity, increase inflationary pressure, increase economic growth and lower unemployment
(c) reduce levels of productivity, increase inflationary pressure, decrease economic growth and increase unemployment
(d) increase levels of productivity, decrease inflationary pressure, increase economic growth and decrease unemployment

2. The need for aggregate supply policies in Australia would be least likely to be explained by the need to:
(a) compliment the traditional macroeconomic weapons in attempting to achieve domestic economic stability
(b) generate a reduction in relative poverty and welfare dependency
(c) improve Australia's economic performance via improvements in efficiency and productivity
(d) alleviate capacity constraints in the economy

3. Which of the following is least likely to be considered to be an example of an aggregate supply policy?
(a) A drop in personal income tax rates
(b) Increased spending by the federal government on infrastructure.
(c) Further tariff reductions
(d) Further deregulation of the labour market

4. The government's decision to invest more in Australian ports is most likely to be an example of
(a) spending on training and education
(b) investment in infrastructure
(c) the provision of government subsidies
(d) spending on research and development grants

5. Which of the following initiatives highlighted in recent budgets is least likely to be a considered an aggregate supply side initiative?
(a) More generous tax concessions for small business
(b) An increase in road and rail infrastructure
(c) Additional funding for child care
(d) Increased funding for national security and defence

6. Reducing government spending on training and education by 50% will tend to:

(a) Raise productivity growth
(b) Create employment in the short term
(c) Lead to a less efficient allocation of resources
(d) Reduce cost inflationary pressure

7. Which of the following policies is least likely to assist with the achievement of a more <u>sustainable</u> rate of economic growth over time?

(a) Increased expenditure on training and education
(b) An increase in the skilled migration intake
(c) An increase in expenditure on transportation infrastructure
(d) An increase in welfare payments

8. Which of the following government economic goals is the least likely to be a target of AS policies

(a) Full Employment
(b) Price Stability
(c) Equity in the Distribution of Income
(d) Strong rates of economic growth

9. Which of the following is not one of the 3Ps that is important for growth in productive capacity over time?

(a) Privatisation
(b) Productivity
(c) Participation
(d) Population

10. Which of the following diagrams best illustrates how a budgetary policy supply side initiative, such as the continued investment in the broadband network, stimulates the economy?

Diagram 1

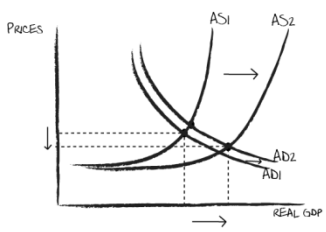


Diagram 2

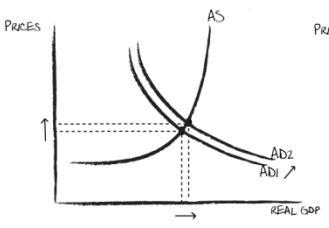


Diagram 3

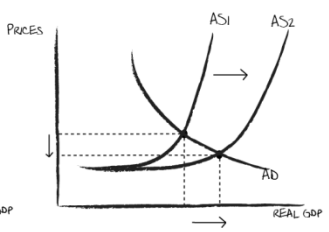
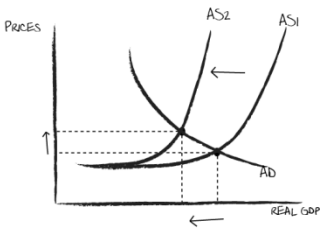


Diagram 4



(a) Diagram 1
(b) Diagram 2
(c) Diagram 3
(d) Diagram 4

11. A reduction in company taxes and increases in infrastructure spending, should help to achieve which of the following in the longer term?

(a) Higher growth, lower employment and higher inflation
(b) Lower growth, lower employment and lower inflation
(c) Lower growth, greater employment and higher inflation
(d) Higher growth, greater employment and lower inflation

12. Which of the following is likely to be a factor contributing to a fall in the international competitiveness of Australian manufacturers over recent years?

(a) Lower real unit labour costs
(b) The repeal of the carbon tax
(c) Growth in productivity
(d) Increased subsidies given to some overseas manufacturers

13. Which of the following recent policy initiatives is unlikely to be considered an aggregate supply policy?

(a) An increase in skilled immigration
(b) An increase in Government spending on military hardware
(c) An increase in Government spending on rail infrastructure
(d) An increase in Government spending on the national broadband network

14. In a recent budget, the government increased the accelerated depreciation allowances to $150,000 (allowing small businesses to immediately 'write-off' capital expenditure up to $150,000). Which of the following best explains how it can lead to an increase in aggregate supply?

(a) Workers will increase their effort as the after-tax rewards for working will be higher
(b) It will lead to a substantial increase the labour force participation rate
(c) It is likely to increase investment in capital equipment which helps to lift productivity
(d) It will lead to a reduction in the cost of labour

15.Which of the following statements is incorrect in relation to the purpose of aggregate supply policies?

(a) They are typically used to promote living standards
(b) They are typically used to increase the productive capacity of the economy
(c) They are typically used in a countercyclical way to stabilise the economy
(d) They are typically used to raise productivity and achieve stronger rates of economic growth

STRUCTURED QUESTIONS

Question 1 (23 marks)
'Government's will always intervene to improve both 'productivity growth' and living standards.'

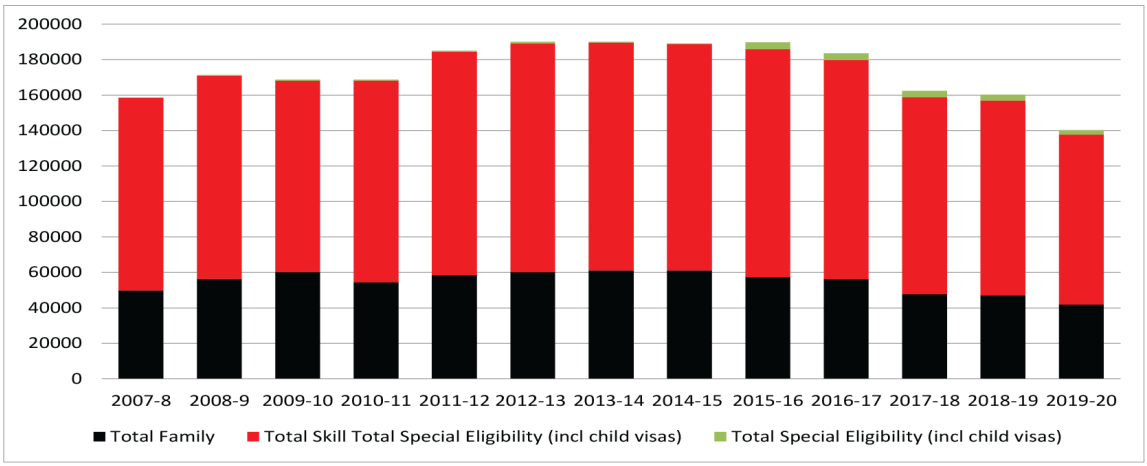
a) Define 'productivity growth' and an 'living standards'. (4 marks)
b) Describe how recent tax cuts in Australia can increase productivity (3 marks)
c) Explain how higher productivity may improve living standards. (4 marks)

d) Explain how government investment in education and training can increase productivity and assist with the achievement of full employment. (4 marks)
e) Distinguish the terms 'productivity' and 'productive capacity'. (3 marks)
f) Referring to a weakness of aggregate supply policies, explain how the operation of aggregate supply policies might make it more difficult to achieve another economic goal of the federal government. (5 marks)

Question 2 (13 marks)

Policies related to both immigration and structural reforms of the economy remain important means by which Australian governments can increase productive capacity and boost the long-term economic prosperity and living standards of all Australians.

Australia's migration program statistics 2007-8 to 2019-20



a) Describe the trend in the numbers of permanent migrants entering Australia since 2016-17. (2 marks)
b) Explain one likely reason why the government changed the skilled migration numbers between 2009-10 and 2012-13. (3 marks)
c) Outline how an increase in skilled migration can contribute to the stronger rates of economic growth. (4 marks)
d) Explain how immigration may have influenced real wages in Australia over recent years. (4 marks)

Question 3 (14 marks)

a) Define Aggregate Supply policies. (2 marks)
b) Explain how investment in public infrastructure can reduce inflationary pressure and promote employment in the longer term. (4 marks)
c) Apart from impact lags, discuss two factors that can limit the effectiveness of AS reform policies. (4 marks)
d) Define a subsidy and describe how a subsidy can be used to improve environmental outcomes and protect the nation's productive capacity in the long term. (4 marks).

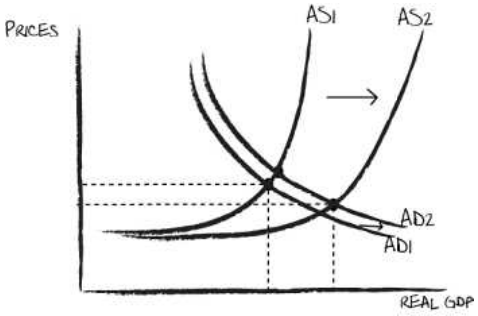
TEST YOURSELF: 50 MC QUESTIONS (AOS 2)

AGGREGATE SUPPLY POLICIES

1. Aggregate supply policies have been designed to:

a) achieve strong and sustainable rates of economic growth
b) reduce inflationary pressures
c) promote employment growth in the long run
d) All of the above

2. Which of the following statements best reflects the macroeconomic outcome as depicted in the diagram following an increase in government infrastructure investment?



a) Lower inflation and a stronger rate of economic growth
b) Lower inflation and a weaker rate of economic growth
c) Higher inflation and a stronger rate of economic growth
d) Higher inflation and a weaker rate of economic growth

3. Which of the following types of immigration is most likely to alleviate capacity constraints?

a) Humanitarian
b) Skilled
c) Family
d) Special eligibility

Questions 4 and 5 relate to the table below

Australia's migration program statistics 2007-8 to 2019-20

	2007-8	2008-9	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Total Family	49870	56366	60254	54543	58604	60185	61112	61085	57400	56220	47732	47247	41961
Total Skill	108540	114777	107868	113725	125755	128973	128550	127774	128550	123567	111099	109713	95843
Total Special Eligibility (incl child visas)	220	175	501	417	639	842	338	238	3820	3821	3586	3363	2562
Total Program	158630	171318	168623	168685	184998	190000	190000	189097	189770	183608	162417	160323	140366

4. Skilled migrants make up approximately what proportion of total migration to Australia?

a) 30%
b) 70%
c) 20%
d) 90%

5. The change in the number of skilled migrants to Australia reflects that:

a) The economy was experiencing capacity constraints in the form of skills shortages and the government recognised that labour was in short supply needed to be sourced from overseas.
b) The economy was experiencing capacity constraints in the form of skills shortages and the government recognised that it needed to decrease the amount of skilled labour coming from overseas
c) Economic growth was very strong, the demand for labour increased and fewer skilled workers were required from overseas
d) Economic growth was relatively weak, the demand for labour decreased and fewer skilled workers were required from overseas

6. A major problem with some aggregate supply policies is the possible short-term negative effect on:

a) Wages
b) Confidence
c) Unemployment
d) Productivity

7. A reduction in personal income tax rates might lead to supply side benefits for the Australian economy because

a) It will increase disposable income, which should stimulate Consumption demand
b) It results in a bigger budget deficit and a more expansionary budgetary policy
c) It can improve the distribution of income and promote social equity
d) It can increase the incentives for workers to be more productive

8. The principles underpinning a good tax system include

a) Efficiency and fairness
b) Transparency and equity
c) Simplicity and efficiency
d) All of the above

9. Which one of the following is the least convincing argument in support of lower subsidies for the manufacturing industry?

a) Greater pressure is exerted on other countries to also reduce their subsidies
b) Other local producers benefit because it can become more expensive to purchase manufactured inputs
c) Firms become more efficient as a result of increased competition
d) More jobs will immediately be created helping to achieve the full employment goal

10. The government will argue that aggregate Supply policies are largely designed to:

a) increase levels of productivity, decrease inflationary pressure, increase economic growth and decrease unemployment (in the longer term).
b) increase levels of productivity, increase inflationary pressure, increase economic growth and lower unemployment (in the longer term).
c) reduce levels of productivity, increase inflationary pressure, decrease economic growth and increase unemployment (in the longer term).
d) reduce levels of productivity, lower inflationary pressure, increase economic growth and lower unemployment (in the longer term).

11. The efficiency of the tax and welfare system is reduced:

a) if parents considering to the workforce face effective marginal rates of tax that discourage workforce participation
b) because bracket creep or fiscal drag results in lower budget revenue for the government
c) due to private sector investment falling to low levels as a result of a company tax rate that is too low
d) when it becomes more difficult for individuals and businesses to evade tax

12. Which of the following statements is least correct in relation to budgetary policy supply side initiatives over the past two years?

a) Individual tax rates have been reduced
b) the instant write-off of assets (e.g. for assets less than $30,000) is a provision that is no longer available for small businesses
c) the corporate tax rate has fallen
d) Infrastructure spending has increased

13. The provision of financial support to a business is generally considered to be an example of a

a) Tariff
b) Tax
c) Levy
d) Subsidy

14. Which of the following policies is most likely to be introduced for reasons not related to an expansion of Aggregate Supply?

a) A reduction in personal income tax rates
b) A reduction in tariffs
c) A reduction in company tax rates
d) Accelerated depreciation allowances

15. Reducing subsidy protection for local businesses in the tradables sector is likely to?

a) Boost economic growth, reduce inflation and increase unemployment in the long term
b) Boost economic growth, reduce inflation and decrease unemployment in the short term
c) Reduce economic growth, increase inflation and increase unemployment in the short term
d) Reduce economic growth, reduce inflation and decrease unemployment in the long term

16. Which of the following Aggregate Supply policies is likely to result in higher quality human capital

a) Increased infrastructure spending
b) Investment in education and training
c) Greater research and development into new technologies
d) Subsidies for local businesses

17. A child care system that is more flexible, more accessible and more affordable is likely to

a) Reduce labour force participation rates and increase aggregate supply
b) Increase labour force participation rates and increase aggregate supply
c) Reduce labour force participation rates and decrease aggregate supply
d) Increase labour force participation rates and decrease aggregate supply

18. Which of the following factors below is not a rationale for implementing more aggregate supply policy initiatives in any given year?

a) A low rate of growth in productivity
b) Skills shortages
c) High rates of capacity utilisation in the economy
d) A very low rate of inflation

19. Which of the following policies has not been announced or introduced over the past two years?

a) Lower personal income taxes
b) Reduction in company tax rates
c) Increases in tariffs across the board
d) An increase in the number of permanent migrants

20. With respect to productivity and efficiency, which of the following is most correct?

a) Productivity and efficiency mean the same thing
b) A rise in productivity will typically decrease efficiency
c) Productivity and efficiency are largely unrelated
d) A rise in efficiency will typically be accompanied by a rise in productivity

21 Aggregate supply policies are designed to increase efficiency. Which of the following types of efficiency requires that resources are allocated to the production of goods and services with the lowest opportunity costs?

a) Allocative efficiency
b) Technical efficiency
c) Dynamic efficiency
d) Inter-temporal efficiency

22. In relation to productivity and international competitiveness in Australia:

a) Productivity rises are more likely to increase international competitiveness if markets are exposed to greater competition
b) Productivity rises are less likely to increase international competitiveness if markets are exposed to greater competition
c) Productivity rises are more likely to increase international competitiveness if markets are exposed to less competition
d) Productivity rises will increase international competitiveness regardless of the level of competition in markets

23. Which of the following is not likely to be an impact stemming from the operation of a temporary skills visa

a) Downward pressure on wage rates
b) Growth in labour productivity
c) An increase in capacity constraints
d) An increase in the supply of labour

24. Which of the following government bodies is responsible for devising budgetary policy supply side initiatives?

a) The Commonwealth Department of Treasury
b) Fair Work Australia
c) The Commonwealth Bank of Australia
d) Reserve Bank of Australia

25. Which type of efficiency is likely to increase first following successful R&D spending that results in new technology enabling businesses to more readily respond to new global market conditions?

a) Technical
b) Dynamic
c) Intertemporal
d) Allocative

26. Which Australian industry is currently receiving a substantial government subsidy despite the fact that the government could source the products more cheaply from overseas

a) Motor vehicle
b) Textiles
c) Shipbuilding
d) Footwear

27. The repeal of the section 457 visa scheme to be replaced by the Temporary Skill Shortage visa in March 2018, is a response to

a) Claims that the temporary visa scheme was being rorted by employers
b) Claims that the temporary visa scheme allowed employers to exploit foreign labour
c) Claims that the temporary visa scheme resulted in some Australian workers being replaced by foreign workers
d) All of the above

28. Which of the following is not an example of infrastructure spending?

a) Road construction
b) Construction of a new airport
c) Purchase of new fleet of government cars
d) A private railway connecting a mine to the port

