The Essential Magazine for 'A' Level Economics

Economics Today

Articles

Regular Features

Subscription Details

The price of an annual subscription (4 issues) to individuals and institutions is £20.95.

Further subscriptions are available as part of a bulk mailing to the same address at £10.95 each. A free copy is sent with all orders of 20 or more.

Economics Today is edited by Peter Maunder and is published by Economics Today Ltd., Stocksfield Hall, Stocksfield, Northumberland NE43 7TN.
Tel: (01661) 844000.
Fax: (01661) 844111.

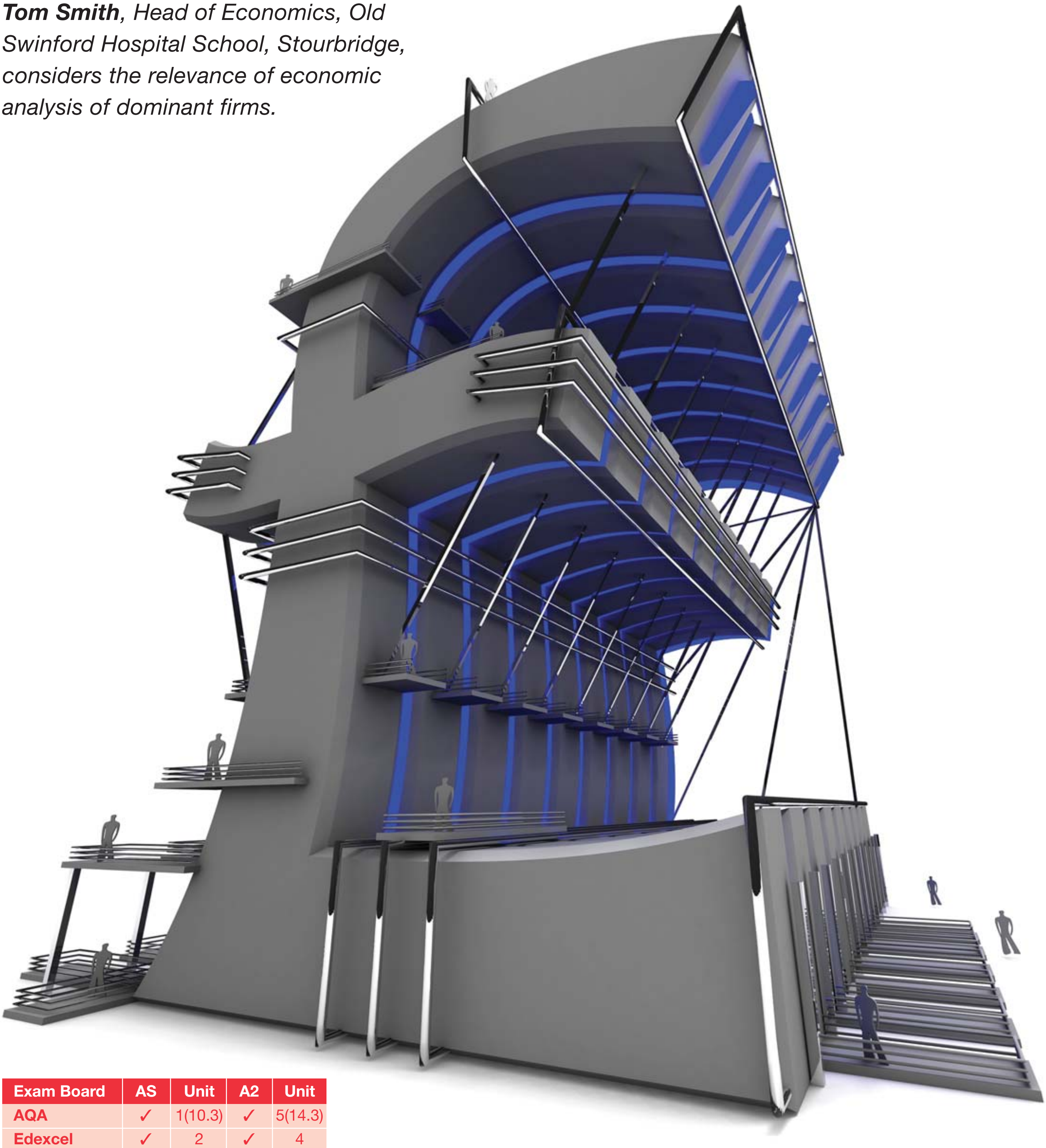
ISSN 0969-4641

Typeset by George Wishart & Associates, Whitley Bay.

Printed by Potts, Cramlington.

Is Monopoly a Realistic Market Structure?

***Tom Smith**, Head of Economics, Old Swinford Hospital School, Stourbridge, considers the relevance of economic analysis of dominant firms.*



Exam Board	AS	Unit	A2	Unit
AQA	✓	1(10.3)	✓	5(14.3)
Edexcel	✓	2	✓	4
OCR	✓	2881 (5.1.3)	✓	2884 (5.4.2)
WEJC			✓	4(D)
CCEA	✓	1	✓	3
Int. Bacc.	Higher Level 2.3			

> **Our freedom of choice in a competitive society rests on the fact that, if one person refuses to satisfy our wishes we can turn to another. But if we face a monopolist we are at their mercy. And an authority directing the whole economic system would be the most powerful monopolist conceivable.**
>
> Friedrich Hayek, *Road to Serfdom*, (1945)

This quote refers to the degree of competition experienced in our economic systems. When price is set too high in a firm, customers can switch to a cheaper one. Customers are likely to suffer when one firm dominates a market and no alternative is available. Command economies have most, if not all, industrial sectors in the public sector. Potential abuse of the population is greatest in such an economy.

Ever since Adam Smith wrote the *Wealth of Nations* in 1776, there have been a variety of opinions as to what constitutes monopoly. Adam Smith thought a monopoly was when a firm was able to charge excessive prices by deliberately keeping its market under stocked. He was impatient with such firms because of the resulting excessive profits these firms were making.

Lord Acton in a letter written in 1887 to Bishop Mandell Creichton was concerned about any firm operating as if they had a monopoly of knowledge. Lord Acton believed that if firms behaved in such a way disaster would soon follow. He said "power corrupts and absolute power corrupts absolutely". He also believed that great individuals are always bad. He meant that dominant individuals often abused their dominance. William Pitt, to whom Lord Acton's comments to Bishop Mandell Creichton are often wrongly attributed, said that unlimited power is apt to corrupt the minds of those who possess it (speech to The House of Lords in 1770). Unlimited knowledge is possessed by a monopoly and among other barriers this is one of the reasons why competitors are kept out of the industry.

Monopoly is often analysed only from the sales point of view. The key questions are whether the firm has dominance in the market place and, if so, can it command a monopoly price? Economists describe a firm which can charge a high price and has no alternatives as a monopoly. A 100% share of the market is the most pure form of monopoly but a firm with 25% share or more is also seen as having **market power**. If such a firm were also able to have a similar effect on its factor inputs, such as labour, then it would have a monopoly on these markets too. Its power in the market place as a whole would be even greater. It could achieve the highest price for its sales, while commanding the lowest costs for its factor inputs. The profits could be very high for a firm with monopoly power on both sides.

Adam Smith, Friedrich Hayek, Lord Acton and William Pitt all recognised that monopoly power had real dangers. They had experience of large corporations behaving with the characteristics we shall now go on to describe. This article will show that countries, governments and individual firms do still exercise monopoly power. If firms do not have 100% dominance on the sales side or 100% dominance with factor inputs they can still have significant power over the market commanding high prices for their sales and commanding low input costs from their suppliers.

If there are any doubts about whether monopoly is relevant in the 21st century consider Mexico. In a recent issue of *The Economist* there is suggestion that monopolies are controlling several sectors including: telecoms, beer, cement, energy, soft drinks, television, transport, medicine distribution and even tortillas![1]

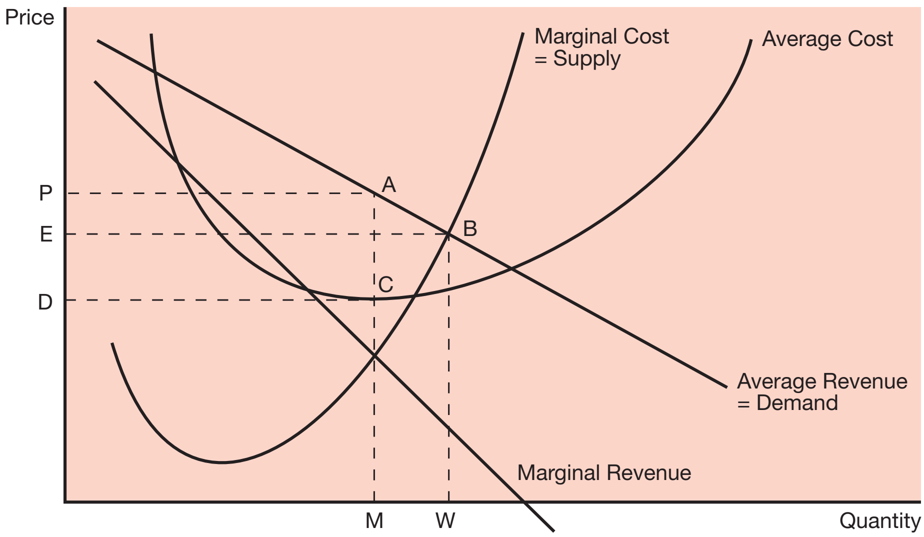
What is a monopoly?

A monopoly is defined as **an industry consisting of one firm**. It experiences no competition when selling its goods to customers. If a certain firm is the only one that can produce a certain good, it has a monopoly in the market for that good. In this sense all customers would buy the product offered by the single firm provider or go without. The firm is the industry. The main assumptions that are made for this model are: single provider; unique product (no close substitutes); firm is a *price maker* and there are *barriers to entry* into this market.

The 1998 UK Competition Act prohibits dominant firms from abusing their market position. Article 82 of the EC treaty mirrors this. The Office of Fair Trading stated in 2001 that what is and is not a monopoly can be a very difficult argument.[2] If a firm is taken to court for abuse of its power the case will be won by the lawyer who can make the most sense of the complex semantics involved. Once a case has been found the actions taken can be at best described as 'a slap on the wrist' or a 'small almost unnoticed tax'. It is rarely sufficiently high enough a fine to make the necessary impact.

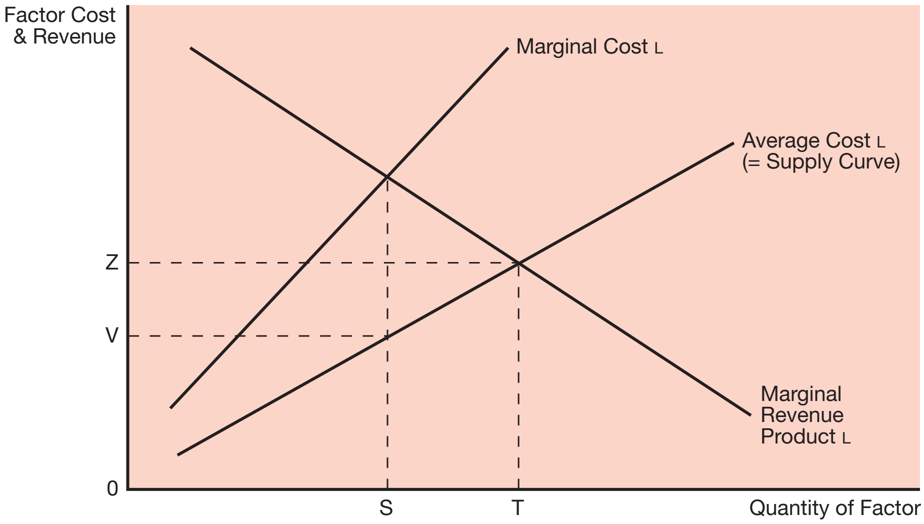
Figure 1 shows the effect a dominant firm can have on the sales side of the market. It is the standard monopoly diagram. It shows where a profit maximising firm will operate (Quantity M) and the price it will charge to customers (Price P). It also shows the supernormal profit the firm will experience (area PACD). The same diagram can be used to show where price and output would be in a

Figure 1: Product market monopoly



1. 'Antitrust thrust: Mexico's government gets tougher on monopolists', *The Economist*, 30 November 2007.
2. OFT, *The Role of Market Definition in Monopoly and Dominance Enquiries*, Economic Discussion, Paper 2, July 2001, available on OFT website and also from the OFT.

Figure 2: Factor market monopoly



better techniques and innovations varies. Monopolies can be easily satisfied with the supernormal profits that they get even when future higher profits may be possible. Even natural monopolies subsidised by the state may remain inefficient. So this argument is a debatable one.

A monopoly may still behave in an efficient manner and bring positive welfare effects to society. When the barriers to entry are insignificant, the threat of competition can keep a dominant firm behaving as if it had competition. Thus it could be the case that a single monopoly may charge a competitive price and supply as much as a competitive market would.

competitive market. This would be at B where the equilibrium price would be price E and the equilibrium quantity would be quantity W. In a competitive market price is lower and quantity available to the market higher. The net welfare effect is positive. Consumer surplus rises by more than the producer surplus falls.

Figure 2 shows the effect a dominant firm can have on the factor input side of the market. It shows the quantity of factor a dominant firm will employ and what reward it will give that factor. The quantity employed is quantity S and the reward given would be the factor price V. In a competitive market for the factor the reward would be at a higher level shown by the factor equilibrium Z and the quantity of the factor demanded would be at quantity T.

Taking both these Figures together if a firm is able to command a dominant position in both the product and factor markets it will be able to gain the greatest profits. In such circumstances power is abused. However we can identify three reasons why a monopoly could still be a better option for a society. Firstly this could be if it is a natural monopoly, secondly if there exists a contestable market and thirdly, for dynamic efficiency arguments.

Figure 3 shows a continuously falling average cost curve reflecting significant economies of scale. A monopoly could set price at P_1 in providing Q_1 and make supernormal profits. If it behaved like a competitive firm where price = LRMC output would be Q_2 but it would make losses. A competitive market is not possible in this situation.

The argument for a natural monopoly is to take advantage of economies of scale but more important is the fact that waste and duplication would occur. Take water as an example. One water company needs one set of pipes. Two water companies need two sets and so on. The roads would constantly be disrupted from repairs and changes. Far too much of our scarce resources would be used in the pipe provision. Furthermore since water is seen as an essential, it is important that water is accessible for all. This will only happen if the water services are provided by the public sector or as a subsidised private monopoly. If the quantity needed in a society is beyond Q_2 then the government could give subsidies to the best bidder for the private contract.

Figure 4 illustrates dynamic efficiency. The cost curve AC_2 is below that of AC_1. Society wants lower costs – using resources more efficiently over time. But will a monopolist actually achieve dynamic efficiency? For a monopoly firm the incentive to invest in methods to find

Price discrimination

When a dominant firm exists it has the potential to charge different prices in different markets. This enables them to get the maximum revenue from sales in each market. So profits are experienced beyond the supernormal profits shown in Figure 1. For example for a firm such as Microsoft their costs are likely to be constant but demand will differ in different locations and states. So the firm can charge higher prices where customers 'ability and willingness' is greater. The price they will charge in the USA, UK, EU and China can thus vary.

Examples of monopoly

▶ *Public Sector*

State education in the UK is provided free for the users. It is compulsory for all up to the age of 16. Tax payers provide the necessary revenue to pay for the service. The government permits Independent Schools, but State education educates the majority. Over

Figure 3: Natural monopoly

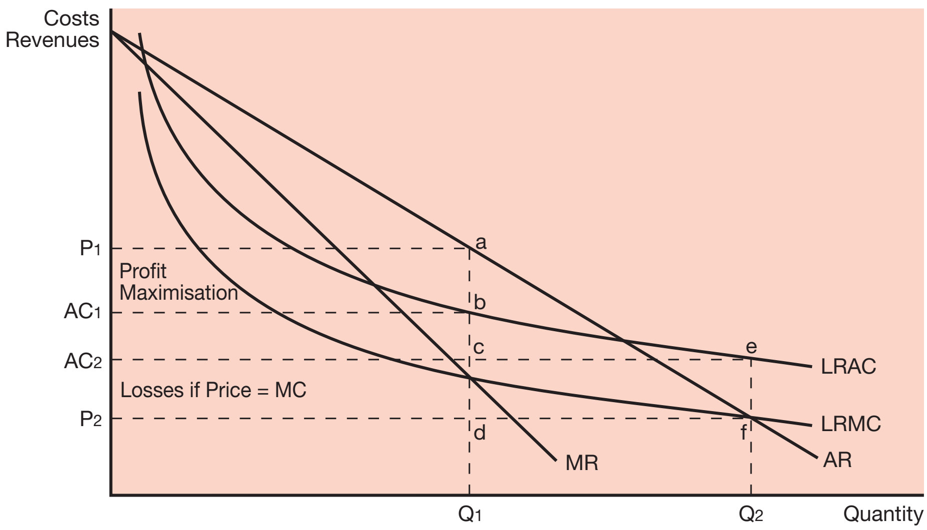
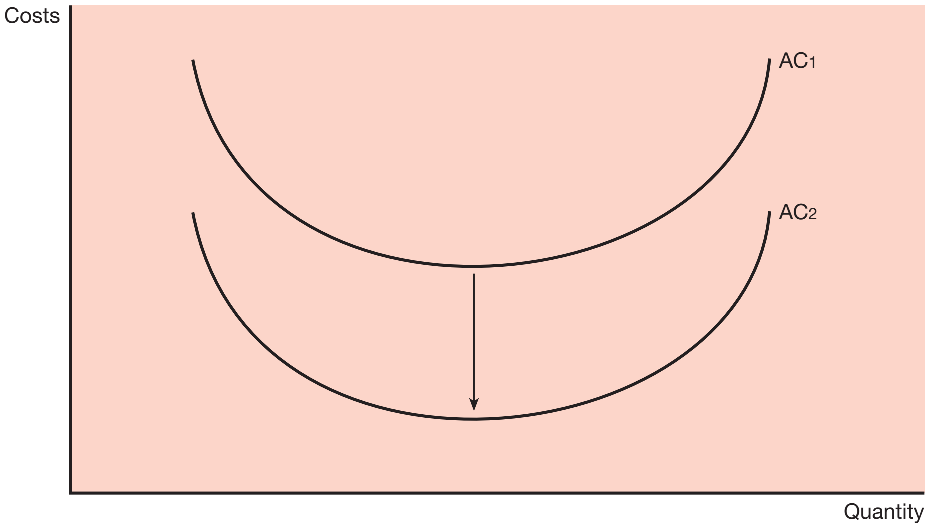


Figure 4: X-efficiency and monopoly



Is monopoly unrealistic?

Most firms have some alternative. Consumers usually have an option. Individual firms rarely hold so much power for a prolonged period of time over customers and factor inputs. There are few true monopolies that command power over the sales market and the factor markets simultaneously. Most resources have alternative uses. Most customers could find a substitute for a good or service which is too expensive. Wood can be used for furniture or paper. Teachers can choose a different occupation. Land can be used for sheep or goats. Customers can buy Windows or write e-mails or simply use a pen and paper.

70% of all students are taught through state schools. This gives state education dominance in the market place. In addition to this since state education is the dominant demander for teachers wages are kept lower than they may otherwise be in a more competitive market place. If all schools were privatised the price charged would mean that some would be unable to afford it. Competition would keep the price down but not to zero. Due to high competition for teachers, costs would rise and so the price for places in many schools would rise accordingly. Competition would also see technology and techniques changing to improve the service.

▶ *Private sector*

For a private monopoly like Microsoft's Windows there are few real competitors. Microsoft can charge a monopoly price unless governments and regulators step in to try to prevent it. They will experience supernormal profit and may have little incentive for dynamic efficiency. But Microsoft gains from investing in research and development to come up with new technologies giving it a dynamic *competitive* advantage.

Some firms like Wal-Mart and Coke have dominance which has evolved over time. Some of the reasons for their dominance are due to economies of scale and barriers to entry. These industries dominated by a single provider, similar to banks and some other large corporations in particular markets, nonetheless, have the potential of making big losses which may never be recouped. It is possible that the dominant corporations will trip up in the future in a way that is difficult to reverse.

International trade

There is an interesting link between monopoly and the field of International trade. Countries, like firms, can have dominance in the world markets. One major factor contributing to a country's dominance is wealth and income. This can lead to the less dominant countries populations' needs and wants not being met by their own producers but who in turn rely on producing for the foreign markets. These less dominant countries suffer from large rich countries sending goods to them at a price below their domestic market price. This all leads to the poor countries not only falling behind, but as Professor Paul Collier of Oxford University put it "they are falling apart".[3]

The use of monopoly theory

Economists are interested in allocating our scarce resources in as efficient a way as possible. Firms which have characteristics of a monopoly need to be aware of their inefficiency and encouraged to improve it independently. If this is not forthcoming then external influence needs to be given. Monopolies can exist and lead to x-efficiency. But monopolies can also provide lower prices due to economies of scale.

Some areas of economic activity are better in the hands of the state which gives it significant market power. Defence, Education and National Health Service are good examples. If education was in the private sector it would be more difficult to ensure compulsory

State education has dominance in the market place.

3. P. Collier, *The Bottom Line*, OUP (2007).

education up to 16 years of age. Private Health would also mean some individuals would opt out. This leads to dangers to the population from a variety of health risks of epidemic proportions.

The government can control a private sector monopoly through legislation and supportive agencies such as the Office of Fair Trading, the Competition Commission, Ofgem and Ofcom. These help with checking and balancing the behaviour of dominant firms.

The limitations of the monopoly model

The monopoly model has several assumptions. Each of these can be debated. It is less realistic in the sense that some sectors dominated by a single firm do not automatically have total power over all customers, only those customers who let themselves get abused. It is also less realistic in its assumption that some firms with a 25% share of a market do not have the necessary power to be abusive over their customers. However in most cases there is often an alternative for most customers. Furthermore, can an incumbent firm really know what the potential competition is when it does not exist? The following quote suggests that power is moving from the large dominant firms back to the market. Even when a monopoly exists it will have to exercise its decision choices with greater care.

> **Power has at last returned to the people, back where it belongs. We, the people of the sixties, were right.**
>
> K. Roberts, CEO of Saatchi & Saatchi, speech at HSM's World Business Forum in Milan, 24 October 2007 at www.saatchikevin.com.

Summary of key points

- **The theory of monopoly helps depict reality and offers economic analysis on market dominance and what level of intervention may be required.**
- **Some industrial sectors are more prone to monopoly than others – some utility industries are more efficient under a monopoly but need to be regulated closely.**

Questions for discussion

1. What are the assumptions concerning a monopoly?
2. Explain what economists mean by the concentration ratio.
3. Explain what the Competition Commission does and how it works.
4. Draw a monopoly diagram to show the following points:
   a. Monopoly price; b. Monopoly output; c. Monopoly profit; d. Efficient productive output; e. Allocative Efficiency output and price; f. Deadweight loss from a monopoly; g. Maximum revenue.
5. Complete the following table:

Assumptions in Monopoly Theory	Examples of businesses which match these

6. How might the theory of monopoly be applied to the housing market?
7. To what extent is Microsoft not a monopoly?
8. To what extent could a local petrol station be a monopoly?
9. Using an appropriate example discuss the extent to which competition policy achieves its objective.

Useful web sites

www.tutor2u.net
http://www.competition-commission.org.uk/
http://ec.europa.eu/comm/competition/index_en.html
http://www.wto.org/english/info_e/search_results_e.asp?SearchItem=monopoly%20power
http://www.tpmcafe.com/story/2006/1/31/92530/4741
http://www.thisnation.com/question/027.html
http://news.bbc.co.uk/1/hi/business/4352160.stm
http://www.bized.co.uk/educators/he/pearson/models/monopoly.ppt#319,3,

TAKING IT FURTHER

with Chief Examiner,
Robert Nutter

1. Investigate the reasons why British Airports Authority is being investigated by the Competition Commission and examine the current progress of their investigation.

   www.baa.com
   www.competition-commission.org.uk/inquiries/ref2007/airports/index.htm

2. Research the long running dispute between the European Competition Commission and Microsoft over its Windows operating system.

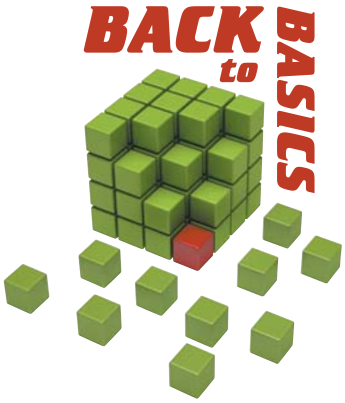
   http://news.bbc.co.uk
   http://ec.europa.eu/competition/index_en.html

3. The European Competition Commission has prevented BSkyB from maintaining its monopoly over the broadcasting of live Premier League games giving Setanta Sports a stake in the market.

   Investigate how the Commission reduced the monopoly power of BSkyB and allowed in a new entrant.

   http://news.bbc.co.uk

What is the Economic Meaning of Investment?



Rachel Cole, teacher at Cheltenham Ladies' College and a Principal Examiner, identifies some key concepts relating to investment expenditure.

