



Answers to macroeconomics practice questions

Multiple-choice questions

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|---|---|----|---|
| 1 | B | 6 | C |
| 2 | B | 7 | B |
| 3 | B | 8 | B |
| 4 | C | 9 | B |
| 5 | D | 10 | C |

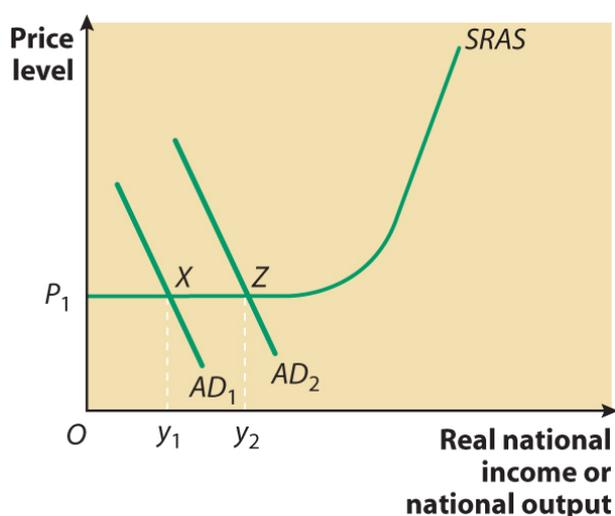
A-level Paper 2 context question

- 01** On 8 October 2008, Bank Rate was 8%. This means that £200 million deposited at the Bank of England would earn $£200m \times 8\%$, which is £16 million. On 22 July 2015, Bank Rate was 5%. This means that £200 million deposited at the Bank of England would earn $£200m \times 5\%$, which is £10 million.
- 02** Extract A indicates that in July 2015 the OBR was expecting Bank Rate to rise thereafter from 2016 to 2021. (We now know that this did not happen, at least until early 2016 when this answer was written.) As a part of monetary policy, the Bank of England raises Bank Rate if it believes that the inflation rate is about to accelerate, or is accelerating. In this circumstance, an increase in Bank Rate reduces aggregate demand and dampens demand-pull inflationary pressure. It follows that if the OBR expected Bank Rate to rise, it must also have been expecting the inflation rate to increase.
- 03** Many people believe that quantitative easing (QE) directly increases the money supply. If it did, and if the new money was then spent, inflation would take place — unless the spending stimulated economic growth rather than a rising price level. However, QE is more complex than this. QE is not *money* creation; it is more accurately described as *reserve* creation. The Bank of England buys securities and pays for them with bank reserves, which increases the reserves of the commercial banks.

The banks can then use these reserves as a base on which to grant new loans to their customers, in which case bank deposits and hence the money supply also increase. However, this will only happen if the banks' customers want to borrow in order to finance their own spending, and if, before QE, a lack of reserves was preventing the banks from lending to their customers.

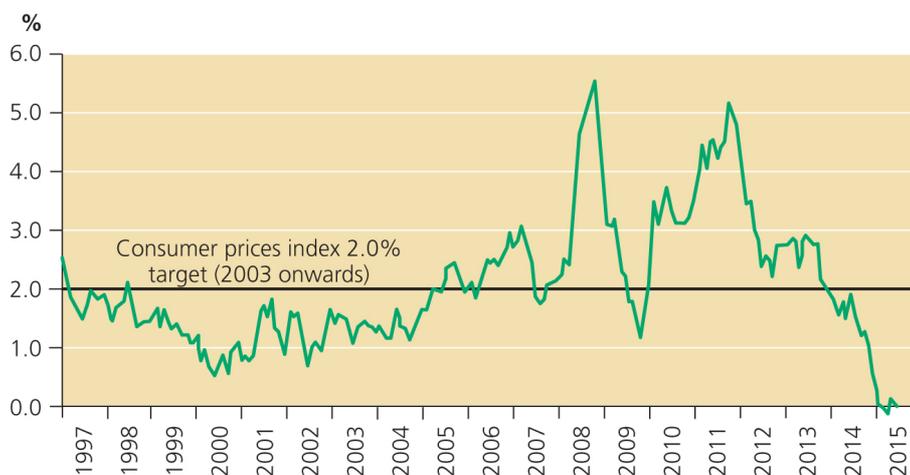
When QE was first started in the UK in 2009, this was not the situation. With the financial system in deep crisis, the main purpose of QE was to shore up the banking system rather than to simulate bank loans. Although the money supply did increase to a limited extent, and thence shifted the *AD* curve to the right in the diagram below, the economy was only just about to come out of recession. There was plenty of slack in the economy. The increase in aggregate demand stimulated the short-run growth of real output, rather than the price level, with output increasing from y_1 to y_2 in the diagram (and macroeconomic equilibrium moving from point *X* to point *Z*). And in so far as inflation took place, it was mainly asset price inflation (e.g. share and house price inflation), which is not included in CPI inflation.





04 Monetary policy is that part of macroeconomic policy which aims to achieve or ‘hit’ the policy objective or objectives set out by the government. I am going to interpret ‘recent years’ as the years since May 1997 when the then-incoming Labour government made the Bank of England operationally independent of the government and responsible for trying to ‘hit’ the inflation rate target set by the Treasury. Initially this was a 2.5% RPI target, but it was later changed to the 2.0% CPI target — a target which is still used today.

Monetary policy, then and now, is deemed to be successful if the inflation rate is between 1% above and 1% below the government-set inflation rate target. For much of the first half of the period between 1997 and 2015, the ‘proof of the pudding seemed to be seen in the eating’, in the sense that the inflation rate was between the upper limit of 3% CPI inflation and the lower limit of 1% CPI inflation. This is shown on the graph below.



