

2022 VCE Economics external assessment report

General comments

The majority of students performed well in the examination. In Section A, most of the 15 multiple-choice questions were well handled, with a majority of students selecting the correct option. However, many students had difficulty with Questions 2 and 7, with only 39% selecting the correct option in both cases. With respect to Question 2, students struggled to identify that a decrease in personal income tax rates causes a movement 'along the supply curve', and for Question 7 it was evident that students believed that an increase in company tax rates and a reduction in welfare payments were both means of 'financing a budget deficit', not recognising that they represented ways of reducing the size of the deficit (in the future) rather than 'financing a deficit'. To a lesser extent, Question 10 was not well handled, with only 50 per cent of students selecting the correct option. It was evident that students found it difficult to identify how the payment of rent by Australian companies to foreign landlords would be recorded in Australia's balance of payments (i.e. a debit in the Net Primary Income Section of the Current Account).

The performance of students in Part A of the examination suggests that teachers and students should carefully revise the following key knowledge areas as part of examination preparation:

- the law of supply and the supply curve including movements along, and shifts of, the supply curve
- the means by which governments may finance a deficit or utilise a surplus in the balance of payments and its components.

Most students attempted all questions within Section B and were able to structure responses well, address all components of a question accurately and make productive use of the extra space at the end of the booklet. 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.

When including abbreviations, symbols or acronyms, note that it is acceptable to use those that are frequently used in the media or texts, including GDP, CPI, PPC, R&D, AUD, USD, AD, CAD, NFD, BOT, etc. However, it is not acceptable to make up abbreviations (e.g. 'pry' for productivity, 'OC' for opportunity cost, 'InR' for inflation rate) or use symbols (e.g. arrows), which mean student responses read like a series of short-hand notes. Using symbols or abbreviations can obscure the meaning of a student's response and impact on the awarding of marks.

Students should provide direct and relevant responses to the specific questions being asked. Inclusion of material that goes beyond the scope of the question being asked, or is not relevant, will not add value to a response. For example, in Question 1a. all that was required was a description of the trend in inflation. Information related to causes of the higher rates of inflation or its effects or policy responses was not required. Similarly, in Question 1f., where an exploration of the exchange rate transmission channel was required, many students included an explanation of how the RBA uses open-market operations to raise the cash rate. This was well beyond the scope of the question asked and no marks awarded. In Question 4b. students were asked why excess sugar consumption may cause market failure. Only one reason was required and it was not relevant to add a description of government interventions to address market failure.

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. For example, Question 1e. required students to consider how the inflation and unemployment rates influenced the stance of

monetary policy over 2022. Instead of focusing on how or why a higher inflation rate and lower unemployment rate contributed to the tightening of monetary policy over 2022, many students focused on how the less expansionary stance (or higher interest rates) influenced unemployment and inflation (i.e. the transmission mechanism). Similarly, for Question 2a., students were required to outline how the stance of budgetary policy might be determined. Many students focused solely on the economic conditions existing at any given time determining the stance of budgetary policy. While this was not irrelevant, students needed to consider the relevance of budget outcomes when determining the stance of budgetary policy by, for example, highlighting that a larger deficit is likely to be indicative of a (more) expansionary stance.

When interpreting questions, students must pay specific attention to instructions contained within questions. For example:

- Question 1a. specifically required students to make 'reference to the graph'.
- Question 3b. required students to make 'reference to an example'.
- Question 4b. required students to make 'reference to the information provided on page 20'.
- Question 4c. required students to illustrate their response by using a demand and supply diagram.

There were numerous instances where some or all of these instructions were not followed by students, which prevented them from achieving full marks.

A strong grasp of the following is recommended:

- the differences between automatic and discretionary stabilisers (Questions 2b. and 2c.)
- budget deficits and current accounts deficits (Question 2a.)
- the structural component of the budget with the structural component of the current account (Question 2c.)
- production and productivity (Question 3a.).

In addition, students should review the differences between demand inflation and cost inflation (Question 1b.) and the terms 'real income' and 'disposable income' (Question 1d.).

Many students struggled to 'evaluate' the use of (budgetary) policy, ignoring the need to consider those factors that make policy particularly effective or potent (i.e. strengths) and those making it less effective or weak (i.e. weaknesses). For example, responses to Question 2d. revealed that many students confused 'strengths' of (budgetary) policy with the 'operation' of policy and did not specifically relate the strength/weakness of policy to the goal listed in the question.

Many students answered well questions requiring the following areas of knowledge and skills:

- interpret and analyse statistical and graphical data (Question 1a.)
- the meaning of the goal of full employment (Question 2d.)
- aggregate demand and aggregate factors that have influenced the inflation rate in the past two years (Question 1c.)
- the exchange rate transmission channel of monetary policy (Question 1f.)
- how aspects of budgetary policy are designed to influence aggregate supply and the achievement of domestic macroeconomic goals: investment in infrastructure, research and development grants, and tax reform (Question 3b.)
- the nature, operation and aims of aggregate supply policies and their relationship to domestic macroeconomic goals, international competitiveness and living standards (Question 3)
- the effect of immigration policies on the labour market and aggregate supply (Question 3c.)
- the effect of trade liberalisation on Australia's international competitiveness, domestic macroeconomic goals and living standards (Question 3d.)
- factors likely to affect demand and the position of the demand curve: changes in disposable income, the prices of substitutes and complements, preferences and tastes, interest rates, changes in population and consumer confidence (Question 4c.)
- factors likely to affect supply and the position of the supply curve: changes in costs, technological change, productivity growth and climatic conditions (Question 4c.)

- reasons for market failure: common access resources and (positive) externalities in consumption (Question 4b.)
- the role and effect of indirect taxation, subsidies, government regulations and government advertising as forms of government intervention in the market to address market failure (Question 4c.).

Many responses did not score well in questions requiring application of the following skills and knowledge areas:

- construct and interpret demand and supply diagrams (Question 4c.)
- consequences of a high inflation for resource allocation (Question 1d.)
- discuss and analyse the effect of contemporary factors on the setting of aggregate demand policies (Question 1e)
- the stance of budgetary policy: expansionary or contractionary (Question 2a.)
- the effect of automatic and discretionary changes in the budget on the budget outcome (Question 2b.)
- the strengths and weaknesses of using budgetary policy to achieve the government's domestic macroeconomic goal of full employment (Question 2d.)
- relative scarcity: needs, wants, resources and 'opportunity cost' (Question 4a.)
- reasons for market failure: public goods, externalities, asymmetric information and common access resources (Question 4b.)
- the role of relative prices in markets on the allocation of resources (Question 4c.)
- one contemporary example of government intervention in markets that unintentionally leads to a decrease in the efficiency of resource allocation (Question 4d.)
- evaluate the strengths and weaknesses of aggregate demand policies in achieving the Australian Government's domestic macroeconomic goals (Question 2d.).