Economics is really a study of everyday life using common sense. Most people can have a good go at the subject if they like thinking and keep up with the news. However there is one topic which the non-student will get wrong every time, and sad to say, many A-level students get wrong too. Find someone who doesn't know much Economics and ask them this question:

> *"What happens to investment when the interest rate falls?"*

I tried it on two non-students today at lunch and they both thought that investment would fall. The logic in both cases went something like this:

> *If interest is the amount you get on your investment, then if interest rates go down you get less for your investment, so people don't want to invest so much.*

This is completely the wrong answer. If interest rates fall, that is, the cost of *borrowing money* falls, then people are more likely to invest because investment is *an increase in the capital stock*, an action which either involves borrowing money or not spending money on something else (in which case the opportunity cost is the money that would be gained if the money were *saved*). Investment can also be defined as an increase in **human capital**, where resources are used to increase the skills and abilities of the current or future workforce. You taking time to read this is an investment.

Not the same as saving

Saving means that money is taken out of the circular flow of income and spending in the economy. If the savings ratio goes up then people are being more cautious and not spending as much as usual. So some money is put aside for another time. True, much of this money will get back into the economy as investment, if the money is saved in the bank and the banking system then lends the money to a firm which increases its capital stock, for example by buying a new machine. But the process of saving in itself slows the economy down, and this fall in spending is made even more effective thanks to the **multiplier effect**. The multiplier is the knock-on effect on spending when there is a change in any injections such as investment, or leakages such as saving. It occurs because spending becomes other people's income, which is then spent

Like 'jam tomorrow', investment has the promise of good things to come.

and becomes income and so on. So a change in saving or investment will have a larger effect on the national income than the initial change. Saving will decrease it, other things being equal, and investment will increase it. If interest rates fall as they are beginning to do now in the UK, we would expect savings to fall and investment to rise.

Jam tomorrow

Investment is generally seen to be a good thing in an economy. Likened to 'jam tomorrow', investment has the promise of good things to come in the future, paid for by cutting back today.[1] Investment brings good things (jam) in the future because it means that the economy will be able to produce more output from the same amount of inputs. We show this by shifting out the **Production Possibility Frontier**. It means that the economy can make more of everything in the long run, when the economy can produce more without anyone being made worse off.

The relationship between interest rates and the level of investment

If the monetary authorities such as the Monetary Policy Committee of the Bank of England (MPC) and the Federal Reserve (Fed) in the US cut interest rates then they are trying to encourage people to spend more and businesses to invest more.

Imagine you are a money-lending firm with a large stash of money that you do not need for a while. There are two things you could do with it: put it in the money markets by buying financial assets such as bonds, or put it into businesses by lending it to firms so that they can expand. The latter is investment as we understand it, and it will increase if there are not many profitable opportunities in the bond market. The process is as follows:

When interest rates fall then people with money to invest won't be able to find so many good opportunities in the money markets, so they are likely to consider investment in businesses. True this might be risky, but there's a cushion of interest to account for this. So as interest rates fall, investment options which had seemed not really worth the risk now become competitive, and more money will be available for investment.

Of course this is not always true – not everything in a study of everyday life is always going to be true. In the recent **credit crunch** in the money markets, there has been little money available for any investment despite the fact that the MPC and the Fed have started cutting rates.

So investment depends on interest rates, not just in the domestic economy but worldwide. It also depends on levels of spending and saving, confidence levels, and expectations of macro-economic indicators such as national income and unemployment. But this is really only considering domestic investment. There is another whole area of economics concerned with investment, and this involves the movement of funds between countries. The first type, **Foreign Direct Investment** (FDI), is investment in the sense of increasing capital stock as discussed so far. The second type is just **speculative flows** of money (hot money), but the effect on the economy can look a lot like investment and distort the effects we would otherwise expect when there are changes in the money markets.

Investment abroad: FDI and hot money

There are two main types of international investment, and both have a different response when interest rates change. The key thing is not to blur the two, since a cut in interest rates can make FDI rise but hot money decrease.

Foreign Direct Investment is the

1. The phrase 'jam tomorrow' is borrowed from Lewis Carroll's *Through the Looking Glass*, written long ago in 1871, in which the White Queen offers Alice 'jam tomorrow' which never comes because it's always today. However, unlike the White Queen's offer, the phrase is now taken to mean the promise of good times ahead in return for a little austerity in the meantime.

international movement of funds that occurs when multinational firms decide to increase capital stock in another country or purchase a company in another country. You should never make a bold assumption about what will happen to FDI when interest rates change. There are strong cases on both sides of the argument here.

If interest rates fall in the UK this might attract some FDI, the main reason being that a fall in interest rates tends to make the currency fall in value, and therefore it will be cheaper for companies abroad to invest in the UK. Also with a lower exchange rate, FDI might increase because it will make the price of any exported goods cheaper – important in an EU context for example. There are other reasons why a fall in interest rates might increase FDI: it might be that the foreign firm will want to use UK capital markets to obtain pounds, and in this case borrowing will be cheaper. The cut in rates is a sign that aggregate demand is about to increase, so a firm looking to increase sales in the UK will find it is a growing market.

However it is not at all certain that a cut in interest rates increases FDI: first, cuts in rates are sometimes a sign that things are going wrong in the economy, for example there might be a recession on its way; secondly, the fall in the currency is likely to mean that the value of the investment in pounds is going to fall, and thirdly, falls in UK interest rates are unlikely to affect FDI as the borrowing is likely to be sourced from local money markets where the information about risks of the borrower are better understood. But while recognising these aspects overall *a fall in interest rates is generally thought to encourage FDI*.

Hot money (or foreign portfolio investment) is the movement of funds from one country to another, as speculators seek increased exchange rates, relatively high interest rates or an increase in share prices. It is clear that a decrease in the UK interest rates is likely to decrease the amount of hot money buying into sterling, although the current MPC rate of 5.5% is still higher than the Fed rate of 4.75% and the ECB rate of 5%. So in the case of hot money we can be more confident and state that, *a fall in interest rates will cause a fall in hot money 'investment'*.

Just remember two main things. Investment is not the same as saving, and the effect of interest changes on investment depends on the type of investment that you are considering. Invest a little time over lunch and ask your friends what they think.

Key terms

- **Circular flow of income** – a model of the economy which shows spending and incomes, and the interrelationship.
- **Credit crunch** – a sudden reduction in the ability to gain loans to finance borrowing, as lenders lose their nerve in a tight money market. The effects of the tight borrowing make investment more difficult and interest rates in commercial markets tend to rise.
- **Foreign Direct Investment** (FDI) – this is the international movement of funds that occurs when multinational firms decide to increase their capital stock in another country or purchase a company in another country.
- **Hot money** (or foreign portfolio investment) is the movement of funds from one country to another, as speculators seek increased exchange rates, relatively high interest rates or an increase in share prices.
- **Human capital** – the skills and abilities of the labour force.
- **Injections** – investment, government spending and exports: these cause money to enter the circular flow.
- **Leakages** – savings, tax and imports: these cause money to leave the circular flow.
- **Interest rate** – the cost of borrowing money, or the return from saving. It can be seen as the price of using money, and because the various uses have different levels of risk and time periods, the prices vary. So there are many interest rates, but the most commonly used one in economics is the rate set by the MPC.
- **Investment** – in economics, it is an increase in the capital stock, or build-up of assets. In accountancy terms if stocks of goods are unsold from one year to another they appear as investment, but their effects on the economy are to slow it down rather than the building up sense that the economics investment implies.
- **Monetary Policy Committee of the Bank of England** (MPC) – a group of nine people which meets at least once a month to set the rate at which banks borrow from the Bank of England in a crisis (such as Northern Rock in the autumn of 2007).
- **Federal Reserve** (Fed) – the US decision maker of interest rates.
- **European Central Bank** – the euro-area decision makers of interest rates.
- **Multiplier** – the amount by which a change in an injection such as investment impacts upon national income.
- **Savings** – the amount of income that is not immediately spent on consumer goods and services, tax or imports.

Questions for discussion

1. What is the difference between saving and investment? Is there a causal relationship between the two?
2. When interest rates fall, investment increases. Is this always true?
3. The Fed and ECB interest rates are lower than the MPC rate. Why doesn't this cause any spare hot money in the world to choose the UK? And FDI to leave?
4. Investment is a component of aggregate demand but changes in aggregate demand also cause changes in investment. This rather circular situation means that changes in investment cause changes in investment – part of what's known as the **accelerator effect**. Is this going to have the same effect as the multiplier? Or does it have a different effect when investment starts to slow down but spending is still rising?

Is Economic Growth Always Beneficial?

***Simon Harrison**, D'Overbroeck's College, Oxford, examines the desirability of a continual rise in the level of national income.*

Exam Board	AS	Unit	A2	Unit
AQA	✓	2(11.1) 3(12.2)	✓	6 (15.1)
Edexcel	✓	3		
OCR	✓	2883 (5.3.1)	✓	2887 (5.7.1)
WEJC	✓	3(A)	✓	5(C)
CCEA			✓	5
Int. Bacc.	Standard 3.2			

Figure 1: Increase use of capacity

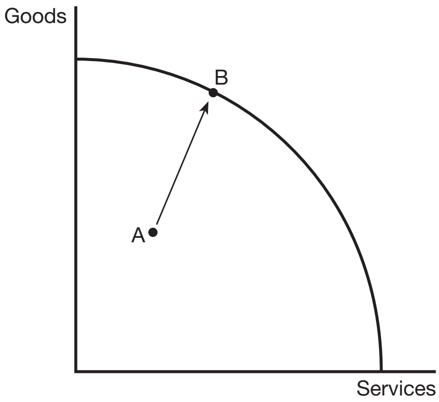


Figure 2: Unused potential capacity

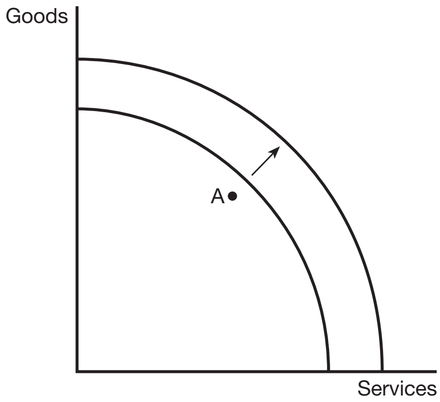
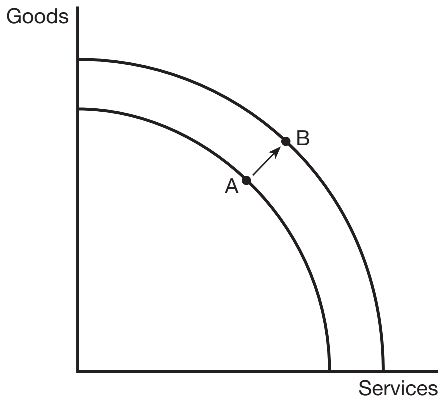


Figure 3: Dynamic economic growth



Economic growth has been the rallying call for politicians across the globe for many years. In the UK, the relatively slow rate of economic growth in the post-WW2 period has been the subject of a huge amount of study, and a whole array of policy initiatives have stemmed from this. The UK is not alone in the quest for growth – reforms in China, India and around the world have been introduced with the aim of raising the rate of economic growth as a primary goal.

What is growth?

At its heart, economic growth is very simple – it is the percentage increase in national output over a given time period (generally a year). This is often termed *actual growth*, and when growth figures are announced, it is this type of growth which is being measured. Perhaps more significant, however, is *potential growth*, reflecting the growth in the economy's underlying capacity to produce – growth in potential output. In the long run, an economy's ability to grow is limited by this potential output. The difference can be illustrated using production possibility frontiers:

Figure 1 shows actual growth without potential growth – the economy at point A is well below capacity, and an increase in aggregate demand carries it to point B – the existing capacity is being better used. Figure 2 shows potential growth – the economy's capacity to produce more has expanded, although in the case given, the potential has not been used because the economy has remained at point A. Figure 3 shows actual and potential growth together. There is an outward movement of the production frontier and the economy fully uses the enhanced productive capacity.

Hence a government wanting to achieve higher economic growth will need to ensure firstly that the economy's potential is increased, and secondly to ensure (if necessary) that this increase in potential is used.

Why is economic growth wanted?

A higher rate of economic growth can deliver a number of important benefits to an economy.

Firstly, with a higher level of national output (and hence income) with a given population, GDP per capita will be correspondingly higher meaning consumption possibilities are higher. This should lead to higher living standards both from the simple point that more utility will be received, but also from the form and nature of consumption. Improved diet, healthcare and engineering will lead to a dramatic increase in the quality of life – 100 years ago, life expectancy in the UK was only 47 years[1] compared with 79 years today,[2] and most of this increase has been made possible by the increased consumption and investment possibilities economic growth allows. The higher profits that firms can generate as a result of a richer population will allow greater investment, leading to the development of a much greater range of goods and services for consumers – automatic washing machines, dishwashers and personal computers are all the products of (and in the end contributors to) economic growth.

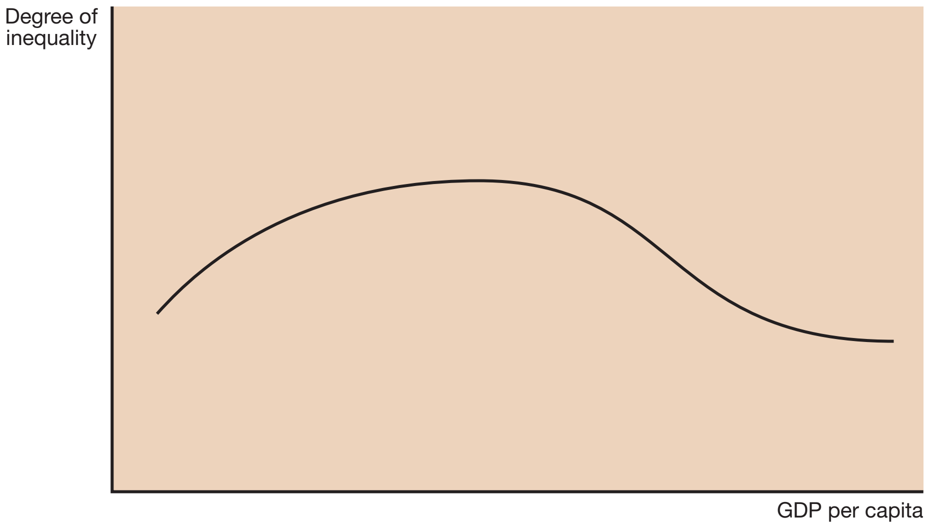
Similarly, with a given population, increased GDP implies higher labour productivity, which leads to rising hourly wage rates. This has allowed a trade-off between income and leisure, with the average length of a working week in the UK falling from over 60 hours per week in 1850[3] to around 40 today.[4] This reduction in the number of hours at work implies a higher standard of living.

Looking at it another way, the African country of Burundi has had a population growth rate of 2.5% since 1975, but economic growth has averaged only 1.5% – GDP per capita is therefore falling by 1% per year, meaning that the average citizen of Burundi is now poorer than they were in 1975 because growth of national income has not kept up with

China's economy has been growing at a rate of 9.7%.

1. ONS *Dataset*, ST29701.
2. UN *Human Development Report*, 2007/08.
3. *Technological Forecasting and Social Change* 50, 113-131 (1995) Ausubel and Grübler.
4. *Social Trends* 33.

Figure 4: The Kuznets inverted u-shaped curve



the growth of the population.[5] By contrast, the growth of China's economy at a rate of 9.7% since Deng Xiaoping's economic reforms began in 1978 has led GDP per capita at current prices to rise from 379 Renmimbi in 1978 to over 14,000 by 2005. Even allowing for inflation, this is a very significant increase, resulting in a much higher standard of living for many Chinese citizens.

A rising level of national income also has implications for government finances, which will also impact on living standards.[6] In the UK, total tax revenue has risen from £272bn in 1995 to £553bn last year. Even allowing for the fact that prices rose by around 25% over this period (measured by the CPI)[7] this still equates to a huge increase in government spending power. Some of this increase is also linked to an increase in tax yield from 34.7% in 1995 to 37.6% in 2006, but a significant proportion of the increase is simply linked to a higher tax base – a higher GDP from which taxes are taken. This has allowed the government to increase expenditure on merit goods quite significantly, with spending on health, for example, rising from £33bn in 1995 to £104bn last year, which should lead to a higher quality of life. Likewise in Australia, economic growth averaging 3.6% over the last decade has contributed to a substantial reduction in national debt. The Australian government has used the extra tax revenue which growth has delivered to reduce the government's net debt from 26.5% of GDP in 1995 to zero today.[8] Thus economic growth allows greater flexibility for governments in terms of policy.

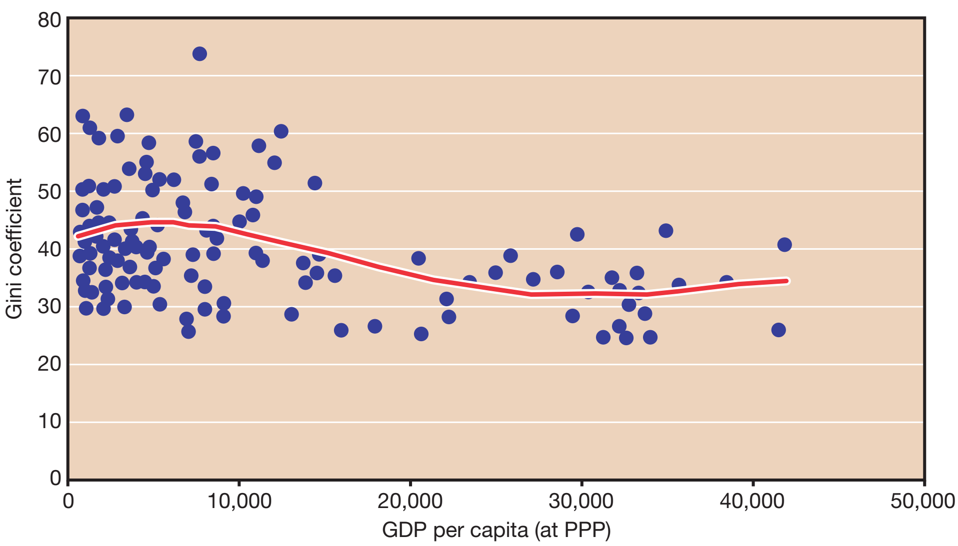
Thirdly, some have argued that an increase in economic growth may allow the government to redistribute income from rich to poor. A richer society will better be able to afford a welfare state, for example. Thus some economists argue that economic growth should lead to a narrowing of income inequalities. Others however argue that the benefits of economic growth may well not be evenly distributed – economies often grow as a result of successful investment by businesses, and thus the benefits of growth may well accrue primarily to the owners of those businesses. Whilst there may be some 'trickle-down' effects, the gap between rich and poor may actually widen. Paul Krugman[9] showed that over the 1980s, not only did the gap between rich and poor widen, but that the incomes of the poorest 20% of the US were lower at the end of the 1980s than at the beginning, in spite of the strong growth the US economy experienced over most of the decade. Many years ago Simon Kuznets suggested a relationship in which in the early stages of economic growth inequality would rise, but that eventually inequalities would then narrow in part because of a growing level of employment and in part because governments have more tax revenue to be able to enact policies which would reduce income inequality.[10] Hence the relationship between GDP per capita and inequality postulated by Kuznets was as shown in Figure 4. This relationship became known as the Kuznets curve.

Applying this concept to current national income data across countries and plotting a measure of inequality such as the Gini ratio (based on Lorenz curve analysis, where a value of zero indicates complete equality and a value of 100 complete inequality) against GDP per capita for the countries for which data is available, we can see whether the Kuznets proposition of 1955 is indeed valid.

Figure 5 suggests that high income countries generally do avoid the highest levels of inequality, but that income distribution in a high income society isn't necessarily more even than that in a low income country.

Thus economic growth appears to have a number of benefits for society, although these benefits will not automatically be delivered to everyone. Much depends on the role of the

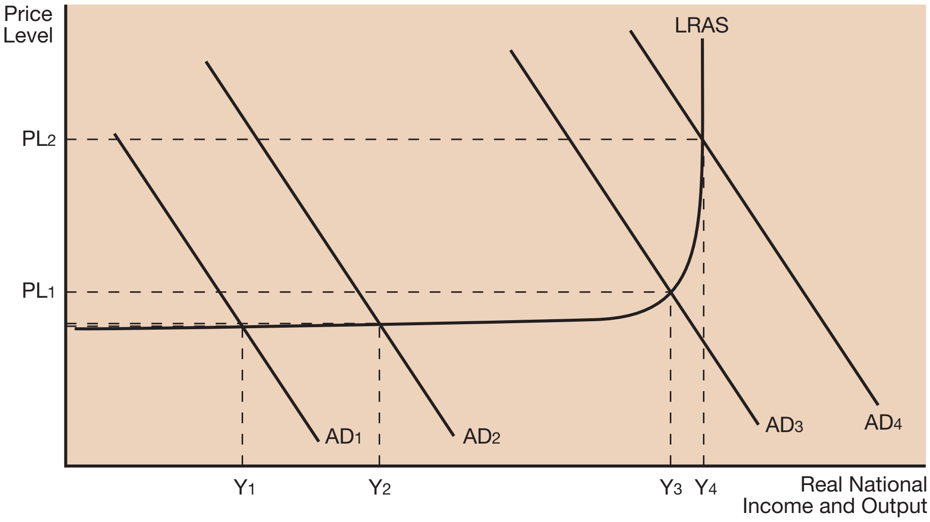
Figure 5: GDP per capita and Gini coefficient data



Source: UN *Human Development Report* 2007

5. UN *Human Development Report*, 2007/08.
6. HM Treasury.
7. *OECD Economic Outlook*, No. 82.
8. *OECD Economic Outlook*, No. 82.
9. P. Krugman, *The Return of Depression Economics*, Penguin Books (2000).
10. S. Kuznets, 'Economic Growth and Income Inequality', *American Economic Review*, 1955.

Figure 6: Economic growth and inflation



sharp increase in productivity that the industrial revolution had brought (an increase in potential growth) had in the short run created significant degrees of hardship through higher unemployment.

In a world of perfect factor markets, such side effects of growth can be ignored – workers smoothly redeploy elsewhere in the economy in the long run. But in the real world, factor markets are not perfect – periods of rapid potential growth may therefore result in sustained negative output gaps, resulting in widening income inequalities in the short run.

government as to the extent to which the benefits of a continued rise in national income are evenly distributed.

Short run growth and output gaps

The extent to which economic growth is likely to be desirable in the short run may depend on the state of the economy. A rapid rise in aggregate demand may be helpful in an economy with a large negative output gap, helping to close the gap between actual and potential output, but would be inflationary in an economy in which actual and potential output were more closely matched. In 1994, for example, the Irish Republic had unemployment of 14.3%. Clearly a significant negative output gap existed. Over the next 7 years the Irish economy grew at an average rate of 8.8%, which is extremely high for a developed economy. The result was a sharp fall in unemployment (to 4% by 2001) in Ireland, but this rate of growth proved unsustainable – shortages began to appear in factor markets, and inflation began to rise, reaching 5.3% by 2000.[11]

China's rapid economic growth of the last 25 years is also now being accompanied by inflation. Inside the Chinese economy, the demand for land is beginning to drive up food prices, and the dramatic increase in the size of the Chinese economy is driving up global commodity prices, so that from a situation of near price stability four or five years ago, inflation hit 6.9% in November 2007.[12]

Using Keynesian AD/AS analysis in Figure 6, an economy at Y1 will benefit significantly from rapid actual growth (AD1 to AD2), whereas an economy closer to its potential output, at Y3, will tend not to (AD3 to AD4 resulting in inflation – PL1 to PL2) unless LRAS shifts markedly.

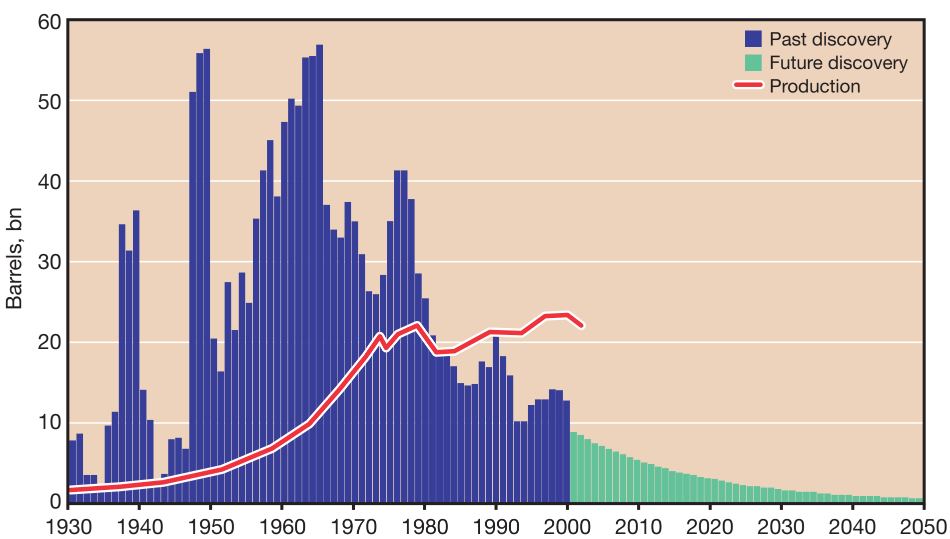
A sharp increase in potential growth may also create disruptive effects. The UK's supply side reforms in the 1980s created a large number of unemployed workers whose skills were no longer relevant. These workers became unemployed for long periods, or forced to accept jobs at much lower pay than had previously been the case, widening income inequalities. Likewise, in the early parts of the 19th century, the disruptive effects of growth through mechanisation were so severe that groups of workers rallied by William Ludd (the 'Luddites') took to burning down mills and factories because the

The sustainability of economic growth

Even if actual and potential growth are balanced, there may still be drawbacks from growth. One obvious point is the short run opportunity cost of growth. To create potential growth, it will generally be necessary to invest in new capital goods or in human capital (training). This means that living standards may be lower in the short run as a result of the consumption forgone. China, for example, invests over 40% of its GDP (compared with 17% in the UK)[13] a figure that has risen steadily from 25% of GDP in 1990.[14] Hence 40% of Chinese GDP is unavailable to citizens for consumption.