However when recession hit the UK economy in 2008 and 2009, the CPI inflation rate became much more variable, breaching the 3% ceiling for much of the period between 2008 and early 2012. Two explanations can be offered for this:

- In the first place, in response to the negative growth and high unemployment which occurred in the 2008 recession, the focus of monetary policy switched away to some extent from controlling inflation toward stimulating economic recovery. In the words of the Bank of England, ‘The Bank’s monetary policy objective is to deliver price stability — low inflation — and, subject to that, *to support the Government’s economic objectives including those for growth and employment.*’
- In the second place, there were two cost-push inflationary ‘spikes’ in 2008 and 2011, when the inflation rate rose significantly above the 3% CPI ceiling, largely because of the growth of commodity and oil prices. These price ‘spikes’ were completely outside the

control of the UK government and the Bank of England, and had little to do with demand-pull inflationary pressures which are the main target of contractionary UK monetary policy.

However, as the graph shows, since late 2014, breaching the 3% CPI ceiling has been replaced by the opposite problem of the CPI inflation rate falling below the 1% floor, and indeed to zero and just below. Again, the main cause of the fall in the inflation rate has had little to do with UK monetary policy, being located in the worldwide fall in energy and oil prices, caused by global rather than domestic conditions.

The preamble to the question states that “Unconventional” monetary policy instruments such as quantitative easing and Funding for Lending were introduced largely because of the ineffectiveness of Bank Rate policy as an instrument for helping to “spend the economy out of recession”. Before I address the issue of the effectiveness of monetary policy, I shall briefly discuss how the ‘conventional’ policy instrument of changing Bank Rate operates.

In order to reduce aggregate demand in the ‘boom’ phase of the economic cycle, the Bank of England increases Bank Rate, in the hope that other interest rates will then also increase, thereby reducing consumption spending (C) and spending on imports (M). The fall in consumption spending reduces aggregate demand, which in turn leads the price level to fall or, more realistically, the rate of inflation to fall while still remaining positive.

Conversely, in the recessionary phase of the economic cycle, the Bank of England will cut Bank Rate in order to stimulate consumption and particularly investment spending by firms. This is what happened in 2009 when the Bank Rate was cut to an all-time low of 0.5%, the lowest it has been since the Bank of England was created in 1694. But this is where changing Bank Rate to stimulate aggregate demand can become extremely ineffective. In a quotation often attributed to the great economist Maynard Keynes, monetary policy becomes like ‘pushing on a piece of string’, since pushing a piece of string is unlikely to have any impact on whatever is attached to the other end of the string. Thus Keynes meant that relying on changes in interest rates to manage aggregate demand leads to asymmetrical outcomes. Keynes argued that it is easier to eliminate excess aggregate demand by increasing interest rates than it is to end a recession (or indeed a depression) by cutting interest rates.

Other factors also contributed to the ineffectiveness from 2008 onward of interest rate policy as an instrument for helping to ‘spend the economy out of recession’. Two of these are the problem of the zero bound and of the economy falling into a liquidity trap. ‘Zero bound’ simply means that if Bank Rate were to fall to zero, further cuts would become impossible. Related to this is the liquidity trap, which describes a situation where no matter how low the central bank pushes interest rates to create new liquidity, consumers refuse to borrow, and banks are too nervous to lend.

So what about the ‘unconventional’ monetary policy instruments mentioned in the question? In his 2013 budget, while still paying lip service to the 2.0% inflation rate target, the chancellor had instructed the Bank of England to ‘deploy new unconventional, but as yet unstated, policy instruments’ in an effort to bring about sustained recovery from recession. The first ‘unconventional’ policy instrument had in fact been introduced in the middle of the recession, in 2009. This was quantitative easing (QE).

I have already mentioned in my answer to part 03 of this question that quantitative easing does not necessarily increase aggregate demand. However, it might lead to asset price ‘bubbles’ in house and share prices. The first bout of quantitative easing in 2009 worked in the sense that the creation of some new money prevented the recession from developing — as a result of collapsing aggregate demand — into a full-blown depression. It is debatable, however, whether the later bouts of QE had much effect in bringing about recovery from recession. From 2010 onward, the growth rate in the UK economy ‘flat-lined’, remaining very close to zero. When in 2013 a more substantial recovery did occur, QE was no longer

being used in the UK, though it can be argued that the continuation of QE in America stimulated growth in other countries, including the UK. QE in the eurozone may be having a similar effect today. By reducing long-term interest rates and raising bond prices, QE benefited UK governments.

QE made it much cheaper for central government to borrow to finance the burgeoning budget deficit and to pay interest on the national debt. House buyers have also benefited from the cheap mortgage loans made possible by the 0.5% Bank Rate and QE. But, on the other hand, savers and workers contributing to private pension schemes have suffered.

The decision to halt QE was also a result of the Bank of England prioritising another ‘unconventional’ part of monetary policy, its Funding for Lending Scheme (FLS), over bond purchases in financial markets, which had been the central feature of QE. Launched in 2012, Funding for Lending allows banks and other lenders to borrow money cheaply from the Bank of England. The scheme is designed to make it easier for financial institutions to provide loans at a time when they might otherwise be reducing lending, because of their need — following the 2007/08 financial crisis — to shore up their battered balance sheets. By helping cut mortgage rates for house buyers, Funding for Lending has brought about recovery in UK housing markets, though at the potential cost of creating another speculative house price bubble, particularly in London and the southeast. FLS has been less successful in financing business investment.

A third element of ‘unconventional’ monetary policy, Forward Guidance, was introduced by Mark Carney in 2013. Forward Guidance attempts to send signals to financial markets, businesses and individuals, about the Bank of England’s interest rate policy in the months and years ahead. At the time of the policy’s launch, Carney said that the Bank would not consider raising Bank Rate from its low of 0.5% until the unemployment rate fell to 7% or below, which in the Bank’s view would be in 2016.

