THE CPAP STUDY GUIDE TO VCE ECONOMICS

PART 2 (Unit 4)

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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, monetary and aggregate supply policies.

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

In this area of study students examine how the RBA and the Australian Government can utilise monetary and budgetary policy respectively to affect the level of aggregate demand in the economy. Students discuss the operation of aggregate demand policies, and analyse how current aggregate demand policy settings are intended to effect the achievement of the domestic macroeconomic goals and influence living standards. Students analyse the relative strengths and weaknesses of the policies in influencing the domestic macroeconomic goals and living standards.

Outcome 1

On completion of this unit the student should be able to discuss the operation of aggregate demand policies and analyse their intended effects on the achievement of the domestic macroeconomic goals and living standards.

Key knowledge

- the need for aggregate demand policies, including monetary policy and budgetary policy in terms of stabilising the business cycle.

Budgetary policy

- sources of government revenue, including direct and indirect taxation; progressive, regressive and proportional taxes; and 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 underlying cash balance (budget outcome), including as a proportion of Gross Domestic Product (GDP)
- methods of financing a deficit or utilising 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 the budgetary policy stance and budgetary initiatives over the past two years and their likely effect on the achievement of the domestic macroeconomic goals and living standards
- the strengths and weaknesses of using budgetary policy to affect aggregate demand and influence the achievement of the domestic macroeconomic goals and living standards

Monetary policy

- the role of the RBA with respect to monetary policy as outlined in its charter
- conventional monetary policy (cash rate target) and how it affects interest rates
- one example of the operation of an unconventional monetary policy tool from the past two years
- transmission mechanism of monetary policy and its effect on the level of aggregate demand, including the four channels of savings and investment, cash-flow, exchange rate, and asset prices and wealth
- the stance of monetary policy: expansionary (accommodative), contractionary (restrictive) or neutral
- the stance of monetary policy over the past two years and its likely effect on the achievement of the domestic macroeconomic goals and living standards
- the strengths and weaknesses of using monetary policy to affect aggregate demand and influence the achievement of the domestic macroeconomic goals and living standards

Key skills

- define key economic concepts and terms and use them appropriately
- gather, synthesise and use economic data and information from a wide range of sources to analyse economic issues and form conclusions
- discuss the operation of aggregate demand policies
- analyse the effect of current factors on the setting of aggregate demand policies and living standards
- predict the impact of changes in aggregate demand policies on the achievement of the domestic macroeconomic goals and living standards
- analyse the strengths and weaknesses of aggregate demand policies in achieving the domestic macroeconomic goals and living standards

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. For example, the current Government has brought forward the 2025-26 Budget to late March 2025 so as not to conflict with the upcoming federal election. In this respect, it is referred to as the pre-election Budget. It also delivered a second 2022-23 Budget in early October 2022 after being elected into power in May of that year.

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.

Achieving these economic goals will help 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.

The budget outcome: balanced, deficit or surplus

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)

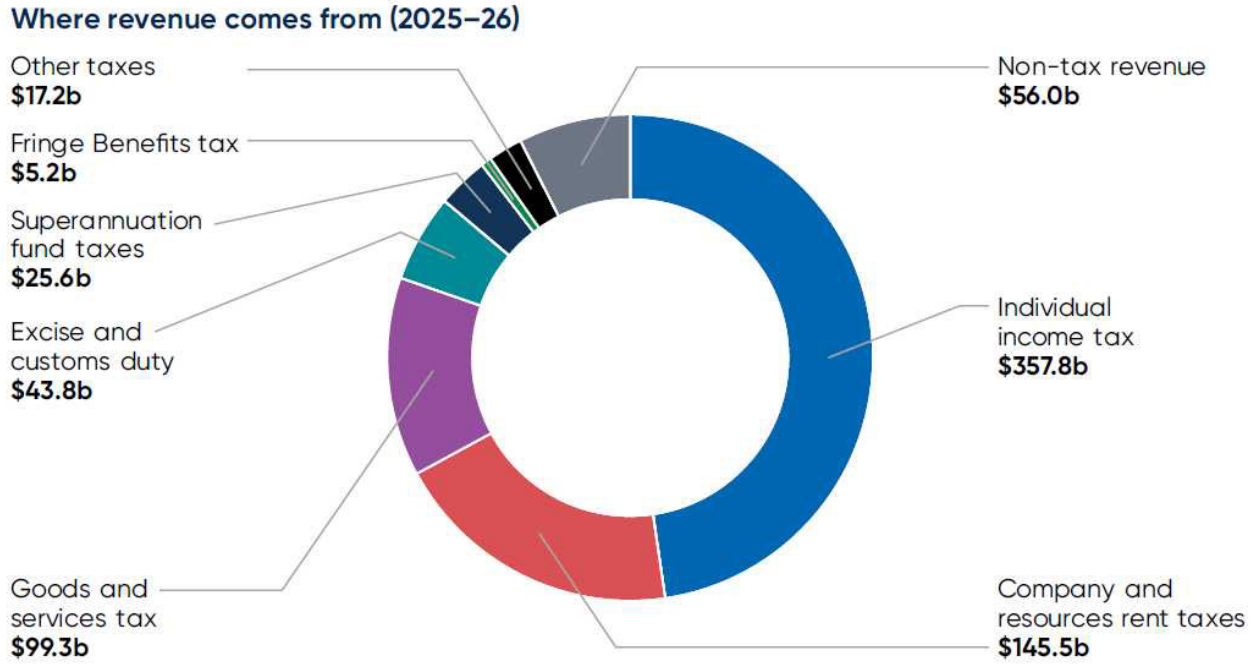
Alternatively, if the government raised $310B from taxes, and only spent $300B on government services, then it would result in a 'budget surplus'.

budget surplus

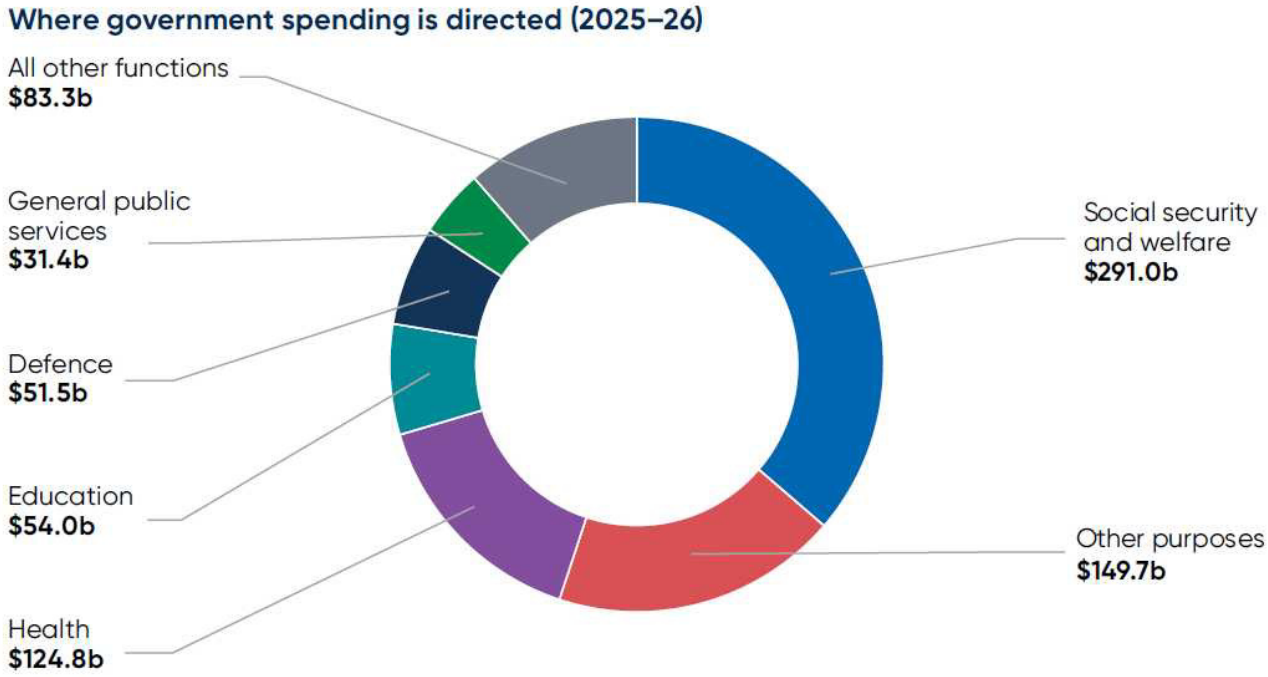
Receipts (revenue) > outlays (expenses)

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

The most recent budget documents from the March 2025 Budget reveal that for the fiscal year 2025-26, the federal government expects to collect the vast majority of its revenue/receipts in the form of taxation. The three major sources of taxation revenue are individuals income tax ($358B), company tax ($145B) and GST $99B. In addition, total excise (on goods like fuel, tobacco and alcohol amount to approximately $44B. Non-taxation revenue of $56B includes dividends from the RBA, earnings from the Future Fund as well as the sale of goods and services.



In relation to the estimated payments or expenditure for 2025-26, the chart below highlights that the major 'identifiable' expenses category is the $291B to be spent on Social Security/Welfare. This spending is designed to provide support for the aged, families with children, those with disabilities, veterans, carers and unemployed persons. Approximately, $125B is expected to be spent on health, including Medicare Benefits Schedule (MBS) and Pharmaceutical Benefits Scheme (PBS) payments. The next major identifiable expenses item is the $54B 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 ($150B) also includes the payment of interest on government debt, as well as spending for natural disaster relief.



Direct and indirect taxation

As the revenue pie chart above shows, most of Australia's taxes are levied against the income earned by companies and individuals – i.e. income taxes. These taxes make up the majority of total tax revenue and they are examples of **direct taxes** in the sense that the income earner pays the tax directly to the government once the income is earned. In contrast, **indirect taxes** are those levied on the production or sale of goods and services and not directly against the income earned by taxpayers. The goods and services tax (GST) is the most obvious example of an indirect tax and requires businesses to collect 10% of the sale price of most goods and services, which is then remitted (sent) to the Australian Taxation Office (ATO). Other common examples of indirect taxes in Australia include excise taxes on fuel, alcohol, and tobacco.

Exam Tip: In the examination, you may be asked to distinguish between direct and indirect taxes. Best practice would be to demonstrate an understanding of each type of tax before going on to establish a clear point of difference between the two types of taxes. For example, direct taxes cannot be shifted onto another party, unlike indirect taxes which are passed on to consumers via higher prices.

Progressive, regressive and proportional taxes

The taxes highlighted in the pie chart will either be progressive, proportional or regressive in nature. A **progressive tax** is one in which higher income earners pay a higher percentage rate of tax compared to lower income earners. This means that a higher proportion of their income is taxed compared to lower income earners. It is designed so that higher income earners are taxed more heavily (or proportionally more) than low income earners, so that the overwhelming tax burden falls upon those with a greater capacity to pay.

In Australia's case, the lowest income earners (e.g. those earning less than $18,200) will pay no tax at all – or a marginal rate of zero - while high income earners (e.g. those earning more than $190,000) will pay a marginal rate of 45%. This type of tax system works effectively to redistribute incomes from high to low income earners and ensures that the burden of paying for the government's spending programs falls primarily on higher income earners.

Table 1: Australian individual tax rates 2024-25

Taxable income	Tax on this income
0 - $18,200	Nil
$18,201 - $45,000	16 cents for each $1 over $18,200
$45,001 - $135,000	$4,288 plus 30.0 cents for each $1 over $45,000
$135,001 - $190,000	$31,288 plus 37 cents for each $1 over $135,000
$190,001 and over	$51,638 plus 45 cents for each $1 over $190,000

The above rates do not include the Medicare levy of 2% Source: www.ato.gov.au

The progressive nature of Australia's personal income tax system is shown in the table above, where the marginal rate of tax increases as incomes rise. For example, a low income earner on $20,000 per year pays a marginal rate of 16 cents in the dollar (or 16%) for every dollar of income earned above $18,200 (excluding the Medicare levy) which results in a tax bill of $288. In contrast, a person earning $250,000 per year will pay a much higher total of $78,638 in tax. This is determined as follows:

Income	Tax rate	Tax payable
$ 18,200	0%	
$ 26,800	16%	$ 4,288
$ 90,000	30%	$ 27,000
$ 55,000	37%	$ 20,350
$ 60,000	45%	$ 27,000
$ 250,000		**$ 78,638**
Ave tax rate	**31%**	

Overall, the progressive nature of the system ensures that the lower income earner receiving $20,000 per year faces a very low tax burden, paying an average tax rate of only 1.4%, in comparison to the higher income earner receiving $250,000 per year whose average tax rate is 31%. In the most recent 2025-26, the Government announced additional reductions in personal tax rates that will result in a marginal increase in the progressivity of the system. The 16% tax rate will be reduced to 15% in 2026-27 and to 14% in 2027-28.

Proportional taxes on income are those where the 'rate of tax' stays the same regardless of how much income is earned, resulting in income earners paying the same proportion of their income in tax. For example, if all Australian individual income earners paid a flat rate of 25% tax (or 25 cents for every dollar earned), then all individual taxpayers would be paying the same 'proportion' of their income in tax. In the example used above, it would mean that the lower income earner would pay $5,000 in tax ($20,000 X .25) and the higher income earner would pay $50,000 ($200,000 X .25). While the higher income earner pays much more tax ($50,000 compared to $5,000), the proportion of one's income paid in tax is identical. The company tax rate, at least for large companies, is an example of a proportional tax, as all large companies (those earning more than $50 million per year) are required to pay a flat rate of 30% of their income (profit) in tax. In contrast, smaller corporations are required to pay a proportional tax of 25%.

Regressive taxes are those where the proportion of income paid in tax, increases as income falls (or the proportion paid in tax decreases as income rises). Most indirect taxes are regressive in nature given that the taxed portion of a good or service will represent a higher proportion of a lower income earner's income, compared to higher income earners. Indirect taxes (excise) on alcohol, tobacco and fuel are regressive because they impose a greater burden on lower income earners (i.e. the taxes have a proportionally greater negative impact on lower income earners). For example, the excise on fuel is 44 cents per litre, which equates to $50 in tax when spending $114 on a tank of fuel. A welfare recipient earning $250 per week will be paying 20% of their weekly income in tax, while someone earning $2,500 per week is only required to pay 2% in tax. This tax is regressive because it imposes a relatively larger tax burden on lower income earners compared to higher income earners. The most common example of an indirect tax is the GST, and the exemption of most basic goods from GST (e.g. bread, milk, education, and health) is designed to reduce its regressive effects.

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'. However, 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, particularly in relation to fiscal drag/bracket creep and the changes to the tax system in 2024 (i.e. the Stage 3 tax cut cuts). Always remember that a progressive tax system 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 that is paid to the govt' (note that this definition could also describe a proportional tax system, where the same rate of tax applies to all income earners).

The sale of government assets

Sale of federal government assets refers to the government disposing of, or selling to the private sector, Government Business Enterprises (GBEs) such as Australia Post, Snowy Hydro Limited and the National Broadband Company (NBC). The sale of a GBE involves the government listing the enterprise on the sharemarket and then selling off the shares to the general public. The most recent high-profile sale of a GBE was the full sale of Medibank (which was completed in 2014). This form of non-tax revenue is distinct from the revenue the government earns from the sale of goods and services, e.g. merchandise sales from the ABC or the Australian Mint. Importantly, the revenue gained from the sale of government assets is a key source of revenue that is excluded from budget revenue when calculating the underlying cash outcome. This is explained in the next section.

The underlying cash balance (budget outcome),

The latest budget figures appear in Table 2 below:

Table 2: Estimated Budget Figures

	2024–25	2025–26	2026–27	2027–28	2028–29	Total[(a)]
	$b	$b	$b	$b	$b	$b
Cash estimates						
Underlying cash balance	**-27.6**	**-42.1**	**-35.7**	**-37.2**	**-36.9**	**-179.5**
Per cent of GDP	-1.0	-1.5	-1.2	-1.2	-1.1	
Receipts	**703.9**	**735.4**	**766.0**	**797.4**	**840.8**	**3,843.5**
Per cent of GDP	25.3	25.5	25.6	25.3	25.3	
Payments	**731.5**	**777.5**	**801.7**	**834.6**	**877.7**	**4,023.0**
Per cent of GDP	26.2	27.0	26.8	26.5	26.4	
Memorandum:						
Headline cash balance	-46.7	-65.2	-58.5	-57.2	-55.9	-283.4

The table shows the receipts and payments in underlying cash terms, with receipts for 2025-26 expected to be $735.5B, compared to payments of $777.5B. Once the underlying payments are subtracted from the underlying receipts, we arrive at an underlying cash deficit of $42.1B (-1.5% of GDP).

The underlying cash balance is the most common budget outcome referred to by the government and the press. It is derived from the original cash receipts and payments of the government, but adjusted to remove the effects of *'net cash flows from investments in financial assets for policy purposes'*. This is a rather technical way of saying that the underlying outcome removes the effects of transactions that are either one-off or do not affect the budget balance in net terms over time. For example, the provision of student loans that will be repaid in the future will have a net zero impact (excluding interest) on the budget position over time. Accordingly, the provision of $4.9B of student loans over 2025-26 leads to the original or headline budget deficit to increase because it is an example of government payment. But given that these loans will eventually be repaid in the future, reversing this impact and reducing future deficits, both the payments and receipts related to the loans are excluded from underlying figures. This ensures that the underlying budget outcome provides more meaningful information about the state of the government's finances. The same logic applies to the sale or purchase (Investment) of Government assets such as the

NBN Company or the CEFC (Clean Energy Finance Corporation). For example, investment in the NBN Co would increase the headline deficit relative to underlying deficit in any given year because the payment/investment would add to government payments for that year. However, this would be reversed in the event that the NBN Co is sold in the future – i.e. the future headline deficit would be lower than the underlying deficit. This is because the future proceeds from the sale of the NBN would add to government receipts, reducing the headline deficit, but not influence the underlying deficit. Over time, the underlying balance will therefore be relatively stable compared to the headline balance and it better captures the core or underlying changes in the budget position over time.

In total, net cash flows from investment in financial assets for policy purposes for 2025-26 amounted to -$23.1B. This effectively means that the government expects to make net asset purchases of $23.1B over 2025-26. Once these are subtracted from the headline deficit of $65.2B, we arrive at a figure for the underlying cash deficit of $42.1B. This is summarised below (note that subtracting a negative number is equivalent to adding the corresponding positive number e.g. -65,198 + 23,076 = -42,122):

Reconciliation of underlying and headline cash deficits estimates 2025-26	**$M**
Headline Cash outcome	-65,198
less Net cash flows from investment in financial assets for policy purposes	-23,076
Underlying cash outcome	-42,122

Exam Tip: The current 2023-2027 Study Design only makes specific reference to the underlying cash balance, which might imply that students are not required to demonstrate an understanding of the headline outcome. However, given that the underlying outcome is derived from the headline outcome, it is wise to spend some time knowing the difference between the two terms.

Extension: Other budget balances

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. 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 net 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.

Types of government expenses, including government current and capital expenditure and transfer payments

The pie chart provided earlier 'Where government spending is directed 2025-26' detailed the major expenditure (or expense) categories for the federal government. However, of the estimated $785.7B in expenditure, there is no detail provided on the nature of expenditure taking place within each category. For example, of the $291B to be spent on social security and welfare over the course of 2025-26, there is no indication of how much (or what proportion) of this money will be spent on physical assets (such as computer and equipment) compared to the proportion spent on consumables (such as the day to day running expenses of the relevant government department, such as wages and energy costs, etc.), or the proportion spent on **transfer payments** (e.g. income support payments pensioners or the unemployed). The money spent on physical assets that 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 expenditure** 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 at the time decided to focus on the 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 focused on a type of budget outcome (referred to as the **'operating budget outcome'**) that excludes capital expenditure from its calculations. This means that an '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 enables any government 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 focus 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 is 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 former 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)*

Exam Tip: MC Q3 on the 2023 exam required students to determine which of four options would be classified as government current expenditure (G1). Many students incorrectly believed that unemployment benefits would be classified as G1, not appreciating that the payment of salaries to the police force by a state government was the correct answer. This highlights the ongoing problems students have distinguishing expenditure that relates to G1 from G2 and understanding that transfer payments (e.g. unemployment benefits) do not form part of G1 or G2.

Extension: 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

Exam Tip: Students are not expected to demonstrate an understanding of the 'operating budget outcome'. It's inclusion above serves to highlight the importance of and distinction between current expenditure and capital expenditure.

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

When the budget is released, it is simply reported as an estimated underlying outcome for the next financial year (and 'forward estimates' for three years after that). For example, the 2025-26 Budget delivered in March 2025 reported an estimated underlying budget deficit of $42.1B (1.5% of GDP) for the financial year 2025-26. However, this refers to the estimated outcome for the next financial year, ending on 30 June 2026. The actual outcome for 2025-26 will not be known until later in 2026 (typically September). It is important to note that the actual outcome is invariably quite different to the estimated outcome because the latter 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 forecasts, then the actual budget outcome will deviate from the estimated budget outcome.

This is indeed the situation facing Australia in relation to the 2023-24 Budget delivered in May 2023. The budget outcome was estimated at the time to be an underlying deficit of $13.9B. However, over 2023-24, growth in commodity prices (or the terms of trade) was higher than expected, while the unemployment rate was lower than expected. These factors contributed to a vastly improved (estimated) underlying budget outcome, with the budget papers recording an underlying cash surplus of $15.7B – a $29.6B turnaround or improvement.

Accordingly, the actual 2023-24 budget outcome (i.e. a surplus) was much better than the May 2023 estimated budget outcome (i.e. a deficit of $13.9B) largely because the government based its estimated corporate tax receipts on inaccurate forecasts, such as a forecast for the terms of trade (TOT) to fall by more than 13% over 2023-24, when this proved to be too pessimistic (as the TOT fell by much less). This resulted in the growth in nominal GDP for 2023-24 being higher than previously thought, and the associated (automatic) boost in tax revenue.

In addition to the higher than expected boost to tax revenue, the government's estimated expenditure was partly based on inaccurate forecasts for employment growth and the unemployment rate. The original forecasts for employment growth of 1%, and an unemployment rate of 4.25%, proved to be too pessimistic, with employment growth higher than anticipated and the unemployment rate lower than anticipated. These revised forecasts, therefore, resulted in lower levels of government expenditure (through lower transfer payments) and higher levels of government revenue (through increased income tax receipts).

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, then 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 3 below contains some of the key forecasts upon which recent and projected Budget figures are based.

Table 3

	Outcome	Forecasts				
	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
Real GDP	1.4	1 1/2	2 1/4	2 1/2	2 3/4	2 3/4
Employment	2.2	2 3/4	1	1 1/4	1 1/2	1 1/2
Unemployment rate	4.0	4 1/4	4 1/4	4 1/4	4 1/4	4 1/4
Consumer price index	3.8	2 1/2	3	2 1/2	2 1/2	2 1/2
Wage price index	4.1	3	3 1/4	3 1/4	3 1/2	3 3/4
Nominal GDP	4.1	4 1/4	3 1/4	4	5 1/4	5 1/2

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.

Methods of financing a deficit or utilising a 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 depends on who purchases the AGS (i.e., who lends to the government). [By 30 June 2026, total AGS issued in the market place is estimated to be $1022B (or $1T), which simply means that the federal government's stock of gross debt at this date is estimated to be $1 trillion.]

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 the 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: The 2024 exam required students to explain one way to finance a budget deficit or one way to utilise a budget surplus. While it was important for students to demonstrate an understanding of either a surplus or a deficit, sufficient depth was required to earn the full two marks. For example, simply stating that 'bonds are issued to finance a deficit' is insufficient. Importantly, students continue to make the mistake of arguing that taxes are used to finance deficits, forgetting that a deficit means that the government has not raised sufficient revenue to cover expenses and therefore needs to borrow to make up for the shortfall.

Exam Tip: In the 2022 exam, Question 7 (MC) required students to demonstrate an understanding of how deficits are financed. Only 39% of students were able to select the right response, with the majority of students indicating that an increase in company tax rates (A) and a reduction in welfare spending (B) were means of financing a budget deficit. Of the options listed, the sale of bonds (C) was the only means of financing a budget deficit (i.e. raising funds to facilitate or enable the excess of expenditure over receipts). Students need to remember that higher taxes and lower spending are means by which future deficits can be reduced – they are NOT means of financing a deficit.

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 error would be 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

The Federal Government can use budget surpluses to invest in financial markets, such as putting money into an account held with the RBA, or by repaying existing government debt. Alternatively, it could top up one of the many government funds used to support future government programs, such as the Future Fund, or the National Reconstruction Fund (NRF). In the past, governments have invested billions of dollars into a portfolio of investment assets (e.g. shares and bonds) that are being 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).

More recently, the Government has introduced other funds designed to achieve specific future goals. These funds include the Housing Australia Future Fund (HAFF), the Medical Research Future Fund (MRFF), the DisabilityCare Australia Fund (DCAF), the Drought Future Fund (DFF) and the Disaster Ready Fund (DRF). The budget surpluses recorded in 2022-23 and 2023-24 were partly used to repay existing public debt and partly invested in one or more of the funds referred to above.

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 of government securities 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 (the original loan amount) 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 reduces the government's ability to respond to future economic shocks. 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 by delivering large budget deficits, achieved through 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.

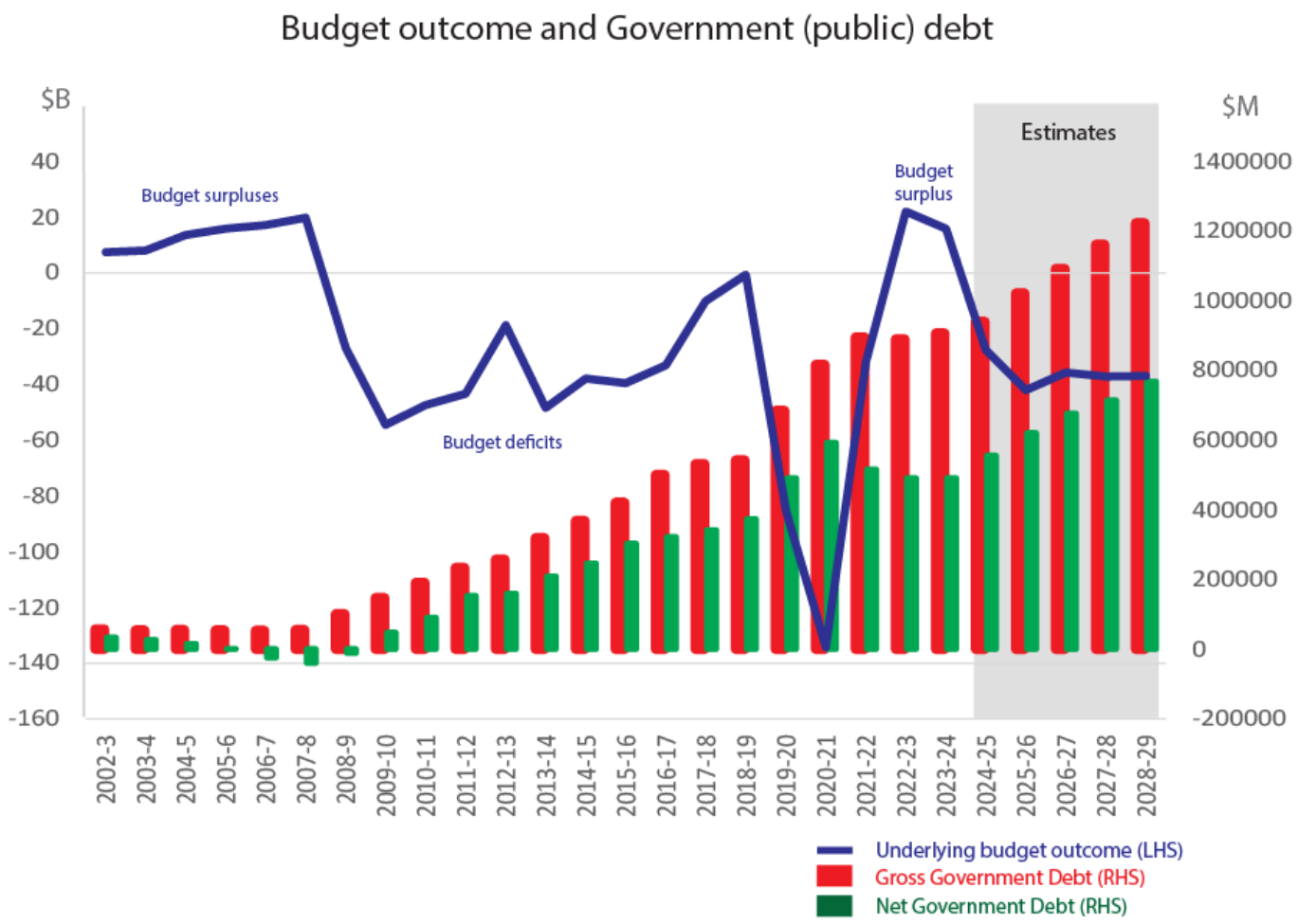
A few years ago, Australia emerged from a significant economic downturn (recession) as a consequence of the negative supply/demand shocks related to COVID-19, as well as the more recent natural disasters, escalating global conflict (e.g. wars in Ukraine and the middle east) and growing uncertainty created by the erratic behaviour of the new US President, Donald Trump. These 'shocks' typically result in substantial budgetary policy support that that increase the size of budget deficits and lead to an accumulation of government debt. For example, the COVID-19 recession caused a budget 'blow out', with budget deficits of $85.2B, $134.2B and $31.9B for 2019-20, 2020-21 and 2021-22 respectively. This resulted in the issue of more Commonwealth Government Securities (CGS) or bonds to fund the deficits, and a corresponding increase in the level of public debt.

The chart below highlights the relationship between budget outcomes and government debt (both gross and net) since the early 2000s, with gross government debt expected to increase above $1 trillion by 2025-26.

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, 2021 and 2023 exams (see next two Exam Tips). 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 also 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).

Exam Tip: In the 2023 exam, students were provided with a table containing the underlying cash balance over a six year period and they needed to refer to the table when explaining the relationshiop between the budget outcome and public debt. To achieve full marks, students needed to make a relevant reference to the table, as well as demonstrate an understanding of a budget deficit/surplus. They then needed to demonstrate the link between the budget deficit and an accumulation of government debt (via borrowing) and/or demonstate the link between the surplus and a reduction in government debt (via the repayment of debt). Mistakes in the 2023 exam reflected those made in the 2019 and 2021 exams (see previous Exam Tip), such as linking the budget outcomes to NFD, confusing a budget deficit with CA deficit, and believing that a smaller deficit results in lower public debt (forgetting that a deficit still occurs, which results in higher borrowing). Note that, for a relationship question such as this one, it is also possible to comment on how a change in the level of public debt influences the budget outcome (e.g. more public debt adds to interest payments on debt which adds to future deficits). However, this angle was not required for this 3 mark question.



The chart clearly shows the inverse relationship between budget outcomes and government debt, with an improved budget outcome leading to either a lower level of (gross) debt or slower growth in debt (e.g. 2022-23), and a deteriorating budget outcome (e.g. from 2024-25) leading to a higher level of debt (or higher growth in 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, in 2008-9 the budget moved into deficit following the GFC and economic downturn, which contributed to ever-growing levels of debt, until 2017-18 and 2018-19, when deficits were reduced (close to zero) and growth in debt was stabilised. However, over the 2019-20 and 2020-21 periods, the deficits ballooned as a consequence of the COVID-19-induced recession, causing the government's borrowing requirement to increase and the stock of debt to rise significantly. The return to surplus over 2022-23 and 2023-24 helped to reduce the size of debt, before it began to accelerate further in line with deficits expected in 2024-25 and over the forward estimates. If the government is able to return the budget towards balance in the future, the rate of growth in debt will start to decline. However, it is only when the government delivers budget surpluses that the actual level of (net) debt will fall.

Exam Tip: Note that the values of government debt as recorded in the chart above relate to the face value of government debt. This is distinct from the 'market value' of government debt, which often changes in line with changes in global financial conditions that influence the demand for and price of government bonds. However, students are not expected to demonstrate an understanding of this under the current Study Design.

The role of automatic and discretionary stabilisers in influencing AD and stabilising the business cycle

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 utilise the budget to adjust the allocation of resources or support 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 to rates of income taxes in the 2024-25 Budget (and further reductions announced in the 2025-26 Budget), and the provision of cost of living relief measures delivered/announced in these same budgets, are examples of changes to the structure of the budget (i.e. discretionary stabilisers).

While monetary policy remains the primary economic policy used by governments to manage or manipulate the business cycle, budgetary policy still plays a crucial supporting role. The budget stimulus measures implemented during the height of COVID-19 highlight a clear demonstration of the willingness of Australian governments to use expansionary budgetary policy to support the economy and 'stabilise the business cycle'.

Overall, the focus during an economic downturn is to prevent significant declines in economic growth and higher unemployment; the budget typically moves into an expansionary phase (see the next section). However, this will be reversed once the economy starts to recover, as the government will become concerned with the need to reduce the debt accumulated during the downturn. To the extent that inflation increases to unacceptable levels, the government will be prepared to use budgetary policy in ways that help to minimise inflationary pressures. This might include the delivery of a less expansionary or contractionary stance, or via the delivery of specific discretionary measures that are designed to more directly reduce prices – such as measures introduced in the recent budgets (e.g. energy bill rebates which reduce the actual price of energy) or the temporary halving of the fuel excise during 2022. In the May 2024 Budget, the government made it clear that the Budget has been constructed with a view to supporting monetary policy efforts to 'fight inflation' and achieve price stability. This is highlighted in the following excerpt from the 2024-25 and 2025-26 Budget papers:

> ***'Inflation is the primary focus of the Budget in the near term. As inflation moderates, fiscal policy will shift emphasis towards promoting sustainable economic growth and public finances over time. This is achieved through a balanced approach that manages near-term risks to inflation and growth, puts in place reforms to build a stronger and more resilient economy, and safeguards fiscal sustainability.'***
>
> ***Source:*** *2024-25 Budget Paper No. 1, Page 73*

> ***Fiscal policy has worked alongside monetary policy to return inflation to the target band in the second half of 2024, and fiscal settings are consistent with sustainably returning inflation to the target band around the middle of this year..'***
>
> ***Source:*** *202'5-26 Budget Paper No. 1, Page 7*

Once the budget eventually returns to a surplus over time, it 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 a structural deficit, as was the case after the recent COVID-19-induced downturn. Despite growing levels of Australian government (public) debt, it remains relatively low as a percentage of GDP compared to other countries, providing Australia with the ability (or flexibility) to deliver discretionary stimulus measures that are a larger proportion of GDP than our peers.

The 2023-24 Budget papers also highlighted the important role played by budgetary policy, noting that:

> ***Fiscal policy plays an important role in managing business cycles alongside monetary policy, particularly when supply disruptions are prevalent because it can better target policies to affected sectors and households. It is especially important that fiscal policy not add unnecessarily to aggregate demand when inflationary pressures are acute.***
>
> ***Source:*** *2023-24 Budget Paper No. 1, Box 3.2 Page 90.*

Exam Tip: Part B of the examination regularly features questions related to automatic and discretionary stabilisers. When explaining 'automatic' stabilisers, students must be careful to tailor their response to the specific 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). For example, the 2024 and 2022 exams required students to examine the impact on the budget outcome, while the 2021 and 2020 exams required an examination of the impact on the economy (AD and the business cycle). Failure to recognise the difference will result in zero marks, despite the provision of sound economic logic, because responses do not address the question being asked.

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: 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 BP and MP. Q3b of the 2023 exam required students to analyse how Australia's UE and inflation rates influenced the stance of AD policies and some students neglected to talk about monetary policy. The same problem occurred in the 2017 exam, no doubt because earlier parts of Q3 in both exams focused on BP content.

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'.