29. Which of the following is not a feature of trade liberalisation?

a) Increasing quotas
b) Tariff reductions
c) Free trade agreements
d) Removal of subsidies

30. Wage subsidies businesses for businesses employing older Australians are primarily designed to

a) Encourage the hiring of disadvantaged workers and reduce structural/long-term unemployment
b) Reduce production costs and improve international competitiveness
c) Reduce carbon emissions
d) Provide farmers with relief during droughts and floods

31. Which of the following does <u>not</u> provide an adequate explanation for why an increase in tariffs (a tax on imports) could damage the economy in the longer term?

a) The inflationary impact of higher tariffs will increase the AUD thereby penalising Australian producers as a result of higher cost of capital imports.
b) By shielding local producers from competition, tariffs reduce incentives to be efficient.
c) Tariffs can raise input costs and reduces the competitiveness of producers.
d) Tariffs contribute to inflationary pressure

32. Reforms to the tax system are generally designed to increase:

a) the fairness of the tax system
b) the efficiency of the tax system
c) the transparency of the tax system
d) all of the above

33. Which of the following is most likely to occur if the GST was to increase in the future?

a) Increased Investment
b) Increased Savings
c) Increased Consumption
d) Increased Exports

34. Which of the following changes to the tax and welfare system is most likely to reduce carbon emissions and protect against the damage to productive capacity in the future?

a) Greater financial support for pensioners
b) An increase in the tax-free threshold
c) The re-introduction of a carbon tax
d) Introducing a litter tax in the central business district

35. Which of the following is not an example of an AS policy initiative announced in recent budgets?

a) increased subsidies for childcare
b) introduction of wage subsidies
c) a lower effective tax rate for low and middle income earners
d) a higher corporate tax rate

36. With respect to the effect that successful supply side reform initiatives are likely to have on the net export component of AD, which of the following is most correct?

a) Greater efficiency, lower costs, containment of price rises, increased international competitiveness, higher exports, lower imports, and lower net export demand
b) Greater efficiency, lower costs, containment of price rises, increased international competitiveness, higher exports, lower imports, and higher net export demand
c) Greater efficiency, lower costs, bigger price rises, reduced international competitiveness, higher exports, lower imports, and higher net export demand
d) Greater efficiency, higher costs, bigger price rises, increased international competitiveness, higher exports, lower imports, and lower lower export demand

37. Which of the following is most <u>correct</u> about the difference between microeconomic reform policies and budgetary policy supply side initiatives?

a) Budgetary policy supply side initiatives and microeconomic reform policies are totally distinct
b) Budgetary policy supply side initiatives are the same as microeconomic reform policies
c) Budgetary policy supply side initiatives are regarded as microeconomic reform policies
d) Microeconomic reform policies can sometimes be considered budgetary policy supply side initiatives

38. An increase in expenditure on education and training is best considered a feature of

a) Budgetary Policy
b) Monetary policy
c) Both monetary and budgetary policy
d) Neither monetary or budgetary policy

39. Income tax revenue makes up approximately what percentage of the total government revenue?

a) 90% of total government revenue
b) 70% of total government revenue
c) 100% of total government revenue
d) 50% of total government revenue

40. Which of the following policy initiatives is unlikely to increase the labour force participation rate?

a) Lower rates of immigration
b) An increase in childcare subsidies
c) Increasing the pension/retirement age to 67
d) Lower income tax rates

41. Which of the following is not likely to be a weakness of AS policies?

a) The stabilisation role of AS policies is limited
b) These policies suffer from political constraints
c) These policies suffer from implementation and Impact lags
d) The macro focus of these policies causes an inability to target and discriminate particular sectors or markets

42. If the government is keen to address capacity constraints and boost productive capacity, which of the following is not likely to be a useful policy initiative?

a) Reducing tax concessions attached to capital expenditure
b) Increasing the permanent skilled immigration quota
c) Increasing R&D expenditure
d) Spending more on training and education

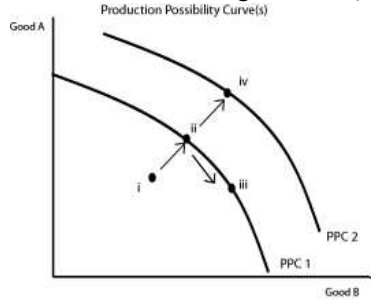
43. Businesses employing foreign workers are required to pay a levy that is deposited into a 'Skilling Australians Fund' that is then used to train new Australian apprentices. This is likely to

a) Increase the use of foreign labour and result in a greater supply of Australian tradesmen such as plumbers and carpenters
b) Decrease the use of foreign labour and result in a greater supply of Australian tradesmen such as plumbers and carpenters
c) Increase the use of foreign labour and result in a smaller supply of Australian tradesmen such as plumbers and carpenters
d) Decrease the use of foreign labour and result in a smaller supply of Australian tradesmen such as plumbers and carpenters

44. Which of the following will negatively impact on productive capacity ?

a) An increase in child-care funding
b) Net negative migration
c) Reducing the regulatory burden on businesses
d) Lower individual and corporate tax rates

45. In relation to the diagram below, which of the following options is correct?



a) The movement from point i to ii represents an increase in productive capacity
b) The movement from point ii to iii represents an increase in productive capacity
c) The movement from point ii to iv represents an increase in productive capacity
d) All of the above

46. When AS policies raise productivity, it helps to increase international competitiveness because

a) More jobs are created
b) stronger rates of economic growth are achieved
c) material living standards increase
d) inflationary pressures are reduced

47. Which occupation is unlikely to be on the skills shortage list in Australia?

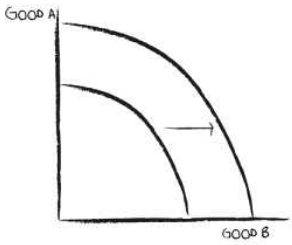
a) Engineer
b) Cleaner
c) Accountant
d) Doctor

48. With respect to the relationship between efficiency and aggregate supply, which statement is incorrect?

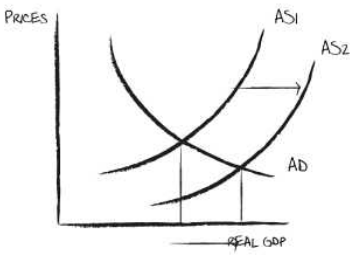
a) An increase in technical efficiency can help to increase aggregate supply
b) An increase in dynamic efficiency can help to increase aggregate supply
c) An increase in aggregate supply can help to increase efficiency
d) An increase in inter-temporal efficiency should decrease aggregate supply

49. Which diagram below is inconsistent with an increase in economic growth due to the implementation of aggregate supply policies?

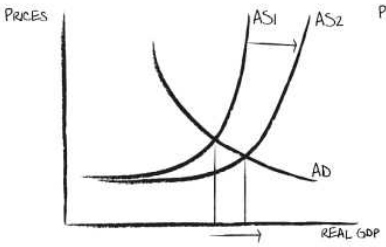
A



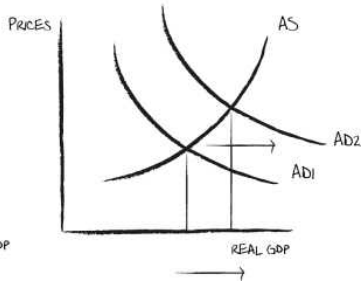
B



C



D



a) Diagram A
b) Diagram B
c) Diagram C
d) Diagram D

50. In relation to aggregate supply policies and living standards, which statement is inaccurate?

a) AS policies will tend to boost real GDP per capita and therefore increase material living standards
b) AS policies will tend to boost national income per capita and therefore result in an increase non-material living standards
c) AS policies can improve non-material living standards if productivity improvements result in less waste or depletion of resources
d) AS policies can reduce non-material living standards AS policies lead to increases in work intensity that result in individuals working longer and harder

YOU BE THE ASSESSOR: UNIT 4 AOS 2

In this section, you are required to assess the two responses presented for each of the questions. You should assess each response and determine which one is likely to receive full marks. You should then justify your decision by annotating the responses, making it clear what was done well in the better response and what was deficient in the relatively poor response. Once complete, compare your evaluation to that of the authors [provided at the rear of the Study Guide].

1. Explain how a subsidy that is used to improve environmental outcomes might influence aggregate supply. 4 marks

Sample 1

A subsidy given to producers who commit to protecting the environment in some way will help to influence the nation's aggregate supply levels. As the environment improves, evidenced by cleaner air, less polluted rivers and oceans, more pristine roads and highways and/or less litter more generally, it will help to attract more tourists to Australia. As a consequence, net exports will increase (X minus M), which acts as a net injection into the circular flow model of the economy, resulting in more aggregate demand for goods and services (AD= C+X+I+X-M) and a corresponding increase in real GDP. As production increases in the economy, this effectively means that the supply of goods and services in total (i.e. aggregate supply) will also increase. This highlights that a subsidy that is designed to improve environmental outcomes can influence aggregate supply in a positive way.

Justification_____

_____

Sample 2

A subsidy is the provision of money or some other form of assistance to economic agents (e.g. a business) to encourage a particular form of economic activity to take place. For example, the current government's 'Direct Action' policy involves the provision of subsidies to businesses which undertake activities that help to reduce carbon emissions. Providing a subsidy to businesses which invest in cleaner technologies (e.g away from coal fired electricity and towards more renewable energies) or which invest in programs that are designed to clean up the environment (e.g. the planting of trees as part of carbon farming initiatives) will help to reallocate resources towards production methods that are less damaging to the environment. To the extent that this successfully mitigates the effects of climate change in the future, including the intensity and severity of natural disasters such as floods and cyclones, it will help to protect aggregate supply levels in the future. The willingness and ability of producers to supply goods and services in the future will be enhanced compared to the situation that would have evolved without government intervention because the negative supply shocks to the economy will be less intense. In this respect, the overall net effect on aggregate supply should be positive given that the long-term benefits are expected to outweigh any short-term costs in the form of higher taxes (to pay for the subsidy) and the higher costs of energy more generally.

Justification_____

_____

2. Describe how investment in government infrastructure might influence aggregate supply and the achievement of price stability 4 marks

Sample 1

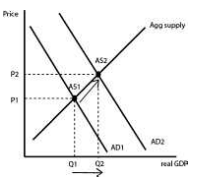
Investment in government infrastructure (such as improved telecommunications networks) is likely to increase aggregate supply and assist with the achievement of price stability. The government's continuing investment in the rollout of the broadband network will increase aggregate supply and expand the nation's productive capacity over time because the cost and speed of telecommunications for businesses and households will improve. Faster broadband speeds will enable businesses to cut production costs as communications with clients, staff, suppliers, etc will be more efficient and/or the speed of downloads should fall significantly. This leads to greater productivity levels over time and an increase in technical efficiency, resulting in businesses being able to produce more goods and services over any given time period (i.e. increase in aggregate supply/productive capacity) and/or reduce prices without suffering a drop in profit margins. This exerts downward pressure on the rate of inflation in the economy and therefore makes it easier for the government (RBA) to achieve its goal of 2-3% growth in the CPI on average over time.

Justification_____

_____

Sample 2

An increase in the government's willingness to invest in infrastructure will lead to an increase in the G2 component of aggregate demand (AD), which will increase the overall level of AD. This could be shown by an increase to the right of the AD curve as shown in the diagram to the right. With more AD for goods and services, producers will respond by increasing their supply of goods and services to the marketplace. As shown in the diagram, the movement from equilibrium 1 (AS1) to equilibrium 2 (AS2) highlights this increase in supply and it shows that the nation's aggregate supply has increased. As the diagram clearly shows, this increase in investment demand will lead to an increase in inflation, with prices increasing from P1 to P2 which means that price stability is less likely to be achieved in the economy.



Justification_____

_____

3. Discuss how immigration can have both positive effects and negative effects on labour markets. 4 marks

Sample 1

When people come to Australia as immigrants, they can have a positive impact on the market for labour (buyers and sellers of labour services where the rate of exchange is the price of labour or the wage) in the following way. Migrants, particularly when they are skilled, will help to alleviate labour market constraints that might be evidenced by skills shortages and excessive wage pressure. With migrants offering their labour in those markets experiencing skills shortages (such as mining engineers during the recent mining boom), it helps to reduce the tightness or excess demand within these labour markets and reduces pressure on wages. The resulting lower price of labour then helps to restore equilibrium in the labour market by reducing excess supply as the demand for labour (and employment) increases and the supply of labour decreases.

However immigration can have negative effects on labour markets, particularly if the migrants are unskilled. Immigration will increase the supply of labour to many labour markets in Australia that may already be experiencing excess supply of labour (i.e. high unemployment). This adds to pressure on unemployment in some markets for relatively unskilled workers and also serves to place further downward pressures on the price of labour (or wages) for relatively unskilled workers. In this respect, immigration causes the market to move further away from it equilibrium position.

Justification_____

_____

_____

Sample 2

Increased immigration can have positive and negative effects on labour markets. Immigration helps to reduce unit labour costs for businesses and protects their (international competitiveness), which in turn increases the demand for labour and promote employment in labour markets. In addition, the increased immigration will have the added benefit of enriching Australia's culture, providing us with access to different foods and traditions that boost our enjoyment of life. Increased immigration can have negative effects on labour markets as it will increase the supply of labour and add to pressure on unemployment and reduce wages. Workers are more likely to experience a reduction in their standard of living and, in extreme circumstances, might be in a position where they earn a wage that is low enough to see them live in relative poverty. The demand side effects of immigration might also contribute to other economic problems, such as the housing price boom and the associated housing affordability crisis. This is because immigration immediately adds to housing demand (as migrants need shelter and some will seek to buy rather than rent properties) which further exacerbates the core of the problem – that is, demand for houses is growing faster than supply (as housing construction is a length process that is constrained constrained by factors such as zoning laws and space constraints).

Justification_____

_____

_____

4. Using one example, outline how the government can use the budget to encourage private sector research and development (R&D) in an effort to boost aggregate supply. 3 marks

Sample 1

The government can use both the revenue and expenses side of its budget by increasing spending on R&D grants to businesses and/or offering generous tax incentives for R&D into innovative ideas/projects that can result in new inventions or technology that accelerates productivity growth. For example, the current tax 150% R&D tax concession available to businesses results in a greater level of business expenditure going into R&D than would otherwise be the case as the effective (after tax) cost of the investment is reduced. To the extent that this works to increase rates of productivity, enabling businesses to produce more from any given level of inputs, it will help to boost the nation's aggregate supply as businesses will be more able (and willing) to increase supply of goods to markets.

Justification_____

_____

Sample 2

The government can decide to increase its funding allocation to the Commonwealth Science and Industrial Research Organisation (CSIRO) in order to invest more in research and development that leads to advances in technologies which ultimately leads to an increase in technical efficiency across the economy. New developments might include advanced robotics that could have widespread applications across Australian industries which will help to reduce average production costs for businesses and increase their international competitiveness. As a consequence more goods and services will be produced over time.

Justification_____

_____

_____

5. Describe how the tax and welfare system could be reformed to encourage greater workforce participation and explain how this can increase aggregate supply and economic growth. 5 marks

The government could decide to introduce across-the-board cuts to rates of personal income tax. This will provide greater incentives for those who are unemployed to seek employment which will help to increase workforce participation and boost the size of the nation's labour supply. With more workers employed this will mean that the total volume of goods and services produced in the economy will be higher and the nation's aggregate supply increases. With more goods and services produced over time, this will be reflected by an increase in nominal GDP and an increase in the nation's economic growth.

Sample 1

Justification_____

_____

_____

Sample 2

The government could reform the tax and welfare system by ensuring that stay at home parents are not faced by very high effective marginal rates of tax when they re-enter the workforce and put their children into childcare. This could involve increasing the amounts that parents can earn before family welfare payments are cut, or or increasing the subsidies/rebates for childcare expenses. These types of reforms will help to increase the financial returns from working and encourage an increase in the labour force participation rate (the percentage of the working age population who are members of the labour force). This will effectively increase the labour supply in the economy, providing industries with a greater pool of labour resources to use in production (and/or alleviating any labour/skills shortages and making them more able and willing to lift output, boosting aggregate supply or productive capacity in the economy. In addition, the bigger labour supply can exert downward pressure on real wages and/or upward pressure on productivity. This is because the greater competition for jobs results in some job seekers being prepared to work for lower wages and some workers feeling under greater pressure to lift work intensity and effort for fear of losing their job to competing workers. These factors help to reduce real unit labour costs and allow many businesses to increase output and reduce prices, encouraginge growth in AD and real GDP, boosting the rate of economic growth.

Justification_____

_____

_____

Outline how increased government investment in education and training can increase the nation's productive capacity.
3 marks

Sample 1

An increase in government investment in education and training means that the government is spending more on educational institutions and training providers, including the construction of new educational infrastructure such as buildings and classrooms. The building of these facilities will necessarily require productive resources in their construction, including builders, electricians, engineers, architects, etc. which necessarily leads to an increase in production, real GDP and productive capacity. In addition, the investment in education and training might also include further professional development for teachers or training staff as well as the introduction of new teacher training software which enhances the ability of teachers to teach students. This further helps to increase the nation's productive capacity.