The hope was that the financial markets would believe what Carney and the MPC said, remain calm and orderly, and behave in a way that was consistent with the Forward Guidance strategy. There were, however, two dangers. First, the strategy may be knocked off course by an event, such as a house price bubble hitting the UK economy, or a faster than expected fall in unemployment. Second, and related to this, financial markets may form their own expectations of what is going to happen in the future. If markets believe that a bubble is going to occur, then, whatever the Bank’s official policy, market operators may ignore the Forward Guidance strategy and raise interest rates anyway. If market operators perceive the strategy to be ‘wishful thinking’, Forward Guidance can destroy rather than increase the credibility of the Bank of England in its management of the UK economy.

I shall conclude by arguing that monetary policy, including its new ‘unconventional’ elements, has been partially effective as an instrument for helping to ‘spend the economy out of recession’. Compared to the aftermath of previous recent recessions in 1979/80 and 1991/92, recovery from recession has been slow in the UK, with real output failing to return to the trend level it would have achieved had there been no recession. Very low interest rates and quantitative easing, to a certain extent, have induced a demand-led recovery, but they have failed to rebalance the UK economy towards sustainable economic growth. There is a danger that the ‘cheap money’ propagated by monetary policy will lead to another ‘bust’ following the recent ‘boom’ in share and house prices. History will repeat itself and it will all end in tears.

A-level Paper 2 essay questions

Essay 1

09 Governments borrow in order to finance a budget deficit, which occurs when the *flow* of government or public sector spending exceeds the *flow* of revenue received from taxation and other revenue sources such as income from fines. Financing a budget deficit (through borrowing) must not be confused with eliminating a deficit. A budget deficit can be reduced or eliminated by increasing taxes, by cutting government spending, or through a combination of the two.

Just like households and firms, governments borrow to solve the problem of a mismatch between points in time when money needs to be spent and when income can be raised. For a household, the classic example of this mismatch is when a family borrows to finance the purchase of a house. Few house buyers earn enough income at the time they want to buy a house to give them sufficient cash with which to buy the house outright. Essentially, they borrow in the hope and expectation that future income will allow them to pay off the debt that results from taking out a mortgage on the house.

Additionally, the house secures the loan. The same is true for a firm borrowing to finance investment in capital goods such as new production plant. In this case the earnings that the plant is expected to yield in future years provides the income needed to make annual interest payments and eventually to pay off the debt. The same is true for a government which borrows to provide the funds to invest in new infrastructure for the country. A danger arises, however, if long-term government borrowing is used to finance current spending, for example on pensions, just as a similar danger would arise if a household took out a second mortgage to finance current spending on a wedding and an around-the-world luxury holiday. The golden rule is that liabilities (debt or the amount borrowed) should be matched by assets (the bricks and mortar of a house or, in the case of a government, public sector infrastructure).

Governments also borrow in order to manage aggregate demand. Consider a situation in which the private sector (households and firms) runs a budget surplus, with spending less than revenue. If, at the same time, the government exactly balances its budget, setting G equal to T , deficient aggregate demand arises in the economy. The resulting lack of spending may cause the economy to slip into recession. According to Keynesian economists, to prevent this happening, the private sector surplus should be matched by a public sector deficit, with the government borrowing the excess savings of the private sector and spending them itself.

This analysis can be extended to justify government borrowing over the course of an economic cycle or business cycle. In the boom phase of the cycle, government tax revenues increase but demand-led spending on some welfare benefits and jobseeker's allowance falls. The government's current budget may move into surplus. In this situation, the budget surplus takes demand out of the economy and prevents the economy from overheating. Conversely, in the recessionary phase of the economic cycle, when tax revenues fall and demand-led public sector spending increases, the government allows the budget to move into deficit. Over the whole of the cycle, budget surpluses and deficits, and their associated repayment of past borrowing and increased borrowing, act as automatic stabilisers, smoothing the economy's cyclical fluctuations.

In summary, governments increase their borrowing in the long term to finance public sector investment in infrastructure spending, and in the short to medium term to manage aggregate demand and to smooth the path of the economic cycle. With regard to the latter, Keynesian-inspired governments are likely to do this as part of an 'active' fiscal policy, but as I explain

in the answer to question 10 which follows, the current UK Conservative government chooses not to use budget deficits and public sector borrowing in this way. Finally, as an additional point, profligate governments may borrow because they need money to finance activities such as military spending and prestige schemes such as spending on space exploration.

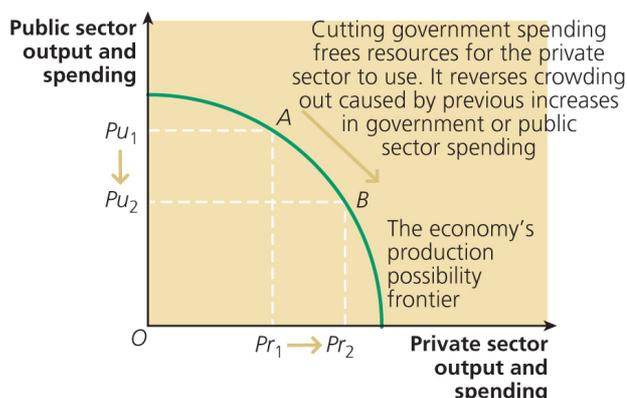
- 10** A budget surplus exists when government (or public sector) revenue from taxes and other sources of revenue is greater than government (or public sector) spending ($T > G$). For many decades, during the Keynesian era from roughly 1950 to 1979, the consensus view was that budget deficits were necessary in the management of aggregate demand in the economy. (I have explained why in the earlier answer to question 09.) However, in the 1970s, when a crisis in Keynesian economics occurred, ever-larger doses of government spending, which were meant to spend the economy into economic growth, led less and less to increased output and employment, and more and more to higher inflation. James Callaghan, the then Labour prime minister, is on record as saying:

We used to think that you could spend your way out of a recession and increase employment by cutting taxes and boosting government spending. I tell you in all candour that that option no longer exists, and in so far as it ever did exist, it only worked on each occasion since the war by injecting a bigger dose of inflation into the economy, followed by a higher level of unemployment as the next step.