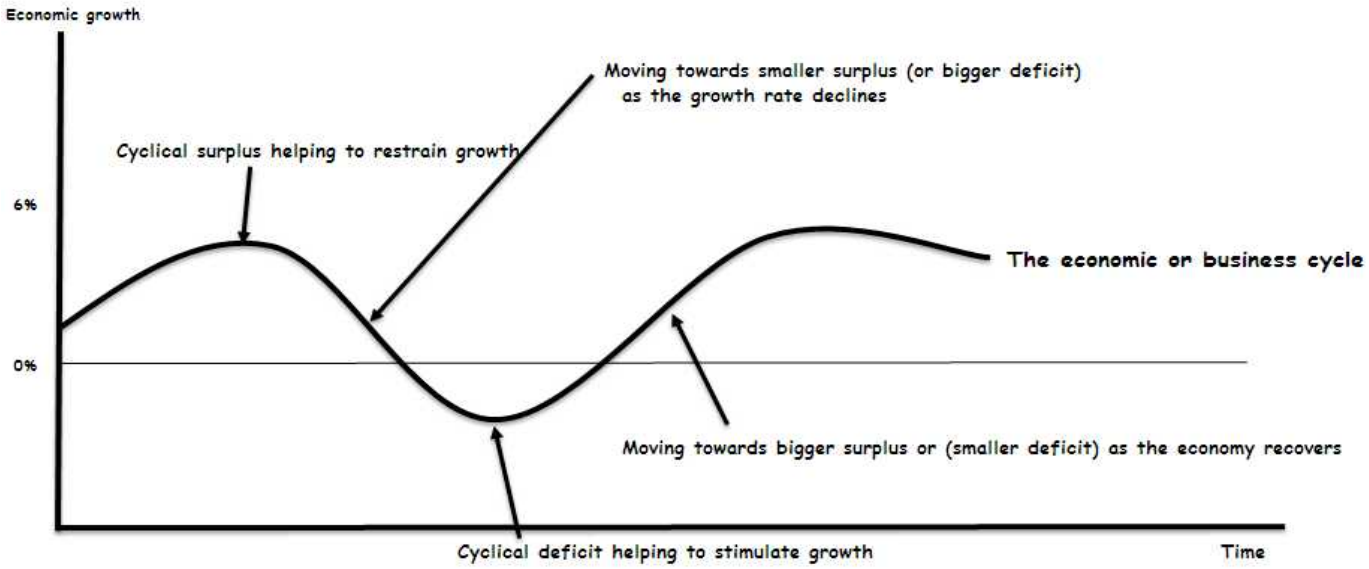
Exam Tip: In the 2021 exam, Q2b students were required to explain the difference between the role of automatic and discretionary stabilisers in influencing AD and stabilising the business cycle. Some students were able to show how the stabilisers help to increase AD during a downturn but then failed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

The 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 are likely to negatively impact the budget outcome, as receipts from taxation (primarily individual and corporate taxes) are expected to decline, while payments for government services or transfer payments (such as unemployment benefits) are likely to 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, increases in the amount of company taxes received over 2022-23 due to the higher terms of trade (as distinct from a change in the tax rate) resulted in Government receipts rising relative to expenditure, leading to an automatic decrease in the size of the deficit (and returning the budget to surplus for that financial year).

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: 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 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 Examination 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!

The impact of structural and cyclical stabilisers over recent years

Over the course of 2020-21, there was a significant decline in economic activity in response to the negative demand and supply-side effects of the coronavirus. Government lockdowns 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 decrease 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 rise in the 2019-20 budget deficit, to $85.3B).

However, during 2020, the federal government provided significant budget stimulus to the economy, primarily through spending initiatives and tax relief, which 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 considerable deterioration in the size of the budget deficit, from $0.7B in 2018-19 to a $85.3B deficit in 2019-20 and $134.1B in 2020-21, was due to a combination of cyclical factors (i.e. automatic stabilisers) and structural factors (i.e. 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 came in at a much lower $32.0B, with the improved outcome being entirely attributable to the cyclical component of the budget (i.e. 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. In other words, the government decided to spend some of the windfall gains (from higher commodity prices) via discretionary stabilisers that ultimately led to an increase in the size of the structural deficit.

In relation to the two 2022-23 Budgets (the first in May and the second in October), the original estimates were for budget deficits of $78B (May estimate) and $36.9B (October estimate). The reduction in the estimated deficit from $78B to $36.9B was largely due to higher than expected growth in commodity prices and its beneficial impact on company tax revenue. From October 2022, however, the Australian economy continued to enjoy (once again) higher than anticipated growth in both commodity prices and employment, which resulted in automatic increases in tax revenue (e.g. higher company and individual tax receipts) relative to expenditure (e.g. lower income support payments). This resulted in further budget improvement to the point that an estimated deficit for 2022-23 became an actual surplus of $22.0B.

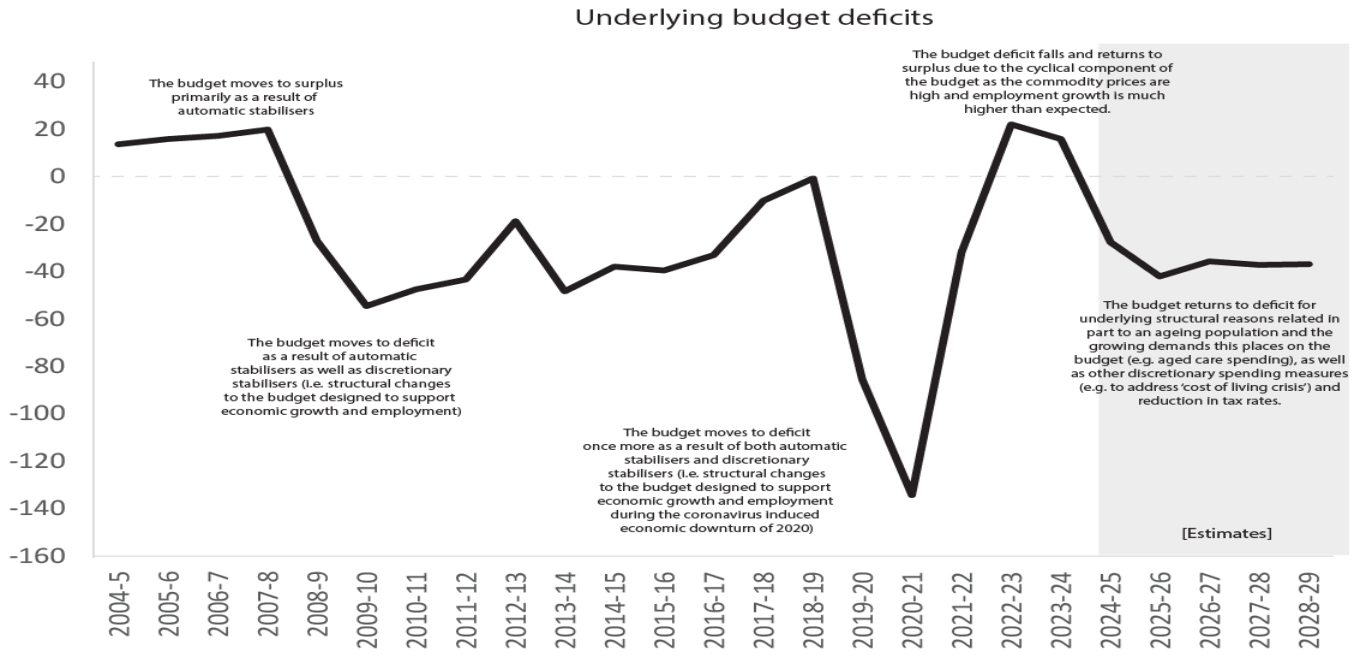
The government noted that most of the windfall gains enjoyed over 2022-23, due to automatic stabilisers, were 'banked' rather than spent. In other words, in response to the automatic increase in income tax receipts, the government allowed the bulk of it to flow through to the bottom line, thereby reducing the size of the deficit. However, this necessarily means that some of the windfall was spent via discretionary stabilisers, increasing the size of the structural budget deficit. This means that, in relation to the 2022-23 budget outcome, cyclical changes positively influenced the outcome (reducing the deficit), while structural changes had a negative impact on the outcome (increasing the deficit). This is also another way of saying that the 'cyclical deficit' decreased while the 'structural deficit' has increased. This has implications for the stance of budgetary policy (covered later).

Exam Tip: Question 2b of the 2022 exam required students to explain how automatic stabilisers affected the Government's budget outcome for 2021–22. It was not well handled by students, with only 21% of students able to achieve the full 4 marks. The question specifically required students to stay focused on 2021-22, a period where there were automatic increases in government receipts relative to expenditure, which resulted in a lower (cyclical) budget deficit. Accordingly, students needed to refer to cyclical factors (e.g. stronger growth in incomes due to the higher than expected terms of trade) that caused an improvement in the budget position. Too many students focused on previous periods or simply responded in a theoretical manner.

In relation to the 2023-24 Budget, the original estimate (made in May 2023) was for the outcome to be an underlying deficit of $13.9B. However, over 2023-24, growth in commodity prices (or the terms of trade) was higher than expected, while the unemployment rate was lower than expected. These factors contributed to an increase in estimated revenue and reduction in estimated expenditure (compared to previous estimates), which are referred to as cyclical improvements to the budget. If the government allowed all of these windfall gains to flow through to the budget bottom line, then the estimated budget surplus would be higher than the $15.8B recorded for that year. However, some of these windfall gains were re-injected into the economy, again via discretionary measures or changes to the structure of the budget.

The return to budget deficits for 2024-25 and 2025-26 are largely due to the effect of structural stabilisers as the Government has introduced substantial revisions to the revenue side of the budget (primarily tax cuts) as well as significant increases in discretionary government expenditure (such as cost of living relief measures and expenditure related to ageing population). It is fair to say that, in relation to the most recent 2025-26 Budget, structural increases in expenditure and structural reductions in revenue (i.e. the increase in the structural budget deficit) was partly a consequence of the 2025 federal election, as the incumbent Labor Government was keen to ensure that the Budget was used in a way to maximise voter support.

The changes to the underlying budget outcome over many years are highlighted in the chart below:



In addition to managing the business cycle, 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.

Exam Tip: In the 2023 exam, Q3c required students to predict how one discretionary stabiliser from the Australian Government's 2023–2024 budget was likely to affect Australia's rate of economic growth and living standards. Many students erred by referring to previous budgets, making up fictitious discretionary stabilisers or referring to reduction in interest rates as a discretionary stabiliser. This highlights the importance of reading the question very carefully and ensuring that you can remember examples of discretionary stabilisers from recent budgets.

The effect of automatic and discretionary changes in the budget on the budget outcome and government debt

We have already seen that automatic stabilisers 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 budget deficit which reduces growth in the level of government debt as the government's borrowing requirement necessarily falls. This cyclical decrease in the budget deficit will often be supplemented by a structural decrease in the deficit as the government takes the opportunity to reduce any fiscal stimulus coming from the budget and focus more on fiscal consolidation or budget repair. This further reduces the government's borrowing requirement and may result in the return of the budget to surplus, which then enables repayment of government debt and a reduction in the stock 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 large 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 and structural budget deficits that required government borrowing (i.e. the issue of bonds) and a growing stockpile of gross government debt (to $890B by 30 June

2022). The cyclical improvement to the budget outcome over 2022-23 and 2023-24 (with the budget moving back into surplus) helped to reduce net government debt. However, the return to deficit since then has once more increased pressure on government debt.

Exam Tip: The effect of automatic/discretionary 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 or discretionary 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.

The stance of budgetary policy: expansionary or contractionary

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. fewer 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 large 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 large 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.

The 2022-23 budget outcome improved significantly, with a return to underlying surplus of $22.1B. On the face of it, the budget stance appeared to be contractionary because revenue rose relative to expenditure (e.g., leakages from the economy increased relative to injections). However, it was actually an expansionary budget stance [See *Recent budgetary policy stances* later] because part of the cyclical improvements to the budget were spent via expansionary discretionary initiatives. A similar story emerged in relation to the budget surplus of $15.8B for 2023-4, where a surplus might be indicative of a contractionary budget. However, without cyclical improvements to the budget bottom line, the estimated surplus would have been larger than $15.8B, ensuring that the stance was an expansionary one, despite the budget surplus. 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: The 2024 exam required students to 'identify the stance of the 2024–25 federal budget and describe one reason why the government might have adopted this stance given current economic conditions'. The best responses were from those students who compared the 2024-25 Budget outcome (deficit) to the outcome for the previous year (surplus) when attempting to explain the stance (expansionary). Then, an appropriate rationale for the delivery of this stance was provided (i.e., why the government felt the need to 'expand' the economy) with reference to a relevant economic indicator (e.g., the low rate of economic growth).

Exam Tip: In the 2023 exam, students were required to analyse how the rates of unemployment and inflation influenced the stance of aggregate demand policies in 2023. The question was poorly handled, with many students launching into an explanation of how the policies were implemented over recent years, without any attempt to analyse the implications that a low UE rate and a high inflation rate had for the stances of MP and BP. While the required response was relatively easier in relation to the stance of MP, there was some uncertainty about how to analyse the BP impact. Students could potentially achieve full marks by arguing that the stance of BP became more expansionary **or** contractionary. It is the arguments put forward that are important from an Examiner's point of view. The best responses were from students who linked the low UE rate and high inflation rate to a change in budgetary policy settings (e.g. the movement in the cyclical or structural components of the budget) before making relevant comment about the implications this had for the stance of BP. It is important not to make the mistake (as some did) of ignoring reference to one of the two AD policies (e.g. talking about MP and ignoring BP or vice versa). For future reference, whenever a question refers to 'AD policies', students need to explicitly address both MP and BP.

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.

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 larger the multiplier, the larger the expansionary impact of any increase in government spending. Interestingly, the size of the multiplier will be determined by the 'composition' of government spending. G1 spending will have a lower multiplier than G2 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.

Exam Tip: Question 2a of the 2022 exam required students to outline how the stance of budgetary policy might be determined (2 marks). They were expected to outline that a budget deficit is expansionary, or budget surplus is contractionary (or that a smaller deficit is less expansionary or contractionary, etc.) before briefly justifying their position. Many students erred by focusing solely on the economic conditions existing at any given time which determines the stance of budgetary policy (e.g. if we are in a recession the budget will become expansionary). While this information was not irrelevant, students needed to also elaborate on the relevance of budget outcomes when determining the stance (e.g. the size and/or movement in the budget deficit/surplus).

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.

Federal governments, both Labor and Liberal, have been fully aware of fiscal drag and have been generally happy to accept an *automatic* rise in the tax burden over time. For example, over recent years, the growth in wages (albeit relatively low until recently) pushed many workers into higher tax brackets, resulting in windfall gains for the government. It can therefore represent another cyclical component of the budget, with growth in inflation automatically leading to a smaller (and less expansionary) budget deficit. Fiscal drag can consequently help to stabilise the economy during periods of excessive rates of economic growth and the accompanying high(er) inflation. 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 labour force participation and productivity. In this context, the government announced changes to the tax system over recent years, with the (modified) **Stage 3 tax cuts** that came into force on the 1st of July 2024. This resulted in a lower income tax burden for all Australian taxpayers, with the significant changes summarised in the table below. The further small reductions in tax rates announced in the pre-election 2025-26 Budget (i.e. reducing the 16% rate to 15% in 2026 and 14% in 2027) will also help to address the effects of fiscal drag/bracket creep.

OLD		NEW	
Thresholds in 2023–24 ($)	**Rates in 2023–24 (%)**	**Thresholds in 2024–25 ($)**	**Rates in 2024–25 (%)**
0 – 18,200	Tax free	0 – 18,200	Tax free
18,201 – 45,000	19	18,201 – 45,000	16
45,001 – 120,000	32.5	45,001 – 135,000	30
120,001 – 180,000	37	135,001 – 190,000	37
Over 180,000	45	Over 190,000	45

The 2024-25 Budget papers reveal that, over the past three years, income tax receipts will have increased by approximately $67B, with a third of this attributable to bracket creep. However, the Stage 3 tax cuts will work to return most of the increase (all but 10%) to taxpayers.

Exam Tip: Given the growing demands on public finances there were calls for the current Labor Government to repeal the Stage 3 tax cuts that were delivered in the previous 2019-20 Budget (by the Liberal Government). While some economists argued that these cuts remained necessary in order to return the proceeds of bracket creep, others argue that the cuts were fiscally irresponsible and came at excessive opportunity costs (i.e. the money could be better spent in other areas). However, given the recession and its impact on budget deficits and public debt since 2020, as well as the growing demands on future budgets due to an ageing population, the argument for persisting with the tax cuts became less sound. The current Labor Government believed that the cuts should not be delivered in their original form (particularly given that the bulk of the gains went to higher income earners), but its leader, Anthony Albanese, refused to break an election promise not to repeal the cuts. Instead, under mounting political pressure, he agreed to amend the legislation to ensure that more of the gains accrued to lower and middle-income earners. This represents an example of a weakness of budgetary policy given that 'good' policy was potentially sacrificed for political reasons.

The government's 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. Until 2020, the then-government believed that the best way to promote Australian living standards was to maintain fiscal discipline and ensure a return to budget surplus over time. The key elements included a commitment to reducing the government's share of the economy over time, thereby freeing up resources for private investment, as well as reducing government expenditure (as a proportion of GDP) over time and strengthening the government's financial position. The overriding emphasis was clearly on 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 reduce the unemployment rate quickly. 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 returned to pre-crisis levels [i.e. approximately 5%] or lower.

The revised Economic and Fiscal Strategy

Given that the pace of economic recovery from the recession was faster than anticipated, and unemployment fell to less than 4%, the Government switched its attention away from emergency fiscal support of the economy to slowly withdrawing support for the economy over time and allowing the budget deficit to reduce over time (and move into surplus for a couple of years), with the longer-term goal of reducing public debt. However, there have been ongoing pressures on the structural component of the budget, coming from the need for increased government expenditure in areas such as:

- aged care due to an ageing population ;
- support for disability care;
- measures to address climate change;
- measures to address housing affordability issues
- measures to increase defence spending due to global instability
- measures to protect Australia during a period of heightened trade tensions

These structural pressures on the budget have recently been compounded by cyclical factors such as those related to the 'cost of living crisis' (requiring increased government expenditure) and lower commodity prices (reducing company tax revenue).

The 2025-26 Budget Papers note that the current economic and fiscal strategy is focused on:

> ***'the objectives of strong, inclusive and sustainable economic growth, full employment, growing real wages, ensuring women's economic participation and equality, and improving living standards for all Australians. The Government will improve the budget position in a measured way, consistent with the overarching goal of reducing gross debt as a share of the economy over time. This approach enables fiscal policy to respond to changes in economic conditions to support macroeconomic stability, including in times of high inflation. …Putting the budget on a more sustainable footing will ensure the Government has the fiscal buffers to withstand economic shocks and better manage the fiscal pressures from an ageing population and climate change'.***

Any improvement to the 'budget position' necessarily requires a commitment to reducing pressure on the budget deficit and achieving fiscal consolidation over time. The Government notes that the following elements underpin the commitment to improve the budget position:

- Allowing tax receipts and income support to respond in line with changes in the economy and directing the majority of improvements in tax receipts to budget repair.
- Limiting growth in spending until gross debt as a share of GDP is on a downwards trajectory, while growth prospects are sound and unemployment is low.
- Improving the efficiency, quality and sustainability of spending.
- Focusing new spending on investments and reforms that build the capability of our people, expand the productive capacity of our economy, and support action on climate change.
- Delivering a tax system that funds government services in an efficient, fair and sustainable way.

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 thereby enjoying the economic benefits that this provides. The potential for a budget surplus to have expansionary effects was briefly discussed earlier in relation to the downward pressure that a surplus exerts on interest rates and the stimulus this provides to Investment and aggregate demand over the longer term. Other economic arguments to support a return to surplus include the following:

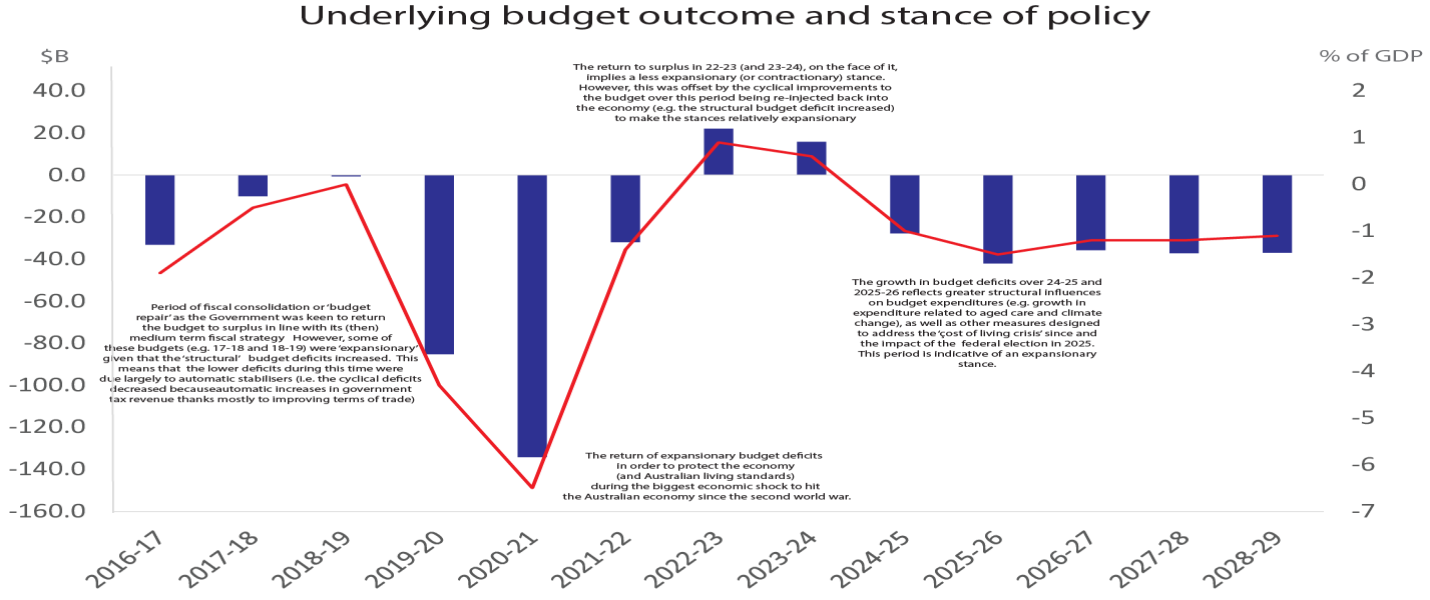
- A surplus is consistent with the government's fiscal strategy, facilitating debt reduction and helping to buffer Australia against future economic decline
- A surplus helps to generate greater international investor confidence in the Australian government's finances, thereby preserving Australia's 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 manage better 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: A past exam required students to explain two government policy actions that *might* be used to return the budget to surplus. This type of question could resurface any 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 made it more difficult to answer. Instead, students simply needed to focus on two specific BP 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 is desirable). Finally, it would be tempting to make reference to increases in government spending on things like infrastructure, in order to boost AS and 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.

The effect of the BP stance and budget initiatives over the past two years and their likely effect on the achievement of the domestic macroeconomic goals and living standards

The current government's *fiscal strategy* is essentially to improve the budget position over time, thereby reducing long-term pressure on government debt. This strategy implicitly allows automatic stabilisers to reduce the deficit (and perhaps achieve a surplus) as economic growth increases in the future, and for any surplus to fall as the economy enters its next downturn. The budget deficits that have primarily been delivered since 2019-20 (due to the combination of cyclical and structural stabilisers) are clear examples of the budgetary policy stance being expansionary over recent years – ones that have been designed to stimulate economic growth, promote employment and (more recently) maintain downward pressure on inflation. The actual and estimated budget outcomes and stances over recent years are highlighted in the chart below.



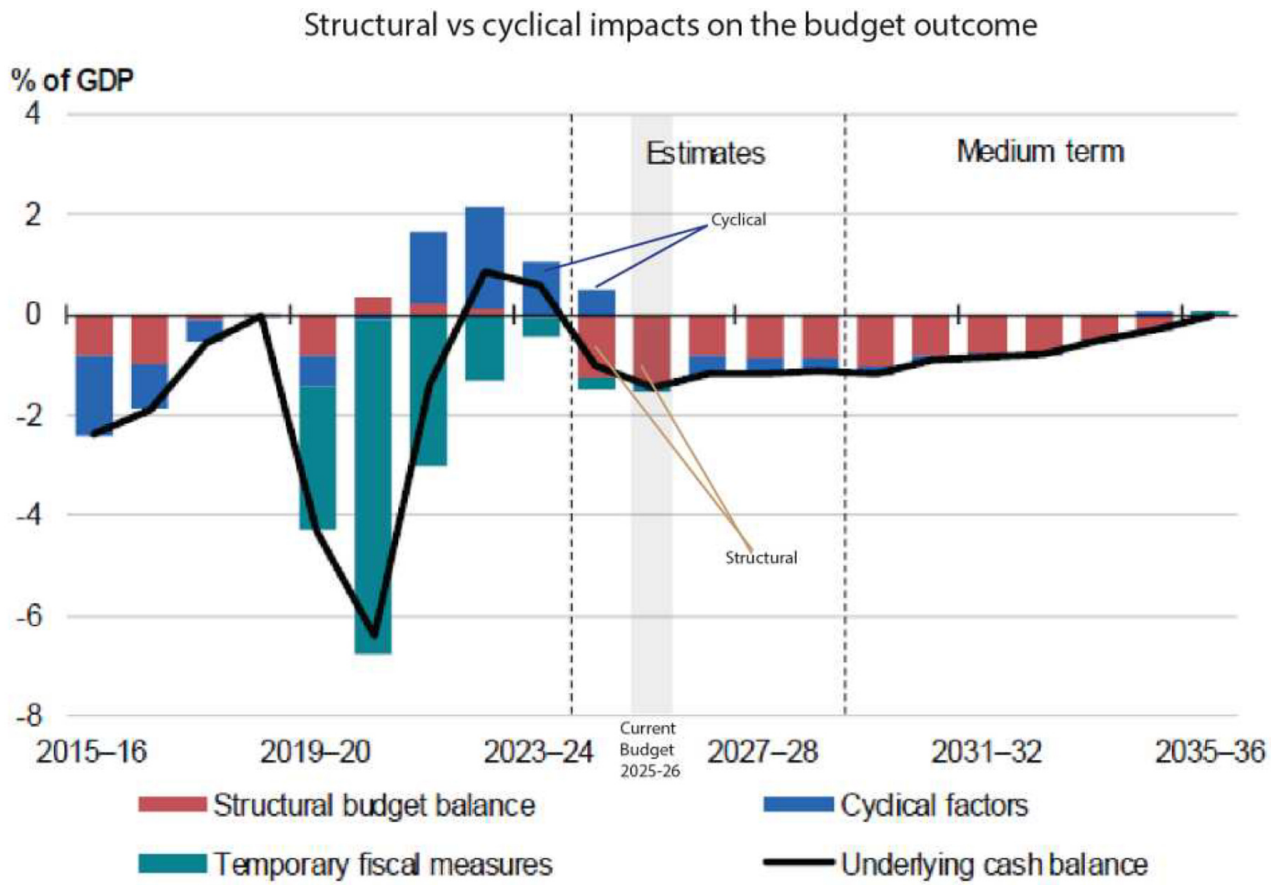
The budgetary policy stance in recent years

The most **recent 2025-26 Budget** reveals that the budget deficit is expected to increase from a $27.7B for 2024-25 to a larger deficit of $42.1B for 2025-26. This is indicative of a more **expansionary stance**, driven largely by the need to introduce structural increases in expenditure due to many of the ongoing budget pressures highlighted earlier (e.g. increased expenditure on aged care, disability care and climate change measures) as well as the funding of new election commitments, including an increase in health care funding (via extending eligibility for bulk billing at medical practices), additional cost of living relief measures (via continuing the energy bill rebates) and increased funding to lower the cost of pharmaceuticals. The cyclical impacts on the 2025-26 budget outcome were relatively benign in net terms, meaning that the higher budget deficit was due primarily to changes in the structure of the budget. [Refer to the chart below]

The **previous 2024-25 Budget** saw the budget balance move from a $15.8B surplus for 2023-24 to a relatively large (estimated) deficit of $27.7B for 2024-25. This represented a loosening of budgetary policy and an **expansionary stance**, with the bulk of the changes to budget revenue and expenditure occurring due to structural reasons. On the revenue side, (Stage 3) tax cuts worked to reduce pressure on tax receipts, and on the expenditure side, there are increases in expenditure on areas such as National Disability Insurance Scheme (NDIS), defence, health and aged care. These structural increases in the budget deficit were only partly offset by cyclical improvements to the budget position. This means that the relatively large estimated deficit for 2024-25 represents an increase in the structural budget deficit, which is evidence of an expansionary budgetary policy stance.

The **2023-24 Budget** saw the budget outcome move from an estimated budget surplus of $22.1B for 2022-23 to a budget surplus of $15.8B for 2023-24. A smaller surplus implies a **less contractionary** or **more expansionary budgetary policy stance**, as the government's contribution to AD (or the net fiscal stimulus to AD) increases relative to the year before. This was particularly the case given that there were cyclical improvements to the 2023-24 budget figures (flowing from continued strength in commodity prices, a tight labour market and higher inflation) that did not all flow through to the budget bottom line. In other words, approximately 10% of the windfall gains were spent via discretionary measures that stimulated AD and economic activity. In this respect, the size of the 'structural deficit' increased despite the delivery of an estimated surplus - making the **2023-24 Budget expansionary**. It increased pressure on economic growth and inflation, and exerted further downward pressure on the rate of unemployment.

Chart 3.14 below has been reproduced (and edited) from the 2025-26 Budget Papers. It highlights the changes in the budget outcomes over time that are attributable to structural vs cyclical factors. The increase in the structural deficit for the previous 2024-25 Budget is evidenced by the larger 'brown' bars (below the zero line), and the cyclical improvement to the budget outcome is evidenced by the blue bars (above the zero line). The further growth in the structural deficit for the current 2025-26 Budget is evidenced by the larger 'brown' bar (below the zero line), and the cyclical changes to the budget outcome are benign (as evidenced by the absence of a blue bar).



A selection of budgetary policy initiatives announced in the 2025-26 Budget (March 2025)

Helping with the cost-of-living

- Delivering new tax cuts for every Australian taxpayer
- $1.8 billion to extend energy bill relief (to the end of calendar year)
- Banning most non-competes; and $2.6 billion to increase award wages of aged care nurses
- $784.6 million to make PBS scripts cost maximum $25; and $1.8 billion for new and affordable medicines
- Cutting student debt by 20 per cent and making the repayment system fairer

Strengthening Medicare

- $7.9 billion to make 9 out of 10 GP visits bulk billed by 2030
- $1.8 billion funding boost to public hospitals
- 50 additional Medicare Urgent Care Clinics, bringing the total to 137 nationwide
- $662.6 million to grow the workforce of doctors and nurses
- $792.9 million to deliver lower costs, more choice and better healthcare for women

Making it easier to buy and rent a home

- Building more homes faster through modern construction methods; and expanding Help to Buy
- Banning foreign buyers from purchasing existing dwellings for two years
- Up to $10,000 for eligible apprentices in housing construction occupations

Investing in every stage of education

- $5 billion towards building a new universal early childhood education and care system
- Guaranteed eligibility for at least 3 days a week of subsidised early childhood education and care
- Putting public schools on a path to full and fair funding
- Making Free TAFE permanent and reforming our universities

Building a stronger economy

- A more productive and dynamic economy through new National Competition Policy measures
- Building a Future Made in Australia, including over $3 billion to support green metals production
- $2 billion expansion of the Clean Energy Finance Corporation

Broadening opportunity and increasing equality

- Driving progress on economic equality for women and over $4 billion to address gender-based violence
- $842.6 million to support critical services in remote First Nations communities in the Northern Territory
- $423.8 million to support people with disability

Source: *www.budget.gov.au/Budget 2025-26/Overview*

A selection of budgetary policy initiatives announced in the 2024-25 Budget (May 2024)

Source: *www.budget.gov.au/Budget 2024-25/Overview*

A selection of budgetary policy initiatives announced in the 2023-24 Budget (May 2023)

- Delivering up to $3 billion of **electricity bill relief** for eligible households and small businesses. From July 2023, this plan will deliver up to $500 in electricity bill relief for eligible households and up to $650 for eligible small businesses.
- A $1.3 billion **Household Energy Upgrades Fund** will create low-interest loans and fund upgrades to social housing to improve energy performance
- Investing $1.9 billion over 5 years in **support for eligible single parents** who are the principal carers. In September, eligible single parents will receive Parenting Payment (Single) until their youngest child turns 14 (currently up to 8 years old)
- Increasing the **base rate of payments by $40 per fortnight for those in receipt of income support payments** such as JobSeeker Payment, Austudy and Youth Allowance. Payments to many eligible Jobseeker recipients over the age of 55 will receive an increase in their base rate of payment of $92.10 per fortnight
- Increasing the maximum rates of Commonwealth **Rent Assistance** by 15 per cent for more than 1 million low income households who rent
- Increasing the National Housing Finance and Investment Corporation's liability cap by $2 billion to a total of $7.5 billion, supporting more **lending to community housing providers** for social and affordable housing projects
- Expanding the eligibility criteria of the **First Home Guarantee Scheme** by expanding it to include any 2 eligible borrowers beyond married and de facto couples, and non-first home buyers who have not owned a property in Australia
- Funding a **wage increase** for aged care workers, who are overwhelmingly women, by allocating $11.3 billion to support the Fair Work Commission's decision to provide an interim increase of 15 per cent to award wages for many aged care workers

- Investing a further $2 billion in Hydrogen Headstart, a new program to support hydrogen production and assist in Australia's plan to become a **renewable energy superpower**
- Increasing investment in renewable energy through the Capacity Investment Scheme, which will unlock over $10 billion of investment in Australia's energy grid. The Government is also developing a **Future Gas Strategy**, which will support Australia's energy system to reach 82 per cent renewables by 2030
- Committing $15 billion to the **National Reconstruction Fund**, one of the largest investments in manufacturing in Australia's history. It is intended to support regions and help create secure, well-paying jobs, as well as build future prosperity
- Introducing a new tax break - the **Small Business Energy Incentive** - to help small and medium businesses electrify and save on their energy bills. This incentive will provide $310 million in tax relief and support up to 3.8 million businesses to make investments like electrifying their heating and cooling systems, installing batteries and upgrading to high-efficiency electrical goods
- The provision of $290 million in cash flow support through the $20,000 **instant asset write-off provision** (which is an **accelerated depreciation allowance**) which should incentivize small businesses to invest in new capital and equipment.
- Further investment in infrastructure via projects such as the the $159.7 million urban Precincts and Partnerships Program to help transform cities and suburbs; the $211.7 million Thriving Suburbs Program to provide investment in community and economic infrastructure that enhances liveability and up to $3.4 billion over 10 years for investment in Brisbane 2032 Olympic and Paralympic Games venue infrastructure
- Reducing **superannuation earnings tax** concessions for those with superannuation balances exceeding $3 million
- Increasing the effective **tax paid by large gas energy producers** (by $2.4 billion over the 5 years from 2022–23) via reform to the Petroleum Resource Rent Tax to ensure a fairer return to the Australian community
- **Increasing tobacco excise by 5%** each year for 3 years from 1 September 2023 and aligning the treatment of stick and non stick tobacco tax
- **Taxing multinationals more** via the introduction of a global minimum tax (15%) and a domestic minimum tax to ensure that large multinational enterprises pay a minimum level of tax in the jurisdictions in which they operate.

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.

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.

Examples of how recent initiatives influence the achievement of macro goals and living standards

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

- Low inflation
- Full Employment
- Economic Growth
- Living standards

> **Exam Tip:** Technically, the past two years encompass budget initiatives from the 2023-24 Budget, handed down in May 2023, as well as the measures introduced in the 2024-25 Budget, handed down in May 2024, and the most recent 2025-26 Budget, handed down in March 2025. It is essential to note that students are not expected to be familiar with all the initiatives outlined 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 initiativess 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 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 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 through their impact on achieving 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 helpful 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** that alter the **stance of policy** (e.g. targeting for a higher or lower surplus).