Justification_____

_____

_____

Sample 2

Government investment in education and/or training might take the form of greater funding for Australian universities, which could be used to purchase new capital (e.g. more advanced technological equipment or improved physical infrastructure), invest in better training for educators (e.g. more funding for professional development) or simply facilitate the purchase of more (non-capital) educational resources. These types of investments should result in better quality physical and human capital and improve educational outcomes such that graduating students will have better knowledge and skills. This helps to further improve the quality of human capital and boost labour productivity in the economy, as more output is likely to be attained from labour hours employed. This increases the willingness and ability of Australian businesses to supply goods and services and consequently boosts the nation's productive capacity.

Justification_____

_____

_____

EXAMINATION PREPARATION STRATEGY

THE EXAM STRUCTURE

Description
Examination time – 2 hours
Contribution to study score – 50%
Approved materials and equipment – Pencil to use on multiple-choice answer sheet and pen for written responses.
All of the key knowledge and skills from Units 3 and 4 are examinable.

The examination paper will consist of two sections:

Section A (15 marks)

Section A will consist of 15 multiple-choice questions which require students to apply their understanding of economics to identify the correct response. The questions will assess the student's knowledge of key concepts as well as the ability to analyse and synthesise material covered in all areas of study and outcomes in Units 3 and 4. Students should note that MC questions are now worth only 1 mark and not 2 marks, which was the case in previous years (pre-2017)!

Section B (65 marks)

Section B will consist of consist of short-answer and extended-answer questions which require students to complete written responses. The examination may include questions that refer to visual and/or written material, including scenarios.

THE STRATEGY

Your overall strategy for exam preparation to **KAP** off a good year should be to:

1. **K**now the course and **Know** how to interpret examination questions……..
2. **A**nticipate examination questions….
3. **P**ractice, practice and practice writing responses to questions……

Knowing the course shouldn't be too difficult if you have followed this Study Guide closely and supplemented it with teachers' notes, your textbook and other resources. General things to do to help you *know the course* are:

- Prepare a summary of the course;
- Condense your notes;
- Prepare a glossary of terms;
- Prepare concept maps to highlight relationships and links;
- Teach parts of the course to friends and family;
- Complete interactive multiple choice and short answer questions at www.economicstutor.com.au;
- Complete questions and carefully read explanations on the economicstutor app;
- Attend student programs held by various bodies over September and October. For example visit the CPAP website (www.commpap.com) for details about the Exam Preparation programs in October/November. However, the timing of these programs will ultimately depend on the easing of government restrictions relating to public gatherings.

Knowing how to interpret questions will come with practice and after you have done your job of 'anticipating' questions. The interpretation of questions should be done in the 15 minutes you are given for reading time. During this time you should:

- Read over the structured questions relatively quickly and develop a general feel for what the questions are asking you.
- Read over the structured questions a second time; this time much more carefully. During this time you should:

  - Mentally re-phrase the questions and/or break the question up into parts to make them more familiar to you. Often, questions can be worded in ways that are unfamiliar and this can unsettle students. By re-wording or 'unpacking' a question you might realise that it is much more straightforward than first appearances suggest.
  - Prioritise the questions according to the ease with which you can answer them. Then be prepared to attempt these questions first.

Anticipating questions is a little more difficult. In the past, the exam setting panel relied on the use of the key knowledge and skills in the study design, as well as the *examination criteria* published in the VCAA Assessment Handbook.
Examination criteria are no longer produced and the panel will therefore rely on the use of the key knowledge and skills (re-produced in the introductory pages of this Guide). The skills, such as those listed below provide a basis for how questions might be asked in relation to the key knowledge.

- define key economic concepts and use them appropriately;
- construct and interpret demand and supply diagrams;
- interpret and analyse statistical and graphical data;
- evaluate the role of the market in allocating resources;
- calculate relevant economic indicators using real or hypothetical data;

- analyse economic relationships through the interpretation of data, graphical trends, patterns and other information; and
- evaluate strengths and weaknesses of AD policies.

To illustrate, a key knowledge point (Unit 3, AOS1) is '*the role of relative prices in markets on the allocation of resources'* and a key skill is the ability to *'evaluate the role of the market in allocating resources'*. A question which asks students to *evaluate the role of the markets in the allocation of resources* involves significantly more skill and effort than a question such as *Explain how markets allocate resources, making reference to relative prices.*

Similarly, in relation to the government's domestic macroeconomic goals, the key knowledge (Unit 3, AOS2) requires students to demonstrate an understanding of *'the goal of full employment'* and *'the goal of price stability*'. Whereas a key skill requires students to demonstrate the ability to '*analyse economic relationships…*'. A question requiring the *definition* of each goal is significantly less challenging than a question requiring students to *analyse* how the performance of the goals might be *related* (or how inflation might be *related* to the rate of unemployment).

It is likely that the panel will construct a table or matrix containing each of the key knowledge points/key skills and then ensure that these are adequately represented in the examination questions. It is expected that the panel will seek to incorporate a fair spread of the course in the examination, achieving a balance between Unit 3 and 4 questions, as well as a balance between the five areas of study. Accordingly, it should be designed with a view to providing students with limited opportunity to 'specialise.'

Possible questions relating specifically to the new study design

Given that 2022 is now the final year of the study design, students will have access to a wide range of VCAA examination questions relating to the current course. The VCAA's sample examination (downloadable www.vcaa.vic.edu.au) should be downloaded. In addition, students should ensure that they tackle all of the questions in each 'Mini Exam' as well as the Bonus Exam and review questions in this Study Guide.

Below are 30 additional examples of the types of questions that could be asked in relation to the course, including both new ***key knowledge points*** and new ***key skills.***

1. Define common access resources and explain why they are used as an example of market failure in economics.
2. Construct a diagram to illustrate the effects on the banana market following a cyclone that damages banana crops.
3. Define a subsidy and outline how the government can use subsidies to address market failures.
4. Construct a diagram to illustrate the effects on the market for Australian motor vehicles following the government's decision to reduce subsidies to this sector.
5. Using an example to illustrate, describe how the government can use indirect taxes to address market failures.
6. Explain how a recent government intervention may have had a negative impact on economic efficiency.
7. The seasonally adjusted rate of economic growth for the December quarter 2020 was 3.1%. Calculate the annualised rate of growth for the December quarter 2020 and discuss the implications for both the achievement of price stability and the macreconomic demand management policy settings for Australia if this rate of growth was to continue in future quarters.
8. Given the annualised rate of growth calculated in the previous questions, discuss the possible implications for full employment.
9. Referring to the circular flow in an economy, describe how an increased rate of savings is likely to impact on aggregate demand and economic growth in the short term.
10. Distinguish hidden unemployment from disguised unemployment.
11. Explain why recent growth in the rates of underemployment has made the movement in unemployment statistics a less reliable indicator of spare capacity in labour markets and examine the implications for monetary policy settings.
12. Explain why growth in the rate of unemployment is likely to contribute to greater income inequality.
13. Distinguish net foreign debt from net foreign equities and outline one reason for Australia experiencing an increase in net foreign debt over recent years.
14. Explain the relationship between the current account deficit and net foreign debt and describe how an increase in net foreign debt can impact on Australian living standards.
15. If the export price index increases from 100 to 110 and the import price index remains at 100 over the same period, calculate the change in the terms of trade.
16. Describe the relationship between continuing budget deficits and the level of government (public) debt.
17. Referring to one strength and one weakness of monetary policy, evaluate the effectiveness of a monetary policy loosening to stimulate economic growth.
18. Referring to one strength and one weakness of monetary policy, evaluate the effectiveness of a monetary policy tightening in order to achieve the goal of price stability.
19. Referring to one strength and one weakness of budgetary policy, evaluate the effectiveness of a more expansionary budgetary policy stance to stimulate economic growth.
20. Referring to one strength and one weakness of budgetary policy, evaluate the effectiveness of a less expansionary budgetary policy stance to assist RBA efforts to achieve price stability
21. Evaluate the relative effectiveness of monetary and budgetary policies in achieving a reduction in structural unemployment.
22. Describe the relationship between an efficient allocation of resources and aggregate supply.
23. Describe how an increase in government spending on training and education might impact on the achievement of price stability and full employment.
24. Describe how an increase in the provision of research and development grants is likely to impact on aggregate supply and the achievement of strong and sustainable economic growth.
25. Explain how the provision of government subsidies can help to increase aggregate supply.
26. Describe how government subsidies might increase aggregate supply in the short-term but negatively impact on aggregate supply in the long term.
27. Explain what is meant by tax reform and describe how a reform to the tax system could lead to an increase in aggregate supply.

28. Describe how the government could make changes to welfare expenditure in order to stimulate aggregate supply and assist with the achievement of full employment.
29. Describe one strength and one weakness associated with the use of an aggregate supply policy in terms of its ability to assist with the achievement of price stability or full employment
30. Describe how changes in Australia's migration levels over the past couple of years may have influenced the achievement of price stability.

Anticipating questions – the importance of knowing about current events

It will be very difficult to score very highly in the examination without an understanding of recent economic events given the study design makes clear reference to the need for students to have an understanding of contemporary factors influencing the achievement of the domestic macroeconomic goals over the past two years (Unit 3, AOS 2) as well as the effect of monetary policy decisions and budgetary policy initiatives over the past two years. The exam setting panel is also likely to build some questions around contemporary economic issues and the importance of a reasonably sound knowledge in this area is reflected in the following statements in the Chief Assessor's Report in recent years:

- ***'Students who applied appropriate knowledge about current and recent performance and management of the Australian economy were likely to score higher marks. It is important for students to use examples of recent economic events and think about how these events are likely to impact on the performance of the Australian economy in terms of economic objectives and the management of Australian economic policies.'***

- ***'...students who engaged with current economic issues and developments and who understood economic relationships provided themselves with the best opportunities to excel in the Economics examination.'***

Some resources to bring you up to date on 'current economic issues' include the following:

  - The RBA's statements on Monetary Policy for the past year (Nov 2021, Feb, May, Aug 2022)
  - The RBA's charts pack released monthly (www.rba.gov.au/chart-pack)
  - Minutes of monthly RBA Board meetings and various speeches made by RBA officials (www.rba.gov.au)
  - OECD country reports or summaries (www.oecd.org)
  - Economic round-up at the Commonwealth Treasury website (www.treasury.gov.au)
  - Ross Gittins articles (www.rossgittins.com)
  - Contemporary activities section of www.economicstutor.com.au

You should try to anticipate questions that refer to current economic issues and be prepared to show the assessors that you are aware of the latest economic developments. You should be familiar with recent statistics for the major economic variables such as rates for unemployment, inflation, economic growth, CAD, NFD, AUD, etc. You should also be aware of the myriad of issues that are currently affecting, or have recently affected, the performance of the Australian economy. Making relevant reference to recent events when answering questions can help to improve the overall quality of a response. A list of some recent events relating to, or affecting, the performance of the Australian economy is listed below.

RECENT EVENTS RELATING TO THE PERFORMANCE OF THE AUSTRALIAN ECONOMY

1. The economic impact of the bushfires, floods and coronavirus over the past two years, including the first recession in 30 years.
2. The unprecedented government response to the economic effects of the coronavirus, including both the large budgetary stimulus measures as well as the use of unconventional monetary policy (quantitative easing).
3. Changes in relative prices due to Covid and government responses and implications for resource allocation.
4. The huge fall in consumer confidence in 2020 to levels not seen since the global financial crisis.
5. The huge fall in business confidence in 2020 to levels not seen for more than 30 years.
6. The rebound in both consumer and business confidence in 2021
7. The faster than expected economic recovery as evidenced by high annual rates of economic growth over 2021 as well as the fall in the unemployment rate to 4% in March 2022.
8. The RBA's preparedness to use non-conventional monetary policy methods that can effectively equate to 'printing money' over 2020-21.
9. The return of the current account to surplus in 2020 for the first time in decades.
10. Dramatic falls in tourism (export income) as a result of international travel bans and reduced overseas students also hurting "educational exports".
11. The loosening of monetary policy in the USA and the implications for Australia's exchange rate and the economy more generally.
12. The relatively more severe slowdown in the rate of global economic growth compared to Australia and the role of the Terms of Trade in accounting for the difference.
13. The trade sanctions imposed by China as a result of demands for an independent inquiry into the Coronavirus cause in China, for example tariffs on Australian exports of barley, wine, beef, lamb, cotton, lobsters, timber, coal.
14. The rise in market rates of interest over the latter parts of 2021 and the early parts of 2022 and the implications this has for monetary policy settings.
15. The criticisms levelled at the oligopolistic banking industry for 'profiteering' and behaving in anti-competitive ways over recent years.
16. The rorting taking place in vocational education and the cladding disaster as examples of market/government failure.
17. The potential government failure in relation to the roll out of the JobKeeper wage subsidy, where some companies received support despite their being relatively unaffected over 2020-21 and some casual workers receiving more money than they were previously earning.
18. **The large rescue package (subsidy) provided to the Portland aluminium smelter at the beginning of 2017 by the federal and state governments.**
19. Other ACCC action providing evidence of government efforts to achieve more competitive markets in an effort to achieve a more efficient allocation of resources. For example, the $12 million penalty issued to Peter's Ice Cream in March 2022 for anti-competitive conduct in relation to the distribution of ice creams sold in petrol stations and convenience stores.
20. ACCC action warning retailers against price gouging in relation to Rapid Antigen Tests (RATs).
21. Continuing actions by the ACCC in relation to misleading and deceptive conduct (link to asymmetric information as a market failure) such as the ACCC taking Lorna Jane (makers of 'activewear') to court over 'false or misleading claims' made about its 'Anti-virus Activewear and the ACCC ordering Jayco to pay a penalty of $75,000 for making a false or misleading representation to a consumer about their consumer rights.

22. The fall in the AUD over 2019-20 (to USD0.55 in Jan 20); the rise in AUD over 2020-21 (to USD 0.80 in Jan 21) before the fall once again (to USD0.70 in Jan 22) and the implications for the economy (e.g. causes and effects?).
23. **The recovery in the terms of trade over 2020-21 (fuelled by soaring iron ore prices) and the implications for both the economy and government policy.**
24. **Inflationary pressures building internationally and the impact on future interest rate levels.**
25. Adverse weather events over recent years, such as the devastating cyclones, bushfires ,droughts and floods along the east coast of Australia.
26. The continuing large annual increases in excise tax on cigarettes by 12.5% and the implications for market failure, equity and or budget outcome.
27. **Continuing problems with 'housing affordability' and the announcement of budgetary policy measures to address the problem.**
28. The ongoing controversy about the housing market impact of negative gearing and capital gains tax concessions
29. The growing concern about the level of household indebtedness and its implications for market such as housing; the economy and policy responses more generally (e.g. immigration policy); and/or the implications for the effectiveness of monetary policy.
30. How the residential property market growth during 2020-21 influenced household wealth and the propensity to save/consume and the expected slowdown in the property market in 2022.
31. The dilemma facing policy makers with the need to increase population as part of the 3P agenda and the concern about the impact of increased immigration on housing, government services, the environment and labour market conditions, congestion and living standards.
32. Net negative overseas migration (i.e. more people leaving Australia than entering) during 2020-21 and its cause and effects.
33. The reduction in the permanent migration cap from 190,000 to 160,000 as well as the reduction in temporary immigration over 2020-21 (due to the closing of Australian borders) and the impact on the economy.
34. The uneven impact that border closures is having on Australian (tourism) businesses given that we are a net importer of tourism.
35. The growing geopolitical instability, evidenced by the war in Ukraine, and the implications for globalisation and international trade.
36. **The rising crude oil prices over 2022 due to invasion of Ukraine and the impact on petrol prices (underlying vs headline inflation) and the Australian economy more generally.**
37. The growing prevalence of internet shopping and the implications for Australia's retail sector and the allocation of resources in the economy.
38. Australia experiencing periods of lower material living standards over the past few years as measured by either real GDP per capita or real net national disposable income per capita.
39. The increase in the savings ratio and the implications for macroeconomic stability and the balance of payments.
40. The possibility of a future increase in the rate of GST or broadening of the GST base to relieve budget pressures.
41. Measures to target the black economy following research that suggests that the size of the 'black economy' is likely to be between 15-30% of GDP.
42. The speed at which Australia can vaccinate the population against Covid-19 and the relationship with economic activity.
43. The relationship between (Covid-19) vaccinations and market failure (i.e. positive externality).
44. New government funding to reduce the regulatory burden on businesses.
45. The findings of the most recent Intergenerational Report in relation to the impact of Australia's ageing population (e.g. on the government's budget and the economy more generally).
46. The continued casualisation of the labour force and the implications for full employment (e.g. growing underemployment and the growing irrelevance of the unemployment rate is an indicator of both the achievement of full employment as well as spare capacity in labour markets).
47. The general acceptance that NAIRU is falling, with government estimates now putting the NAIRU at 4.25%.
48. The impact that globalisation and technological advances has had on Australian labour markets and wages growth.
49. Continuing slow growth in wages growth such that real wages have either remained relatively flat or declined over the past couple of years.
50. The blowout of the budget outcome over 2019-20 and 2020-21 and beyond and the relationship to (i) automatic and discretionary stabilisers and (ii) net government debt.
51. Changes to Australia's tax system in recent budgets including the reduction in the corporate rate, the introduction of new levies (such as the bank levy), and generous tax cuts justified (partly) on the basis of compensating taxpayers for 'bracket creep'.
52. **The increasing of the retirement age to 67 and the Coalition proposal to increase this further to 70 by 2035.**
53. Continuing allegations of dumping made by Australian industries, including those in aluminium, steel and paper manufacturing, as well as agricultural products such as pineapples.
54. The growing threat of an increase in global protectionism following the decision by Donald Trump to use 'trade' as a political weapon against countries like China and North Korea during 2020.
55. The concern about rising cost of living pressures (driven largely by higher energy and fuel prices) despite the relatively low growth in the underlying rate of inflation.
56. Greater efforts by China to address its environmental issues, which is contributing to slower rates of Chinese growth and having implications for the Australian (mining) economy.
57. China's increasing focus on consumption relative to investment and the implications for the composition of Australian exports.
58. China's "Silk Road" (the Belt and Road Initiative) and the demand for resources to construct many large infrastructure programs and its potential impact on future trade.
59. The growing market for services like UberX and Airbnb, and the implications for market structure in the respective passenger transport and hotel industries (e.g. closer to perfect competition and away from oligopoly).
60. The government's decision to legalise medicinal cannabis and the implications for resource allocation.
61. The possible future introduction of a sugar tax in Australia, along the lines of the tax introduced in Mexico and Britain and the implications for market failure.
62. The large growth in the demand for natural gas causing what became known as the 'natural gas export boom' for Australia.
63. The growing take up of renewable energy subsidies by households and the implications for resource allocation.
64. The potential for significant supply side cost pressures increasing as raw material costs rise with significant price rises occuring in timber and steel and many other intermediate goods (materials used to produce finished goods and services).
65. How the SNOWY 2.0 Hydro scheme is expected to impact power prices and reliability of supply.