Another drawback is exemplified by advocates of 'peak oil' theory – this is the idea that there are only a certain amount of non-renewable natural resources on the planet, and that more rapid economic growth will cause them to be used up more quickly. 'Peak Oil' hypothesises that we have already used more than half the oil that there is to be

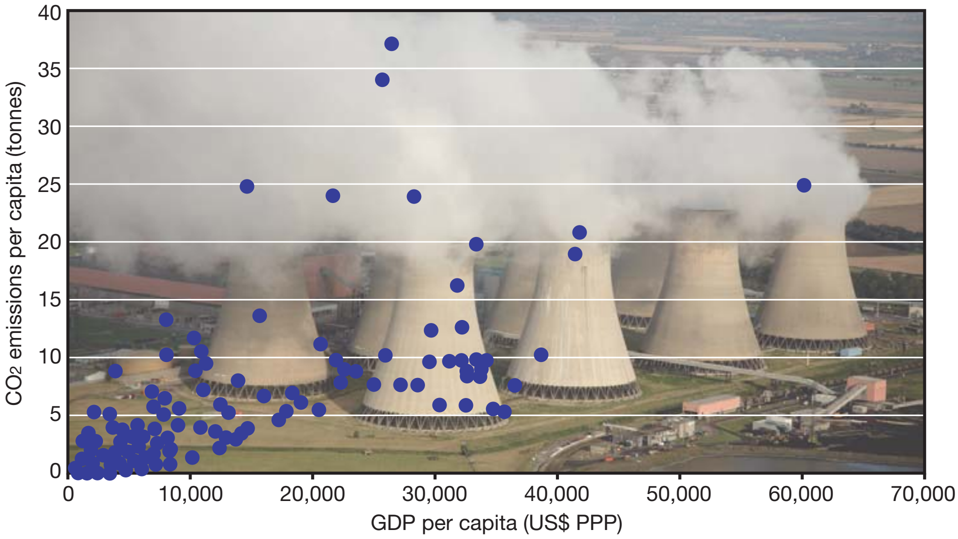
Figure 7: The growing gap



Source: www.hubbertpeak.com

11. *OECD Economic Outlook*, No. 82.
12. Chinese Statistics Bureau.
13. HM Treasury, *Pocket Databank*, November 2006.
14. Australian Treasury, Economic round-up spring 2006.

Figure 8: Per capita GDP and CO_2 emissions



Source: Plotted by the author, data from UN *Human Development Report* 2007

found, and that increasingly rapid global growth is using what remains more and more quickly, therefore culminating in a sudden exhaustion of oil supplies and world-wide catastrophe given our oil dependency.

Figure 7 shows a recent analysis by Dr Colin Campbell, a leading advocate of 'peak oil' theory. The implication of his analysis is that discoveries of oil have been declining steadily since the 1980s, but that oil production (to meet growing global demand) has been steadily increasing. Since the mid-1980s current production has exceeded new discoveries, meaning that we are steadily eating into our oil stocks. With the rising growth of both India and China, with a third of the world's population between them, 'peak oil' theorists argue that the point of oil depletion is nearing quickly, and that more rapid economic growth is only exacerbating the situation.

The counter-argument is that oil shortages will lead to greater investment in alternative fuel sources and more efficient ways of extracting and using oil, and that economic growth, by creating profitable and innovative organisations, will make it more likely that the crisis will be averted rather than less. Nevertheless, the recent surge in oil prices to over $100 per barrel, together with record price highs for other commodities, shows that more rapid global growth is putting pressure on finite resources.

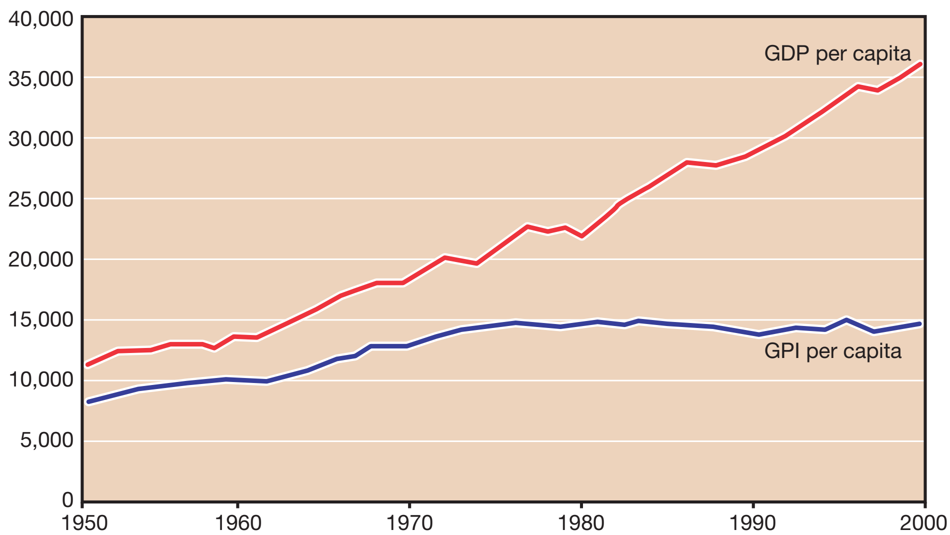
A linked analysis is the problem of **external costs**. One argument runs that since almost all production creates external costs, economic growth implies more production, and hence more external costs. Thus, the benefits of growth may be over-stated – growth looks only at measured GDP, but if there are significant external costs associated with growth (and these may also include rising crime if growth creates rising income inequalities) then more rapid economic growth may not be so desirable after all.

Looking at China as the fastest growing economy in the world over the last 25 years, the impacts of that growth on the environment are causing concern. Recent reports have suggested, for example, that large parts of the Yangtze have become irreversibly polluted, with over 400 miles of the river in a 'critical condition' according to Chinese state media. The pollution is a direct result of the economic boom, and is serious because the Yangtze supplies water to 200 cities and accounts for around a third of China's fresh water supplies.[15] Similarly, one of China's largest lakes (Lake Tai) had to be disconnected from the water network last year as a result of build up of blue-green algae, again directly linked to the build up of manufacturing industry on the banks.[16]

In both cases, however, the government has announced that it is to invest substantial amounts of money into resolving the problems, reflecting the suggestion by some economists that there may be a form of environmental Kuznets curve (EKC), in which pollution worsens in the early stages of growth, but as an economy becomes richer, it can afford to tackle the problem. In recent years, CO_2 emissions per head have fallen in many industrialised countries. In the UK they fell from 10 tonnes per capita to 9.8 between 1990 and 2004 for example, and in Germany and France, from 12.3 to 9.8 and 6.4 to 6 tonnes respectively.[17]

There is substantial debate about the extent to which the EKC really exists. Research suggests that local pollutants such as airborne particles, nitrogen and sulphur dioxide do seem to fit the pattern – these emissions have local effects and therefore an economy has an incentive to take action. In London, for example, following the great smog of 1952 in which somewhere between 4,000 and 12,000 people died, the 1956 clean air act was passed which contributed to a sharp decrease in total smoke emissions. Critics of the EKZ point out that globally emissions are not in fact reduced, because wealthy countries

Figure 9: Gross production vs. genuine progress, 1950-2004



Source: http://www.rprogress.org/sustainability_indicators/genuine_progress_indicator.htm

15. BBC online: 16 April 2007: Yangtze pollution 'irreversible'.
16. BBC Online: 27 October 2007: China to clean up polluted lake.
17. UN *Human Development Report* 2007/08.

simply outsource high polluting industries to the developing world.

In addition, the evidence is less clear on pollutants which have a global, rather than country specific, impact (such as CO_2) – the free rider problem means there is less incentive for countries to act to reduce emissions. If we plot GDP per capita against CO_2 per capita as in Figure 8 we see that there is not a Kuznets-type relationship apparent. Although rich countries have reduced emissions in recent years, they are still essentially the biggest polluters. Hence there does seem to be a link between economic growth and external costs, meaning that growth may not be as beneficial as might have been thought.

Various attempts to quantify the costs of economic growth have been made, to see whether or not growth really is beneficial. One example is the Genuine Progress Index, or GPI, produced by an organisation known as Redefining Progress. This index attempts to quantify issues such as crime and pollution, the value of leisure time and attempts to adjust for income equality.

On this basis, according to Redefining Progress, although real GDP per capita in the US has increased steadily since 1950, once these other factors are taken into account, the average American is no better off today than they were in the mid-1970s as shown in Figure 9.

Conclusion

Economic growth has clearly been responsible for significant improvements in the living standards of developed economies, and less developed economies can only hope to raise the quality of life of their citizens through sustained and substantial growth. To this extent, growth is clearly beneficial. Nevertheless, *how* beneficial growth will be depends on a variety of factors – the role of the state in providing social capital and controlling income inequalities, the degree to which growth is sustainable and whether external costs can be kept under control. There is perhaps a debate as to the extent to which growth may eventually run into diminishing returns in developed economies and whether the benefits of future growth will be outweighed by the costs, particularly external costs, which will be created. Even so, there can be little doubt that most of us would far prefer to live in the UK of 2008 than the UK of 1908 – to this extent economic growth is clearly beneficial.

Questions for discussion

1. Is the GPI a better measure of welfare and development than GDP per capita?
2. Some environmental groups argue that developed economies should aim for zero growth – do you agree?
3. Why has it been so difficult to agree on global targets for carbon dioxide emissions?
4. To what extent should we worry about the 'peak oil' phenomenon?

Summary of key points

- **Economic growth is measured by the change in national output each year and the main benefits are likely to be: higher living standards as consumption possibilities expand, greater tax revenue for the government and possibly an increase in income equality as society can afford a welfare state.**
- **In the short-run, however, divergences between actual and potential growth may create issues. Excessively rapid actual growth may be inflationary and rapid productivity gains may create short term job losses.**
- **In the longer run growth may not be wholly beneficial because of the opportunity cost of the investment in terms of current consumption, the depletion of non-renewable natural resources and the creation of negative externalities in the form of pollution and emissions.**

Taking it further

with Chief Examiner,
Robert Nutter

1. Investigate the views on economic growth expressed by Walt Rostow in his book *The Stages of Economic Growth*.
2. Research the key assumptions of the
   (i) endogenous growth model; (ii) neo-classical growth model.
   http://en.wikipedia.org http://economics.about.com
3. Investigate how The Economist Intelligence Unit (EIU) draws up its 'quality of life index'.

Economist.com rankings

Quality-of-life index, selected countries, 2005

Best Rank		*Score	Worst Rank		*Score
1	Ireland	8.333	**111**	Zimbabwe	3.892
2	Switzerland	8.068	**110**	Haiti	4.090
3	Norway	8.051	**109**	Tanzania	4.495
4	Luxembourg	8.015	**108**	Nigeria	4.505
5	Sweden	7.937	**107**	Tajikistan	4.754
6	Australia	7.925	**106**	Uzbekistan	4.767
7	Iceland	7.911	**105**	Russia	4.796
8	Italy	7.810	**104**	Botswana	4.810
9	Denmark	7.796	**103**	Kyrgyz Republic	4.846
10	Spain	7.727	**102**	Turkmenistan	4.870
11	Singapore	7.719	**101**	Uganda	4.879
12	Finland	7.618	**100**	Belarus	4.978
13	United States	7.615	**99**	Moldova	5.009
14	Canada	7.599	**98**	Ukraine	5.032
15	New Zealand	7.436	**97**	Syria	5.052

Source: Economist Intelligence Unit *Scale of 1 to 10, based on ratings for nine factors

Why has the UK recently Experienced both Rising Employment and Unemployment at the Same Time?

The four main labour market elements that have to be considered when answering this question are the number of employed, the number of unemployed, the number who are inactive and the total population.[1] They are all on the *supply* side of the labour market. On the *demand* side of the market are vacancies, where employers have offered work which has not yet been taken up by anyone (demand exceeds supply), and jobs, which are filled vacancies; the description of the job tells us the work for which they have been demanded.

***Allan Hodge**, Head of Economics, Cheltenham Ladies' College, considers an apparent paradox in the UK labour market.*

Exam Board	AS	Unit	A2	Unit
AQA	✓	2	✓	6(15.2)
Edexcel	✓	3	✓	6
OCR	✓	2883 (5.3.1)	✓	2887 (5.7.1)
WEJC	✓	3(A)	✓	5(A)
CCEA	✓	2		
Int. Bacc.	Standard 3.5			

1. The total population, and all other figures quoted here apart from vacancies, relate to the population of working age (i.e those aged 16-59 for women and 16-64 for men).

There are several reasons why employment may be rising. Generally, there must be extra demand for labour. Without extra demand, an additional person actively seeking work would be classified as unemployed. The exception to the necessity of there being extra demand would be if, for example, a full-time job for one person became two part-time jobs; here, numbers employed would have 'doubled' without an increase in demand for labour. However, putting this point aside, and given that sufficient demand exists then we can state that a rise in population would boost employment, provided the skills, qualifications and interests of those offering themselves match rising job vacancies. Employment could also be boosted by people ceasing to be unemployed or inactive, and taking up job vacancies.

These reasons are represented in Figure 1. This figure provides us with an insight into the causes of higher employment. A rise in the level of unemployment might be caused by, firstly, a rise in the total population *not* matched by a rise in vacancies or a rise in inactivity. Secondly, unemployment could rise when there is a fall in employment and thirdly, when there is a fall in inactivity. Figure 2 shows these potential causes at a higher level of unemployment.

These two figures make very clear that falling inactivity can contribute to either rising employment *or* unemployment. Hence it is vital at this stage to distinguish inactivity from unemployment. The *unemployed*, under the ILO survey method of calculating the term, are either:

- "without a job, want a job, have actively sought work in the last four weeks and are available to start work in the next two weeks"; or
- "out of work, have found a job and are waiting to start it in the next two weeks";

while the inactive are those…

- "who want a job but have not been seeking work in the last four weeks,

those who want a job and are seeking work but not available to start, and those who do not want a job”.[2]

Note that there is an important distinction to be made between the numbers of employed and those unemployed who together are part of the *active* population (*even though some of them are not working*), and those who are *inactive*, most of whom are voluntarily unemployed – that is not seeking work at the current wage rate.

The phenomenon of a simultaneous rise in employment and also unemployment is relatively rare in the UK. Employment, measured as numbers employed (rather than rate), has shown a steady upward trend over many years that continues to the present day. Unemployment, again measured in terms of persons unemployed, showed a steep decline from the early 1990s until 2001, thereafter falling more slowly. However, from July 2005 until July 2006 the unemployment figures rose by some 300,000, before settling back to a gentle decline again. Figures 3 and 4 show the data for the period since 2005.

So the question is why did both employment and unemployment rise from mid-2005 to mid-2006? The answers must be found in a study of changes in the total population size, vacancies and the inactive population. Figure 5 shows the relative changes over the period when both employment and unemployment were rising.

It can be seen from the figure that the population of working age rose by 284,000 over this period. Increased net immigration (all ages) was a significant factor in this rise, at 204,000 in 2005 and 191,000 in 2006. A major boost to immigration came with the accession of the ‘A8’ countries to the EU in May 2004: the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia. The ONS identifies net immigration as the largest contributor to overall population change in the UK in the year to mid-2006 (about 55% of the total). Although these migration figures do not distinguish those of working age, in 2005 164,000 immigrants stated that they had a ‘definite job’ in the UK (161,000 in 2006). A further 79,000 and 70,000, respectively, were said to be ‘looking for work’. Immigrants were much more likely than emigrants in both years to have a ‘definite job’ to go to.

2. *Concepts and definitions*, ONS 2006.

Figure 1: Sources of a rise in the level of employment

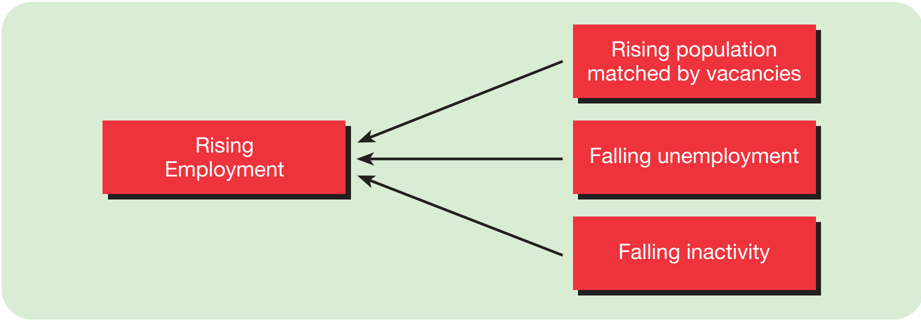


Figure 2: Sources of a rise in the level of unemployment

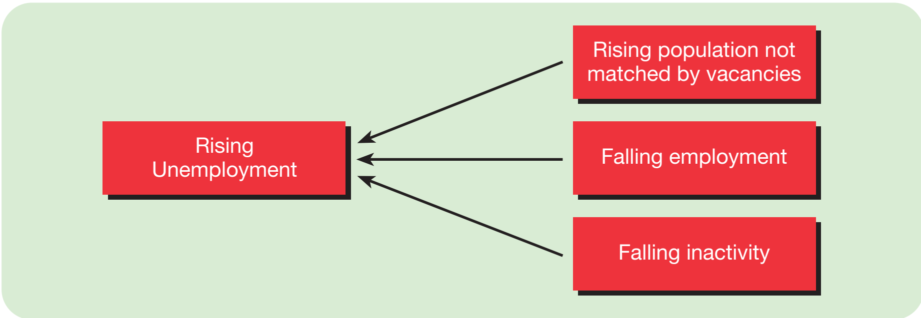
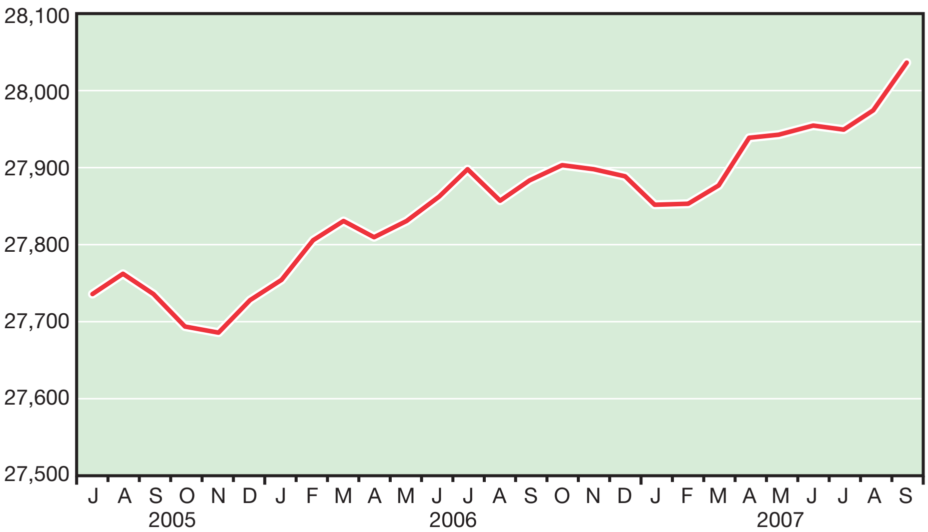
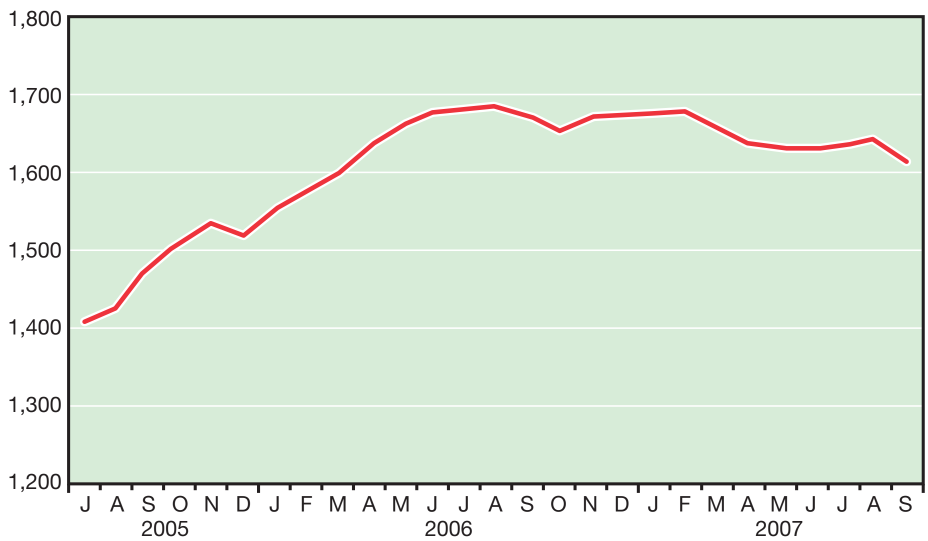


Figure 3: UK total employment (000s)



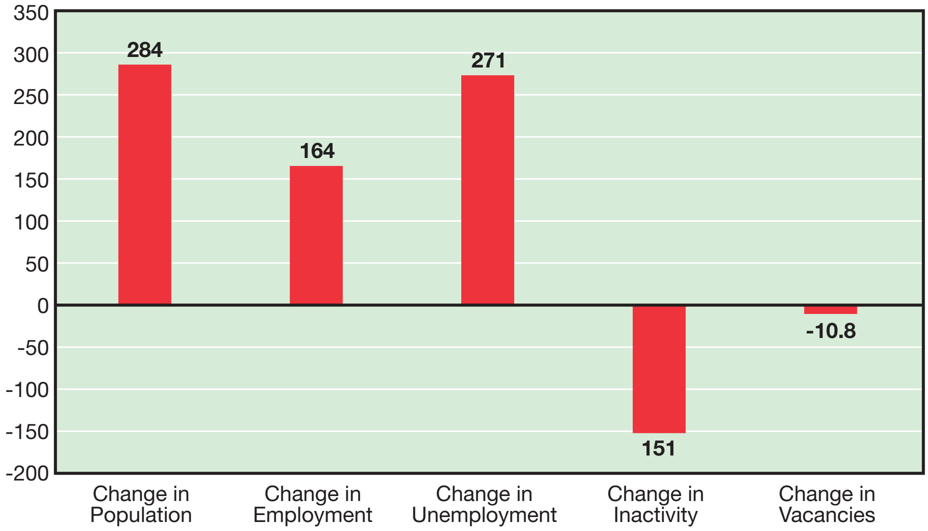
Source: statistics.gov.uk

Figure 4: UK total unemployment measured by the Labour Force Survey (000s)



Source: statistics.gov.uk

Figure 5: UK population of working age data, July 2005 to July 2006 (000s)



Source: statistics.gov.uk

A conclusion can be drawn that immigration provided a significant contribution to the numbers gaining employment. Nevertheless, as Figure 5 makes clear employment over the period rose by 120,000 less than the population of working age. The small but steady fall in the number of vacancies over the year implies reduced opportunities to get into work. The 120,000 without jobs within the rising population joined the net 151,000 who left the ranks of the inactive, and so unemployment rose by their combined total of 271,000. Of course, we are only dealing with totals here and cannot generalise about individuals; there will be immigrants, for example, who joined the inactive population, or some previously inactive who became employed. What is shown is the overall picture.

To summarise:

- Employment rose less than the population of working age.
- Those not in employment would, by definition, be either unemployed or inactive.
- However, the inactive population fell significantly.
- Overall, the unemployment figure rose by the combined totals of those in the rising population not finding employment, and the reduction in inactivity.

How did the 2005-06 situation compare with the previous year and with 2006-07?

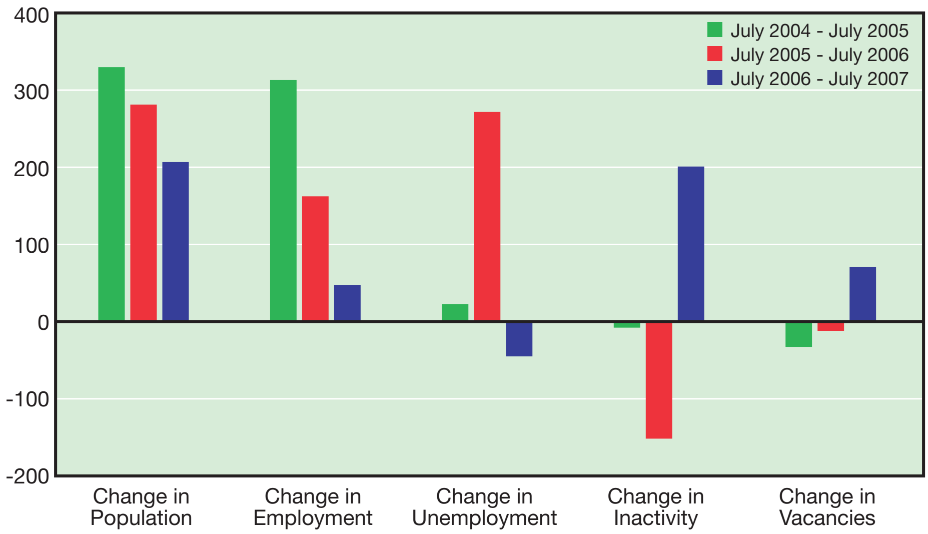
A comparison of changes over the three years July 2004 to July 2007 is seen in Figure 6.