The following section provides examples of how specific budgetary policy initiatives from each of the last three budgets can contribute to 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 2025-26 Budget

- ***Full employment:*** Tax relief via the further reduction in individual tax rates (including changes to the medicare levy very low income thresholds) that boost the disposable incomes of low-income-earning households. This increases Consumption spending, AD, economic growth and the demand for labour, leading to increased employment and downward pressure on the unemployment rate.
- ***Strong and sustainable economic growth:*** National Competition Policy measures, such as the ban on non-compete clauses for those earning under $175,000, which helps to raise competitive pressures in industries such as construction and financial services, as workers will be freer to set up in competition against former employers. This helps to stimulate private sector investment, boosting AD and real GDP, as well as increasing productivity, which facilitates more sustainable growth.
- ***Low inflation***: Further cost of living relief measures, such as continuing with energy rebates to the end of 2025 and changes to the PBS to make medicines cheaper for many Australians, both of which help to directly reduce the CPI.

From the 2024-25 Budget

- ***Full employment:*** Committing billions of dollars to the support of key industries via the 'Investing in a Future Made in Australia' initiative. This is intended to stimulate investment in manufacturing capacity which leads to an increase in demand for factors of production, including labour, which creates jobs and assists with downward pressure on the rate of unemployment rate.
- ***Strong and sustainable economic growth:*** Investing $8.8 billion over the decade to add more value to Australia's resources and strengthen critical minerals supply chains which can help to stimulate investment and contribute to a stronger rate of economic growth in a way that is more sustainable (to the extent that productivity/efficiency is enhanced).
- ***Low inflation***: Further cost of living relief measures, such as a $300 rebate to all households and funding to deliver cheaper medicines to Australians, both of which help to directly reduce the CPI.

From the 2023-24 Budget

- ***Full employment:*** Committing $15 billion to the National Reconstruction Fund can stimulate investment in manufacturing capacity which leads to an increase in demand for factors of production, including labour, which creates jobs and assists with downward pressure on the rate of unemployment rate.

- ***Strong and sustainable economic growth:*** Introducing the Small Business Energy Incentive to incentivise small and medium businesses to install batteries and upgrade to high-efficiency electrical goods can help to stimulate investment and contribute to a stronger rate of economic growth in a way that is more sustainable (to the extent that greater energy efficiency is achieved).
- ***Low inflation***: The $3 billion of electricity bill relief for eligible households and small businesses is designed to directly reduce energy bills, leading to a reduction in the CPI.

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, a past 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: 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 larger 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. Finally, there are a number of ways to answer the question, with the easiest being to argue that a larger 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 and living standards, and efficiency in the allocation of resources

Remember that the ultimate goal of all policies is to improve 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 properly 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 increases in the excise on tobacco;
- Plain cigarette packaging laws and new laws to curb vaping by young Australians;
- 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).

The strengths and weaknesses of using budgetary policy to affect AD and influence the achievement of the domestic macroeconomic goals and living standards

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.
- The operation of automatic stabilisers ensure that the policy response, by definition, is very speedy in terms of stabilising the business cycle (see second Exam Tip below).
- 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 (e.g. Q3d 2023 exam & Q2c 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 weak as a tool for the government in achieving particular objectives.

Exam Tip: In the 2024 examination, in response to a question about the strengths of budgetary (and monetary) policy, some students highlighted the short implementation lag a strength of budgetary policy, when in reality this is relatively long. The Chief Assessors note that 'an exception is the operation of automatic stabilisers, which operate contemporaneously to stabilise the business cycle. If students wish to make the argument that budgetary policy can have a relatively quick impact on the macroeconomic goals, they must make explicit reference to automatic stabilisers or the cyclical component of the budget.'

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 2023-24 Budget were blocked in the Senate and never became law);
- it is prone to political bias, particularly around election time (e.g. 2025), 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 (with the exception of the operation of automatic stabilisers);
- 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 recent budgets), 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.

Exam Tip: As noted in an earlier Exam tip, the decision by the current Labor Government not to repeal the Stage 3 tax cuts that came into force on 1 July 2024 could be considered an example of a weakness of budgetary policy. If these tax cuts were not in the best interests of the nation (as many argued, given the deteriorating budget position at the time), then a refusal by the Labor Government to modify/repeal the cuts (because it feared the political consequences of breaking an election promise) means that 'good' policy was being sacrificed for political reasons.

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 2025-26 Budget.***
6. ***Distinguish the 'cyclical' and 'structural' components of the budget.***
7. ***Explain how an 'estimated' budget deficit can become an 'actual' budget surplus. Use a recent budget to illustrate..***
8. ***Analyse the hypothetical impact on the budget deficit for 2025-26 if growth in wages is higher than the 3.25% forecast.***
9. ***Analyse the hypothetical impact on the budget deficit for 2025-26 if nominal GDP is higher than the 3.25% forecast.***
10. ***Explain why the 2023-24 budget outcome became a surplus of $15.8B when it was originally expected to be a deficit.***
11. ***Outline how 'bracket creep' can assist with the current government's effort to achieve continuing budget surpluses in the future.***
12. ***Distinguish an 'expansionary' budget from a 'contractionary' one.***
13. ***Outline how the government can finance the estimated $42.1B budget deficit for 2025-26.***
14. ***Outline how the government could have used the $15.7B budget surplus that was delivered over 2023-24.***
15. ***Describe the relationship between a budget deficit and the level of government (public) debt.***
16. ***Explain how it is possible for a larger surplus to be consistent with expansionary budgetary policy.***
17. ***Explain how it is possible for a larger deficit to be consistent with a contractionary budgetary policy.***
18. ***Outline how the invasion of Ukraine might have influenced the budget outcome for 2023-24. In your answer, make reference to automatic stabilisers.***
19. ***Explain why the 2023-24 Budget can be considered expansionary despite a budget surplus of $15.8B. In your answer, refer to both the cyclical and structural components of the Budget as well as the 'structural budget deficit'.***
20. ***Define fiscal consolidation and explain how a commitment to fiscal consolidation influences future budget outcomes.***
21. ***Explain how the recent 2025-26 Budget might be consistent with budget repair and simultaneously expansionary in nature.***
22. ***Outline one BP measure from recent budgets that has been designed to influence price stability and economic growth.***
23. ***Identify two recent budgetary policy measures that might assist with the achievement of Full Employment.***
24. ***Discuss how natural disaster relief and increased funding for the National Disability Insurance Scheme (NDIS) can improve Australian living standards.***
25. ***Outline how a reduction in the company tax rate to 25% for smaller companies is likely to impact on Economic Growth and Full Employment.***
26. ***Explain how an increase in the excise tax on tobacco is designed to improve living standards.***
27. ***Explain how the provision of energy bill rebates influence price stability.***
28. ***Explain how the temporary reduction in excise on fuel in 2022 was designed to improve living standards.***
29. ***Explain how the lower individual tax rates introduced in 2024 (and again in 2026 and 2027) might influence economic growth.***
30. ***Discuss whether increased funding for defence and national security in recent budgets can both stimulate employment growth and enhance Australian living standards.***
31. ***Without using the same examples provided in earlier responses,***

a. Provide an example of a policy that has been introduced over the past 2 years which would stimulate AD

b. Provide an example of a policy that has been introduced over the past 2 years which would slow AD

32. ***Discuss two strengths and two weaknesses associated with the use of budgetary policy.***

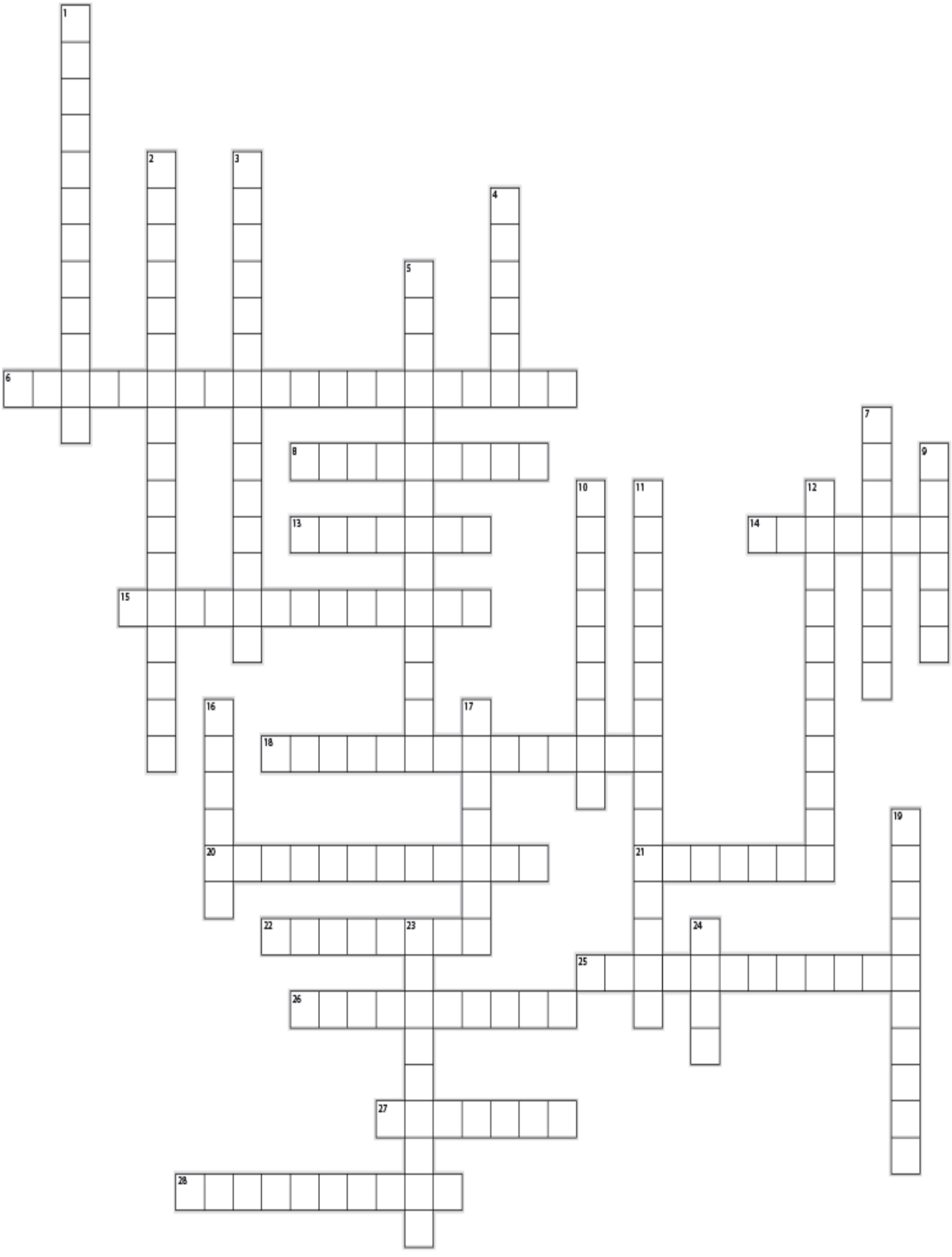
Quick revision crossword No 1: Budgetary policy

Across

6. A reason why surpluses were recorded for 22-23 and 23-24 (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. Two words to describe attempts by the government to return the budget to surplus or balance 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. Government investment in technology will help to increase this
2. The simultaneous achievement of the domestic maco goals (2 words)
3. The stance when the structural budget surplus increases
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 changes in line with 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 C, I and X-M (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
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.



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The role of the RBA with respect to monetary policy as outlined in its Charter

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 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 [both now and into the future].

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 Charter is supported by the updated *Statements on the Conduct of Monetary Policy*, which is an attempt to provide greater transparency and to ensure that RBA decision making evolves with the times. The new *Statement on the Conduct of Monetary Policy,* released in December 2023, revealed a slight departure from the previous Statement (2016), which focused on achieving price stability *first* before targeting full employment. The new Statement now highlights the dual focus on achieving price stability and full employment. So, while the RBA's overriding objective remains to *promote the economic prosperity and welfare of the people of Australia* *both now and into the future*., it believes that this is best achieved via the joint focus on:

Price stability: targeting growth in *consumer price inflation to between 2 and 3 per cent, on average, over time*); and

Full employment: ensuring that everyone who wants a job can find one without searching for too long and maximising the level of employment that is consistent with low and stable inflation.

The revised focus of the RBA was reinforced by new legislation introduced in 2024, following a review of the RBA conducted in 2023. The new legislation came into force on March 1, 2025, and is designed to modernise the RBA and clarify its objectives, particularly in relation to the goals of price stability and full employment. This dual mandate to focus on both goals is now enshrined in this legislation, and the overarching objective (*to promote the economic prosperity and welfare of the people of Australia*) remains the anchor, with the addition of the words *'both now and into the future'*. This effectively directs the RBA to more carefully consider the short-term consequences of placing too much emphasis on the future. For example, the RBA was criticised over recent years for focusing too much on inflation, by aggressively tightening monetary policy, when the higher interest rates were inflicting pain on many Australian households already dealing with a 'cost-of-living crisis'. This was one of the factors contributing to the review of the RBA's policies and conduct. The new legislation has also split the RBA Board into two separate Boards, with one responsible for making monetary policy decisions (e.g., setting the target cash rate) and the other dealing with the RBA's corporate governance (e.g., how the bank is managed to ensure it is accountable and transparent). The new legislation also confirms the RBA's independence to ensure that it can make decisions considered consistent with its overarching objective and not subject to political interference. The Government's ability to override the RBA has also been removed. While the Government's ability to override RBA decisions was never exercised in practice, the removal of this provision further entrenches the RBA's position as an independent body that can make decisions freely without political interference.

While a specific reference to the rate of economic growth is neither made in the *RBA Charter* nor the (new) *Statement on the Conduct of Monetary Policy*, the need for the RBA to pay attention to the rate of economic growth – i.e. promoting strong and sustainable growth over time - remains implicit and is an important consideration when deliberating on monetary policy. In this way, it can be argued that monetary policy is designed to achieve stability in the level of domestic economic activity (i.e. the achievement of *price stability, full employment and strong/sustainable growth*), 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. In this way, monetary policy plays a vital role in stabilising the economy.

Despite the change in RBA focus, the importance of achieving price stability as a means of attaining longer-term benefits for the economy remains paramount. This is highlighted by the way that monetary policy has been used over the past year. Many economists fear(ed) that the RBA's determination to reduce inflation via higher interest rates would push the economy into recession, compromising the achievement of both a strong rate of economic growth and full employment. Despite mounting criticism of the RBA's approach, the RBA Governor remained unapologetic, highlighting that the short-term pain induced by higher interest rates was necessary to enjoy the longer term benefits to the economy in the form of a stronger and sustainable (i.e. low inflationary) rate of economic growth and strong employment growth (the maintenance of a low rate of unemployment). The risks associated with not focusing aggressively on the achievement of price stability were articulated in the following way:

The longer inflation remains above target, the greater the risk that inflation expectations rise and price- and wage-setting behaviour might adjust accordingly. If this were to eventuate, the end result would be even higher interest rates and a larger rise in unemployment would be required to bring inflation back to target.

Source: RBA May 2023 Statement on Monetary Policy

The subtle change to the wording of the overarching objective of the RBA referred to earlier, which requires the RBA to promote the economic prosperity and welfare of Australians, *both now and into the future,* should have implications for how the RBA conducts monetary policy in the future. It is therefore possible that, given the same set of circumstances that faced Australia over 2023-24, the RBA Governor might be less aggressive in tightening monetary policy to reduce inflation, given its negative short-term impact.

Conventional monetary policy (cash rate target) and how it affects interest rates

The conventional way that the RBA implemented monetary policy is primarily via the manipulation of interest rates, it does this using two tools:

1. The policy interest corridor system
2. Open market operations or (OMOs)

The use of these two tools has changed over the past 5 years, which will be discussed below. First, we introduce the broader and important context of the banking system as it relates to monetary policy.

While the RBA has no direct control over all interest rates in the economy, its ability to directly manipulate one interest rate— the 'cash rate', enables it to indirectly affect all other interest rates. 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 cash or money used in this market is a special type, called Exchange Settlement (ES) balances, also known as reserves. These ES balances cannot be spent in the broader economy like ordinary money but are used exclusively by commercial banks and other approved financial institutions to settle transactions with each other in a safe and efficient manner (The RBA and the federal government also use ES balances but for different reasons discussed below). By managing the supply of ES balances in the cash market (via OMOs), along with the policy interest rate corridor, the RBA is able to keep the cash rate close to its target. [For simplicity, ES balances will be referred to as 'cash' below.] The cash rate impacts all other interest rates in the economy because the rate commercial banks must pay or receive will determine how much they receive or pay their customers via their lending and deposit rates.

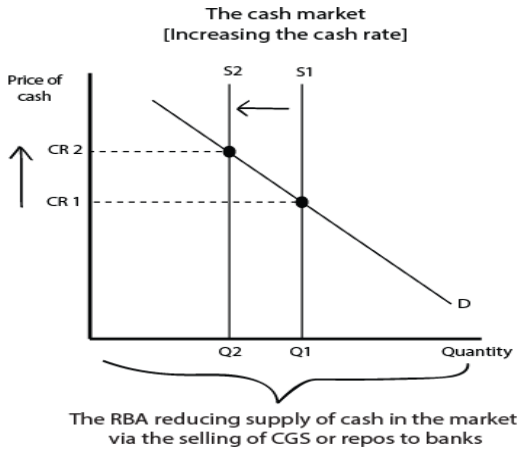
Each Australian bank is legally required to have an Exchange Settlement Account (ESA) with the RBA to settle transactions. These accounts hold the cash (ES balances) used to settle interbank obligations. This requirement exists because millions of transactions occur daily between banks and their customers, and a systematic and organised way is needed to settle the amounts owed from one to the other at the end of the day. Most high-value payments are settled in real time throughout the day, while the remaining transactions are totaled and settled at the end of the day.

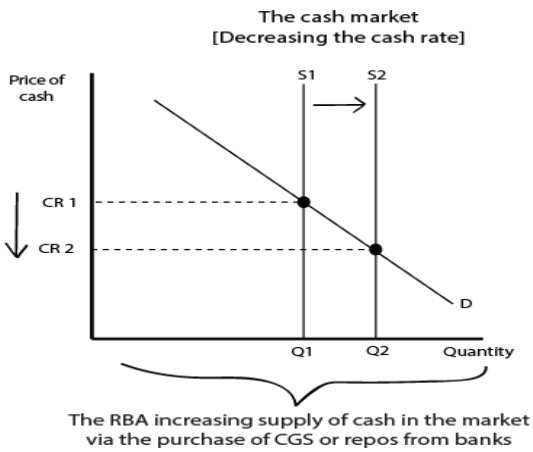
In ordinary times when cash is scarce in the overnight money market (pre COVID-19), at the conclusion of each day some banks will have surplus balances in their ESAs (because they have received more than they paid) and others will have a deficit. Those with surplus balances in their ESAs will seek to lend this cash to those banks with deficits in their ESAs, which of course means that those banks with ESA deficits will seek to borrow from those banks with ESA surpluses. This creates a market for overnight cash, with demand from banks needing to borrow and supply from banks willing to lend. Like any market, equilibrium will occur where the price (i.e. the cash rate) is such that demand = supply.

Open market operations:

One tool the RBA uses to influence the cash rate is open market operations, which involves adjusting the supply of cash in the overnight market. The RBA does this by buying and selling financial instruments such as Commonwealth Government Securities (CGS) and/or repurchase agreements (repos), with participating financial institutions (e.g. commercial banks). RBA purchases of these financial instruments injects cash into the market (increases supply) and puts downward pressure on the cash rate. RBA sales of these instruments withdraws cash from the market (reduces supply) and puts upward pressure on the cash rate. Diagrammatically, this can be shown as follows:

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.





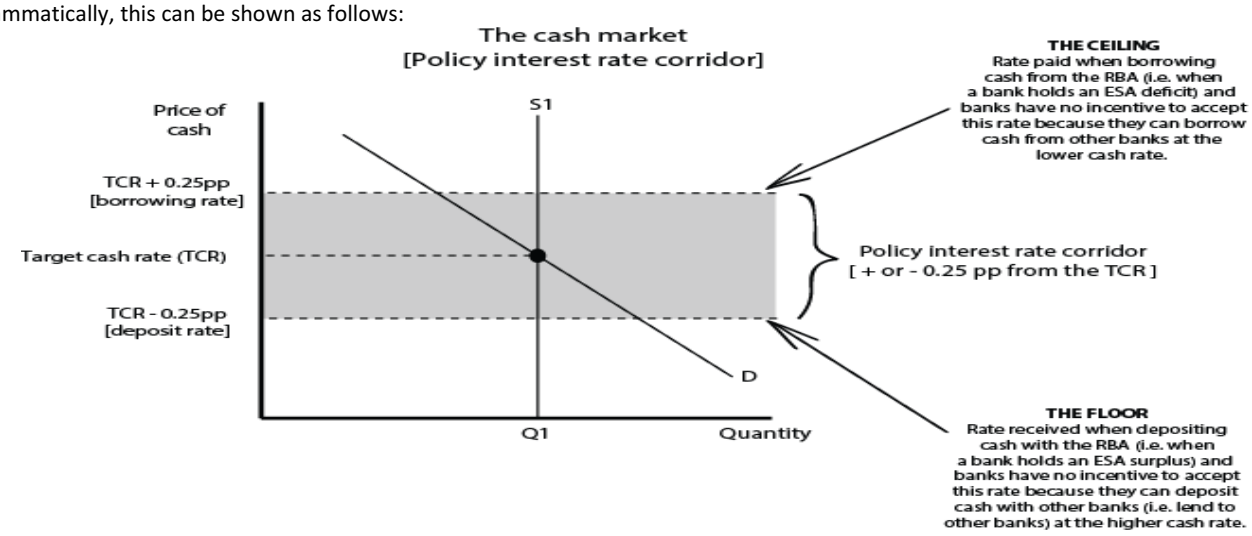
The corridor system

While open market operations are essential for managing the supply of cash in the banking system, the RBA also uses a corridor system to facilitate any change to the cash rate automatically and to further anchor the cash rate to their target. The **cash rate target** is the policy interest rate set by the RBA and when they announce changes to the cash rate, it refers to this target.

The corridor system works by establishing limitations (ceilings and floors) around the cash rate target. The RBA does this by imposing financial disincentives upon banks for holding surpluses or deficits in ESAs. These financial disincentives 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 **(the floor)**
- 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 **(the ceiling)**

This arrangement incentivises 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 helps to ensure that they avoid borrowing from or lending to 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'** and exists between the ceiling and floor on the graph below. There is no incentive for the banks to either borrow or lend outside of this interest rate corridor— banks who need to borrow cash will not pay above the ceiling rate offered by the RBA and banks who are lending cash will not accept a rate below the floor offered by the RBA. Diagrammatically, this can be shown as follows:

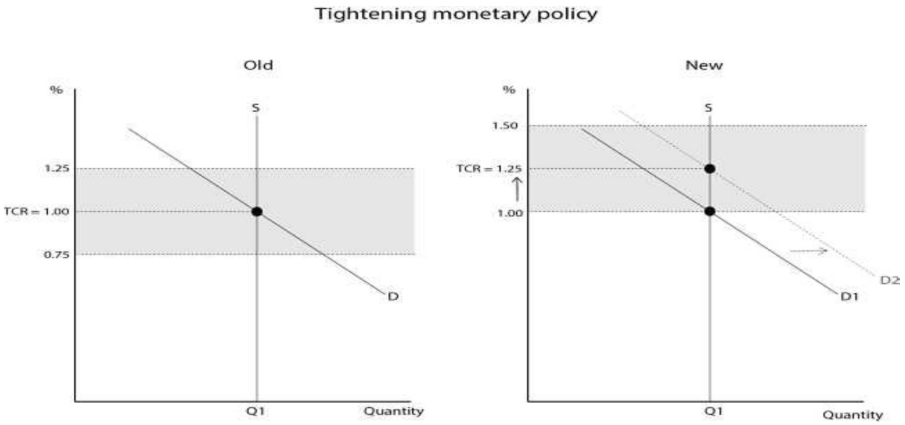


Exam Tip: Since COVID-19 and the huge injection of cash or liquidity into the financial system (See Unconventional Monetary Policy), the RBA temporarily changed the deposit rate from 25 to 10 basis points below the TCR. This is because there was a huge inflow of exchange settlement funds (i.e. cash) into the system, some of which remained in ESA balances. The RBA was keen, therefore, not to burden the banking system with increased costs. For the purposes of the VCE Examination, reference to either deposit rate would be acceptable (i.e. refer either to 0.10 pp below the TCR or 0.25pp below the TCR).

Overall, given the existence of the policy interest rate corridor, 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).

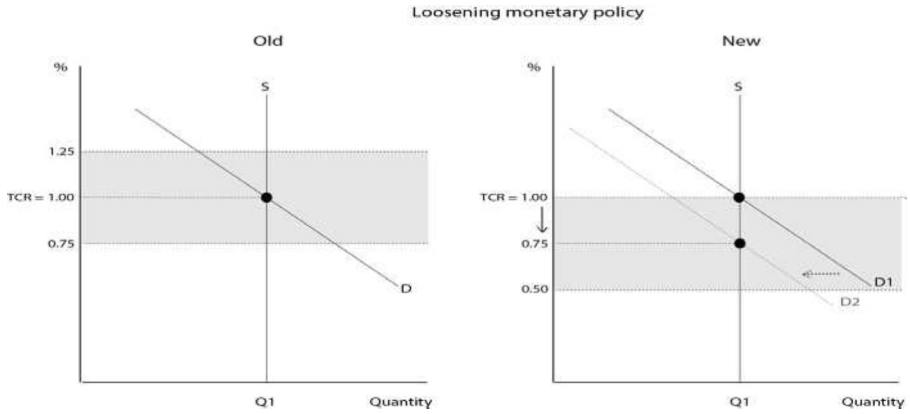
Tightening and loosening of monetary policy

A **tightening** of monetary policy involves the RBA announcing a higher target cash rate on 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 (other banks) 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, not to make a change in the cash rate target.

A **loosening** of monetary policy involves the RBA announcing a lower target cash rate on 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:



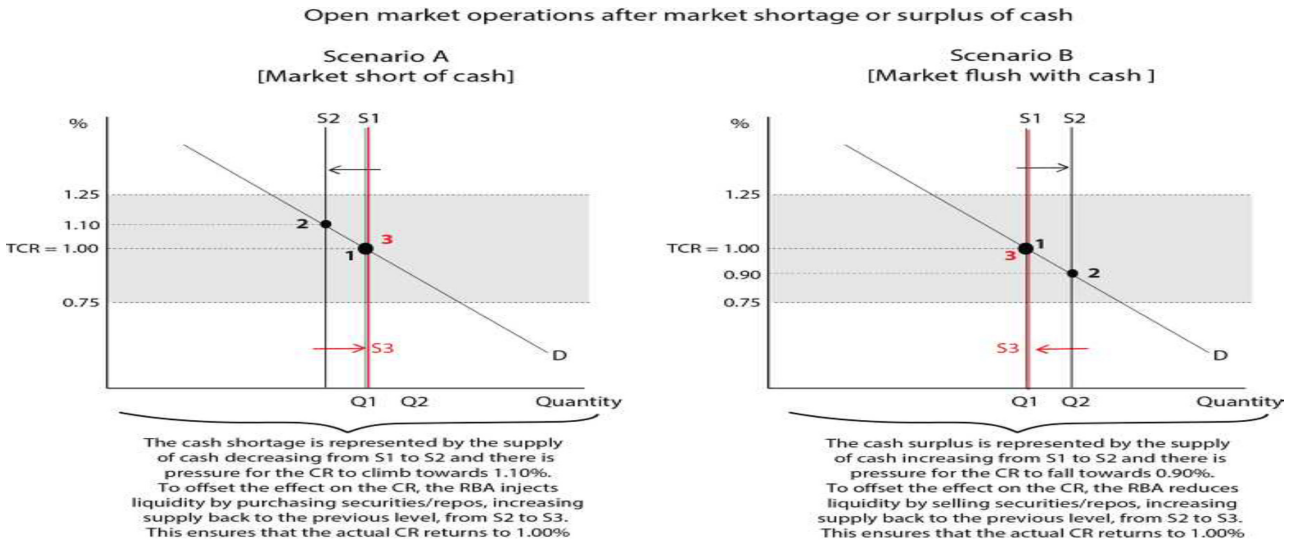
As before, there is no need for the RBA to actually enter the cash market and engage in OMOs in order to increase liquidity and force the cash rate down to the new TCR of 0.75%. This is because the market will automatically adjust to the new interest rate corridor. Once again, there will be no incentive 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.

Using OMOs to maintain the Cash Rate Target

Whilst the corridor system allows the RBA to implement its monetary policy stance automatically by anchoring the actual cash rate to its cash rate, there are often fluctuations in the supply of cash in the overnight market— largely due to the **federal government activities**. When the government makes payments (like welfare to households) it puts more cash into the banking system (e.g. there is more ES balances available to banks), so the total amount of cash in the market increases. On the other hand, when the government collects money (taxes from businesses or households) there is less cash in the banking system (e.g. less ES balances available to banks). As the supply in the cash market is changing regularly, there is often an imbalance between demand and supply, leading to changes in the actual cash rate. Accordingly, **the actual cash rate will move in response to changing market conditions within the policy interest rate corridor.**

If the supply of cash increases in the overnight market (e.g. there is a net surplus in banks ESAs), the actual cash rate will tend to move below the target cash rate. Conversely, if the supply of cash decreases (e.g. there is a net deficit in banks ESAs), then the actual cash rate will likely 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 use **open market operations** (described above) to manipulate the supply of cash via the purchase or sale of CGSs (and/or repos).

For example, If the market is short of cash (e.g. due to increase in welfare payments), this shortage puts 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 towards its previous level. In contrast, if the market has excess cash, this surplus 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 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.



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.

In summary, the corridor system was the tool used by the RBA to implement changes to the target cash rate – when the target was adjustsed, the corridor adjusted automatically, and the actual cash rate moved without any need for intervention. Whereas OMOs are an intervention the RBA uses to manage the fluctuations of cash (ES balances) in the banking system, ensuring that the actual cash rate stays anchored to the target rate.

Throughout 2024, the RBA was in the process of reforming the way monetary policy is implemented, and the new system took full effect in April 2025. Accordingly, since 2025 marks the transition to the new system, we have presented the pre-2025 system of monetary policy implementation in the section below and then provided information on the new system in the subsequent section.

Exam Tip: The Study Design requires students to understand 'conventional monetary policy (cash rate target) and how it affects interest rates'. Arguably, this could suggest that students only need to understand that the RBA manipulates interest rates by changing the (target) cash rate. Accordingly, it would not be necessary to understand the mechanics of how the RBA manipulates the cash market to give effect to a tightening or loosening of monetary policy (i.e. increase or decrease the cash rate). Given the potential ambiguity in relation to this key knowledge point, it is unlikely that students will be required to demonstrate an in depth understanding of monetary policy implementation pre or post April 2025. In this respect, students may prefer to ignore the next two sections and re-focus from the heading 'Tightening and loosening of monetary policy'.

The implementation of monetary policy post-April 2025

The system described above is technically referred to the 'floor system with scarce reserves' and it describes the way monetary policy was implemented pre-2020. However, between 2020 and 2024, the system was modified to account for the effects of the massive injection of cash into the financial system, such as the unconventional monetary policy loosening – this policy involved the RBA buying financial securities and paying in cash, raising the total supply of cash in the banking system. During this time, the system became known as the 'floor system with excess reserves', which resulted in the actual cash rate being allowed to fall well below the target rate owing to a large supply of cash in the system. Over this time the RBA rarely needed to use OMOs and overnight transactions between banks fell, as most banks held large surpluses of cash in their ES account (e.g. did not need to borrow from other banks to ensure their accounts were in surplus as per RBA requirements). As a result, The RBA relied primarily on the corridor system, specifically the floor (deposit rate), to influence and maintain the target cash rate.

From April 2025, the RBA moved away from this 'floor system with excess reserves' to adopt a new system referred to as 'ample reserves with full allotment OMO'. This is effectively a hybrid of the 'scarce reserves' (pre-2020) and 'excess reserves' (2020-2024) systems used in the past. It involves the RBA once more engaging in OMOs to ensure that the banks are provided with sufficient cash to meet their demands at a rate that lies between the floor (now referred to as the ES rate) and the ceiling (now referred to as the OMO rate). Currently, the OMO rate is set 10 basis points (0.10%) above the target cash rate, and the ES rate is set 10 basis points below the target cash rate. This is similar to the top and bottom of the 'corridor' system used prior to 2025.

Instead of the RBA manipulating liquidity (or supply) in the cash market daily to ensure that the actual cash rate hits the target (i.e. via the conventional scarce reserves approach pre 2020), it will now conduct OMOs less frequently (i.e. once a week) and supply banks with the cash they require at a rate close to the target (i.e. between the OMO and ES rate). Under this new system, the supply of cash (ES balances) in the overnight cash market will rise and fall in line with the demand for these funds by banks, which means that the actual cash rate will fall below and rise above the target cash rate over time, but remain relatively close to the target (i.e. within 10 basis points either side). This is distinct from the traditional (pre-2020) corridor system, where the RBA would manipulate liquidity/cash daily to ensure that the actual cash rate effectively hit the target every day.

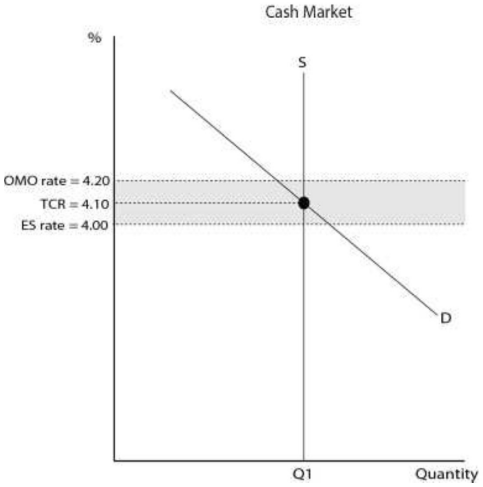
Tightening and loosening of monetary policy - summary of the position post 2025

A **tightening** of monetary policy involves the RBA announcing a higher target cash rate on the afternoon of its Board meetings. If it decides to increase the target cash rate (e.g., from 4.10% to 4.35%), it will simply announce the decision and then adjust both the OMO rate (previously referred to as the ceiling) and the ES rate (previously referred to as the floor) upwards. Like before, 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 4.35%. This is because the market will automatically adjust to the new, higher OMO rate (ceiling) and higher ES rate (floor). There will be no incentive for the banks to transact (borrow and lend) outside the new range, and the actual cash rate will gravitate towards the new target. This is because banks will be willing to borrow more from the market given that it is more expensive to borrow from the RBA (at the OMO rate). Similarly, they will be more willing to lend to the market because the ES rate is lower than what could be earned in the market. Importantly, the RBA can and will only engage in OMOs on a weekly (not daily) basis to ensure that the supply of cash in the system is sufficient to meet the demands of banks. It is helpful to remember that the RBA does not engage in OMOs to give effect to a monetary policy tightening immediately, only to maintain it once implemented.

A **loosening** of monetary policy involves the RBA announcing a lower target cash rate in the afternoon of its Board meetings. If it decides to decrease the target cash rate (e.g. from 4.35% to 4.10%) it will simply move adjust downwards the OMO rate and ES rate by 25 basis points. 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 4.10%. This is because the market will automatically adjust to the new lower OMO rate (ceiling) and lower ES rate (floor). Once again, there will be no incentive for the banks to transact outside the new range, and the actual cash rate will gravitate towards the new target. This is because banks will be unwilling to borrow at any range above 4.20% (the new OMO rate) 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 'target cash rate' as well as the OMO and ES rates, and the market will automatically adjust to the new rate. The RBA will from that point in time use OMOs once a week to ensure the banks' demand for liquidity is satisfied, which helps to drive the actual cash rate towards the target.