From each of the above issues, you should make a bank of questions that relate to particular aspects of the VCE Economics course. For example, I will start you off with five structured questions.

Example 1

The large rescue package (subsidy) provided to the Portland aluminium smelter at the beginning of 2017 by the federal and state governments.

a) Define the term subsidy.
b) Construct a diagram representing the market for aluminium and illustrate how a subsidy impacts on the market for aluminium.
c) Describe one macroeconomic cost and one macroeconomic benefit associated with the provision of a subsidy.

Example 2

The recovery in the terms of trade since late 2016 and the implications for both the economy and government policy.

a) Define terms of trade (TOT).
b) Describe one reason for the rise in Australia's TOT since 2016.
c) Examine how the higher TOT is likely to have affected the budget outcome and monetary policy settings.

Example 3

Continuing problems with 'housing affordability' and the announcement of budgetary policy measures to address the problem.

a) Describe one budgetary policy measure that can or has been used to address the housing affordability problem.
b) Explain how the measure selected in part a will help to exert downward pressure on housing prices.
c) Explain how this form of government intervention might unintentionally led to a less efficient allocation of resources

Example 4

The rising crude oil prices over 2022 due to invasion of Ukraine and the impact on petrol prices (underlying vs headline inflation) and the Australian economy more generally..'

a) Use a demand/supply diagram to account for the rise in crude oil prices over the past year.
b) Explain how higher crude oil prices might impact on both headline and underlying inflation and examine how this is likely to influence monetary policy settings.
c) Outline how higher crude oil prices might impact on AD and the current account deficit.

Example 5:

The increasing of the retirement age to 67 and the Coalition proposal to increase this further to 70 by 2035. .

a) Outline how the increase in the retirement age is expected to impact on the labour force participation rate.
b) Explain how the increase in the retirement age might influence productive capacity and the achievement of price stability.
c) Analyse the relationship between the participation rate and the unemployment rate.

You can also anticipate questions by using cartoons to stimulate memory or understanding of key issues

- Go to www.nicholsoncartoons.com.au and view recent cartoons about the Australian economy; or
- www.inkcinct.com.au/Web/Australian-Cartoons

Practice, Practice, Practice

Once you know the course and have anticipated questions, you need to practice answering these questions within time constraints. This will involve you estimating the number of marks that is likely to be awarded for each of your anticipated questions. Remember, you will have at least 90 minutes in the examination to answer 65 marks worth of questions (assuming you complete the 15 multiple choice questions within 30 minutes).

Following this, you should access as many practice exams as you can and attempt them under strict time constraints. Your teacher should have access to practice exams from various sources, including 'Compak', 'Insight' and the 'CPAP' Practice Exams (www.commpap.com). Once you have completed the exams (or questions within exams) you should submit them to your teacher for assessment. In some cases, teachers may be inundated with exams to assess during September and October, particularly if they are teaching more than one Unit 3-4 subject. It might also be worthwhile to team up with one or two students in your class (or potentially a friend at another school who is also completing VCE Economics) who are equally committed to the subject and swap exams for assessment. Ensure that your partner provides a justification (annotated on the exam) for the marks that have been awarded.

Importantly, you should (again?) review the five ***'You Be the Assessor'*** sections within this Study Guide. Carefully read each question once more, without looking at the sample answers that are provided. Attempt to answer the question, allowing yourself a little over a minute for each mark. Once complete, (re)read each sample answer to determine which one is deserving of full marks and which response is deficient. Annotate both responses to highlight what was done well and what was handled poorly. Only then refer to the back pages of this guide for the authors' assessment of the quality of these responses.

BONUS EXAMINATION

CPAP STUDY GUIDE TO VCE ECONOMICS PART 2

Section A: Multiple choice (15 marks)

Question 1

Which of the following is least likely to be considered the opportunity cost for the government of spending $36B on a new broadband network?

- **A.** A $36B level of expenditure on social security and welfare
- **B.** A $36B level of spending on community services and culture
- **C.** A $36B investment in health, education and/or defence
- **D.** A $36B cost associated with building the new telecommunications network

Question 2

Which of the following is most likely to be considered a market failure?

A. Passive smoking
B. Banks making very high profits
C. The sale of second hand cars
D. The presence of an oligopolistic market structure

Question 3

Which of the following is most likely to occur if the federal government is required to balance its budget every year?

A. Tax rates would fall during downturns and rise during recoveries
B. Recessions would be less severe
C. Government spending would remained unchanged
D. The business cycle would experience bigger peaks and lower troughs

Question 4

Which of the following is least likely to occur following the decision to further raise the excise tax on tobacco?

- **A.** A lower demand for cigarettes and higher profits for manufacturers
- **B.** A lower budget deficit
- **C.** A decreased incidence of lung cancer over the long term
- **D.** A lower demand for cigarettes and lower production over time

Question 5

Which of the following is least likely to cause the value of the Australian dollar to rise?

A. A tightening of monetary policy
B. A large reduction in the size of the current account deficit
C. An increase in USA interest rates
D. An increase in the demand for exports

Question 6

Which of the following statements is most accurate about the performance of the Australian economy during early 2022?

- **A.** The value of the Australian dollar was above USD 0.70, headline inflation was above 3% per annum and the rate of unemployment was below 5%
- **B.** The unemployment rate was above 5%, the participation rate was above 65% and headline inflation rose by more than 4%.
- **C.** Real GDP growth was below 3%, the current account deficit was less than 1% of GDP and the unemployment rate was above 6%
- **D.** Net Foreign Debt fell to less than 3% of GDP, headline inflation was less than 3% and real GDP growth was greater than 2%

Question 7

Which of the following is likely to be a factor that contributes to a decision by the RBA to tighten monetary policy?

- **A.** A fall in the capacity constraints
- **B.** A fall in Chinese rates of economic growth
- **C.** A stronger Terms of Trade
- **D.** A rise in the Trade Weighted Index

Question 8

The rise in the value of the Australian dollar over the early part of 2022 is likely to:

- **A.** Increase international competitiveness over the short term
- **B.** Decrease international investor confidence in Australia
- **C.** Reduce the value of net foreign debt denominated in foreign currency
- **D.** Increase inflationary pressure over time

Question 9

Which of the following budgetary policy initiatives is most likely to increase the budget deficit?

- **A.** A reduction in government subsidies
- **B.** An increase in the Medicare levy
- **C.** Making GST applicable to small online purchase of imports
- **D.** An increase in tax concessions available to businesses purchasing capital assets

Question 10

In 2020, the RBA loosened monetary policy. This means that:

- **A.** The RBA increased the tax free threshold
- **B.** The Reserve Bank of Australia (RBA) reduced the target cash rate
- **C.** The RBA reduced the interest rate on mortgages and personal loans
- **D.** The RBA increased its purchases of Australian dollars

Question 11

Which one of the following events is most likely to occur following an easing in capacity constraints?

- **A.** An increase in international competitiveness
- **B.** A higher Consumer price index
- **C.** Higher interest rates
- **D.** Higher current account deficit

Question 12

Which of the following variables has contributed to downward pressure on the rate of inflation in Australia over the first half of 2022?

- **A.** The movement in wages growth
- **B.** The movement in oil prices
- **C.** The change in government fuel excise as announced in the 2022-23 Budget
- **D.** The fall in the value of the Australian dollar over 2021

Question 13

The price elasticity of supply of a product will be higher:

A. if product is perishable compared to one that is more durable
B. in the long-term compared to the short term
C. if a business is forced to use offshore suppliers due to the closure of local suppliers
D. if the business is operating at full capacity

Question 14

The difference between the nominal and real interest rates relies on changes in:

A. the CAD
B. the CPI
C. the TWI
D. the cash rate

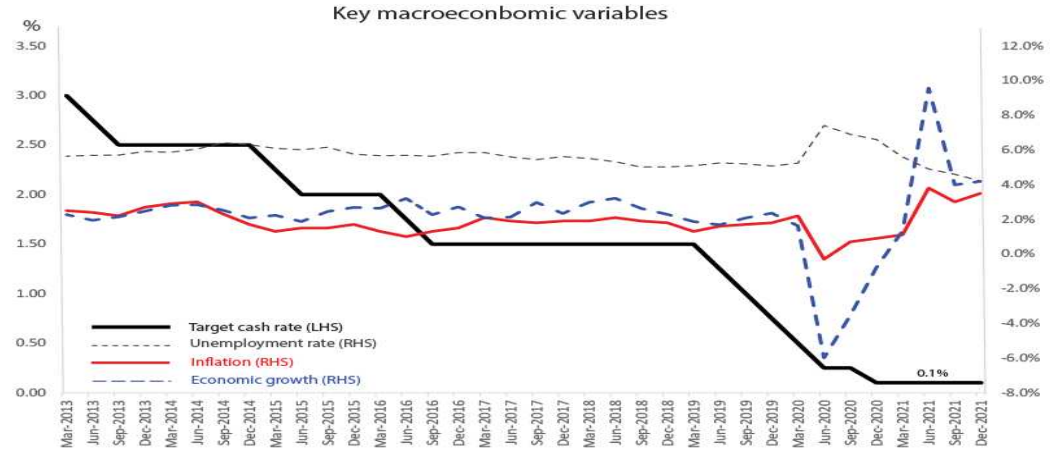
Question 15

Growth in real Gross Domestic Product (GDP) will understate the improvement in living standards if:

A. population is increasing
B. inflation is rising
C. pollution is falling
D. Crime rates have increased to high levels

SECTION B (65 marks)
Suggested answers and advice re structured questions

Question 1 (20 marks)



a) Describe the trend movement in economic growth and the unemployment rate since June 2020. (3 marks)
b) Outline whether it is possible for Australia to have experienced a recession based on the information presented in the chart. (2 marks)
c) Explain how each of the following hypothetical factors below is likely to affect economic growth.

i. Recession in the USA and China
ii. Relatively high interest rates (4 marks)

d) Discuss how a very low rate of economic growth is likely to impact on inflation and the current account balance. (4marks)

e) Explain why large falls in economic growth over 2020 had a minimal (or insignificant) impact on the unemployment rate. (3 marks)
f) Describe how an increase in the tax free threshold is likely to impact on both the participation rate and the unemployment rate. (4 marks)

Question 2 (21 marks)
Tobacco excise continues to increase on an annual basis. This measure, combined with plain packaging of tobacco products, is expected to reduce smoking rates considerably.

a) Discuss why tobacco excise is an example of indirect tax rather than a direct tax. (2 marks)
b) Explain how the increase in tobacco excise is likely to have impacted on both the Headline and Underlying rates of inflation. (3 marks)
c) Referring to the role of the price mechanism, explain how the nation's resources may be re-allocated in response to an increase in the tobacco excise. (4 marks)
d) Define the price elasticity of demand and explain why an increase in the tobacco excise is likely to have a relatively large impact on the budget outcome, but a small impact on the consumption of cigarettes. (4 marks)
e) Explain how the implementation of indirect taxes might unintentionally lead to a less efficient allocation of resources (4 marks).
f) Using an example, explain why the existence of asymmetric information is considered an example of a market failure. (4 marks)

Question 3 (12 marks)
a) Discuss two factors that might contribute to a stronger exchange rate. (4 marks)
b) Explain how a higher exchange rate is likely to impact on both price stability and monetary policy settings. (4 marks)
c) Explain how expansionary monetary policy may have contributed to a housing price boom in Australia. In your answer refer to an appropriate transmission mechanism/channel of monetary policy. (4 marks)

Question 4 (12 marks)
a) Define the terms of trade and describe the difference between the terms of trade and the current account balance.(4 marks)
b) If the export price index increases from 100 to 150 and the import price index remains at 100 over the same period, calculate the change in the terms of trade. (1 marks)
c) Explain how the movement in the terms of over 2021 influenced the ability of the government to achieve 'budget repair'. (3 marks)
d) Describe how skilled immigration can contribute to aggregate supply and economic growth. (4 marks)

YOU BE THE ASSESSOR: CORRECTIONS AND ANALYSIS (U4 AOS 1)

1. Explain how the increase in the terms of trade is expected to impact on the ability of the government to achieve its medium-term fiscal strategy. 4 marks

Demonstrating an understanding of the terms of trade

Demonstrating an understanding of the government's medium term fiscal strategy

Demonstrating an understanding of the causes of the improved TOT

Sample 1

The increase in the terms of trade (prices received for exports relative to the prices paid for imports) helps the government in its attempts to achieve its medium-term fiscal strategy for a budget surplus on average over the economic cycle. In particular, the higher prices received for commodities like iron ore and coal should be helping to raise mining company revenue (and profits) as miners receive more for any given quantity of mineral exports. This should help to boost wages and national income which ultimately lead to an increase in government tax revenue as well is a possible reduction in government expenditure as income/welfare support is likely to fall as the economy improves. This leads to a cyclical improvement in the budget outcome, with the underlying cash deficit falling over time which helps to return the budget to surplus and make the medium-term fiscal strategy more achievable.

Highlighting why revenue increases.

Linking higher revenue/wages to tax revenue.

Adding value by linking to government expenditure.

Referring back to the impact on the budget outcome and the medium term strategy.

Sample 2

Failure to demonstrate an understanding of the key terms in the question (TOT and medium term fiscal strategy).

Reference to exporters making more money is vague as assessors will be looking for students to demonstrate an understanding that exporters make more money because of higher prices received for exports (rather than higher volumes sold).

While this is okay, the failure to make reference to personal income tax as well as the possible automatic decrease in expenditure is not ideal.

The increase in the terms of trade is likely to reduce the budget deficit and/or increase the surplus. This occurs because commodity exporters will be making more money and therefore paying more company tax to the government. As the government receives more taxation revenue it is likely that existing government expenditure would be more easily covered by government revenue which allows the deficit to decrease. As the deficit decreases over time this means that the government will be more likely to achieve success in achieving its medium-term fiscal strategy. In addition, the government will be in a better position to introduce discretionary stabilisers that further help to reduce the size of the budget deficit. This might include higher tax rates or the introduction of new levies (such as the new bank levy announced in the 2017-18 Budget) and/or decreases in government expenditure.

This sentence adds little value and potentially robs the student the opportunity to add more meaningful value to other parts of the response or the examination paper.

Again, little value add. It merely asserts that the lower deficit will assist with the medium-term fiscal strategy (without highlighting what the strategy is).

While not untrue, it is not directly related to the question as the student should be focusing on the cyclical, rather than discretionary, impact. Reference to an initiative from the current budget is a nice touch but not entirely relevant in the context of the question.