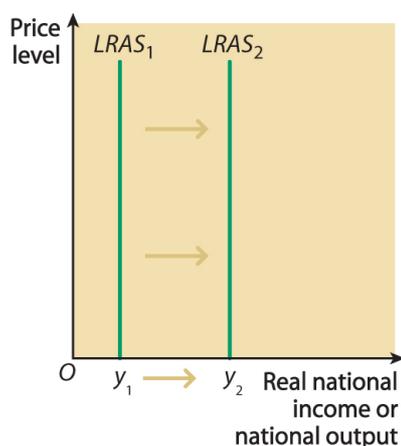
The failure of Keynesian deficit financing led to a return to an idea that had preceded Keynesian economics: the need for the ‘sound finance’ of balanced budgets. The belief in the need for balanced budgets, and indeed budget surpluses, was widely adopted by the governments of Margaret Thatcher in the UK in the 1980s, though a budget surplus was only achieved for a short period during the decade.

During the so-called ‘great recession’ of 2008 and 2009, in its ‘fiscal stimulus’ the then Labour government returned to the Keynesian policy of using a budget deficit to inject spending into the economy. During this period the size of the budget deficit increased to a mouth-watering figure of over £152 billion in 2009/10 just before the election of the Conservative/Lib Dem coalition government in May 2010. The new chancellor of the exchequer in the coalition government was George Osborne, who remains chancellor in the current Conservative government.

Osborne is on record as being fiercely anti-Keynesian and a believer in balancing the budget and achieving a surplus. George Osborne believes that severe cuts in government spending free resources for the private sector to use, and that the private sector is likely to make better use of these resources than the government. If this is the case, workers who lose their jobs in the public sector should become more productively employed in the private sector. This view of how fiscal policy should operate has been called ‘expansionary fiscal contractionism’ or ‘expansionary austerity’. The expansionary fiscal contractionism (EFC) hypothesis predicts that, given certain assumptions about how people behave, a major reduction in government spending that changes future expectations about taxes and government spending can expand private sector spending, resulting in overall economic expansion. The diagram below illustrates what George Osborne believes happens if the government cuts public sector spending by cutting the budget deficit and moving toward a budget surplus.



According to George Osborne, the main benefit of cutting government spending and achieving a budget surplus is that it leads to supply-side improvements in the economy, which, by using scarce resources more efficiently and through the creation of personal incentives, shifts the economy's *LRAS* curve to the right, as shown in the next diagram.



This leads to faster sustainable economic growth and to increased economic welfare. Some people also say that there is an ideological motive in all this: the desire to have a smaller state and more reliance on private enterprise and competitive markets. Cutting government spending can also lead to lower taxes, so that people are left with more of their own money to spend as they wish.

The disadvantages of running a budget surplus at all (normal) times, and with regard to spending on capital goods as well as current spending, as George Osborne now wishes to achieve, is that it completely rejects the case, not only for demand management using fiscal policy, but also for increased spending on infrastructure projects when the cost of borrowing is very cheap.

In conclusion, my personal view is that there is a case for running budget surpluses in the boom years of the economic cycle, in order, to use Osborne's words, 'to act now to fix the roof while the sun is shining' and to reduce to some extent the size of the *nominal* national debt. However, a better way to reduce the size of the *real* national debt would be to achieve a faster rate of economic growth that would increase people's living standards. I believe that, by widening income differentials and increasing absolute and relative poverty, the austerity cuts resulting from Osborne's fiscal stance of wanting to achieve a continuous budget surplus mean that the policy's disadvantages exceed any possible advantages.

Essay 2

11 The money market, the capital market and the foreign exchange market are all markets in financial assets. However, there are significant differences between them. Money markets, which are not actually markets in money or currency, are markets in short-dated financial

assets which are highly liquid for two reasons. First, whoever owns the assets can turn them into cash, at a pre-known price, simply by waiting for the assets' maturity date, which is in the near future. And second, because the maturity date is usually less than three months into the future, the assets can be sold immediately on the money market at a price which is only just below the maturity value. Money markets provide a means for lenders and borrowers to satisfy their short-term financial needs. Assets that are bought and sold on money markets are short term, with maturities ranging from a day to a year, and are normally easily convertible into cash. 'Money market' is an umbrella term that covers several markets, including the markets for Treasury bills and commercial bills. A money market in which money is actually exchanged is the LIBOR market, which has recently become extremely important in the operation of monetary policy. LIBOR is the London Interbank Offered Rate, which is a rate of interest charged when banks lend to each other, usually for very short periods of time.

In contrast to money markets, capital markets, which include the London Stock Exchange (LSE), provide the mechanism through which public limited companies (PLCs), which are arguably the most important form of business organisation in the UK, can raise the funds to finance their long-term growth. In addition, the part of the capital market known as the bond market performs a critical role in government finance, for example by enabling a government to finance a budget deficit.

Capital markets are made up of two parts: the *new-issues market* (or *primary market*) and the *second-hand market* (or *secondary market*). In the UK, the LSE functions as the main secondary market. The actual raising of new capital or long-term finance takes place in the primary market when public companies (in the private sector of the economy) or the government (in the public sector) decide to issue and sell new marketable securities. Companies can borrow long term by selling corporate bonds, or they may sell an ownership stake in the company by issuing shares or equity. When selling corporate bonds, the company extends its debt, and the purchaser of the bond becomes a creditor of the company. By contrast, new issues of shares are sold when a company 'goes public' for the first time, or when an existing public company decides to raise extra capital with a new equity issue. In the latter case, the new share issue is most often a rights issue, in which the company's existing shareholders are given the right to buy the new issue of shares at a discount.

