Economic Fundamentals in Australia Salla, MacGregor and Grinham (6th edition)
Sample responses to questions contained in
Activity Centre: Unit 3 Outcome 2

Practice SAC questions

Question 1

a) The government's goal is to achieve a high enough rate of growth in real GDP such that real GDP per capita and employment increases over time (consistent with the full employment goal) but not so high that it cannot be sustained into the future because of its negative effect on inflation, the external sector and the environment. A strong a sustainable rate of growth is likely to be in the range of 3.0-3.5 per cent growth in real GDP per annum.

b) This is because a growth rate of 2¾ percent might not be enough to account for the growth in population, productivity or labour force participation, all of which can add to the rate of unemployment. For example, if productivity growth exceeded 2¾ percent over the same time period there would be little need to employ more labour as the additional output is likely to be achieved with existing resources. In addition, to the extent that a 2¾ percent growth rate does increase the demand for labour, there is the possibility that it can be met by existing labour working longer hours, rather than additional employment – i.e. the rate of underemployment falls rather than the rate of unemployment.

c) Living standards can be defined as the welfare or quality of life of people or groups. It is made up of both material factors (such as access to goods and services) and non-material factors (such as freedom of expression and exposure to crime). The high terms of trade (TOT) has caused material living standards to increase for the average Australian, as measured by higher national income and the corresponding increase in real GDP per person. However, some groups are suffering because the strong TOT has caused an increased demand for and value of the dollar. Those workers in the manufacturing, tourism and education sectors are experiencing unemployment or reduced hours of work and lower incomes due to the reduction in international competitiveness. These groups are therefore more likely to be experiencing economic hardship and dislocation, worsening their living standards. This phenomenon is likely to be reflected in the Genuine Progress Indicator and/or Measures of Australia's Progress rising more slowly than changes in real GDP per capita.

Question 2

a) Productivity refers to the relationship between output (or production) and inputs (such as labour hours worked) and is a measure of the efficiency of resources used in production. It is defined as output per unit of inputs, or outputs over inputs. Productivity growth refers to an increase in output relative to inputs. For example if real GDP increased when the number of labour hours worked in the economy remained the same, then the economy has experienced (labour) productivity growth.

b) An increase in productivity should increase economic growth because any volume of output can be produced with fewer inputs. This enables businesses to enjoy lower average costs of production, which facilitates a reduction in prices and an improvement in competitiveness. This should help to stimulate AD, real GDP and economic growth.

c) A reduction in productivity growth means that our resources are producing relatively less output. This adds to costs of production, increases pressure on prices and reduces demand for goods and services. The corresponding drop in production is likely to reduce the demand for labour, decrease employment levels and raise the rate of unemployment.

d) The ageing of the population involves a greater proportion of the population being represented by (retired) people over 65. This means that growth in the labour force is likely to shrink, adding to labour costs or costs of production. In addition, pressure on government budgets will mount as tax revenues are likely to fall and welfare expenditure (via pensions) should increase. The combination of higher costs and taxes (or higher interest rates via a bigger budget deficit) will see reduced demand, output and the rate of economic growth.

Question 3

a) The headline rate of inflation refers to the growth in the consumer price index (CPI), which contains the prices of a range of goods and services typically purchased by the average Australian household. The underlying rate of inflation uses the CPI as it base, but excludes the price changes that are highly volatile (e.g. fruit and vegetable prices). For example, during 2011, the price of bananas increased dramatically due to a cyclone that devastated banana plantations in northern Queensland. This was a 'volatile' price change that caused the CPI to rise significantly. However, the underlying rate over the same period was unaffected by the change in banana prices because these price rises were excluded from the calculation.

b) **i.** the higher exchange rate (i.e. A higher TWI) will tend to reduce the domestic price of imports, helping to reduce the CPI directly (e.g. consumer imports) and reduce inflation over time as the fall in the cost of capital imports works to reduce the costs of production and contain price (inflationary) pressure. In addition, the higher TWI tends to reduce export demand (because they are relatively less price competitive), thereby reducing AD and helping to contain demand inflationary pressure.

ii. the higher exchange rate will tend to make imports relatively more price competitive and exports less price competitive. In other words, Australia's international competitiveness will fall. Accordingly, the demand for X should fall and the demand for M should rise, helping to increase the value of M relative to X, worsening the BOMT (X-M) and net services, and increasing the BOGS deficit (or reducing the BOGS surplus). Students can also refer to the fact that the BOMT should deteriorate because exporters that are price takers (e.g. miners and farmers) will receive less income for any given volume of exports when the dollar appreciates. This causes a reduction in export values, and increases the BOGS deficit (or reduces the BOGS surplus).

c) The easing in wages growth that has been occurring over the past few years has meant that growth in labour costs for businesses has been contained. This helps to constrain the costs of production and reduces the need for businesses to raise prices (which would contribute to inflation). In addition, lower wages growth also helps to reduce any demand inflationary pressure that would otherwise stem from higher household incomes and stronger Consumption expenditure.