Students are advised to develop an understanding of the following terms and concepts, as many students demonstrated gaps in the following knowledge:

- differences between demand inflation and cost inflation (Question 1b.)
- differences between the impact that automatic stabilisers have on the budget outcome compared to the impact they have on economic stabilisation (Question 2b.)
- differences between budget deficits and current accounts deficits (Question 2)
- differences between production and productivity (Question 3a.)
- differences between real income and disposable income (Question 1c.)
- differences between the structural component of the budget and the structural component of the current account (Question 2c.)
- differences between a monetary policy tightening and a restrictive monetary policy stance (Questions 1e. and 1f.)
- differences between the short- and longer-term effects on inflation following investment in infrastructure (Questions 2c. and 3b.)
- differences between the short- and longer-term effects of trade liberalisation (Question 3b.)
- the meaning and effects of negative net migration (Question 3c.)
- the determination of the budgetary policy stance (Question 2a.)
- the meaning and application of opportunity cost (Question 4a.)
- the meaning and application of market failure (Question 4b.)
- the effects of a cut or rise in excise taxes on prices and inflation (Question 1c.)
- the meaning of efficiency of resource allocation (Question 4d.).

Specific information

Note: Student responses reproduced in this report have not been corrected for grammar, spelling or factual information.

This report provides sample answers, or an indication of what answers may have been included. Unless otherwise stated, these are not intended to be exemplary or complete responses.

The statistics in this report may be subject to rounding resulting in a total more or less than 100 per cent.

Section A – Multiple-choice questions

The table below indicates the percentage of students who chose each option. Grey shading indicates the correct response.

Question	Correct answer	% A	% B	% C	% D	Comments
1	D	14	17	6	63	
2	C	22	31	39	8	Lower income tax rates cause the demand curve to shift to the right and induce an expansion along the supply curve. All other options shift the supply curve and induce a movement along the demand curve.
3	D	22	7	14	57	
4	A	69	5	18	8	
5	B	20	73	4	4	
6	D	12	7	28	53	
7	C	1	1	39	59	Of the options listed, the sale of bonds is the only means of financing a budget deficit (i.e. raising funds to facilitate or enable the excess of expenditure over receipts). The other options are means by which (future) deficits can be reduced, which is distinct from financing a given deficit.
8	B	18	60	12	9	
9	B	9	53	35	3	
10	D	12	14	24	50	The payment of rent to foreign investors is recorded as a debit as money leaves the country. It is recorded in the NPI section of the current account because (like interest and dividends) it is an example of an income flow that services net foreign liabilities (in this case, foreign equity) that are always recorded in the NPI section of the current account.
11	A	67	9	7	17	
12	B	13	81	4	2	

Question	Correct answer	% A	% B	% C	% D	Comments
13	C	12	10	67	12	
14	A	82	3	12	3	
15	C	5	17	63	15	

Section B

Question 1a.

Marks	0	1	2	Average
%	2	16	82	1.8

To achieve full marks, students needed to identify the correct trend, making reference to the statistics since June 2020. While some students made the mistake of describing the trend over the entire period, most students scored highly. There were instances of students unnecessarily describing each quarterly change and/or the fall in inflation (disinflation) in 2021. Others went beyond the scope of the question by talking about the causes and/or effects of the movement in the rate of inflation over this time, and/or making a judgment as to whether the low inflation goal has been achieved.

The following is an example of a high-scoring response.

Since June 2020, there has been an upwards trend in Australia's inflation rate. It has increased from around -0.3% in June 2020 to around 6.1% in June 2022

Question 1b.

Marks	0	1	2	3	Average
%	13	25	35	26	1.8

To achieve full marks, students needed to demonstrate an understanding of both demand inflation and cost inflation and make a clear distinction between the two.

Many students made the mistake of only adopting a micro focus for this question, referring to a higher demand for a good, or a lower supply of a good when attempting to demonstrate an understanding of demand and cost inflation, therefore demonstrating a misunderstanding of the nature of 'inflation'. Students needed to make it clear that inflation captures an increase in average prices (or the general price level), which is more than an increase in the price of a good or service. When attempting to isolate a point of difference between the terms, many students simply asserted that 'demand inflation was caused by demand factors, whereas cost inflation was caused by supply factors', without recognising that demand inflation occurs when the growth in AD for goods and services outpaces the capacity of the economy to supply those goods and services (i.e. $AD > AS$ or $AD > \text{productive capacity}$).

Examples of common misconceptions found in responses that did not score well included:

- Demand inflation is caused only by consumers or households while cost inflation is caused only by businesses.
- Demand inflation is measured by growth in the CPI while cost inflation is not.

- Demand inflation is captured by movements in the headline rate while cost inflation is captured by movements in the underlying rate.

The following is an example of a high-scoring response.

Demand inflation is caused by excessive growth in aggregate demand such that it cannot be met by the economy's capacity to supply. Cost inflation is caused by unfavourable supply side conditions that raise firms' costs of production and thus flows on to higher prices. The key difference is that demand inflation occurs at times when the economy is near productive capacity and supply cannot rise to meet growing demand, but cost inflation may occur when the economy is working below productive capacity, due to other supply side factors.

Question 1c.

Marks	0	1	2	3	4	Average
%	12	14	21	23	29	2.5

To achieve full marks, students needed to identify a relevant aggregate demand and aggregate supply factor before going on to explain the link between each factor and demand/cost inflation over the past 12 months. The highest-scoring responses came from those students who were able to identify and explain relevant factors that were contributing to the growth in inflation over the course of 2022. This included demand-side factors such as lower interest rates, growth in disposable income, a depreciating exchange rate, growth in business confidence and higher commodity prices. It also included supply-side factors such as supply chain disruptions caused by COVID-19, rising oil and gas prices (or energy prices more generally) due to tensions between Russia and Ukraine, the depreciation of the AUD, shortages of skilled labour and the impact of natural disasters over the course of 2022 (e.g. floods).