The secondary part of the capital market performs an important economic role. Without the existence of a second-hand market, PLCs would find it difficult if not impossible to sell new share issues. The shares issued by private companies, which don't have a stock market listing, are generally illiquid and difficult to sell. But shares issued by listed public companies can be sold second-hand on the stock exchange. The stock exchange enables shares to be converted quickly into cash. Without the stock exchange, the general public would be reluctant to buy shares that could not easily be resold. An important source of funds necessary to finance the growth of a firm would be denied to public companies.

The principal function of the LSE and other secondary capital markets is to increase the liquidity of second-hand securities (bonds and shares), making it easier for buyers to manage their investments and sell these securities when required. This in turn makes it more likely that those with surplus funds will be willing to buy new issues of shares and bonds, thus facilitating the economic activity of PLCs and government.

In contrast to money markets and capital markets, foreign exchange markets are global decentralised markets for the trading of currencies. The main participants in this market are large international commercial banks. Collectively, foreign exchange markets are the largest markets in the global economy. International trade means that exporters and importers need to convert the funds they use to finance trade from one currency to another — for example, the UK pound into euros or dollars. Foreign exchange can be traded on either the *spot market* or the *forward market*. Spot transactions involve the immediate exchange of foreign currency

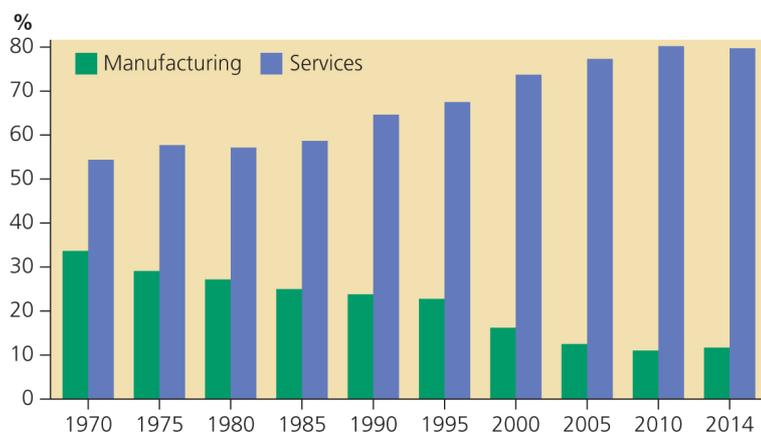
whereas forward markets involve the exchange of foreign currencies at some specified time in the future. Forward markets are used by, for example, exporters and importers to protect themselves against exchange rate risks.

- 12** UK macroeconomic performance can be assessed by how well the economy as a whole is performing in terms of achieving sustained and sustainable economic growth and rising living standards, a high level of employment, control of inflation, and a balance of payments position which reflects improved competitiveness in world markets.

Since about 1970, the UK has experienced many years of deindustrialisation, which can be defined as a relative decline in manufacturing output and employment, together with a similar decline in non-manufacturing industries such as coal mining (which has almost disappeared) and fishing. The output of manufacturing industries has fallen during this period from over 30% to around 10% of GDP. However, manufacturing *output* grew in the two decades before the 2008 recession, though manufacturing *employment* fell more or less continuously.

How do we explain these figures? A large part of the explanation lies in the rapid growth of service sector industries in the decades after 1970. For example, from 1997 to 2010 the service sector rose by nearly 8% points, from 69% of the economy to 77%. And the fall in manufacturing employment which occurred at the same time as manufacturing output increased can be explained by capital-intensive industries growing to replace declining labour-intensive industries. For example, car production increased in highly automated new factories built by companies such as Toyota, while the antiquated factories owned by Rover were forced to close.

The graph below shows how the proportion of UK GDP coming from manufacturing and services changed between 1970 and 2014.



Back in February 2015, Nick Clegg, then the deputy prime minister in the coalition government, said that the government's pro-growth agenda was about 'rebalancing our economy away from an overreliance on one industry — financial services — and one area — London and the South East'. In 2014, financial and insurance services contributed £126.9 billion in gross value added (GVA) to the UK economy (in cash terms), which is 8.0% of total value added. The figure had peaked at 9% in 2007, just before the financial crisis led to a temporary decline in the financial sector's output and employment.

So is there a case for rebalancing the UK economy away from financial services and toward manufacturing? Before addressing this question, I shall first mention that a number of meanings can be attached to the concept of 'rebalancing the economy'. First, there is the rebalancing of the economy between the north and the south, and away from London in particular. Second, there is the rebalancing between the different sources of economic growth with the apparent need for export-led growth and/or investment-led growth to replace consumption-led growth. And third, there is rebalancing away from service industries toward

manufacturing industries, and within this rebalance, the issue posed by this question, namely rebalancing away from financial services.

The spectacular growth of the financial services industries in recent years — apart from in the 2008 ‘blip’ — probably stems in large part from the comparative and competitive advantages these industries possess in the world economy. Because UK manufacturing industries have to compete in world markets with China, Germany, Japan and South Korea, namely countries which currently enjoy comparative and competitive advantages in manufacturing, the going will be extremely tough for any large-scale revival of UK manufacturing. If Britain is to have any success in this area, it will have to be in the growth of ‘high-tech’ industries in which productivity is already high. However, growth in ‘high-tech’ science-based industries does not create many jobs, though the ones that are created are high-skill, high-income jobs. In much of the rest of UK manufacturing, productivity (output per worker) is low, which means that industries can only compete if real wages are also low.

The ‘top end’ of the UK’s financial services industries is located in the City of London and in ‘City-East’ around Canary Wharf. The growth of financial industries such as international banking has not only regenerated parts of the economy of London’s east end, it has also created the modern engine of economic growth in the UK. Cutting the financial services industry down to size would be a bit like killing the goose that lays the golden egg. Financial services and other successful industries in London and southeast England provide the tax revenue which the current Conservative government wishes to invest in a new ‘economic powerhouse’ of the north, and facilitate a ‘march of the makers’.