Question 4

a) Tobacco excise is an indirect tax because those persons consuming tobacco products are paying the tax only when they purchase tobacco products, unlike a direct tax which is levied against the actual income earned by individuals or groups. With indirect taxes, income earners are not taxed directly on the income they earn, but indirectly when they purchase goods and services. Income earners can therefore avoid the tax by not consuming those goods and services subject to indirect taxes. It is much more difficult to avoid paying direct taxes.

b) An increase in excise on tobacco is likely to increase the headline rate of inflation but have no impact on the underlying rate. This is because the underlying rate tends to exclude 'one off' price increases as well as the price changes of volatile goods and services (such as fruit and vegetable) whereas the headline rate includes the price changes that have occurred for all goods and services within the consumer price index. The June quarter CPI headline rate was inflated by the excise tax, whereas the underlying rate (as measured by the RBA trimmed mean for example) was unaffected.

c) Indirect taxes on goods like tobacco are likely to increase living standards 'on average', despite the regressive effects of the indirect taxes and the fact that some smokers will argue that their living standards have declined. This is because the higher prices reduce consumption (albeit marginally) and therefore decrease the negative health effects that stem from smoking, including the negative externalities in the form of passive smoking. With a healthier society and the lower health costs, living standards for the Australian should improve.

Question 5

a) All factors are likely to cause EA to decrease.

- ✓ A recession in both the USA and Japan where negative growth resulted in both a decline in the demand for Australian exports and a general loss of confidence amongst investors, consumers and the business community. These factors resulted in lower levels of Consumption, Investment and Net Exports and a consequent reduction in the growth of AD, real GDP and therefore economic activity slowed (and even went into reverse).
- ✓ A global financial crisis, such as the GFC in 2008, results in massive losses experienced by financial institutions and a consequent reduction in the supply of funds around the globe. These losses spread to affect shareholders, creating additional upward pressure on interest rates, and Consumer/Investor confidence plummets. These factors result in lower levels of Consumption, Investment and AD, and reduces the rate of real GDP or economic activity.
- ✓ Relatively high interest rates in Australia can contribute to a decline in economic activity as they result in a fall in Consumption and Investment demand, as there will be an increase in the cost of new loans (deterring borrowing and investment or spending) and the cost to service existing loans (reducing cash flows for households and businesses). This results in reduced pressure on AD, slowing the rate of real GDP or economic activity.

b) Very low rates of economic growth (e.g. when growth in real GDP is less than 2% pa), is likely to reduce inflationary pressure and cause a reduction in the inflation rate.

- Inflation rates are likely to be lower because the low levels of AD that accompany low growth will create additional spare capacity in the economy and limit the ability of businesses to raise prices compared to when capacity constraints exist and demand is high. In addition, these lower prices work to further reduce cost pressures facing other businesses (via input costs), interest rates and costs should fall, and pressure from labour costs should ease (as unemployment should increase).

c) Large falls in economic growth might not significantly increase the unemployment rate for a number of reasons. These include:

- In response to lower demand levels, many businesses tend to hoard labour rather than reduce the size of the workforce at rates one would expect. In other words, they tend to reduce the hours of existing employees rather than offload or retrench workers. This results in both underemployment of labour and even a further casualisation of the labour force as businesses move more workers from full time to part time or casual. While this clearly represents an increase in the economy's underutilisation rate, it has minimal effect on the unemployment rate.
- Similarly, the falls in economic growth have resulted in more people dropping out of the labour force altogether. This includes those who lose their job and do not seek alternative employment as well those in the pool of unemployed who stop looking for work given that their chances of securing employment are now reduced. These factors result in a drop in the participation rate, which tends to place less pressure on the unemployment rate.

d) A reduction in the rates of personal income tax is likely to increase the participation rate and reduce the unemployment rate over time.

- Once taxes are cut, it tends to encourage people to (re)enter the labour market seeking employment because the net returns from working are now relatively higher. This causes the number of people looking for work to increase, swelling the number of unemployed in the short term and boosting the participation rate.
- Over time, the higher unemployment level and participation rate tends to place downward pressure on the real wage (or costs of labour) because there is more competition for jobs. The more competitive real wage should increase the demand for labour by businesses, increase employment and reduce unemployment. This is supported by the demand side effect of tax cuts, where higher disposable income will tend to boost consumption, AD, real GDP, demand for labour and employment.