In each of these three years, both the population of working age, and employment, rose less than in the previous year.

Employment and unemployment begin to rise together in 2004-5, and this pattern becomes much more marked in 2005-6, *before they diverged in 2006-7*. Inactivity began to fall in 2004-5, and fell much more in 2005-6, before rising again in 2006-7. The reason may be found in the GDP growth rate: at times of rising growth, more inactive people think it is worthwhile to start looking for work, joining the unemployed or finding a job. Figure 7 shows the quarterly growth rate of GDP for the period.

The GDP growth rate picked up noticeably from the start of 2005 and continued to rise for a year before levelling off. This rise after a period of falling growth coincided with the time of falling inactivity, and when the growth in GDP stopped rising in 2006 inactivity starts to rise again. It is thus a reasonable conclusion to make that the two series are related.

Figure 6: UK population of working age data, 2004 to 2007 (000s)



Source: statistics.gov.uk

Figure 7: UK real quarterly GDP growth, 2004-07

Source: statistics.gov.uk

Questions for discussion

1. Using data from statistics.gov.uk, what has happened to the population of working age, employment, unemployment and inactivity over the most recent year, and why?
2. To what extent do figures for males and females differ when considering the above?
3. Inactivity has a high opportunity cost. What measures has the government taken, and is proposing to take, since 1997 to reduce inactivity?
4. To what extent has the rise in part-time working affected the employment figures in recent years?
5. What is the economic impact of high net immigration?

Summary of key points

- **The population of working age can be sub-divided into three groups: the employed, the unemployed, and the inactive.**
- **A change in employment is not automatically matched by an equal and opposite change in unemployment.**
- **If the population of working age, and/or the inactive population change in size, these will affect both employment and unemployment.**
- **In 2005-6, the population of working age rose, and inactivity fell; together these contributed to rising employment and unemployment.**
- **The population of working age was boosted by high net immigration in this period, and falling inactivity was almost certainly associated with rising GDP growth.**
- **In 2006-7, employment rose but unemployment fell, as inactivity rose sharply again.**

TAKING IT FURTHER

with Chief Examiner,
Robert Nutter

1. In January 2003, the Office of National Statistics (ONS) announced that it had changed the 'official' source of unemployment data from figures based on the Claimant Count to those derived from the Labour Force Survey (LFS). Claimant Count data continues to be published monthly by the ONS to provide additional information about the labour market, but the government prefers the LFS measure as it is in line with criteria established by the International Labour Organisation (ILO) when countries measure unemployment.

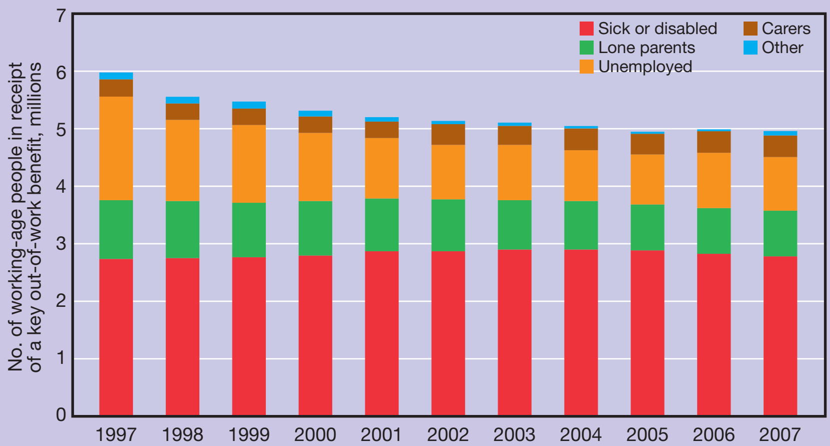
   Investigate the two different ways unemployment is measured in the UK.

   http://www.bankofengland.co.uk/education/targettwopointzero/economy/labour_market.htm
   http://www.statistics.gov.uk

2. Over 2.6 million people of working age claim Incapacity Benefit in the UK.
   (a) Investigate why numbers on Incapacity Benefit have increased significantly in the last 20 years.
   (b) How does the present government plan to reform Incapacity Benefit?

   http://news.bbc.co.uk

The number of working-age claimants of out-of-work benefits has fallen by a fifth over the last decade



Source: Work and Pensions Longitudinal Study, WDP; Great Britain; updated August 2007

3. Research the European Union (EU) employment goals as set out in the Lisbon Agenda in 2000.

   http://www.europarl.europa.eu/facts/4_0_0_en.htm http://en.wikipedia.org.uk
   http://ec.europa.eu/growthandjobs/index_en.htm

4. Why are some economists sceptical of the EU reaching the targets of the Lisbon Agenda by 2010?

   http://www.camecon.com/press_releases/esp.htm

Multiple Choice QUESTION & ANSWER

*In this regular feature Chief Examiner **Robert Nutter** of Watford Girls' Grammar School, looks at AS and A2 questions which in this volume will aim to reflect the order that schools and colleges cover topics from the specifications. There are three AS (1-3) and three A2 (4-6) questions per edition plus explained answers.*

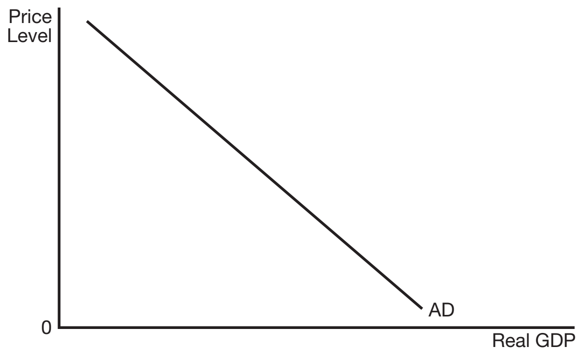
Questions

1. For important sporting events such as the FA Cup Final at Wembley and the Wimbledon singles finals it is likely that seats/tickets will have

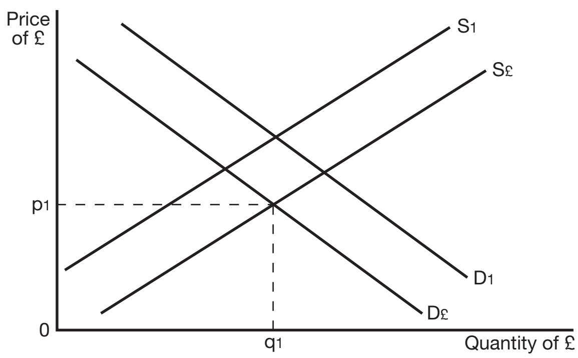
A. high price elasticities of both demand and supply.
B. a high price elasticity of demand and a low price elasticity of supply.
C. a low price elasticity of demand and a price elasticity of supply equal to zero.
D. a zero price elasticity of demand and a price elasticity of supply equal to infinity.

2. The aggregate demand curve slopes downwards to the right for all of the following effects *except one*. The exception is the

A. wealth effect.
B. substitution effect.
C. interest rate effect.
D. exchange rate effect.



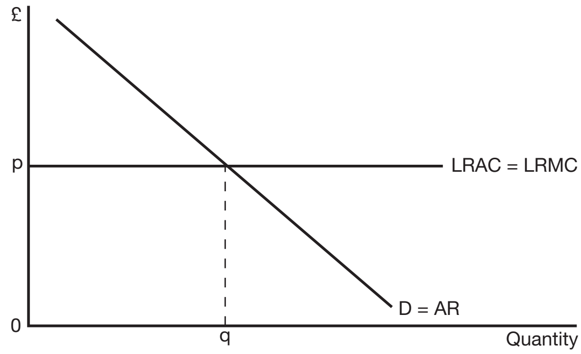
3. The diagram below shows price of pounds against a group of currencies in equilibrium at p_1.



What could have caused the shift in the demand for pounds to D_1 and supply of pounds to S_1?

A. A rise in exports and a fall in imports.
B. A fall in exports and a rise in imports.
C. A rise in exports and a rise in imports.
D. A fall in exports and a fall in imports.

4. The diagram below shows a firm with constant long run marginal costs and average costs. The firm sells its product at price p.



The firm will be able to add the entire consumer surplus to its revenue by engaging in

A. limit pricing.
B. first degree price discrimination.
C. predatory pricing.
D. cost-plus pricing.
E. third degree price discrimination.

5. Each one of the following will shift the position of both the long run and the short run aggregate supply curves *except* an increase in the

A. quantity of labour.
B. level of capital investment.
C. availability of natural resources.
D. expected price level.
E. application of new technology.

6. The table below shows the price elasticities of demand for exports and imports of a certain country which has a fixed exchange rate and a large trade deficit.

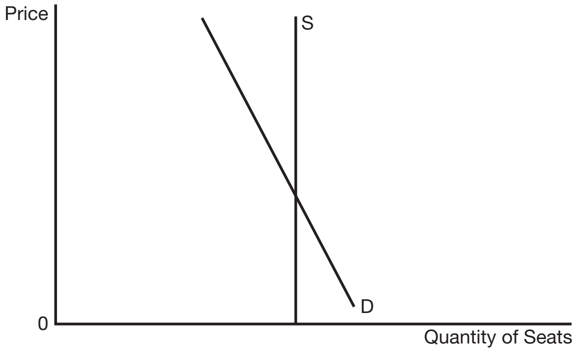
	Ped of exports	Ped of imports
A.	0.2	0.3
B.	0.4	0.6
C.	0.5	0.5
D.	2.3	1.2
E.	2.5	1.5

If the country devalues its exchange rate and assuming that there is spare capacity in the economy which one of the above combination of price elasticities will give the biggest improvement of the trade deficit?

Multiple Choice
QUESTION & ANSWER

Answers

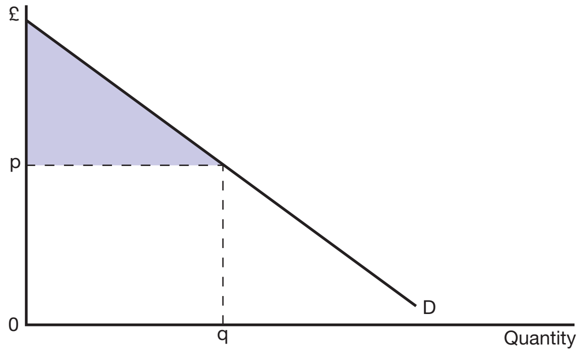
1. When the number of seats/tickets is fixed, at least in the short term, price elasticity of supply will be perfectly inelastic ie zero. Thus a change in price will have no effect on quantity supplied and the supply curve will be vertical. For major sporting events the price elasticity of demand will be very inelastic as people are often prepared to pay prices way above the official price to watch sporting finals. Although demand will be very price inelastic (ie very low) it will not be zero as there will be some reduction in demand as the unofficial price rises. The answer is thus C.



2. As the price level falls consumers are wealthier because their money balances have a greater purchasing power which stimulates the demand for consumer goods. This is called the wealth effect or the real balance effect. A fall in the price level leads to a fall in interest rates and this stimulates the demand for investment goods. A fall in the price level and thus interest rates tends to lead to a fall in the exchange rate as capital flows out of the economy in search of higher returns. A fall in the exchange rate will stimulate the demand for net exports. These are the three reasons why the aggregate demand curve slopes downwards, a lower price level stimulating the demand for goods and services (GDP) in the economy. But the substitution effect is associated with the demand curve in a microeconomic context and explains with the income effect the reason why the demand curves for coats, shoes ipods etc slope down to the right. The answer is thus B. This explanation assumes ceteris paribus which means in this case a constant money supply.

3. A rise in exports will increase the demand for pounds as foreigner buyers seek pounds to buy UK goods. This will shift the demand for pounds to the right. A fall in imports will reduce the supply of pounds as fewer UK firms and consumers will supply pounds to demand foreign exchange to pay for imports. This will shift the supply of pounds to the left. This will bring about a rise (appreciation) in the exchange rate (ceteris paribus) and the answer is thus A.

4. Price discrimination occurs when a firm sells a product or service to different consumers for different prices. Under normal circumstances all consumers pay the market price but there will be some consumers who are prepared to pay more. It is only when the demand curve cuts through the price axis that there is no demand from any consumers. First degree price discrimination occurs when the firm is able to charge each individual consumer the highest price they are prepared to pay, thereby capturing the entire consumer surplus. The answer is thus B.



5. Changes in labour, capital, natural resources and technology shift both the long run and short run aggregate supply curves as they affect the productive capacity of the economy and the level of productivity. However expectations of the price level only affect the position of the short run aggregate supply curve. Along any short run aggregate supply curve money wage rates are fixed and if workers' expectations change to a higher price level they will negotiate higher nominal wages thus raising firms' costs at each price level. A rise in costs will thus reduce the amount of goods supplied at each price level shifting the short run aggregate supply curve to the left. The answer is thus D.

6. This question tests knowledge of the Marshall-Lerner condition. This condition says that, for an exchange rate devaluation to have a positive impact on the trade balance, the sum of the price elasticities of demand for exports and imports must be greater than 1. If the Marshall Lerner condition is not met and the sum of the price elasticities of demand for exports and imports is less than one, then a fall in the exchange rate will bring about a worsening of the trade balance. If goods exported are price elastic, their demand will increase proportionately more than the decrease in price, and total export revenue will thus increase. Similarly, if goods imported are price elastic, total import expenditure will decrease. Both will thus contribute to improving the trade balance. Hence the higher the price elasticities of demand for exports and imports the better it is for the trade balance following a devaluation and the answer is thus E.

What are the likely **Economic Costs** of the **UK** leaving the **EU?**

***Bela Kulcsar**, of Wimbledon College*
considers the financial impact of the UK ceasing to be a member of the European Union.

Exam Board	AS	Unit	A2	Unit
AQA			✓	4
Edexcel			✓	6
OCR			✓	2888
WEJC			✓	4
CCEA			✓	4
Int. Bacc.	Standard 4.3			

This question is rather a difficult one to answer. It is a bit like asking who is the better footballer between Frank Lampard and Steven Gerrard? People have different views and opinions on such topics and in the world of economics and indeed politics the issue of whether the UK should leave the European Union has aroused a considerable amount of debate amongst the Euro sceptics and Europhiles (those who are in favour of Europe and what it has to offer). This debate was intensified in the spring of 2005 when referendums in France and The Netherlands voted against the proposed new EU Constitution. The whole of Europe and its future was thrown into crisis. Before we attempt to answer the question we need to define what we mean by the EU and what its aims are.

The European Union

The origins of the EU can be traced back to the 1940's when the European Coal and Steel community was set up and by 1958 it was replaced by the EEC (European Economic Community). The legal framework for this was embedded in the Treaty of Rome which was ratified by France, Germany, Italy and the Benelux countries (Belgium, Luxembourg and the Netherlands).

Its main objectives were to:

- Eliminate tariffs and other restrictive practices between member countries which would result in increased trade and higher standards of living for its members.
- Removal of subsidies to national industries, which may lend itself to unfair trade advantages.
- Balanced and sustainable economic growth.
- Tax harmonisation.
- Political and economic harmony.

The Treaty of Rome essentially created a **Customs Union** with member countries forming an external common tariff. Those behind the Treaty looked to the creation of an **Economic Union** – the free movement of labour and capital. This form of economic integration was vital if standards of living were to increase and foreign direct investment (FDI) to be attracted to the free trade area of the EEC. It was envisaged that the EEC would become a **Common Market** with harmonised economic, social and legal policies by 1992.

The Single European Market

However, in practice such harmonisation was not easily achieved. The Single European Act of 1987 aimed to essentially form a United States of Europe with free movement of factors of production, a unified legal framework, a convergence of economic policies, a common environmental policy and eventually a single currency.

This Act was soon followed by the 3 stages of the Delors Report :

Stage 1: Completion of the Single European Market by 1st January 1993.

Stage 2: The creation of an independent European Central Bank.

Stage 3: The eventual adoption of a single currency – the euro as it is now.

The Euro was finally adopted on 1st January 1999. But the UK opted out (as did both Denmark and Sweden) and decided to follow a policy of 'wait and see'.

The EU is today a massive 'club' of 27 member states with future enlargement on the horizon (Turkey, Russia and possibly countries in North Africa). It has a market of 500 million people living in peaceful harmony who can trade and move freely within its boundaries. If all this sounds idyllic why are some countries dissatisfied with this state of economic and political utopia? And why are there calls from some quarters within the UK for our immediate withdrawal from this Union?

Table 1 shows the year of entry into the EU (or the EEC as it was in 1958) of the member states with their GDP per Capita figures as of 1st January 2005 measured in US dollars.

It is clear from Table 1 that the composition of the EU is made up of very prosperous and highly populated economies to ones with extremely low populations and GDP per capita. The country with the highest GDP per capita, Luxembourg, is almost eight times greater than that of the lowest. One could argue that Luxembourg could be described as an 'outlier' in a statistical sense, so even if we were to ignore this data point the next highest in terms of GDP per capita is still four times larger than that enjoyed by Romania. This polarisation is even more marked if Turkey was allowed to join the Union. Table 2 gives the GDP per capita of countries that could be full members of the EU at some point in the future.

Table 2: Potential new EU members

Country	GDP/Capita (2005, $)
Turkey	7,400
Russia	9,800
Ukraine	6,300
Morocco	4,300
Tunisia	7,100

Source: Eurostat yearbook 2006-7.

It is clear from Table 2 that these countries have a very low standard of living as measured by GDP per capita. They are well below the average GDP/Capita of $22,944 for the existing members of the EU. For those of you with statistical knowledge all the possible new entrants have GDP/Capita below one standard deviation away from the mean, i.e. they lie in the bottom tail of a normal distribution – the bottom 16.67%.[1]

Table 1: Membership of the EU

	Date of joining	GDP/capita (2005 $)
Belgium	1958	30,600
Germany	1958	28,700
France	1958	28,700
Italy	1958	27,700
Luxembourg	1958	58,900
Netherlands	1958	29,500
Denmark	1973	32,200
Ireland	1973	31,900
UK	1973	29,600
Greece	1981	21,300
Spain	1986	23,300
Portugal	1986	17,900
Austria	1995	31,300
Finland	1995	29,000
Sweden	1995	28,400
Slovakia	2004	14,500
Czech Republic	2004	16,800
Estonia	2004	14,300
Cyprus	2004	20,300
Latvia	2004	11,500
Lithuania	2004	12,500
Hungary	2004	14,900
Malta	2004	18,200
Poland	2004	12,000
Slovenia	2004	19,600
Romania	2007	7,700
Bulgaria	2007	8,200

Source: *Eurostat yearbook 2006-7.*

How can the 'one size fits all' monetary policy maximise the welfare of all the citizens within the EU? Surely there will be winners but at what cost to the losers? Many commentators are of the opinion that the UK is a net 'loser' with regard to the EU. Some even have cited the sum of £40 billion as being the yearly saving if we were to leave the EU.[2] We can put this figure into perspective, £40 billion would build 188 new hospitals. If this estimate is correct then we could build 188 new hospitals each year! This would surely put an end to NHS waiting lists! With such an opportunity cost what then are the perceived benefits of being in the EU?

Benefits of membership for the UK

Since the launch of the Single Market, advocates postulate that it has been very beneficial to UK businesses, consumers and employees– border controls have been abolished, costs to businesses have been reduced and the speeding up of the physical movement of capital and labour. Less obvious benefits have been the harmonisation of standards across Europe for thousands of products providing a level playing field for sellers of goods and services.

In 2003, the European Commission published a document citing the achievements of the first decade of the Single Market. The main findings were:

- EU employment was 2.5 million higher than it would otherwise have been. It is estimated that up to 10 percent of British jobs are linked to *trade* to the EU.
- Trade among member states has increased from 25% as a proportion of GDP to 35%.
- EU GDP was almost 2% higher in 2002 than it would have been otherwise.
- It is estimated that in the decade from 1993 households are better off to the tune of £3,819 – £381.90 for each year – see below whether this figure represents a net gain or loss.
- Investment into the EU has risen from £15.4 billion in 1992 to £106.5 billion in 2005 (not all in the UK!).
- There has been a massive fall in bureaucracy (60 million forms no longer need to be completed for intra-EU trade).
- The successful elimination of (some)

1. Assuming that GDP/Capita are normally distributed.
2. I. Milne, *A cost too far*, Civitas, July 2004.

How can the 'one size fits all' policy maximise the welfare of all EU citizens?

anti competitive actions by monopolies and cartels and a reduction in regulation.

The standard theoretical arguments for membership are:

- Increased customer base.
- Economic and political stability.
- Faster economic growth.
- A more competitive market environment.
- Increased efficiency.
- Lower inflation.
- Increased foreign direct investment.
- With monetary union easier trading conditions for producers and consumers, i.e. the reduction in uncertainty.

It is clear that some of these benefits have been realised but they need to be put into some perspective with regard to the UK and must be evaluated so we must look at the perceived costs of membership and what these costs are assumed to be.

Disadvantages of membership

- Loss of sovereignty of monetary and to some extent fiscal policies.
- Too costly – the CAP has kept food prices high.
- Increase in bureaucracy.
- Further enlargement will hit the big economies hardest.
- European law takes precedence over domestic laws.
- Danger of federalism.
- Political union does not necessarily imply economic union/stability.

How can we quantify these costs? The estimate of £40 billion cited above *for each year of UK membership* is quite alarmist and is on the high side but an influential group – The Bruges Group – has estimated that EU membership, for 2007, will cost every man, women and child in the UK £843. This equates to £50.6 billion which is £1 billion more than in 2006. Almost 31% of this figure represents the UK's contribution to the Common Agricultural Policy (CAP). £2.5 billion is the sum involved as the contribution to the Common Fisheries Policy. The Bruges Group estimates that the UK has contributed £213 billion gross (or £66 billion net) to the EU since joining in 1973.

There have been numerous calls for successive UK governments to provide concrete evidence in financial terms of the benefits of membership but has blatantly refused retorting that the benefits are 'self evident'. The Bruges Group report claimed "if any of the figures contained in this document are incorrect let the government challenge them and provide the correct figures".[3]

Robert Oulds, the Director of The Bruges Group, has said "*just £1 billion will pay for 222,000 hip replacements, or 46,893 nurses, or 38,782 teachers, or 34,585 police officers*".[4]

With such enormous figures being quoted the question to ask is 'how can we afford to stay in?'

A cautionary note is important as one has to wonder *who* are actually citing these figures? The Bruges Group are a Euro-sceptic think tank who obviously want the UK out of Europe but there can be no doubting that the numbers quoted are indeed very large and has a huge opportunity cost associated with it.

According to Ian Milne, there would be no net loss of jobs or trade if the UK were to leave the Union but would be financially better off by £40 billion each year. Tony Blair, when Prime Minister, said that 3 million UK jobs and 60 per cent of trade depend on our membership of the EU. But the UK has an accumulated trade deficit of £285 billion until 2004 but a trade surplus of £29.5 billion with non-EU countries.[5]

A report by the National Institute for Economic and Social Research (NIESR) and the US International Trade Commission have both found that leaving the Union would have no effect on jobs and if the UK were to leave it is unlikely that UK companies would be denied access to EU markets. It has been suggested that EU member states need the UK more than the UK needs them as they export more to the UK than the UK imports from them. In addition, some twenty countries, including Mexico and Gambia, have free trade agreements with the EU. At the time of writing, some sixty or so countries are negotiating a similar agreement. However, if the UK were not able to secure such an agreement, the common external tariff to non-EU members imports is 1.5% and the World Trade Organisation (WTO) is keen to get this as low as possible.

It is highly likely that the contribution made to the EU budget by the biggest economies is likely to increase. Table 3 shows the number of agricultural holdings of some selected countries within the Union.

The new accession countries have a higher proportion of its economy devoted to land, for example, the number of farm holdings in Romania is almost 4.5 million and employing 2.7 million people compared with that in the UK where employment is one third of a million and less than 281,000 holdings. Clearly our contributions to the CAP must significantly increase if the Union is further enlarged.

Ian Milne has analysed the cost of membership and has used a number of assumptions that gives a range of estimates from 'rock bottom' through 'most likely' to 'high'. The net costs of

Table 3: Agriculture in seven EU member countries

Country	Number of agricultural holdings (000's in 2003)	Total farm labour force 2005 (000's)
Belgium	51.5	70
Spain	1140	998
Germany	412	689
France	614	914
Poland	2172	2274
Romania	4485	2700
UK	280.6	336

Source: *Eurostat yearbook 2006-7*

3. www.brugesgroup.com.
4. *Ibid*.
5. G. Batten, *How much does the European Union cost Britain?*, Bruges Group, 2005.

Table 4: An estimate of the costs of EU membership

	Rock bottom (£bn)	Most likely (£bn)
EU regulation	6.3	20
CAP	7	15
Net payments to EU Institutions	Official figure of a net payment of £4.3 billion (pink book)	
The single market	Benefits are matched by costs: neutral effect	
Inward investment	Neutral impact if UK were to leave the EU	

Source: I. Milne, A cost too far, Civitas, July 2004

EU membership are appraised in 5 areas:

- EU regulation
- CAP
- Net payments to EU institutions
- The Single Market
- Inward investment

The 'rock bottom' cost using standard cost-benefit analysis is estimated to be £17.6 billion and the 'most likely' cost to be £40 billion. A summary of the key findings by Ian Milne is shown in Table 4.