Analysis (Sample 1 full marks)

Sample 1 has an excellent structure in that the student demonstrates an understanding of the key terms in the question nice and early in the piece. The assessor is left in no doubt that the student understands what is meant by the terms of trade as well as the government's medium-term fiscal strategy. In addition, the student provides an outline of how the higher terms of trade impacts on the ability to achieve the fiscal strategy. All of this is done in the 1st line. In contrast, Sample 2 neither demonstrates an understanding of the terms of trade or the medium-term strategy - this is costly. While the student does get the direction of the relationship correct (i.e. higher terms of trade reducing the deficit), the assessor is likely to be left wondering whether the student understands why this occurs. Reference to 'exporters making more money' is rather vague and in no way clarifies that the additional money made has occurred because of higher prices (rather than higher volumes). Sample 1 on the other hand makes it clear why the deficit falls, making accurate reference to the income side of the budget as well is adding value by referring to the possible expenditure side impact.

Sample 2 does not finish well. The student merely asserts that the lower deficit will assist with the medium-term fiscal strategy (without highlighting what the strategy is) before going on to add information about discretionary stabilisers that is not that relevant to the question [as the question is really about the operation of automatic rather than discretionary stabilisers]. In contrast, Sample 1 does an excellent job of closing out the response in the last line by making it clear that the improvement in the budget outcome is due to the operation of automatic stabilisers (i.e. by referring to the cyclical improvement in the budget outcome) before linking it back to the greater likelihood of achieving the medium-term fiscal strategy.

2. Explain how monetary policy settings since 2016 may have contributed to the housing price boom. In your answer refer to one transmission mechanism/channel of monetary policy. 4 marks

Sample 1:

Repeating the question in 1st sentence is not necessary and adds no value.

The 3rd sentence is not entirely accurate and suggests that the student believes that a loosening of monetary policy means the same as an expansionary monetary policy setting. In addition, the students failed to acknowledge that the setting was already expansionary (the loosening therefore made it more expansionary).

Reference to open market operations is going beyond the scope of the question and is therefore not relevant. In addition, the student should have drawn a distinction between the target cash rate and interest rates more generally.

Monetary policy settings over 2016 have contributed to the housing price boom. The RBA lowered interest rates in the economy on two separate occasions over 2016. These monetary policy easings resulted in the monetary policy stance becoming accommodative or expansionary. The RBA achieved this reduction in interest rates by increasing the supply of cash in money markets, by purchasing government securities from the major banks, which eventually drove down interest rates down from 2.00% to 1.50%. These lower interest rates caused capital outflow and a reduction in the value of the Australian dollar as investors sought to take advantage of the relatively higher rates of interest in overseas financial markets. The lower exchange rate (exchange rate channel) improved the international competitiveness of our exporters, causing net export demand to increase. This in turn led to an increase in AD, economic growth and employment, reducing the unemployment rate and moving more people from welfare income and towards higher wage income. Higher incomes earned then created an increased demand for many goods and services, including housing, causing an increase in the price of houses. In addition, the lower interest rates stimulated demand for housing as a result of the cheaper cost of borrowing (i.e. the cost of credit channel/savings and investment channel). Householders had financial incentive to reduce their savings (given the lower interest return) and increase their borrowing, making it more affordable to purchase a house with a mortgage loan. This added to the demand for housing and raised housing prices further.

While the exchange rate channel is a reasonably well explained in terms of the way it reduces AD, it is not the best channel to use for this question because of the link to 'demand for houses' is relatively remote compared to the cost of credit or availability of credit channels.

Reference to a 2nd transmission mechanism is unlikely to be rewarded given that an explanation of only one transmission mechanism is required in the question. This is despite the fact that the explanation is accurate.

There is no attempt to demonstrate an understanding of a housing 'price boom' and how it might differ from an increase in the price of houses.

The student demonstrates an understanding of expansionary monetary policy, and in so doing, accurately draws a distinction between a loosening of policy and an expansionary monetary policy setting. Distinguishing the target cash rate from interest rates more generally, as well as accurate use of statistics, would be rewarded.

Accurate reference to and explanation of the availability of credit channel and how it added to the demand for and price of housing

Reference to a 2nd channel is not required but this little bit of added value has not been too costly because the student has not wasted time fully explaining the channel (as a 2nd channel is not required in the question).

Sample 2: *Monetary policy became more expansionary over 2016, with two separate policy easings, as the RBA reduced the target cash rate from 2.0% to 1.75% in May and again from 1.75% to 1.5% in August. This historically low target cash rate remained at this level for the remainder of 2016 and into 2017. It resulted in the general structure of interest rates falling to very low levels which stimulated demand for goods and services, including housing, via a number of transmission mechanisms. In particular, the looser monetary policy helped to fuel growth in the demand for housing, as lower mortgage rates worked to increase the availability of credit. This is because lower interest rates have made it easier for borrowers to meet the repayment requirements of lenders, which then results in the provision of more housing loans (i.e. increased credit for housing) and an increased demand for and price of housing. Along with the lower cost of credit (i.e. the operation of the cost of credit channel), the lower interest rates resulted in large increases in housing prices, particularly in Sydney and Melbourne, where these markets are generally considered to be in boom territory. This has been a major factor behind the housing affordability crisis that is affecting younger Australians in particular.*

The student makes a good attempt at demonstrating an understanding of another key concept in the question (i.e. housing price boom).

This last sentence is not required in the context of the question. It should be avoided if it means that the student struggles to complete the remainder of the paper in the allocated time.

Analysis (Sample 2 full marks)

Sample 2 would achieve full marks because it addresses all of the key components of the question and leaves the assessor in no doubt that the student understands why an expansionary monetary policy setting (or a low interest rate structure) has been one of the factors contributing to the housing price boom in Australia. The student successfully distinguished an expansionary monetary policy setting from a loosening of monetary policy and made accurate use of statistics when establishing the link to an increased demand for housing. The student also used an appropriate transmission mechanism (i.e. the availability of credit) and referred to a 2nd appropriate transmission channel that could have been explored (i.e. cost of credit channel). [However, this bit of added value could have been removed without loss of marks.] While Sample 2 did have evidence of further 'added value' that was technically not required (e.g. the last sentence) it was not costly and did not detract from the quality of the response. In contrast, Sample 1, appeared not to know the difference between a loosening of policy and an expansionary policy setting and there was no attempt to distinguish a 'higher price of houses' from a 'housing price boom'. Sample 1's choice of transmission mechanism (i.e. the exchange rate channel) should have been better. However, more crucial was the students inclusion of a discussion of open market operations and a 2nd transmission mechanism, both of which were irrelevant in the context of the question.

3. Discuss the likely implications for both the budget outcome and the target cash rate (TCR) if Australia enters a recession in 2019-20.
5 marks

An excellent opening line which signposts the student's response and defines a recession

Demonstrating an understanding that a recession will have implications for both cyclical and structural components of the budget

Successfully refers to both sides of the budget when discussing the cyclical impact (i.e. automatic stabilisers)

Sample 1: *The budget outcome is likely to deteriorate and the TCR is likely to fall if the economy experiences two quarters of negative economic growth over the course of 2019-20.*

In relation to the budget outcome, the budget deficit is likely to rise due to the impact of both automatic and discretionary stabilisers. Negative growth will result in lower income tax revenue for the government as households and businesses earn less. In addition, higher unemployment and/or underemployment will result in more government expenditure in the form of income support (e.g. unemployment benefits). As a consequence, less revenue and more expenditure means that deficit will automatically increase. In addition, the government is also likely to implement discretionary changes to the budget, such as tax relief measures and additional infrastructure expenditure, further increasing the surplus in an effort to support economic growth and jobs.

In relation to the TCR, it is likely to fall as the RBA will adopt a more expansionary monetary policy stance, by loosening policy via a further reduction in the TCR below the current 1.5%. This is because negative economic growth for 6 months suggests that inflation becomes even less of a problem (in fact deflation becomes the risk) and the RBA will focus once more on stimulating economic growth and jobs in accordance with its charter. The lower TCR therefore becomes the means by which the RBA reduces general interest rates, which in turn stimulates AD, boosts both economic and employment growth and therefore helps to stabilise the economy and protect against the negative effects of a recession.

Succinct reference to the structural impact (i.e. discretionary stabilisers)

Accurate reference to the MP impact highlights that the student interpreted the question correctly and made the necessary link to monetary policy loosening

Excellent reference to the RBA's charter and the implications in the context of the question

Meaningful reference to why the RBA needed to reduce the target cash rate

No attempt to demonstrate an understanding of this key term

While this is true, there needed to be a link to the budget outcome as specified in the question

Accurate reference to the revenue and expenditure sides of the budget, with good examples. However, there is neither a link to the budget outcome nor is there any appreciation of the possible cyclical budget impact (i.e. automatic stabilisers) during a recession.

Sample 2*: if Australia enters a recession, then the most likely outcome is that the Commonwealth government will adopt a more expansionary budgetary policy stance in order to stimulate economic activity. The government is likely to provide tax relief for businesses and households, which might include the delivery of more tax concessions as well as the provision of tax bonuses such as those provided to taxpayers during the global economic downturn of 2008-9. In addition, the government is likely to increase government expenditure, including expenditure on infrastructure such as the additional spending on school buildings that was provided during the economic downturn of 2008 – 9. The combined effect of a lower tax burden and an increase in stimulus spending will help to counter the effects of the recession, preventing economic growth from falling too far and helping to limit the rise in unemployment. Interest rates are also likely to fall in the economy which will help to stimulate AD via a number of different mechanisms. For example, householders will have more cash available given that their mortgages will be easier to service (this is the cash flow channel) which stimulates consumption. In addition, households and businesses will be encouraged to borrow more money given that the cost of borrowing will be lower. This further stimulates consumption and also leads to more Investment, lifting AD once more, increasing economic growth and helping to prevent a decrease in real GDP.*

No explanation for why interest rates fall. A reference to the likely monetary policy response during a recession is required.

Too much reference to the transmission mechanisms of monetary policy, when the time should have been devoted to explaining the monetary policy response during a recession rather than how lower interest rates stimulate the economy.

Analysis (Sample 1 full marks)

Sample 1 is excellent, with the student signposting their response by alerting the assessor to the direction in which they are heading in the first line as well as defining a key term (i.e. recession). In the 2nd paragraph, the student covers all bases by successfully exploring the impact on the budget outcome via both automatic and discretionary stabilisers, whereas most students will either forget or choose to ignore that both angles could be explored for this type of question. In the 3rd paragraph the student switches to a discussion of the impact on the TCR, correctly recognising the relationship to the monetary policy stance or setting. Importantly, the student recognises the relevance of the RBA's charter and the implications for policy when inflation is likely to be under control. In contrast, Sample 2 contains a number of errors. First, there is no attempt to demonstrate an understanding of a recession. Second, while the student does correctly refer to the likelihood of an expansionary budgetary policy stance (making a correct link to structural changes to taxes and spending), there is no effort to extend the response by referring to the impact on the 'budget outcome' (as required by the question). Nor was there an attempt to demonstrate an understanding that the cyclical component of the budget (i.e. automatic stabilisers) will cause the budget outcome to deteriorate. Third, in relation to the 2nd part of the question, the assessor is left in doubt as to whether the student realises a lower TCR means that monetary policy has been loosened (or a more expansionary stance has been employed). Instead, the student simply refers to lower interest rates in the economy, which (while true) will occur independently of RBA action when the economy enters a downturn. Accordingly, the student failed to draw the necessary link between a recession and a loosening of monetary policy. Fourth, the student unnecessarily discusses two separate transmission mechanisms when a reference to the beneficial impact on AD and economic growth (helping to reduce the length and/or severity of the recession) was all that was required.

4. Distinguish public debt from private debt and outline how a budget deficit is likely to impact on net public debt

4 marks

Sample 1: *Public debt refers to the amount of borrowing that has taken place by Australian governments over a given period of time whereas private debt refers to the amount of borrowing that has taken place by Australia's private sector, which includes businesses households, charities and other not-for-profit organisations. A budget deficit means that the (government) is spending more than it receives (e.g. via taxes). This deficit will most likely lead to an increase in the borrowing requirement of the government sector which necessarily results in an increase in net public debt.*

The student distinguishes public borrowing from private borrowing when he/she should be distinguishing public debt from private debt.

Demonstrating a good understanding of a budget deficit

The student does not make successful link between the deficit and net public debt.

Sample 2: *Public debt refers to the total stock of debt (money owed to another party as a result of past borrowing) held by Australian governments, whereas private debt relates to the debt held by non-government entities, such as households and businesses. A budget deficit occurs when government expenditure exceeds government receipts. It means that the government will typically need to borrow money in order to fund the shortfall (or deficit), which it does via the issue of government securities, such as Treasury bonds. This will increase the value of government securities held in the market place (by Australians and/or foreigners) which means that the stock/value of government or public debt will necessarily be higher than before. Assuming there is no change in the stock of debt owed to Australian governments, then it must hold that the increase in public debt will also lead to an increase in net public debt.*

A solid definition of debt is provided distinguishing the term from borrowing,

Successful distinction drawn between private and public sector debt

An accurate definition of a budget deficit

A clear link between a budget deficit and net public debt is established with added value along the way (e.g. a reference to government securities/Treasury bonds)

Analysis (Sample 2 full marks)

Sample 1 appears to make a good attempt at answering the question successfully. However, it contains two critical errors. First, the definition of debt (either public or private) is inaccurate, despite the student successfully distinguishing public from private borrowing. Unfortunately, the student has simply defined a flow (i.e. borrowing) rather than a stock (i.e. debt) and failed to recognise that it is borrowing (e.g as a result of the deficit) that ultimately creates a 'stock' of debt. Second, while the definition of a budget deficit is accurate, there is no attempt to demonstrate an understanding of 'net' public debt as opposed to 'public debt'. In other words, the student did not read the question carefully enough. In contrast, Sample 2 provides an accurate definition of debt and successfully draws a distinction between public and private sector debt. In addition, the student does a good job of demonstrating an understanding of a budget deficit and the implications it has not only for public debt, but in net public debt.

5. Explain how the RBA loosens or eases monetary policy in response to very weak economic conditions 3 marks

No need to talk about the nature of weak economic conditions

No need to talk about the price stability goal or the target range

No need to talk about the motivations behind the monetary policy easing

Sample 1: *Weak economic conditions in the economy are likely to be evidenced by very low rates of economic growth, excessive unemployment and an absence of inflationary pressures, with inflation perhaps falling below the RBA's price stability target of 2 to 3% growth in the CPI on average over time. The RBA will, in accordance with its charter, attempt to stimulate the economy by adopting a more expansionary monetary policy stance. This will involve a loosening of monetary policy, where the RBA reduces the target cash rate and all other interest rates in the economy will fall in tandem. These lower interest rates will then help to raise AD via a number of different transmission mechanisms, including the savings and investment channel, where households and businesses will have a reduced incentive to save and an increased incentive to borrow and spend (or invest). In addition, with respect to the cash flow channel, households will experience an increase in the disposable income with some of this additional income being spent on goods and services. The overall increase in AD will help to stimulate economic growth and prevent the unemployment rate from climbing too high.*

This is the part that required much more detail

Discussion of transmission mechanisms is not relevant

In the event that a discussion of transmission mechanisms was required, this reference to disposable income is incorrect (it should

Sample 2: *The RBA will announce a new lower target cash rate to the market and then enter the overnight cash market to increase liquidity (or supply of cash) in order to decrease the actual cash rate towards the new lower 'target cash rate'. It increases liquidity by purchasing government securities from participants (e.g. financial institutions) in the cash market. The financial institutions are encouraged to sell the securities to the RBA because of increasingly attractive terms (i.e. higher prices offered by the RBA). The supply of cash in the cash market (liquidity) is therefore increased because government securities are replaced by cash, which forces down the cash rate towards the new target. The RBA will stop buying securities once the actual cash rate reaches the new target and the RBA will be manipulating supply in the cash market on a daily basis to ensure that actual cash rate is as close as possible to the target. The lower cash rate will result in other interest rates in the economy falling by approximately the same amount which then helps to stimulate AD/real GDP and therefore improve economic conditions.*

Student gets straight into the question and draws a good distinction between the actual cash rate and the TCR.

A sound explanation for how the RBA achieves a looser monetary policy (i.e. explaining domestic market operations in the context of the need to reduce interest rates) without getting sidetracked and including irrelevant material

Analysis (Sample 2 full marks)

Sample 2 highlights that the student correctly read the question and was succinct in responding to its core requirements - that is, honing in on domestic/open market operations and explaining how the RBA manipulates the cash market in order to reduce interest rates in the economy and therefore ease monetary policy. The student was not sidetracked by the reference in the question to 'very weak economic conditions', which was the case for the Sample 2 response, where it was clear the student misinterpreted the question and instead paid little attention to the need to elaborate on domestic market operations. Elaborating on 'the nature of weak economic conditions', the 'price stability goal', the 'RBA's charter' and the 'transmission mechanisms' were beyond the scope of the question. Students need to remember that before attempting monetary policy questions it is important to stop and think carefully about which components or aspects of monetary policy they are required to explore in their response.