Question 6

a. Real GDP refers to the total value of production in 'constant' dollar terms, which is determined by aggregating all of the goods and services produced in Australia and multiplying by their respective prices in the previous period. Nominal GDP on the other hand refers to the value of production in current dollar terms, which is determined by aggregating all of the goods and services that are produced in the economy over a given time period and multiplying this by their respective prices. The key difference between the two production values is that real GDP 'strips out' the inflation effect (or the effect of higher prices). [This means that it gives a more accurate indication of changes in the actual volume of goods and services produced in the economy, unlike nominal GDP whose value may have increased purely as a result of price changes (and no change in volumes).]

b. This is likely to contribute to an increase in economic growth because lower unemployment rates typically reflect growth in employment which in turn generates income growth for many households. [This is particularly the case for those individuals who may have been previously unemployed, receiving relatively low transfer incomes, who will instead earn higher factor incomes once employed.] These higher household income levels will help to generate growth in aggregate demand as the demand for consumer goods and services (i.e. Consumption demand) will increase. The growth in AD will in turn contribute to greater production levels (real GDP) and a higher rate of economic growth.

c. The WPI is one measure of the price (or cost) of labour for businesses. Over recent years (and into the future), the relatively low WPI has generally reflected a weak labour market, made evident by spare capacity and unemployment rates above NAIRU (or full employment) levels. The low WPI has therefore been an aggregate supply factor helping to stimulate economic growth and employment growth. With relatively low growth in labour costs, businesses have been more willing to invest and expand capacity, helping to boost aggregate supply in the economy, which typically results in an increased demand for labour and more employment. [In addition, the lower price of labour provides an incentive for businesses to demand more labour (an expansion along the demand curve in labour markets) which has a favourable impact on jobs growth.]

d. Living standards are defined as the quality of life enjoyed by people or groups. It is made up of material factors, such income levels and the ability to purchase goods and services, as well as non-material factors, such as freedom of expression, leisure time, crime rates, stress levels, etc. Higher productivity levels mean that output per unit of input has increased and that the economy is producing goods and services more efficiently. This will reduce per unit costs (or average costs) for businesses, helping to reduce price pressures [or lead to disinflation] and improve international competitiveness. This in turn should increase net exports, AD, real GDP and national income levels, leading to an increased ability for Australians (on average) to purchase goods and services and enjoy higher material standards of living.

e. This is because growth in production (as measured by increases in real GDP) is only one of many factors that influence living standards. In purely material terms, the stronger rate of economic growth might be exceeded by population growth, which results in a fall in real GDP per capita (a better measure of material living standards). Alternatively, the stronger rate of growth in production might be accompanied by, or contribute to, a worsening of non-material factors that negatively impact on living standards, such as damage to the environment or a reduction in leisure time/happiness.

f. Lower interest rates helped stimulate AD and economic growth. With a lower cost to service existing loans, combined with a lower cost to undertake credit-fuelled purchases, many households reduced savings and increased Consumption demand. In addition, many businesses took advantage of low borrowing costs to increase Investment demand above that which would otherwise have occurred. The combined effect is a boost to AD and an increase in production of goods and services (real GDP) and economic growth beyond the levels which would have occurred otherwise.

   Lower oil prices will have had a net positive impact on economic growth in Australia given that Australia is net importer of oil. Lower oil prices helped to reduce production costs for all businesses relying on oil (in some form or another) as an input. This ultimately helped to maintain downward pressure on domestic prices (in particular lower petrol prices) and inflation, which in turn stimulated consumption as the purchasing power of household incomes rose. In addition, those businesses not involved in oil exporting were encouraged to respond to higher consumer demand by investing more to boost capacity. [While lower oil prices may have dented confidence levels of those concerned about the impact on the global economy, the net benefits for Australia are likely to be positive].

Question 7

a. The fall in the exchange rate over the past couple of years (since 2016-17) created upward pressure on the CPI. This is largely because the price of consumer imports (such retail goods) will have risen, given that importers (or Australian consumers) are required to use more AUD when purchasing a given amount of foreign currency to pay for the imports. As these imported goods are components of the various categories in the CPI, their higher prices necessarily results in upward pressure on the CPI and a corresponding negative impact on living standards. However, the fall in the exchange rate should positively impact on material living standards overall. This is because the growth in net exports (which results from the improvement in international competitiveness) will stimulate AD and growth in real GDP. This in turn should help to increase real GDP per capita (or Gross National Income per capita) which means that households, on average, will have more money to purchase goods and services. With greater access to goods and services, material living standards will necessarily be higher.

b. Lower oil prices are likely to have helped to keep the rate of inflation relatively low. This is because oil is a key ingredient in a whole host of goods and services, primarily fuel. As most of these goods and services are included in the consumer price index [particularly fuel which has a relatively heavy weighting within the Transport category], a lower oil price would help to keep the rate of inflation low, given that some prices [e.g. those products in the Transport category] actually fell.

c. Slower global growth makes it easier to achieve the goal of price stability, which requires that the rate of inflation remain between 2-3% on average over time. This is because slower growth overseas reduces demand for Australian exports, negatively impacting on net export demand (X-M), which reduces growth in aggregate demand (AD). Australian businesses exposed to export markets will experience surplus stock and will therefore reduce prices in domestic markets [or refrain from raising prices]. In addition, the lower incomes earned by exporters (e.g. large mining companies) will negatively impact on national income and reduce final demand/AD once more, further adding to a reduction in (demand) inflationary pressure and helping to contain inflation below 3%.