While most students responded accurately to this question, some students adopted a micro focus and only linked microeconomic demand and supply factors to an increase in the price of specific goods or services. Some students also inappropriately explained the impact that microeconomic demand factors might have on prices, such as changes in the price of complements and substitutes, or preferences and tastes.

A number of students referred to 'growth' of consumer confidence over 2022 when it fell over the period, and even became negative from early 2022. Instead, students needed to refer to the relatively high level of consumer confidence over 2021 (above an index of 100 despite its decline into 2022) as a factor that contributed to inflation during 2022. This highlights the importance of keeping up to date with some of the key statistics that influence economic activity.

Other common errors and misconceptions included:

- reference to the rise in business confidence as a supply factor causing inflation to increase over the course of 2022
- inclusion of theoretical factors, such as technological change, without specific reference to the past 12 months (as required in the question).

The following is an example of a high-scoring response.

Over the last 12 months global commodity prices have risen due to an increase in the global demand for commodities (e.g. Chinese construction firms require commodities for production) and decreased global supply from the Russia/Ukraine conflict. As such, Australian mining firms are receiving more income for any volume of commodities exported and thus more projects are meeting the hurdle rate of return (increasing investment) and more mining firm employees receive bonuses (increasing consumption). This increased AD and created shortages and a bidding up of prices and demand inflation, hence inflation rose to 7.3%.

The Russia/Ukraine war and associated western sanctions have decreased global supply of petrol and resulted in higher global petrol prices. Australian firms require petrol to fuel vehicles which transport goods (e.g. fruit and veg). higher petrol prices results in higher costs of production which is passed on as higher prices to consumers to maintain profit margins, thus contributing to cost inflation and rising inflation rates.

Question 1d.

Marks	0	1	2	Average
%	49	35	15	0.7

This question was generally not well handled by students. While many students were able to identify an economic consequence of inflation (e.g. a reduction in purchasing power or lower international competitiveness), most struggled to establish a link to efficiency.

To achieve full marks, a clear explanation of how high inflation might affect decision-making was required. This ultimately results in a fall in one type of efficiency (e.g. technical, dynamic, allocative or inter-temporal efficiency). Students were expected to focus on the ability of high inflation to distort the allocation of resources through avenues such as resources being diverted away from productive investment, relative price signals becoming blurred or unclear, or the negative impact that inflation can have on savings.

A number of students argued that high inflation reduces disposable incomes (before attempting to link this to a negative impact on the economy or a type of efficiency). This suggests that there was some confusion in relation to the terms 'real income' and 'disposable income', as inflation directly reduces the former but not the latter.

Some students unsuccessfully attempted to link high inflation to a low level of technical efficiency by getting the direction of causality wrong. These responses argued that high inflation means costs of production are higher (which is not necessarily true), which leads to a decrease in technical efficiency, not appreciating that it is the higher costs of production (and lower levels of technical efficiency) that leads to an increase in (cost) inflation. While a link between higher inflation and technical efficiency can indeed be made, it is more complex. For example, students needed to make links between savings/investment and the impact on private sector investment and/or employment of capital.

The following is an example of a high-scoring response.

A high inflation rate can cause resource misallocation. A high inflation rate tends to increase the value of assets like shares, property and other forms of speculative investment like painting and jewellery. this then leads to more consumers and businesses allocating resource is towards speculative investment that will go up in value instead of productive investment like capital and technology. this makes it harder to expand the productive capacity for the future that could reduce productivity and lower technical efficiency, reducing the efficiency of resource allocation.

Question 1e.

Marks	0	1	2	3	4	Average
%	12	10	20	27	31	2.6

This question was generally well handled by students. To achieve full marks, responses needed to recognise that the stance of monetary policy (MP) became less expansionary (or even restrictive) over the course of 2022 through a tightening of MP (i.e. an increase in interest rates), followed by an explanation as to how the decision to tighten MP was influenced by the higher rate of inflation and lower unemployment rate.

Students who scored highly were able to correctly interpret the question by focusing on how high(er) inflation and lower unemployment influenced the RBA Board to tighten MP and adopt a less expansionary MP stance. 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. In other words, they focused exclusively on the transmission mechanism.

Some students did not make reference to both the less expansionary stance (or potentially restrictive stance in late 2022) and the associated rise in the target cash rate (e.g. to 2.85% in November 2022) and therefore could not achieve full marks. In some cases, students were able to link the very high rate of inflation to the change in the RBA's focus and stance, but ignored the need to draw out the implications associated with a rate of unemployment (3.5%) that was very low, and lower than the notional non-accelerating inflation rate of unemployment (NAIRU) of 4.25%.

The following is an example of a high-scoring response.

Over the past two years, there has been a significant reduction in unemployment from 7.4% in July 2020 to 3.4% in July 2022. this reduction has meant that the unemployment rate has fallen below the NAIRU of 4.25%. Whilst in 2021, the RBA took a highly expansionary stance, loosening the cash rate to 0.1% in November 2020 in order to stimulate AD to achieve its objective of full employment, with unemployment dropping below the NAIRU during 2022 - indeed potentially causing demand pull inflationary pressure - the RBA was able to shift its focus from employment and take a less expansionary stance to dampen inflationary pressure. With increases in inflation to 6.1% in Q2 of 2022 - well above the RBA's objective of 'price stability' (maintaining an inflation rate of 2 to 3% over time) – the RBA Was influenced to take a less expansionary stance, increasing the cash rate in seven consecutive months from May 2022 two 2.85% in November 2022 in order to achieve its objective low inflation by curtailing demand pull inflation. thus, with reduced unemployment (to below the NAIRU) and high inflation, the RBA took a less expansionary stance in order to reduce demand pull inflation and shift its focus away from full employment to low inflation.

Question 1f.

Marks	0	1	2	3	4	Average
%	31	16	15	14	25	1.9

To achieve full marks, an explanation was required for how the change in the cash rate (or the stance of MP) affected the exchange rate followed by a link to both AD and the achievement of the stated goal.

High-scoring responses clearly identified that the less expansionary stance adopted over the course of 2022 involved an increase in interest rates, which then caused an increase in the exchange rate (via higher relative rates of return, an increase in capital inflow and a higher demand for the AUD). They were then able to explain how the exchange rate appreciation reduced aggregate demand and influenced the achievement of price stability or full employment or strong and sustainable economic growth.