6. Evaluate the effectiveness of one budgetary policy initiative that might be announced to assist with the achievement of full employment. 6 marks

Sample 1: *The federal government might decide to reduce income taxes in an effort to increase Consumption, AD, real GDP and economic growth. With an increase in the rate of economic growth it is expected that employment will increase and the rate of unemployment will fall, helping to achieve the government's full employment goal over time. The policy is likely to be very effective, particularly if the economy is experiencing a downturn and consumer confidence levels are very low. This is because lower tax rates will help to increase the disposable income of all households, which provide them with more money to purchase consumer durables, such as white goods, electrical goods and motor vehicles and non-durables, such as entertainment and potentially tourism services. While some of this increased spending will indeed spill over into imports and contribute to both a trade deficit and an increase in the current account deficit, there will certainly be an increase demand for Australian made goods and services and an increase in the volume of production will most likely take place. Greater production volumes necessarily leads to more workers needed to produce these goods and services which will reduce the rate of unemployment and assist with the full employment goal.*

No reference to what the full employment goal actually means

Good reference to and explanation of how the policy can actually achieve lower unemployment rates, but there was no attempt to examine those factors that potentially limit its effectiveness nor was there any reference to the possible supply side effects which would have enhanced the quality of the response

Reference to the trade deficit and CAD is irrelevant in the context of the question

Sample 2: *Full employment refers to the federal government's goal to achieve the lowest rate of unemployment that is possible before inflationary pressures become unacceptable (often referred to as the Non-Accelerating Inflation Rate of Unemployment or NAIRU which is approximately 5%).*

A budgetary policy initiative that can be used to target full employment is a reduction in income tax rates as part of the delivery of an expansionary budgetary deficit. This policy, once in force, is likely to lead to an increase in the disposable incomes of taxpayers and contribute to an increase in both Consumption and Investment as components of AD and lead to an increase in real GDP (i.e. economic growth). This should help to increase the demand for labour, add to employment levels and reduce the rate of unemployment towards the full employment rate. In addition, lower income tax rates can have supply-side effects by providing greater incentives for individuals (and businesses) to work harder and/or increase investment, which ultimately helps to increase productivity, reduce costs and prices, increase international competitiveness and contribute further to an increase in AD/real GDP and employment growth in the long run.

However, the initiative does have some potential weaknesses. First, there will typically be lengthy time lags between the announcement of the policy and its ultimate effects on the economy. Indeed, it is possible that the policy announcement (e.g. at budget time) will not become law if it is rejected by the Senate. This implementation lag of policy will also be compounded by the impact lag (i.e. the time it takes for the policy, once enacted, to have an effect on reducing the rate of unemployment) which can in some circumstances result in the policy becoming 'pro-cyclical' rather than 'counter cyclical'. This means that the policy might have inadvertently added to inflationary pressures if the economy had already self corrected by the time the policy effects came into force. Second, to the extent that the lower tax rates resulted in a budget deficit, there is always the possibility that in the long run the net gains to employment growth will be eroded by the 'crowding out effect' of budget deficits. In particular, the increase in public sector debt that is required to finance the deficit will tend to increase pressure on interest rates and/or exchange rates as the demand for money increases. This in turn tends to reduce both Consumption and Investment in the longer term, reducing AD and real GDP and reversing some or all of the earlier employment gains. Third, there is no guarantee that households (or businesses) will spend the additional disposable income, particularly if confidence is very low and they decide to increase savings. Fourth, there is always a possibility that the increased demand for labour that results from the lower tax rates will reduce the underemployment rate rather than the unemployment rate (e.g. employers might ask employees to work longer hours rather than take on new workers). Despite these shortcomings, it is likely that lower tax rates will indeed have a net-beneficial impact on the rate of unemployment and help to achieve full employment

Excellent start by demonstrating an understanding of a key term in the question.

Linking the specific initiative to the budget outcome helps the student to evaluate the effectiveness of the policy

Excellent reference to supply-side effects to support the demand side explanation.

Great way to start evaluation by making reference to weaknesses that are well explained in terms of their ability to limit the effectiveness of tax cuts/expansionary budget deficit. [Good reference to long run vs short run effects which is a good evaluation technique]. Although two-three weaknesses well explained would have been sufficient

A nice way to close out the question by referring to the 'net 'impact

Analysis (Sample 2 full marks)

Sample 2 will achieve full marks because the student has clearly demonstrated an understanding of the key terms in the question (i.e budgetary policy and the full employment goal) and then made a genuine and successful attempt at paying attention to the key instructional verb in the question - i.e. to evaluate. The student has made valid points that are keys to demonstrating this key skill (to evaluate) in economics. This includes the inclusion of costs and benefits (pros and cons) associated with the relevant budgetary policy initiative, in addition to discussing short run versus long run implications on the way to prioritising arguments and arriving at an opinion of the net impact of the policy. After elaborating on the strengths of the initiative, the student then goes on to discuss four possible weaknesses that limit or erode the effectiveness of the policy. The inclusion of four weaknesses is perhaps too much in the context of a 6 mark question like this, but the student has recognised the need (for 6 marks) to do more than elaborate on one weakness. In contrast, Sample 1 makes no genuine attempt at 'evaluation'. It is likely that the student misinterpreted the question and thought it was asking to elaborate on how effective a policy could be in reducing unemployment. [While a reference was made to the full employment goal, the student erred by making no attempt to demonstrate an understanding of the goal.] The response provides much detail on how lower tax rates could lead to a reduction in the rate of unemployment, which of course is part of the required response, there was the inclusion of some irrelevant material (such as reference to the CAD). However, the major error was the failure to evaluate (a key skill in the Study Design) which necessarily requires the student to demonstrate an understanding of the key knowledge point in the Study Design 'the strengths and weaknesses of using budgetary policy to achieve the Australian governments domestic macroeconomic goals...')

YOU BE THE ASSESSOR: CORRECTIONS AND ANALYSIS (U4 AOS 2)

1. Explain how a subsidy that is used to improve environmental outcomes might influence aggregate supply.

4 marks

Demonstrating an understanding of what is meant by subsidy is required

This starts to explore the demand side benefits when the supply side benefits is what should be canvassed

Demonstrating an understanding of aggregate supply should be provided somewhere in the response

Sample 1

A subsidy given to producers who commit to protecting the environment in some way will help to influence the nation's aggregate supply levels. As the environment improves, evidenced by cleaner air, less polluted rivers and oceans, more pristine roads and highways and/or less litter more generally, it will help to attract more tourists to Australia. As a consequence, net exports will increase (X minus M), which acts as a net injection into the circular flow model of the economy, resulting in more aggregate demand for goods and services (AD= C+X+I+X-M) and a corresponding increase in real GDP. As production increases in the economy, this effectively means that the supply of goods and services in total (i.e. aggregate supply) will also increase. This highlights that a subsidy that is designed to improve environmental outcomes can influence aggregate supply in a positive way.

No attempt to link the subsidy to the improved environmental outcome

While it is true that an increase in real GDP does indeed lead to an increase in aggregate supply (in equilibrium) the student has still provided a demand side explanation when a supply side explanation is essentially what is being asked for in the question

Defines a key term in the question

While the example is not required it does add to the quality of the response

Makes important reference how the subsidy might improve environmental outcomes

Sample 2

A subsidy is the provision of money or some other form of assistance to economic agents (e.g. a business) to encourage a particular form of economic activity to take place. For example, the current government's 'Direct Action' policy involves the provision of subsidies to businesses which undertake activities that help to reduce carbon emissions. Providing a subsidy to businesses which invest in cleaner technologies (e.g away from coal fired electricity and towards more renewable energies) or which invest in programs that are designed to clean up the environment (e.g. the planting of trees as part of carbon farming initiatives) will help to reallocate resources towards production methods that are less damaging to the environment. To the extent that this successfully mitigates the effects of climate change in the future, including the intensity and severity of natural disasters such as floods and cyclones, it will help to protect aggregate supply levels in the future. The willingness and ability of producers to supply goods and services will be enhanced compared to the situation that would have evolved without government intervention because the negative supply shocks to the economy will be less intense. In this respect, the overall net effect on aggregate supply should be positive given that the long-term benefits are expected to outweigh any short-term costs in the form of higher taxes (to pay for the subsidy) and the higher costs of energy more generally.

Demonstrates an understanding of aggregate supply

Highlights how aggregate supply is influenced by the effects of the subsidy in the long run and distinguishes this from the short run impact.

Analysis (Sample 2 full marks)

Sample 1 is an example where the student is likely to have misinterpreted the question. While the student has shown how an improvement in environmental outcomes can (indirectly) impact on aggregate supply, the focus is on the demand side (i.e. how better environmental outcomes can increase AD) rather than the supply side (i.e. how better environmental outcomes can directly influence the willingness and ability to supply goods and services). In addition, the response highlights that the student did not attempt to demonstrate an understanding of key terms within the question (i.e. subsidy and aggregate supply) and there was no attempt to show how the subsidy can improve environmental outcomes. In contrast, Sample 2 demonstrates an understanding of these key terms somewhere in the response and showed how the subsidy improved the environment (i.e. reduced carbon emissions). Importantly, linking the subsidy to the government's current environmental policy (i.e. Direct Action) and therefore CO2 emissions and climate change made it easier for the student to highlight the longer term supply side benefits that

might flow from this policy action. The student's willingness to distinguish the short run impact from the long run impact (which is useful in the case of AS policies) added to the overall quality of the response.

2. Describe how investment in government infrastructure might influence aggregate supply and the achievement of price stability
4 marks

Demonstrates an understanding of a key term via an example

Excellent signposting by alerting the assessor to where the response is heading and simultaneously letting then know that the student understands the relationship between infrastructure investment and price stability

Shows how infrastructure investment impacts on efficiency, costs and productive capacity

Sample 1

Investment in government infrastructure (such as improved telecommunications networts) is likely to increase aggregate supply and assist with the achievement of price stability. The government's continuing investment in the rollout of the broadband network will increase aggregate supply and expand the nation's productive capacity over time because the cost and speed of telecommunications for businesses and households will improve. Faster broadband speeds will enable businesses to cut production costs as communications with clients, staff, suppliers, etc will be more efficient and/or the speed of downloads should fall significantly. This leads to greater productivity levels over time and an increase in technical efficiency, resulting in businesses being able to produce more goods and services over any given time period (i.e. increase in agregate supply/productive capacity) and/or reduce prices without suffering a drop in profit margins. This exerts downward pressure on the rate of inflation in the economy and therefore makes it easier for the government (RBA) to achieve its goal of 2-3% growth in the CPI on average over time.

Establishes a link between investment and aggregate supply

Establishes a link to prices and inflation

Makes the important link to the goal of price stability

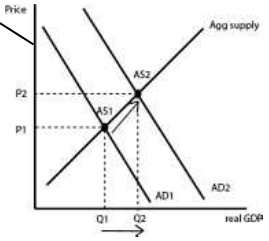
Student should attempt to demonstrate an understanding of this with an example

Going down the demand side road is the wrong approach

While introducing a diagram can be useful, the student has incorrectly labeled the y-axis (should be prices not price or general/average price leve) and focused only on the AD impact when the more important AS side impact is ianored

Sample 2

An increase in the government's willingness to invest in infrastructure will lead to an increase in the G2 component of aggregate demand (AD), which will increase the overall level of AD. This could be shown by an increase to the right of the AD curve as shown in the diagram to the right. With more AD for goods and services, producers will respond by increasing their supply of goods and services to the marketplace. As shown in the diagram, the movement from equilibrium 1 (AS1) to equilibrium 2 (AS2) highlights this increase in supply and it shows that the nation's aggregate supply has increased. As the diagram clearly shows, this increase in investment demand will lead to an increase in inflation, with prices increasing from P1 to P2 which means that price stability is less likely to be achieved in the economy.



While the movement from Q1 to Q2 does indeed reflect an increase in AS (in equilibrium) the assessors will be looking for the AS curve shifting to the right by a much more than the increase in AD (such that the outcome for prices is lower following AS policies

No attempt to demonstrate an understanding of the price stability goal

Analysis (Sample 1 full marks)

Sample 1 has an excellent structure in that the student demonstrates an understanding of the key terms in the question and signpost the response in the 1st sentence. While the student does ignore the short-term AD side impact that stems from an increase in government infrastructure spending, it is clear that it was a deliberate attempt to instead focus on the supply side benefits - which is a legitimate approach in the context of the question. The student establishes a clear link between the investment, the level of aggregate supply and the impact on the ability to achieve the goal of price stability. In contrast, Sample 2 fails to demonstrate an understanding of the key terms, and makes the mistake of including an incomplete/slightly incorrect diagram. Given that a diagram was not required in the question, the student should have avoided using one unless they were 100% sure of the axes and of the full impact of the policy. The student's choice to focus on the demand side rather than the supply side severely undermined the quality of the response and ultimately resulted in the student revealing that they did not really understand the relationship between infrastructure investment as an aggregate supply policy and the rate of inflation (or price stability).

3. Discuss how immigration can have both a positive and negative effect on labour markets. 4 marks

Demonstrating an understanding of what is meant by immigration

Demonstrating an understanding of what is meant by a labour market

Identifying a benefit of skilled immigration

While not essential, an example improves the quality of the response

Sample 1

When people come to Australia as immigrants, they can have a positive impact on the market for labour (buyers and sellers of labour services where the rate of exchange is the price of labour or the wage) in the following way. Migrants, particularly when they are skilled, will help to alleviate labour market constraints that might be evidenced by skills shortages and excessive wage pressure. With migrants offering their labour in those markets experiencing skills shortages (such as mining engineers during the recent mining boom), it helps to reduce the tightness or excess demand within these labour markets and reduces pressure on wages. The resulting lower price of labour then helps to restore equilibrium in the labour market by reducing excess supply as the demand for labour (and employment) increases and the supply of labour decreases.

However immigration can have negative effects on labour markets, particularly if the migrants are unskilled. Immigration will increase the supply of labour to many labour markets in Australia that may already be experiencing excess supply of labour (i.e. high unemployment). This adds to pressure on unemployment in some markets for relatively unskilled workers and also serves to place further downward pressures on the price of labour (or wages) for relatively unskilled workers. In this respect, immigration causes the market to move further away from it equilibrium position.

Clarification of the positive impact on labour markets

Good choice to distinguish skilled from unskilled immigration which helps to isolate the possible negative impact

Clarifying the negative effect by 1st referring to the increase in unemployment and 2nd by referring to the downward pressure on the price of labour which causes the market to move further away from equilibrium

Unnecessary: effectively rewriting the question

An accurate summation of a possible benefit in terms of employment. However, price of labour is better than unit labour costs in this context. But overall, the 2nd sentence is okay

This is going beyond the scope of the question because it refers to a (social) benefit of immigration when the student needed to stay focused on labour market outcomes (demand, supply, price and quantity) as well as equilibrium outcomes where appropriate

Sample 2

Increased immigration can have positive and negative effects on labour markets. Immigration helps to reduce unit labour costs for businesses and protects their (international competitiveness), which in turn increases the demand for labour and promote employment in labour markets. In addition, the increased immigration will have the added benefit of enriching Australia's culture, providing us with access to different foods and traditions that boost our enjoyment of life. Increased immigration can have negative effects on labour markets as it will increase the supply of labour and add to pressure on unemployment and reduce wages. Workers are more likely to experience a reduction in their standard of living and, in extreme circumstances, might be in a position where they earn a wage that is low enough to see them live in relative poverty. The demand side effects of immigration might also contribute to other economic problems, such as the housing price boom and the associated housing affordability crisis. This is because immigration immediately adds to housing demand (as migrants need shelter and some will seek to buy rather than rent properties) which further exacerbates the core of the problem – that is, demand for houses is growing faster than supply (as housing construction is a length process that is constrained constrained by factors such as zoning laws and space constraints).

Good attempt to focus on labour market outcomes with respect to the negative effects. But no attempt to refer to the impact on equilibrium, which was the case with the 1st response

Reference to living standards and relative poverty is going beyond the scope of the question.

While a reference to the housing price boom and the housing affordability crisis demonstrates an understanding of the wider costs associated with immigration it is also going beyond the scope of the question given that students should stay focused on labour market outcomes rather than outcomes for other markets

Analysis (Sample 1 full marks)

Sample 1 has an excellent structure in that the student demonstrates an understanding of the key terms in the question as well as clearly separating the response into two separate paragraphs. Sample 1 clearly articulates the potential positive and negative effects on the labour market. The student did not get sidetracked by focusing on the impact on other markets (e.g. the housing market) and demonstrate sophistication by focusing on equilibrium outcomes in the market(s). While reference to equilibrium was technically not necessary to achieve full marks, it improved the quality of the response and left the assessor in no doubt that this was a high quality candidate. In contrast, Sample 2 made the mistake of misreading the question and focusing more on a positive and negative effect that stems from immigration. A failure to remain focused on the labour market outcomes was costly.