Monetary policy implementation from April 2025



- The target cash rate (TCR) is the anchor
- The OMO rate floats above the TCR by 10 basis points
- The OMO rate is the price for banks wanting to borrow from the RBA
- The ES rate floats below the TCR by 10 basis points
- The ES rate is the price paid to banks that leave cash in their ESAs
- Banks have an incentive to borrow from other banks when short of cash because it is cheaper (than the OMO rate)
- Banks have an incentive to lend to other banks when holding surplus cash because a higher return can be made (compared to the ES rate)
- To tighten monetary policy, the RBA raises all three rates by the same amount and market interest rates adjust upwards
- To loosen monetary policy, the RBA reduces all three rates by the same amount and market interest rates adjust downwards

One example of the operation of an unconventional monetary policy tool

Unconventional monetary policy measures are typically used when the policy rate of interest (e.g. the Australian cash rate) is close to zero and conventional 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. Unconventional monetary policy measures are usually reserved for those times when economic growth is extremely low and, importantly, disinflationary pressures are evident, which helps to prevent the large increases in cash or liquidity in the economy from igniting inflation and cementing higher inflationary expectations.

Exam Tip: Students are only required to demonstrate an understanding of <u>one</u> example of unconventional monetary policy.

Asset purchases/quantitative easing

The most common type of unconventional monetary policy used in Australia has been the use of **Asset purchases/quantitative easing**. It 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 injected cash into the economy. This is because the sellers of the securities (e.g. banks) 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 not only set a target for the cash rate (currently @ 0.1%), but also set a target for the 3-year Bond rate at 0.1%. The RBA also purchased longer term securities (e.g. those longer than 3 years), which also reduced longer term interest rates. Overall, the asset purchases reduced 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%.

Term funding facility

The RBA also established a **term funding facility** for the banking system with particular support for credit to small and medium-sized businesses. Authorised deposit-taking institutions (ADIs), including banks, were given access to additional 'low cost' funding (as low as 0.1%) which was 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.

The combination of conventional and unconventional monetary policy initiatives employed between 2020 and 2022 supported AD, cushioned the fall in economic growth, and contributed to a fall in the unemployment rate to 3.5%.

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 and has therefore been less vigilant in restricting liquidity (via OMOs) to drive the cash rate back up towards the target. This temporary change to liquidity management can also be considered an example of unconventional monetary policy.

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 conventional 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, or 'quantitative tightening'. Of course, this 'unconventional' tightening of monetary policy was accompanied by conventional tightenings over 2022-23 that has seen the cash rate rise to a restrictive 3.85% by May 2023.

Forward guidance

The RBA also engaged in **forward guidance** as a further example of unconventional monetary policy. This involved the RBA attempting to provide markets with a degree certainty about the future direction of interest rates. Specifically, the Governor stated on many occasions that the cash rate target would remain at its lowest possible level until progress was made towards full employment and that the Bank was confident that inflation would be sustainably within the 2–3 per cent range. In particular, the RBA predicted that the cash rate would not rise until 2024, which was designed to give businesses and consumers more confidence to borrow and invest/spend.

Exam Tip: The forward guidance provided to markets over recent years has been heavily criticised in light of the aggressive tightening of monetary policy that took place over 2022-23, with the cash rate climbing from 0.1% in early 2022 to 3.85% by May 2023. It highlights the unpredictable nature of economic events (e.g. the war in Ukraine and its effects on inflation) and the risks associated with attempting to provide a degree of certainty in an uncertain world. This could be used as a contemporary example of a weakness associated with the use of monetary policy.

Transmission mechanism of monetary policy and its effect on the level of AD, including the four channels of savings & investment, cash-flow, exchange rate, and asset prices/wealth

The transmission mechanism refers to the way a change in the RBA's cash rate will ultimately affect economic activity and inflation. The process can be broken into 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 rise to maintain 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 interest 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, between 2020 and 2022, the gap between the cash rate and the home loan rate increased following the RBA's adoption of the most expansionary policy stance in history. This meant that home loan rates did not fall by as much as the fall in the cash rate, as the banks sought to protect profit 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 four 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. **Asset prices and wealth**
4. **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 mechanism of monetary policy …including savings and investment, cash flow, 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 channels might have operated to affect the level of AD, 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: In the past, the RBA referred to five distinct transmission channels, but over the past couple of years it omitted reference to the availability of money and credit channel. If you see a reference to this channel in past exams, it can safely be ignored. However, it simply refers to fewer households or businesses meeting the lending criteria required by banks when interest rates increase, which results in financial institutions approving fewer loans.

Exam Tip: Students are highly unlikely to be asked to explain all four transmission channels. However, they 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, but the nature of the question will generally provide 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!

Exam Tip: As you will notice from reading the following set of Exam Tips, questions relating to the transmission mechanism of monetary policy regularly appear on the examination. As noted above, choice will usually be given in relation to which transmission channel(s) will be tested (but this is not always the case). In the 2024 exam, students were given a choice and were asked to identify one transmission mechanism and explain how the 'current' stance of MP influenced AD and price stability. For this question, it was important to highlight the stance (which was restrictive) as well as extend the response to examine the impact on the achievement of the goal of price stability (rather than simply examine the impact on inflation). Importantly, students continued to make common errors, such as naming one channel and explaining another; focussing too heavily on the role of consumer confidence; including irrelevant information (e.g. liquidity management) and including explanations that lacked sufficient depth.

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 reasonable to expect a slowdown in the rate of spending by some property owners who experience a decline in the value of, perhaps, their most significant asset. The tightening of monetary

policy between 2022 and 2023 meant that this transmission channel played a larger role in dampening AD (compared to previous years), given the general decline/slow growth in property prices since then.

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 fuelied 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.

Exam Tip: In the 2023 exam, Q4d required students to refer to the asset prices and wealth channel of monetary policy to explain why the fall in house prices might have a negative effect on AD and the achievement of full employment. It was too common for students to simply link falling house prices with the negative effect on AD and the achievement of FE. Many ignored the need to link a fall in house prices to the tightening of MP (or the rise in IRs), which prevented the awarding of full marks. Many also attempted to explain the channel via the decrease in construction of houses (which is too micro focused), therefore ignoring the important role played by lower consumption spending as households experience a fall in (paper) wealth.

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 offered 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: When asked to demonstrate an understanding of a monetary policy transmission channels, 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. These mistakes continue to be made when responding to transmission mechanism questions.

Exam Tip: The 2022 exam required students to demonstrate an understanding of the exchange rate channel. Too many students made the mistake of failing to elaborate on how a less expansionary monetary policy stance (or higher interest rates) causes an exchange rate appreciation. Students should be prepared to refer to key elements such as interest rate relativities, capital inflow/outflow and the change in the demand/supply of the AUD on foreign exchange markets, before launching into an explanation of the impact on net exports, AD and the achievement of the goal in question. Also see Exam Tip below relating to the 2020 and 2015 exams.

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 is consistently a problem experienced by students when attempting to demonstrate an understanding of the exchange rate transmission mechanism. The best responses are those where students make 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: In the 2019 exam, students were once again tested on their understanding of the transmission mechanism. 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: 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: 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!

The stance of monetary policy: expansionary (accommodative), contractionary (restrictive) or neutral

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 which is characterised by a strong and sustainable rate of growth, full employment and price 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 meant that the RBA needed to loosen monetary policy by more than before to encourage households to undertake more credit based consumption. Similarly, during the recent tightening phase of policy, the RBA does not need to raise interest rates by as much in order to discourage spending.
- 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 4.25% 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 3.0%.

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 MP stance was neutral given that the TCR has remained at 0.1% between 2020 and 2022. 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). This is not expected knowledge for the purposes of the examination.

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 stance 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, when the RBA raised the target cash rate in 2022 from 0.1% in April to 2.85% in November, this tightening of monetary policy is not inconsistent with the monetary policy stance remaining expansionary – it simply became less expansionary than before. In other words, the interest rate setting in the economy remained low enough to be stimulating real GDP, despite the tightening of the policy over 2022.

Also note that monetary policy can become more expansionary even without a change in the TCR if the RBA decides to adopt unconventional measures, such as those introduced earlier, including Quantitative Easing/Asset Purchases and the Term Funding Facility. This is precisely what has occurred between 2020 and 2022, as the RBA recognised the inherent limitations associated with conventional monetary policy measures given that the TCR was very close to zero (i.e. 0.1%).

Exam Tip: Question 1e of the 2022 Exam required students to explain how movements in Australia's inflation rate and the unemployment rate may have influenced the stance of monetary policy. Many students misread the question and focused on how the less expansionary stance actually helps to reduce AD and inflationary pressures and increase the unemployment rate. Unfortunately, a number of students failed to clarify (1) how the MP stance became less expansionary over the course of 2022 (i.e. via a MP tightening/increase in interest rates); and (2) how both high inflation and a very low unemployment rate influenced the RBA to change the MP setting in this way.

Exam Tip: In the 2023 exam, students were required to analyse how the rates of unemployment and inflation influenced the stance of aggregate demand policies in 2023. The question was poorly handled, with many students launching into an explanation of how the policies were implemented over recent years, without any attempt to analyse the implications that a low UE rate and high inflation rate had for the stances of MP and BP. Many students also provided lengthy explanations for how the restrictive MP stance reduces AD and inflation via the various transmission channel, which was beyond the scope of the question.

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 approximately 3.5%. Australia's cash rate, sitting at 4.10% at the time of writing (May 2025), highlights that monetary policy is currently restrictive (or contractionary).

A restrictive monetary policy is typically associated with a policy tightening, where it is expected that a higher cash rate (or higher interest rates) will work to restrain the level of aggregate demand (AD) and economic activity, in an effort to contain inflationary pressures. 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 from an already restrictive level (e.g. 4.1%). It is also possible for monetary policy to remain restrictive even when the policy is loosened. For example, the reduction in the TCR from 4.35% to 4.1% in April 2025 simply means that monetary policy has become less restrictive. It does not mean that the monetary policy stance has become expansionary.

Monetary policy and domestic economic stability (DES)

The RBA is required to promote the economic prosperity and welfare of the people of Australia, both now and into the future, with a short to medium term focus on the achievement of price stability and full employment. While there has been a change to language used when describing the RBA's objectives (as detailed earlier), it remains true that the achievement of **price stability** is considered the key ingredient for longer term sustainable economic growth and employment creation, which ultimately improves welfare/living standards over time. Once inflation or inflationary pressures are considered to be under control, the RBA will naturally pay more attention to stimulating **economic and employment growth** in the shorter term. However, the RBA has recently made it clear that it will be less aggressive in its attempts to reduce inflation if it comes at the expense of an unacceptable rise in unemployment in the short to medium term. This is a manifestation of the new dual mandate or focus required of the RBA, with price stability and full employment technically given equal weight when the Board deliberates on monetary policy.

To illustrate how monetary policy has been employed over recent years, the expansionary stance adopted until 2022 stemmed from the fact that inflationary pressures were benign and the economy required stimulus to support growth and job creation, particularly following the 2020 recession. 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. However, by 2022, it was apparent that the economic recovery was well underway, as evidenced by a stronger rate of economic growth, the re-emergence of inflationary pressures (the headline rate rose above 3%), and a reduction in the unemployment rate to an extremely low 3.5%. As a consequence, the RBA scaled back its bond buying program and stopped targeting the yield on 3 year bonds (which effectively became an 'unconventional' tightening of monetary policy) before embarking on its aggressive 'conventional' tightening of monetary policy since May 2022, increasing the TCR to 4.35% by November 2023. This resulted in the monetary policy stance moving from a highly expansionary one to a restrictive one during 2023.

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 exam 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** typically involves a tightening of policy, leading 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 four 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.*

The tightening of monetary policy over 2022-23, with the cash rate rising to a restrictive 4.35% by November 2023, is the most recent example of monetary policy being used to achieve price stability.

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 was precisely the scenario that had existed up until 2022, 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 setting of monetary policy throughout 2022 remained expansionary, despite the 'de-facto tightening' referred to earlier and the subsequent increases in the cash rate to 2.85% by the end of 2022. [However, the further tightening in 2023, with the cash rate rising to 4.35%, ensured that monetary policy became restrictive, with a clear focus on returning inflation to the 2-3% target range.]

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 four transmission channels referred to earlier. As AD is stimulated through these channels, along with the associated boost in consumer and investor confidence, it leads to an increase in real GDP and economic growth. This, in turn, helps boost demand for labour and employment, exerting downward pressure on the unemployment and underemployment rates. In this way, the loosening of monetary policy helps stabilise the economy during a downturn and contributes to achieving 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

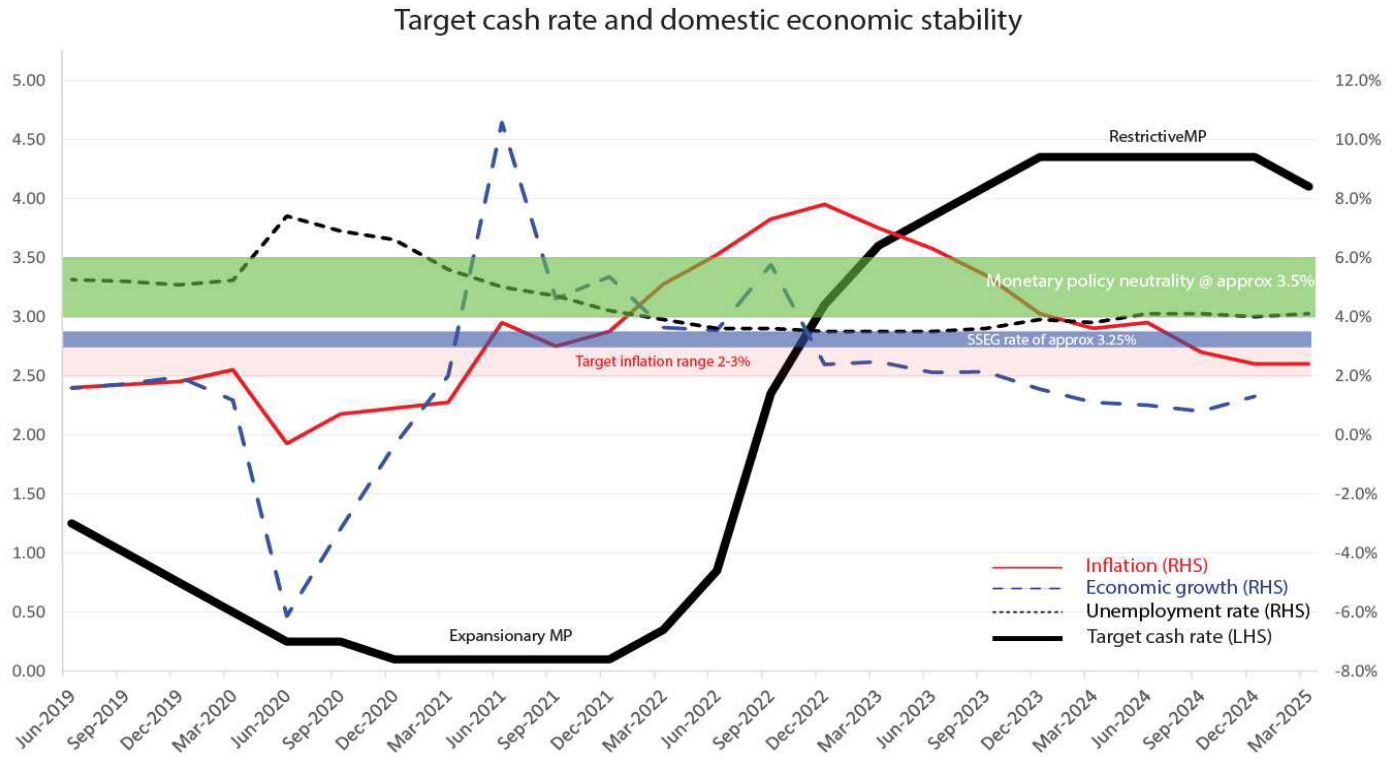
Another key financial variable that can be manipulated by the RBA is the exchange rate. To manipulate the value of the AUD, the RBA directly enters the foreign exchange market and either buys or sells Australian dollars in exchange for another currency (typically the USD). When it purchases (demands) 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 the AUD has clearly overshot (e.g. if the AUD is rising too much, pushed along by speculation, when its underlying value is 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 from 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 nor a 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 stance of monetary policy over the past two years and its likely effect on the achievement of the domestic macroeconomic goals and living standards

The chart below describes how monetary policy has been implemented since the middle of 2019 and compares this to the changes in the key variables underpinning the achievement of each of the government's macroeconomic goals.



Exam Tip: For the purposes of VCE Economics in 2025, students are only required to demonstrate an understanding of the stance of MP since 2023. The section below deliberately covers the period prior to 2023 to give students an appreciation of how the RBA has utilised MP to achieve economic stabilisation (and assist in achieving its goals) over the business cycle. An understanding of how the RBA changed MP settings during the recession and recovery will therefore be helpful to students if, for example, an examination question requires them to explain how aggregate demand can (or has) been used to stabilise the business cycle. Better quality responses will draw on how the RBA actually adopted an expansionary stance during the recession before moving to a restrictive stance in 2023 as inflation became excessive.

The year 2020 commenced with the 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 (-5.8%), deflation (0.3%) and an 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 to 0.1% in November 2020 – the lowest in history – as well as introducing unconventional 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 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.***

However, the economic recovery gained momentum faster than anticipated, evidenced by much stronger (annual) rates of economic growth by the end of 2021 (5.4% to the year ended December 2021), combined with a re-emergence of inflationary pressure (headline inflation of 3.5%)

and an unemployment rate falling to 4.2%. The strength of the economic recovery during the latter part of 2021 and the early parts of 2022 were 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

Over the course of 2022, the growth in demand inflationary pressures combined with the cost inflationary effects of the war in Ukraine, the ongoing global supply constraints (related to COVID-19) and the effects of damaging weather events in many parts of Australia. These demand and supply side effects resulted in inflation climbing to well above the RBA's target range (reaching as high as 7.8% for the year to end December 2022), causing the RBA to switch its attention from the need for economic expansion to a concern about the corrosive effects of high inflation. Accordingly, the RBA started tightening monetary policy, gradually at first in early 2022, before much more aggressively from the middle of 2022, increasing the target cash rate to 3.1% by the end of 2022 and making the monetary policy stance much less expansionary.

During 2023, the signs of ongoing inflationary pressures persisted in the economy and the RBA further tightened policy, increasing the cash rate to as high as 3.85% in May and again to 4.35% by November 2023. This resulted in monetary policy moving from an expansionary to a restrictive stance by the middle of 2023. Despite growing community anxiety about the aggressive monetary policy tightening (much earlier than 'promised' by the former RBA Governor) and the negative impacts on certain groups (e.g. those with mortgages forced to endure ever increasing servicing costs), the RBA was unapologetic about its stance, highlighting that some short-term pain (from higher interest rates) was necessary to avoid the more pervasive longer term damage that high inflation brings. In his address to the National Press Club in April 2022, the RBA Governor at the time justified the RBA's position in the following way:

> ***'… persistently high inflation is corrosive and damages our economy. It erodes the value of savings, puts pressure on household budgets and hurts people on low incomes the most. High inflation makes it harder for businesses to plan and it distorts investment. And if inflation becomes ingrained in expectations, it requires even higher interest rates and a larger increase in unemployment to get it back down again.'***

Inflation remained relatively high during 2024, despite the headline rate falling within the target range during the September and December quarters. The lower headline rate was driven by a combination of favourable economic factors, such as lower oil and fuel prices, as well as the effects of government rebates (e.g. on energy and rents) which created a temporary fall in the prices of services such as electricity. Accordingly, the underlying rate of inflation (e.g. the RBA's trimmed mean) remained above both the headline rate and the top of the RBA's target band. Despite a relatively low rate of economic growth over 2024, the rate of unemployment remained low, providing evidence of a continuing tight labour market, which was exerting upward pressure on wages (and inflation). In this environment, the RBA persisted with its restrictive setting at the end of 2024, noting that the evidence appeared to indicate that (aggregate) demand in the economy was still excessive relative to (aggregate) supply and that inflationary pressures remained a problem. The RBA did note, however, that this 'positive output gap' was narrowing, suggesting that a policy easing was likely in early 2025.

By early 2025 it was clear that the restrictive stance of monetary policy had helped to return inflation back into the target range. This was evidenced by continuing falls in headline and underlying rates through the months of January, February and March (as reported by monthly CPI releases), and later supported by the quarterly March 2025 CPI figures that showed both the headline (2.4%) and underlying rates (2.9%) falling into the RBA's target range. This disinflation was attributable to the operation of government rebates as well as other economic factors, including an the easing of global supply constraints, the decline in oil prices, falls in housing costs and the slower rate of wages growth. Given the favourable inflation outcomes and the low rate of economic growth, the RBA eased monetary policy in February 2025, reducing the target cash rate from 4.35% to 4.1%, making the monetary policy stance less restrictive.

While inflation remains low at the time of writing, the RBA remains guarded about any further changes to monetary policy settings in the months ahead. On the one hand, the labour market remains tight (despite the slower rate of wages growth), and productivity growth is poor, both of which add to labour costs and cost inflationary pressures. In addition, there still appears to be a positive output gap in the economy, with aggregate demand growing faster than aggregate supply (albeit the gap is narrowing), and the house price growth is accelerating once more, making the RBA nervous about any further monetary policy easing. However, the shifting and volatile geopolitical landscape is creating uncertainty about the economic impacts on Australia. The escalating trade tensions that have been triggered by the erratic and inward-looking behaviour of US President, Donald Trump, have resulted in instability across various markets and have led to downward forecasts for global growth. While growing trade conflicts, particularly between the USA and China, can negatively impact Australian rates of economic growth, employment growth and demand inflation, the outcome for inflation overall is less certain given the possibility of cost-inflationary pressures emanating from both higher global tariffs and the ensuing depreciation of Australia's exchange rate. This uncertainty was summarised by the RBA in the following way:

> ***'Uncertainty about the outlook abroad also remains significant. On the macroeconomic policy front, recent announcements from the United States on tariffs are having an impact on confidence globally and this would likely be amplified if the scope of tariffs widens, or other countries take retaliatory measures. Geopolitical uncertainties are also pronounced. These developments are expected to have an adverse effect on global activity, particularly if households and firms delay expenditures pending greater clarity on the outlook. Inflation, however, could move in either direction. Many central banks have eased monetary policy since the start of the year, but they have become increasingly attentive to the evolving risks from recent global policy developments.'***
>
> *Source: Statement by the Monetary Policy Board: Monetary Policy Decision April 2025*

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).

The strengths and weaknesses of using budgetary policy to affect aggregate demand and influence the achievement of the domestic macroeconomic goals and living standards

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 apolitical policy decisions – 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'

  - New legislation introduced in 2024 means that it is now no longer possible for the government of the day to override the RBA in the event that there is a material policy difference between them.

- ***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 February 2025, the RBA announced the decision and the markets adjusted automatically with the cash rate falling towards the new 4.1% target.

- ***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 unconventional 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. In addition, it has several opportunities throughout the year (e.g. eight board meetings) to easily change policy settings.

Exam Tip: In the 2024 Examination Report, the Chief Assessors noted the confusion that some students had in relation to the strengths: 'short implementation lag' and 'flexibility'. It was highlighted that they are two distinct strengths of monetary policy. 'The former refers to the speed with which the RBA can change interest rates, that is, any change in the cash rate usually flows onto interest rates applied by the banks to their customers within a few days; while flexibility refers to the eight opportunities the RBA has to change the cash rate in a calendar year and therefore interest rates more generally. …In short, alignment between the stated strength and the explanation of the stated strength is required.'

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 exchange rate. Similarly, monetary policy is unable to specifically re-allocate resources (e.g. to address market failures) nor improve equity by focusing on particular disadvantaged groups. The former RBA Governor described the blunt nature of monetary policy and its uneven effects in the following way:

  I acknowledge, [interest rates] can be a blunt instrument. We are very conscious that the impact is being felt very unevenly across the community. Around one-third of households have a home loan, and many are finding managing

the higher interest rates very difficult. This is only one channel through which monetary policy works, though. Changes in interest rates also affect asset prices, including housing prices and the exchange rate, and they alter the incentive for all households to save and spend. They also affect expectations of the future, which can affect spending plans and price- and wage-setting behaviour. These various transmission channels take time to work and their effects are not felt evenly across the community.

Source: RBA Governor's Opening Statement to HOR Standing Committee on Economics Feb 2023

- **Inability to directly reduce cost inflation**. A restrictive monetary policy stance can only reduce inflation on the demand side and cannot directly reduce cost pressures that may be the underlying cause of inflation. This was relevant in the recent context with most of inflation over 2022-23 being driven by cost inflationary pressures, highlighting the inability of monetary policy (unlike budgetary pressure) to reduce business costs, which results in an increased risk that monetary policy efforts to reduce inflation will result in an economic downturn or recession.

- ***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. For example, the tightening/restrictive phase up until the start of 2025 will continue to exert downward pressure on AD over 2025 and parts of 2026 . If, however, economic growth falls significantly in response to the current geopolitical uncertainties, then the effects of the restrictive policy stance will exacerbate the economic downturn (or recession) that may occur.

- The exchange rate channel of monetary policy becomes less effective when other central banks are also making equivalent adjustments to monetary policy settings as those being made in Australia. For example, in the recent context, the relatively more aggressive monetary policy tightening in the USA over 2023-24 prevented the AUD from appreciating during our tightening phase (given that Australian interest rates fell relative to US interest rates). It therefore muted the effectiveness of the exchange rate channel in reducing AD and inflationary pressures.

- ***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 are passed through to other rates depends on the 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 funding costs. Still, there is likely to be an element of banks attempting to boost profit margins in markets where competition is relatively weak (e.g., the 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 recession of 2020.

- ***Interest rate sensitivity is variable –*** Expansionary 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 to stimulate Consumption demand (e.g. via the cost of credit channel). Conversely, the recent tightening of policy requires smaller upward increments in interest rates 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.

- The 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, the tightening of monetary policy over recent years occurred during a time when the Federal Government was under pressure to deliver cost of living relief to households, which resulted in expansionary budgetary policy initiatives being delivered in recent budgets. So, it can be argued that monetary and budgetary policy worked against one another as the RBA sought to tighten policy to contain inflationary pressures (adding to cost of living pressures in the short term) and the government delivered 'structural' budget deficits that attempted to provide short-term relief but also worked to increase inflationary pressures.

Exam Tip: As noted earlier**, t**he forward guidance provided to markets over recent years has been heavily criticised in light of the aggressive tightening of monetary policy that took place over 2022-23, with the cash rate climbing from 0.1% in early 2022 to 4.35% by November 2023. It highlights the unpredictable nature of economic events (e.g. the war in Ukraine and its effects on inflation) and the risks associated with attempting to provide a degree of certainty in an uncertain world. This could be used as a contemporary example of a weakness associated with the recent use of monetary policy.

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 cash rate. Use a D/S diagram to illustrate.***
9. ***Explain how the RBA uses open market operations (OMOs) to decrease the 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 process involved in a tightening of monetary policy. Make reference to the policy interest rate corridor.***
12. ***Explain the process involved in a loosening of monetary policy. Make reference to the policy interest rate corridor.***
13. ***Explain why other interest rates increase/decrease when the RBA tightens/loosens monetary policy.***
14. ***Distinguish expansionary monetary policy from contractionary monetary policy.***
15. ***Define 'monetary policy neutrality' and explain why the cash rate at which MP neutrality occurs is lower today than it was in the past.***
16. ***Explain how monetary policy can become more contractionary (or less accommodative) without a tightening of monetary policy.***
17. ***Explain how monetary policy can become more expansionary (or more accommodative) without a loosening of monetary policy.***
18. ***Discuss how the RBA has changed monetary policy settings over the past two years.***
19. ***Outline four key transmission channels by which a change in monetary policy can influence AD.***
20. ***Explain why the RBA tightened monetary policy over 2022-23.***
21. ***Describe how the RBA adopted a more expansionary monetary policy stance over 2020-21. Make reference to 'non-conventional measures' and the purchase of second-hand government bonds.***
22. ***Explain how monetary policy can be used to achieve low inflation.***
23. ***Outline at least two ways in which a more restrictive monetary policy stance is likely to reduce inflation.***
24. ***Explain how and when monetary policy can be used to increase economic growth.***
25. ***Explain how a tightening of monetary policy is likely to affect 'full employment'***
26. ***Explain why monetary policy actions need to be pre-emptive.***
27. ***Provide a list of four economic variables the RBA could monitor to assist with inflation forecasting.***
28. ***Explain why tighter monetary policy settings are likely to result in a higher value for the AUD.***
29. ***The RBA loosened monetary policy in early 2025 in order to reduce the exchange rate. Discuss.***
30. ***Explain how the successful use of monetary policy can help to enhance living standards of Australians.***
31. ***Evaluate the strengths and weaknesses of using monetary policy to achieve economic growth and employment growth.***

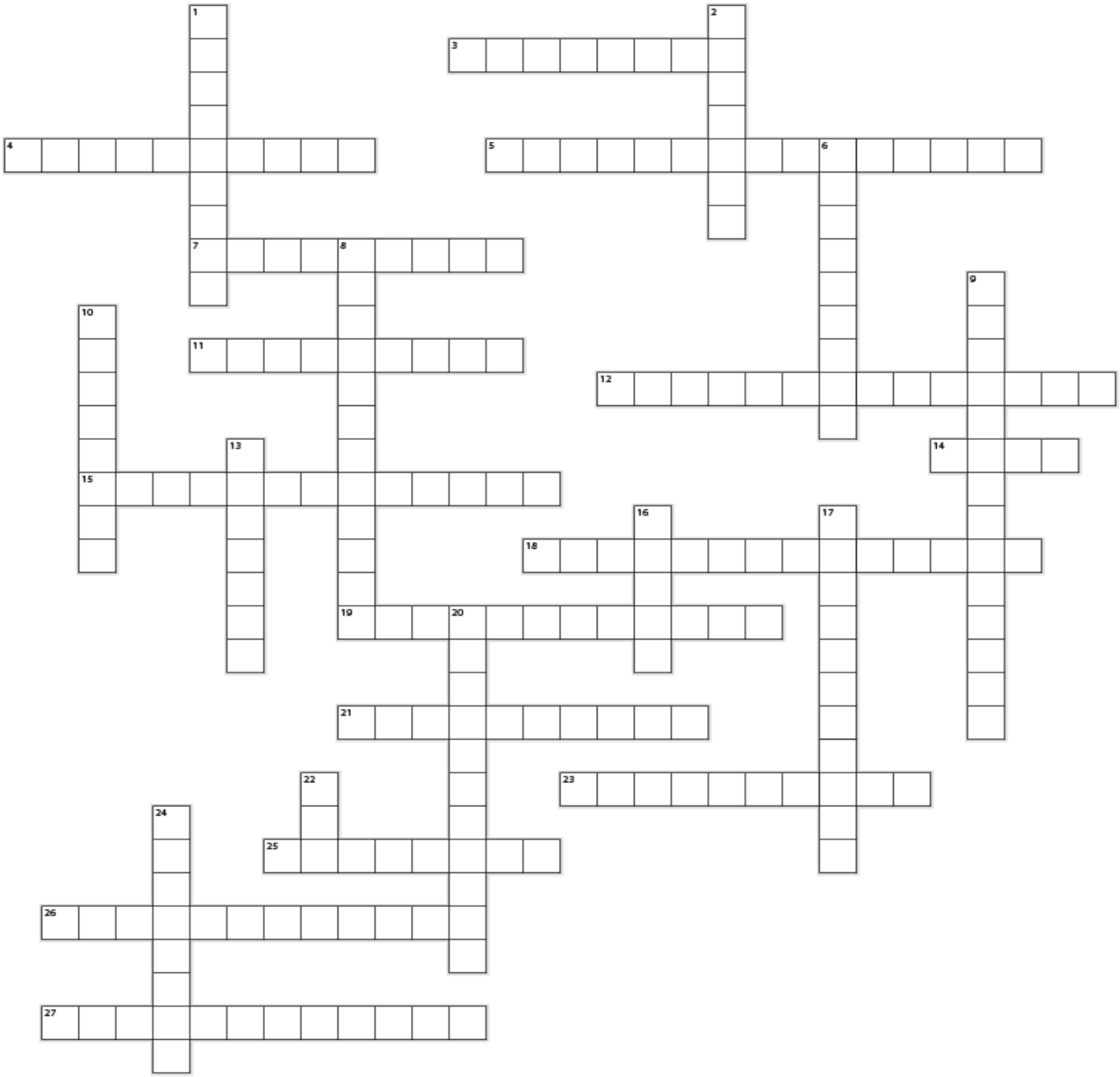
Quick revision crossword No 2: Monetary policy

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 up until the end of 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 channel that affects the tradables sector of the economy (2 words)
27. The transmission channel that involves a reduction in the demand for loans or credit (3 words)

Down

1. The RBA is concerned about high _____ 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 growth in these prices to record levels over the past couple of years is a contributing factor behind the rate of inflation climbing to relatively high levels over 2022-23.
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 a turnover of 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 price stability
b) Achieve stability in the value of the dollar
c) Promote economic growth
d) To maximise the economic prosperity and welfare of Australians now and into the future

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

5. Which of the following policy options are likely to be implemented 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 2025-26 Budget is correct
a) Fuel excise was increased in order to reduce carbon emissions
b) Gross government debt is estimated to fall
c) The estimated underlying cash deficit rose from the previous period
d) The government delivered a budget surplus to reduce cost of living pressures

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 in 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 4.25%
c) Boosting the prosperity and welfare of Australians
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 <u>actual</u> budget outcome for 2023-24 was a deficit (when a surplus was <u>estimated</u>), 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 associated with 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 rise in discretionary income of households which helps to increase Consumption

15. Which of the following best describes macroeconomic policy settings as at May 2025?

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

STRUCTURED QUESTIONS

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

2. **Explain how the RBA delivers a less restrictive monetary policy setting. In your answer, refer 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 creating a budget surplus can represent an increase in public sector savings. (3 marks)**

5. **Explain how a reduction in the size of the budget deficit from $20 billion to $10 billion is expected to influence the value of public debt. (3 marks)**

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

7. **Discuss 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 trend movement in the target cash rate since late 2022. (2 mark)

(b) Provide a valid explanation for the change in the monetary policy stance since early 2022. (3 marks)

(c) Explain what is meant by 'fiscal consolidation' and describe how fiscal consolidation can result in a less restrictive monetary policy setting. (4 marks)

(d) Describe how a lower exchange rate is likely to influence monetary policy deliberations in 2025. (3 marks)

TEST YOURSELF: 50 MC QUESTIONS (AOS 1)

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) Lower individual tax rates to raise disposable incomes

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 budgetary policy initiatives is most likely to address market failure:**
- (a) A reduction in the company tax rate
- (b) The introduction of Stage 3 tax cuts on 1 July 2024
- (c) Increased spending on anti-terrorism measures
- (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 2024-25 Budget, which of the following statements is correct?**
- (a) The government re-introduced a carbon tax
- (b) The budget outcome was an estimated deficit
- (c) Estimated government revenue was positively influenced by lower commodity prices
- (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 **A simple definition of the underlying budget outcome is**

(a) the headline budget outcome less net asset sales/purchases
(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 2025-26 Budget?**

(a) An increase in infrastructure spending
(b) An increase in interest rates
(c) Cost of living relief for households
(d) Increased spending on 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 RBA 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 **A decision to raise the target cash rate is likely to**

(a) increase economic activity
(b) reduce the level of aggregate demand
(c) increase the domestic money supply
(d) reduce domestic interest rates

25 **A loosening of monetary policy by the RBA 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, 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 government debt
(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 focus of monetary policy is to**

(a) stabilise the value of AUD on world currency markets
(b) to restore stability and confidence in the banking system
(c) achieve price stability and full employment
(d) reduce the economic prosperity and welfare of Australians

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 a slower rate of economic growth, higher unemployment and the emergence of inflationary pressures?**

(a) raise the target cash rate
(b) purchase more Australian dollars on foreign currency markets
(c) sell its stock of three year government bonds
(d) adopt a wait and see approach (i.e. do nothing in the meantime)

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

(a) reduce the budget surplus or raise the deficit
(b) reduce the cash rate
(c) purchase AUD in foreign exchange market
(d) sell Australian dollars on the exchange 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 significantly 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) an increase in the Terms of Trade
(c) a rise in the Trade Weighted Index
(d) a fall in Australia's exchange rate

37 **Tighter monetary is likely lead to**

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

38 **The growth in commodity prices and lower rates of unemployment should contribute to the delivery of:**

(a) A cyclical budget deficit and a restrictive monetary policy setting
(b) A cyclical budget surplus and a restrictive monetary policy setting
(c) A structural budget surplus and a restrictive monetary policy setting
(d) A structural budget deficit and an expansionary monetary policy setting

39 **If the RBA does not change the cash rate when the economy is growing very slowly, the monetary policy stance becomes relatively more:**

(a) neutral
(b) expansionary or accommodative
(c) restrictive or less accommodative
(d) unclear

40 **Which one of the following events is most likely to be a factor that influenced the RBA to increase the target cash rate during 2023-24?**

(a) a fall in the exchange rate
(b) a reduction in the size of the budget deficit
(c) a decline in real wages
(d) lower levels of business confidence

41. **Which of the following is incorrect in relation to the use of aggregate demand policies over the past couple of years?**

(a) The government delivered an estimated budget surplus for the financial year 2025-26
(b) The RBA loosened monetary policy in 2025
(c) The monetary policy setting is restrictive in early 2025
(d) The government delivered cost of living rebates over recent budgets

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 2024-25 Budget, which of the following statements is correct?**

(a) The budget is expected to return to deficit and government borrowing will increase
(b) The budget is expected to remain in surplus and government borrowing will decrease
(c) The budget is expected to remain in surplus and government borrowing will increase
(d) The budget is expected to return to 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 2025-26 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 budget was in deficit due in part to lower commodity prices
(d) The government increased the surplus because monetary policy became restrictive

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 action to contain 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 an increase in the terms of trade typically impacts on the government's goal to achieve fiscal consolidation.
4 marks

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 fiscal consolidation (i.e. to return the budget to surplus and/or reduce budget deficits). In particular, the higher prices received for commodities like iron ore and coal typically help 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, assisting with the achievement of fiscal consolidation.