A lot of investment funds flow into and out of the UK and according to the Department for Trade and Industry (DTI) this is because of easy access to the Single market (the 'Tiger' economies locating parts of its motor industry in the UK), ease of market entry, low corporation tax, flexible labour markets, skilled labour, good communications etc. Would FDI fall significantly if the UK were to leave the Union? A study by NIESR has claimed it would but other studies have postulated that the biggest returns on inward investment – oil and gas at 40% of earnings on all inward investment and financial services at 19% – would continue to attract funds. In the case of oil and gas the argument is that this sector involved high value products. In respect of financial services it is arguable that this sector will always attract investment where the best returns are to be found. It has been said that the introduction of the euro would harm the City and would lose its status as a leading financial centre. To date the evidence clearly contradicts this view.

Table 5: Dependency ratios

	Dependency ratio forecast for 2050
UK	2.1
Germany	1.2
Italy	0.7

Source: P. Cramp, *Labour Markets*, (Third edition) Anforme, 2006.

Conclusion

With an ageing population across the EU the dependency ratio is likely to increase, i.e. the ratio of the number of people in work to the number of dependants. These dependants would include pensioners, children, the disabled who are unable to work etc. The ratio for the UK in 2000 was then 3.5. Table 5 shows other predictions for half a century into the future.

Clearly this poses serious problems for the EU and its likely impact on growth and GDP per capita. The working population as a percentage of the total is likely to fall while it is likely to increase in the USA. The European Commission takes a gloomy view of the EU's prospects. It has forecast that the EU-15 share of global GDP will fall from 18% in 2002 to 10% by 2050.

It is very difficult to weigh up the evidence but it does seem to suggest that the likely *economic* costs of the UK leaving the EU are minimal and indeed there would be significant cost savings. However, what are the political costs of such an action? Would it scupper the dream of federalism and its United States of Europe? In the world today it is very difficult to make a decision based on purely economic factors, other parameters must be considered and then a conclusion can be made. Nonetheless one can suggest that the debate about withdrawing from the EU is as much a political as an economic issue.

Questions for discussion

1. Why is the removal of tariffs and quotas an integral part of a customs union?
2. With reference to Table 5, what is the likely impact that this forecast demographic change will have on the EU?
3. Is being part of Europe a cost worth paying?
4. Find out some macroeconomic data which provide reasons as to why some in Germany and France have become disillusioned with the EU.

Summary of key points

- **There has been a rapid development toward a fully integrated Europe.**
- **Some countries are finding the financial cost of membership a real burden.**
- **Some estimates of yearly savings in the UK are as high as £52 billion.**

TAKING IT FURTHER

with Chief Examiner,
Robert Nutter

1. Find out the current membership of the European Free Trade Area (EFTA) and the European Economic Area (EEA).
2. Before joining the European Union (EU) in 1973 the UK was a member of the European Free Trade Area (EFTA). As an EU member the UK is now also a member of the European Economic Area (EEA). Investigate the implications of the UK re-joining EFTA and/or remaining a member of the EEA if it leaves the EU.

   http://ec.europa.eu/external_relations/eea/index.htm
   http://en.wikipedia.org
3. Research the findings of Daniel Hannan in his book, *The Case for EFTA*.

   www.brugesgroup.com

Current Topics in ECONOMICS

Why is Ryanair Successful?

The Economics of Low Cost Airlines

Stephen Romer *discusses the reasons for the growing importance of the 'no frills' airline carriers.*

> **That is the paradox of Michael O'Leary's Ryanair. It is hugely successful. It has brought flying within the reach of people of the most limited means. It has helped to change the economic prospects of neglected parts of Europe by bringing passengers and their money to underused provincial airports. But at the same time Ryanair has become a byword for appalling service, misleading advertising claims and jeering rudeness towards anyone or anything that gets in its way.**
>
> 'Snarling all the way to the Bank', *The Economist*, 23 August 2007

Over the last decade, the rate of growth of the low cost airline market in general and Ryanair in particular has been remarkable. As a whole, the low cost air market is growing at a faster rate than the overall growth of air travel. Thus, low cost or 'no frills' flying is not just expanding the overall size of the passenger airline market, it is displacing traditional full-service airlines. In 2007 roughly 20% of all airline seats sold worldwide were on low cost airlines, an increase of more than 20% on 2006.

Ryanair and easyJet are the two leading protagonists in the European low cost flight market, and in 2007 both announced significant increases in revenues and profits. EasyJet disclosed an astonishing 48% profits upturn in the year to September 2007, and forecast a further 20% profit growth for 2008. In November 2007, Ryanair announced that its latest half-year profits had risen to £325 million, an increase of 24%. Like easyJet, Ryanair is confident that its rapid rate of growth is going to continue, forecasting a doubling of the number of passengers carried annually from about 40 million to 80 million between 2006 and 2012. As recently as 1999, Ryanair carried a mere 5 million.

But if you pause and think about the market in question, you might wonder whether the forecasts issued by the major low cost flight operators are somewhat over-optimistic. Specifically, you might have concerns about two potentially constraining factors: the worsening economic growth forecasts for 2008, and the seemingly endless rise in oil prices (and, thus, in the cost of aviation fuel).

Would a sharp slowing down of the

economy in 2008 mean that consumers reduce demand for leisure and luxury goods in general – and air travel in particular? Or, as the 'no frills' major carriers argue, will deteriorating economic circumstances mean an *increase* in demand for the services of the typical low cost carrier because the average consumer will have to become more price conscious?

Fuel costs

As regards the rising price of oil, it would appear that the low cost sector is surprisingly untroubled. For example, easyJet's position would seem to be that it has relatively new aircraft (on average, its fleet is only two or three years old), and newer aircraft are more fuel-efficient. Thus, there is a silver lining to the cloud of rising oil prices insofar as more expensive fuel should improve the airline's competitiveness because rival airlines have older aircraft with higher fuel consumption.

Some airlines have been obliged to levy passenger fuel surcharges as oil prices have risen, essentially a reflection of an underlying weak financial position in those airlines, says Ryanair. The latter does not fear rising oil prices: on the contrary, it assumes that its less competitive rivals will be driven out of business as fuel prices go up, and this will lead to a strengthening of Ryanair's position. The degree of competition in the low cost sector is sufficient to suggest that it is an industry in which uncompetitive firms will probably be driven out of business. It is notable that, despite the absence of high barriers to entry, this is an industry in which the dominant firms have been increasing their market share as rivals fall by the wayside or are subject to takeover.

Rationalisation has seen the strengthening of the position of the dominant firms. Regarding acquisitions, Ryanair purchased the low cost airline Buzz from the Dutch national carrier KLM in 2003, and, more recently, easyJet acquired the British Airways franchise operator, GB Airways in 2007. From 2008, easyJet will operate the GB Airways routes (mainly to holiday destinations in Europe) from Gatwick under the easyJet brand name.

Minimising costs of production

EasyJet carried 37.2 million passengers in the year to September 2007, up from 33 million in the previous year. The scale of easyJet's market share is impressive, but with more than 4 million international passengers per month, Ryanair has claimed that it is the largest international airline in Europe.

Why are airlines like Ryanair and easyJet successful? What is the secret of success in the low cost flight market?

The answer to these questions is very simple: 'low cost' means exactly what it says, and the business philosophy would seem to be that as long as attention remains devoted to minimising costs, profitability will take care of itself.

Here are nine ways that costs are kept to a minimum:

- There is an emphasis on internet booking, thereby avoiding the administrative costs of running call centres and the expense of paying commission to travel agents.
- No tickets are issued – the Ryanair passenger is given a number to be quoted on checking in for the flight. Thus the cost of printing and processing tickets is eliminated.
- Further administrative expense is avoided in the low cost flight market by the absence of the kind of frequent flyer loyalty schemes which the

Lower fares mean more passengers.

traditional full-service airlines invariably offer.

- There are, of course, no free services on board a low cost flight. Instead, highly profitable charges are levied for food, drink and other ancillary services.
- Low cost carriers often use 'secondary' airports where landing charges are lower than at the main airport of the destination city. In fact, a secondary airport may be willing to pay a subsidy to the low cost carrier to encourage it to use that airport (although EU policy has meant a reduction of Ryanair's airport subsidy, the European Commission having ruled that such subsidy is a form of illegal state aid).
- By running a fleet of aircraft composed entirely of the same model, a low cost airline can benefit from economies of scale in terms of the costs of training staff. Pilots, mechanics and flight attendants have to know how to operate or service only one kind of aircraft.
- When an aeroplane is on the ground, it is not making any money. Therefore, in the economics of low cost passenger aviation, it is very important to have low turnaround times. Once the plane has landed and its passengers have been disembarked, it must board the next human cargo and take off as quickly as possible.
- If a flight has to be cancelled, a low cost operator like Ryanair will not offer refunds and nor will it incur the expense of emergency hotel board and lodging for stranded passengers. As many unlucky holiday makers have learned from bitter experience, there is a risk of an unwanted 24 hour extension to that trip to Spain or Italy during which you must fend for yourself when it comes to hotel and food costs.
- A further cost-reducing aspect of the organisation of the typical low cost airline is its operation of 'point to point' services as opposed to the potentially expensive hub and spokes model often used by the traditional airlines (to get from A to B, you fly via the hub at point C where you change planes). And in its use of a 'base' for its aircraft, a low cost operator such as Ryanair is very sensitive to airport charges: for example, it threatened to reduce its use of Stansted in 2007 when that airport's owner, BAA, levied increased airport fees on airlines.

Demand

If you are a profit-maximising entrepreneur and you are able to combine very low costs of production with sky-high consumer demand (no pun intended), then you have an unbeatable recipe for success.

It is interesting to consider the determinants of demand for the flights of the low cost carriers in general and Ryanair in particular. As you are aware, the rational consumer of the economics textbook makes his or her dispositions after considering the relative prices of a range of substitutes. Going to France? What will it cost by train? By car? How much is a full service flight on BA or Air France? Is it worth the trek to Stansted for a low cost flight?

And we must not overlook the demand-influencing question of the prices of complementary goods. According to our economics textbook, there is a negative relationship between the demand for a good and the price of complements. If one flies low cost, asks the traveller, how much extra will one have to fork out for fares to the kind of remote airports often used in the low cost sector? What are the extra costs of checking in luggage or buying lunch (not supplied free of charge by airline)? Will there be any further hidden extras to be paid for?

It is also fairly safe to assume that demand for flying, low cost or otherwise, is increasingly affected by concern about environmental questions. Today, a sensitive person is going to see each flight taken as contributing to the destruction of the environment. Aircraft may only be responsible for 2% of all CO_2 emissions, but bear in mind that (a) this is the fastest growing source of such pollution and (b) a tonne of CO_2 emitted from an aircraft at 30,000 feet is far more damaging than a tonne of CO_2 released on the ground.

As regards drivers of demand, one should not neglect the seasonal nature of the passenger aviation market. When the school summer holidays begin to draw to a close at the end of August every year, the level of demand for flights to the holiday resorts of Southern Europe inevitably begins to fall off. But as demand declines, the low cost carrier must find a way to fill up the empty seats – maintaining a high load factor is crucial to the economics of the low cost model.

The answer, of course, is to reduce prices. Pricing in the low cost sector is infinitely flexible: book early and you may get one of the very cheap early bird seats. Later, fares will be higher… until the principles of yield management and price discrimination dictate that last minute bargains are on offer in order to fill up the remaining seats.

And if necessary, price might have to be reduced to almost zero: give the seats away virtually free of charge if that is what it takes to ensure the high load factor is maintained.

But how can you make money by selling low-priced tickets? With enough passengers on board, a flight becomes profitable through the so-called ancillary revenues to be obtained through a wide range of charges and tie-in sales. There will be charges for checking in, and payment will be demanded for stowing luggage and for excess baggage. And further revenues will be raised through sales of in-flight food, drink, lottery scratch-off cards and other items, not to mention the sale of travel insurance, car hire and hotel bookings.

Ancillary revenues have been of increasing importance to the profitability of Ryanair in recent years. As a matter of fact, Ryanair's ancillary turnover increased by more than 50% in 2007, rising to about 20% of the airline's revenue overall.

Advertising

It has been observed that a further lowering-of-costs tactic used by Ryanair is the avoidance of the employment of advertising agencies, a significant cost routinely incurred by other airlines.

Ryanair tends to use low cost advertising copy usually on ideas generated internally by its own staff. The advertising message often consists of

rather crude but very effective sideswipes at competitors or at the government. "Greedy Gordon" said a Ryanair advertising campaign in 2007, attacking the then Chancellor Gordon Brown and his tax on airline passengers.

And competitors such as British Airways or Eurostar have been subject to Ryanair's advertising attacks. From time to time, these advertisements have led to confrontation with the Advertising Standards Authority (ASA) as in the case, for example, of an advertised Ryanair claim that its flights were a quicker way of reaching Brussels from London than travelling by Eurostar. Unfortunately, the time comparison failed to include the extra hour or more an air passenger would have to spend getting to and from Stansted and Brussels airports (as opposed to city centre railway stations).

Ryanair's advertising is also noted for offering free or very cheap seats. But in 2006, the ASA found that a £0 fare promotion had broken the rules of advertising related to the pricing aspects of adverts. The "four million zero fare seats" of Ryanair's promotion should have mentioned that unavoidable taxes and charges would mean a 'free' seat would cost at least £11.70. In response, Ryanair claimed that the advertisement in question had been seen by about 14 million people – and none of them had made a complaint.

Bad publicity?

But what is interesting is that, in stark contrast to business practice generally, Ryanair does not mind about bad publicity. If mud-throwing adverts mean that ASA codes of practice are breached and that there will be a slap on the wrist from the authorities, this is not something to worry about. Indeed, for Michael O'Leary, the Chief Executive of Ryanair, it would seem that there is no such thing as bad publicity.

In 1988, Ryanair had rewarded its one millionth passenger with 'free flights for life', and when the free flights were eventually restricted by Ryanair, the case went to court in Dublin. The judge in the case was very critical of Ryanair, but Mr O'Leary saw only good coming from the publicity aroused by the case – despite the accusations of meanness and vindictiveness in the courtroom.

"For three days," observed Mr O'Leary, "we got the worst publicity any company has ever had in its life. Our bookings soared by 30% day by day by day. The more we were in court, the bigger the bookings were" (*Sunday Times*, 22 July 2007).

And at the risk of alienating the average consumer, who, it is widely assumed, is increasingly sensitive to environmental questions, Mr O'Leary has been famously dismissive of potentially demand-reducing fears about climate change. He has said that it is "nonsense" for governments to introduce policies in this area, and that the entire global warming controversy only exists because of "a mid-life crisis of the European middle classes".

But Mr O'Leary saved his most cutting remark on climate change for his response to Nicholas Stern's influential report in 2006. He said Sir Nicholas is "an idiot economist".

Questions for discussion

1. Account for the growth of the demand side of the market for low cost travel.
2. Identify and discuss the consequences of the growth of the low cost airlines for the full service airlines.
3. "Low cost travel is an inferior good. Thus, a recession in the economy would help to expand the low cost sector." Examine these statements.
4. By what means are costs kept low in the 'low cost' flight market?
5. "There is no such thing as bad publicity." Discuss this statement with regard to Ryanair.
6. Why is it very important for Ryanair and the other low cost carriers to maximise levels of seat occupancy?

Summary of key points

- **The low cost airline market has been growing at a faster rate than the overall growth of air travel.**
- **About 20% of all flights worldwide are low cost.**
- **Airlines such as Ryanair are successful because 'low cost' means what it says.**
- **It is crucial in this industry that flights have a high load factor even if this means low or zero seat prices.**
- **Ancillary revenues are an increasing factor in Ryanair's profitability.**
- **Ryanair is dismissive of climate change policies.**

The Productivity Paradox

VIEW FROM the CITY

*In this article, Professor **Graeme Leach**, Chief Economist and Director of Policy at the Institute of Directors, argues that high government spending is undermining UK competitiveness.*

Just how competitive is the UK economy?

In order to answer this question we have to first of all define competitiveness. The following definition, from the 1984 Report of the President's Commission on Competitiveness, does the job well:

> **Competitiveness has different meanings for the firm and the national economy… a nation's competitiveness is the degree to which it can, under free and fair market conditions, produce goods and services that meet the test of international markets while simultaneously expanding the real incomes of its citizens. Competitiveness at the national level is based on superior productivity performance.**

So the key point is that at a national level the competitiveness story is first and foremost about productivity. This leads to the obvious question of what has been the UK's productivity performance over recent decades? This is where things get a little confusing, so let's start with comparisons of GDP per capita (at market exchange rates).

A recent report from Oxford Economics, in January 2008, stated that UK GDP per capita was set to overtake the USA in 2008 for the first time since the 19th century. According to Oxford Economics, UK GDP per capita will reach £23,500 in 2008 compared with £23,250 in the US.

Commenting on the figures, Oxford Economics stated that:

> **The last 15 years have seen a dramatic change in the UK's economic performance and its' position in the world economy. No longer are we the 'sick man of Europe'. Indeed… UK living standards are now a match with those in the US.**

The improvement in UK relative living standards has been substantial since the early 1990s. In 1993, following the last recession and the UK's exit from the ERM, GDP per capita in the UK was 34% lower than in the US, 33% lower than in Germany and 26% lower than in France. The increase in the UK's relative GDP per capita in part reflects the long period of sustained growth that the UK has enjoyed since 1993 and, post 2000, it also reflects the strength of sterling, first vis-à-vis the euro and in the last couple of years the US dollar. The catch-up is more than the result of currency fluctuations alone.

Other measures

However, this isn't the only measure of relative productivity performance. Table 1 has been estimated using market exchange rates and does not therefore take into account differences in the relative cost of living in different countries. In order to allow for differences in the cost of living we need to use so called purchasing power parity measures.

New data from National Statistics shows that using PPP measures, over the 1991-2006 period, the UK has experienced faster productivity growth as measured by GDP per worker than all other G7 countries. On an alternative GDP per hour worked measure, the UK has also experienced the fastest growth of all G7 countries.

It's pretty clear that comparing now, with the early 1990s, relative UK productivity performance has vastly improved. Should we be pleased? Of course. Can we relax? No way. Beneath the surface real problems lurk.

Looking at the level of GDP per worker and GDP per hour worked using the PPP measures, shows a different story to that in Table 1. Using PPP estimates the UK is still well behind the USA (by 23% on the per worker measure and 14% on the per hour worked measure) and France (by 9% on the per worker measure and 16% on the per hour worked measure).

More significant is how relative performance has changed over time. In the case of the US, a 37% lead in GDP per worker at the beginning of the 1990s, fell to 27% by 2000. Subsequently the rate of closure has slowed, with the US retaining a 23% lead in 2006. Similar stories apply to other G7 countries such as Germany and France – the productivity gap was closing more rapidly in the 1990s than subsequently.

Table 1: GDP per capita in current prices – US dollars

Year	UK	US	Germany	France
1993	$16,796	$25,612	$25,093	$22,724
1998	$24,521	$31,707	$26,663	$24,625
2003	$30,686	$37,779	$29,696	$29,244
2007	$45,566	$45,935	$40,432	$40,484
2008	$48,062	$47,427	$44,199	$44,333

Source: Oxford Economics (2008)

Why has the closure in the productivity gap slowed?

To answer the question we need to focus on the UK economy. If one examines official UK productivity statistics it is clear that comparing the entire period of Labour in office 1997-2007, with earlier in the 1980s and 1990s, underlying productivity performance is flat. There has been no improvement. Trend productivity growth is around 2%. However, this 2% figure hides a notable divergence between the pre and post 2000 period. Pre-2000 productivity growth was strong. Post 2000 productivity growth has noticeably weakened. If one compares the post 2000 economic cycle with previous cycles the slowdown is clear.

What happened in 2000 to begin to undermine productivity growth? The answer is fairly obvious – a very large build-up in public spending. Prior to 2000 New Labour acted in a very un-Labour fashion. Public spending fell significantly as a proportion of GDP and the higher productivity growth private sector was crowded in. Post 2000 the opposite occurred. The low (or falling) productivity growth public sector was expanding rapidly and crowding out the private sector. The end result was that aggregate productivity growth was less than it otherwise would have been.

The productivity paradox is that improvement in relative productivity performance will mislead politicians into thinking that bigger Government hasn't damaged the economy – when the truth is it has. The improvement in relative performance – evidenced in overtaking the US in 2008 – is merely the chunk of the iceberg above the surface. Below the surface higher spending, taxation and regulation is eating away at our competitiveness.

Unfortunately, however, the Government just doesn't get it. HM Treasury and DBERR focus on the so-called 5 drivers of productivity – investment, innovation, education & skills, competition and enterprise. The Government's 5 drivers omit completely the missing link – the 6th productivity driver, namely the role of Government (public spending, taxation and regulation).

A recent survey of business leaders, asking: *What was the number one measure to improve UK competitiveness?* cited reducing the burden of taxation and regulation, way ahead of all other measures, such as improving the transport infrastructure and up-skilling the workforce. It's a pity the Government doesn't even recognise that taxation and regulation influence productivity!

Conclusion

As we look ahead all our politicians need to understand that failing to reduce the size of the state today, will have consequences for our standard of living tomorrow. In the absence of war or recession the public spending build-up since 2000 has been unprecedented. No political party is facing up to the need to restrain the size of the state on the scale required. If we're to reverse the wasteful build-up post 2000 tough decisions will have to be made. Without them, high tax and spend will progressively undermine our competitiveness, just as we celebrate its' success. There is an elephant sitting at the table.

Government Support for UK Business

Andrew Reeve, *Head of Economics and Business Studies, King's School, Macclesfield, reviews some aspects of industrial policy in the UK.*

The 2006 Budget outlined changes in the manner in which Government supports UK businesses. The then Chancellor, Gordon Brown, announced his commitment to reduce the number of publicly-funded business support schemes from over 3,000 to no more than 100 by 2010. This was elaborated further in the pre-budget report on 9 October 2007. As part of this simplification process to make business support more accessible, 'Business Link' was formed in April 2007 as the primary access route to business support. This forms part of the Government's commitment to a single integrated skills brokerage service from April 2009.

This article considers the various support schemes funded by Government at local, regional, national and European level. It starts by investigating the state of play of the UK as a trading nation and also consider the survival rates for UK businesses.

The UK as a trading nation

In general terms, the UK has performed well over the last decade. Annual growth in Gross Domestic Product averaged just over 2.8% over the period between 1996 and 2006. In the G7 group of the world's leading economic nations only the US and Canada grew more quickly. The UK ranks third in the G7 in terms of the share of its working age population in employment and the World Bank ranks it in sixth place in the world as a place to do business. In terms of inwards direct investment, the UK is the primary destination in Europe and second only to the US globally.

However, there are considerable differences in the relative economic performance between and within the UK's regions. In recent years most of the English regions have grown more quickly than during the 1990s. However, the South East of England is generally performing better than those regions in the North and West. Figure 1 shows the higher level of Gross Value Added in the

South East compared to elsewhere in the UK.

Business activity in the UK

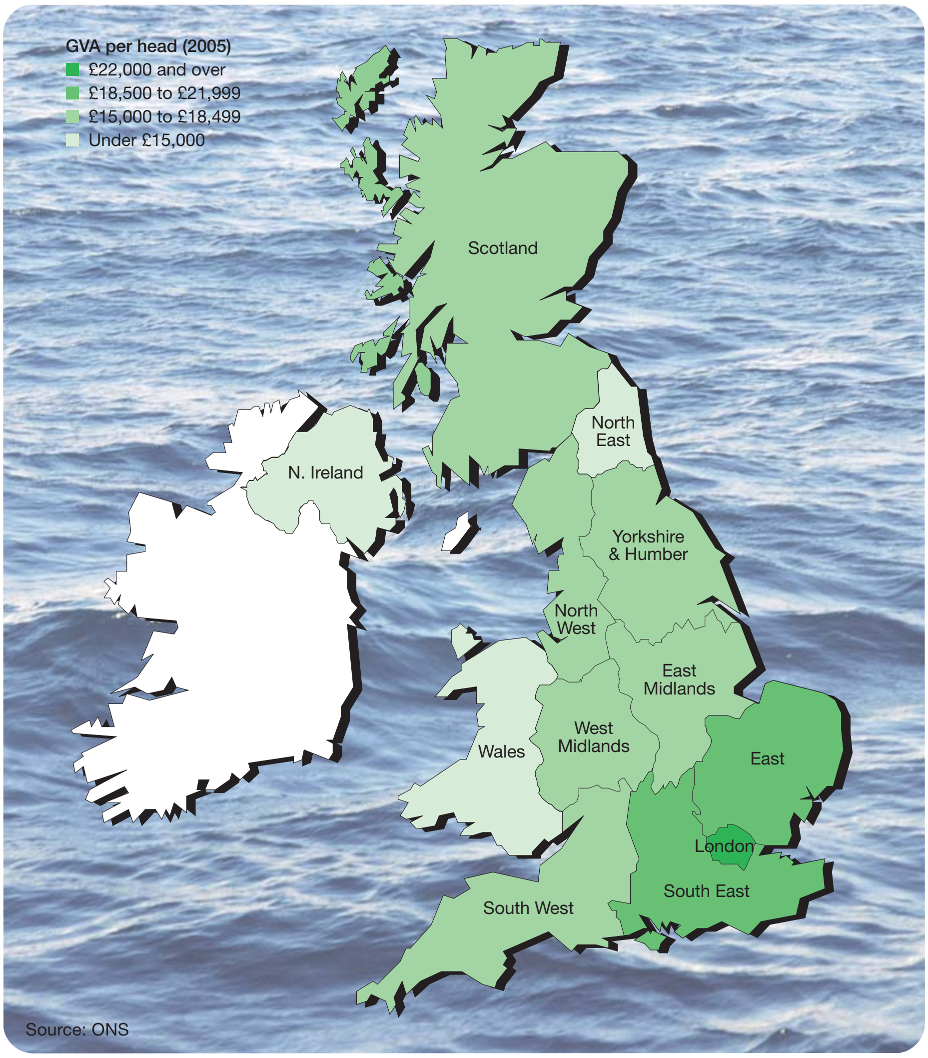
Data on the state of business activity is published but with an 18 month lag time. This is due to the fact that some businesses take a long time to return information about start ups and failures. Therefore the most recent data, published in August 2007 by the Department for Business, Enterprise and Regulatory Reform (BERR) related to the level of business activity in 2006. In that year there were an estimated 4.5 million business enterprises in the UK, an increase of 2.9% on the start of 2005. Almost all of these enterprises (99.3%) were small (0 to 49 employees). Only 27,000 were medium sized (50-249 employees) and 6,000 or 0.1% of them were large (250+ employees).[1]

As Figure 3 shows 2.8 million of these businesses were sole proprietors with only 11.4% of them having employees. There were an estimated 505 thousand partnerships and 1,145 companies.