Given the general uncertainty during 2022 in relation to whether or not each of the goals were being achieved, assessors focused less on a student's assessment of whether the goal was achieved and more on the links between the exchange rate and the key variables underpinning the achievement of the goals (e.g. inflation rate, or unemployment rate or economic growth).

In many responses, students spent insufficient time explaining how a less expansionary MP stance (or higher interest rates) actually contributes to upward pressure on the exchange rate (e.g. referring to the role of interest rate relativities, capital inflow/outflow and the change in the demand/supply of the AUD on foreign exchange markets) and instead jumped straight from 'rising interest rates' to 'higher value of the AUD' and how the appreciation in the AUD will affect net exports.

Other common problems included the following:

- Students writing that a rise in interest rates means that the MP stance is contractionary, not appreciating that a rise in interest rates can (and did) occur even when the stance remains expansionary (albeit less expansionary).
- Students explaining an alternative transmission channel and ignoring the need to focus on the exchange rate channel.
- Students arguing that an appreciation of the AUD leads to a 'higher value of exports' and increase in AD because the AUD is 'worth more'.
- Students unnecessarily exploring how the RBA went about increasing the target cash rate through a discussion of OMOs and/or use of the policy interest rate corridor.

The following is an example of a high-scoring response.

The goal of low inflation is a primary economic goal, where inflation refers to a sustained increase in general or average price levels over time measured by the CPI. The RBA targets an inflation rate of 2 - 3% on average over time. In 2022, the RBA has taken a less expansionary stance, increasing the cash rate from 0.1% to 2.85% in November 2022. Via the exchange rate channel, higher cash rates should be passed on to consumers via higher interest rates, which should then increase Australia's relative interest rates. With higher relative interest rates, this would increase potential returns on investments into Australia, and should then incentivize overseas entities to invest in Australia, increasing capital inflows. as a result, this should increase demand for the AUD in the foreign exchange market and cause an appreciation of the exchange rate. With this, Australia's exports would become less internationally competitive (as they become more expensive for overseas consumers). thus, this should dampen demand for Australia's exports and therefore apply downward pressure on net exports. as a result, this should dampen aggregate demand and therefore demand pull inflationary pressure. Thus, by reducing inflation towards 2-3%, this should support the achievement of the goal of low inflation.

Question 2a.

Marks	0	1	2	Average
%	31	38	31	1.0

To achieve full marks, students needed to demonstrate an understanding of how budget outcomes ultimately determine the stance of budgetary policy. For example, 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. Students were able to achieve full marks by arguing that any given budget surplus can be indicative of an expansionary or contractionary stance; or that any given budget deficit can be indicative of an expansionary or contractionary stance. However, they needed to justify their position to achieve full marks.

Many students focused solely on the economic conditions existing at any given time, which determines the stance of budgetary policy. While this was not irrelevant in the context of the question, students need to also elaborate on the relevance of budget outcomes.

While reference to the actual or estimated budget outcomes over recent years certainly added value to student responses, this was not technically required to achieve full marks. In the context of this two-mark question, it was sufficient for students to approach it from a purely theoretical standpoint.

Common problems and/or misconceptions included:

- reference to debits and credits (confusing the budget with the balance of payments)
- identification that deficits were expansionary (and/or surpluses contractionary) without providing a relevant justification.

The following is an example of a high-scoring response.

The budgetary policy stance refers to the intended impacts of budgetary policy on the economy - either expansionary or contractionary. The stance can usually be determined by the budget outcome, where an expansionary stance involves increased outlays and reduced receipts (increasing injections relative to leakages in the economy) and would thus be evidenced by a deficit outcome. Conversely, a contractionary stance involves increased receipts relative to outlays (reducing injections relative to leakages) and would be evidenced by a surplus outcome.

Question 2b.

Marks	0	1	2	3	4	Average
%	25	17	17	20	21	2.0

To achieve full marks, students needed to demonstrate an understanding of automatic stabilisers as well as explain how changes in economic activity are likely to have affected government receipts or government outlays over the budget year 2021–22. Given that both the actual and estimated budget outcomes were lower for 2021–22 compared to the previous year, students were expected to refer to cyclical factors that caused an improvement to the budget position (i.e. contributed to a lower budget deficit).

Few students scored highly for this question. The highest-scoring responses correctly interpreted the question and remained focused on the 2021–22 budget year. However, many students examined the impact that automatic stabilisers had on budget outcomes prior to 2021–22 (i.e. increasing the size of the deficit due to greater JobSeeker payments in response to the downturn) while higher-scoring responses were from students who recognised that economic conditions had improved over 2021–22, which helped to increase government receipts relative to expenditure and resulted in a lower budget deficit.

In addition, many students focused on the importance of the ‘progressive income tax system’ when examining how the budget outcome changes. While it is not irrelevant, there was no need to refer to the progressive nature of the tax system when examining how stronger rates of economic growth (and/or lower rates of unemployment) help to reduce the size of the budget deficit. This is more relevant when discussing how automatic stabilisers help to stabilise the economy. Some students also argued that automatic stabilisers are changes ‘*in the economy*’ that occur without government intervention, without specifically linking this to the budget or the budget outcome. They needed to add that these changes are ‘built into the budget’ and cause the budget outcome to change.

The following is an example of a high-scoring response.

Automatic stabilisers are components of the budget that operate counter cyclically to the business cycle and do not involve deliberate government intervention. For 2021-22, the economy was in an expansionary phase with economic growth, employment and inflation rising. greater employment meant that less people were eligible for welfare, such as unemployment benefits, reducing government expenditure on welfare. at the same time, greater employment and economic growth meant that incomes were rising, increasing the amount and percentage of tax paid by Australians on average, which increased government revenue. the increased revenue and decreased expenditure, cause the budget outcome to improve or the budget deficit to decrease for the year 2021-22.

Question 2c.

Marks	0	1	2	3	4	Average
%	27	13	16	24	20	2.0

To achieve full marks, students needed to identify a discretionary stabiliser / structural change to either the March or October 2022–23 budgets and explain how AD is affected by the discretionary stabiliser and how this influenced production and the achievement of the goal of strong and sustainable economic growth (e.g. reference to stronger growth *and/or* more less sustainable growth).