Justification_____

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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. As the deficit decreases over time this means that the government will be more likely to achieve fiscal consolidation. 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 and/or decreases in government expenditure.

Justification_____

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2. Explain how monetary policy settings up until 2022 may have contributed to the housing price boom. In your answer refer to one transmission channel of monetary policy. 4 marks

Sample 1: *Monetary policy settings up until 2022 contributed to the housing price boom. The RBA lowered interest rates in the economy on numerous occasions. 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 0.1%. 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..*

Justification_____

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Sample 2: *Monetary policy was expansionary until the end of 2022, with several policy easings, as the RBA reduced the target cash rate to as low as 0.1% in 2020. This target cash rate remained at a very low level (until late 2022) and 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 channels. In particular, the looser monetary policy helped to fuel growth in the demand for housing, as lower mortgage rates worked to reduce the cost of credit, encouraging more demand for housing loans. This is because lower interest rates discourage saving and encourage borrowing (e.g. for investment in housing). The lower interest rates resulted in large increases in housing prices, particularly in Sydney and Melbourne, where these markets were generally considered to be in boom territory. This was a major factor behind the housing affordability crisis that is affecting younger Australians in particular.*

Justification_____

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3. Discuss the likely implications for both the budget outcome and the target cash rate (TCR) if Australia enters another recession.
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. 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_____

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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_____

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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_____

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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_____

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5. Explain how and why the RBA might use open market operations to reduce the cash rate. 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 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_____

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Sample 2: *An attempt the RBA to reduce the cash rate is likely to mean that it has increased above the target cash rate and the RBA wants to return it back to target. The RBA will increase liquidity in the cash market 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.*

Justification_____

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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_____

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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_____

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AREA OF STUDY 2: Aggregate supply policies

In this area of study students examine the role of aggregate supply policies in creating a stronger macroeconomic environment so that the domestic macroeconomic goals can be more easily achieved. They investigate the different approaches that policymakers may take to promote efficiency through productivity growth, reductions in the costs of production, and improvements in the quality and quantity of the factors of production. Students analyse how these policies may affect aggregate supply and Australia's international competitiveness and draw conclusions about the effects of these policies on the domestic macroeconomic goals and living standards.

Outcome 2
On completion of this unit the student should be able to discuss the operation of aggregate supply policies and analyse the effect of these policies on the domestic macroeconomic goals and living standards. To achieve this outcome the student will draw on key knowledge and key skills outlined in Area of Study 2.

Key knowledge

- the use of aggregate supply policies to complement aggregate demand policies in promoting non-inflationary economic growth over time
- the operation of aggregate supply policies in improving supply-side conditions through their impact on the quantity and quality of the factors of production, the costs of production and productivity, and the effect on Australia's international competitiveness, productive capacity and aggregate supply
- how one of the following budgetary policies is designed to affect aggregate supply, Australia's international competitiveness, the achievement of domestic macroeconomic goals, and living standards:
  - training and education
  - research and development
  - subsidies
  - infrastructure
  - tax reform
- the effect of skilled immigration policy on population, productivity and participation and the subsequent effect on productive capacity, aggregate supply, international competitiveness, the achievement of domestic macroeconomic goals, and living standards
- trade liberalisation and its short-term and long-term effects on Australia's international competitiveness, the allocation of resources, aggregate supply, and the domestic macroeconomic goals and living standards
- one market-based environmental policy and its short-term and long-term effects on aggregate supply, intertemporal efficiency and living standards

Key skills

- define key economic concepts and terms and use them appropriately
- gather, synthesise and use economic data and information from a wide range of sources to analyse economic issues and form conclusions
- discuss the operation of aggregate supply policies
- analyse the effect of budgetary, immigration and trade liberalisation policies on aggregate supply, international competitiveness, the achievement of the domestic macroeconomic goals and living standards
- analyse the effect of an environmental policy on aggregate supply and living standards over time

The use of aggregate supply policies to complement aggregate demand policies in promoting non-inflationary economic growth over time.

Aggregate supply (AS) policies are used to complement aggregate demand (AD) policies and help the government achieve its three macroeconomic goals. AD policies work in the short-term to stimulate spending, whereas AS policies work in the longer-term to increase the ability and willingness of businesses to produce and increase the productive capacity of the economy. This distinction between short-term and long-term effects is vital to macroeconomic analysis because, in the short-term, it's the interaction between AD and AS that determines fluctuations in the businesses cycle and the achievement of our goals. But ultimately, it's the growth in AS that promotes non-inflationary growth and the achievement of our macroeconomic goals and living standards in the long term.

Recall from Unit 4 AOS 1, AD policies can create inflationary pressures if they push the economy too close to its productive capacity (e.g. if AS growth cannot keep up with AD growth). AS policies complement AD policies by increasing the productive capacity or maximum possible output of an economy which will determine the potential sustainable growth rate in the economy. Growth in AS and productive capacity will allow increases in AD to occur without inflationary pressures.

Over the 2020-2022 period, record sized budget deficits, historically low interest rates and an economy emerging from forced COVID shutdowns, led to sharp increases in AD. However, on the supply side, global supply chain disruptions, restrictions on immigration and a tight labour market restricted growth in AS and the productive capacity, meaning AS could not keep up with AD, ultimately contributing to high inflation in Australia over the period.

Over the last three years, a net inflow of almost one million migrants into Australia and the easing of global supply-side disruptions reduced the tightness in the labour market and increased the productive capacity of the Australian economy—helping to ease cost inflationary pressures. Wages growth fell from a peak of 4.2% in December 2023, to 3.2% in December 2024, contributing to a decline in inflation into the RBA's target band in 2025.

Governments are increasingly paying attention to the need for AS policies in an effort to expand the nation's **productive capacity (the maximum output of an economy)** 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 and improve Australia's **international competitiveness.**

In the 2023-24 Budget, the Government highlighted the role played by budgetary policy supply initiatives in complementing AD policies to promote non-inflationary growth over time:

> ***Fiscal policy can also bring down inflation by growing supply, for example through productivity-enhancing investment or measures that increase the participation rate. These policies take time to expand production. While they won't offer immediate relief to current inflationary pressures, they improve the productive capacity of the economy over time, allowing it to grow more strongly without generating inflationary pressures. They can also make our economy more resilient to future shocks in our supply chain.***
>
> *Source: The Treasury, Budget Paper No. 1 Page 91*

Exam Tip: Question 5a in the 2023 exam required students to explain how aggregate supply policies might be used to complement aggregate demand policies to promote non-inflationary economic growth. Many students struggled to explain how AS policies work together with AD policies (e.g. complement) to ensure the economy is growing at a sustainable rate (e.g. promoting non-inflationary growth). Instead, many students focused on how AS policies work to slow the rate of inflation, ignoring the intention of this question. If this, or a question similar to this, is asked again in the 2024 exam, students should focus on how these policies complement each other. E.g AD policies stimulate growth in spending and production and AS policies expand the capacity of the economy and allow AD growth without excessive inflationary pressures.

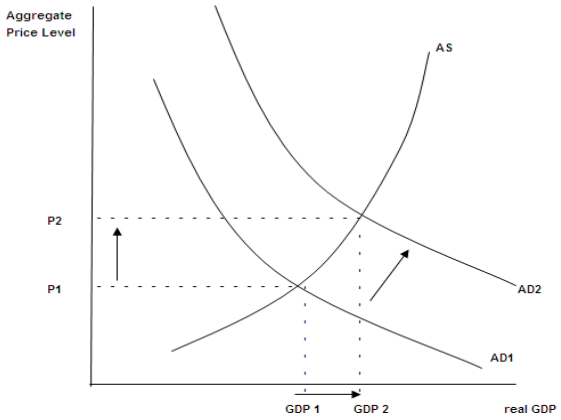
The operation of aggregate supply policies in improving supply-side conditions

There are two ways to think about AS. First, AS represents the total volume (or real value) of goods and services that has been produced and supplied to markets over a period of time. By this definition, AS is influenced by both AS factors (e.g. the quality and quantity of resources available or costs of production) and AD factors (e.g. consumer confidence or overseas economic growth) and represents total goods and services supplied when the economy is in equilibrium. This is shown diagrammatically as the point where both the AD and AS curves intersect (see diagrams below), which therefore represents the value of real GDP or output. Second, AS can be thought of as a measure of the ability of an economy to make available the goods and services to meet (aggregate) demand - effectively the sum of all goods and services that **can** be supplied to markets in the economy. Diagrammatically, this can be seen by examining the whole AS curve, where there is a positive relationship between the general price level and the level of real GDP(AS). When AS is mentioned in the discussion below you should think of it in this way and appreciate the link between .

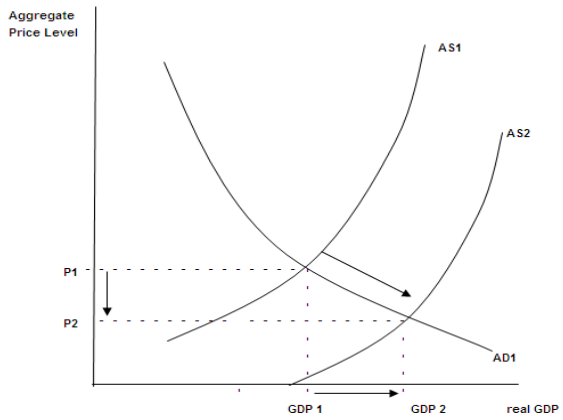
Exam Tip: While the use of AD/AS diagrams is no longer specified as key knowledge in the study design, an understanding of these diagrams can aid in the understanding of this part of the course, as well as provide potential to add value in the examination. In the 2023 Report, referring to Q5a, the Chief Assessor noted that 'a number of students added value by including an AD/AS diagram to illustrate their response, shifting both the AD and AS curves to the right to illustrate the growth in real GDP (x-axis) occurring alongside low growth in prices (y-axis).

AS policies refer to any measure designed to increase the ability and/or willingness of Australian businesses to produce which is done by reducing costs of production and/or improving the quality and quantity of resources available 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 aim to shift the AS curve to the right, increasing the willingness and/or ability of businesses to increase production of goods and services. This shift leads to an increase in real GDP, which is shown on the diagram where the AD and AS curves intersect (i.e. macroeconomic equilibrium). This contrasts with AD policies which involve a shift to the right **or** left of the AD curve. Some AD policies will be designed to slow down AD and real GDP (in order to ease capacity contraints and focus on achieving price stability), while others are designed to speed up AD and therefore real GDP (in order to achieve a stronger rate of economic growth) . This contrast between AD and AS policies is highlighted in the AD/AS diagrams below:

Macroeconomic demand management policy actions to boost activity



Aggregate supply policy actions to boost activity



The growing importance of aggregate supply policies

Governments announce new measures in most budgets that are designed to reduce business costs of production or improve the quality and quantity of resources, 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.*

More recently the Productivity Commission published their 5-year Productivity Inquiry (March 2023), Identifying key themes for productivity improvements, these included:

- Building an adaptable workforce *(Immigration and education and training policy)*
- Harnessing data, digital technology and diffusion *(Research and development and infrastructure policy)*
- Creating a more dynamic economy *(Tax reform and trade liberalisation)*
- Securing net zero and adapting to a change in climate at least cost *(Environmental policy).*

These themes map closely to the VCE Economics Study Design and the AS policies outlined in the Key Knowledge points. These policies are italicised in brackets above.

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 earlier, 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 **labour 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** refers 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 under Unit 4, students should expect the concept to appear in relation to AS policy. 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.

Extension: 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: 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.

AS policies and the achievement of our macroeconomic goals

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**.**

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 capita, 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. ***Outine the most appropriate way to define aggregate supply when considering AS policies***
2. ***Explain the operation of aggregate supply (AS) policies. E.g. What are all AS policies designed to do?***
3. ***Distinguish between AS and AD policies***
4. ***Explain how AS policies complement AD policies in promoting non-inflationary growth.***
5. ***Use an AD/AS diagram to highlight the impact of AS policies on growth and inflation.***
6. ***Explain how the implementation of AS policies is likely to boost productivity and 'efficiency' in the economy.***
7. ***Describe the relationship between AS and efficiency in the allocation of resources.***
8. ***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 and stable inflation. In your response, refer to international competitiveness..***
9. ***Outline how AS policies are expected to contribute to an improvement in material living standards.***
10. ***Explain how AS policies can reduce non-material living standards.***

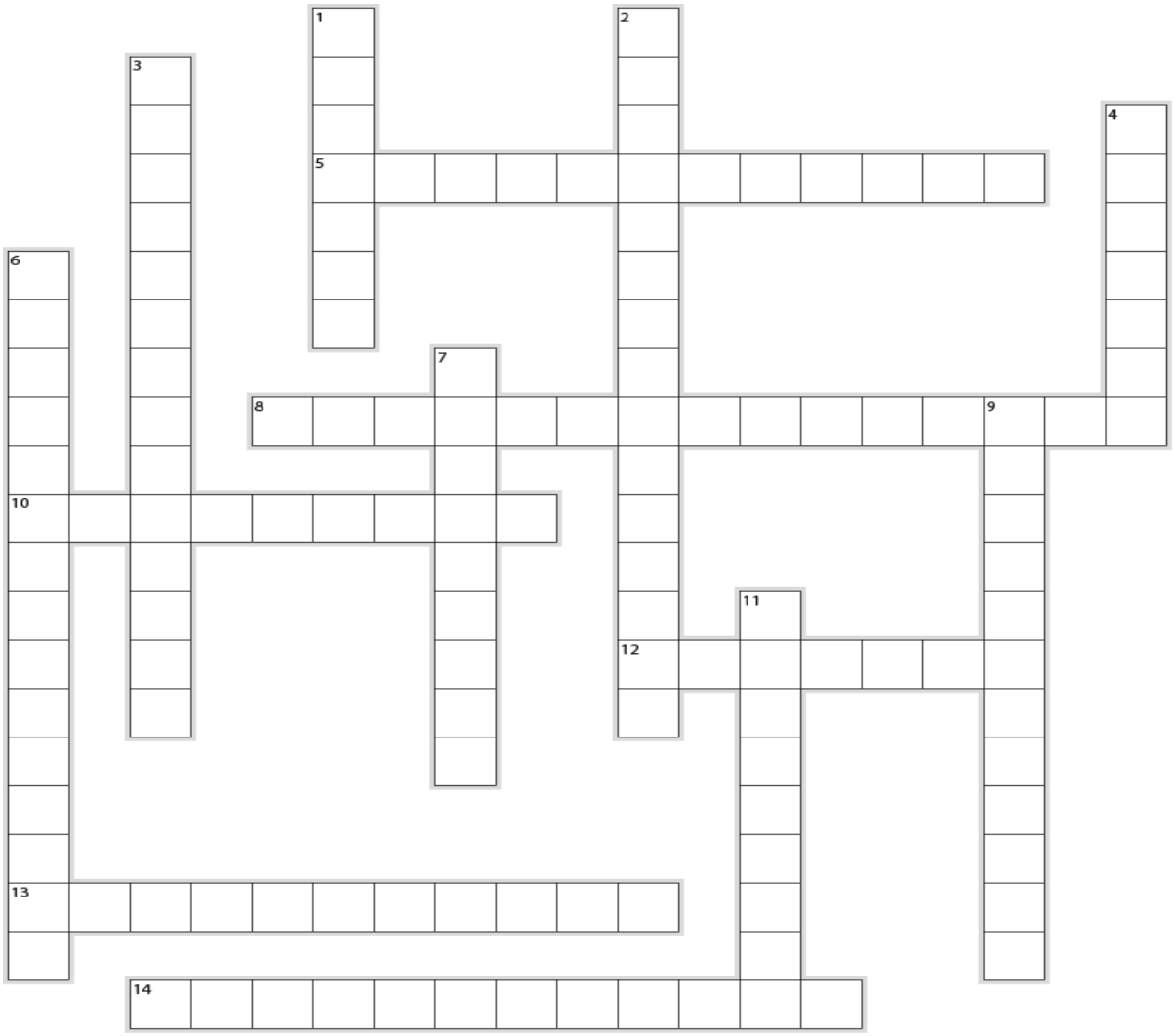
Quick revision crossword No 3: Nature, operation and aims of AS policies

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 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 measures to affect aggregate supply, international competitiveness, the achievement of domestic macroeconomic goals, and living standards

Exam Tip: In the new Study Design, students are now required to know **one** of the following AS budgetary policies: training and education, research and development, subsidies, infrastructure and tax reform. It is recommended that students understand the existence of all polices, but 'specialise' in **one only**.

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: One of the key themes in the 2024 Examiners' Report was that many students failed to clearly link economic concepts in their answers. This often led to shallow responses and limited the marks they could achieve. It's important to go beyond simply stating a point—make sure your writing clearly explains the relationship between concepts. This avoids making vague assertions and helps demonstrate a deeper understanding. For example, a student might write: "An increase in productivity means an increase in the productive capacity." This is an assertion as it doesn't explain how or why the two are connected. A stronger response would be: "An increase in productivity allows firms to produce more output from the same level of inputs, which expands the economy's productive capacity or potential output." This version clearly links cause and effect and uses precise terminology. These are small changes, but they can make a big difference to the quality of responses.

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 in the longer term. For example, the increase in G2 spending on the 'Melbourne Metro Tunnel' or the other 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 + education, international competitiveness, macro goals and living standards.

The education and training sector plays an important role in addressing Australia's skilled labour shortages. 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 both students and academic staff).

In its latest 5-year Productivity Inquiry, the Productivity Commission identified the some of the following priorities to improve labor market productivity via education and training policy:

- Improve schools' capacity to lay the education foundations for the future workforce
- Enable innovative schooling approaches for improved learning outcomes
- Grow access to tertiary education
- Support a culture of lifelong learning for an agile workforce

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:

International competitiveness: A more knowledgeable and skilled workforce improves labour market productivity and may lead to more innovative products or processes. Ultimately this improves the ability of Australian business to compete in global markets on price and quality.

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 (via an increase in export spending) 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 8% 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 2025-26 budget are contained below:

- $7.6 billion to the 10-year **Better and Fairer Schools Agreement** as part of the new agreement to fund government schools around the country, aiming to create a more equitable and high-quality education system.

- $5 billion towards building a universal early childhood education and care system, including wage increases for childcare workers and to establishing a **Build Early Childhood** education fund.
- $2.5 billion over 11 years towards a new higher education funding system

These initiatives should help to improve the skills and knowledge of our current and 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, international competitiveness and the achievement of our 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:

Education and training initiatives announced in recent budgets:

- $427.4 million to deliver a **Commonwealth Practical Payment** to support teaching, nursing and social work students complete their university placements. This will provide $319.50 per week to more than 73,000 eligible students who undertake mandatory placements as part of their degree.
- Provide 300,000 **free TAFE** and vocational education training places (announced in October 2022)
- $128.5 million to fund **4,000 additional university places** over the next four years
- $38.4 million to support high quality and culturally appropriate education for First Nations children in remote areas across Australia
- $9.3 million to help attract, train and retain teachers as part of implementation of the **National Teacher Workforce Action Plan** (In addition to the $328.0 million committed in the October)
- Funding the **ReBoot initiative** helping Workforce Australia to support up to 5,000 disadvantaged young Australians to develop employability skills, providing a pathway to employment services and training opportunities
- The introduction of a new **Australian Apprenticeships Incentive System** from 1 July 2022, providing support to employers and apprentices in priority occupations
- 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)

Exam Tip: There is no requirement for students to learn AS policies from the past two years (as there is for AD policies). Therefore students can choose examples from any budget. However, it is recommended that students choose contemporary policies from within the past 4 years.

Research & Development (R&D) , international competitiveness, macro goals and living standards.

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:

International competitiveness: The better capital/technology leads to lower average costs for businesses improving the ability of Australian business to compete in global markets on price and quality.

Price stability: The reduction in pressure on prices leads 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 its latest Trade and Assistance Review (August 2022) that $4.5 billion of assistance was directed to research and development grants which goes directly to businesses and industries who engage in research and development and/or via the CSRIO and universities.

R&D initiatives announced in recent budgets:

- $1.7 billion **Future Made in Australia Innovation Fund**, part of which will provide grants to innovate, develop and produce, green metals, clean energy technology and low carbon liquid fuels.
- $1 billion in tax credits and grants to manufacturers in the solar panel supply chain, via **the Solar Sunshot scheme.** This scheme aims to encourage research and development, innovation and ultimately production in the Australian solar panel manufacturing industry.
- $523.2 million over 7 years for the **Battery Breakthrough Initiative**, providing tax credits for local manufacturers of battery products to support the transition to net zero.
- $3.55 billion for the maintenance of the generous R&D tax concessions available every year via the **Australian Research and Development Tax Incentive**
- A **Technology Investment Boost** for small businesses via a 120% tax deduction on business expenses that support digital uptake
- The creation of a $2.2 billion **University Research Commercialisation Action Plan** Devoted to research in clean energy, medical products, defence and other high priority manufacturing areas
- 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.

Subsidies, international competitiveness, macro goals and living standards.

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 impact on international competitiveness, living standards and the achievement of the government's 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. We will examine this further below under 'trade liberalisation'.

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 (PC) 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'). However, in its latest report, the PC notes that many countries, including Australia, are once again begininng to engage in trade protectionist measures that run the risk of eroding many of the gains that have been made from trade liberalisation over many decades. This current state of play in relation to industry assistance was summarised in the PC's Trade and Assistance Review:

'After more than 60 years of falling trade barriers and increasing global economic integration, industry policy and trade protectionism are back on the rise. The shift is being driven by a resurgence in strategic competition between the major economies, public memory of COVID-19-related supply chain disruptions, and national positioning to benefit from the global clean energy transition. '

Source: *https://www.pc.gov.au/trade-assistance-review-July 2023*

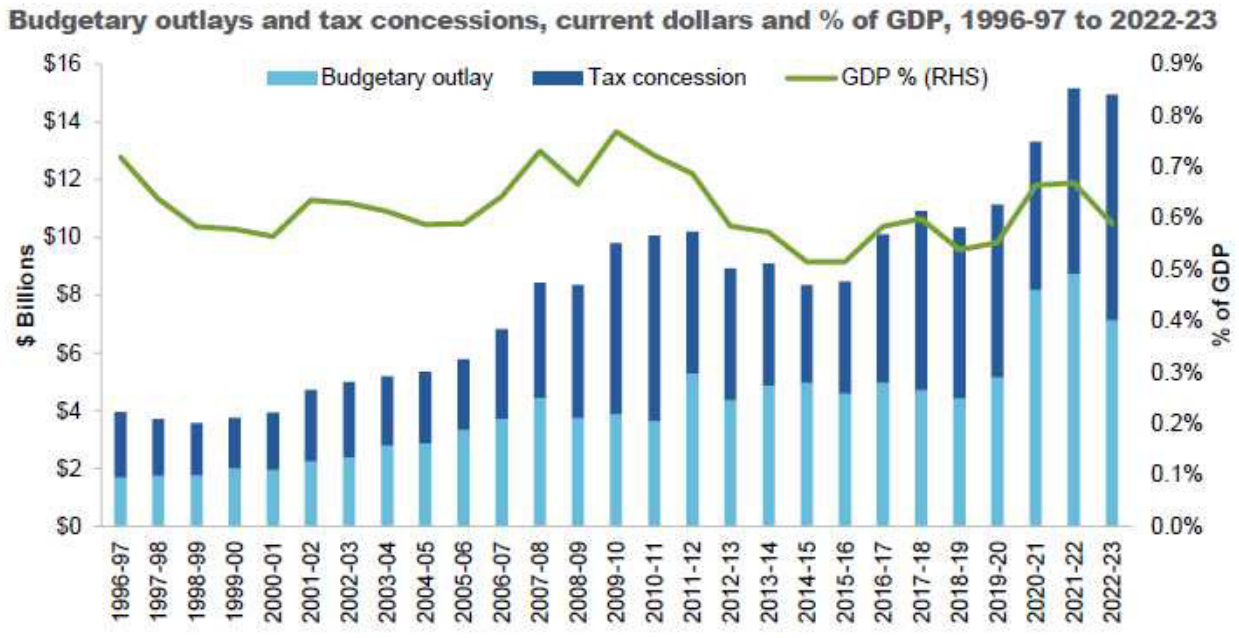
The newly announced 'Investing in a Future Made in Australia' package within the 2024-25 Budget is potentially an example of how the Australian government intends to deliver industry assistance that goes against the grain of trade liberalisation. The initiatives that will be delivered via the package are purportedly designed to secure 'Australia's place in a changing global economic and strategic landscape' and 'maximise the benefits of the net zero transformation'. However, these types of assistance programs run the risk of misallocating the nation's resources, particularly if there is no clear strategic and/or economic benefit. Reverting to protectionism ultimately imposes long term costs on Australians and erodes living standards. The risks of subsidising Australian producers was articulated by the PC in the following way:

'…the costs of building and maintaining a domestic production capacity in non-comparative advantage sectors are likely to be large. Each dollar spent on subsidising domestic production capacity in non-comparative advantage sectors is a dollar taken away from sectors in which we enjoy a comparative advantage… By contrast, continuing to focus on our comparative advantage is likely to build a broader and more enduring form of resilience – providing the high-income levels that can help deal with, and manage the fallout from, any unforeseen supply chain issues that might arise in the future.

Source: *https://www.pc.gov.au/trade-assistance-review-July 2023*

In 2025, evidence of the growing protentionist sentiment was most striking in the US, where Donald Trump imposed heavy tarrifs on a range of trading partners, citing a return to American manufacturing. At the same time in Australia, albeit at a much smaller scale, the Albanese Government alocated $20 million to the **Buy Australian Campaign**, aiming to encourage consumers to buy Australian-made products. The current state of protectionst policies will be discussed futher under trade liberalisation policy. The Productivity Commission's latest report highlighted that budgetary assistance (which includes tax concessions as well as subsidies) has increased over recent years, as shown in the chart below:

Figure 1.3 – Budgetary outlays and tax concessions, current dollars and share of GDP, 1996-97 to 2021-22



Source: https://www.pc.gov.au/trade-assistance-review-July 2024

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:

International competitiveness: In the longer term subsidies can hurt Australia's international competitiveness. This is because subsidies protect industries or businesses from global competitive forces which reduces the pressure to increase productivity or innovate. This can lead to higher prices and lower quality goods and services. In the short-term subsidies could increase the competitiveness of Australian businesses in that it reduces their costs of production.

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:In the new Study Design students are required to analyse the effect of budgetary policies on aggregate supply, international competitiveness, the achievement of the domestic macroeconomics and living standards. Subsidies, as an example of a budgetary policy initiative, 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. 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.

Subsidies announced in recent budgets:

- $7.9 billion to expand bulk billing so that 9 out of 10 GP visits are bulk billed by 2030 (Bulk billing effectively reduces the out-of-pocket cost of a GP to $0)
- $784.6 million to cap the maximum cost of PBS medicines at $25, making prescriptions cheaper for Australian consumers
- $54 million to support prefabricated and modular housing construction
- $10 billion to the **Fuel Tax Credits Scheme in 2024-25**. The Federal Government continues to provide subsidies to fossil fuel producers. This figure is forecast to rise to $12 billion in the 2027-28 financial year.
- As part of the Government's **'Investing in a Future Made in Australia'** intiative:
    - $1.5 billion to strengthen **battery and solar panel** supply chains through production incentives
    - $466.4 million to advance Australia's **quantum computing** capabilities
    - $4 billion to the **Hydrogen Headstart program**, which will provide support for renewable hydrogen projects. Successful projects will receive subsidies from the government to support the production of renewable hydrogen. This program aims to reduce the cost of hydrogen in Australia and encourage its use.
    - $566.1 million to map Australia's **geological potential** to support net zero transition
    - $1.7 billion to promote net zero innovation, including for **green metals and low-carbon fuels**
    - $268 million to support the development of **defence industries** and skills
    - $519.1 million from the **Future Drought Fund** for farmers and rural communities
- A $3.5 billion **energy bill relief package** which will provide eligible businesses $325 in rebates (effectively a subsidy) to reduce energy bills. Treasury estimate that 1 million small businesses will receive this rebate in the 2024-25 financial year.
- An increase in the **Child Care Subsidy (CCS)** rate from 85 per cent to 90 per cent for families on their first child in care
- Investing a further $328 million 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 $200 million 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

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.

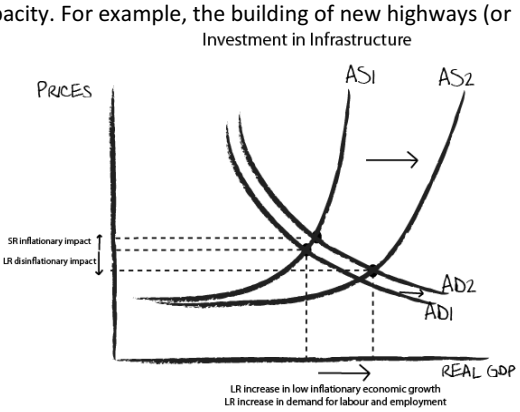
Exam Tip: It is also useful to remember the link to Unit 3 and the fact that some subsidies can potentially be used as an example of government intervention that unintentionally leads to a less efficient allocation of resources. For example, it can be argued that the subsidies for the MV (parts) industry 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.

Investment in infrastructure, international competitiveness, macro goals and living standards.

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, digital systems 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:

International competitiveness: Improvements in the quality and quantity of physical and digital infrastructure improves the productivity of labour and capital and reduces unit costs for Australian firms. This increases their ability to compete in world markets in both price and quality.

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).

Exam Tip: Question 3b of the 2022 exam required students to explain how investment in infrastructure might influence AS and the inflation rate. Some students remained focused on the possible SR upward impact on inflation that stems from greater investment in infrastructure. While it is relevant to make reference to demand side impact, the highest-scoring responses focused on the disinflationary impact in the LR that is expected to occur following an increase in infrastructure investment.

Infrastructure initiatives announced in recent budgets:

- $2.0 billion for an upgrade to **Sunshine Train Station**, which is pitched as an important step towards the **Melbourne Airport Rail link**.
- $1.1 billion to support upgrades along the **Western Freeway** in Victoria.
- $1.0 billion for the **Road Blitz**, to improve the capacity of roads in Melbourne suburbs.
- An extra $3.25 billion committed to **Victoria's North East Link** project, bringing the total contribution to $5 billion. Victoria's North East link includes 6.5km of new tunnels connecting Melbourne's northern and eastern suburbs via an upgraded Eastern Freeway and M80 ring road.
- $7.2 billion for safety upgrades on the **Bruce Highway** in Queensland
- $1.9 billion towards 14 new infrastructure projects and two existing projects in Western Sydney.
- A $466.4 million partnership to build the world's **first commercial-scale quantum computer.**
- $240 million to support the urban renewal of **Macquarie Point in Hobart.** Included in the proposal is a multi-purpose stadium where the new **Tasmanian AFL and AFLW** teams are expected to play.
- $200 million to the **Thriving Suburbs Program** to provide merit-based and locally driven grants that address shortfalls in community infrastructure.
- Investing a further $2 billion in Hydrogen Headstart, a new program to support hydrogen production and assist in Australia's plan to become a **renewable energy superpower**
- Increasing investment in renewable energy through the Capacity Investment Scheme, which will unlock over $10 billion of investment in Australia's energy grid. The Government is also developing a **Future Gas Strategy**, which will support Australia's energy system to reach 82 per cent renewables by 2030.
- Committing $15 billion to the **National Reconstruction Fund**, one of the largest investments in manufacturing in Australia's history. It is intended to support regions and help create secure, well-paying jobs, as well as build future prosperity.
- Additional spending of $17.9 billion 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.
- 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

Tax reform policies, international competitiveness, macroeconomic goals and living standards

In theory, tax reform is an overhaul of all different aspects of the tax system in Australia. Tax reform should encourage business investment and activity, as well as encourage greater labour force participation and higher productivity. These forces act together to increase improve Australia's international competitive, increase AS and allow the government to better achieve the three macroeconomic goals in the longer term.

> ***There is evidence that the economic costs of Australia's tax system are higher than they need to be. Australia's tax system was designed in a different era, when the economy was very different. There are opportunities to simplify Australia's tax system and improve its fairness. Many features of the existing system make it less attractive to invest in Australia and limits job growth, affecting Australia's continuing prosperity. Other features make it less attractive for people to work. Some aspects create unnecessary waste. Across the system there is significant complexity.*** *(The Tax White Paper, The Treasury, 2015)*

Tax reforms for households

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 (see extension below). To the extent that changes to the personal tax system result in higher rates of (labour) productivity and a decrease in businesses costs of production, the willingness and ability of businesses to produce more goods and services will increase helping the government achieve its macroeconomic goals in the long term.

Tax initiatives announced in recent budgets:

- The tax rate on the $18,201-$45,000 **tax bracket will be reduced** from 19% to 16%, increasing the progessive nature of Australia's income tax system.
- Beginning in the 2025 tax year **superannuation balances** over $3 million will be taxed at a rate of 30% rather than standard 15%.
- **The modified Stage 3 tax cuts came into force on 1 July 2024,** which includes changes to the three highest tax brackets. See table below.

2020-21 to 2023-24		2024-25 onwards	
Taxable income	**Tax rate**	**Taxable income**	**Tax rate**
0 – $18,200	0%	0 – $18,200	0%
$18,201 – $45,000	19%	$18,201 – $45,000	16%
$45,001 – $120,000	32.50%	$45,001 – $135,000	30%
$120,001 – $180,000	37%	$135,000- $190,000	37%
$180,001 and over	45%	$190,000 and over	45%

Recall from Unit 3 AOS 2, that a progressive tax is one where the percentage (or proportion) of income paid in tax increases as income rises. The legislated Stage 3 tax changes, highlighted in the table above, effectively lessen the progressive nature of Australia's income tax system, placing a relatively higher tax burden on lower income earners. This illustrates the key trade-off between efficiency and equity outlined in the exam tip below.

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 (which was previously legislated but reinstated in the revised Stage 3 tax cuts) would help to improve efficiency given the positive effect on incentives. However, it would also have regressive effects, negatively impacting on equity. Accordingly, this type of tax reform can help to boost aggregate supply (via the effect on efficiency) and therefore have a positive impact on living standards. However, the regressive effects will tend to have a negative impact on living standards, given the growing divide between high and low income earners and the potential for less social cohesion.