Turning our attentions to business survival rates, DTI figures published in February 2007, suggest that one year survival rates decreased slightly in 2004 after a steady eight year increase. However, as Figure 4 indicates, the three year survival rates have continued to increase.

Survival rates vary greatly between different industry sectors as shown in Figure 5. Mining and quarrying with utilities have both the lowest one-year and three-year survival rates, at 88% and 56% respectively. Hotels and restaurants also have relatively low survival rates, at 90% and 61% for three years. Health and social work enterprises have the highest survival rate after a year (95%) but agriculture, fishing and financial intermediation enterprises are most likely still to be registered after 3 years (84%, 83% and 81% respectively).

Figure 1: Regional Gross Added Value (GVA) per head 2005



Government support for UK businesses

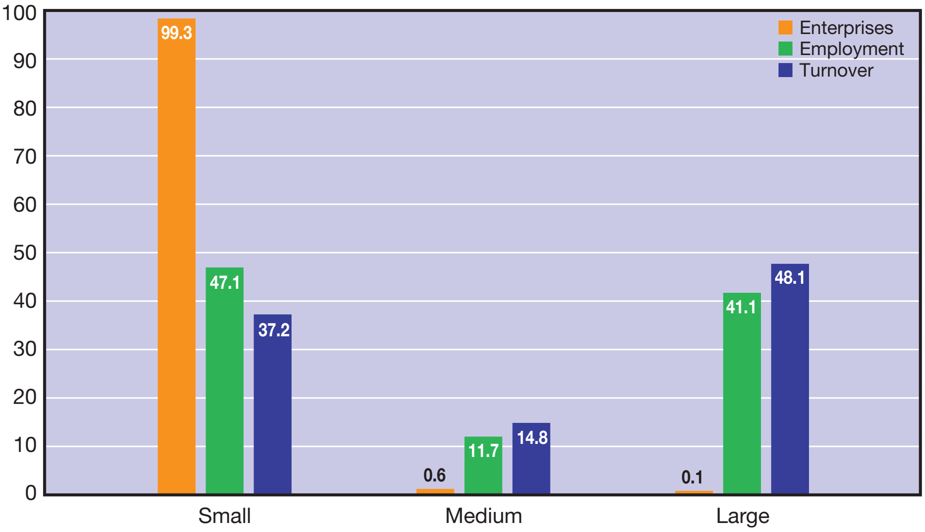
The *Green Book* published by the Treasury is the essential guide to all Government investment. It lays down the guidelines for what Departments and Agencies should invest in. In theory, any

Table 1: Ranking on the ease of doing business

2008 Rank	Economy
1	Singapore
2	New Zealand
3	United States
4	Hong Kong, China
5	Denmark
6	United Kingdom
7	Canada
8	Ireland
9	Australia
10	Iceland

Source: BERR publication 'Britain as a place to do business'. www.berr.gov.uk

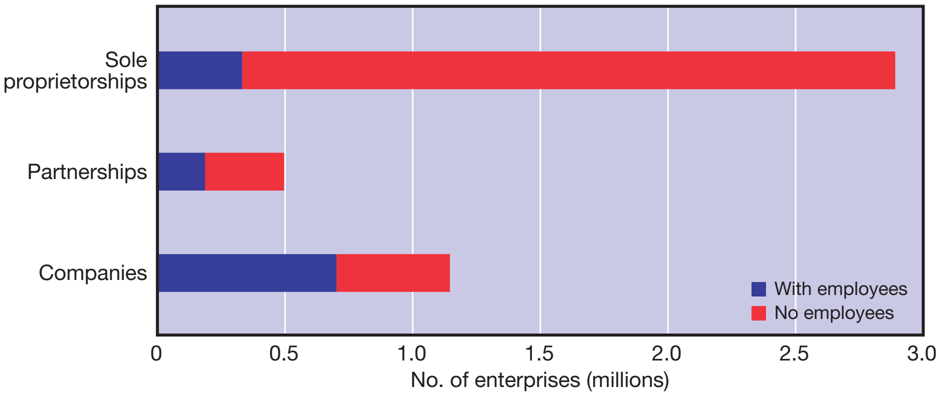
Figure 2: Share of enterprises, employment and turnover by size of business, UK private sector, start of 2006, %



Source: BERR publication 'Britain as a place to do business'. www.berr.gov.uk

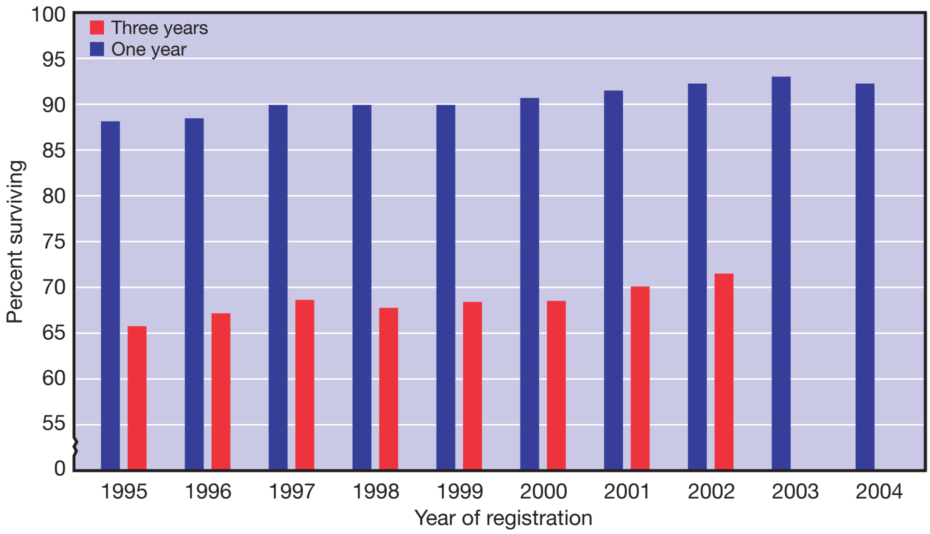
1. www.berr.gov.uk/smestats2006-ukspr.pdf

Figure 3: The significance of sole proprietors



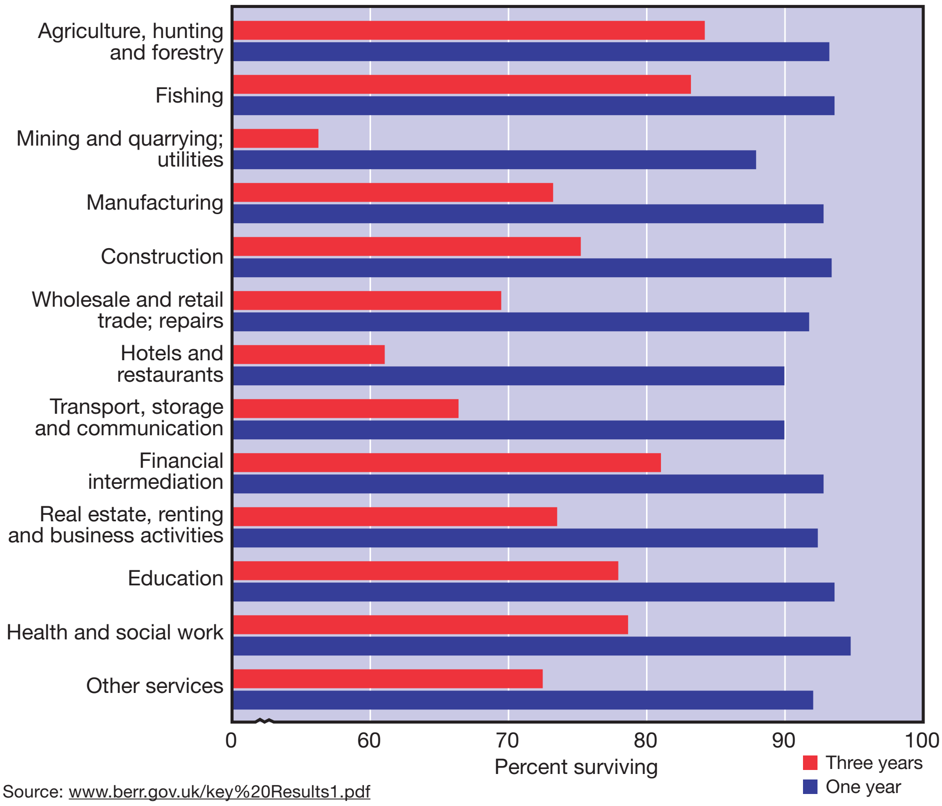
Source: BERR publication 'Britain as a place to do business'. www.berr.gov.uk

Figure 4: Business survival



Source: www.berr.gov.uk/key%20Results1.pdf

Figure 5: Percentage of enterprises registering in 2004 surviving after one year and percentage registering in 2002 surviving three years, UK industry sectors



Source: www.berr.gov.uk/key%20Results1.pdf

organisation not complying with these guidelines could lose its financial autonomy. All new policies, programmes and projects, whether revenue, capital or regulatory, are subject to a comprehensive assessment in order to promote public interest. The purpose of the Green Book is to ensure that no policy, programme or project is adopted without first having the answer to these questions:

Are there better ways to achieve this objective?

Are there better uses for these resources?

This guidance is designed to promote efficient policy development and resource allocation across government.

Many Government Departments and Agencies use a policy cycle shown in Figure 6 which is known by the acronym ROAMEF (Rationale, Objectives, Appraisal, Monitoring, Evaluation and Feedback) in order to assist them with their decision making.

The structure of Government support for business is based on the Business Link. As an entrepreneur living in England, one would look towards the local agency called Business Link. Business Link was formed in 2007 and is designed as a service provider for small businesses. Effectively, Business Link is a skills brokerage provider, putting entrepreneurs in touch with service providers essential for the success of their business. Business Link also provides information on the various financial support packages available from Government at different levels. Most of the funding arrangements, including grants, tend to be on a small scale. For example, a micro business might apply for a non-repayable grant to help it to set up a transaction website to assist it in its growth and profitability.

However, Business Link agencies are owned by the Regional Development Agency in which they are located. For example, Business Link, Preston, Lancashire is owned by the North West Development Agency. Regional Development Agencies cover all of the United Kingdom and have responsibility for managing and co-ordinating business support in each region and developing regional integrated strategies to advance economic growth. In turn, these RDA's are funded by Central Government Departments. In June 2007, there were changes to the structure of some Departments and the DTI (Department of Trade and Industry)

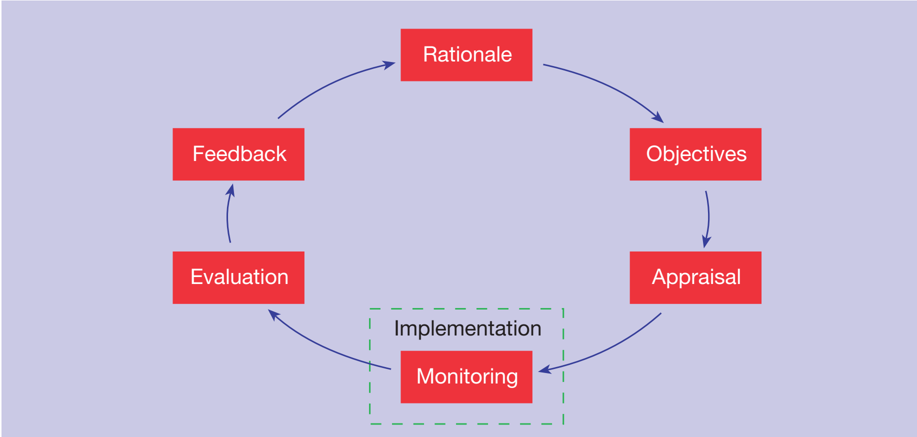
was broken up. In its place, the Department of Business Enterprise and Regulatory Reform (BERR) was established. In addition to this, the Department of Innovation, Universities and Skills (DIUS) was established. Both of these new Departments have joint funding responsibility for Business Link.

Although this article is predominantly focussing on England, there are similar arrangements in place for firms in Northern Ireland, Scotland and Wales. However, since devolution, funding arrangements are slightly different. For example, in Scotland, there are two main RDA's; Scottish Enterprise covering the Lowlands plus Highland and Islands Enterprise. These provide funding for agencies called Business Gateway which take on the same role as Business Link in England.

Selective finance for investment in England

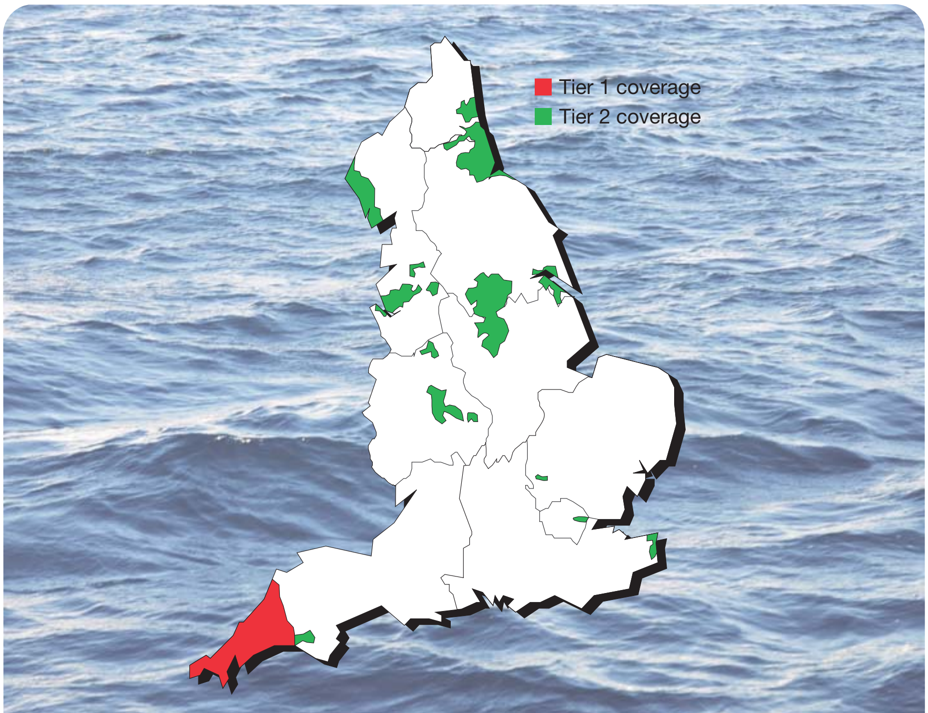
In addition to potential funding to firms across the whole of the country, there are certain areas of England which have been designated as Assisted Areas. This also applies to the other nations of the Union and information can be found at www.rsa.gov.uk. The European Commission regulates State Aid across the EU to avoid the distortion of competition and it designates an area as an Assisted Area only if it deems it to be disadvantaged compared to others across the EU. The Assisted Areas Order 2007 defines the Assisted Areas of Great Britain between 2007 and 2013. Firms and Enterprises within these areas are entitled to apply for State Regional Aid, which in England is called 'Selective Finance for Investment in England' (SFIE). As part of SFIE, firms of all sizes can apply for state aid for an intended project. If the funding applied for is less than £2 million, the RDA will consider the proposal. However, an application for funding in excess of £2 million needs to be considered centrally by BERR. A key objective of regional industrial policy is the creation of sustainable jobs within the Assisted Area; SFIE defines sustainability as at least 5 years. The recipient firm should also be proposing a project or programme which will enhance productivity and therefore lead to a growth of Gross Value Added (GVA) per employee.

Figure 6: The Treasury's policy cycle

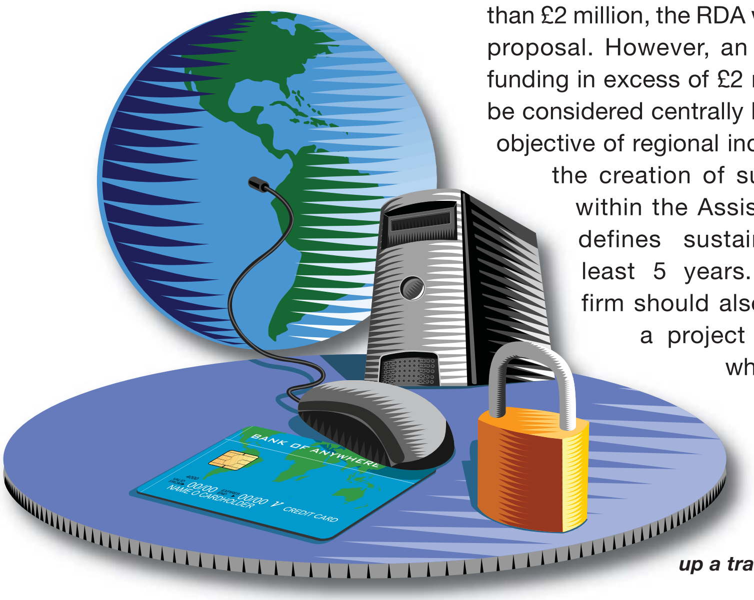


Source: http://greenbook.treasury.gov.uk/chapter02.htm#Intro

Figure 7: Selective finance for investment in England



Source: BERR publication July 2007, Selective Finance for Investment in England



Government will give grants to set up a transaction website.

Summary

The process of support for business by Government is undergoing a period of transformation as it outlined in the pre-budget report of 2007. BERR along with DIUS tend to have control over the process of support, although the Treasury oversee all spending requirements. Firms in all the separate countries of the United Kingdom have access to intellectual advice and financial support from various agencies. In addition to this firms can seek support from the European Union, who fund those businesses based in areas deemed as needing additional state support.

To what Extent is the Internet Making Markets More Competitive?

economics of the Internet

Peter Cramp, of Nottingham High School considers how the worldwide web impacts on price competition.

The growth of internet shopping gathered pace enormously in 2007. The Interactive Media Group (IMRG) estimates that consumers spent £53 billion online during the year, an increase of 75% on the previous year. Internet sales ('e-tailing') represented a 17.5% share of the total UK retail market.

The pace of this change has surprised even industry experts. It seems that a number of factors have come together to drive online sales. These include the growing use of broadband internet connections, now present in roughly half of (about 13 million) UK homes, growing confidence about shopping online and the increasing time pressure on consumers: In the words of Richard Goulding, co-founder of Play.com:

> **I can't see why anyone would get into a car, buy a parking ticket and take the time to go to a shop just to pick up the latest Kylie Minogue CD!**
>
> S. Hawkes, *Times Online*, 3 January 2008

On the supply-side of the market, firms have undertaken major investment to make their websites easier to use, to reduce the threat of online fraud and to ensure fast delivery of products ordered.

Forecasts of the speed at which internet shopping will grow in the future are now being revised upwards. IMRG estimates that half of all transactions may take place online by 2018.

Competitive markets

In many respects, it is clear that the growth of internet shopping is serving to make markets more price competitive (see Box 1 for the characteristics of a perfectly competitive market).

Enormous numbers of buyers and sellers interact online and price comparison websites vastly improve consumer information. This reduces monopoly power (the ability of firms to raise prices) as consumers are increasingly able to opt for the lowest price provider. A typical price comparison site accessed on 3rd January 2008 produced no fewer than 31 alternative retailers of a given model of a 37 inch Toshiba LCD TV. This said, there was

Box 1: The characteristics of perfect competition

A perfectly competitive market is one in which:

- There are many buyers and sellers of the product.
- The product sold is homogeneous (products are not differentiated).
- All market participants enjoy perfect knowledge (for example about the characteristics of the product sold, the firms from which it is available and the prices at which it is sold).
- There are no barriers either to entering the market or leaving it.

These features combine to render each firm in the market a *price-taker*. Any firm attempting to charge more than the market price will lose all custom. The market price is driven down to the level that just covers the opportunity cost of all inputs to the production process (normal profit level). This is because any supernormal profit is eroded as new entrants are attracted into the market.

little evidence of convergence on a single market price as one might expect in a truly competitive market. Instead, prices ranged from £624 to £899.

Barriers to entry are much lower in e-tailing than traditional 'bricks and mortar' shops. This is largely because rents are high for shop space in busy locations, a cost which does not apply to online retailers. They may still need warehouse space to keep stock, but location is less important and rents tend to be much lower

Although the internet is making markets more price competitive, the consumer's need for reliable information about the product he is buying may sometimes enable traditional retailers to charge a higher price than their internet counterparts. Consumers may feel more comfortable, for example, buying clothing from a traditional store where they have been able to see the garment and try it on to ensure a good fit. Other advantages enjoyed by traditional stores include the fact that customers are able to talk face to face with trained staff, which may be important in some markets such as those for computers and flat screen televisions. After-sales care may also sometimes be better than when purchases are made online. This is one reason why car dealerships are able to charge a higher price for the same car than an online car supermarket. In effect, these differences in service amount to product differentiation between traditional stores and e-tailers.

Although such product differentiation is a departure from the model of perfect competition, it is possible to argue that it acts in the best interest of the consumer by increasing the choice available to him/her. Those consumers who are willing to pay for improved service are able to do so, while those who are more price conscious find that online prices are lower than those charged in the High Street.

Indeed, traditional retailers have had to adapt their behaviour in the face of the challenge of internet competition and this has usually been to the benefit of the consumer, whether this be in the form of lower prices or improved service. Brian McBride, managing director of Amazon UK, argues that to survive the internet revolution shops will "either have to offer value like Primark or great service like John Lewis and Marks & Spencer". Most traditional retailers now have an online presence too. This often offers consumers the convenience of being able to reserve a product online before collecting it in store. The service offered by Argos is a case in point. Box 2 shows that Argos, despite the central importance of its High Street presence, was the UK's third most visited retail website in October 2007.

Box 2 also helps us to understand the limits on the extent to which the internet can make markets competitive. Online monopolies are certainly possible and firms such as Amazon (which led the way in online retailing through its books website almost a decade ago) and Play.com (specialising in CD and DVD sales) enjoy a huge slice of their respective online markets. Although it is not in retailing as such, the auction site eBay also springs to mind. Customer recognition gives the owners of these brand names substantial market power and this may deter new entry into the relevant markets. The online success of traditional retailers such as Tesco also suggests that existing firms who are able to adapt well may find that the internet reinforces a dominant market position rather than eroding it. Amazon, Play and Tesco all benefit from economies of scale in purchasing and distribution that are not available to other retailers.

Conclusion

The internet brings together large numbers of buyers and sellers, improves consumer information by facilitating price comparisons and lowers entry barriers. In doing so, it makes markets more competitive and this effect is likely to grow substantially over the next few years. Consumers benefit as prices are lowered not just online but in traditional stores and as High Street stores attempt to differentiate themselves through the service they offer. However, some firms have been able to build substantial market power through their online operations.

Box 2 : The top 50 UK e-tailers, ranked by number of visits to their websites

1 Amazon	**11** HMV	**21** Comet	**31** Toys 'R' Us – UK	**41** HP
2 Play.com	**12** Expedia	**22** Woolworths	**32** B&Q	**42** River Island
3 Argos	**13** Thomson Holidays	**23** GAME	**33** The Orange Shop	**43** IKEA
4 Tesco.com	**14** lastminute.com	**24** PC World	**34** Littlewoods	**44** M and M Direct
5 Apple	**15** Currys	**25** Boots	**35** QVCUK.com	**45** Sainsbury's
6 Dell	**16** Ticketmaster	**26** O2 Shop	**36** Asda	**46** Dixons
7 Amazon.com	**17** John Lewis	**27** Symantec Store	**37** Carphone Warehouse	**47** iTunes
8 Marks & Spencer	**18** Ryanair	**28** Debenhams	**38** Topshop	**48** Thomas Cook
9 Tesco Direct	**19** easyJet	**29** ASOS	**39** Odeon Cinemas	**49** bmibaby
10 Next	**20** British Airways	**30** Ebuyer	**40** Screwfix Direct	**50** Thomsonfly

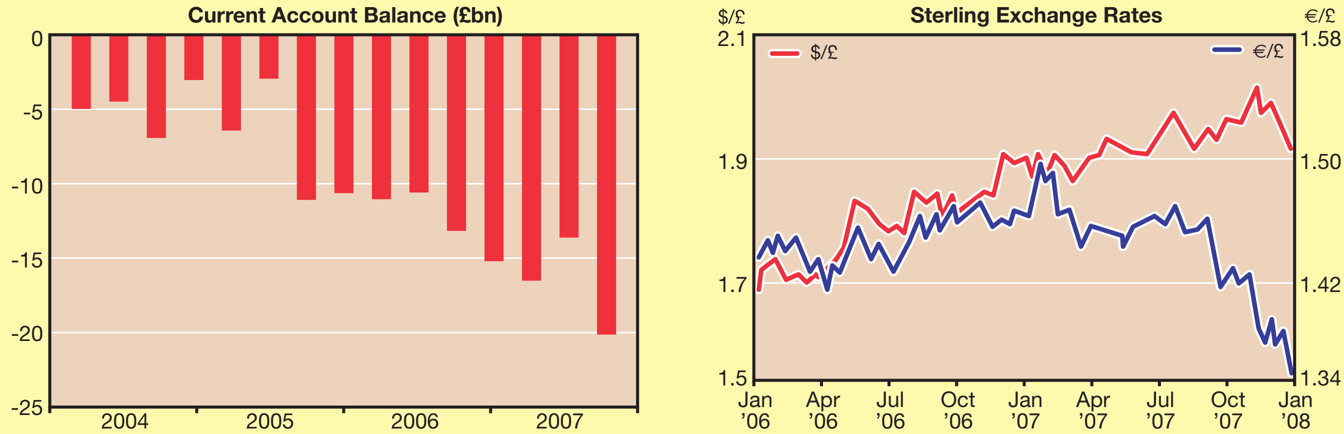
Source: IMRG-Hitwise Hot Shops List, November 2007. Available at www.imrg.org

DATA Question and Answer

Quintin Brewer, a Chief Examiner and teacher at North London Collegiate School, considers a data response question concerning the current state of the UK economy.