4. Using one example, outline how the government can use the budget to encourage private sector research and development (R&D) in an effort to boost aggregate supply. 3 marks

This is not necessary for full marks it does add value by demonstrating an understanding of the Budget

Again, it is not necessary to give examples of both spending and revenue measures for a 3 mark question, but it is a relatively easy way to add value.

Importantly linking the budget initiative to productivity and then giving a relevant example.

Sample 1

The government can use both the revenue and expenses side of its budget by increasing spending on R&D grants to businesses and/or offering generous tax incentives for R&D into innovative ideas/projects that can result in new inventions or technology that accelerates productivity growth. For example, the current tax 150% R&D tax concession available to businesses results in a greater level of business expenditure going into R&D than would otherwise be the case as the effective (after tax) cost of the investment is reduced. To the extent that this works to increase rates of productivity, enabling businesses to produce more from any given level of inputs, it will help to boost the nation's aggregate supply as businesses will be more able (and willing) to increase supply of goods to markets.

Linking the initiative to the improvement in productivity (which is effectively defined) and then linking the increase productivity to an increase in aggregate supply.

Demonstrating an understanding of what is meant by aggregate Supply

Reference to only the spending side of the budget is okay. However, the student did not read the question carefully enough as a focus on private sector investment in R&D (not public sector investment) was required.

Good reference to technical efficiency and robotics to help to reduce production costs for businesses.

Sample 2

The government can decide to increase its funding allocation to the Commonwealth Science and Industrial Research Organisation (CSIRO) in order to invest more in research and development that leads to advances in technologies which ultimately leads to an increase in technical efficiency across the economy. New developments might include advanced robotics that could have widespread applications across Australian industries which will help to reduce average production costs for businesses and increase their international competitiveness. As a consequence more goods and services will be produced over time.

There is no attempt to bring the focus back to an outline of the impact on aggregate supply. 'More goods and services will be produced over time' is a vague reference to aggregate supply

Analysis (Sample 1 full marks)

Sample 1 is superior primarily because the student read the question carefully, understanding that the focus was on how the budget (spending all revenue side) could be used to incentivise private investment in R&D. In contrast, Sample 2 simply focused on government R&D investment via the government body CSIRO. Sample 1 did an excellent job of establishing the links between the government incentives, R&D investment, productivity/efficiency and aggregate Supply. In contrast, Sample 2 only went part way in establishing the full relationship, ignoring the need to finish with the impact on aggregate supply (as opposed to more goods and services being produced or real GDP).

5. Describe how the tax and welfare system could be reformed to encourage greater workforce participation and explain how this can increase aggregate supply and economic growth. 5 marks

This is too narrow focus and highlights that the student did not pay careful attention to the wording of the question. Reference to welfare or the welfare system is required.

Student needs to elaborate on how lower personal income tax rates create additional incentives to find work. However, more importantly,

This is incorrect and highlights that the student does not understand what is meant by workforce participation. People who are unemployed are already members of the labour force and are, by definition, already looking for work. Student needed to instead focus on how lower tax rates can incentivise those not in the labour force to actually enter the labour force (which increases the participation rate).

Sample 1

The government could decide to introduce across-the-board cuts to rates of personal income tax. This will provide greater incentives for those who are unemployed to seek employment which will help to increase workforce participation and boost the size of the nation's labour supply. With more workers employed this will mean that the total volume of goods and services produced in the economy will be higher and the nation's aggregate supply increases. With more goods and services produced over time, this will be reflected by an increase in nominal GDP and an increase in the nation's economic growth.

This 3rd sentence highlights a misunderstanding of what is meant by AS. The student needs to establish a link between a bigger labour supply and AS.

Reference to nominal GDP is incorrect in the context of economic growth (it should be real GDP).

The 1st sentence highlights that the student understands what is meant by tax and welfare reform, giving a contemporary and relevant example

The 2nd sentence successfully elaborates the nature of the reform

The 3rd sentence links the reform to workforce participation and clearly defines what is meant by workforce participation.

The 4th, 5th and 6th sentences link the higher workforce participation to aggregate supply in some detail.

Sample 2

The government could reform the tax and welfare system by ensuring that stay at home parents are not faced by very high effective marginal rates of tax when they re-enter the workforce and put their children into childcare. This could involve increasing the amounts that parents can earn before family welfare payments are cut, or increasing the subsidies/rebates for childcare expenses. These types of reforms will help to increase the financial returns from working and encourage an increase in the labour force participation rate (the percentage of the working age population who are members of the labour force). This will effectively increase the labour supply in the economy, providing industries with a greater pool of labour resources to use in production (and/or alleviating any labour/skills shortages) and making them more able and willing to lift output, boosting aggregate supply or productive capacity in the economy. In addition, the bigger labour supply can exert downward pressure on real wages and/or upward pressure on productivity. This is because the greater competition for jobs results in some job seekers being prepared to work for lower wages and some workers feeling under greater pressure to lift work intensity and effort for fear of losing their job to competing workers. These factors help to reduce real unit labour costs and allow many businesses to increase output and reduce prices, encouraginge growth in AD and real GDP, boosting the rate of economic growth.

The final sentence makes the necessary link back to the key macroeconomic variables: aggregate supply and economic growth. Importantly, the student has successfully demonstrated an understanding of both these terms in the response

Analysis (Sample 2 full marks)

Sample 1 has has made a number of errors, with the student demonstrating a lack of understanding of a number of key terms in the question - namely, workforce participation, aggregate supply and economic growth. In addition, the student failed to correctly interpret the question as there was no reference to welfare or the welfare system anywhere in the response. In contrast, Sample 2 not only refer to both tax and welfare, it also highlighted that the student had a sound understanding of the key terms in the question and was able to establish meaningful links between them.

6. Outline how increased government investment in education and training can increase the nation's productive capacity. 3 marks

Demonstrating an understanding of what is meant by investment in education and training

While the example given is valid, the focus could be broader

Sample 1

An increase in government investment in education and training means that the government is spending more on educational institutions and training providers, including the construction of new educational infrastructure such as buildings and classrooms. The building of these facilities will necessarily require productive resources in their construction, including builders, electricians, engineers, architects, etc. which necessarily leads to an increase in production, real GDP and productive capacity. In addition, the investment in education and training might also include further professional development for teachers or training staff as well as the introduction of new teacher training software which enhances the ability of teachers to teach students. This further helps to increase the nation's productive capacity.

While the link to real GDP is accurate, it is not that relevant in the context of the question. Tagging 'productive capacity' on the end of the sentence highlights that the student does not fully understand the meaning of the term.

This sentence is relevant and represents an attempt to explain why education and training is valuable for the economy. However, the student is unable to extend the response by accurately linking better teacher quality to the nation's productive capacity. The student needed to focus on the quality of human capital/productivity in the supply side benefits this generates (as shown in sample 2)

Demonstrating an understanding of what is meant by investment in education and training, using relevant examples of how this might occur

Establishing a relevant link between the investment in capital

Sample 2

Government investment in education and/or training might take the form of greater funding for Australian universities, which could be used to purchase new capital (e.g. more advanced technological equipment or improved physical infrastructure), invest in better training for educators (e.g. more funding for professional development) or simply facilitate the purchase of more (non-capital) educational resources. These types of investments should result in better quality physical and human capital and improve educational outcomes such that graduating students will have better knowledge and skills. This helps to further improve the quality of human capital and boost labour productivity in the economy, as more output is likely to be attained from labour hours employed. This increases the willingness and ability of Australian businesses to supply goods and services and consequently boosts the nation's productive capacity.

Establishing a relevant link between human capital and labour productivity

Making the link to productive capacity and demonstrating an understanding of the term in the process.

Analysis (Sample 1 full marks)

Sample 1 can provide a reasonable example of government investment in education and training but gets 'off track' by focusing on the immediate boost to real GDP instead of focusing on the boost to the nation's supply potential or productive capacity. The student's inability to understand what is meant by productive capacity resulted in a failure to adequately draw out the link between education and training and productive capacity. Sample 2 clearly understood the key terms in the question and wisely gave more than one example of how investment in education and training might take place (although this was not necessary to achieve full marks). In addition, when explaining how productive capacity increases in response to more investment in education/training, the student was also able to add sophistication to the response by referring to human/physical capital when explaining how higher productivity leads to a boost in productive capacity.

SUGGESTED RESPONSES: MINI EXAM NO. 1(UNIT 4 AREA OF STUDY 1)

Answer the following fifteen multiple choice questions. You must **shade** in the most correct response below:

1	A	B	C	D
2	A	B	C	D
3	A	B	C	D
4	A	B	C	D
5	A	B	C	D
6	A	B	C	D
7	A	B	C	D
8	A	B	C	D
9	A	B	C	D
10	A	B	C	D
11	A	B	C	D
12	A	B	C	D
13	A	B	C	D
14	A	B	C	D
15	A	B	C	D

1. Explain what is meant by monetary policy. (3 marks)

MP is a macroeconomic policy implemented by the RBA on behalf of the federal government. It represents action by the RBA to affect the demand, supply and cost of money (or credit) in the economy, where the cost of money is the interest rate. MP also involves RBA manipulation of the exchange rate as well 'persuasion' (or 'open mouth operations') used by the RBA to exert pressure on financial institutions. Overall, the objective of the RBA is to ensure that the wealth and living standards of Australians is maximised. This involves the RBA using monetary policy to ensure that inflation is kept within acceptable bounds, employment growth is maximised and that stability of AUD is achieved.

2. Explain how the RBA delivered a more expansionary monetary policy setting in late 2019. In your answer, make reference to the target cash rate. (4 marks)

At its monthly board meeting on the first Tuesday of December, the RBA decided to adopt a more expansionary monetary policy stance by reducing the target cash rate from 1.00% to 0.75%. It then altered the policy interest rate corridor by reducing both the RBA's borrowing rate in the cash market (the upper ceiling and the rate paid by banks when borrowing from the RBA to fund ESA deficits) from 1.25% to 1.00% and the RBA's deposit rate (the floor of the corridor and the rate received by banks when depositing cash with the RBA) from 0.75% to 0.50%. The cash market immediately adjusts because there will be no incentive for the banks to transact outside the new range, and the actual cash rate will gravitate to the new target, with a lower demand for cash from the market as banks can borrow from the RBA at the new cheaper rate of 1.00% compared to the previous 1.25%. [Every day thereafter, the RBA will be manipulating supply in the cash market to ensure that actual cash rate is as close as possible to the target.] This eventually leads to lower interest rates across the economy which helps to stimulate AD and economic growth.

3. Explain how a loosening of monetary policy is likely to affect the rate of unemployment in the short to medium term. (3 marks)

A loosening of MP involves a decrease in the target and actual cash rates, which result in all interest rates in the economy falling by approximately the same magnitude. This action is designed to increase the demand for labour and employment growth and will only be enacted if inflationary pressures are under control. It helps to achieve lower unemployment because lower borrowing costs increase the demand for credit and fuels consumption of credit sensitive items (e.g. white goods, electrical items, etc.). In addition, the cost to finance existing loans falls, which improves the cash flow of households and businesses, facilitating growth in both consumption and investment. Overall, AD is expected to increase, boosting real GDP and accelerating the demand for labour and employment. Accordingly, the unemployment rate is likely to fall.

4. Explain how an increase in a budget surplus can represent an increase in public sector saving (3 marks)

When the budget moves into surplus, it means that income (or revenue) for the government is greater than government expenditure (or expenses). This means that the public sector (i.e. the federal government in this case) must be increasing its savings which is the result for any entity when income exceeds expenditure. When the government sector saves more it means that public sector savings have increased (ceteris paribus) for that period.

5. Explain how an increase in public sector savings can lead to a corresponding reduction in private sector savings. (3 marks)

When the government increases its savings, it must have achieved this via a reduction in expenditure or an increase in (taxation) revenue. The reduction in government expenditure may induce the private sector (e.g. individuals) to spend more (i.e. save less). For example, if the govt spends less on family payments, some households will have to spend more to cover the shortfall. Similarly, the increase in taxation revenue may also induce the private sector to save less (i.e. spend more) because more of their income may be absorbed up by tax. For example, if the government increased income taxes, individuals are likely to reduce their savings in order to maintain their spending at previous levels.

6. Explain two ways in which the 2020 recession is likely to have influenced the cyclical component of the budget. (4 marks)

The 2020 recession represented two quarters of negative economic growth. It automatically had a negative impact on the federal govt's tax revenue as there was a decrease in both incomes and tax paid by companies and individuals (more of which are likely to be unemployed). In addition, rising unemployment levels automatically led to higher transfer payments (e.g. unemployment benefits). Accordingly, government revenue was reduced and government expenditure increased – pushing the budget automatically towards a (larger) deficit. This change in the budget was due to 'automatic stabilisers' within the budget or the 'cyclical' component of the budget which was a significant factor behind the large budget deficits that were recorded for 2019-20 and 2020-21.

7. Explain how a more expansionary monetary policy setting can affect Australian living standards. Distinguish the short-term from long-term impacts. (6 marks)

A more Expansionary monetary policy setting typically involves a reduction in the target cash rate which leads to a reduction in interest rates across the economy. This tends to increase Consumption and Investment (e.g. because lower borrowing costs increase the demand for loans and the cost to finance existing loans has fallen), increasing C, I and AD and exerting upward pressure on production (real GDP). This increase in production is likely to lead to increase in the demand for labour, increasing employment and incomes. Higher incomes and lower rates of unemployment will, ceteris paribus, boost material living standards in the short term. This is because lower unemployment generally means that fewer resources (labour) are being wasted and households have an increased ability to afford goods and services. In addition, to the extent that unemployment worsens non-material living standards (e.g. a low self-esteem for some unemployed works and the higher likelihood of crime), any creation of jobs can also help to improve non-material living standards. Accordingly, this policy setting is ideal to employ when the economy is experiencing below trend growth and inflationary pressures are largely absent, which has recently been the case in Australia.

However, an expansionary monetary policy setting that is employed for too long (or when the RBA is misjudged the latent inflationary pressures that exist) can cause inflation to accelerate to unacceptable levels (i.e.

greater than 3%). This can result in a longer term deterioration in living standards because high inflation works to stifle economic growth (e.g. because international competitiveness falls) and increase unemployment. This then reduces incomes and worsens material and non-material living standards.

8. If the economy were operating at close to productive capacity, outline the RBA's most likely response if the government cuts income tax and increases government spending. (4 marks)

Lower taxes and higher government spending will increase the budget deficit (or reduce a budget surplus) and represent a more expansionary budgetary policy stance. These measures will typically stimulate Aggregate Demand and Economic Growth and, given the state of the economy, will most likely trigger demand inflationary pressures. In response, the RBA is likely to 'pre-emptively' tighten MP to control the inflationary pressures that are expected to emerge. This is particularly the case if the rate inflation was sitting close to (or above) the top end of the target range (i.e. 3%). This is because the RBA always looks ahead when deliberating on changes to monetary policy settings and will typically focus on price stability first as a means of achieving macroeconomic stability.

9. Discuss the impact that a series of budget surpluses might have on economic growth and full employment. (4 marks)

A budget surplus means that the government becomes a net saver/lender for that year (rather than a borrower) and this leads to a greater supply of funds in financial markets. This should then – ceteris paribus – lead to a reduction in interest rates, which causes in increase in both consumption and investment (sometimes referred to as 'crowding in') and a corresponding increase in AD/GDP/EG and a consequent reduction in the UE rate. In addition, some would argue that reduced deficits (or increased surpluses) can be evidence of the government interfering less in the operation of the free market (e.g. less subsidies, less expenditure on regulation, etc) which encourages an increase in private sector investment. In addition, surpluses can improve a country's credit rating, reducing borrowing costs which then helps to fuel growth in Investment and AD.

However, surpluses themselves are typically considered to be contractionary in their nature because it means that the government is taking away more from the economy (ie leakages) in the form of taxes, etc than it is putting in (ie injections). That is, without the existence of the government, the economy would be more buoyant. Accordingly, the surplus results in a reduction in AD/GDP/EG and a rise in the UE rate.

In the short term, budget surpluses are typically contractionary in nature, but in the longer term, via their effects on interest rates/debt etc, they can become more expansionary.

10. Distinguish between a structural budget outcome and a cyclical budget outcome. (4 marks)

A structural budget outcome refers to that outcome e.g. surplus/deficit) that is a result of deliberate changes to budget figures by the government. A cyclical budget outcome, on the other hand, does not involve any manipulation by the government at all. The outcome will change automatically (re 'automatic stabilisers') in response to changes in economic activity. In any given year, the budget outcome will change because of a combination of cyclical reasons (i.e. the movement in the economy changes the outcome) and structural reasons (i.e. deliberate policy decisions by the government) For example, during the economic downturn experienced in Australia over 2008-9, the budget automatically moved towards a deficit because there was more government expenditure for welfare payments and government taxation revenue fell. However, the budget deficit further increased because the government attempted to stimulate the economy via further tax cuts and increases in government spending.

11 (a) Describe the movement in the target cash rate since the middle of 2019. (2 marks)

The target cash rate has fallen since the middle of 2019, from 1.5% to 0.1% in March 2022.