Tax reforms for businesses

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. 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.

Business tax initiatives announced in recent budgets:

- The post budget announcement of an extension of the **temporary full expensing (instant asset write-off)** which allowed businesses to immediately deduct the full cost of business assets(up to $20,000), designed to encourage business investment into new capital and equipment.
- As part of the Government's **'Investing in a Future Made in Australia'** intiative:
    - A $6.7 billion production tax incentive for the production of **renewable hydrogen**
    - A $7 billion production tax incentive for the **processing and refining of critical minerals**
- The **Small Businesses Energy Incentive** provides $310 million in tax relief to support businesses to make investments into electrification.
- 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
- 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).

Despite these tax reforms to household and business above there are also strong calls for further reform to the Australian tax system in way that incentivises investment and/or encourage reforms that result in higher productivity and (productive) efficiency. This includes an an overhaul of the Goods and Services Tax (GST) system, the removal and/or reduction in Stamp Duty and the introduction of a land tax. Other changes to the

tax system have also been proposed with equity and fairness in mind (rather than efficiency), and these include further increases to resource rent taxes, greater taxing of 'windfall' profits and the introduction of an inheritance/wealth tax.

Overall, the degree to which tax reform boosts the nation's productive capacity will ultimately determine the achievement of the government's domestic macroeconomic goals in the following ways:

International competitiveness: Reducing taxes on businesses will reduce their costs of production and encourage lower prices and inflation, which improves the ability of Australian business to compete in global markets on price and quality.

Price stability: Tax reforms designed to increase participation in the labour force will increase competition amongst workers for jobs, alleviate skill shortages and put downward pressure on unit costs for firms. To the extent that firms pass these costs savings on to consumers, downward pressure is placed on inflation 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/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: Question 3b of the 2022 exam required students to explain how tax reform might influence AS and the inflation rate. Some responses referred to the temporary fuel excise relief provided during 2022 as an example of a tax reform. While this was fine to use, a number of students over-emphasised the inflationary impact stemming from the rise in discretionary income and downplayed or ignored the disinflationary impact stemming directly from the beneficial supply-side impact (i.e. lower costs of production) as fuel prices were contained somewhat. If in doubt about the effects of a policy action on prices or inflation, it may be worth drawing a AD/AS diagram in the border of the exam. In this example, the rightward shift of the AS curve should be larger than any potential shift to the right of the AD curve.

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.

Extension: Principles of a good tax system

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).
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.

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. ***Explain how a different education and training policy measure could improve international competitiveness.***
3. ***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.***
4. ***Explain how a different R&D policy measure could improve international competitiveness and living standards.***
5. ***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.***
6. ***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.***
7. ***Define a subsidy and outline the likely purpose of a subsidy.***

8. ***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.***
9. ***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.***
10. ***Discuss how subsidies can influence international competitiveness.***
11. ***Identify the importance of taxes as a means of raising government revenue.***
12. ***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.***
13. ***Explain how one example of tax reform (legislated or proposed) could improve Australia's international competitiveness.***
14. ***Explain how two recent budgetary policy measures have been directed at improving the quality of resources in order to lift productive capacity and improve international competitiveness.***
15. ***Explain how two recent budgetary policy measures have been directed at improving the quantity of resources in order to lift productive capacity and improve international competitiveness.***

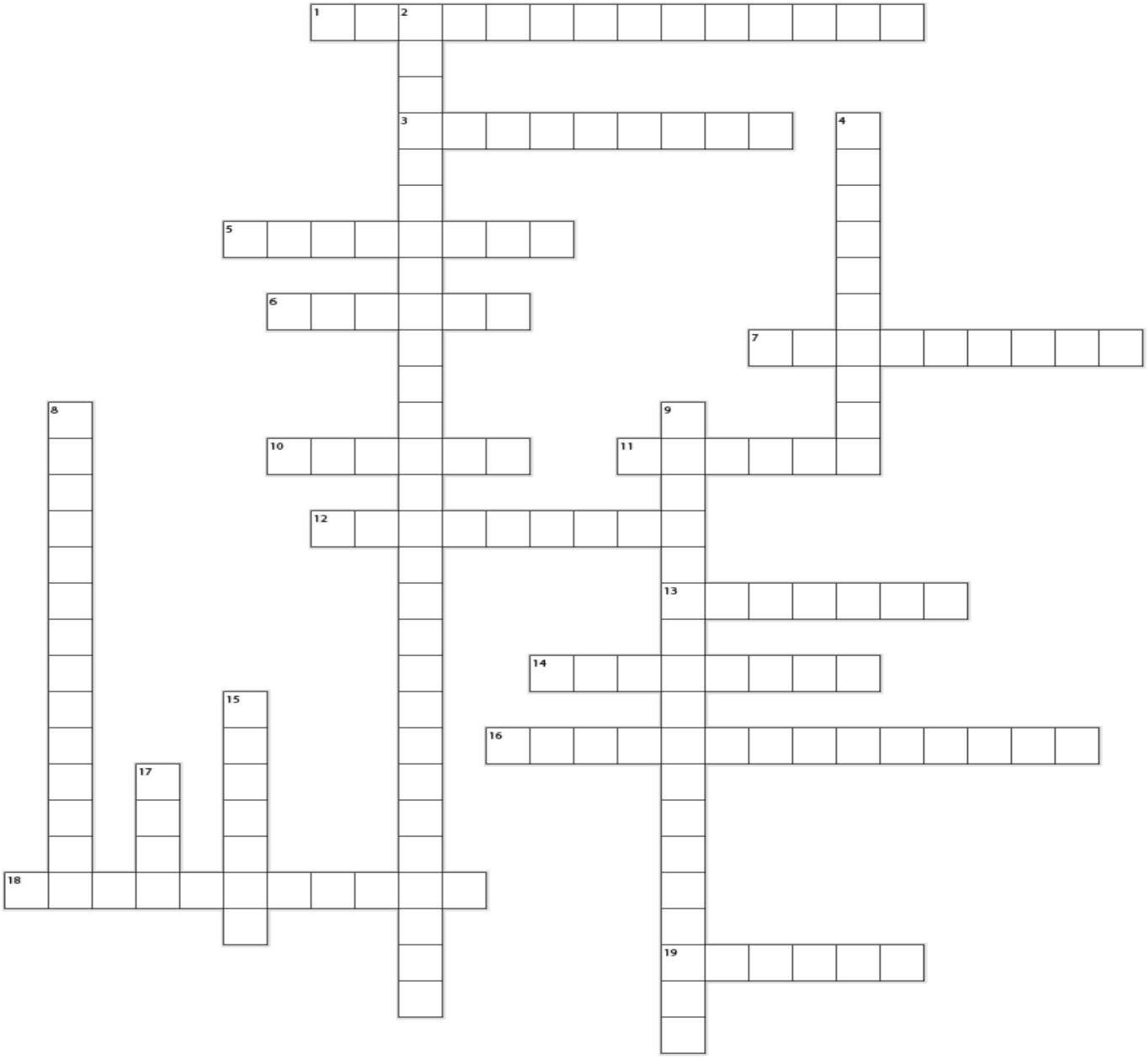
Quick revision crossword No 4: Nature, operation and aims of AS policies

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. If the rate or level for this type of transfer or welfare payment is altered it can influence labour force participation rates
17. These types of subsidies have recently been introduced to encourage greater employment of certain classes of workers



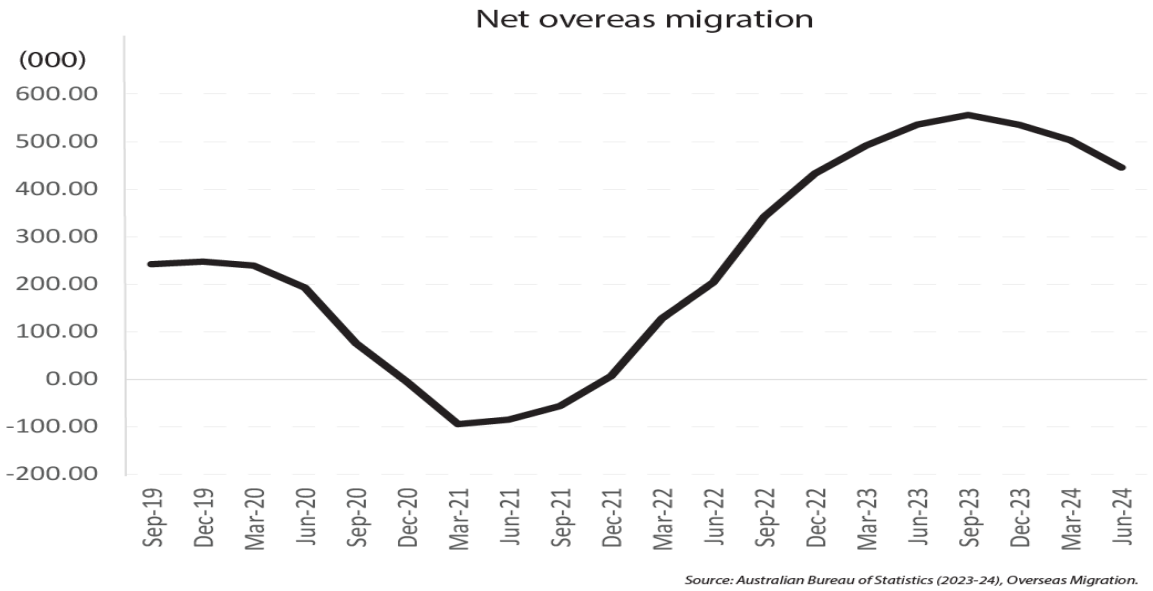
The effect of skilled immigration policy on population, productivity and participation and the subsequent effect on productive capacity, AS, international competitiveness, the achievement of domestic macro goals, and living standards

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 the county'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 27.2 million in June 2024. 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 2023 noted the importance of (skilled) immigration to improve productivity in the Australia labour force:

> ***'…..Well-planned migration can lift productivity and support employment growth for the Australian population. A forthcoming OECD study found that, between 2011 and 2018, a 10 per cent increase in the share of the overseas-born population in an area increased the labour productivity of Australian-born workers in that area by 1.3 per cent. It also found that a one percentage point annual increase in the migrant inflow to an area relative to its population increased Australian-born employment in that area by 0.53 per cent.'***

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. However, given the recent surge in skilled migration to Australia, the government has heeded calls for a more targeted strategy to manage population growth and its impact on housing and other infrastructure. Chart 1 below highlights the increase in net overseas migration in the post COVID-19 boom, followed by the more recent slowdown since 2023..



Source: Australian Bureau of Statistics (2023-24), Overseas Migration.

While skilled migration has, and will continue to, play a key role in building Australia's human capital, the government can also invest in a range of education policies to address skill shortages in the Australian economy (discussed above in education policy).

Exam Tip: Students are specifically directed to skilled immigration policy and its impacts on the achievement of our macroeconomic goals. It is therefore recommended that students recognise the existence of different streams of immigration (family, humanitarian, investment or business) but focus their arguments around the 'skilled stream' of immigration.

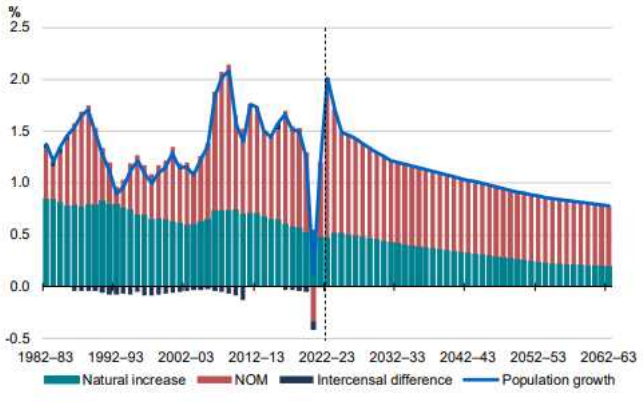
Recent changes to immigration policy

- Setting the planning level at 185,000 permanent migration visas per year, with around 71 percent allocated to the skilled migration stream helping to fill skill shortages in priority industries.
- Introducing a targeted Core Skills Occupation List (CSOL) which includes occupations in sectors such as construction, cyber security, agriculture and health.
- Replacing the Temporary Skills Shortage (TSS) visa with the Skills in Demand visa, which will include a Core Skills stream,
- From July 2024 new applications for the Business Innovation and Investment visa will no longer be able to be lodged
- The introduction of a new National Innovation visa, which is designed to attract 'exceptionally talented' skilled migrants to Australia.

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

Despite the recent growth in Net Oversea's Migration NOM, the latest Intergenerational Report (2023) predicted 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 adjacent chart highlights the impact of the closure of international borders COVID-19, during which Australia experienced a period of net negative overseas migration in 2020-21 and a strong post COVID-19 recovery. (Data to the right of the dotted line illustrates predicted growth in population).

Chart 2.1 Population growth



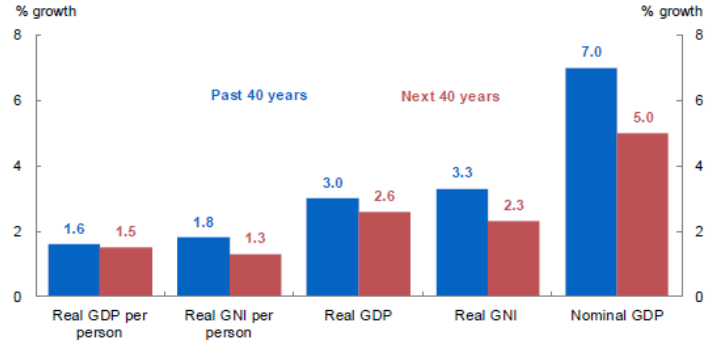
Source: Australian Bureau of Statistics (ABS), National, state and territory population, September 2022, 2023; and Treasury.

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.

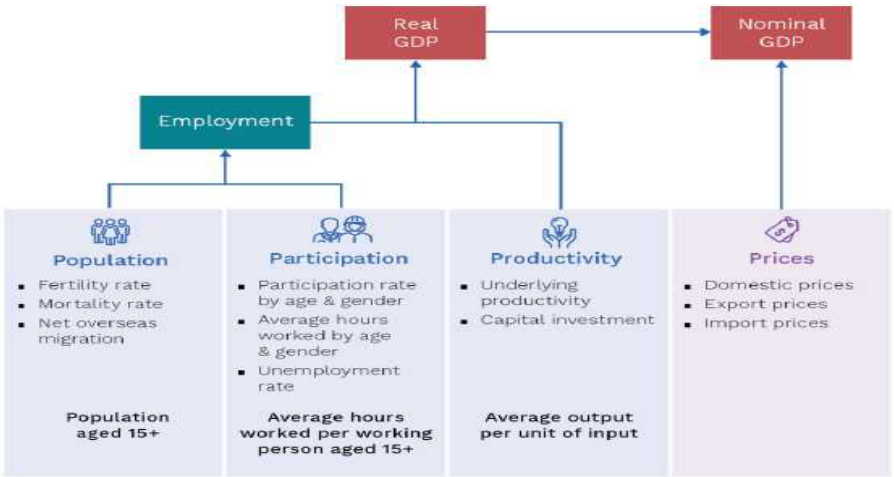
In recognition of the effects of an ageing population, the intergenerational report predicted that the average annual growth of real GDP is projected to be 2.6 per cent over the next 40 years compared with 3.0 per cent over the past 40 years. This translates to slower growth in material living standards 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 66.8%) due largely to the continuing high rates of skilled immigration (up until early 2020 and again after 2022), 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 international competitiveness

The above improvements in participation and productivity drive down unit costs for firms, alleviate skills shortages and improve competition in the labour force. These forces along with the innovation that entrepreneurs bring, work to increase the competitiveness of Australian firms by improving both the quality and the price of our goods and services relative to global firms.

Skilled Immigration productive capacity, AS and the domestic macro goals

Productive capacity and AS

The improvements discussed above increase the productive capacity or maximum output of the economy by increasing firms ability to produce goods and services. In summary, 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.

Strong and sustainable rates of economic growth

By boosting AS or productive capacity 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

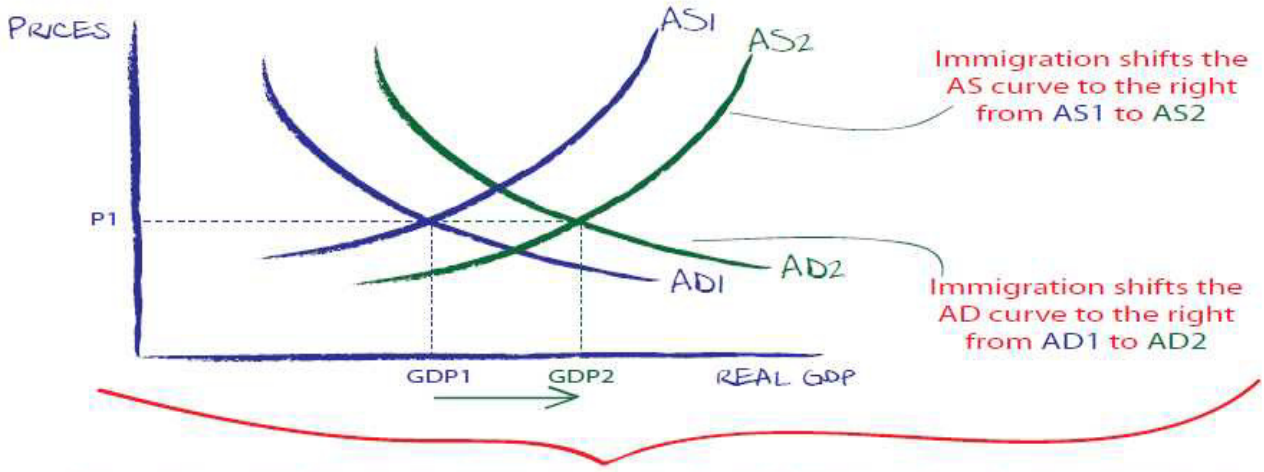
The extent to which demand inflationary pressure (coming from the added demand for goods and services by immigrants) is outweighed by the supply side benefits (coming from the addition to supply and productive capacity) depends on the nature of any immigration program. Given that Australia's emphasis 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.

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

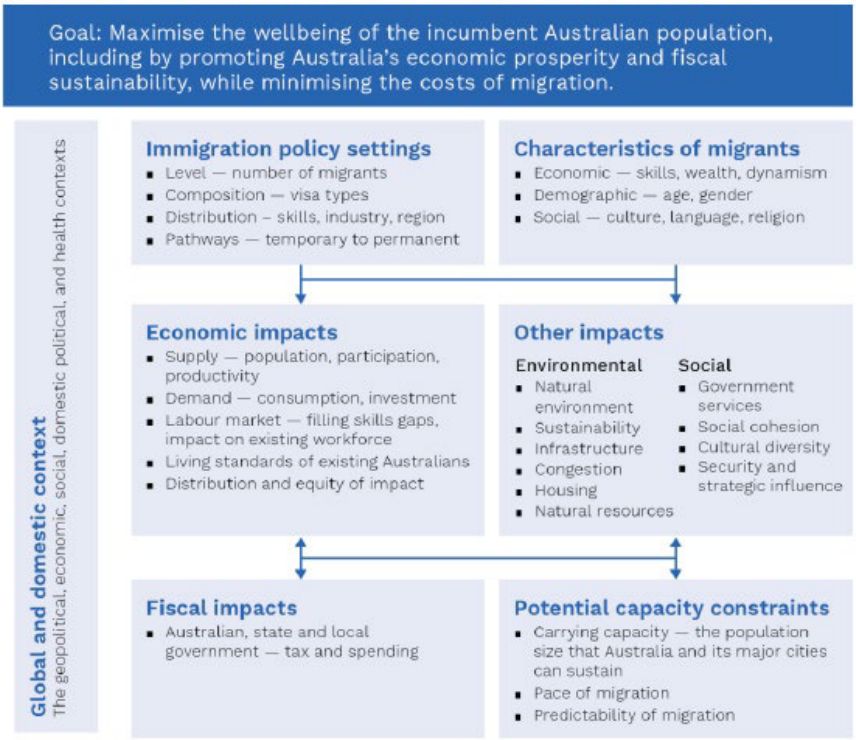
In relation to the additional costs of immigration, it can be argued that immigration tends to contribute to:

- 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 temporary skills 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].***

Figure 2.1 Framework for understanding the impact of migration



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.

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).

Extension: Permanent and temporary migration over recent years

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.

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. 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.

REVIEW QUESTIONS 5 – Skilled 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. ***Outline how skilled immigration can address skills shortages in Australia.***
4. ***Explain how skilled immigration impacts the participation rate and labour productivity.***
5. ***Explain how skilled immigration impacts Australia's international competitiveness.***
6. ***Explain how skilled immigration would influence the achievement of the government's goal of low and stable inflation (in your answer refer to the productive capacity).***
7. ***Discuss the impacts of Australia's immigration policy (over the past 4 years) on living standards.***
8. ***Explain 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.***
9. ***Discuss the impacts of Australia's immigration policy on the achievement of low and stable inflation, in your answer consider both the demand and supply impacts .***
10. ***Explain how skilled immigration can impact the quality and quantity of resources and the achievement of 'Full Employment'***

Trade liberalisation and its short-term and long-term effects on Australia's international competitiveness, the allocation of resources, AS, and the domestic macroeconomic goals and living standards

Historically, Australia has provided substantial support for many industries, in particular the manufacturing industry. It did this with a view to protecting Australian jobs and incomes, as well as protecting Australia from any erosion of local culture and identity. In particular, persuasive arguments were used to back support for local 'infant industries' that needed time to adjust to the rigours of international competition. In addition, industries were keen to avoid foreign goods that were 'dumped' onto Australian markets (meaning they were sold below cost, often in an effort to eliminate domestic competition) and to retaliate against protection that was afforded to foreign producers competing in domestic markets.

The most common forms of protection sought by Australian firms include the following:

- Tariffs (a tax on imports);
- Quotas (a volume restriction on imports); and
- Subsidies (financial support).

Over time, Australian policy makers became more committed to embracing a trade policy that promoted freer trade (trade liberalisation) and a progressive dismantling of those forms of protection that were deemed not to be in the long-term interests of the country. In other words, the Australian government became committed to trade liberalisation because it was convinced that a continuation of protection for local industries prevented Australia from enjoying the significant longer-term benefits stemming from free trade. This is because protection typically reduces competition, which leads to higher prices, lower quality and a less efficient allocation of resources, as businesses are under less pressure to adopt the latest technology and lowest cost methods of production (reducing dynamic and technical efficiency).

Whilst protection still exists in some industries, such as film and television, the grounds for continuing support have typically been based on non-economic factors. For example, in the case of film and television, the argument for protection is one based on a need to preserve Australia's culture and identity, and less on the need to protect production and jobs. Similarly, the protection afforded to the Australian shipbuilding industry (e.g. via subsidies and the mandating of a certain percentage of any build to take place in Australia) is partly based on strategic defence imperatives rather than economic imperatives.

Part of the general movement away from protectionist policies has involved the signing of free-trade agreements (FTA's) with other countries or regions. Free trade agreements essentially ensure mutual agreement to remove or reduce barriers to trade like subsidies and tariffs between Australia and other countries around the world.

Free trade agreements:

- Australia-United Kingdom Free Trade Agreement (A-UKFTA)
- Australia-India Economic Cooperation and Trade Agreement (ECTA)
- Indonesia–Australia Comprehensive Economic Partnership Agreement (IA-CEPA)
- Malaysia–Australia Free Trade Agreement (MAFTA)
- Thailand–Australia Free Trade Agreement (TAFTA)
- Korea–Australia Free Trade Agreement (KAFTA)
- Peru–Australia Free Trade Agreement (PAFTA)
- Australia–Hong Kong Free Trade Agreement (A-HKFTA)
- China–Australia Free Trade Agreement (ChAFTA)
- Japan–Australia Economic Partnership Agreement (JAEPA)
- Australia–USA Free Trade Agreement (AUSFTA)
- Australia–Chile Free Trade Agreement (ACI-FTA)
- Singapore–Australia Free Trade Agreement (SAFTA)

- Australia–New Zealand Closer Economic Relations Trade Agreement (ANZCERTA or CER)
- Several others under negotiation or not yet in force.

However, Australia still has some **tariffs** in place including, but not limited to:

- Luxury car tax (33%)
- All imports from Russia and Belarus (35%)
- Varied, cold meats, fish, fruits, seeds, grains, vegetables, nuts and other food products (5%)
- Crude oil (5%)
- Varied Cheese ($1.22 per kilo)
- Cars and car components (5%)
- The goods and services tax (GST) will apply to certain imported goods worth over $1,000 (10%)

The 2025 global 'trade-war'

Despite a calculated and incremental move towards trade liberalisation around the world over the past 60 years, the last year saw a dramatic shift in the global free trade order. In 2025, President Donald Trump imposed tariffs on all imports into the US. Initially, tariffs were set universally at 10%, later escalating to as high as 145% on some Chinese goods as global geopolitical tensions grew. In turn, China retaliated with tariffs on many US goods, sparking a 'trade war'. Currently, China and the US appear to have reached a trade deal, with many expecting tariffs to be significantly reduced.

Notably, there has been some confusion about how tariffs work, with many in the US believing they are paid by foreign companies who wish to import goods into the US. In reality, tariffs are paid by the domestic importer. Almost all trade between nations involves a **foreign exporter (seller)** and a **domestic importer (buyer)**. For example, wine sold to the US from Australia involves an Australian exporting company, such as Treasury Wine Estates Ltd, and a US importer, such as *Little Peacock Imports P/L.* While in some instances, it's true that foreign exporters may agree to bear some of the tariffs in the form of lower prices (e.g., Treasury Wines agrees to sell wine to the US at a lower price), foreign exporters do not pay the tariffs. Tariffs are physically **paid by the domestic importer** of the goods (e.g. Little Peacock Imports). These added costs are either passed on to the US consumer in the form of higher prices or absorbed by the US importer, reducing profit margins. For example, if Little Peakcock Imports P/L in the US imports $10 bottles of wine from Australian producers, it would need to pay a 10% tariff to the US Tax office (US Customs and Border Protection) or $1 per bottle. To maintain profit margins, the US company would likely increase the price of wine by $1. To the extent that this occurs, prices for US consumers of Australian wine would rise. Alternatively, if the company chose not to pass on the cost increase, profit would decrease by $1 per bottle.

A more logical, yet ultimately flawed argument that many supporters of US tariffs have used is that when tariffs are imposed on foreign goods, foreign exporters like Treasury Wines in Australia would be left with only two choices:

1. Respond to demands from US importers to cut their export prices to compensate for the tariff, or
2. Lose their American customers altogether, who would import from whichever countries agree to cut prices (or who would buy from US wine producers instead).

The flaw in this argument is twofold. Firstly, the US has imposed a 10% tariff on all imports into the US, meaning that in the wine market, all prices for imported wine would rise at the same rate – e.g., there is no change in the relative price of Australian wine compared to wine from France or Italy. More importantly, the US does not have a comparative advantage over Australia in producing wine (or in producing many other goods that they import from around the world). It lacks the optimal resource mix to produce wine at the same price and quality as Australia. In other words, they lack the skills, experience, equipment, and climate conditions that Australia possesses to produce high-quality wine consistently, which is why they have always imported wine from other countries, such as Australia.

In contrast to some nations around the world, the Australian government has not retaliated against US tariffs on Australian exports to the US. This decision likely reflects both economic and political considerations. From an economic standpoint, exports to the US account for a small proportion of Australia's total exports, approximately 9% ($3.3 billion), primarily in the form of minerals, wine, and beef. Imports into Australia from the US are more significant to the Australian economy, at around 10% of total imports, or $93.2b. Therefore, imposing tariffs on US imports into Australia would simply increase the costs of US goods in Australia and contribute to inflationary pressures for Australian consumers.

As previously discussed, there are some benefits to protectionist policies like tariffs (or the costs of trade liberalisation)—e.g protecting local jobs, protecting infant industries and strategic interests (which are discussed below). The big question for the global economy now is: *Can we undo 60 years of trade liberalisation, and if so, at what cost?*

The retreat from trade liberalisation in Australia

As noted earlier under the heading '*Subsidies, international competitiveness, macro goals and living standards*', the Productivity Commission (PC) has reported on the re-introduction of protectionist policies around the globe, including Australia. A large reason for this retreat from trade liberalisation relates to Covid-19 and the vulnerabilities that were exposed for countries like Australia, which had an over-reliance on key inputs manufactured overseas. As the PC notes:

> ***'After decades of progressive trade and investment liberalisation, and associated gains in global living standards, renewed strategic competition between the major economies, and increased concern about supply chain resilience have led to renewed calls for greater self-reliance in some goods and services. These motivations have so far culminated in the expansion of major economy industry policy, through the 2022 US Inflation Reduction Act and CHIPS and Sciences Acts, related draft EU legislation, and associated calls for Australia to follow suit. '*** ***Source:*** *https://www.pc.gov.au/trade-assistance-review-July 2023*

The consensus view amongst economists, including those at Treasury and the PC, is that the apparent retreat from trade liberalisation will typically trade short-term benefits for long-term costs (see next section). With this in mind, it is particularly important that Australia does not continue to implement 'behind-the-border measures', or enter into so-called 'hidden trade wars', where countries increasingly impose protectionist policies via stealth. The PC notes that more and more of Australia's assistance to industries is occurring in opaque and non-transparant ways, including the provision of tax credits, spending on favoured sectors, the granting of concessional finance and the creation of local content rules (which effectively force Australian businesses to prioritise the use of Australian made goods and services). This includes the assistance provided under the Future Made in Australia (FMIA) introduced in 2024. These types of measures only run the risk of costly rent-seeking behaviour by businesses (e.g. businesses spending excessive resources on securing government assistance when they could be spending those same resources on more productive Investment). This ultimately serves to prop up businesses and industries that lack a competitive advantage, at the expense of those that do, resulting in long-term costs for Australians.

The link between the rise in interventionist **industry policy** and **trade protection** and the impact on living standards was summarised as follows by the PC in its latest Trade and Assistance Review (July 2024):

> ***'Industry policy can also act as an indirect form of trade protection, however, and reduce living standards by redirecting resources towards the production of goods and services that individual countries are not best placed to produce; goods and services in which individual countries do not enjoy a comparative advantage.. '***
>
> ***Source:*** *https://www.pc.gov.au/trade-assistance-review-July 2024*

Trade liberalisation in the short-term

In the short-term trade liberalisation can have a negative impact on international competitiveness, the allocation of resources and aggregate supply. When protectionist policies like subsidies or tariffs are removed and free-trade agreements are signed, Australian businesses are exposed to a higher degree of competition from overseas businesses. In order to survive these new competitive forces, Australian businesses must adapt, innovate, implement new technology, improve productivity generally and even restructure or downsize in order to remain profitable. In this process some businesses lose large percentages of their market share and many will fail altogether. Whilst shutdowns in businesses, or even whole industries, is bad for living standards in the short-term, many economists argue that this is a cost worth bearing for the long-term benefits.

The most high-profile example of this is the car manufacturing industry in Australia. For many years the Australian car manufacturing industry was protected from overseas competitors by way of subsidies, tariffs and even quotas. Over the years, as Australia moved away from protectionism and towards free trade, many car manufacturing operations in Australia slowly downsized (Holden, Ford and Toyota). The final shutdown of the Holden's Elizabeth Manufacturing Plant in 2017 marked the end of car manufacturing in Australia. Over time many people working in the industry lost jobs, causing both material and non-material living standards to fall. According to a Productivity Commission Inquiry into car manufacturing (2014) an estimated 40,000 Australians lost their jobs from the final shutdown of the car manufacturing industry and many more over the gradual decline. The report stated, '*Motor vehicle producers in Australia have not been able to survive in the highly competitive global and domestic automotive markets'.*

The short-term impacts of trade liberalisation include:

International competitiveness: In the short-term when Australian businesses/industries loose protection via subsidies or tariffs they instantly become less competitive relative to the rest of the world. For example, if a foreign importing business no longer had to pay tariffs, they have lower costs of production allowing them to lower their prices and improve their competitiveness compared to Australian businesses. On the other hand, if Australian business lose access to subsidies their costs of production rise and they are less competitive compared to the rest of the world.

Allocation of resources: There is a short-term decrease in technical efficiency as job losses from business and/or industry shutdowns are 'wasted'. If it's an industry wide shut down, as was the case for car manufacturing, these people can become both structurally and long-term unemployed. This is due to the mismatch between the skills of the unemployed and skills required by businesses, which can take some time to fix.

Aggregate supply: When Australian production is replaced with overseas production this will have a negative impact on AS, as the total volume of goods and services in Australia has decreased.

Full employment: In the short-term, as businesses shutdown there will be an increase in the unemployment rate, making it harder to achieve the NAIRU target of approximately 4.25%

Price Stability: Inflation may be the only short-term positive from trade-liberalisation. Cheaper foreign goods imported into Australia, forces local producers to lower their prices in order to remain competitive. Lower prices for both imports and domestically produced alternatives (substitutes) will decrease growth in the CPI making it more likely that the rate of growth in the CPI remains within 2 to 3% on average over time.

Strong and sustainable growth: The decrease in spending on locally made goods and services, together with the increase in import spending, will reduce the rate of growth in production in the Australian economy and make it harder to achieve a strong (3-3.5%) rate of growth in real GDP.

Trade liberalisation in the long-term

Over the longer-term economists argue that the benefits to the whole economy outweigh the short-term costs to specific industries, businesses and households. The argument is that businesses who adapt and improve in response to overseas competition will increase the quality of their product offerings, lower their prices and improve the efficiency of resource allocation. Businesses who fail to adapt and are forced to shut down, aid in the reallocation of resources towards more productive uses over the long term. To use the car manufacturing industry in Australia as an example, economists would argue that its existence was not an efficient use of resources because we do not have a competitive advantage in the production of motor vehicles compared to other countries. Therefore, allocating resources via land, labour and capital to the production of motor vehicles was an inefficient allocation of resources in the first place. Supporters of this argument would point to the evidence; the car industry did not survive without protection in the form of subsidies and tariffs.

The Productivity Commission report (2014) summed it up when it said, 'Australia is a small-scale, high-cost producer of motor vehicles and components'. In other words, other countries around the world like Brazil and many parts of Asia have much lower labour cost, access to larger markets and therefore a comparative (competitive) advantage over Australia. Therefore, the failure of these industries results in a longer-term net benefit for Australia because land, labour and capital are reallocated to the production of goods and services in which we do have a comparative advantage, such as tourism and education.

The theoretical long-term impacts of trade liberalisation include:

International competitiveness: In order to adapt and survive against more intense overseas competition, Australian businesses must improve productivity, reduce wastage, introduce new technology in order to reduce unit costs. This allows them to increase the quality of their product offerings and/or lower their prices. Overall, the ability of Australian businesses to compete in the global market place and retain/grow market share should increase, reflecting an increase in international competitiveness.

Allocation of resources: Over the longer-term, resources that would otherwise have been misallocated towards high cost and low scale industries, due to a distortion of the price mechanism by subsidies and tariffs, will now be reallocated to areas where Australia has a comparative advantage. Thus, improving the efficiency of resource allocation.

Aggregate supply: The overall improvement in productivity and efficiency should lead to an increased capacity or ability to produce goods and services, including by those businesses in the tradables sector, exporters and import competing businesses. This should result in an increased volume of goods and service produced.

Full employment: To the extent that workers who lose their jobs as a result of whole industry closures (e.g. those who become structurally unemployed in the short term) are able to retrain and find new jobs in a more efficient and competitive economy, trade liberalisation can help to achieve the government's goal of full employment. This can occur because the improvement in international competitiveness leads to an increase in net export spending (X - M), which results in higher production levels and job creation (e.g. the emergence of new thriving industries leads to an increased demand for labour). This should help the government to achieve its full employment goal of approximately 4.25% unemployment.

Price Stability: As for the short term impact, the improved efficiency and lower prices for both imports and domestically produced alternatives (substitutes) will decrease growth in the CPI making it more likely that the rate of growth in the CPI remains within 2 to 3% on average over time.