It is more than likely that all of you will be facing questions relating to the macroeconomy in the June 2008 examinations and, given the inter-dependent world in which we live, some of these will have an international flavour. With this in mind, the material below relates to some of the issues facing the UK economy in 2008. Remember that knowledge and understanding of current economic issues can help to distinguish between an outstanding answer and a merely good one. Therefore, these questions are designed to help you to secure some useful insights into the economics behind some current issues and to develop your analytical and evaluative skills.

Figure 1: UK Balance of Payments on current account and sterling exchange rates in 2007



After years of debt-fuelled growth, the UK's current account deficit sunk to 3.9% of GDP in 2006 (see Figure 1). Early data for 2007 predicts an imbalance of 5% of GDP. That's very close to the 5.1% deficit of 1989, again after a significant consumer boom, which put great pressure on the pound.

No surprise then that during 2007 sterling endured its sharpest decline for 15 years, falling to €1.35 against the euro. In recent months the pound's trade-weighted exchange rate has dropped no less than 9%, with 4% of that happening in December 2007.

In other words, since the MPC last met in early December, we've had not only a quarter point interest rate cut but also a huge adjustment in sterling – which, given the UK's current account position, is merely the start of a long-term downward trend.

Meanwhile, inflationary pressures are building up: the price of oil breached $100 a barrel last week, npower raised prices of gas by 17% and electricity by 12% and food prices are set for further rises as a result of increasing demand in Asia, higher cost of animal feed and the production of ethanol from food crops.

Source: Adapted from L. Halligan, 'Interest rates have been hijacked by politics', *The Sunday Telegraph*, 6 January 2008.

(a) With reference to Figure 1,
   (i) Explain what is meant by the statement "after years of debt-fuelled growth, our import-export deficit sunk to 3.9% of GDP in 2006". *(4 marks)*
   (ii) Analyse two possible reasons for the trend in the UK's Balance of Payments on current account between 2004 and 2007, other than economic growth. *(10 marks)*

(b) Explain why a significant fall in the value of the pound against other currencies might make it difficult for the Bank of England to cut the rate of interest. *(4 marks)*

(c) Analyse two factors which might influence the exchange rate of the pound. *(8 marks)*

(d) Assess the likely economic consequences of "a long term downward trend" in the exchange rate of sterling on the UK economy. *(12 marks)*

(e) With reference to the last paragraph, evaluate the effects of rising energy prices on the UK economy. *(10 marks)*

Suggested approach to the questions

(a) With reference to Figure 1,

(i) Explain what is meant by the statement "after years of debt-fuelled growth, the UK's current account deficit sunk to 3.9% of GDP in 2006". *(4 marks)*

It is always worth starting by outlining the main components of the current account of the Balance of Payments. Also, reference should be made to the data because the stem specifically includes an invitation to refer to Figure 1. The answer below provides a simple outline:

The current account of the Balance of Payments represents the UK's day to day trading position with the rest of the world. It includes the balance of trade in goods (for example, the export of chemicals and the import of Australian wine) and services, for example, the use by foreigners of UK banking services (an invisible export) and British tourists going to Kenya (an invisible import), income and current transfers.

The statement implies that economic growth has been driven by rises in consumer expenditure financed by borrowing. Consumer debt in the UK now stands at £1.6 billion. Inevitably, some consumer expenditure has been used to buy imports which have contributed to the growing current account deficit. Figure 1 shows that the deficit was over £50 billion for the whole of 2006 and £20 billion in the third quarter of 2007 alone.

(ii) Analyse two possible reasons for the trend in the UK's Balance of Payments on current account between 2004 and 2007, other than economic growth. *(10 marks)*

A number of factors might account for this trend including the value of the pound, the UK's relatively low productivity; unit labour costs; the rise of China, relatively strong economic growth; non-price factors. It is important to consider the underlying factors which might have caused this deterioration in the balance rather than the symptoms. For example, in answers to questions like this one, many students refer to deindustrialisation. However, it is the causes of deindustrialisation which must be examined to secure high marks. It is also important to discuss two main issues only – there is an opportunity cost in discussing more than two! Again, it is advisable to start with a reference to the data as shown below:

The graph shows that in the first quarter of 2004 there was a deficit of £5 billion but by the third quarter of 2007 this had increased to £20 billion. Although there are fluctuations, a worsening trend is apparent.

For a prolonged period, until last year, the value of the pound has been relatively high. This has caused the price of UK exports to be relatively high while the price of imports into the UK has been relatively low. Consequently, UK goods have not been very price competitive. This factor is considered to be very significant by some economists who estimate that the pound was around 30% overvalued for much of the period between 1996 and 2006.

The increase in imports of manufactured goods from low wage countries such as China has certainly been a major factor contributing to deindustrialisation in the UK and in increasing its dependence on imports from abroad. With its vast workforce, China is able to produce goods far more cheaply than in the UK where wage costs are relatively high. It is clear, therefore, that the UK has lost its comparative advantage in manufacturing, especially for products involving labour intensive production.

(b) Explain why a significant fall in the value of the pound against other currencies might make it difficult for the Bank of England to cut the rate of interest. *(4 marks)*

This question illustrates how external factors can impact on decisions made by the Bank of England on domestic monetary policy. The key point here is the possible impact on inflation via the change in import prices following a depreciation in the value of the pound. The response below shows how this might be explained:

A depreciation in the value of the pound would cause an increase in the price of imports. In particular, the price of imported raw materials would rise so increasing the costs of businesses reliant on such imports. The danger is that these higher costs would feed through to higher prices. In turn, this could trigger demands for higher wages so creating an inflationary wage price spiral. In such circumstances, the Monetary Policy Committee might not reduce interest rates because there would be an increased risk of the inflation target (2% +/- 1% being missed).

(c) Analyse two factors which might influence the exchange rate of the pound. *(8 marks)*

This is a relatively straightforward question requiring consideration of factors influencing the value of the pound. *Examination Tip:* Keep referring back to the question when writing your answers.

Responses could analyse factors such as relative interest rates, the current account balance, relative inflation rates, the state of the economy and expectations for the future, speculation. The following response focuses on the first two factors since reference is made to them in the passage.

If interest rates are higher in the UK than in other countries then there is an incentive for foreigners to place surplus cash balances in UK banks because they will secure a higher return on them than in other countries. This would have the effect of increasing the demand for sterling on the foreign exchange market and so increasing its value relative to other currencies. This factor has been significant in keeping the value of the pound high in the decade 1996 to 2006. A cut in interest rates in December 2007 and the expectation of further cuts in UK interest rates is now causing a fall in the value of the pound.

A persistent and growing current account deficit can also exert downward pressure on sterling: if the value of imports is increasing more rapidly than the demand for exports then the supply of sterling will be increasing more quickly than the demand for sterling so causing downward pressure on its value.

(In practice, the pound has remained fairly strong until recently, despite a persistent current account deficit. This may be explained by the demand for sterling in the financial account both in the form of foreign direct investment and short term capital flows associated with relatively high interest rates and the strength of the UK economy.)

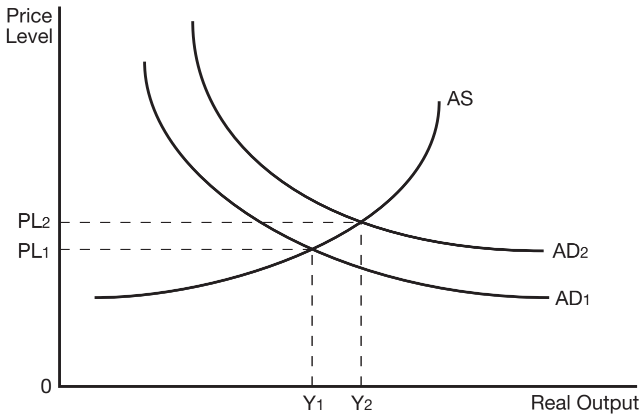
(d) Assess the likely economic consequences of "a long term downward trend" in the exchange rate of sterling on the UK economy. *(12 marks)*

This is potentially a very wide-ranging question and could easily be an essay title. In the context of a data response paper it is necessary to restrict your answer to a discussion of two or three major issues, for example, the impact on the Balance of Payments on current account; and the possible impact on growth and unemployment. The command word 'assess' invites some evaluation. This is included in the answer below in consideration of elasticities of demand for imports and exports; differences in short run and long run effects; and in the magnitude of the depreciation.

A fall in the exchange rate of sterling would increase the competitiveness of UK goods because the foreign currency price of UK exports would fall while the price of imports into the UK would rise. This will reduce the Balance of Payments deficit on current account if the Marshall-Lerner condition is fulfilled – i.e. if the sum of the price elasticities of demand for imports and exports is greater than one.

However, there are various reasons why the current account might not improve, at least in the short run: first, UK firms might have insufficient capacity to be able to increase supply to meet the higher demand for exports. Secondly, UK importers may have long term contracts with overseas suppliers and would not, therefore be able to switch to domestic suppliers in the short run. Consequently, the current account might actually deteriorate in the short run before improving in the long run – this is the so-called J curve effect.

As discussed above, a long term downward trend in the exchange rate of sterling would increase the competitiveness of UK goods because the foreign currency price of exports would fall while the domestic price of imports would increase. Assuming that the Marshall-Lerner condition holds, this should help to increase aggregate demand because the value of exports will rise relative to the value of imports. Consequently, the AD curve will shift to the right as illustrated in the diagram below so leading to an increase in real output. This rise in real output should result in increased demand for workers causing a fall in unemployment.



The extent of the impact on growth and unemployment depends on how much the value of the pound falls: a significant fall e.g. 30% would have a more marked effect than a 10% fall.

Further, the depreciation in the sterling exchange rate might have undesirable consequences. For example, the increase in import prices could cause a leftward shift in the AS curve so reducing the impact on long term growth and employment.

(e) With reference to the last paragraph, evaluate the effects of rising energy prices on the UK economy. *(10 marks)*

This question raises the spectre of stagflation – a cocktail of inflation and slow or stagnant growth, something which occurred following the oil price rises of the 1970s. Again, it is important to use relevant economic analysis in your answer and the obvious tool is aggregate demand/aggregate supply analysis. The demand for evaluation is also clear and this is where an understanding of changes in the world economy is helpful as shown in the discussion of the oil price increase below.

Oil prices are now nearly as high in real terms as they were in the 1970s. Then, the hike in prices led to a world wide recession. Using aggregate demand and aggregate supply analysis, higher oil prices cause a leftward shift in the AS curve leading to a fall in real output and an increase in the price level. More generally, oil is essential to many products as a source of energy, for transportation and as a raw material, e.g. plastic so that the impact on aggregate supply might be very significant. The overall effect will depend on the extent of the increase in energy costs (because this will determine the amount by which the AS curve shifts) and the gradient of the AD curve.

However, oil is no longer so significant to many developed countries, including the UK, as was the case in the 1970s because 'oil efficiency' has increased, i.e. the amount of oil required to produce a dollar's worth of GDP has fallen. Further, the UK has a much smaller manufacturing sector than was the case in the 1970s so is less reliant on oil. The other key difference is that higher oil prices are being driven by increased demand, especially by China and India rather than by cuts in supply by OPEC, as was the case in the 1970s.

Nevertheless, higher energy prices are exerting inflationary pressures on other industries including the prices of food and manufactured goods. Recent evidence suggests that inflationary expectations are increasing which could manifest itself in a more militant stance by trade unions in wage negotiations raising the prospect of a wage-price spiral.

However, if UK producers face intense competition from foreign companies they might try to absorb the increase in energy costs by cutting profit margins or reducing costs in other parts of their business.

And finally…

Here are 3 ways to avoid the most common errors in answering data questions.

- Check the data carefully by reading the labels on each axis – it is very easy to misread data in examination conditions.
- Refer back to the question when writing your answers – this will help you to avoid 'going off the point'.
- Plan your time with precision – leaving out the last part of a question can be very costly. In most questions it is usually easy to secure the first 3 or 4 marks.

Revision Guide 2008

Steve Tidball, Ipswich School

However hard you try, and some people try very hard indeed, you just can't get away from examinations. No matter how much the education system is changed, written examinations still form a large part of the assessment process in this country at all age levels. Indeed, you may well be aware that, rightly or wrongly, your age group is amongst the most frequently examined group of students in the world. Exams are a fact of life that you just have to deal with!

Many myths surround examinations, so in this article, I want to show you how you can put yourself in a position to handle exams confidently and effectively. This will stand you in good stead not only for your forthcoming exams but will help you develop skills that you can use whenever you face the stress of exam-like situations in the future.

The article is obviously about preparing for exams in Economics, but the principles and techniques can easily be adapted to any exam in any subject.

- **A few 'only you…' home truths to kick off**

Only you	**will sit for**	**your own**	**exams**
Only you	**can revise for**	**your own**	**exams**
Only you	**are responsible for**	**your own**	**life**

Get the point? Although articles like this can help, your final grade will ultimately be determined by your own efforts alone. This is, of course, as it should be. There is actually no big secret to exam success – if you adopt a sensible systematic approach to learning, you'll do fine. Remember the cliché used by many sports coaches…

FAILING TO PREPARE = PREPARING TO FAIL

- **Your own teacher remains the best source of advice** about the subject matter and revision in general. Not only does your teacher have expert subject knowledge but she or he knows the specific exam requirements and also knows your own personal strengths and weaknesses.

Initial self-assessment

It is worth spending a few moments to reflect on how you currently approach study and revision. You may, of course, already have acquired a good understanding of the subject, your study skills may be very advanced and you may be well into a carefully structured, progressive and systematic revision programme.

If that is so, great… keep going, much of what I have to say will probably appear very obvious to you. On the other hand you may not be in so fortunate a position; you may be feeling very apprehensive about the coming months; you may be feeling guilty and regretting a less than whole hearted attitude to work earlier in the course.

If you have not really got into gear yet, the good news is that you are not alone and it is still not too late. There are many other students who have devoted less than 100% effort to their course. Assuming you have done some work during the course (you have done **some** work, haven't you?) and have a reasonable, if somewhat superficial, understanding of the main ideas, you can still enjoy outstanding success this summer.

The reality (here comes the bad news!!) is that success will not come without considerable sacrifice. Sorry, but at both A and AS level there is no substitute for hard work. If you postpone the inevitable much longer, it will be too late and you will either fail outright or fail to get the grade you need. Remember, if you are studying for AS exams but planning to carry on to A2 **it is the mark** not the grade that is important. Ask your teacher to explain this to you.

The only place where success comes before work is in the dictionary.

However, hard work on its own may be insufficient, the work you do has to be of the right sort as well.

Coping with Exams – some general comments

There are THREE fundamental features of effective study.

1. Clearly established priorities and good organisation

It is important to place all exams in context – these exams are important but they are not a matter of life and death. However, you have already spent a lot of time in classes and private study and the outcome of these exams has the potential to exert a powerful influence over the next few years of your life.

Are you really clear on your priorities, are you really prepared to make that extra bit of effort and sacrifice to achieve success. Do you really want to succeed? "Of course I do" you will say. Do you? I often ask my students to put themselves to '**the S-day 7 test**'. Picture this, it's seven o'clock in the morning on an S-day (Saturday or Sunday!!) – you are faced with the prospect of rolling over and having another two hours in bed or doing an extra two hours work – what do you choose to do? What about next week? The week after? Are you really so clear and focused on what you want to achieve that you are prepared to make the necessary sacrifices… consistently. What about if it's seven o'clock on a Saturday night – would you be prepared to do some work and go out an hour later… or occasionally stay in and do revision work all evening? It is in these situations that you discover your real priorities in life! Of course, if going out to have fun really is top of your list then that's OK, just don't whinge about the consequences of this choice.

If you really want to do something you'll find a way… if you really don't want to do something you'll find an excuse.

So you must sort out your priorities and then get yourself and your life organised. You should treat your studies as a job and adopt a professional, disciplined approach to revision. So get into a regular pattern of working, this will help you to stay in control of events. Remember to allocate an appropriate amount of time to each of your subjects. You also need to give yourself breaks – so think about setting a certain amount of time aside for leisure or sporting activity, it will help you relax. Provided you are working conscientiously, you probably won't have to stay in on a Saturday night to pass 'the S-day 7 test'!!

Life is like riding a 25 speed bike – most of us have gears we never use.

It might also be worth creating a vision or ultimate goal – where do you see success in this exam leading – a good job, three (or more) great years at university. Keep this private vision firmly in your mind (some people actually put it on a poster on their bedroom wall) – it will help you through days when morale is low.

2. SUCCESS is an attitude of mind

You need to get yourself psychologically prepared for SUCCESS. Exams produce anxiety and stress. There may be a lot of pressure on you to pass, to get certain grades or whatever. A certain amount of stress can be beneficial, but too much anxiety does not help, nor does fear, depression or constant self doubt. You can't ignore these negative feelings but you can control them by preparing yourself effectively. So be positive in your self-talk, be positive in your actions and be positive in your dreams. Alter your attitude and you can alter your life.

Losers visualise the costs of failure… winners visualise the benefits of success.

Also, don't be misled into thinking that exams are a battle of wits with devious and malicious examiners who are trying to trip you up and are looking for any excuse to fail you. Quite the reverse is true – there are no trick questions. Of course, examiners set questions that test you… but questions that test you in a fair way. Every examiner is actually delighted to give well-prepared students high marks for their knowledge if it is relevant and effectively used.

So, assuming you have done some work throughout the course, (you have done some work haven't you?) your performance in the exams is determined by the quantity and quality of work you do particularly in the last 2-3 months. This should be reassuring – you were accepted onto the course because you had enough ability to pass; if you work correctly and conscientiously, you WILL do yourself justice in the exam. Of course, if you do not bother to do much work at all then you do not deserve to pass anyway and where will that lead you?

What the wise do in the beginning… fools do in the end.

3. Planned, active, regular learning and testing

Learning is more effective if it is undertaken over time with regular reviews and consolidation. So avoid last minute cramming – despite any 'success' you feel you may have enjoyed in the past using this approach, you will probably tire yourself out for the exam (or the next one!) and your anxiety level will increase and that will undermine recall in the exam room. Sure you will remember some material and of course if you have done no revision this last chance saloon technique may be all you've got. However, much will be forgotten and you will probably only be able to reproduce the material in a very list like manner which may not be what the question requires.

So make sure that you spread you revision sensibly over time – the sooner you start working the better. Concentration spans are limited, so limit yourself to intensive bursts of between 35 and 45 minutes. Remember, to build in adequate breaks both between and at the end of study sessions. This will help you physically, intellectually and emotionally.

You have to be active in your learning. Avoid just passive reading, rewriting or copying notes. Osmosis is actually one of the more ineffective revision techniques!!

Even if you are on the right track, if you just sit there… you'll get run over!

During your revision programme, you must practise repeatedly the skills and activities that will be required in the exam. This means lots of self-testing and plenty of practise at recalling material and reorganising it in a coherent and relevant way.

Remember – Practice does not make perfect it makes permanent.

So if you practise good techniques and important skills, these will be with you when you need them in the exam – you can be CERTAIN of that.

Success is a science – if you create the right conditions, you get the right results.

The 4Ps of Revising

I like to think of any revision programme as being made up of the 4Ps.

Planning, Preparing, Practising and Performing.

Planning

This is the stage where you get yourself and your material together to create the conditions and attitude of mind that allow you to focus clearly on the tasks in hand.

1. Learn the Rules of the Examination Game

In any sport or game, all the players have to acquire a reasonably good knowledge of the rules that will be applied. Very often those that have a detailed knowledge of the rules can place themselves at a big advantage. Exams are no different, you need to be very clear in your own mind about what it is that the examiners are looking for in answer scripts.

All external exam questions that you will face this May/June have gone through an extensive process of checking and revising to make sure: (i) that they clearly fall within the scope of the written syllabus
and (ii) that they are a fair examination of the academic skills of knowledge, understanding, analysis and evaluation.

So get a copy of the syllabus from your teacher or directly from the exam board that is setting your examination. The syllabus shows the main concepts and terminology that you must be familiar with and the main skills (assessment objectives) and qualities that examiners are looking for in good answers. Ask your teacher to explain what these mean.

This is really important. You **must** understand how different question commands require different styles of answer. How would you demonstrate the academic skills these directive words are seeking to elicit? On a large A3 sheet, draw up a grid like the one below – then complete it. Talk it over with your teacher and use this framework whenever you answer a question.

Directive word	These skills are being assessed…	I can demonstrate this skill by…
Describe		
State		
Compare		
Explain		
Analyse		
Discuss		
Comment upon		
To what extent		
Evaluate		
Assess		

Make use of material that is published by your exam board. The materials available for both A and AS levels are generally of very high quality so use them. Ask your teacher for a copy of recent Chief Examiner's reports – these highlight the main strengths and weaknesses of answers to that year's exam. Use these in conjunction with the relevant past paper to help you in your preparation and practise sessions. Some exam Boards publish graded samples of past exam scripts with comments by the Chief Examiner. These are useful to make you aware of how to get the best marks for your own answers by incorporating the key characteristics of good answers and avoiding the common mistakes of poor ones.

2. Get your key resources organised

Set aside a fixed place for study. Make sure it is reasonably quiet, well lit and relatively free of distractions. You need good ventilation, a desk or table large enough to spread out your materials and a chair that is comfortable but not too comfortable – you want to study not sleep remember. Try to arrange the room or part of the room so that this place is clearly for study and nothing else – you may need your family's support and co-operation here!! After a while, if you are genuine in your intentions, your attitude and behaviour can be shaped by the little pre-study rituals and symbols to complement study and studying becomes the appropriate behaviour in that place. How about playing a favourite track that has an 'inspirational' effect on you before each session? Although it might sound a bit cheesy, my own students have regularly commented on how such an approach did have an important and positive psychological impact.

Get your notes and essays ordered into topic areas. Class notes must be complete – you may have been absent on certain occasions so that there are gaps in your class notes – make sure these gaps are filled in thoroughly.

Get hold of a copy of the text book that you feel most comfortable with. If you are thinking of buying a revision guide, I would strongly advise you to consult your teacher before parting with any cash. She or he will be able to identify which book, if any, is most suitable for your individual circumstances and your particular syllabus.

Try to replicate exam conditions as much as possible. Although certain types of music can probably help to promote learning, at this stage, I'd advise you to work in a room that is free of distractions. Body posture is very important in maintaining your concentration and preventing drowsiness – so work at a table or desk with an upright chair with all your resources easily accessible. It often helps to go through a specific routine just before starting work since this can help to prepare you mentally for the work to be done. So turn on the CD, cue music and…

3. Set yourself short, medium and longer term goals

Setting clear, short term targets and longer term goals as part of a psychological contract with yourself is a very important aspect of the mental preparation for the task in hand. These goals should be clear, realistic, yet demanding statements about what you are planning to learn. Try to write these down. You should then reward yourself when you have reached the target – go and do something you enjoy.

Winners have two things… definite goals and a burning desire to achieve those goals.

So… draw up a revision programme based on the syllabus requirements and stick to it. You really should cover the whole syllabus. Remember multiple choice questions and data response questions can be drawn from any part of the syllabus. Even where you have a choice of questions, the more of the syllabus you cover, the better your chances of being in a position to answer the relatively straightforward questions that do appear each year. If your revision is very narrow you may be forcing yourself to answer questions that are quite tricky or worded in a more difficult manner… you know that Sod's Law will prevail if you are very selective about the topics you choose to revise.

4. Constructing Your Personal Revision Programme – some practical help

Most students are aware of at least some of the points raised above but still find it very difficult to turn this advice into a plan of action. Below is an example of one possible revision programme for each day of a 'typical' two week Easter holiday. It focuses on AS basics and A2 microeconomics (excluding factor markets) and is similar to the one that my own students are usually given. It should be adapted to your own needs **after** consultation with your teacher.

It IS challenging but it is NOT unattainable – it is structured, systematic and it includes complete time off. It does however require you to make considerable sacrifices over the Easter holiday. Of course, the extent to which you follow it depends on your own particular circumstances and how badly you want to succeed – remember the S-day 7 test.

It does however give you a clearer idea of what has worked very well for Sixth Form students in the past.

In times like these, it is worth remembering that there have always been times like these!

Easter Revision Programme 2008

- **Get yourself into a positive frame of mind… YOU CAN DO IT**
- Break the syllabus down into manageable chunks and take each chunk in turn. The first four days activities are shown in more detail – complete the remaining days in a similar manner using the detailed information provided by your teacher or the exam syllabus itself.
- If you are sitting A2 papers remember the need to review all of the course because of the so-called synoptic assessment that you will face – ask your teacher about this.
- Before the holiday – get all your notes, textbooks, past papers etc. in order.

Section 1

Day	Topic Area
1	Basic ideas – scarcity, choice, opportunity cost. PPF – shape/position Economic systems – types/operation/strengths/weaknesses – transition economies
2	Demand – theory of consumer behaviour – demand curve movements along/shifts in – elasticities of demand (PED, YED, XED)
3	Supply – theory of costs (short run and long run) – supply curve movements along/shift in – elasticity of supply
4	Supply & demand – equilibrium/disequilibrium – changes in equilibrium – causes/consequences – role of elasticities – 'government' intervention – tax/subsidy/price controls/buffer stocks etc
5	Essay testing and final review of Section 1

6 Break from study

Section 2

Day	Topic Area
7	Competitive and contestable markets
8	Monopolistic and oligopolistic markets
9	Review of all market structures
10	Essay testing and final review of Section 2

11 Break from study

Section 3

Day	Topic Area
12	Microeconomic policy – economic efficiency and market failure
13	Microeconomic policy – ownership (privatisation/nationalisation) and competition
14	Microeconomic policy – externalities/merit/demerit goods/public goods
15	Essay testing and final review of Section 3

- Draw up a further revision plan for factor markets, macroeconomics and international economics when you are back in school or college.
- Plan a final run-through of the whole course in the 2-3 weeks immediately before the exam.
- Draw up a work programme for the period of the exams themselves.

Preparation

Throughout the programme, I would suggest that you allocate about two hours per day to each topic area and set some time aside for the final consolidation session. I would advise getting up early so that you get a good session before lunch.

To get into the rhythm of the exam, it's probably best to work for 40-45 minutes at a time since this matches the time that is usually available for essays in the final exam. Take a short but complete break of 5-10 minutes in between sessions.

For example, the session on supply and demand (Day 4) could go something like this:

8.00-8.45am	Session 1 – Equilibrium/disequilibrium/causes of changes in equilibrium including government intervention.
8.50-9.35	Session 2 – Elasticities and the effect of PED/PES on equilibrium changes.
9.45-10.30	Session 3 – Test yourself on terminology/diagrams/essay plans or some multi-choice questions if appropriate.
10.40-11.15	Final review – prepare final revision notes.
11.15 onwards	Do something completely different – play sport, have lunch, watch some TV.

You could also adopt this format for your other A and AS levels. This would probably mean doing one subject in the morning, one in the afternoon and one in the evening. Remember, it's very important to do something completely different before the afternoon or evening session – light physical activity is very beneficial in all sorts of ways; so go for a jog or walk until lunch or dinner time. This will be extremely hard at first but you will get into the swing of things… after all, you have to and many others have done it before.

Backbone beats wishbone every time – nothing is more certain than the failure of the person who gives up!!

Active, Effective Preparation

Remember that to be effective revision must be ACTIVE. It is the quality of the work that you do as well as the quantity that is important. It really is no use sitting in front of a book and reading with a wishful hope that something will stick.

God gave us two ends; one to sit on and one to think with. Success depends on which one you use most.

A useful and effective approach is to go through each block of material from your notes or textbooks in a systematic way:

(i) Survey or preview the material – skim through your notes and try to think why this particular section of the course is important; what aspect of the economy does it help you to understand. What do you already know about the topic? What additional understanding do you expect or need to get out of this section?

(ii) Having set your mind up for the material, you should then read through your notes thoroughly. You will need a pen and paper for jottings. Diagrams are essential here to help focus on the key concepts that you need to understand. Jot down key words and definitions. Link points together to see how ideas develop and relate to each other.

(iii) It is often more effective to read a passage two or three times relatively quickly than to read it once slowly. You can reinforce what you grasped the first time and you often find by moving on that the brain has a chance to work on the difficult part subconsciously. When you come back you will have seen the implications or extensions of the point and may be able to look at it from the other side and consider the idea in context.

(iv) Put your notes to one side and test yourself. Repeat the key diagrams and write out your understanding of how they are derived and what they show. Jot down any areas that you realise still need attention. Open the book again and survey your notes to check on the accuracy. Repeat the process until you are satisfied that you have really grasped the ideas – don't deceive yourself here.

(v) Prepare a summary of the key points and diagrams in a memorable way on revision cards, tapes or wall chart. Be thorough in your initial revision noting, but more imaginative, selective and original when creating the final version. Use plenty of colour and distinctive images. Many students find A3 wall-charts useful – the more bizarre the better. You can surround yourself with key ideas and walk around the room mentally rehearsing and reviewing the ideas.

(vi) These memory aids will then be used for the final review sessions which will take place at the end of a topic block and should be repeated regularly right up to the final exam.

Practice

Examinations require you to recall information and to use it in new ways. Therefore most of your revision time must be spent:

(i) proving to yourself that, without notes, you can recall the main theories and supporting evidence;

(ii) re-organising, recombining and applying the material you have learned to answer specific and unseen questions.

Realistic Practice

Examiners unfortunately never set questions which ask you to "Write four sides on all that you know about supply" – why do you think that is? If you begin to think like an examiner you will start to answer in a more focused way.

Irrelevant writing and a failure to adapt knowledge to the requirements of the specific question remain the biggest causes of exam under-performance. Last minute cramming and the rote-learning of model answers simply encourage your mind to absorb material in an inappropriate and usually irrelevant form… so don't practise doing what will not be in the exam. Use model answers as a way of reviewing material, don't try to memorise them; change the question title slightly, could you still cope?

I repeat, **practice doesn't make perfect it merely makes permanent**, so you must make sure that what you practise is both relevant and of a high quality. Remember that in the exam you are likely to face structured questions that are broken up into various sections; make sure that you practise writing answers which reflect the variety of questions you will face on the day.

Practise interpreting the common question commands – remember some of these commands will not be used at AS level this summer because they will test skills that are not being tested at that level – check with your teacher on this. With that in mind, what is the difference between the following questions:

- Define price elasticity of supply.
- How is PES calculated?
- What are the key diagrams to illustrate the various values that PES can take?
- What are the key determinants of PES?
- What are the main applications of PES.
- Go through the same questions for the various demand elasticities PED, XED, YED.
- Essay practice – look back through past papers and select three or four questions on elasticity – have a go at each one – write out essay plans and try to write one in full.
- Change the mark allocations for the questions you have found – how would different mark schemes affect your answer?

Answer questions from past papers and refer to the comments in the Chief Examiner's Report – plan, write and rewrite timed answers to the sort of questions you are likely to get both in full and in part especially on critical areas of the course. Review your work and rewrite if necessary – set yourself high standards. Life's funny, if you refuse to accept anything but the best from yourself you very often get it!

Certainly if you are going to have essay questions in your exam, you need to familiarise yourself with certain economic statistics (what do you think are likely to be the most useful statistics for the exam?) Remember that trends are probably going to be more useful than figures for one period of time. Get into the habit or reading the economics and business sections of at least one of the major Sunday papers. These will provide you with a good, topical range of micro and macro material which can be used also to practise data response techniques. Reading these articles gives you opportunities to recall and review what you have learned.

Remember with every act of recall and review, your memory is reinforced.

Final review – links and different perspectives
Turn your final review and testing sessions into opportunities to get a new view on the subject. Simulate the unpredictability of the exam by asking someone to choose your 'test-essay' from a selection of questions drawn from previous papers. This should help to discourage you from the 'rote-learning' approach – read through your answer or get a fellow Economics student to do so. How did you answer the question? Be honest with yourself.

Try to see how separate parts of the course can be linked together. You could use Post-it notes here – stick them on a wall and move them around to see how ideas can be linked to give the big picture. Force yourself to think how topical issues could form the base of new essay questions… then make sure you plan answers to those questions.

Go though the articles in past copies of *Economics Today* – pick out some exam related concept or diagrams. Take any article which mentions revenue. Then think of the opportunities this provides to revise a wide range of microeconomic principles.

- **Definitions of the various types of revenue** – total, average, marginal.
- **Diagram practice** – can you draw diagrams to explain each of the above – when the firm is a price taker?
  – when the firm is a price maker?
- **Calculation practice** – can you calculate each from a set of data?
- **Outline the factors that influence revenue**.
- **Explain the usefulness of an understanding of revenue to a profit maximising company.**
- **How is the concept of company revenue linked to wage theory?**
- **What is the link between revenue and demand?**
- **What is the link between demand and PED, XED and YED and marginal private benefit… marginal social benefit?**
- **Play around with different mark allocations for this question** – how would different mark schemes affect the balance of your answer?

Now do the same with costs, profit, market structures and so on. Then do macro! Think of the amount of varied revision that this offers. The scope for challenging and effective revision in this way is almost limitless – hard work I know but we are what we repeatedly do.

Excellence is not an act, excellence is a habit.

Help each other – revision groups
Working in isolation is pretty dispiriting even for the most determined student. Why not form a revision group so that you can learn from each other? In the past, students have found this sort of group work an excellent way of maintaining morale especially during the holidays when the first flush of rampant enthusiasm has turned a shade paler!!

Even the 'best' benefit from having to explain ideas to their friends who may have not grasped ideas fully the first time around. So why not give it a go.

- First of all, learn all you can on your own. Remember, the object of the study group is to share knowledge not ignorance. Identify tricky parts of the course and work through these together. Show each other your revision cards etc. and explain them – all of you will benefit.
- Set yourself a few exam questions to discuss and then answer – this helps you to articulate and clarify your understanding and therefore reinforces learning. Each person could prepare a detailed essay plan for discussion – get each other to present their plan and subject each other to questions.
- Review each others test answers… you will be staggered at how much progress you can all make if you work together.

Sharing revision with others can actually be fun (well almost!!) and it helps you to keep a sense of proportion about the exam… you are not alone in your anxiety and working with others confirms how much progress you are actually making (and you WILL make progress).

Performance
This of course is what it is all leading towards. Your big chance to demonstrate what you know by answering the specific questions in a relevant and informed manner. Really, if you have worked consistently and conscientiously, the performance should not be an ordeal. You know your stuff, you've practised using your knowledge in a variety of ways, you can recognise and write answers to a range of specific commands and you know how to time and pace each essay so that you will avoid the crippling 'last question syndrome'. If you are mentally and physically prepared… *you know that you can cope*.

The day before the exam
Use the last day sensibly. On the day before each exam check again the time and place. Make sure you have all the necessary materials (pens, pencils, rubber, ruler, calculator with spare battery, lucky mascot). Have a brief run through the top priority items again. Be very wary about doing any new learning at this late stage – it might simply block out things you have already studied. Break off studying well before bedtime and relax so that you don't stay awake all night with an overactive mind.

The day itself
Everyone has their own set routine on the day of the exam. I would however advise you to take a tip from top athletes. Start to visualise yourself settling down to the exam a week or so before the exams start. **Rehearse a set routine that you will follow at the start of the exam** – set routines are calming. Think back to England's rugby world cup triumph. Look at how Jonny Wilkinson prepares for every place kick by doing exactly the same thing **every time**. If you are not a rugby fan, ask someone who is to demonstrate!

Arrange to be woken up in good time so that you can get to the exam location early but not excessively so. Just before the exam I'd suggest that you keep yourself separate from others so as to avoid the energy-wasting, concentration-sapping nervousness of pre-exam silliness.

Focus your mind clearly on the task in hand. Run through a couple of key ideas, I always used to take a few of my revision cards with me. Although this was often more for comfort than anything else, it was an important relaxation technique that worked for me. When you get into the room go through the set routine you've been visualising.

The Essay paper

In terms of marks, this is usually a very important paper. Although at AS level, full essays do not feature, the skills, knowledge and understanding required to answer essay-type questions of any length are directly and indirectly relevant for the other papers you will sit too. In particular, in data response questions there will often be a longer question with more marks available, in effect, this becomes a mini-essay question.

The main weakness on the essay paper can be divided into THREE categories. Think about how you can deal with each in turn.

1. **Poor exam technique**
   Revealed by – failure to answer fully the required number of questions.
   – failure to answer all parts of the question.
   – failure to allocate time and effort in line with the mark allocation (which is usually stated).
   – failure to identify the key skills that are being tested. These are usually revealed by the question command – describe, compare, explain, analyse, discuss, evaluate, assess etc.).
   Make sure you know your exam board's main command words.

2. **Poor subject knowledge**
   Revealed by – limited or inaccurate reference to economic theory.
   – poor or non-existent definitions.
   – poor or non-existent diagrams.
   – no context, examples or factual support.

3. **Poor writing technique**
   Revealed by – poor reference to key question commands.
   – incoherent structure with no clear beginning, middle or conclusion.
   – clumsy or ambiguous expression – bluffing/evasive answers are easily spotted.
   – points only listed often in a fragmented or random and thoughtless manner.
   – inaccurate or, at times, contradictory expression.
   – assertions rather than explanations (are you clear of the difference?).

Key points

- Following a pre-set routine before the exam helps keep you calm and in control… **there will be questions that you can do**.
- Read the question paper THOROUGHLY.
- Select your questions carefully.
- Make sure you take notice of questions that have subsections – usually mark allocations will have been indicated and these of course should be reflected in your time allocation.
- Don't write out the whole question but identify and underline key words (terms and commands). Plan your answers – what economic theory do you need? – what diagrams do you need?
- Your plan and answer will develop as you proceed and the ideas start to flow but remember to stick to your basic outline and try to be coherent and consistent.
- **Answer the specific question set** – really you **will** get more credit if you attempt to do this rather than simply write wildly however many pages you cover.
- Start the essay with precise, relevant definitions.
- USE RELEVANT ECONOMIC THEORY WHENEVER YOU CAN.
- Try to support your comments with a few relevant examples or statistics.
- Try to finish with a conclusion that adds something to the essay and is not simply a summary.
- Be very strict about the time allocation. Remember extra minutes extending the answer to one question are unlikely to gain you much extra credit; far better to get on and write fuller answers to the remaining questions.

The Data Response Paper

This is usually the most unpredictable part of the overall exam but remember that the ability both to collect and interpret data is a critical skill for economists. Data, of course, can be in numerical form (perhaps a set of statistics) or verbal form (perhaps an article from a newspaper) or a combination of both. Use the Data Response in past copies of *Economics Today* to help you.

The main weaknesses displayed in this paper can be divided into THREE categories. How you could deal with each one?

1. **Poor subject knowledge**
   Revealed by – a reluctance to use economic theory to substantiate observations or bolster explanations.
   – a superficial grasp of terminology and theory.
   – poor awareness of the role that diagrams can play in aiding explanation to data response questions.

2. **Poor awareness of basic 'statistical' techniques**
   Revealed by – a lack of confidence in dealing with numerical data.
   – an inability to detect patterns, trends and trends within trends.
   – confusion over – relative and absolute changes.
   – real and nominal values.
   – correlation and causation.
   – poor numerical understanding especially when calculating % changes/ratios.

3. **Poor exam technique**
   Revealed by – a failure to allocate time and effort in line with the available marks.
   – weak writing style.
   – excessive use of clichés, journalistic or conversational language.
   – a lack of confidence to relate theory to the evidence provided.

Key Points

- If the question contains numerical data make sure you look very closely at the source of the data, the units of measurement employed and the time span of the data.
- Try to identify general trends and trends within the trends.
- Do some calculations – percentage changes help you to get a feel for the data.
- Don't confuse variations in rates of change with variations in absolute levels (e.g. falling inflation is not the same as falling prices).
- Try to identify the key aspects of economic theory that the examiner is testing and use that theory. Although common sense helps, this is not a general knowledge paper – your answers must contain economic terms, concepts and diagrams.
- You must answer the specific question set and allocate your time sensibly in line with the mark allocation.
- Define economic terms precisely.
- Practise interpreting data regularly.
- Don't forget to practise using your calculator and make sure you take it to the exam.

The multiple choice and supported choice papers

The best way to improve your performance on this paper once again is through regular practise to past questions, coupled with a fairly detailed investigation of the theory underlying questions you get wrong – see Robert Nutter's regular feature on multiple choice in each *Economics Today*. Very high marks (90-100%) are obtained quite frequently on the multiple choice paper and you can boost your overall grade quite sharply if you are prepared to make the effort to get this style of questioning sorted.

Experience suggests the following factors contribute significantly to unnecessarily poor performance on this paper:

1. **Narrow and superficial revision with too much emphasis during revision/practice on memory rather than understanding**
   Revealed by – an excessive amount of guessing.
   – an inability to reason through questions on basic concepts that are presented in a novel way.
2. **Misreading the question and/or the various responses**
   Revealed by – a lack of concentration when reading questions and response options.
   – easy marks thrown away because of silly errors and mistakes on straightforward questions.
3. **Unwillingness to think in detail about questions that require detailed analysis**
   Revealed by – large numbers of incorrect answers to questions that test applications of theory or policy issues.
   – panic and wild guess responses to questions that involve numerical calculations or diagram interpretation.

Key Points

- Read each question carefully, look closely at the diagrams.
- Try to work out the answers before looking at the options offered.
- Use spare paper to rough out diagrams, calculations or your thoughts.
- Make sure you think carefully about the theory if you have to give a reason for your answer in a supported choice exam. Write clearly using correct terminology.
- Move on if you can't answer a question. Give yourself a maximum amount of time per question – do all those that you can and mark those that you can't and then come back – you should have time.
- Make sure you answer every question – most Boards do not penalise candidates for wrong answers so if there are a few that really beat you then eliminate the options that you know are wrong and make a sensible guess.
- Practise, practise, practise multiple choice questions – it really will pay off.
- Don't forget to practise using your calculator and make sure you take it to the exam.
- Make sure you follow the instructions about what to do if you make a mistake and want to change an answer.
- Don't look back – no post mortems.

After the exam do not get involved in post mortems. The exam is over and there is nothing you can do about it. Omissions or mistakes remembered in retrospect tend to be exaggerated anyway. Relax for a short while before preparing for the next exam.

My students tell me that there is at least one more P... the destination en masse of almost all of the students immediately after the final exam. Enjoy your celebrations in June... OK perhaps your behavioural intent at this stage reveals at least one more P ;-)

More importantly enjoy your celebrations in August when the results are released.

YOU CAN DO IT

I am a great believer in luck… funnily, the harder I work the luckier, I seem to get.

With a sensible approach to preparation, you will also make your own luck in the exam and…

…YOU WILL DO IT.

So… GOOD LUCK – May you get the grade you deserve

THE ESSENTIAL MAGAZINE FOR 'A' LEVEL ECONOMICS

ECONOMICS TODAY

March 2008

Volume 15 · Number 4

ECONOMICS TODAY

Is economic growth always beneficial?

IN THIS ISSUE:

ECONOMICS TODAY

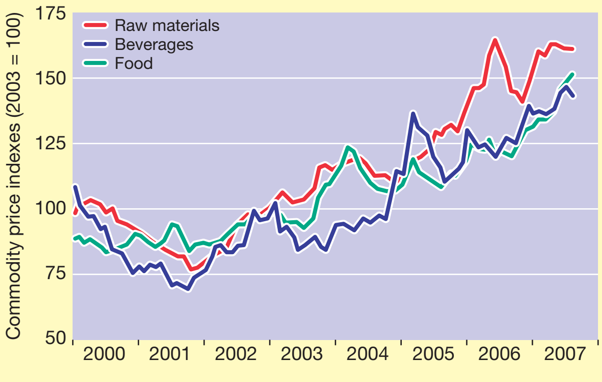
THE ESSENTIAL MAGAZINE FOR 'A' LEVEL ECONOMICS

et

ECONOMICS TODAY

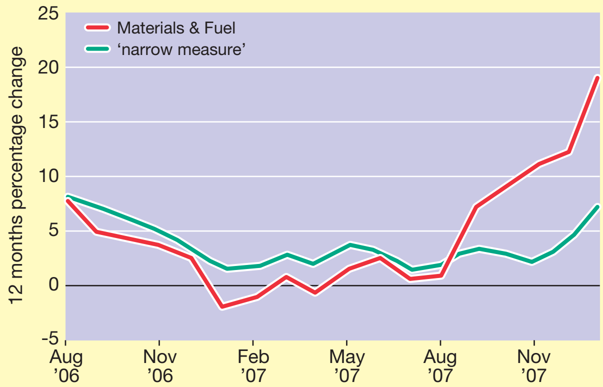
Surge in world commodity prices hits UK manufacturers

World Commodity Price Indexes



Source: World Bank

UK Input Prices: Materials & Fuel



Source: ONS

Latest statistics from the World Bank show that there was a 20% increase in world food prices during 2007. This was particularly driven by fats and oils which were up 50% and grains which rose 22%. There was also a sharp rise in raw materials prices during the second half of 2007. This can be seen in the left hand figure above.

Altogether, this means that food prices have risen nearly 75% since 2000 and one of the main causes of this was the increase in the use of food crops to produce biofuels. In fact, the United States used 20% of its maize production to produce biofuels, whilst Brazil used 50% of its sugar cane and the EU used 68% of its vegetable oil production. As crops are increasingly used in this way it means that the supply of food and feed are reduced, which results in substantial increases in prices. In fact wheat prices have increased by 90% since the middle of 2007 and the World Bank expects further price rises this year.

The effect of rising grain and vegetable oil prices has a particular impact on low-income countries which have suffered a loss in their terms of trade equivalent to 0.5% of GDP since the end of 2004. Higher income countries have been less affected by the hike in food prices.

However, added to this have been sharp rises in the price of metals such as copper, aluminium and zinc which has been particularly affected by increased demand in China. There has also been a sharp increase in oil prices last year. The effect of this upon the UK can be seen in the right hand figure above. In January 2008 the input prices which UK manufacturers have to pay for materials and fuel rose from 12.2% in December to 19.1% in January. Even when the 'narrow measure', which excludes more volatile elements is examined, there was still an increase of 7.3% in the year to January 2008. This has led to strong increases in output prices – the prices manufacturers sell at – which rose by 5.7% in the year to January 2008 and there is obvious concern as to how this will filter through into consumer prices.

For AS Students

Prize Competition

for AS Students

Economic Growth

Read the article 'Is Economic Growth Always Beneficial?' on pages 10 to 15 and then answer the questions. The numbers in brackets tell you how many letters there are in each word of the answer. All you have to do is send your 10 answers to us by 14th June 2008. The first one out of the hat will win £25 in music tokens.

1. What is the name given to an increase in the economy's underlying capacity to produce? *(8,6)*
2. If GDP increases with a given population this will lead to higher _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _. *(6,12)*
3. If higher incomes from economic growth result in a reduction in the number of hours at work this will lead to a higher _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _. *(8,2,6)*
4. What type of goods will the government be able to spend more money on if more taxes are taken from a higher GDP? *(5)*
5. What did Kuznets say would rise in the early stages of economic growth? *(10)*
6. When looking at the Gini coefficient, complete equality is shown by a value of _ _ _ _. *(4)*
7. Investment in new capital means that these may be lower in the short-run as a result of the consumption foregone. *(6,9)*
8. What is the name of the theory that suggests that there is only a certain amount of non-renewable natural resources on the planet? *(4,3)*
9. If economic growth gives rise to things such as more crime and rising income inequalities, there will be an increase in these. *(8,5)*
10. If pollution occurs on a global scale there might be less incentive for certain countries to reduce emissions because of this problem. *(4,5)*

Send your answers to: **Economics Today Ltd., Stocksfield Hall, Stocksfield, Northumberland NE43 7TN**, marking your envelope '**Prize Competition**'.

The winners of the September 2007 competition were **Naila Ahmed** of Hounslow and **Khalid Khalil** of Kingsbury, London. The winners of the November 2007 competition were **Ranjana Rai** of Plumstead and **Aureilia Storey** of Sherbourne.

£25 in music tokens to be won!

Prize Competition

for A2 Students

Leaving the European Union?

Read the article 'What are the likely Economic Costs of the UK leaving the EU?' on pages 22 to 25 and then answer the questions. The numbers in brackets tell you how many letters there are in each word of the answer. All you have to do is send your 10 answers to us by 14th June 2008. The first one out of the hat will win £25 in music tokens.

1. What was the name of the organisation which replaced the European Coal and Steel community in 1958? *(8,8,9)*
2. One of the early objectives of the EU was to harmonise this between countries. *(3)*
3. What was the name of the legislation which was passed in 1987 to provide amongst other things, free movement of factors of production and convergence of economic policies. *(3,6,8,3)*
4. Which EU country opted out of the euro in 1999, apart from the UK and Denmark? *(6)*
5. How many member states are there currently in the EU? *(2)*
6. Which country in the EU has the highest GDP per capita? *(10)*
7. Because EU monetary policy tries to maximise the welfare of all the citizens within the EU, it is sometimes given this somewhat critical name. *(3,4,4,3)*
8. If the UK left the EU we would probably have to pay this to get our goods into the EU market. *(6,8,6)*
9. This ratio will increase as a result of an ageing population across the EU. *(10)*
10. Is the EU working population as a percentage of the total population expected to rise or fall in the coming years. *(4)*

Send your answers to: **Economics Today Ltd., Stocksfield Hall, Stocksfield, Northumberland NE43 7TN**, marking your envelope '**Prize Competition**'.

The winners of the September 2007 competition were **Naila Ahmed** of Hounslow and **Khalid Khalil** of Kingsbury, London. The winners of the November 2007 competition were **Ranjana Rai** of Plumstead and **Aureilia Storey** of Sherbourne.

£25 in music tokens to be won!