My conclusion therefore is that new manufacturing industries should be encouraged, first to start up, and then to grow, but this should not be at the expense of financial service industries. While the government should use its fiscal policy to transfer productive resources into manufacturing, financial service industries should also be encouraged to grow. The growth of the internet now means that there is less of a case for keeping financial services industries in London, but market forces and private sector entrepreneurial decisions, rather than the government, should be responsible for shifting financial services, and also manufacturing, to the regions. Nevertheless, it is almost certain that financial services will continue to be Britain’s fastest-growing industry and that its main centre will continue to be London.

Essay 3

13 I am interpreting the meaning of ‘value’ as the quantity of goods and services imported into a country multiplied by the prices paid for the goods and services.

Perhaps the most important factor that determines the value of a particular good or service that a country imports from the rest of the world is the interaction of supply and demand for the imported good or service. If worldwide demand for the good or service is great — for example, the demand for rare-earth metals which are required for manufacturing cars — while the good is scarce and expensive to produce, the price of the good will be high. Without rare-earth metals, important modern technologies could not exist. For example, it will be impossible for electrically powered cars eventually to replace petrol-driven cars and the growth of the renewable energy market will also be held back. Currently, China produces about 97% of the global supply of rare-earth metals. In 2010, the Chinese government ordered China’s mining companies to cut exports of rare-earth metals by 35%. China’s monopoly power in the supply of rare-earth metals is strengthened by the fact that demand for the raw materials is relatively price inelastic. Forcing up the prices that other countries have to pay for rare-earth metals gives China an artificial competitive advantage in world markets for high-technology manufactured goods compared to an importing country such as the UK.

Compare this market with one in which a large numbers of countries produce a good, but only one country is the buyer of the good. In this situation, the importing country may be able to exercise a strong degree of monopsony power, using this power to drive down the price it pays for its imports. However, if other countries enter the market and wish to import the good, the market becomes much more competitive, with a lack of monopoly selling power and monopsony buying power. The market may end up being much more evenly balanced between the forces of supply and demand. Monopoly and monopsony power and the degree of competition in the market are therefore important factors which determine the value of goods and services that a country imports from the rest of the world.

Just like in other markets, markets for imported goods and services can also be distorted by taxes and subsidies. In this case, the taxes imposed on imported goods are called tariffs or import duties, while the subsidies granted to producers in the exporting countries are known as export subsidies. Tariffs will, of course, increase the prices that a country pays for some of the goods it imports, while export subsidies paid by the governments of other countries will bring down the price of imports. Likewise, ‘dumping’, which involves the deliberate setting of prices below the costs of production, reduces the prices of imported goods.

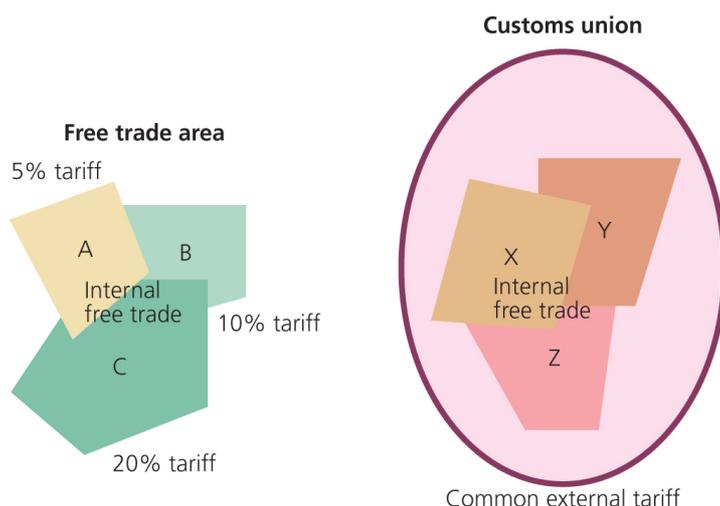
Related to these points are a number of other factors. These include the costs of production of the imported goods and services, profit margins in the exporting countries, price elasticities of demand and supply, and the need to import goods and services that cannot be produced domestically within the importing country.

A final important factor is changes in exchange rates. An increase in the pound’s exchange rate against other countries reduces the prices in overseas currencies which the country has to pay for imported goods. By contrast, a fall in the exchange rate increases import prices. Capital flows between countries can overvalue and undervalue exchange rates, thereby raising or reducing import prices.

- 14** In 1973 the UK joined the European Union (EU), which at the time functioned mainly as a customs union with some common economic policies, notably the common agricultural policy (CAP) and the common fisheries policy (CFP). Since then, the EU has made moves to develop into a fuller economic union involving a single European market, which the UK supported and joined, and a monetary union with a single currency (the euro), which the UK has declined to join and adopt.

Ever since 1973, many British politicians, particularly in the Conservative Party, have expressed dislike of the EU as a customs union and have objected to the EU developing into a fuller economic union and political union. These politicians support the campaign for Britain to leave the EU, though many would support staying in the Union in the highly unlikely event of the European Union ceasing to be a customs union and deciding to become a free trade area. However, only Britain and perhaps one or two of the smaller EU member states are in favour of this happening. The vast majority of the 28 (in 2015) member states are in favour of full monetary union and of further economic integration.

Britain joined the European Economic Community (EEC), the precursor of the EU, mainly to get access to a very large export market (in January 2015 the EU had a population of over 508 million people). But because the EU is a customs union, in which all member states share a common external tariff, as shown in the diagram below, and lack the freedom to set their own tariffs against imports from non-member countries, the UK cannot join any other trading bloc such as a free trade area. This difference between a free trade area and a customs union is shown in the diagram.