While students were expected to explain a budgetary policy initiative that was designed to stimulate AD, it was acceptable to refer to budgetary policy supply-side initiatives. Responses that did focus on supply-side initiatives were required to specifically reference the influence on AD (e.g. the reduction in prices and the increase in international competitiveness and net export demand).

Some students confused the structural component of the budget with the structural component of the current account and referred to events like a decrease in the savings and investment imbalance helping to improve the current account balance, while others referred to changes to the structural component of previous budgets, making it impossible to achieve full marks.

The following is an example of a high-scoring response.

Structural components of the budget relate to deliberate government alterations to the structure of the budget. One example is the \$420 increase in tax offsets for lower and middle income earners which is designed to reduce tax burdens and left disposable incomes. this tax offset increases people's disposable incomes, which increases consumption spending and aggregate demand. The higher AD causes producers to respond by increasing output, which stimulates growth in real GDP or economic growth. this helps the economy to reach a strong right of economic growth of between 3 and 4%. to the extent that tax offsets boost labour productivity as people become incentivized to be productive, this reduces average costs of production and reduces cost inflation, which then helps economic growth to be within 3 to 4% without triggering excess inflationary pressures.

Question 2d.

Marks	0	1	2	3	4	Average
%	20	28	18	16	18	1.9

To achieve full marks, responses needed to:

- discuss a strength of budgetary policy (BP) in terms of how it is relatively effective or potent in reducing (the rate of) unemployment
- discuss a weakness of BP in terms of how ineffective or impotent it can be in reducing unemployment
- demonstrate an understanding of the goal of full employment (FE).

This question was not handled well by students. Many students focused on how the policy operates rather than evaluating the strengths/weaknesses of the policy. For example, too much emphasis was placed on how BP helps to reduce the unemployment rate instead of focusing on a strength of the policy.

Many students made no reference to strengths and weaknesses of BP in terms of its ability to achieve FE and instead attempted to assess the extent to which FE has been achieved (e.g. with reference to the goal and the prevailing unemployment rate at the time). This information was not irrelevant in the context of the question, but needed to be supported with some consideration of the strengths and weaknesses of BP.

Common errors and/or problems included:

- Some responses identified a relevant strength (e.g. the ability for BP to target specific sectors or areas of the economy) but then did not link this to how it made BP effective at reducing the rate of unemployment (or helping to achieve the goal of FE).
- Some responses identified a relevant weakness (e.g. political bias), but then did not link this to how it made BP less effective at reducing the rate of unemployment (or helping to achieve the goal of FE).
- Many responses focused on a strength and/or weakness in general terms without attempting to make it specific to the goal of FE.

The following is an example of a high-scoring response.

Full employment is when the maximum level of employment is achieved without triggering excess inflationary pressures, or when cyclical unemployment is at 0 and the unemployment rate is at the NAIRU of 4.25%. high strength of budgetary policy in achieving this goal is that it is able to target structural unemployment (not just cyclical unemployment) through initiatives such as the boosting apprenticeships commencement wage subsidy. This helps to re-skill those whose skills have become redundant due to changes in markets, into having skills that are in demand, which increases the demand for the labour, increasing employment and reducing structural unemployment. This helps to achieve full employment by increasing employment and reducing spare capacity in labour markets. My weakness is that budgetary policy is subject to significant implementation lags as policies must pass through the legislative procedure and deal with interest groups delaying the time between the announcement of a budgetary policy initiative and when the policy will impact on employment (or unemployment) which reduces the effectiveness of budgetary policy at achieving full employment.

Question 3a.

Marks	0	1	2	3	4	5	6	Average
%	6	10	14	17	21	19	13	3.5

To achieve full marks, students needed to demonstrate an understanding of productivity growth, explain how productivity growth influences 'strong' and 'sustainable' economic growth (SSEG), and explain how productivity growth influences one aspect of living standards (either material or non-material).

Overall, the question was reasonably well handled by students, with a third of students able to achieve five or six marks. Students who scored highly made it clear that productivity growth represented growth in output per unit of inputs and made a strong connection between productivity growth and growth in real GDP (e.g. by referring to improved supply-side conditions and lower costs of production) before extending the response to make the appropriate links to both more sustainable growth and to improvements in material living standards. Some high-scoring responses highlighted the potential negative implications for employment, particularly in the short term, that might occur when productivity increases.

A small number of students incorrectly stated that if productivity growth increases by too much then it compromises the achievement of SSEG. This suggests that students confused productivity growth with growth in production. Similarly, when discussing the influence of productivity growth on living standards, many responses asserted that higher productivity leads to more employment, more income and higher material living standards. This explanation in isolation suggested that students thought that higher productivity was the same as more production. Although higher productivity can lead to more production and employment, it can also be associated with jobless growth. Students who scored highly were able to explain how productivity growth leads to improved supply-side conditions, which ultimately helps to reduce prices, boost international competitiveness, stimulate economic growth and raise the demand for labour (and employment).

Other errors and misconceptions included:

- making no attempt to demonstrate an understanding of productivity growth or adopting too narrow a definition of productivity (e.g. that productivity growth means output increases relative to labour inputs).
- describing productivity in vague or imprecise terms. For example, responses stating that productivity refers to:
 - production increasing from resources
 - a greater ability to produce
 - producing goods more quickly
 - producing goods more efficiently and effectively
 - an increase in the productive capacity of the economy
 - inputs over output (or inputs per unit of output) rather than output over inputs (or output per unit of inputs).
- failing to link higher productivity to lower average costs of production (and/or an increase in AS) and lower prices when explaining the impact on economic growth. These responses simply argued that higher productivity leads to growth in real GDP and the achievement of the strong component of the goal.

The following is an example of a high-scoring response.

Productivity growth means that output per unit of input will have increased. this reduces average cost of production for suppliers and increases productive capacity, increasing aggregate supply (total value of goods and services that producers are willing or able to supply). This creates surpluses in markets which allows producers to lower prices in order to attract sales without sacrificing profit margins, which expands aggregate demand and stimulates economic growth to grow between 3 to 4%. lower prices also reduces the pressure on inflation, helping strong and sustainable economic growth to be achieved without triggering excess inflationary pressures (or external pressures).

since productivity growth produces average cost of production, increasing aggregate supply and productive capacity and putting downward pressure on prices, this boosts the purchasing power of people as they have greater ability to purchase goods and services. To the extent that productivity growth (and lower prices) increases aggregate demand which stimulates economic growth this may cause real GDP per capita to rise, which boosts the ability of people to purchase goods and services, improving living standards.