Strong and sustainable growth: The overall improvement in international competitiveness would drive an increase in net export demand (X - M) in many different industries, leading to an increase in AD, and firms respond by increasing the total volume of goods and services produced. This will help the government to achieve its 3-3.5% real GDP target. In addition, the improvement in productivity and the downward pressure on prices will ensure that this economic growth is non-inflationary and, therefore, more sustainable.

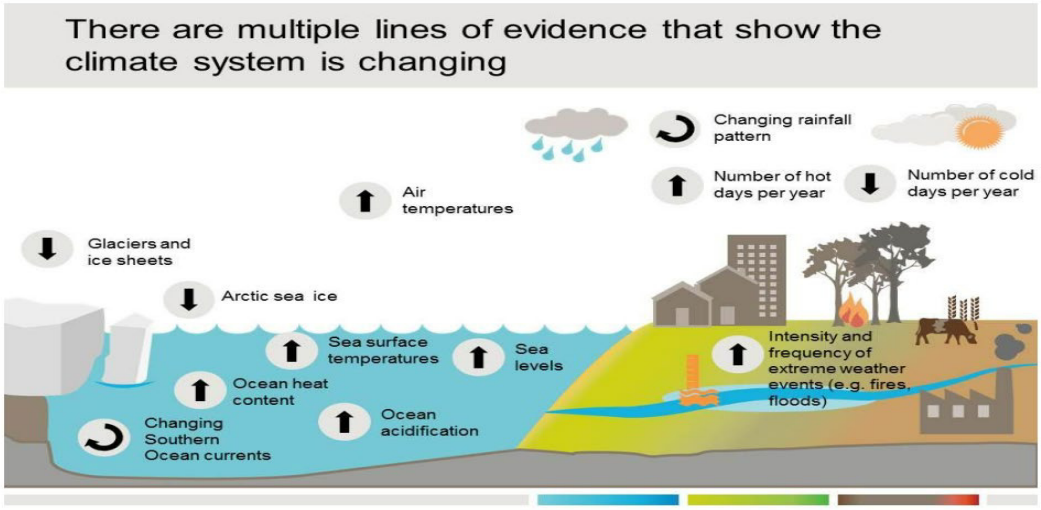
Exam Tip: In the 2024 examination, students were asked to discuss the effectiveness of trade liberalisation in achieving strong and sustainable economic growth. This question required students to make a two-sided argument e.g. how trade-liberalisation makes it harder in the short-term and easier in the longer term to achieve strong and sustainable growth. Many students did not attempt to discuss, instead focusing on a one-sided argument. Its important students prepare for a 'discuss' or 'evaluate' two-sided argument style question in relation to trade liberalisation given it is explicitly listed as required key knowledge in the Sudy Design.

Exam Tip: Question 2a of the 2023 exam required students to explain how a decrease in tariffs on Australian passenger motor vehicles since 1990 is likely to have affected the allocation of resources in Australia and living standards. Unfortunately, many students failed to identify that a reduction in tariffs is an example of trade liberalisation which led to deficient and muddled responses. For example, many students linked lower tariffs to lower prices (e.g. cheaper MVs) and the boost to material living standards. This argument misses the very important long term efficiency benefits that come from trade liberalisation. Additionally, many students attempted to make a micro argument for a reallocation of resources due to changes in relative prices. While this approach was valid, it led to many conflicting arguments. Student should remember that a question may not explicitly refer to trade liberalisation and instead may ask about 'free trade' or 'a reduction in subsidies or tariffs' - regardless, the trade liberalisation argument should be the same.

Exam Tip: Question 3d of the 2022 exam required students to explain how trade liberalisation (TL) is likely to affect the inflation rate and living standards. First, students should ensure that they don't define TL as the imposition of trade sanctions & barriers instead of the removal of barriers as some students did. Second, when linking TL to inflation, don't say that inflation would increase because of an increase in the demand for exports, as a number of students did. This ignores the important disinflationary effects that stem from (1) access to cheaper consumer imports (e.g. final goods that are in the CPI) and producer imports (e.g. raw materials) and (2) increased efficiency as Australian businesses are forced to raise productivity in the face of greater imported competition.

One market-based environmental policy and its short-term and long-term effects on aggregate supply, intertemporal efficiency and living standards

The impacts of greenhouse gas emissions, like carbon dioxide or methane, and the resulting climate change have been well documented; rising sea levels, ocean acidification, increased frequency and severity of extreme weather events and the destruction of biodiversity to name a few. The diagram below shows how the climate change is occurring and its effects over time.



Source: DCCEEW, https://www.dcceew.gov.au/climate-change/policy/climate-science/understanding-climate-change

While much of the debate on greenhouse gas emissions leading to climate change has focused on its environmental impacts and the moral imperative for urgent government intervention, its economic impacts –a decrease in productive capacity and material living standards— have until recently, received less attention. Recall from the Unit 3 Study Guide that climate influences not only the environment, but the economy too. This was reiterated in the 2023—24 Budget as follows:

> ***Global warming continues to change Australia's weather and climate, and over the course of this century these trends will all drive changes in Australia's economy – with respect to both its size and structure. This includes impacts on human health, biodiversity, the location and movement of populations, the types of structures we live in, and the ability of individuals to work.***
>
> ***(2023-24 Budget paper No.1. p.120 www.budget.gov.au)***

In 2016, the then Prime Minister, Malcom Turnbull, ratified (passed into Australian law) the Paris Agreement on climate change. The Paris Agreement is a landmark, legally binding agreement, which ultimately saw 196 states around the world agree to reduce carbon emissions to ensure global warming stays below 2℃ above pre-industrial levels. Once ratified, the agreement forced Australia to implement policies to ensure these targets are met. Below is a very brief history of Australia's commitment to the Paris agreement:

- Initially, **in 2016,** the Turnbull government pledged to reduce its greenhouse gas emissions by 26-28% (or below 2005 levels) by 2030 and to achieve net zero emissions 'as soon as possible after 2050'.
- **In 2021,** the Morrison government released, 'Australia's long-term emission reduction plan', which showed Australia was ahead of its target for a 26-28% reduction by 2030 and outlined a continued plan, but not a commitment, to achieve net zero emissions.
- **In 2022,** the current Prime Minister, Anthony Albanese, updated the Governments emissions reductions target to 43 per cent below
- 2005 levels and committed to net zero by 2050.
- **In 2024**, Anthony Albanese announced the introduction of the **Net Zero Economy Authority** which, once established, will promote an orderly transition of the Australian economy to net zero.

Net zero emissions does not mean that zero emissions are released into the atmosphere. Just as 'net goods' (from Unit 3 AOS 3) reports the difference between credits *in* and debits *out* of a country, 'net emissions' measures the difference between emissions released *into*, and *taken out* of, the atmosphere.

Emissions are released *into* the atmosphere primarily through electricty generation (coal and gas), while removals occur via abatement processes like carbon capture or reforestation. In practice, 'net zero' means any greenhouse gases emitted into the atmosphere must be fully offset by the amount removed via abatement processes so that net emissions equal to zero. A net zero emissions target effectively aims to achieve emissions neutralty, slowing the progression of climate change and reducing the related environmental and economic impacts.

This key knowledge point requires students to understand one example of a market-based environmental policy and its impact on aggregate supply, intertemporal efficiency and living standards.

Recall that **intertemporal efficiency** is an allocation of resources that balances the current needs and wants of the economy with the future needs and wants. By definition, any policy that places limits on society's impact on the environment will improve intertemporal efficiency because it gives future generations continued access to a more stable environment. This form of efficiency highlights a key trade-off inherent in environmental policy: there are short-term costs to receive the long-term benefits of environmental preservation.

There are a range of policies available to protect the environment. Some of these policies have been discussed in the Unit 3 Study Guide under 'market failure' and 'government intervention' and include:

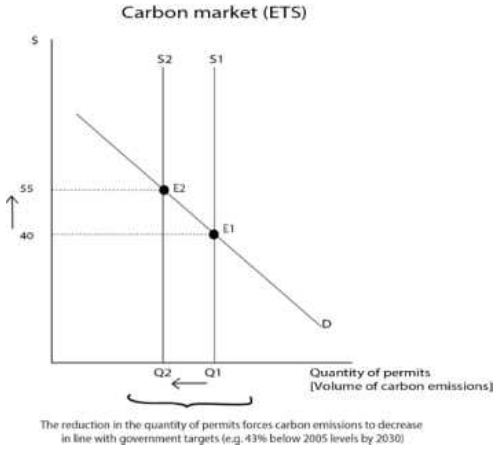
- Subsidies to address market failures in the form of positive externalities, encouraging the production and consumption of products like solar panels as substitutes to carbon emitting energy sources
- Taxes to address market failures in the form of negative externalities, discouraging the production and consumption of products like carbon intensive methods of energy (e.g. a carbon tax)
- The use of rules and regulations to force economic agents to behave in ways that protect the environment (e.g. bans or laws prohibiting certain types of polluting activities).

While these approaches ultimately rely on market forces to achieve the desired result, raising the relative price of carbon intensive methods of production for example (or reducing the relative price of cleaner/greener alternatives), they are generally not considered to be the most efficient or effective form of emissions abatement. This is particularly the case in relation to carbon pollution and climate change. Instead, a more efficient approach is to establish a more market-based approach via the establishment of 'carbon market', such as an emissions trading scheme.

It's important to note that there are many different forms of carbon markets around the world, each with their own unique rules and regulations. Below is a theoretical summary of the policy options with reference to the Australian context.

Exam Tip: Students are **not** required to use a specific market-based environmental policy. They are free to choose any existing or theoretical policy option, whether in Australia or abroad. Below are three examples of the purest forms of 'market-based policies'.

An emissions trading scheme (cap-and-trade system)



An emission trading scheme (ETS) or a 'cap-and-trade system' is one of the two pure forms of market-based policy. In this scheme, the government creates a market for carbon by issuing a limited amount of 'carbon credits' or 'carbon allowances' to emitters. These credits give firms the right to emit a given amount of carbon-dioxide (or equivalent other greenhouse gases) into the atmosphere. Participation in an ETS is mandatory and there are penalties for non-compliance. In an ETS, carbon credits are traded in a market between buyers and sellers which essentially determines the price of carbon.

In theory, because firms are profit-maximising, this scheme incentivises businesses to reduce emissions in order to minimise costs of production. Firms who have spare carbon credits (because they are emitting less) can sell these credits to firms who require more credits (because they are emitting more). In other words, the least efficient carbon-polluters will demand more permits compared to those businesses that are more successful at carbon-pollution abatement (who can then supply permits in the carbon market). If carbon emission levels are too high, the price of permits rise, (i.e. the costs of polluting for businesses will be higher), providing incentives for businesses to reduce their demand for permits (or increase their potential supply). Businesses will seek to achieve a reduction in pollution in various ways, such as employing the latest pollution abatement methods (or technologies), investing in alternative energies or purchasing carbon offsets (such as investing in forest plantations). In this way, the market mechanism, via the pricing of carbon, encourages inter-temporal efficiency.

A benefit of an ETS compared with other policy options is that the government can better ensure a specific emissions reductions target is met (e.g. the net zero by 2050 target) given that it effectively controls the level of carbon emissions that can occur via its control over the supply of

carbon credits. Over time, and in order to meet the different emissions reduction targets, the government reduces the volume (supply) of permits in existence and the market adjusts in an efficient way to reduce carbon emissions. This is illustrated in the simplified diagram above, where the government reduces the supply of permits from S1 to S2, raising the price of carbon from P1 to P2 and encouraging firms to reduce their emissions from Q1 to Q2. The relative price competitiveness of other 'renewable' forms of energy (such as wind and solar) will increase, creating greater investment and innovation in that sector. Overall, emissions levels drop in line with the reductions in permits, and any existing level of carbon emissions is achieved in the most efficient way.

A carbon offset scheme (currently in force in Australia)

In Australia we have a slightly different version of an ETS, called a carbon offset scheme. There are two key differences between an ETS and a carbon offset scheme. Firstly, participation in a carbon offset scheme is voluntary rather than mandatory. Secondly, carbon offsets are issued to firms in exchange for investing in environmental projects rather than distributed and capped by the government. Carbon credits under the existing Australian scheme are called Australian Carbon Credit Units (ACCUs).

In theory, the use of a carbon offset scheme creates a price signal which can ensure emissions targets are achieved. For example, if there is an increase in demand for ACCUs, driving up their price, firms would respond by reallocating resources towards carbon capture activities (e.g. allowing farmland to regenerate or even planting native vegetation/trees that absorbs carbon from the atmosphere). Given that firms are profit maximisers, and stand to profit from generating and selling ACCUs, they will allocate more resources to carbon capture and storage. For example, many farmers have responded to the increased relative price of carbon and are engaging 'carbon-farming' as an alternative source of income. Overall, the carbon offset scheme aims to balance out the emissions *released into* the environment with emissions that are *taken out (e.g. from trees)*, helping to achieve net zero.

In the Australian system, under the Emission Reduction Fund (ERF), ACCUs are awarded to firms who complete projects which are expected to improve energy efficiency, generate renewable energy and avoid the release of greenhouse gasses or capture and/or treat carbon. This includes actions referred to above, like allowing farmland to regenerate that would otherwise be cleared, replacing or regenerating land and limiting methane gas release. To generate one ACCU, firms must prove that they have avoided or removed one tonne of carbon. Importantly, firms can then sell these ACCU back to the government or to firms voluntarily participating in the scheme.

This Australian system has drawn much criticism for encouraging 'rorting' in the way in which offsets are issued, distributed, verified and sold back to the government. In addition, there are reported problems of double counting (more than one economic agent claiming the same credits) and there remains the possibility that carbon emission reductions that earn credits under the scheme would have occurred in the absence of the scheme. However, in practice, one of the biggest limitations of this system is its voluntary nature, which means only firms who have self-imposed emissions targets will buy carbon offsets. This can lead to a 'thin' market between buyers and sellers, where relatively few transactions take place at distorted prices, which can result in a less optimal relative price of carbon (i.e. one that is too low and reduces the incentive invest into new carbon capture projects).

A Carbon Tax

A carbon tax requires firms to pay a tax based on the amount of carbon they emit into the environment. Like an ETS, it effectively places a price on carbon and causes a substitution away from dirtier production methods to cleaner or greener ones. It works much the same as other excise taxes we studied in Unit 3, AOS 1, in that it required firms to internalise the third party/social costs associated with the negative externality. By forcing firms to account for the social costs of emissions (via the payment of a tax per unit of carbon emission), there is an incentive for them to find alternative methods of production that do not involve emissions or invest in abatement technology that helps to reduce their emissions.

A carbon tax is a less efficient policy to reduce emissions (compared to an ETS), as an ETS results in the government having greater control over the actual level of emissions that takes place. Once the government sets the legally allowable level of carbon emissions, it lets the 'market' determine the most efficient means of achieving these emissions levels. In contrast, the carbon tax reduces emissions levels, but there is uncertainty about the actual level of abatement that would occur. In this respect, the amount of emissions that occur is variable under a carbon tax, while the price is variable and level of emissions fixed (and controlled) by the government under an ETS. In 2012, Prime Minister Julia Gillard imposed a carbon tax of $23 AUD per tonne on Australia's largest emitters. It was repealed in 2014 by Prime Minister Tony Abbot.

Impacts on aggregate supply and intertemporal efficiency

Short term impacts

In the short term, the introduction of an ETS, carbon offset scheme or a carbon tax is likely to **restrict aggregate supply growth** as firms are forced to bear the increased cost of production (via the purchase of carbon credits/offsets or an imposed tax). This will decrease their willingness to produce at current price levels and force businesses to pass on this increased cost of production to consumers in the form of higher prices, decreasing Australia's international competitiveness. This drop in competitiveness will hurt some import competing Australian businesses as consumers substitute away from the relatively more expensive locally made goods to the cheaper imports (e.g. from countries with looser climate policies). Some firms may even relocate to other jurisdictions with weaker climate policies (dubbed carbon leakage). As a result, jobs will be lost, which would **decrease material living standards.** There will, however, be an improvement in **inter-temporal efficiency** as firms are disincentivised to emit, helping to balance out the current and future needs of society. Because emissions from all different countries impact our one planet, the biggest challenge in achieving our climate targets and improving inter-temporal efficiency is ensuring global participation.

Long term impacts

In the long term, (market-based) environmental policy initiatives can help to achieve net zero emissions and therefore slow or stop the onset of climate change. To the extent this is achieved, it will help to lessen the negative impact on the nation's productive capacity that would otherwise occur in the presence of unmitigated climate change and the destruction caused by adverse weather events. In this respect, the successful implementation of environmental policy initiatives will have a favourable impact on aggregate supply in the long run. Additionally, these policies support the achievement of **inter-temporal** efficiency by forcing firms to internalise the social costs of emissions, encouraging a reduction in carbon emissions for example, and resulting in a reallocation of resources to more environmentally friendly production practices.

Impacts of policies on living standards:

Material living standards

In the short term, there is potential for these policies to negatively influence material living standards. Many critics of setting a carbon price highlight that these policies increase the cost of production for firms which will be passed on to consumers in the form of higher prices, thus eroding household purchasing power and **decreasing material living standards**. This was perhaps the major argument that ultimately led to the repeal of the carbon tax in 2014. Furthermore, in the past, many argued that Australia, a relatively small emitter compared with other countries around world, will effectively bear the cost of larger emitters without any real impact on global emissions. [As of 2023, 193 countries have ratified the Paris Agreement and have some form of climate policy in place including the world largest emitter, China.]

Australia continues to benefit greatly from the fossil fuel industry. We are amongst the largest exporters of coal and natural gas. The transition from fossil fuels to greener energies would hurt our large exporting businesses, leading to a decrease in both exports and national income, causing job losses decreasing living standards. The state of Victoria still relies on coal (lignite) as its primary source of energy, which releases the worst Co2 emissions of all fossil fuels. AGL Limited, the owner of Victoria's largest coal fired power plant, Loy Yang A, has agreed to close by 2035. AGL has already begun to reduce its workforce and plans for more redundancies, which decreases living standards for those working in those regions dominated by mining and energy companies.

In the longer-term, there are many benefits to material living standards. Whilst there will be jobs lost in the fossil fuel industry, there will also be a transition to 'green jobs' in the construction, manufacturing and design of energy efficient technology and infrastructure like solar, wind and hydro. If Australia can be a leader in any of these fields, we can create scalable industries which is both good for the environment, the economy and living standards more generally.

Non-material living standards

In the short-term and the longer-term, to the extent that these policies reduce emissions and improve the environment, **non-material living standards should improve.** This is due to the improvement in health outcomes, through the promotion of clearer air, cleaner water and improved soil quality, as well as an improved environment via greater biodiversity, more green spaces and less harmful pollutants in the atmosphere. Finally, taking positive and meaningful steps towards reducing climate change will also help to reduce the levels of despair, anxiety and helplessness amongst many concerned citizens.

Exam Tip: Questing 5c of the 2023 exam required students to analyse the impact of one market-based environmental policy on intertemporal efficiency and living standards. 'Analyse' is a relatively new command term in VCE Economics, VCAA states it requires students to 'identify components/elements and the significance of the relationship between them; draw out and relate implications; determine logic and reasonableness of information'. In this question analyse would ideally encourage students to explore multiple impacts of the policy on both living standards and intertemporal efficiency e.g. how the market-based policy would influence living standards/efficiency in both the short-term and long-term, or both positively and negatively. Indeed, the best responses included an analysis of both the short-term and long-term impacts, however a detailed analysis of either the long-term or short-term impacts was also acceptable .

REVIEW QUESTIONS 6 – Trade liberalisation and a market based-environmental policy

1. ***Distinguish between a carbon tax and an emission trading scheme.***
2. ***Explain the goal of net zero by 2050.***
3. ***Explain how one market-based policy influences aggregate supply in the short-term.***
4. ***Explain how a different market-based policy would work to impact aggregate supply in the longer-term.***
5. ***Define inter-temporal efficiency and explain how any market-based environmental policy would influence inter-temporal efficiency in the short and long-term.***
6. ***Explain how market-based environmental policies can influence material living standards in the short-term.***
7. ***Distinguish between protectionism and trade liberalisation using examples.***
8. ***Explain how trade liberalisation could lead to an inefficient outcome in the short-term.***
9. ***Outline one reason for the apparent global shit towards protectionist policies***
10. ***Explain how tariffs on Australian exports to the US are unlikely to affect Australian living standards***
11. ***Explain one economic reason why the Australian Government is unlikley to impose tariffs on US imports into Australia***
12. ***Discuss the impact of trade liberalisation on living standards.***
13. ***Discuss the impacts of a move away from trade liberalisation(towards protectionism) on efficiency in the short-term and long-term***
14. ***Explain the impact of trade liberalisation on aggregate supply and the achievement of strong and sustainable growth.***
15. ***Discuss the impact of trade liberalisation on the achievement of full employment.***
16. ***Discuss the impact of trade liberalisation on Australia's international competitiveness.***

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 use of AD polices 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) The reintroduction of a carbon tax

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 spending on 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

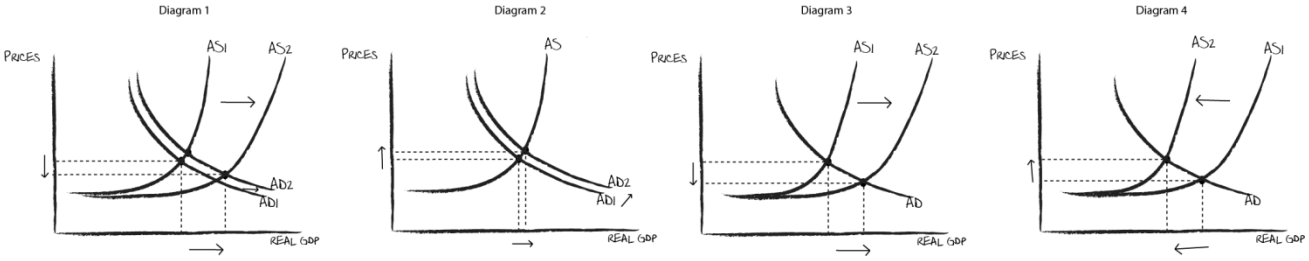
8. Which of the following government economic goals is unlikely to be a target of AS policies

(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?



(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 not likely 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. The 2023-4 Budget announced that it would allow small businesses to immediately 'write-off' capital expenditure up to $20,000. Which of the following <u>best</u> 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 AS 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

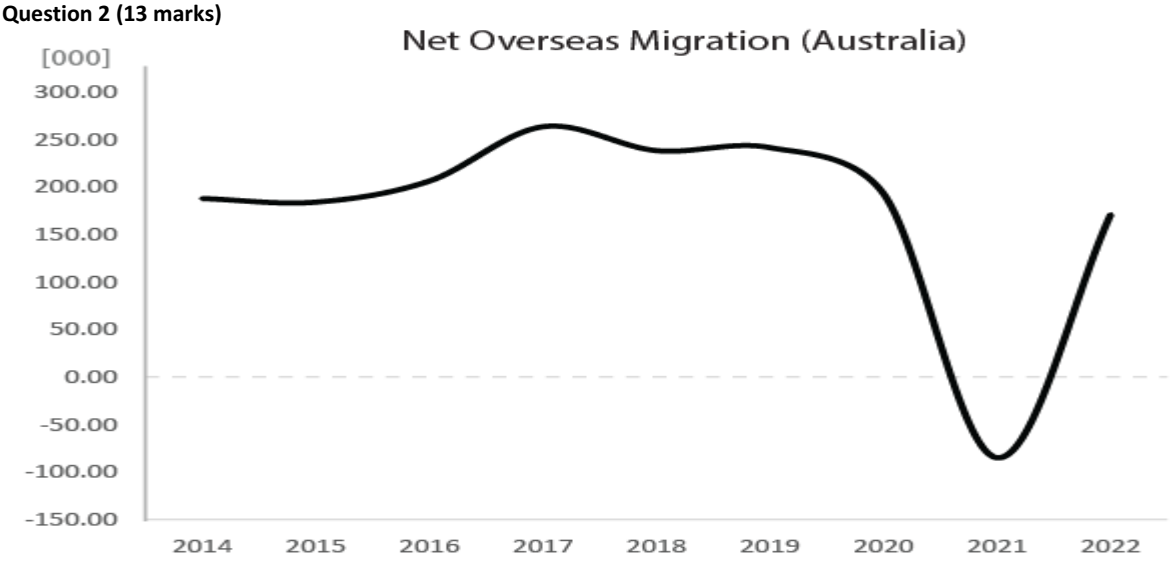
Question 1 (23 marks)

'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) Describe one market based environmental policy and discuss one short-term and one long-term impact on living standards (5 marks)

Question 2 (13 marks)



a) Describe the movement in net overseas migration (NOM) since 2019. (2 marks)
b) Explain one likely reason why the government has increased its skilled migration intake over the past year. (3 marks)
c) Analyse how an increase in Australia's skilled migrant intake can lift Australia's productive capacity and economic growth. In your answer, refer to the quality and quantity of labour. (5 marks)
d) Discuss the impact that a negative net overseas migration (NOM) might have on living standards. (4 marks)

Question 3 (14 marks)

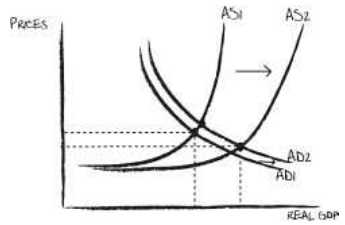
a) Define aggregate supply policies. (2 marks)
b) Explain how investment in public infrastructure can reduce inflationary pressure and promote employment in the longer term. (4 marks)
c) Explain how trade liberalisation might influence the achievement of a strong and sustainable rate of economic growth in the short term and in the long term. (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)

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

4. Skilled migrants usually make up approximately what proportion of total migration to Australia?

a) 10%
b) 70%
c) 20%
d) 100%

5. A decision by the government to increase number of skilled migrants to Australia reflects that:

a) The economy has been experiencing capacity constraints in the form of skills shortages and the government recognised that labour was in short supply and 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. What is the likely short term impact of lower forms of protection (e.g. lower tariffs)?

a) A reduction in efficiency
b) An increase in unemployment
c) An increase in prices
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 a return 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

11. Which of the following statements is correct in relation to budgetary policy supply side initiatives over the past two years?

a) The budget no longer provides R&D incentives
b) The ability for small businesses to instantly write-off of assets (e.g. for assets less than $20,000) remains in force
c) the corporate tax rate has fallen to 25% for all companies
d) A carbon tax has been introduced

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 and more accessible 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 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. A large increase in skilled immigration will influence the Australian labour market in the following way:

a) An increase in the size of the labour force, lower productivity and higher wages growth
b) A decrease in the size of the labour force, higher productivity and lower wages growth
c) An increase in the size of the labour force, higher productivity and lower wages growth
d) A decrease in the size of the labour force, lower productivity and higher wages growth

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 type of efficiency is most likely to be the target of environmental policies?

a) Intertemporal
b) Technical
c) Dynamic
d) Productive

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. An increase in skilled immigration should:

a) lead to skills shortages
b) reduce employment levels
c) shift the PPF to the right
d) boost intertemporal efficiency

27. The introduction of a price on carbon is likely to:

a) raise costs of production and increase real GDP but help to achieve a strong and sustainable rates of economic growth
b) raise costs of production and reduce real GDP but lead to less sustainable rates of economic growth
c) raise costs of production and increase real GDP but lead to less sustainable rates of economic growth
d) raise costs of production and reduce real GDP but help to achieve more sustainable rates of economic growth

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 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. Which of the following is an example of tax and welfare reform which could increase both aggregate supply and intertemporal efficiency?

a) The modified stage three income tax cuts
b) An increase in Jobseeker payments
c) Lower tax rates for businesses
d) The introduction of a carbon tax

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 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 introduction of carbon pricing
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) increased rates of income support payments such as JobSeeker
c) continuing accelerated depreciation allowances for small businesses allowing them to instantly write off assets up to $20,000 in value
d) a higher corporate tax rate

36. During 2021, Australia experienced negative net overseas migration (i.e. more people leaving Australia than entering Australia). This should result in:

a) A fall in the labour force participation rate and downward pressure on wages
b) A fall in the labour force participation rate and upward pressure on wages
c) A rise in the labour force participation rate and upward pressure on wages
d) A rise in the labour force participation rate and downward pressure on wages

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. Governments will introduce many aggregate supply policies to raise efficiency and improve international competitiveness. Which type of efficiency is closely related to costs, prices and the ability of Australian firms to compete in the global marketplace?

a) Technical efficiency
b) Allocative efficiency
c) Dynamic efficiency
d) Intertemporal efficiency

39. Each of the following changes to the tax system should help to increase productive capacity, with the exception of?

a) The extension of the low-and middle-income tax offset (LMITO)
b) Reducing the luxury car tax
c) Increasing the income threshold to $120,000 before a marginal rate of tax of 37% is applicable
d) An increase in the tax-free threshold to $38,000

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. Increasing the number of temporary skills visa holders should help to:

a) increase aggregate demand, decrease aggregate supply, raise productive capacity and lift the rate of growth in real GDP
b) decrease aggregate demand, increase aggregate supply, raise productive capacity and lift the rate of growth in real GDP
c) increase aggregate demand, increase aggregate supply, raise productive capacity and reduce the rate of growth in real GDP

d) increase aggregate demand, increase aggregate supply, raise productive capacity and lift the rate of growth in real GDP

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

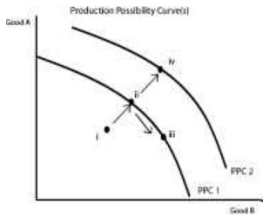
43. Businesses employing foreign workers are required to pay a levy that is deposited into a 'Skilling Australians Fund' that is then used to train new Australian apprentices. This is likely to

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

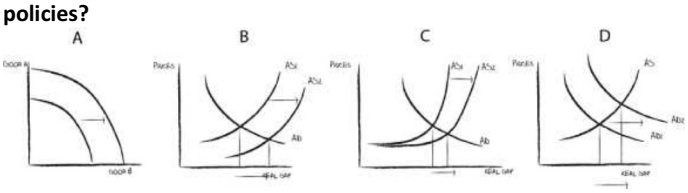
47. Which occupation is unlikely to be on the skills shortage list in Australia?

a) Engineer
b) Cleaner
c) Accountant
d) Doctor

48. The quality and quantity of Australia's factors of production is likely to increase if:

a) The government increases R&D grants and labour productivity rises
b) There is a decrease in the labour force participation rate and immigration numbers fall
c) There is an increase in spending on education and training and there is net negative overseas migration
d) Output per unit of labour input is raised and more stay at home parents return to the workforce

49. Which diagram below is inconsistent with an increase in economic growth due to the implementation of aggregate supply policies?



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 include a reduction in interest rates which reduces costs of production and lifts material living standards
b) AS policies should boost real GDP per capita and result in higher 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 they can 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_____

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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_____

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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 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.

Justification_____

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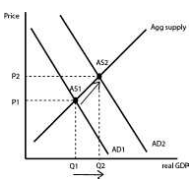
Sample 2

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_____

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3. Discuss how skilled immigration policy could put both upward and downward pressure on inflation. 4 marks

Sample 1

Skilled migration in Australia involves the government issuing skilled migration visas to migrants who are qualified in an area of skill shortage. Migrants bring to Australia new skills, knowledge and innovations which can help to improve labour market productivity in Australia, this improvement in productivity will reduce unit labour costs for Australian businesses. Additionally, skilled migrants help to alleviate labour market constraints that might be evidenced by skills shortages and excessive wage pressures. Both these factors help to reduce the cost of production for Australian businesses which (to the extent that these costs savings are passed on to consumers in the form of lower prices) will reduce the rate of inflation in the longer term.

However skilled immigration can also put pressure on inflation. Migrants to Australia will increase the population and add to aggregate demand pressures via consumption spending. In the short-term an increase in consumption spending will, ceteris paribus, increase AD. To the extent that AS cannot keep up with this increase in AD, inflationary pressures will arise in the Australian economy increasing the rate of inflation.

Justification_____

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Sample 2

Increased immigration can have positive and negative effects on inflation. Immigration helps to reduce inflationary pressure as wages are likely to decrease as a result of improvements in productivity. This means that firms are more willing and able to supply, reducing inflationary pressure and allowing the economy to grow in a sustainable fashion. Increased immigration can also put upward pressure on inflation as more migration increases Australia's population and therefore increases spending, leading to more inflation. 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 leading to higher inflation.

Justification_____

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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_____

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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_____

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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_____

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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_____

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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_____

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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_____

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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.

Section B (65 marks)

Section B will consist of short-answer and extended-answer questions, including questions with multiple parts. The number of questions may vary from year to year and Section B is worth a total of 65 marks.

A scientific calculator is now permitted to be used in the VCE Economics examination.

THE STRATEGY

Your overall strategy for exam preparation to **KAP** off a good year should be to:

1. **K**now the course and **K**now 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, summarised below, provide a basis for how questions might be asked in relation to the key knowledge.

- define key economic concepts and terms and use them appropriately
- construct and interpret demand and supply diagrams and a PPF model
- interpret and analyse statistical and graphical data
- analyse how the forces of demand and supply effect equilibrium price and quantity traded
- analyse the responsiveness of the quantity demanded and the quantity supplied to changes in price
- evaluate the role of free and competitive markets in achieving an efficient allocation of resources
- calculate relevant economic indicators using real or hypothetical data
- construct, interpret and apply economic models including the five-sector circular flow model of income and the business cycle
- explain and interpret trends and patterns in economic data and other information

- gather, synthesise and use economic data and information from a wide range of sources to analyse economics issues (and form conclusions)
- apply economic concepts to analyse economic relationships and make predictions
- evaluate the extent to which the economy has achieved the domestic macroeconomic goals over the past two years and discuss the effect of this on living standards
- explain key international economic relationships
- calculate relevant international economic indicators using real or hypothetical data
- discuss the operation of aggregate demand policies
- analyse the effect of current factors on the setting of aggregate demand policies and living standards
- predict the impact of changes in aggregate demand policies on the achievement of the domestic macroeconomic goals and living standards
- analyse the strengths and weaknesses of aggregate demand policies in achieving the domestic macroeconomic goals and living standards
- discuss the operation of aggregate supply policies
- analyse the effect of budgetary, immigration and trade liberalisation policies on aggregate supply, international competitiveness, the achievement of the domestic macroeconomic goals and living standards
- analyse the effect of an environmental policy on aggregate supply and living standards over time

To illustrate, a key knowledge point (Unit 3, AOS1) is '*the role of relative prices in the allocation of resources'* and a key skill is the ability to *'evaluate the role of free and competitive markets in achieving an efficient allocation of resources'*. A question which asks students to *evaluate the role of 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 '*apply economic concepts to analyse economic relationships and make predictions…'*. 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 current study design

Given that 2023 was the first year of the current study design, students will not have access to a wide range of VCAA examinations focusing specifically on the current course. The VCAA's 2023 examination and sample examination (published in 2023) should therefore be downloaded (www.vcaa.vic.edu.au). In addition, the practice examinations published by various organisations in 2023 and 2024 (e.g. CPAP exams X 6 in total over 2023 and 2024) 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 40 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. Explain how an economy's resources might be used in a way where intertemporal efficiency is not achieved. Construct a Production possibility frontier model to illustrate your response.
2. Describe how the basic economic questions of what, how, and for whom to produce are related to the problem of relative scarcity.
3. Explain why a demand curve is downward sloping, referring to the income and substitution effect.
4. Distinguish between the income and substitution effect in terms of how an increase in supply influences the demand for a product.
5. Outline how the profit motive influences the shape of a supply curve.
6. Explain how an increase in the number of suppliers within a given market is likely to influence equilibrium price and quantity.
7. Describe an example of a recent government intervention that has reduced one type of economic efficiency.
8. Evaluate the role of free and competitive markets in achieving an efficient allocation of resources.
9. Explain why the removal of government regulations, as an example of an aggregate supply factor, might contribute to the achievement of price stability and full employment.
10. Describe two separate consequences of not achieving the goals of strong and sustainable economic growth and full employment.
11. Explain what is meant by the non-accelerating inflation rate of unemployment (NAIRU) and examine the implications it has for the achievement of full employment.
12. Distinguish disinflation from deflation.
13. Describe two separate consequences of not achieving a low and stable rate of inflation.
14. Explain one negative consequence associated with a rate of inflation that is too low.
15. Evaluate the extent to which the economy has achieved price stability, full employment and strong and sustainable economic growth over the past two years.
16. To the extent that Australia has not achieved either the goal of price stability or full employment or strong and sustainable economic growth over the past two years, explain the effect on living standards.
17. Analyse the relationship between economic growth and unemployment.
18. Analyse the relationship between economic growth and inflation.
19. Analyse the relationship between unemployment and inflation.
20. Describe three gains that can be attributed to international trade.
21. Analyse the relationship between commodity prices and Australia's terms of trade.
22. Predict the outcome for Australia's terms of trade if there is a reduction in the costs of production experienced by a major trading partner.
23. Predict the outcome for the Australia's terms of trade if there is a rise in the supply of commodities on global markets.
24. Explain a possible cause a fall in Australia's credit rating and examine the effect this might have on the value of Australia's exchange rate and the value of net foreign debt.
25. Outline how a decrease in international competitiveness might influence full employment and living standards.
26. Describe how the RBA uses conventional monetary policy to influence interest rates. In your answer, refer to the role of the target cash rate.
27. Explain how the RBA has used unconventional monetary policy to support the economy over the past two years.
28. Explain the difference between progressive, proportional and regressive taxes as means of raising revenue for the government and provide a current example of each in the Australian context.
29. Explain why the further increase in excise on tobacco can have regressive effects.
30. Explain a justification for reporting the government's (underlying) budget outcome 'as a proportion of GDP'.
31. Analyse two strengths and two weaknesses of using monetary policy to achieve the goal of price stability.
32. Analyse two strengths and two weaknesses of using monetary policy to achieve the goal full employment.

33. Analyse two strengths and two weaknesses of using monetary policy to achieve the goal strong and sustainable economic growth.
34. Analyse two strengths and two weaknesses of using budgetary policy to achieve the goal of price stability.
35. Analyse two strengths and two weaknesses of using budgetary policy to achieve the goal full employment.
36. Analyse two strengths and two weaknesses of using budgetary policy to achieve the goal strong and sustainable economic growth.
37. Explain how two separate aggregate supply policies could be employed to improve the quality and quantity of factors of production and analyse how this might influence the achievement of price stability or full employment or strong and sustainable economic growth.
38. Describe how the government could use its control over immigration to increase aggregate supply. In your answer, refer to the three Ps of productivity, participation, and population.
39. Discuss how trade liberalisation might influence the achievement of price stability or full employment or strong and sustainable economic growth. In your answer, distinguish short-term from long-term impacts.
40. Describe how one market based environmental policy can improve intertemporal efficiency. In your answer refer to the impact on AS and living standards.

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 economy. In particular, the following key knowledge/skills highlight the need for students to remain engaged with what is happening in the economy:

- aggregate demand and aggregate supply factors that have affected the level of achievement or non- achievement of the goals of strong and sustainable economic growth, full employment and low and stable inflation over the past two years;
- evaluate the extent to which the economy has achieved the domestic macroeconomic goals over the past two years and discuss the effect of this on living standards;
- the effect of the budgetary policy stance and budgetary initiatives over the past two years and their likely effect on the achievement of the domestic macroeconomic goals and living standards
- the stance of monetary policy over the past two years and its likely effect on the achievement of the domestic macroeconomic goals and living standards
- the effect of the budgetary policy stance and budgetary initiatives over the past two years and their likely effect on the achievement of the domestic macroeconomic goals and living standards
- aggregate demand and aggregate supply factors that have affected the level of achievement or non- achievement of the goals of strong and sustainable economic growth, full employment and low and stable inflation over the past two years
- analyse the effect of current factors on the setting of aggregate demand policies and living standards.

The exam setting panel is 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 Examination 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.'***

Examples of questions from the most recent 2023 and 2024 exams that required a knowledge of contemporary events included the following:

2024

- *4a. Explain how one aggregate supply factor might have affected the achievement of the goal low and stable inflation in the last 2 years*
- *4c. With reference to one transmission mechanism, explain how the current monetary policy stance is designed to influence aggregate demand and the achievement of the goal of low and stable inflation*
- *4d, Evaluate the extent to which the Australian economy has achieved the domestic macroeconomic goals of low and stable inflation and full employment in the last 2 years.*
- *6a. Identify the stance of the 2024-25 federal budget and describe one reason why the government might have adopted this stance given current economic conditions.*
- *6b. Explain the effect of one automatic stabiliser and one discretionary stabiliser on the Australian Government's budget outcome over the past 2 years.*
- *6d. Explain one strength of using monetary policy and one strength of using budgetary policy to affect aggregate demand and influence the achievement of the goal of strong and sustainable growth over the past 2 years.*

2023

- *1a. With reference to at least one economic indicator, identify the stage of the business cycle for the Australian economy since July 2023.*
- *1b. Explain how one aggregate demand (AD) factor and one aggregate supply (AS) factor have caused changes in the business cycle in Australia in 2023.*
- *3b. Analyse how Australia's unemployment rate and inflation rate have influenced the stance of aggregate demand policies in 2023.*
- *3c. Predict how one discretionary stabiliser from the Australian Government's 2023–2024 budget is likely to affect Australia's rate of economic growth and living standards.*

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
- Josh Verlin's YouTube Channel (https://www.youtube.com/channel/UCOvciPOmKFuIKD7kEwdhrgQ)
- 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.

Learning from the mistakes made in the past

While this is the second year of the new VCE Economics Study Design, there have not been major changes to the course. This means that past Examination Reports written by the Chief Assessor remain extremely relevant as a means of learning from the mistakes made in the past. It is imperative that recent Examination Reports are downloaded from the VCAA website [https://www.vcaa.vic.edu.au/assessment/vce-assessment/past-examinations/Pages/Economics.aspx]. Recent reports not only provide students with an idea for how specific questions should (or should not) be approached, sample A+ responses are also provided for each question, and general advice is provided in the 'General comments' at the start of the Report. For example, recent examination reports have provided the following valuable advice to students sitting the examination.

- A reminder that it is acceptable to write below the lines provided before using the extra writing space at the back of the booklet, if there are only a few words to add.
- Using 'unacceptable' or 'made up' symbols or abbreviations can obscure the meaning of a student's response and impact on the awarding of marks.
- Inclusion of material that goes beyond the scope of the question being asked, or is not relevant, will not add value to a response.
- It is important to read each question thoroughly and consider its intent before beginning a response - students were seen to misinterpret questions or not address all parts of a question.
- When interpreting questions, students must pay specific attention to instructions contained within questions. There were numerous instances where some or all of these instructions were not followed by students, which prevented them from achieving full marks.

RECENT EVENTS RELATING TO THE PERFORMANCE OF THE AUSTRALIAN ECONOMY

1. The economic impact of natural disasters (e.g. bushfires and floods) over recent years.
2. The tariffs imposed by the US on Australian exports
3. The huge fall in consumer confidence to record low levels over 2023-24, partly in response to cost of living pressures, restrictive monetary policy and an unstable geopolitical environment. Continued low levels of confidence over 2025 (below index of 100) despite the increase in confidence.
4. The persistence of inflationary pressures in the Australian economy despite the RBA's restrictive stance.
5. The growing geopolitical instability, evidenced by the wars in Ukraine and the middle east, and the implications for globalisation and international trade as well as the instability caused by the erratic behaviour of US President Donald Trump and heightening protectionism.
6. The continual rise in house prices in Australia despite the increase in borrowing costs and its relationship to housing affordability.
7. The very large fall in the unemployment rate to levels (as low as 3.5%) that are considered below the full employment levels (of approx. 4.25%).
8. The RBA's preparedness to use non-conventional monetary policy methods that can effectively equated to 'printing money' over 2020-21 and the more recent move away from using time based forward guidance and other unconventional tools.
9. The aggressive tightening of monetary policy over 2022-23 in the face of much criticism levelled against the RBA in terms of both the possible impact on economic growth as well as the misleading 'forward guidance' provided in 2021-22 (i.e. the expectation that the cash rate wouldn't increase until 2024).
10. The relatively more aggressive tightening of monetary policy in the USA over the past couple of years and the implications for both the operation of the exchange rate channel of monetary policy and the economy more generally.
11. Over recent years, the relatively more severe slowdown in the rate of economic growth overseas compared to Australia and the role of the Terms of Trade in accounting for the difference (at least up until 2023-24).
12. The criticisms levelled at the oligopolistic banking and supermarket industry for 'profiteering' and behaving in anti-competitive ways over recent years. Such as Coles and Woolworths exercising monoposony power to squeeze farmers without reducing retail prices which inflates margins and leads to supernormal profits being earned.
13. The growing share of income returned to profits compared to wages over recent years and its relationship to growing market concentration in a number of industries (e.g.banking, mining, airlines, health insurance, brewing, telecommunications, technology, and groceries).
14. The rorting taking place in vocational education, the cladding disaster, and carbon trading as examples of market/government failure.
15. Other potential government failures, such as those potentially excessive spending on defence and or changes to excise that have escalated criminal activity (e.g. growth in illicit tobacco trade) and/or created to other social problems (e.g. lower relative price of illicit party drugs as a consequence of growing excise on alcohol).
16. **Concern about the rising cost of living pressures and associated government responses, such as the temporary halving of excise on fuel during 2022 and the cost of living relief provided in recent budgets, such as energy rebates.**
17. Growing concern about the cost and burden associated with HECS debt in light of higher inflation and the indexation of HECs and the subsequent decision of the Government to provide HECS relief (20% discount) in the 2025-26 Budget.
18. Continuing actions by the ACCC in relation to misleading and deceptive conduct (link to asymmetric information as a market failure).
19. The appreciation of the AUD over 2020-21 (from as low as USD0.56 in March 2020 to USD0.80 in February 2021) before trending down since then (to USD0.59 in early April 2025) and the implications for the economy (e.g. causes and effects?).
20. **The fall in the terms of trade from very high levels and the implications for both the economy and government policy.**
21. **The fall in inflation towards 2% in 2025 and the impact on resource allocation and policy settings**
22. **The further increase in excise tax on tobacco by 5% per year (for three years) as announced in the 2023-24 Budget and the implications for market failure, equity and or budget outcome.**
23. The growing concern about vaping and its relationship with market failure and the need for government intervention.
24. **The surge in net overseas migration since 2022 as foreign students return and there is a rise in temporary visa holders and working holiday makers – and the implications for economic activity and housing affordability**
25. The concern about the high 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.
26. **The resurgence in the residential property market and its implications for household wealth, economic growth and housing affordability.**
27. The excess supply of office space as people work from home and the implications for the commercial property market.
28. 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.
29. **Continuing problems with 'housing affordability' and the announcement of budgetary policy measures to address the problem.**
30. The ongoing controversy about the housing market impact of negative gearing and capital gains tax concessions.

31. **The growth crude oil prices over 2022-3 due to invasion of Ukraine and the impact on petrol prices (underlying vs headline inflation) and the Australian economy more generally and the fall in prices over the past year.**
32. The growing prevalence of internet shopping and the implications for Australia's retail sector and the allocation of resources in the economy.
33. 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.
34. **The small rise in the savings ratio over the past two years and the implications for monetary and budgetary policy settings.**
35. The relationship between (Covid-19) vaccinations and market failure (i.e. positive externality).
36. New government funding to reduce the regulatory burden on businesses.
37. 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).
38. 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).
39. The general acceptance that NAIRU is falling, with government estimates now putting the NAIRU at 4.25% or even lower.
40. The impact that globalisation and technological advances has had on Australian labour markets and wages growth.
41. The very tight labour markets and the upward pressure on nominal wages (evidenced by growth in the wage price index).
42. Despite increasing growth in nominal wages over 2022-23, the slow (or negative) growth in real wages over that period and the stronger growth nominal and real wages since then.
43. The improvement to the budget outcome during 2022-23 and 2023-24 and the relationship to (i) automatic and discretionary stabilisers and (ii) net government debt.
44. Changes to Australia's tax system in recent budgets including the reduction in the corporate rate, Stage 3 tax cuts, and a lower 16% rate to be applied over 2026 and 2027, justified (partly) on the basis of compensating taxpayers for 'bracket creep'.
45. The controversy surrounding the viability of following through with the (revised) Stage 3 cuts that came into force on 1 July 2024.
46. **The increasing of the 'retirement age' (i.e. the age at which one becomes eligible for the aged pension) to 67 and the proposal to increase this further to 70 by 2035.**
47. Allegations of dumping made by Australian industries, including those in aluminium, steel and paper manufacturing, as well as agricultural products such as pineapples.
48. 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.
49. China's growing focus on consumption relative to investment and the implications for the composition of Australian exports.
50. 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.
51. The growing market for services provided in the digital economy (e.g. Uber 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).
52. The COVID-19 supply constraints over recent years and the impact on aggregate supply, (cost) inflation and economic growth (e.g. shortages of computer chips affecting vehicle prices and shortages of building materials affecting construction costs).
53. The government's decision to legalise medicinal cannabis and the implications for resource allocation.
54. The avian flu virus impacting on the market for eggs over 2024-25.
55. 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.
56. The large growth in the demand for natural gas causing what became known as the 'natural gas export boom' for Australia.
57. The possibility of nuclear power plants being developed in Australia as a means of providing sustainable baseload power.
58. The growing take-up of renewable energy subsidies by households (including new subsidies for batteries) and the implications for resource allocation.
59. The potential for significant supply side cost pressures increasing as raw material costs rise with significant price rises occurring in timber and steel and many other intermediate goods (materials used to produce finished goods and services).
60. How the SNOWY 2.0 Hydro scheme is expected to impact on power prices and reliability of supply.
61. Growth in income support payments announced in recent budgets (e.g. single mother's pension and JobSeeker) following growing community criticism about the inadequacy of these payments.
62. The effective increase in the petroleum resources rent tax (PRRT) to ensure that resource companies deliver a 'fairer return to the Australian community from their natural resources' and the implications this has for the budget and living standards.
63. The introduction of the Safeguard Mechanism on 1 July 2023 which is intended to decrease Co2 emissions and help to reach Australia's emissions reduction targets (e.g. net zero emissions by 2050).

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, we will start you off with ten structured questions relating to the bolded events above.

Example 1

Concern about the rising cost of living pressures and associated government responses, such as the temporary halving of excise on fuel during 2022 and the cost of living relief provided in recent budgets, such as energy rebates.

a) Explain how inflation increases cost of living pressures for Australian households.
b) Examine the impact on inflation if the government halves the excise on fuel as it did during 2022.
c) Describe one other budgetary policy measure that has been, or can be, introduced to reduce cost of living pressures.

Example 2

The fall in the terms of trade from very high levels and the implications for both the economy and government policy.

a) Define terms of trade (TOT).
b) Describe one reason for the fall in Australia's TOT since 2022.
c) Examine how a continuing reduction in the TOT is might influence the budget outcome and monetary policy settings.

Example 3

The fall in inflation towards 2% in 2025 and the impact on resource allocation and policy settings

a) Evaluate the extent to which price stability has been achieved over the past year.
b) Analyse how the change in the rate of inflation over 2024-25might influence resource allocation.
c) Discuss how the change in the rate of inflation over 2024-25 has influenced both monetary and budgetary policy settings.

Example 4

The further increase in excise tax on tobacco by 5% per year (for three years) as announced in the 2023-24 Budget and the implications for market failure, equity and or budget outcome.

a) Explain why an increase in excise tax on tobacco can be regarded as a policy measure designed to address market failure.

b) Explain how excise tax on tobacco is considered to be an example of a regressive tax.
c) Explain why how an increase in excise tax on tobacco influences the budget outcome. In your answer, distinguish the cyclical impact from the structural impact.

Example 5

The surge in net overseas migration since 2022 as foreign students return and there is a rise in temporary visa holders and working holiday makers.

a) Explain how a large increase in net overseas migration is expected to influence both the labour market and the property market.
b) Describe how the manipulation of the skilled migration program can be regarded as an example of aggregate supply policy in Australia.
c) Explain how an increase in net overseas migration can have both a positive and negative effect on Australian living standards.

Example 6

The resurgence in the residential property market and its implications for household wealth, economic growth and housing affordability.

a) Describe how the rise in net overseas migration may have influenced the residential property market and housing affordability.
b) Explain how the movement in the property market (as described above) has influenced household wealth and economic growth.
c) Analyse whether the movement in the property market over the past year is related to monetary policy settings.

Example 7

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 have unintended consequences.

Example 8

The growth crude oil prices over 2022-3 due to invasion of Ukraine and the impact on petrol prices (underlying vs headline inflation) and the Australian economy more generally and the fall in prices over the past year.'

a) Use a demand/supply diagram to account for the fall in crude oil prices over the past year.
b) Explain how higher crude oil prices impacted on both headline and underlying inflation and examine how this is likely to have influence monetary policy settings at the time.
c) Outline how lower crude oil prices over the past year influenced AD, economic growth and the current account deficit.

Example 9:

The small rise in the savings ratio over the past two years and the implications for monetary and budgetary policy settings.

a) Outline one possible cause of the increase in the savings ratio over the past two years.
b) Explain how a rise in household savings is expected to influence the achievement of price stability.
c) Explain how the rise in the savings ratio over the past two years influences monetary policy and budgetary policy settings.

Example 10:

The increasing of the 'retirement age' (i.e. the age at which one becomes eligible for the aged pension) to 67 and the 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 Australia's 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

Answers are downloadable from https://www.commpap.com/page89-2/.

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 $368B on nuclear submarines?

A. $368B of expenditure on social security and welfare
B. $368B of spending on community services and culture
C. $368B investment in health, education and/or telecommunications
D. $368B of spending on the construction of the new submarines

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 unlikely 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 2025?

A. The value of the Australian dollar was below USD 0.70, headline inflation was below 4% per annum and the rate of U/E was below 4.25%
B. The U/E rate was above 4%, the participation rate was above 65% and the headline inflation rate was above 4%.
C. Economic growth was below 3%, the current account surplus was more than 1% of GDP and the U/E rate was above 4%
D. Net Foreign Debt fell to less than 3% of GDP, headline inflation was more than 3% and real GDP growth was greater than 1%

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 from USD0.60 in April 2025 to USD0.65 in May 2025 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 investing in capital

Question 10

in early 2025, the RBA loosened monetary policy. This means that:

A. The RBA increased the tax free threshold
B. The 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 is likely to have reduced pressure on the rate of inflation in Australia over 2024-25?

A. The increase in the wage price index
B. Stage 3 tax cuts
C. The fall in the terms of trade
D. The fall in the value of the Australian dollar

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 interest rates and real interest rates relies on changes in:

A. the CAD
B. the CPI
C. the TWI
D. the cash rate

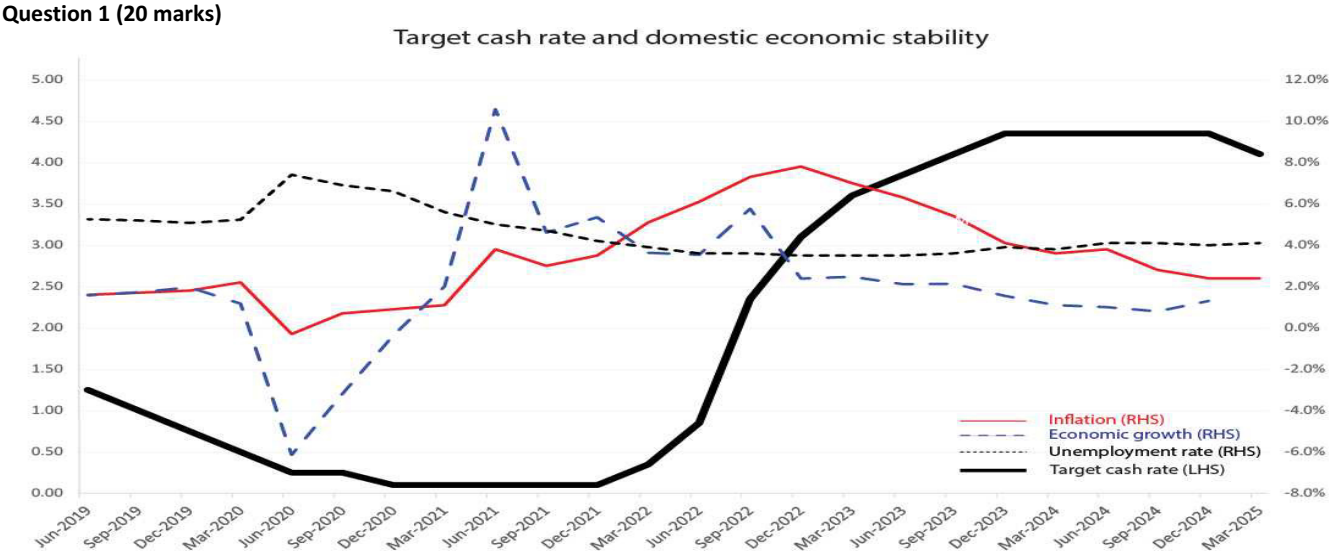
Question 15

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, inflation and the unemployment rate since March 2023. (4 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 how a large fall in economic growth might have a relatively negligible (or small) 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)
The 2023-24 Budget revealed that tobacco excise will increase by 5% per annum for the next three years. This measure, combined with plain packaging of tobacco products, is expected to further reduce smoking rates.

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 an indirect tax 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 growth in the terms of trade can influence the ability of the government to achieve fiscal consolidation. (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 an increase in the terms of trade typically impacts on the government's goal to achieve fiscal consolidation.
4 marks

Demonstrating an understanding of the terms of trade

Demonstrating an understanding of fiscal consolidation

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 fiscal consolidation (i.e. to return the budget to surplus and/or reduce budget deficits). In particular, the higher prices received for commodities like iron ore and coal typically help 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, assisting with the achievement of fiscal consolidation.

Linking higher revenue/wages to tax revenue.

Highlighting why revenue increases.

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. As the deficit decreases over time this means that the government will be more likely to achieve fiscal consolidation. 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 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 fiscal consolidation without demonstrating an understanding of what is meant by fiscal consolidation

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 and fiscal consolidation. In addition, the student provides an outline of how the higher terms of trade impacts on the ability to achieve fiscal consolidation. All of this is done in the 1st line. In contrast, Sample 2 neither demonstrates an understanding of the terms of trade or fiscal consolidation - this is costly. While the student does get the direction of the relationship to the budget outcome 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 fiscal consolidation (without highlighting what fiscal consolidation 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 fiscal consolidation .

2. Explain how monetary policy settings up until 2022 may have contributed to the housing price boom. In your answer refer to one transmission 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 up until 2022 contributed to the housing price boom. The RBA lowered interest rates in the economy on numerous occasions. These monetary policy easings resulted in the monetary policy stance becoming accommodative of 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 0.1%. 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 channel is unlikely to be rewarded given that an explanation of only one transmission channel 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 cost of credit channel (savings and investment channel) and how it added to the demand for and price of housing.

Sample 2: *Monetary policy was expansionary until the end of 2022, with several policy easings, as the RBA reduced the target cash rate to as low as 0.1% in 2020. This target cash rate remained at a very low level (until late 2022) and 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 channels. In particular, the looser monetary policy helped to fuel growth in the demand for housing, as lower mortgage rates worked to reduce the cost of credit, encouraging more demand for housing loans. This is because lower interest rates discourage saving and encourage borrowing (e.g. for investment in housing). The lower interest rates resulted in large increases in housing prices, particularly in Sydney and Melbourne, where these markets were generally considered to be in boom territory. This was 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) was 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 channel (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 channel (i.e. the exchange rate channel) should have been better. However, more crucial was the student's inclusion of a discussion of open market operations and a 2nd transmission channel, 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 another recession.

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.*

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.

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.*

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 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 (i.e. how is the cash rate reduced

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: *An attempt the RBA to reduce the cash rate is likely to mean that it has increased above the target cash rate and the RBA wants to return it back to target. The RBA will increase liquidity in the cash market 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. The RBA will stop buying securities once the actual cash rate reaches its desired level (e.g. the target cash rate).*

Addresses the 'why' or justification for OMOs in the scenario given.

Student gets straight into the question and focuses on the need to increase liquidity in order to reduce the CR and how this occurs

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

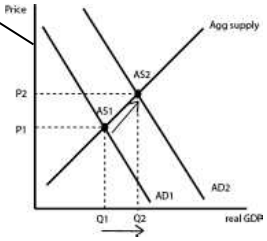
Student should attempt to demonstrate an understanding of this with an example

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)

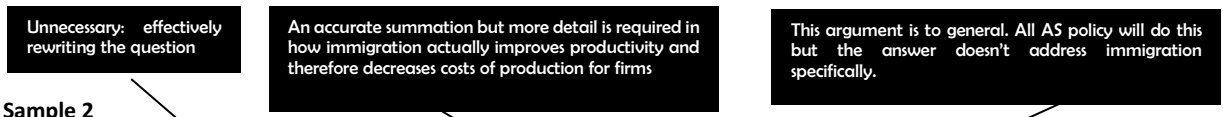
Sample 1 has an excellent structure in that the student demonstrates an understanding of the key terms in the question and signpost the response in the 1st sentence. While the student does ignore the short-term AD side impact that stems from an increase in government infrastructure spending, it is clear 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 skilled immigration policy could put both upward and downward pressure on inflation. 4 marks

Sample 1

Skilled migration in Australia involves the government issuing skilled migration visas to migrants who are qualified in an area of skill shortage. Migrants bring to Australia new skills, knowledge and innovations which can help to improve labour market productivity in Australia, this improvement in productivity will reduce unit labour costs for Australian businesses. Additionally, skilled migrants help to alleviate labour market constraints that might be evidenced by skills shortages and excessive wage pressures. Both these factors help to reduce the cost of production for Australian businesses which (to the extent that these cost savings are passed on to consumers in the form of lower prices) will reduce the rate of inflation in the longer term.

However skilled immigration can also put pressure on inflation. Migrants to Australia will increase the population and add to aggregate demand pressures via consumption spending. In the short-term an increase in consumption spending will, ceteris paribus, increase AD. To the extent that AS cannot keep up with this increase in AD, inflationary pressures will arise in the Australian economy increasing the rate of inflation.



Sample 2

Increased immigration can have positive and negative effects on inflation. Immigration helps to reduce inflationary pressure as wages are likely to decrease as a result of improvements in productivity. This means that firms are more willing and able to supply reducing inflationary pressure and allowing the economy to grow in a sustainable fashion. Increased immigration can also put upward pressure on inflation as more migration increase Australias population and therefore increases spending leading to more inflation. 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 leading to higher inflation.

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 inflation. The student did not get sidetracked by focusing on the impact on other markets (e.g. the housing market) and instead demonstrated sophistication by focusing on the key reasons for skilled imiigration potentially reducing inflationary pressures on the one hand, and increasing them on the other. 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 the possible inflationary impacts 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 maximized now and into the future. This involves the RBA using monetary policy to ensure that both price stability and full employment are achieved.

2. Explain how the RBA delivers a less restrictive monetary policy setting. In your answer, refer to the target cash rate and policy interest corridor. (4 marks)

A less restrictive setting involves the RBA loosening monetary policy and reducing the target cash rate (TCR) from a pre-existing restrictive level to a level that restrains AD to a lesser degree. For example, the reduction in the TCR in January 2025 from 4.35% to 4.1% was an example of the RBA adopting a less restrictive stance. To achieve this, the RBA announces a reduction in the TCR and then reduces both the OMO rate (which is the cost for banks borrowing from the RBA in the cash market) and the ESA rate (which is the rate earned on ESA balances) by the same magnitude (e.g. 25 basis points). 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. The lower cash rate will then be reflected in other debt markets, causing all interest rates in the economy to fall. The lower interest rate structure across the economy will work to constrain AD by less than before the policy change.

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 creating a budget surplus can represent an increase in public sector saving. (3 marks)

When the budget moves into surplus, it means that the government's income (or revenue) exceeds its 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 a reduction in the size of the budget deficit from $20 billion to $10 billion is expected to influence the value of public debt. (3 marks)

Reducing the size of the deficit from $20 billion to $10 billion will help reduce the 'rate of growth' in public debt (compared to the previous year), but it should still lead to an increase in the size or value of public debt over the period. This is because the government is still delivering a budget deficit (government spending greater than income), which requires financing, typically in the form of debt financing via the sale of Commonwealth Government Securities (or bonds).

6. Explain two ways in which a recession is likely to influence the cyclical component of the budget. (4 marks)

A recession is defined as two consecutive quarters of negative economic growth. It automatically has a negative impact on the federal government's tax revenue as there will be a decrease in both incomes and tax paid by companies and individuals (more of whom are likely to be unemployed). In addition, rising unemployment levels automatically lead to higher transfer/income support payments (e.g. unemployment benefits). Accordingly, government revenue is reduced and government expenditure increases**,** pushing the budget automatically towards a (larger) deficit (or smaller surplus). This change in the budget will be due to 'automatic stabilisers' within the budget or the 'cyclical' component of the budget. This is usually a significant factor behind the large budget deficits that typically occur during a recession (e.g. those recorded for 2019-20 and 2020-21 during the Covid induced recession of 2020).

7. Discuss 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 to which unemployment worsens non-material living standards (e.g., low self-esteem for some unemployed workers and a higher likelihood of crime), the creation of jobs can also help 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.

However, an expansionary monetary policy setting that is employed for too long (or when the RBA misjudges 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 (or less restrictive one). 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 of 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. This is despite its dual mandate to focus on both price stability and full employment.

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. fewer 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 (i.e. leakages) in the form of taxes, etc. than it is putting in (i.e. 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 the outcome (e.g., surplus/deficit) that results from 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 2020 recession, 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 increased further because the government stimulated the economy via further tax cuts and increases in government spending, such as the JobKeeper and JobSeeker stimulus measures.

11 (a) Describe the trend movement in the target cash rate since late 2022. (2 marks)

The target cash rate has risen since December 2022, from 0.1% to 4.1% by February 2025.

(b) Provide a valid explanation for the change in the monetary policy stance since early 2022.

(4 marks)

Since early 2022, the monetary policy stance shifted from a highly expansionary stance to a restrictive stance by May 2023. This occurred because (headline) inflation increased well above the RBA's target range of 2-3%, reaching as high as 7.8% by the end of 2022. As a consequence, the RBA switched its focus from the need for an expansionary setting to stimulate economic growth and jobs, to a re-focusing on the need to achieve price stability – its goal to achieve 2-3% growth in the CPI on average over time. The stance became increasingly restrictive through to 2023-24, with the TCR rising to 4.35% by December 2023 before becoming slightly less restrictive in early 2025 (with the TCR being reduced back to 4.1%).

(c) Explain what is meant by 'fiscal consolidation' and describe how fiscal consolidation can result in a less restrictive monetary policy setting. (4 marks)

Fiscal consolidation involves the federal government's commitment to tightening budgetary policy (or budget repair) via a reduction in the deficit and eventual return to surplus, which is typically consistent with the government's fiscal strategy to achieve budget surpluses, on average, over the cycle. This helps to contain inflationary pressures and therefore allows the RBA to adopt a less restrictive monetary policy stance, where the target cash rate can be lowered (e.g. below the current 4.1%) without it adding to inflationary pressure. The commitment to fiscal consolidation actually helps to contain inflationary pressures because the government is reducing its fiscal stimulus to the economy (or accelerating its fiscal restraints) which therefore means that the RBA does not need to be as aggressive with its interest rate setting, given that budgetary policy is doing part of the job of reducing inflation.

(d) Describe how a lower exchange rate is likely to influence monetary policy deliberations in 2025. (3 marks)

A lower value of the AUD is one factor that provides an automatic stimulus to the economy as it boosts the competitiveness of Australia's tradables sector and increases the value of net exports. It therefore adds to demand inflationary pressures. However, it also adds to cost inflationary pressures via the increased price of imports, most of which are inputs in the form of capital or intermediate goods. In isolation, a depreciation is therefore likely to prompt the RBA to consider a further tightening of monetary policy, making it even more restrictive, or delay any further easing of monetary policy, as it would be concerned about its inflationary effects and the difficulty in achieving price stability.

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**) Describe one market based environmental policy and discuss one short-term and one long-term impact on living standards**

The implementation of an emissions trading scheme (or cap and trade system) is an example of a market based environmental policy. It typically works by granting or selling permits to businesses allowing them to emit a given amount of carbon and then establishing a market whereby businesses can trade permits. In the short-term this could negatively affect material living standards as high emitting firms will have higher costs of production which will passed on to consumers in the form of higher prices. To the extent that higher prices reduce purchasing power, Australian households will have less access to goods and service reducing material living standards in the short term. On the other hand, in the longer term an emission trading scheme will reduce the effects of climate change will improve non-material living standards via an improve environment and happier people.

Question 2
Question 2
a) Describe the movement in net overseas migration (NOM) between 2021 and 2023

NOM increased from approximately -100,000 in 2021 (meaning that more people left Australia than entered Australia) before increasing to more than 500,000 in late 2023.

b) Explain one likely reason why the government increased the skilled migration intake between 2021 and 2023.

It is likely that the government increased the number 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) Analyse how an increase in Australia's skilled migrant intake can lift Australia's productive capacity and economic growth. In your answer, refer to the quality and quantity of labour.

An increase in the number of skilled migrants entering the country will help to boost both the quality of labour as skill levels within enterprises increases, as well as the quantity of labour (increasing the size of the labour force), which increases the ability of businesses to produce output. In addition, businesses will be able to source skilled labour at lower rates of pay because the increased supply of labour exerts downward pressure on wages or labour costs. The combined effect of greater productivity and relatively lower labour costs helps to reduce the average costs of production for Australian businesses and increases the willingness and capacity to supply goods and services to markets, This rise in productive capacity, and the associated fall in production costs, contributes to a lower rate of inflation, boosting international competitiveness, stimulating economic growth and therefore assisting with economic recovery.

d) Discuss the impact that a movement in net overseas migration (NOM) over 2021 might have (had) on living standards.

Negative NOM, as that which occurred over 2021, negatively impacts on material living standards given that it effectively means that the quality and quantity of human capital available in the labour market falls. Not only did it decrease labour supply, it exerted downward pressure on productivity and technical efficiency by draining Australia of some entrepreneurial endeavour and unique skills that migrants can bring. This reduces productive capacity/AS, leads to slower rates of economic growth and contributes to higher inflation, which impairs the ability of Australians to access the same quality/quantity of goods and services as before.

However, to the extent that high immigration levels more generally can impact negatively on living standards, particularly non-material living standards, the negative NOM over 2021 may have had a favourable impact on living standards. In the first instance, the decreased NOM provided job opportunities for some Australian workforce participants who would otherwise be displaced/disadvantaged by high immigration numbers. In addition, negative NOM can help to reduce the strain on Australia's physical and natural capital (e.g. infrastructure such as roads) which adds to congestion and potentially increases the rate of resource depletion. In addition, to the extent that immigration challenges social cohesion, negative NOM might actually help to reduce the level of disruption to cohesion that might otherwise occur.

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) Explain how trade liberalisation might influence the achievement of a strong and sustainable rate of economic growth in the short term and in the long term

Trade liberalisation refers to the breaking down of barriers that impede the free flow of goods and services across international boundaries. It is evidenced by reductions in protection, such as lower tariffs and reduced subsidy support for many businesses and the signing of new free trade agreements with trading partners. The reduction in protection increases the level of imported competition and forces domestic producers to increase efficiency to remain competitive. This often involves large-scale restructuring that can create short term dislocation and unemployment, as businesses substitute out of labour and into capital for example. The closure of some businesses detracts from economic growth in the short term, making it more difficult to achieve the goal of strong and sustainable economic growth. However, over time, the restructuring helps to raise productivity as businesses are able to produce more from any given level of inputs [e.g. new robotics lifting capital productivity], helping to reduce prices and improve international competitiveness of many Australian producers. This helps to reverse the negative short term effects and contributes to achievement of the goal in the long run.

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 TO 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

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Romeo Salla

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Darrell Cruse

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- 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.

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