In January 2013, prime minister David Cameron promised an in–out referendum on the UK’s membership of the European Union, to take place by the end of 2017 at the latest. Cameron later decided on 23 June 2016 as the date for the referendum. Cameron indicated that he would support staying in the EU if Britain could successfully negotiate certain conditions for continued EU membership. Cameron’s four key demands, stated in November 2015, were: exemption for the UK from the EU’s founding principle of ‘ever closer union’; an ‘explicit statement’ that the euro is not the official currency of the EU, making clear that Europe is a ‘multi-currency’ union; giving the British parliament the power not to comply with unwanted EU directives and existing EU laws; and a new structure for the EU itself to stop the nine countries that are not in the eurozone being dominated by the 19 member states that are, with particular protections for the City of London.

In February 2016, David Cameron announced the following deal with the EU:

- *Migration and benefits.* A watered-down emergency brake will limit migrants’ access to benefits for four years immediately after the referendum. Rather than there being a total ban, access to in-work benefits will be ‘graduated from an initial complete exclusion but gradually increasing’. Migrants will still be able to send benefits to their children abroad, just in lower amounts than they currently do. Cameron will be given new powers to stop suspected terrorists and criminals coming to the UK, not only if a threat is ‘imminent’. New rules will stop people coming to the UK via ‘sham marriages’. They will prevent non-EU citizens marrying an EU citizen in order then to live and work in Britain.
- *Sovereignty.* The UK ‘is not committed to further political integration into the European Union’. A ‘red card’ system will allow the House of Commons to band together with like-minded EU parliaments and block unwanted Brussels legislation.
- *Economic governance.* The deal protects the pound by recognising in law — for the first time — that the EU has more than one currency. British taxpayers’ money can never be liable to support the eurozone. Any issues which affect all member states must be discussed by all member states, not just countries in the eurozone.
- *Competitiveness.* The EU will increase efforts to cut bureaucracy, especially on small and medium enterprises, which the government has said damages UK businesses.

Whether or not Cameron’s deal will be sufficient to persuade British voters to reject Brexit will be known on 24 June 2016, the day after the referendum on the UK’s continued membership of the EU.

So what may be the economic consequences for the UK if the country decides to leave the European Union? From a trade point of view, much will depend on how Britain makes its

trading arrangements at the time of and after leaving the EU. The economists and politicians who support Brexit believe that, from a trade point of view, the UK will not lose out from being outside the European Union. They identify four different possibilities for life outside the EU. These are:

- Option 1: remain a member of the European Economic Area (EEA) and rejoin the European Free Trade Association (EFTA). The UK should retain membership of the EEA to take advantage of existing trade institutions. Rejoining EFTA may allow the UK a formal role in EU/EEA discussions and, according to the right-wing Institute of Economic Affairs (IEA) is also likely to prove popular with the British public.
- Option 2: pursue free trade by trying to beef up trade with the Commonwealth and a wider Anglosphere. (The Anglosphere is the set of English-speaking nations with a similar cultural heritage, based on populations originating from the nations of the British Isles, and which today maintain close political and military cooperation). This would allow Britain to energise world-wide trade based on free trade agreements.
- Option 3: develop a Global Free Trade Association or Alliance. Forming a Global Free Trade Alliance (GTFA) could make the country fit for purpose in an age of globalisation. Economic liberalism at home would be combined with free trade abroad.
- Option 4: prioritise EFTA access while remaining outside the EEA. This path argues that the single highest economic priority in the event of a vote to leave would be to ensure the maintenance of zero tariffs on trade between the UK and the EU in all areas apart from agriculture. It also strongly makes the case for the importance of an exit from the Single European Market. This is because staying in the single market would mean retaining almost all of the most onerous and controversial aspects of EU membership.

Opponents of Brexit, who mostly occupy the political centre-ground, believe that the Brexit options listed above are all the result of wishful thinking. Although the EEA includes all EU member states, only three small or very small countries are EEA but not EU member states. These are Norway, Iceland and Liechtenstein. (Together with Switzerland, these three countries are also the current members of EFTA.) If Britain wanted to join these three countries, its large size might mean that the EU would refuse to allow the UK to be an EEA but not an EU member state. Countries such as France and Germany would be unlikely to allow Britain to ‘cherry pick’ the EU’s trading rules. In any case, Norway and the other two EEA member states have to abide by many EU rules without any influence over how they are formed.

If Britain went for a clean break from the EU, its exports to the European Union would still be subject to the EU export tariffs and it would still have to meet EU production standards. Brexit’s opponents also argue that Britain would lose jobs as global manufacturers move to lower-cost EU countries such as the Czech Republic, which would still give them tariff-free access to the whole of the large EU market. Britain’s large foreign-owned car industry would shift into the EU and sectors linked to EU membership such as aerospace would also suffer. Toyota already owns land in Slovakia, to which it could quite easily shift its car production currently taking place in the UK. Airbus production could also move away from the UK to France and Germany.

According to the pressure group Business for New Europe, following Brexit, the UK’s contribution to the EU budget would disappear, but this is very small compared with the benefits to business of being in the single market, according to the pressure group. It could be costly for UK exporters if they face EU legal arguments against UK standards — there could be a lot more court cases and legal wrangling that might take at least two years to settle. Also, the City of London’s financial earnings could fall significantly, with the government losing tax revenue if banks and other financial service companies move from the City to the EU and to the Far East.

In conclusion, I would like to quote what the Conservative politician Boris Johnson said in 2014: if Britain finally ended its ‘sterile debate’ over Europe by leaving the EU, it would quickly discover ‘that most of our problems are not caused by Brussels, but by chronic British short-termism, inadequate management, sloth, low skills and a culture of easy gratification and under-investment’. Johnson changed his tune in February 2016 when he joined the politicians who wish to leave the European Union. Nevertheless, on balance, having weighed up the opposing arguments, and points of view, I believe that the economic and political arguments for remaining in the European Union are more powerful than the case for leaving.