Question 3b.

Marks	0	1	2	3	4	Average
%	10	16	19	25	30	2.5

To achieve full marks, students needed to provide an example related to one of the three budgetary policy supply-side initiatives identified in the question and then link the policy initiative to both AS and the rate of inflation.

Students who scored highly were able to provide an 'example' of a budgetary policy initiative that fell within one of the three general categories provided in the question. For example, they referred to additional spending on road, rail and community infrastructure projects across Australia, or more specifically government investment in the Melbourne intermodal terminals, or the relatively recent reduction in the company tax rate (to 25%) for smaller companies. They were then able to explain how the initiative boosted aggregate supply or productive capacity and then how this could help reduce the rate of inflation. Note that there was no need for students to extend the response by making a link to the goal of low inflation.

Many students provided repetitive responses. For questions such as these, students should be reminded that it is permissible, when answering the second part of the question (impact on inflation), to continue from the growth in AS that was explained in the first part of the response. Specifically, when explaining the impact

on inflation, there was no need to once again explain how the initiative delivers supply-side benefits to the economy. It was sufficient to highlight how the growth in AS (or improved supply-side conditions) that was explained in the first part leads to a reduction in the rate of inflation.

When explaining the impact on inflation, some students remained focused on the possible short-term upward impact on inflation that stems from greater investment in infrastructure. While it is relevant to make reference to this in one's response, and it can add value, the highest-scoring responses were able to re-focus the attention back onto the longer-term disinflationary impact that is expected to occur following an increase in infrastructure investment.

Some responses referred to the temporary (six-month) fuel excise relief provided during 2022 as an example of a tax reform. Many students over-emphasised the potential 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), which was a factor helping to keep the rate of inflation lower than otherwise (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 D/S (or AD/AS) diagram in the border (or even main body) of the examination. In this example, the rightward shift of the AS curve should be larger than any potential shift to the right of the AD curve.

The following are examples of high-scoring responses.

Research and development: *The tax incentives/grants for research and development include the grants provided to pharmaceutical companies who invested in research into COVID-19 vaccines. This resulted in the development of vaccines sooner than otherwise which then enabled governments to relax lockdowns and other restrictions. This helped to boost productivity within the economy (outputs over inputs increased) as well as provide greater encouragement for businesses to increase investment and supply more goods and services to the economy, both of which helped to increase the capacity of the economy to supply goods and services (i.e. boost aggregate supply).*

The growth in aggregate supply and/or the boosting productivity helped to reduce the cost of production for businesses, which is then passed on to consumers and leads to lower prices for goods and services. The lower prices then results in a fall in the rate of inflation on average, or a even deflation, to the extent that these price falls are sustained for a period of time.

Investments in infrastructure: *In the 2022 Budget, the government announced \$480 million towards upgrading the NBN's wireless network. This improvement in telecommunications infrastructure increases the speed at which communications can be conducted, increasing supply chain efficiency (or technical efficiency in general), increasing output per unit of input, which decreases average costs of production and boosts productive capacity. This increases the total value of goods and services producers are willing and able to supply thereby increasing aggregate supply.*

Since infrastructure boosts efficiency and decreases average costs of production, this allows producers to lower prices to attract sales without sacrificing profit margins. This results in lower prices which helps to reduce the level of inflation in Australia (i.e. percentage changing the CPI over time) as Prices of goods and services on average fall.

Tax reform: *The government's recent decision to lower the company tax rate for small to medium sized companies to 25% is likely to increase aggregate supply as firms get to keep more income and profits after tax, thus incentivising them to increase levels of production and undertake productive investment (such as self checkouts in supermarkets) allowing the economy's productive capacity and total supply potential to increase. This type of tax reform may have poor implications for inflation in the short term as they increase levels of investment demand in the economy, creating potential demand pull inflation. However, as more firms are incentivized to undertake increased productive investment to expand their operations, in the long term, productivity gains from higher quality capital (and other investments payoffs) will likely decrease firms costs of production, reducing cost push inflation in the long term.*

Question 3c.

Marks	0	1	2	3	4	Average
%	7	13	26	28	27	2.6

To achieve full marks, students needed to examine the link between changes in overseas migration and at least two aspects of the labour market (such as the reduced supply of labour and the price of labour/wages, skills shortages, the competition between potential employees, and/or reduction in employment due to upward pressure on wages). The link between the change in migration (or specifically the fall in net overseas migration) and the willingness and ability of firms to supply (through the impact on productivity, the availability of resources, wage costs, etc.) needed to be examined

The highest-scoring responses were able to identify that a decline in net overseas migration resulted in a reduced supply of labour, which had negative implications for both the labour market and aggregate supply.

In many cases, students accurately identified that the labour market would tighten (i.e. excess demand for labour or labour shortages), but instead of referring to the reduced supply of labour as being the cause, these responses incorrectly argued that the demand for labour rose, which is inaccurate.

Other errors and misconceptions included:

- reference to 'a decrease in the labour market' when they should be referring to a 'decrease in the supply of labour in the labour market'.
- reference to the labour market loosening (or weakening), rather than tightening, in response to a decrease in the supply of labour.

The following is an example of a high-scoring response.

A significant fall in immigration as a result of COVID-19 and the lockdowns may have negatively affected the labour market. This is due to a smaller pool of labour available, creating skills shortages as new skilled migrants can no longer enter the country, putting upward pressure on wages as firms bid up wages in order to attract skilled labour. This upward pressure on wage costs will increase the costs of production for firms as labour becomes relatively more expensive. This will reduce the profitability of these firms as they are forced to pay more for labour, which eats into profit margins and reduces the willingness and ability to produce, therefore resulting in a fall aggregate supply.

Question 3d.

Marks	0	1	2	3	4	Average
%	14	12	19	25	30	2.5

To achieve full marks, students needed to demonstrate an understanding of trade liberalisation, as well as explain the link between trade liberalisation and both inflation and living standards.

The highest-scoring responses clarified that trade liberalisation refers to the removal of trade barriers (such as tariffs and quotas) and the embrace of free trade (e.g. the entering into of free trade agreements) before explaining how trade liberalisation helps to reduce inflation and improve living standards.

While most students were able to demonstrate some understanding of trade liberalisation, there were examples of students ignoring any reference to trade liberalisation and simply explaining how an increase in trade impacts on inflation and living standards. In other cases, students incorrectly referred to trade liberalisation as the imposition of trade sanctions and barriers instead of referring to the removal of trade barriers and the embrace of free trade.

When linking trade liberalisation to inflation, a number of students asserted that inflation would increase because there would be an increase in the demand for exports, and in so doing ignoring the important disinflationary effects that stem from access to cheaper consumer imports (e.g. clothing) and producer imports (e.g. vehicles for industry), as well as the positive impact that trade liberalisation has on domestic efficiency as Australian businesses are forced to raise productivity/efficiency in response to the more competitive environment.

When linking trade liberalisation to living standards, it is true that it can reduce living standards in the short term. Higher-scoring responses balanced this against longer-term benefits that trade liberalisation is designed to provide Australians, such as the positive net effect on living standards.

Another common problem related to the failure or hesitation of some students to 'provide a thorough link between trade liberalisation and inflation / living standards'.

The following is an example of a high-scoring response.

Trade liberalisation involves the removal of tariffs and other forms of protection that were originally implemented to protect domestic producers. The removal of these forms of protection will not only result in cheaper imports for individuals and firms alike (creating cheaper costs of production and less cost push inflation) it will expose domestic producers to the competition of foreign markets, forcing them to improve productivity and provide goods and services at lower prices so as to compete and stay viable which further reduces costs push inflation.

Cheaper imports and lower prices as a result of less cost push inflation is likely to improve the material living standards of consumers who have access to more goods and services. While some may initially lose their jobs as domestic businesses are unable to compete and are forced to close down, in the long term, productivity gains and a resource reallocation into Australia's areas of competitive advantage, should generate stronger levels of GDP, increasing the derived demand for labour and reducing unemployment, increasing material living standards as more people have access to factor income.

Question 4a.

Marks	0	1	2	Average
%	19	39	42	1.3

To achieve full marks, students needed to demonstrate an understanding of opportunity cost, making accurate reference to the sacrifice/foregoing of benefits associated with the next best alternative.

While a good proportion of students were able to achieve the full two marks, this question proved to be challenging. The highest-scoring made specific reference to the value or benefits that are forgone when individuals decide to consume sugar. These were able to express the opportunity cost (of consuming sugar) in terms of the benefits or value that are effectively foregone by not spending the money on the next best alternative (such as the consumption of a food item with a lower sugar content). Some responses simply focused on the trade-off that exists when consuming sugar in terms of what is given up or sacrificed, without capturing the essence of opportunity cost (i.e. the value or net benefits that would have been derived from choosing the next best alternative). It was also common for students to focus simply on the costs associated with the consumption of sugar, such as tooth decay or dental caries.

The following is an example of a high-scoring response.

Opportunity cost refers to the value of the next best alternative that is forgone when a decision is made to allocate resources in any given way. The potential opportunity costs of consuming sugar for an individual is the potential healthy weight and teeth that is forgone when making the decision to consume excessive amounts of sugar instead of an alternative healthier product.

Question 4b.

Marks	0	1	2	3	Average
%	24	28	30	18	1.4

To achieve full marks, students needed to make meaningful reference to the source material, outline the relevant market failure (e.g. outlining that it relates to a negative externality in consumption) and explain how it represents a failure of the market to achieve an efficient allocation of resources (or maximise society's welfare).

The highest-scoring responses came from those students who made a clear link between the excess consumption of sugar and the relevant market failures (e.g. negative externalities in consumption or asymmetric information), and in so doing, highlighting how the excess consumption of sugar ultimately represents a failure of free or unregulated markets to achieve the most efficient allocation of resources.

While many students were able to 'identify' that the excess consumption of sugar was a market failure in the form of negative externalities in consumption (or even asymmetric information), they could not explain how this excess consumption was an example of a negative externality or asymmetric information. Other students focused on the production of de-merit goods as the example of the market failure without being able to demonstrate why or how the production and consumption of de-merit goods represented a market failure. While reference to merit goods or de-merit goods as market failures is not made in the study design (former or current), there is no problem with making reference to these in the examination. However, a safer approach is to focus on the market failures listed in the study design.

Other errors and misconceptions included:

- incorrect reference to 'sugar' as a common access resource or as a 'negative externality' itself, rather than recognising that the negative externality is created by the excess consumption of sugar, not by the production or consumption of the product itself.
- incorrectly arguing that market failure occurs because the excess consumption of sugar leads to supply not keeping up with demand.
- incorrect identification of market failure as a situation where the 'wants of consumers are not met' rather than 'where the welfare of society is not optimised'.

The following is an example of a high-scoring response.

[Negative externalities] Markets failure occurs when market forces operate to allocate resources to produce a combination of goods and services that does not maximise the well being of society. The excess consumption of sugar results in negative externalities as there are costs imposed on third parties, such that the social costs exceed the private costs. for example, 'unhealthy weight gain and dental caries' worsen the health outcome of individuals, increasing pressure on the public health system which is a third party cost. thus, there is an overallocation of resources towards the production of sugar (as third party costs are not considered by the buyer/seller), resulting in an inefficient allocation of resources that does not maximise well being.

[Asymmetric information] Asymmetric information occurs when one party to a transaction has more information than another. The consumer of sugary goods is unlikely to be aware of the amount of sugar in the products they are consuming. The manufacturer on the other hand knows precisely how much sugar is contained within products, and it can be in their profit maximising interests to conceal the amount of sugar in products - especially if the high sugar content makes their product somewhat addictive (such as the high sugar content in McDonald's buns). This results in consumers over consuming sugary products (beyond that which would have occurred if they had full information) which results in unhealthy weight gain and dental caries as well as contribute to more than 50% of consumers exceeding WHO recommendations. This leads to a market failure because there will be an overallocation of resources to the production of sugary products, making society worse off as a result.

Question 4c.

Marks	0	1	2	3	4	5	6	Average
%	8	9	13	19	20	17	14	3.4

To achieve full marks, students needed to identify a relevant government intervention and make reference to relative prices when explaining how the intervention changes the allocation of resources. The use of an appropriately labelled demand and supply diagram was required to illustrate the response.

The highest-scoring responses effectively used and referred to a D/S diagram that illustrated how the imposition of (indirect) taxes, subsidies or government advertising shifted the demand or supply curve and resulted in both a change in relative prices and a reallocation of resources from one activity or sector to another.