(b) Provide a valid explanation for the change in the monetary policy stance since 2019. (4 marks)

Since 2019, the monetary policy stance became more expansionary as the target cash rate was reduced from 1.5% in 2019 to 0.1% by late 2020. This occurred initially because inflationary pressures were under control and, with the underlying rate of inflation mostly below the target range of 2-3%, the RBA was able to switch its focus to economic and employment growth, both of which were at levels considered too low. The stance became increasingly expansionary towards the end of 2019 and the beginning of 2020 because of the negative economic effects of bushfires, which reduced economic activity and AD, and exerted upward pressure on unemployment. But more importantly, the stance became very expansionary following the negative economic effects stemming from Covid-19. This was characterised by a huge decrease in economic activity (and ensuing recession) as many businesses were forced to close or reduce activity (particularly in service industries) and demand for most goods and services fell significantly as a consequence of quarantining and social distancing. The expansionary monetary policy settings [both conventional and unconventional] was designed to support government efforts to prevent economic growth falling too much and unemployment climbing to unprecedented levels.

(c) Explain why a return to 'fiscal consolidation' can result in a more expansionary monetary policy setting (3 marks)

Fiscal consolidation involves the federal government tightening budgetary policy via a reduction in the deficit and eventual return to surplus, which is consistent with the current government's medium-term fiscal strategy to achieve budget surplus on average over the cycle. This helps to contain inflationary pressures and therefore allows the RBA to maintain its expansionary monetary policy stance (where the target cash rate sits at a low enough level to be exerting a stimulatory effect on the economy). The commitment to fiscal consolidation over recent years, despite higher cyclical budget deficits, has facilitated a more expansionary stance than would otherwise have occurred.

(d) Describe how the lower exchange rate since early 2021 is likely to influence monetary policy deliberations. (3 marks)

The lower value of the AUD since early 2021, from USD0.80 to USD0.750 in the first part of 2022, is one factor that provides an automatic stimulus to the economy (boosting the competitiveness of Australia's tradables sector). In isolation, this is likely to cause the RBA to resist a further loosening of monetary policy given that the depreciation is providing automatic stimulus to net exports and AD. In fact, in the current setting, the depreciation provides added stimulus to an already strong rate of economic recovery during 2022 and potentially increase the chances of the RBA tightening policy.

SUGGESTED RESPONSES: MINI EXAM NO. 2 (UNIT 4 AREA OF STUDY 2)

1	A	B	C	D
2	A	B	C	D
3	A	B	C	D
4	A	B	C	D
5	A	B	C	D
6	A	B	C	D
7	A	B	C	D
8	A	B	C	D
9	A	B	C	D
10	A	B	C	D
11	A	B	C	D
12	A	B	C	D
13	A	B	C	D
14	A	B	C	D
15	A	B	C	D

Q1 (a) Define 'productivity growth' and 'living standards.'

Productivity growth refers to an increase in the 'efficiency' in which goods and services are being produced and occurs when total outputs increase at a faster rate than total inputs. Productivity can 'grow' because labour has become more productive (labour productivity) and/or because capital has become more productive (capital productivity). Living standards refer to the total welfare of people living in a region or country. It is made up of both material factors (i.e. material living standards) such as access to goods and services, as well as non-material factors (i.e. non-material factors) such as the air quality, stress levels, exposure to crime, etc.

b) Describe how recent tax cuts in Australia can increase productivity

The reduction in the personal tax burden announced in the recent 2016-17 Budget can increase the incentives for Australian business owners and entrepreneurs to increase their intensity of effort in their enterprises as well as invest more in capital. Greater work intensity should increase innovation as lower taxes work to incentivise business owners to improve their operations. In addition, greater investment in capital should improve the output from any given capital input, thereby increasing capital productivity.

c) Explain how higher productivity may improve living standards

Higher productivity means that any output level is achieved with fewer resources or that existing resources are producing more output. Accordingly, industries will find that they can either offload excess resources (e.g. labour) or produce more output at lower average costs of production. Either way, this improves technical efficiency and, at an aggregate level, means that there is likely to be downward pressure on prices, an improvement in competitiveness and an increase in AD and real GDP. This leads to an increase in material living standards, as higher incomes are earned and there is greater access to goods and services.

d) Explain how government investment in education and training can increase productivity and assist with the achievement of full employment.

Investment in education and training, including the building of new educational infrastructure or the provision of professional development for schools, will help to increase the value of human capital (i.e. improve the skills base of the population) and result in an improvement in productivity over time. This is because members of the labour force/entrepreneurs will be able to make better contributions to productive effort through smarter work practices, better ideas, more innovation and so on. While a higher quality labour force will be more attractive to employers in itself, increasing the demand for labour, this will be enhanced by the benefits that higher productivity brings in terms of increased international competitiveness and the related boost to economic growth. With greater demand for labour and employment it is likely that the unemployment rate will fall closer to the government's full employment goal of approximately 5% unemployment or more specifically the lowest rate of unemployment before inflation becomes a problem (or NAIRU/Natural rate of unemployment).

e) Distinguish the terms 'productivity' and 'productive capacity'.

Productivity relates to the efficiency of use of our factors of production (e.g. labour and capital) when producing goods and services. Specifically, productivity refers to the volume of output (such as real GDP) that is produced from a given number of inputs (such as labour hours employed). Productive capacity is the maximum amount of output that can be produced in an economy when all available inputs (orresources) are fully and efficiently employed. It is equivalent to the boundary of an economy's production possibility frontier or the vertical section of an eco nomy's Aggregate Supply curve. A key difference between the terms is that productivity is a ratio of variables (output/inputs) that attempts to describe the performance (or efficiency) of a nation's factors of production, whereas productive capacity is simply the value of one of those variables (i.e. output) when all resources are fully employed. Importantly, an increase in productivity will increase productive capacity but an increase in productive capacity will not necessarily reflect (or lead to) an increase in productivity.

f**) Referring to a weakness of aggregate supply policies, explain how the operation of aggregate supply policies might make it more difficult to achieve another economic goal of the federal government.**

Reductions in subsidies over a number of years that are designed to expose domestic firms to more competitive pressures (from abroad) can conflict with the goal of full employment in the short-term because of one major weakness of AS policies – the impact lag or the time it takes for the policy to have its full effects on the economy. As subsidies fall there will be increased competition from imports, which causes a greater drive for efficiency by local producers in order to compete. In the short term, this often results in redundancies or lay-offs in some industries, thereby increasing the rate of unemployment and conflicting with the government's full employment goal (as defined in the previous answer). However, in the longer term, the effect will tend to be counterbalanced by jobs growth in an economy that is more efficient and productive, with lower costs of production, and lower prices that creates greater AD, real GDP and employment growth.

Question 2

a) Describe the trend in the numbers of permanent migrants entering Australia since 2016-17.

There was an decreasing trend in migration over this period, with migration numbers decreasing from approximately 180,000 in 2016-17 to approximately 140,000 in 2019-20.

b) Explain one likely reason why the government changed the skilled migration numbers between 2009-10 and 2012-13.

It is likely that the government increased the numbers of skilled migrants allowed to enter into Australia because capacity constraints were beginning to emerge in the economy, evidenced by an increasing number of skilled vacancies or skills shortages in certain occupations (in particular those required in the mining industry). This was having a negative impact on productivity in certain sectors, constraining growth in Aggregate Supply, limiting economic growth and negatively impacting on material living standards.

c) Outline how an increase in skilled migration can contribute to the stronger rates of economic growth.

When Australia is experiencing capacity constraints caused by skills shortages in a range of industries (such as mining), these shortages constrain growth in output, increase wage pressures and contribute to inflation. These factors stifle growth in the economy. By allowing skilled migrants to enter Australia and fill the urgent vacancies, it allows for greater output as firms can acquire the necessary labour and it helps to both restrain the growth in wages and boost rates of labour productivity. These factors will help to reduce prices and inflation, which stimulates Consumption, Investment and Net Exports, boosting real GDP and lifting the rate of economic growth.

d) Explain how immigration may have influenced real wages in Australia over recent years.

Australian workers whose skills were in short supply are likely to find that their wages will be relatively lower than what they would have been in the absence of skilled immigration. This is because greater (skilled) immigration increases the supply of labour in labour markets and, ceteris paribus, this reduces labour shortages and exerts downward pressure on the price of labour (i.e. the wage). With (skilled) workers in greater supply, employers are under less pressure to raise nominal wages in line with (or above) inflation. Accordingly, wages growth is lower than otherwise, and it failed to keep pace with inflation, resulting in lower real wages over recent years.

Question 3

a) Define Aggregate Supply policies.

Aggregate supply policies are government policy initiatives designed to reduce the costs of production and/or improve supply conditions for businesses, such that productive capacity of the economy increases as businesses become more able and willing to produce goods and services. This includes measures that directly reduce business costs, such as a reduction in business taxes, or measures that are designed to improve the productivity or efficiency of businesses, such as government incentives to boost the quality of labour or reduce labour costs.

b) Explain how investment in public infrastructure can reduce inflationary pressure and promote employment in the longer term.

Investment in public infrastructure, such as better road and rail networks or new ports, will help to increase productive efficiency across the economy as businesses will be able transport goods in a shorter time frame and at relatively lower costs (e.g. from factories to ports for export). These lower costs can then be passed onto buyers in the form of lower prices, thereby helping to contain the rate of inflation in the economy.

This greater investment will also immediately increase the demand for labour as the infrastructure projects require a combination of labour and capital, thereby helping to stimulate employment growth in the shorter term. In the longer term, however, the containment of prices (or lower inflation rates) will also increase the international competitiveness of Australia's tradables sector and stimulate net exports over time (including by making import-competing products more competitive). In addition, both Consumption and Investment will be stimulated by lower inflation rates. These factors will contribute to stronger rates of economic growth, an increase in the demand for labour and, consequently, stronger employment growth.

c) Discuss two factors that can limit the effectiveness of AS policies

Some AS policies can be politically unpopular to introduce and therefore delay or prevent the government from implementing a full range of reforms. This is particularly the case for those policy initiatives that involve reforms removing comforts previously enjoyed by interest groups, such as the removal of subsidies in the manufacturing sector and the negative impact on both manufacturers and workers (unions). Implementation lags can be quite long in light of the fact that various interest groups must be dealt with and the legislative procedure to introduce the reforms can be drawn out. This extends the time between the announcement of the policy and its full impact or benefit being experienced in the economy.

d) Define a subsidy and describe how a subsidy can be used to improve environmental outcomes and protect the nation's productive capacity in the long term.

A subsidy is the provision of money or some other form of assistance to economic agents (e.g. a business) to encourage a particular form of economic activity to take place. Providing a subsidy to businesses who invest in clean technologies (or who invest in programs that are designed to clean up the environment, such as the planting of trees) will help to encourage a greater level of economic activity in those pursuits that result in a cleaner environment. For example, the current government's 'Direct Action' policy involves the provision of subsidies to businesses who undertake pollution abatement activity. This reduces C02 emissions, helps to produce a cleaner environment and minimises the negative effects of unmitigated climate change – including longer droughts and more intense natural disasters – into the future. This helps the nation to produce more goods and services than would otherwise be the case, protecting productive capacity and more goods and services in the long run) and non-material terms (e.g. a cleaner environment).

ANSWERS TO MULTIPLE CHOICE QUESTIONS – PART A (AREA OF STUDY 1

1	A	B	C	D
2	A	B	C	D
3	A	B	C	D
4	A	B	C	D
5	A	B	C	D
6	A	B	C	D
7	A	B	C	D
8	A	B	C	D
9	A	B	C	D
10	A	B	C	D
11	A	B	C	D
12	A	B	C	D
13	A	B	C	D
14	A	B	C	D
15	A	B	C	D
16	A	B	C	D
17	A	B	C	D
18	A	B	C	D
19	A	B	C	D
20	A	B	C	D
21	A	B	C	D
22	A	B	C	D
23	A	B	C	D
24	A	B	C	D
25	A	B	C	D

26	A	B	C	D
27	A	B	C	D
28	A	B	C	D
29	A	B	C	D
30	A	B	C	D
31	A	B	C	D
32	A	B	C	D
33	A	B	C	D
34	A	B	C	D
35	A	B	C	D
36	A	B	C	D
37	A	B	C	D
38	A	B	C	D
39	A	B	C	D
40	A	B	C	D
41	A	B	C	D
42	A	B	C	D
43	A	B	C	D
44	A	B	C	D
45	A	B	C	D
46	A	B	C	D
47	A	B	C	D
48	A	B	C	D
49	A	B	C	D
50	A	B	C	D

ANSWERS MULTIPLE CHOICE QUESTIONS – PART B (AREA OF STUDY 2

1	A	B	C	D
2	A	B	C	D
3	A	B	C	D
4	A	B	C	D
5	A	B	C	D
6	A	B	C	D
7	A	B	C	D
8	A	B	C	D
9	A	B	C	D
10	A	B	C	D
11	A	B	C	D
12	A	B	C	D
13	A	B	C	D
14	A	B	C	D
15	A	B	C	D
16	A	B	C	D
17	A	B	C	D
18	A	B	C	D
19	A	B	C	D
20	A	B	C	D
21	A	B	C	D
22	A	B	C	D
23	A	B	C	D
24	A	B	C	D
25	A	B	C	D

26	A	B	C	D
27	A	B	C	D
28	A	B	C	D
29	A	B	C	D
30	A	B	C	D
31	A	B	C	D
32	A	B	C	D
33	A	B	C	D
34	A	B	C	D
35	A	B	C	D
36	A	B	C	D
37	A	B	C	D
38	A	B	C	D
39	A	B	C	D
40	A	B	C	D
41	A	B	C	D
42	A	B	C	D
43	A	B	C	D
44	A	B	C	D
45	A	B	C	D
46	A	B	C	D
47	A	B	C	D
48	A	B	C	D
49	A	B	C	D
50	A	B	C	D

INDEX

COMMERCE PRESENTATIONS AND PUBLICATIONS
206/1 Queens Rd
Melbourne Vic 3001
TEL: (03) 9866 2289
Fax: (03) 9005 2717
Email: cpap@commpap.com
ISBN: 978-1-921813-55-9
ABN: 19 619 387 012

Commerce Presentations & Publications

VCE PROGRAMS

Exam Preparation Lectures

Legal Studies
Megan Blake

Economics
Romeo Salla

Accounting
Adrian Peacock

Business Mgt
Matt Richardson

The lecture programs run for three and a half hours and are presented exclusively by experienced teachers who have years of experience assessing final examinations. The programs are designed to show students how to apply their knowledge of the course in the examination in a way that enhances examination performance and impresses the examiners. Each program will include:

- strategies to interpret questions accurately
- strategies to structure responses in a concise and efficient way
- analysis of sample responses
- emphasis on the common errors to avoid
- tips and tricks to employ to increase efficiency and time management
- strategies to unpack the most difficult parts of the course
- strategies to incorporate relevant and contemporary information into responses.

All participants are provided with notes to complete during the program and there will be opportunities to quiz our experienced examination assessors at the conclusion of the program.

Book online at www.commpap.com

ECONOMICSTUTOR

Home | About Us | How To Use the site | Course Notes | Test Yourself | Miscellaneous

The website supporting students of Economics

Economicstutor.com.au has been created by Romeo Salla, an Australian economics educator and former federal treasury economist. It offers support to students of economics, particularly those undertaking a secondary economics course in Australia.

How can **www.economicstutor.com.au** help students?

Economicstutor.com.au is primarily designed to provide students with a series of **challenging activities/tests** that will take the form of **interactive multiple choice question sets** of 10 (complete with explanations) and **short answer questions** requiring students to 'fill the gaps' to reveal model answers for a typical test/exam questions. Crosswords, video links and other interactive activities feature throughout the site and **compact course notes** are included to support texts and other teacher resources. In addition, the **'Contemporary activities'** section of the site includes new and contemporary exercises and/or tasks that are designed to both challenge students and keep them 'up to date'. The completion of the exercises and activities contained will help to enhance student performance in assessment tasks and examinations.

Testimonials

'We use economicstutor as both a place where our students can consolidate their learning as well as provide them with extension tasks to develop a greater understanding of individual topics. The range of tasks as well and the interactive nature of the site provide students with an opportunity to engage with the course outside of the classroom. We have found the site to be of great assistance in the development of their knowledge and understanding.'

Chris Williams (Fintona Girls' School)

'We have subscribed to this site for a number of years and it has provided the Economics teachers and students at Geelong Grammar with lots of excellent exercises and activities to help them apply their knowledge of the VCE Economics course. The new look site in 2020 makes it even easier to navigate through parts of the course, and the depth and breadth of the exercises, including the insightful explanations, is proving to be a real support. The ability to project the interactive multi choice and short answer questions also provides teachers with the flexibility to change gears and offer fun and challenging class activities. It comes highly recommended.'

Lou Spanos (Geelong Grammar School)