A-level Paper 3 investigation question

31 Extract A implies that the UK fishing industry may be in decline because of overfishing reducing the quantity of fish available for UK fishing vessels to catch. The extract does not indicate which fishing grounds may have been overfished, but I happen to know that there were big fears in the early 2000s that the North Sea fishing grounds, off the east coast of England and Scotland were suffering from overfishing.

My knowledge in this respect is backed up by the evidence provided in the second panel of Extract C, which shows the fishing catch of haddock and cod (two fishes found in the shallow North Sea) falling by up to three-quarters between 1996 and 2008. However, the graph also shows some recovery in catches of these fish species after 2008, which may mean that the fear expressed in Extract A, that overfishing leads to an equilibrium shift which irreversibly reduces fish stocks, was not realised. The recovery may also be the result of successful reform of European Union fishing quotas, though the extracts do not provide any evidence of this.

The other panels in Extract C also provide some evidence of UK fishery decline, as does Extract D with its description of losses of jobs in fishing and related trades in the major fishing port of Peterhead. The UK fleet size in the first panel of Extract C shows a fall from about 6,800 fishing vessels in 2003 to around 6,000 vessels in 2013. The fall occurred in every year between 2003 and 2013, except 2006 and 2007. However, the fall was not particularly large, and it may have been countered by a growth in the average size of fishing vessels. However, this is just a guess, as the data do not tell us this.

The third panel in Extract C shows a slight fall in the number of fishermen in the UK between 2003 and 2013, from about 13,000 to just over 12,000, with a minor peak occurring at the end of 2013 at around 13,200. The decline could, of course, have been caused by a move to large, more automated, fishing vessels, but again the data provide no evidence for this.

Finally, the fourth panel in Extract C shows a fall in UK fish exports over the years between 2003 and 2013, from 480,000 tonnes to 453,000 tonnes. In 2009, fish exports had recovered to their 2003 total, but in every other year fish exports were below 480,000 tonnes. The panel also shows the crude trade gap (the gap between the physical volume of fish imports and exports) widening between 2003 and 2013, from 152,000 tonnes to 286,000 tonnes. The gap was widest in 2008, at 366,000 tonnes. Over the whole period, Britain was becoming more reliant on fish imports, though this may reflect increased demand for more exotic types of fish, such as octopus, that are not generally caught in British fishing waters. The fall in incomes experienced in 2009 and 2010, resulting from recession in 2008 and 2009, may have reduced demand for exotic fish imports, but again, the data do not tell us this.

32 In 2011 research was published on fisheries mismanagement by European Union member states. The research analysed the extent to which European politicians have adhered to scientific recommendations on annual total allowable catches (TACs) from 1987 to 2011, covering most of the period of the common fisheries policy (CFP). For the 11 stocks

examined, TACs were set higher than scientific recommendations in 68% of decisions. Politically adjusted TACs averaged 33% above scientifically recommended levels. The report concluded that there was no evidence that the 2002 reform of the CFP improved decision making, as had been claimed. The report included information on the modelling of the effects of politically driven decision making on stock sustainability. The report suggested that political adjustment of scientific recommendations dramatically increases the probability of a stock collapsing within 40 years.

In 2012 European fisheries policy underwent a once-in-a-decade reform. Ten years before 2012 radical reforms were promised but the changes failed to improve sustainability. The EU research argued that the 2012 reform will be similarly ineffective unless decision making is changed so that catch allocations are based on science rather than politics.

- 33** Extract B mentions five possible policies that the UK government could use in order to protect employment in the UK fishing industry. These are: (i) to stop subsidising fishermen; (ii) to require fishermen to pay a rent or price for the fish they catch; (iii) to control pollution; (iv) to pass new laws to limit fishing; and (v) rather like in a ‘permits to pollute’ scheme, to estimate the total fish catch and then give individual fishermen a quota enabling them to catch a fixed share of the total catch. These quotas would then be tradeable, presumably with the price of a quota reflecting the value prospective sellers and buyers put on the quota.

The UK government’s ability to introduce any of these policies (and any other policies that might be considered) is, at the time of providing this advice, highly constrained by the UK’s membership of the European Union (EU), which requires the UK to adhere to the EU’s common fisheries policy. By the time the UK Fishing Industry Trade Organisation takes note of my advice, the British population may have decided in the referendum taking place on 23 June 2016 to leave the European Union. If this happens, the UK will be able to decide on its own fisheries policy independent of that of the European Union — unless, of course, the country must still keep to the EU policy as a quid pro quo of negotiating trading access to the EU market for goods and services.

The advice which follows assumes that the British population votes to leave the EU and is then completely free to adopt its own fishing policy and to ignore the EU’s CFP. Of course, this will not be the case if the ‘Keep Britain in’ lobby wins the referendum vote.

Given these assumptions, the first policy I recommend the UK Fishing Industry Trade Organisation to push the UK government to implement is to set a 12-mile fishing limit around the British coast. Foreign fishing vessels, including those of EU member states such as Spain, Portugal and France, will be prevented from fishing inside this limit. This should help to protect employment in British fishing ports such as Peterhead, which is mentioned in Extract D.

Extract D also describes a multiplier effect operating in Peterhead, whereby each fishing boat landing fish at Peterhead generates a further five jobs in the town. This leads to my second policy recommendation. Currently, so my research tells me, fishing vessels operating in Scottish waters are selling a substantial proportion of their catches to Russian and Japanese ‘factory ships’, anchored outside the fishing limit, and processing on board the fish they buy from Scottish fishermen. I recommend that such sales are made illegal, and that all the fish caught by UK fishing vessels, whether inside or outside the 12-mile fishing limit I am proposing, have to be landed at UK ports such as Peterhead before they can be processed. If my recommendation is accepted and implemented, this will protect employment in British fishing ports.