When establishing the link to relative prices and the allocation of resources, students could either refer to the impact that higher price (in the event of tax) or lower price (in the event of a subsidy) impacts on demand for the good or service in question, or refer to the impact that the change in relative prices has on the markets for other goods (e.g. resources being reallocated towards the production of other goods whose prices are relatively lower).

There was sufficient scope in the question for students to refer to a wide range of government interventions, including those that were unrelated to the market for sugary products. However, those students who selected taxes, subsidies, or government advertising as their intervention were better able to illustrate their response with reference to a D/S diagram compared to those students who chose interventions such as regulations or direct government provision. For these types of questions, students should carefully select the government intervention as it can be difficult to use a D/S diagram to illustrate some types of interventions (e.g. the provision of public goods or regulations to address the market failure of common access resources).

Unfortunately, a number of written responses were inconsistent with the information conveyed in the D/S diagram. For example, students analysing how an excise tax can raise relative prices, reduce production and divert resources away from the production of a product with negative externalities (e.g. sugar or tobacco), but then producing a D/S diagram with the demand curve shifting to the left. Or analysing how negative government advertising leads to a reduction in demand, a lower relative price and encouraging resources to flow to other products with a higher relative price, but then using a D/S diagram with the supply curve shifting to the right.

In some cases, students talked about childcare subsidies / rebates to parents as the form of government intervention and the impact this has on increasing demand for childcare services (which is fine in the context of the question) but then illustrated this with reference to a D/S diagram showing the effects of a producer subsidy (shifting the supply curve to the right), when it should have been illustrated by shifting the demand curve to the right.

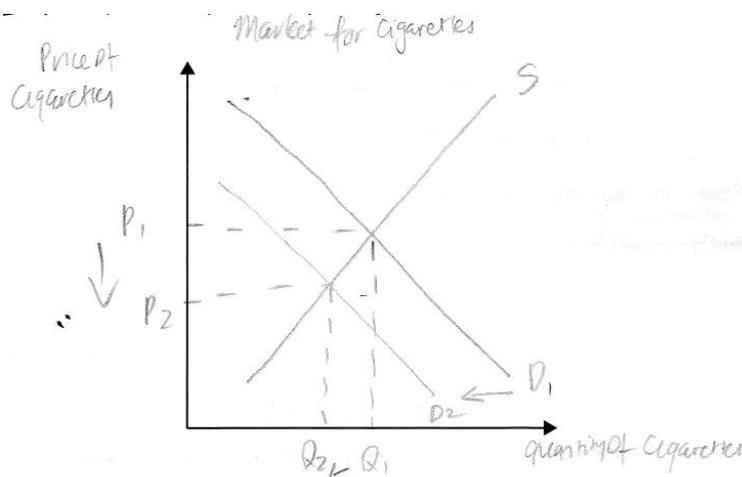
Quite often, students accurately examined how the market adjusted to a new equilibrium as a result of the government intervention, but failed to then consider how the change in relative prices resulted in a reallocation of resources.

Examples of common errors and misconceptions included:

- not illustrating the response with reference to the diagram
- not using the diagram in a meaningful way to illustrate how resources are reallocated and instead simply exploring the dynamics of adjustment from one equilibrium to another
- using an AD and AS diagram (or a hybrid version such as price and quantity on the axis, but AD and AS curves or prices and real GDP on the axis and normal D and S curves). Other issues with D/S diagrams included:

- failure to annotate the diagram with an indication of the price and quantity movement after shifting the D or S curve
- failure to label the y or x axis or the D and/or S lines (curves)
- drawing an upward-sloping demand curve and/or a downward-sloping supply curve.

The following is an example of a high-scoring response.



In an unregulated market, there is an over allocation of resource is towards producing/consuming cigarettes (i.e. market failure) due to there be negative externalities (third party costs) not considered in the transaction. In response, the government could intervene by launching an advertising campaign that informs consumers about the harmful effects of cigarettes. This is likely to decrease the demand for cigarettes (D1 shifting to the left to D2), which results in a surplus at the original price of P1, causing producers to lower the price to eliminate the surplus and the new equilibrium price of P2 is reached. Relative prices are the price of one good or service compared to another. The lower price decreases the price of cigarettes compared to other goods, which sends a price signal to producers that there is more profit to be made producing other goods and services. This causes producers to allocate resources away from the production of cigarettes (Q1 to Q2) and towards the production of other goods which have higher profit making opportunities (higher relative price).

Question 4d.

Marks	0	1	2	3	Average
%	33	17	25	25	1.4

To achieve full marks, students needed to identify a relevant form of government intervention in markets and then explain how the intervention leads to a reduction in at least one type of economic efficiency.

While many students were able to identify a relevant government intervention (e.g. higher excise on tobacco) and connect this to an unintended consequence (such as the emergence of a black market), many struggled to link this to a type of economic efficiency. In contrast, the highest-scoring responses were able to make a concrete link between the unintended consequence and a type of efficiency (e.g. the emergence of a black market leads to an overallocation of resources to criminal activity that is not in society's best interests because it diverts resources to law enforcement that could be better allocated to health or education, therefore having a negative impact on allocative efficiency).

There were many instances of students referring to the imposition of minimum wages as an example of a government intervention, but many did not successfully link this to a decrease in efficiency.

There were several examples that students could use, or did use, such as excise on other products (e.g alcohol and the possible effects on drug taking), misuse of government funds in vocational education,

protectionist measures, unfair dismissal laws, the structure of the JobKeeper initiative, federal government subsidies for carparks and sporting clubs (sports rorts) and interventions related to housing affordability (e.g. subsidies for first home buyers, negative gearing and capital gains tax concessions).

The following is an example of a high-scoring response.

JobKeeper was a government intervention that led to unintended consequences and a decrease in the efficiency of resource allocation. During the Covid pandemic, employers were given subsidies to help pay their employees who could earn up to \$1500 every fortnight if they had been working on the job for at least 12 months. This led to some casual workers being less willing to take on additional hours given that they were receiving payments from the government. This led to an increase in idle resources, reducing technical efficiency due to lower productivity. Additionally, some businesses limited their recorded or actual sales to qualify for JobKeeper payments, even when their actual turnover increased. This was not allocatively efficient because the funds could have been given to businesses who genuinely needed the payment or used for other more worthy causes. This was therefore not a socially optimal allocation of resources and lead to a decrease in efficiency of resource allocation.