Question 8

a. Lower company tax rates should assist with the achievement of strong and sustainable economic growth, which is to achieve growth in real GDP that is strong enough to boost income/jobs and living standards but not such that it creates excessive inflationary, external or environmental pressures. This is because corporations will be incentivised to increase investment [e.g. the purchase of new plant and equipment or the uptake of new technology] which accelerates aggregate demand as well as aggregate supply (or productive capacity). This then increases production of goods and services (or real GDP) and results in a stronger rate of economic growth.

b. The increase in productive capacity is likely to assist with the achievement of low inflation and impact positively upon economic growth. The increased capacity to produce goods and services effectively boosts the nation's aggregate supply of goods and services available for sale across the economy (which is tantamount to shifting the aggregate supply curve to the right as shown in the accompanying diagram). This begins to exert downward pressure on prices (and inflation) over time [as capacity utilisation rates fall or any existing capacity constraints are reduced] and therefore makes it easier for the RBA to achieve its low inflation goal of 2 - 3% growth in the CPI on average over time. The lower rate of inflation will then stimulate consumption [as purchasing power increases], investment [as perceptions of profitability improve], and net exports as Australia's international competitiveness improves. The combined effect is to increase aggregate demand, which in turn leads to an increase in the production of goods and services (real GDP) and economic growth.

c. The underutilisation rate is defined as the total number of people who are both unemployed and underemployed (working fewer hours than they desire) as a proportion of the labour force. In contrast, the unemployment rate is simply the total number of people unemployed as a proportion of the labour force. Accordingly, the underutilisation rate will always be above the unemployment rate when underemployment exists. [In other words, the unemployment rate will equal the underutilisation rate only if underemployment equals zero.]

d. The underutilisation rate has been relatively slow to fall because the growth in part-time (or casual) jobs has increased at a faster rate than the growth in full-time jobs. This has meant that more and more people are moving from full-time to part-time (or casual) employment when many of these people would prefer to be working more hours. To the extent that people involuntarily move from full-time to part-time employment, it places upward pressure on the rate of underemployment without impacting on the rate of unemployment. As more part-time jobs become available in the economy it has therefore helped to reduce the rate of unemployment but [to the extent that some of those part-time workers would prefer to work more hours] has had little impact on the underemployment rate and the underutilisation rate.

e. the higher participation rate over recent years may have initially exerted upward pressure on the rate of unemployment. This is because the entry of more people into the labour force looking for work immediately added to the pool of unemployed (as they were in job search mode) and increased the total number of unemployed (relative to the size of the labour force). However, over time, this increase in the size of the labour force meant that the supply of labour increased which may have helped to reduce pressure on real unit labour costs [as the price of labour falls and labour productivity increases due to greater competition for jobs]. This can then result in more demand for labour, greater employment and a reduction in the rate of unemployment.

f. lower interest rates will tend to encourage capital outflow and/or discourage capital inflow as Australian interest rates will be relatively lower (ceteris paribus) then those rates being offered overseas. As fewer funds enter the country [i.e. Australians borrow less from overseas] and more funds exit the country [i.e. foreigners borrow more from Australia], the net demand for Australian dollars on the foreign exchange market will fall, which reduces the price or value of the dollar. This will then increase the international competitiveness of Australian goods and services in the global marketplace which increases net export demand (i.e. X minus M) and therefore stimulates aggregate demand in the economy.

g. The fall in crude oil prices over the past couple of years has helped to generate supply side improvements to the economy over 2015-16, particularly given that Australia is a net importer of crude oil. As crude oil is used in the production of a whole host of goods and services, the lower price helped to reduce production costs for many industries (e.g. manufacturing and transport industries). This helped to maintain downward pressure on prices (or inflation), which stimulated consumption, investment and net export demand, which in turn boosted growth in both AD and real GDP (i.e. economic growth).

   The fall in the household savings ratio over the past couple of years has helped to generate demand side benefits for the economy over 2015-16. This is because a lower savings ratio means that more of any given level of household income must be spent [assuming taxes are constant], which increases Consumption demand [the largest component of AD], boosts the total demand for goods and services (AD) and raises the growth in both AD and real GDP (i.e. economic growth).

Answers to crossword puzzle: