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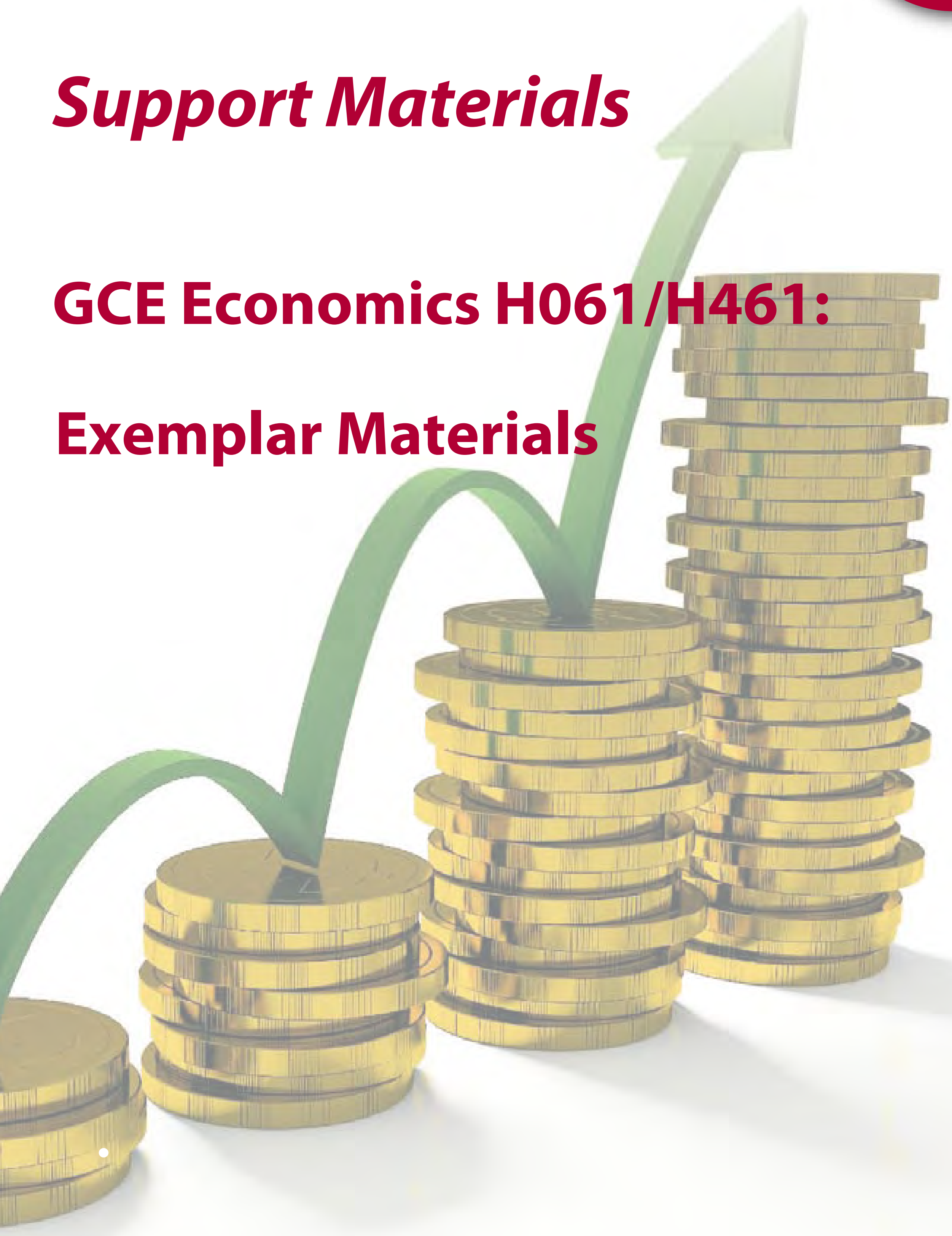
Support Materials

GCE Economics H061/H461:

Exemplar Materials



AS/A Level Economics

Contents

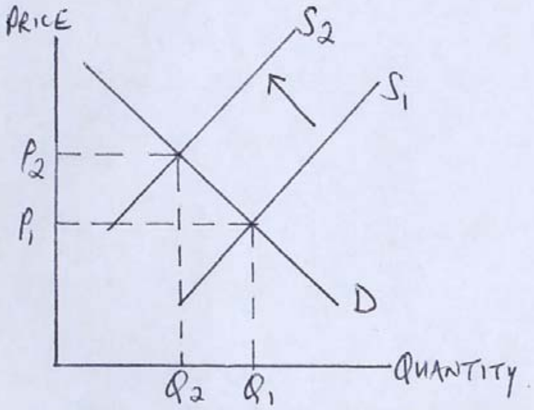
1 Unit F581: *Markets In Action*

Question G

Strong Candidates answer:

Indirect taxation such as the taxes imposed upon petrol, alcohol and cigarettes can be a very effective solution to the market failure arising from negative externalities. Such taxes force the 'polluter to pay' for the impact which they have on third parties whilst also operating through the market mechanism.

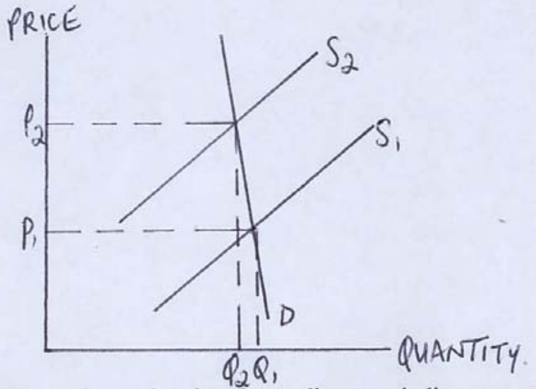
As the diagram, below, shows an indirect tax has the effect of increasing costs of production and therefore shifts the supply curve to the left. This, in turn, results in a higher price and a lower level of output being produced, thus correcting the overproduction.



If the tax is set at the correct level (equal to external costs) then it will successfully internalise the negative externality and thus correct the misallocation of resources arising from negative externalities.

However, setting the correct level of tax can be extremely difficult – by nature, many external costs, such as pollution, are very hard to measure in monetary terms. If too low a tax is set then overproduction will continue – and market failure will remain.

Even if the correct level of tax is set, this may not reduce over-consumption of goods if the demand for the product is inelastic, as is arguably the case with motoring and smoking. In such cases, an indirect tax will result in a very substantial increase in price and yet only a small contraction in demand, as the diagram below shows. Here the tax will clearly not correct market failure.

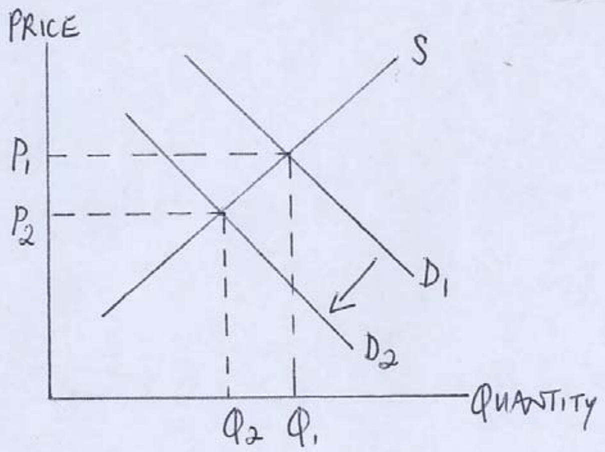


Furthermore, as shown by the above diagram, indirect taxation can also result in a substantial rise in the price of goods and services. This raises inflation and makes UK goods and services less competitive overseas. Indeed, if significantly high taxes are levied in the UK then firms may well move overseas and continue polluting there. In this way, indirect taxes will not be effective at reducing the global problem of market failure.

Overall, therefore, taxation can be very effective as a solution to the market failure arising from negative externalities but it does have its problems.

Weak Candidates answer

Taxation is put on many things like petrol in order to stop people using so much of it. Taxes work very well because people will be put off as things get taxed. Governments like using taxes as they get money from them. Governments like using taxes as they get money from them. A tax will shift the demand curve to the left because people will stop buying it. In this way, taxes are very effective.



Question E (iii)

Strong Candidates answer

As Price Elasticity of Demand (P.E.D.) measures the responsiveness of demand to changes in price, it enables firms to estimate what impact a change in price will have on the demand for their products. In this way, PED is very useful for firms in devising pricing strategies to maximise total revenue.

For example, if firms have elastic demand then they should reduce the price of their products in order to increase revenue whereas if they find that the demand for their products is price inelastic then they should increase prices. However, whilst PED can be very useful to firms seeking to maximise revenue, it does not give clear guidance as to what will happen to profits. This is because information on costs will clearly be needed in order to look at changes in profitability. In this way, whilst PED is useful, it is not the only piece of information needed by firms.

Finally, PED can be very difficult to measure and estimates of PED may be incorrect. Firms may therefore in reality see changes in price having much different effects to those which were anticipated.

Weak Candidates answer

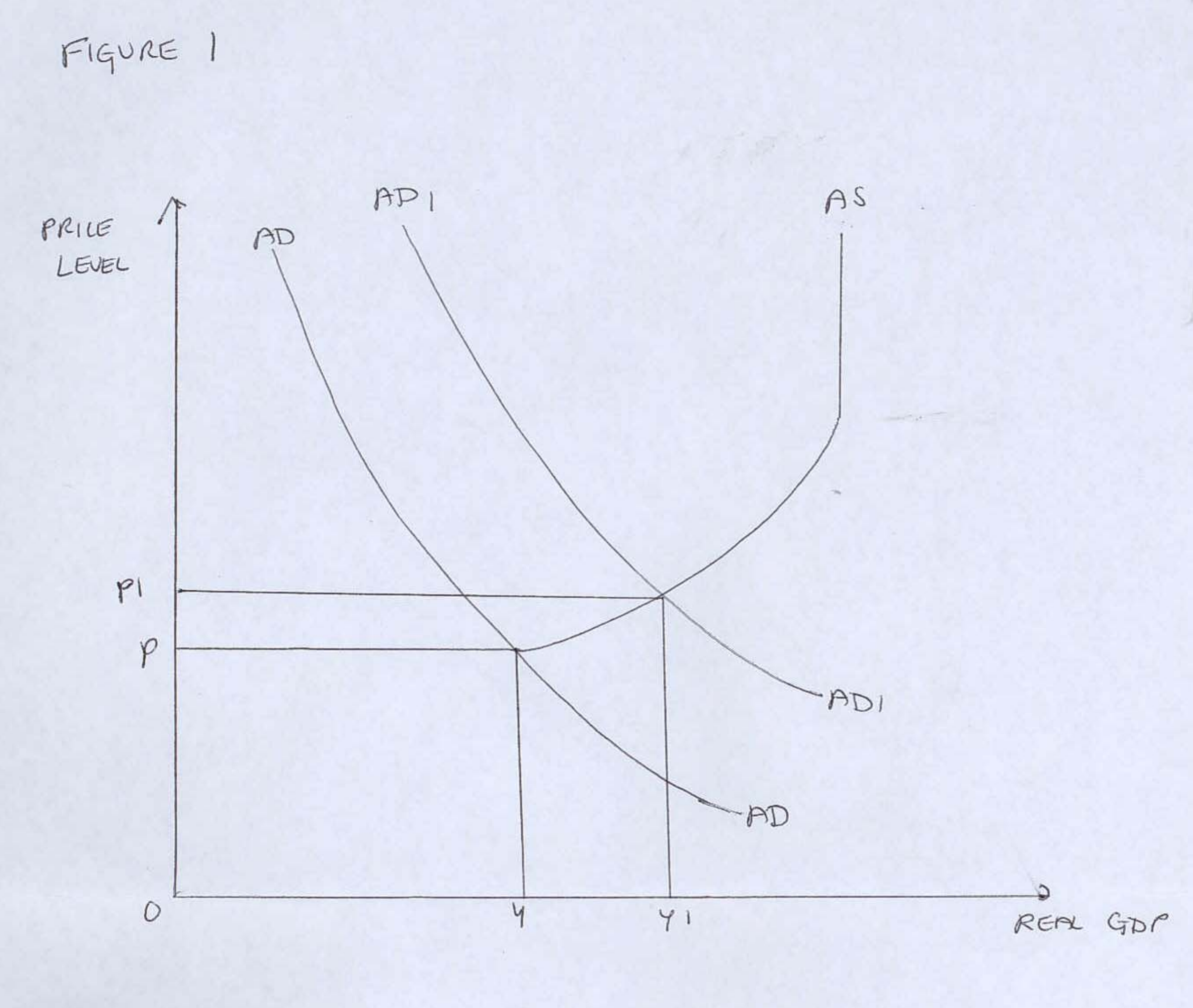
PED is very relevant for firms as it helps them to decide what they should do to their prices and therefore shows them what will happen to their profits. It is without doubt the single most important piece of information which a firm can have. In order to maximise profit, firms should decrease price if a good has elastic demand like petrol.

2 Unit F582: *The National and International Economy*

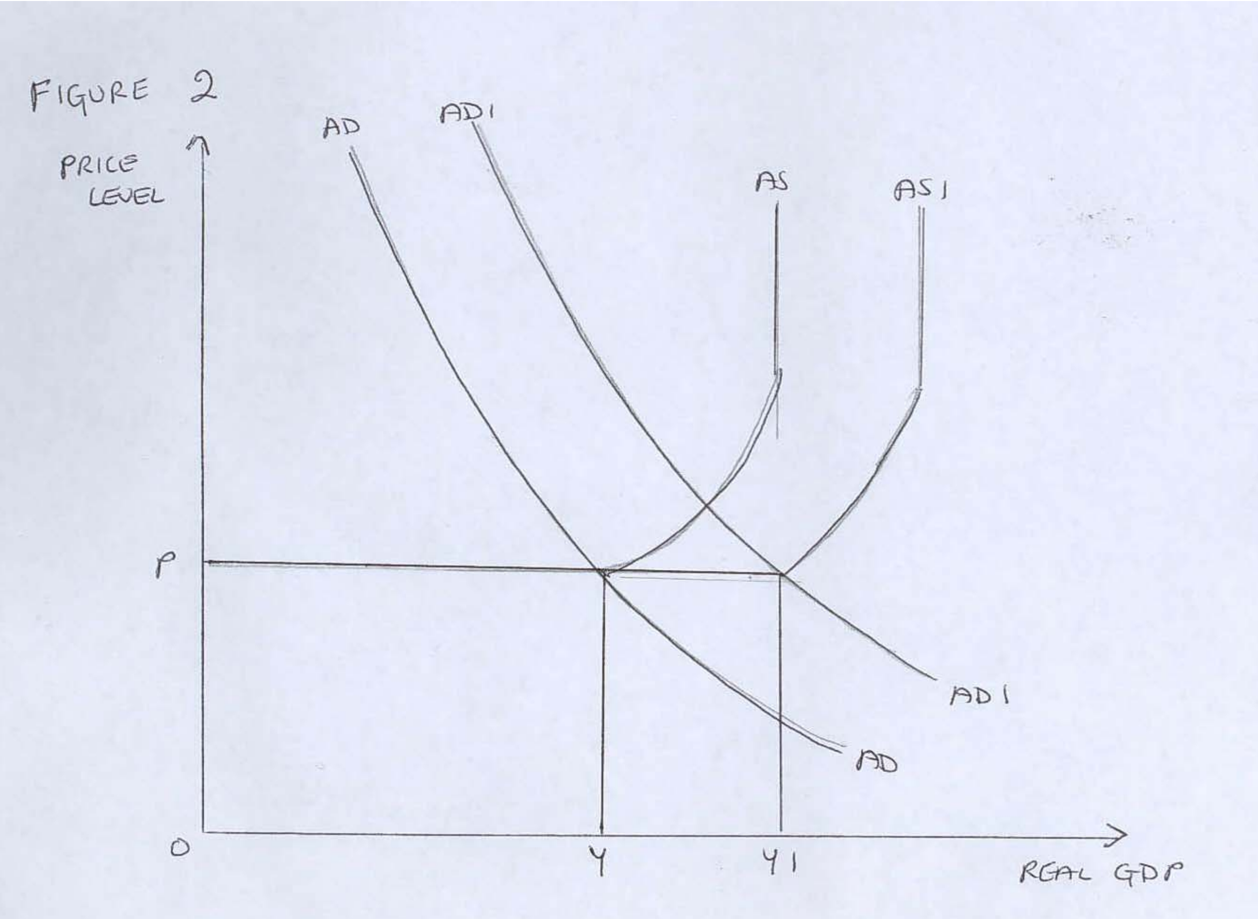
Strong Candidates answer

'Comment on one likely effect of rising exports on the Spanish economy.'
If exports rise by more than imports, there will be an increase in net exports and so an increase in aggregate demand (AD). Higher AD will increase real GDP. Cyclical unemployment, which is caused by a lack of AD, is likely to be reduced. Low unemployment is one of the government's macroeconomic objectives.
But if exports increase when the economy is at or close to full employment, there may be little impact on unemployment. In this case the main effect will be on the price level – there will be inflation.
It is also possible that a rise in exports may be exceeded by a rise in imports. In this case, AD will fall and unemployment will rise.

'Discuss the causes of economic growth.'
Economic growth can be caused by an increase in aggregate demand (AD) if there are unemployed resources. In the diagram the economy is initially operating at a real GDP of Y. An increase in AD will cause real GDP to increase to Y1.
(See Figure 1)



The increase in AD may be the result of government policy, increases in consumer and business confidence or an improvement in the country's international trade position. The government can use fiscal policy to raise real GDP and reduce unemployment. A rise in government spending will directly increase AD. A cut in income tax will increase people's disposable income which allows them to spend more. Monetary policy can also be used. Lower interest rates should encourage people to borrow more and purchase more goods. If people and firms feel more optimistic about the future, consumption and investment will increase.
As well as increases in C, I and G causing an increase in AD and so economic growth, there may be an increase in net exports. Exports may rise and imports may fall if the exchange rate falls or incomes abroad increase.
Increases in AD can only cause economic growth for a while. This is because eventually full capacity will be reached and the economy will not be able to produce any more. In the long run there must be an increase in aggregate supply (AS) for economic growth to continue. The diagram shows both AD and AS increasing.
(See Figure 2)

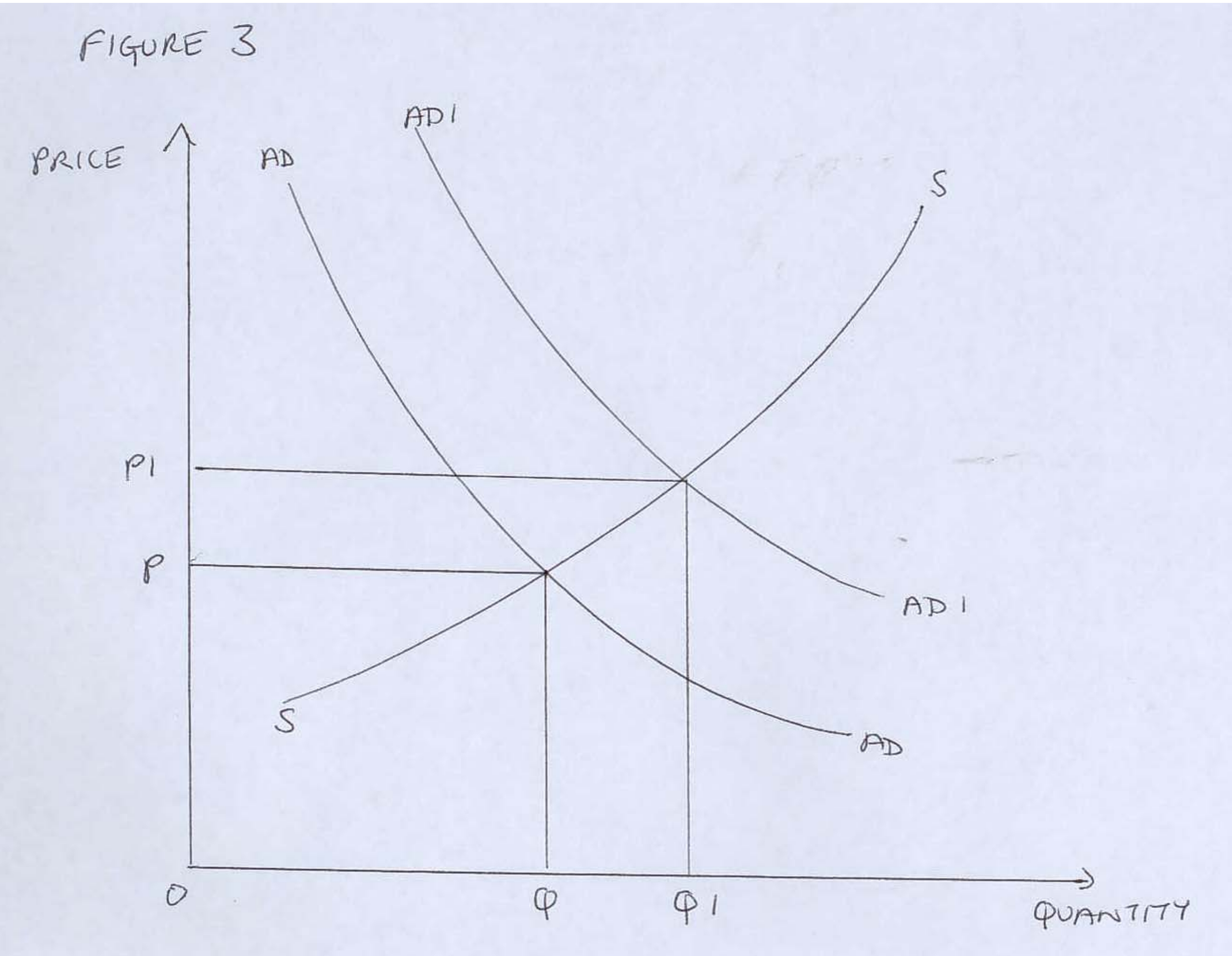


If increases in AS can match increases in AD, the economy can grow without inflation. AS increases when there is an increase in the quantity of resources or their quality. For instance, immigration of workers and improvements in education and training should enable an economy to produce a higher output.
One important cause of economic growth is investment. When firms buy capital goods they add to AD and they add to AS. Additional capital goods and replacement capital goods that use more advanced technology increase an economy's productive capacity.

Weak Candidates answer

‘Comment on one likely effect of rising exports on the Spanish economy.’
Exports are goods sold to other countries. An increase in exports will mean that firms will produce more goods to sell to other countries. Firms will take on more workers. This will increase employment. So unemployment should fall. This will save the government money.

‘Discuss the causes of economic growth.’
Economic growth is an increase in a country’s output. Firms will produce more if there is a rise in aggregate demand. The higher output will mean that firms will take on more workers and so unemployment will fall. More employment means that there will be more workers producing more goods and services. So there is more output as measured by GDP. Changes in GDP are the measure of economic growth. There is a risk that when demand becomes too high there will be inflation. This is a disadvantage of economic growth.
The diagram shows aggregate demand increasing. This causes a rise in supply and an increase in productivity.
(See Figure 3)



Firms supply more because their profits rise. The existence of supernormal profits may encourage more firms to enter the industry. It may be difficult to increase supply if there are barriers to entry.

3 Unit F583: *Economics of Work and Leisure*

Strong Candidates answer

Section A - Difficult times in the package holiday market
Question 1 c ii)
Comment on the changing market concentration from 1999 to 2004.

The concentration ratios of the Big Four UK package holiday operators in the summer period April – September 2000-04 fluctuated between 42.6 % and 48.2 % over the period. The largest increase was between 2001 and 2002 with a gradual reduction in concentration to the end of the period.

The overall market remained roughly constant over the period although 2001 (the year of the ~~greatest~~ lowest concentration) carried most passengers suggesting new smaller firms were entering the market. Concentration increased in the following year as the market declined with particular growth of TUI UK Ltd. This later pattern remained in 2002-4 with continued growth of TUI UK Ltd whilst the 3 other large companies had a declining market share i.e. losing share to TUI UK Ltd. Although concentration normally increases over time in oligopolistic markets, the growth of a particular company is not unusual. The time period given is perhaps too short to identify changes although such a market is dynamic with many changes both to package holidays demand and provision of them.

Question 1d)

The information in lines 5 to 7 indicates that the market for package holidays abroad is increasingly price competitive. Comment upon the extent to which this is typical of how firms compete in oligopolistic markets.

Non-price competition rather than price competition is usually a feature of oligopolistic markets although selective price cutting is not atypical when the overall market is declining. The main reason why price rigidity occurs in an oligopolistic market is interdependence. Price increases will not be matched by rival firms resulting in a more than proportionate decrease in quantity demanded (price elastic) and price decreases will be matched by rivals resulting in a less than proportionate increase in quantity demanded (price inelastic). In both cases total revenue will be reduced. Sales revenue increases are more likely to be objectives of companies in such a market.

Non-price competition is a more typical feature of oligopoly and this ~~is~~ is also a key aspect of the package holiday market. Almost all holidays are unique in some way in terms of time of travel, flights chosen, hotels, excursions etc and therefore are likely to vary in price. With flights and hotels having to be booked well in advance it is quite likely that selective price cutting will occur in order to work to capacity. In addition in a declining market some companies such as My Travel have experienced falling market share. They are therefore likely to cut prices further to sell off unsold holidays to improve their cashflow

There is no doubt that firms within the package holiday market remain interdependent and price was could be very damaging but the nature of the market they operate in means price competition is not uncommon. If the companies can increase brand loyalty by offering a quality service they will be less likely to engage in price competition as demand for their holidays will be more price inelastic.

Furthermore the package holiday market has faced increased competition from direct sell, internet bookings which has put more pressure on them to cut costs in order to be more price competitive.

Although price competition may not be a usual characteristic in oligopolistic markets its presence in the package holiday market can be explained by nature of the product sold as well as the market structure.

Weak Candidates answer

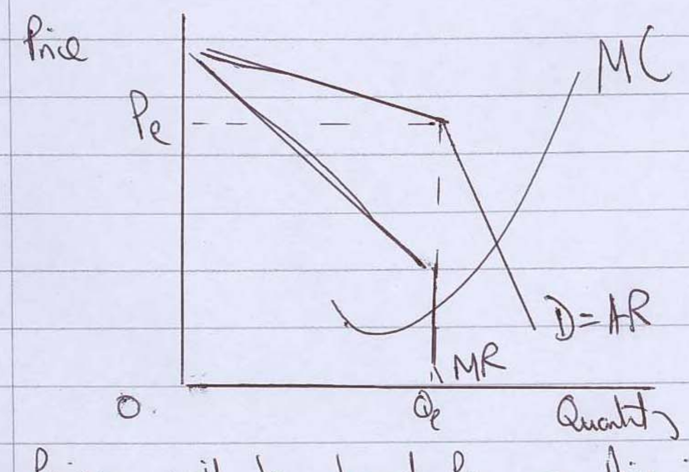
Section A

Q 1 c ii)

The concentration ratio fluctuates in the 40% - 50% area over the period. This means the largest companies are dominating the market but not to a large extent. No individual firm has 25% of the market and therefore it cannot be considered a monopoly but it is dominated by a few firms and is therefore an oligopoly.

Q 1 d)

Price competition is rare in oligopoly as firms in the market are interdependent. If one firms cuts prices the others will also cut their prices in order to keep their share of the market. This can be explained by the kinked demand curve



Prices will be fixed Pe as this is where profits are maximised

It is unusual to have price competition in oligopoly. Package holidays companies compete on prices particularly at the last minute in order to sell unwanted holidays to customers.

There are also barriers to entry in oligopoly markets which means the firms have less competition. However there is a lot of competition to package holidays abroad and therefore the package holiday companies have to keep prices low

Strong Candidates answer

Section B part b

Q4

a) Explain why there is a 'pension crisis'

Candidates expected in this part to give a detailed explanation of at least one of the following:-
increasing life expectancy,
early retirement schemes draining peformance of certain funds,
poor peformance of certain funds,
employers and employees not making sufficient contributions,

in order to explain a crisis is that many private sector funds will not be in a position to pay out what is expected.

The above is expected in order to provide a basis for an answer to the part b question

b) Discuss the extent to which this Pensions Crisis might impact on the UK labour market and the economy as a whole.

Insufficient resources have been reserved for retirement income as life expectancies have risen. As a result the dependency ratio has increased meaning that a larger share of retirees will be dependent on a smaller propotion engaged in economic activity. In terms of state pension this affects the financial prospect of pensioners as there are not enough payments going into the system.

There are a number of possible solutions to this crisis, all of which will have an impact on the UK labour market and the economy as a whole. Taxes could be raised to increase the reserves available to make payments to pensioners. Secondly retirement ages could be increased and early retirement schemes abandoned in order to reduce payments made out of pension funds. Thirdly some reform of savings are required to encourage people to save during their working life, perhaps making savings compulsory. Such a scheme would make individuals more responsible for their own pensions (or their employer) and reduce dependency on state pensions.

Increased direct taxes however may cause disincentive effects, reducing the number of hours worked, as workers ~~[illegible]~~ sacrifice working for leisure as the opportunity cost of leisure decreases due to higher marginal rates of income tax. Other workers may decide to work longer hours to achieve a target take-home income. The overall impact on hours worked will depend on the overall work-leisure trade-off of the labour force. However, if marginal income taxes are higher than in other countries higher income earners may base themselves abroad. The impact on the economy as a whole is also indeterminate as higher tax rates could lead to higher or lower tax yields.

An increase in retirement ages to 68 for both male and female workers has already been suggested by the Turner Report. Many companies have also tightened up on their schemes particularly on early retirements but also, more controversially, closing existing schemes to new members. Such statements have disillusioned many workers, involved much campaigning by pension groups and unions and may have an impact on reducing labour productivity through a demotivation of workers. In addition an increase in retirement ages will over time increase the typical age of workers. In the longer term this may increase the productivity of the economy as workers are more qualified and experienced. However, younger workers may have less opportunity for promotion and unqualified labour may find it more difficult to obtain work.

Compulsory savings have also been encouraged. In addition to arguing for the restoration of the link between earnings and pensions, the Turner Report put forward the idea of Personal Pension Accounts whereby employees saved 4% of their income, employers contributed 3% and the government a further 1%. The scheme was for auto-enrolment unless employers could offer a better deal but employees could opt-out. Allowing employees to opt-out would make the system looser and require some form of administrative policing to ensure such employees are adequately provided for. If not equity problems could occur. There is no reason why such a scheme cannot work as it has been successfully introduced in Australia. Any such scheme will require widespread approval which will involve negotiations between government, employer's organisation and unions. With such an arrangement any scheme is likely to accepted without any major negative impacts on the UK labour market e.g. in terms of industrial relations.

Government intervention will be required in the shorter time to bale out pension funds. Such schemes as above will take a longer time to come to fruition and therefore to avoid problems occurring as other funds do not pay out, government intervention will be required. There are also implications for funding the State Pension which means either tax increases will be required in the short term or cuts in other public services. Both measures would have implication for the macroeconomic performance of the UK. Increases in taxes will reduce aggregate demand and cuts in education and training budgets could impact on supply side performance. If the UK economy is growing steadily when the funding is required such problems will be less acute. However action is required sooner rather than later otherwise the Pension crisis will deepen.

Stretch and challenge extension

The Pension Crisis is largely caused by a savings gap. Individuals have not been saving sufficiently to provide adequate pension funds. This has been exacerbated by an underperforming stock market, individuals wanting more income in Retirement (as they don't just live longer but wish to engage in a healthy lifestyle).

Therefore larger contribution are required during their working life. If individuals or insurance companies managing the funds do little about this the government will have to become involved. Tough decisions are required but unfortunately the political gain from such decision will not accrue until far ahead, perhaps 30-40 years. The increased costs, however, are mainly in the short term.

The only solution is to save more. without government intervention there are two main sources of increased savings without reducing consumption. Increased earnings either through working longer or being more productive in work. Working longer through increases in retirement ages will have a major impact on the labour market. Alternatively individuals could draw on the wealth to provide income in retirement. Their major asset is their house. Tapping into the wealth of the housing stock will allow individuals to gain funds to provide annuities from which they can earn a living in their retirement. However such decision will mean their dependents inheritance will be smaller

It appears therefore there is a need for the Government to intervene in the Pension Crisis if only to come to a consensus as to how it should be solved in the longer term

Weak Candidates answer

The likely impact on the labour market of the Pension Crisis is that workers will be expected to work longer in order to increase contribution to pension funds that are required because people are living longer. An increase in the average age of the labour force will reduce the average productivity of workers unless workers become healthier or more qualified.

Workers may also not want to work longer and this may cause industrial unrest as union organise industrial action to protect ~~their~~ rights of their members.

The government would also need to take some action in the short term to get more revenue to pay for a greater number of pensioners. Taxes could be increased which would have a large effect on the economy by reducing aggregate demand. However if the money was used to finance pensions, aggregate demand may not be reduced. Pensioners would spend the money on goods and services increasing demand

If nothing at all is done there will not be enough money to pay pensioners causing a budget deficit and a need to increase taxes or cut government expenditure on health and education causing an opportunity cost and negative impact on the economy as a whole

4 Unit F584: *Transport Economics*

Question 1(b)(ii)

Comment on how the strength of barriers to entry can determine the market structure of an industry.

Strong Candidates answer

The strength of barriers to entry, along with the number of firms, is important in understanding the market structure of an industry. Looking at the standard models of market structure
- there are no barriers to entry in perfect competition
- few barriers to entry in monopolistic competition
- high barriers to entry in an oligopoly.

The significance of barriers to entry therefore is that it is their strength than can be used to explain what is the market structure of an industry. There are though other characteristics as well that need to be looked at.

Stretch and challenge extension

These other characteristics include the nature of the product, the level of profits and the number of firms. It also includes the number of buyers. So, whilst barriers to entry are important, other characteristics must also be considered.

Weak Candidates answer

A barrier to entry stops new firms joining a market. By this we mean that they are not able to enter. Some market structures have strong barriers to entry. An example of this is a monopoly. Something like a patent or a government regulation works like this. A perfect competitive market has no barriers to entry but this is only something that is found in theory.

Question 1(c)

Discuss how Stagecoach's acquisition of the Traction Group might affect the contestability of the local bus market in the UK.

Strong candidates answer

The concept of contestability can apply to any market structure, even a monopoly. As its name suggests, contestability refers to the extent to which it is possible for new firms to enter a market and compete with established firms. In theory a perfectly contestable market has a pool of entrants waiting to enter if the existing firm or firms is seen to be exploiting consumers through high prices and extensive profits. It can be an unstable situation.

On the surface, Stagecoach's acquisition of the Traction Group has increased its market share, making it the second largest bus operator in the UK. The data in Fig1 is national data - it does not take into account a local market situation where Stagecoach may actually have a monopoly eg Cambridge. This acquisition therefore has made the overall market less contestable.

Stretch and challenge extension

First paragraph on A grade answer followed by:

Stagecoach's acquisition of the Traction Group appears to have made the national market less competitive. Its market share will now be a little over that of First Group, although no data is given for this company's market share at the end of 2005. At a local level though there may be little or no change as Stagecoach has merely replaced the Traction Group as the provider of local bus services in the four areas stated in the text.

Weak Candidates answer

A contestable market is used in Economics to explain a situation where firms are able and willing to compete with each other. To be contestable, in any market, there should be easy entry for new firms at no cost. This can even happen in a monopoly, provided it is possible for new firms to enter the market to compete with established firms. StageCoach's takeover of the Traction Group will make the local bus market less contestable.

Question 2(b)

Discuss the extent to which the proposed system of road user charging announced in July 2005 might lead to a more efficient allocation of resources.

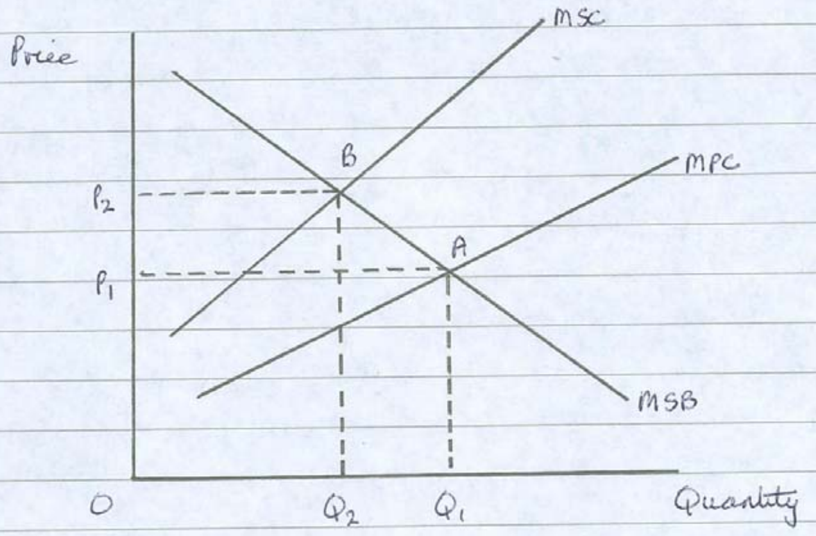
Strong Candidates answer

In July 2005 the Government announced a new radical system of road pricing that it intended to introduce into Great Britain within the next ten years. This was for a new system of national road pricing whereby motorists and other road users paid a specific price for when and where they used their vehicles, taking into account the level of congestion. The scale of charges suggested was £1.30 per mile for use on the most congested roads in the peak period but much less for uncongested roads and roads in rural areas. This new system would be accompanied by a cut in fuel tax and in the cost of the annual road fund licence.

This proposed system is designed to reduce traffic volumes by getting people to be much more aware of the actual costs, and not just the private costs of car use. The problem of congestion is that it represents an inefficient use of scarce resources. This can be seen through the increased journey times, increased vehicle operating costs and the costs of strain and stress that have to be borne by people who travel extensively.

Traffic congestion costs the country an estimated £25 bn a year (Bamford). This is the cost of an inefficient road transport system that is giving increasing concerns over competitiveness. Recently, for example, some Japanese companies including Honda have said that their costs in the UK are higher than they would otherwise be if there was a better, more efficient road transport network.

A road user charge is a form of tax that seeks to rectify the problem of market failure. It seeks to ensure that road users pay the true marginal social cost and not just the marginal private cost of the journeys they are making. If road users pay the marginal social cost then there is no problem of market failure. Resources are being used in an efficient way. This can be shown in the diagram below.



Road congestion is a negative externality since too much of the product is being produced at too low a cost to the user. This is shown on the diagram at point A. From society's point of view, the efficient allocation of resources is at B, not A. At point B all costs are being taken into account. When this happens, price is at P_2 and output at Q_2. There is a misallocation of resources at A since the free market has led to overproduction of $Q_1 - Q_2$. The road user charge is equal to the marginal external cost and is designed to fill the gap between MSC and MPC.

Most economists favour road pricing for the reasons given above. The problem is that any additional tax on motorists and others is not popular. This is the reason why 1.8m people sent an e-mail to Tony Blair in January/February 2007 complaining that a national road user charge was a form of stealth tax. They also complained that they were paying far too much tax already when buying petrol and paying for a wide range of services that come with ~~having to~~ ~~[illegible]~~ using a car. There have also been concerns expressed about how the tax may be calculated and whether there really will be a reduction in traffic congestion as the cost of motoring is price inelastic in the main.

Stretch and challenge extension

There is little doubt amongst economists that a national road user charge, if ever one is introduced, will represent a more efficient allocation of resources. As the Eddington Report showed, road pricing will lead to a reduction in traffic congestion, particularly in large cities such as London, Birmingham and Manchester. The problems with a national system of road user charging are not so much economic as practical and political. The danger is that these will over-ride the fundamental logic that a national system of road user charging will lead to a more efficient allocation of resources than is the case at present where the price most certainly is not right.

Weak Candidates answer

In July 2005 the government said it was going to introduce a national system of road user charging. This is a pay as you go way of paying for when you use roads. If you use your car in big cities then you will pay more than if you use your car in small towns or even in rural areas. It compares well with the present system where there is no exact charge although when you drive you have to pay taxes on petrol and on the annual road tax.

This system is not popular with people who own cars. These people think they pay too much tax anyway. A lot of motorists have sent Tony Blair (then prime minister) an e-mail to complain about what he has in mind. Mr Blair sent them a reply and said he was only considering if he should introduce this system. He like many other people think that congestion on the roads is a serious thing and that the road pricing will reduce it

Road congestion costs us £25bn a year. This is a big cost to the economy. People spend far too much time in queues of traffic and this is not good as they could spend this time more productively if they were at work or doing something that is helping our economy. The problem we have is that other methods of cutting congestion like building new roads don't solve the problem. Congestion can even get worse sometimes as more people use the new roads. This means that we are all worse off than before.

Question 3(b)

Discuss whether economists are right to have increasing concerns over the growth in demand for low-cost air transport in Europe.

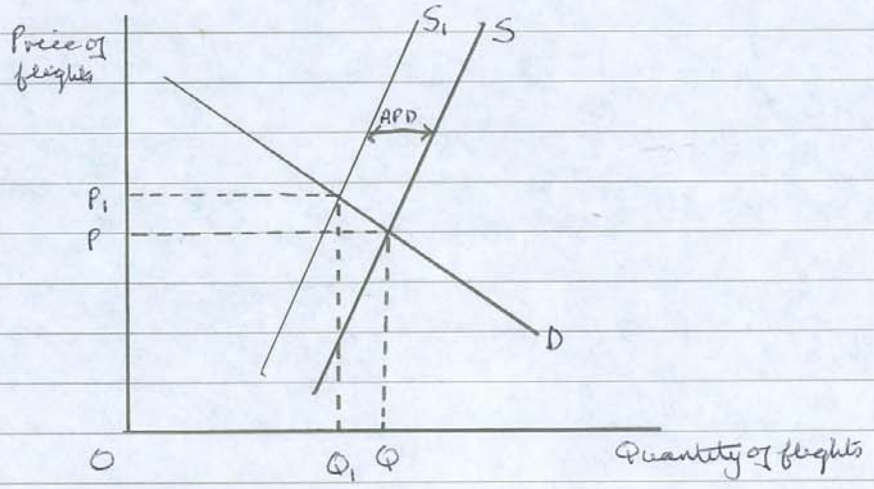
Strong candidates answer

The growth in demand for air transport in Europe, particularly that of the low cost airlines, is a controversial topic. It is one that has increasingly been considered by economists as shown by the Stern Report of November 2006 and recent changes in government fiscal policy with respect to air passenger duty (APD).

Let's face it, we all like the benefits of flying as we can get to our holiday or business destination very quickly. With the growth of low cost airlines we can also get there very cheaply. There are now about 100 low cost carriers in Europe. These companies have grown out of the decision to deregulate air transport ten years or so ago.

Economists and governments, including the EU, are keen to see that the price of air travel is right. If not the market is failing and resources are not being allocated in the best way. The problem is how to calculate this price because air transport produces many negative externalities. Examples are the emissions from airlines, the noise effects especially of take-off and landing and the land that is used through having to expand airport provision.

This concern is perhaps recognised through the air passenger duty (APD). This is a tax that all airline passengers have to pay. This increased to £10 for European economy flights in ~~the~~ February 2007. Low cost airline passengers have to pay this as well as those people who travel on scheduled airlines. This is not an environmental improvement tax since all of the money goes directly to the Exchequer. The effects of the tax in principle can be illustrated in the diagram below.



The market price is where S = D, ie P, with Q flights being the equilibrium quantity. At this price let us assume that the APD is already £5. The doubling to £10 will result in a shift to the left of S resulting in price increasing to P1 and with less flights bought and sold.

One assumption of APD is that the demand for flying is price sensitive. It is really debatable whether this is true especially when the tax is still at a low level.

Not all would agree that economists should be concerned about the growth in demand for low cost air transport. The head of Ryanair most certainly does not. He has been critical of the APD, calling it a stealth tax. He has further argued that low cost airlines are more environmentally acceptable than most scheduled airlines since they have new planes, high load factors, use less congested airports and produce widescale regional development effects through the multiplier process to those parts of Europe that have experienced a growth in cheaper flights. Poland and other central European countries are very good examples. It should therefore be recognised that there are important benefits that occur from the growth in demand for low cost air transport. These need to be considered and evaluated as well as the costs.

Stretch and challenge extension

As discussed above, the growth in demand for low cost air transport in Europe is a controversial subject. One way in which economists can evaluate the arguments is through cost-benefit analysis. This would not be an easy task. There is a danger that if this is not done then economists might only look at the costs and not the benefits to those who travel and to those areas of Europe that are benefitting from the growth of new services. It is arguments like this that will have to be taken into account ~~when~~ now that it has been agreed that air transport is to be included in the EU's Emissions Trading Scheme from 2011.

Weak Candidates answer

The last few years have seen the deregulation of air transport in Europe. This has led to the growth of low cost firms such as easyJet, flybe and Ryanair as well as others. These companies provide a no-frills service at fares from as little as nothing. It does cost a lot more if you leave it late in booking your flight. There are now a lot of routes between the UK and other parts of Europe such as France and Spain.

All flying gives some cause for concern for economists and others. This is because of the large amount of CO_2 that is discharged into the atmosphere and also because of the amount of fuel that is used. Fuel is a valuable resource and it is important that it is used in a responsible way. Other concerns are due to other negative externalities like the high noise levels for people who live on a flight path.

As with other negative externaities like pollution, economists feel air transport should be taxed. This would increase the price so that those people who travel by air would have to pay more. This seems right because of the problems that flying has created.

Question 4(b)

Discuss the extent to which the Department of Transport's 'New Approach to Road Appraisal' overcomes criticism of the traditional cost benefit approach.

Strong Candidates answer

Building a new motorway or even a new by-pass is a very controversial issue and one which has had to face a barrage of criticism and protests in recent years. The Newbury by-pass and protests near Oxford when the M40 was being built were typical. In West Yorkshire, close to where our school is, there had been extensive concerns over the possible construction of an Aire Valley Motorway.

The need for a 'New Approach' stems from the failings of the Dept. for Transport's own COBA method for road appraisal. This method can be described as a user method. This is because it considers only the benefits and costs of those people who actually use a new motorway or stretch of by-pass. It does not take into account the full social costs and benefits of a road's construction.

External costs and benefits are the difference between social costs and benefits and private costs and benefits. Few would deny that building a new motorway creates a major environmental impact. For a start there is the loss of valuable agricultural land in some cases, the loss of wildlife habitats and well as the noise and additional pollution and blight that are experienced by people unfortunate enough to live near a motorway.

The New approach was specifically developed by the Dept. for Transport to take the above factors into consideration and at the same time, to demonstrate that it was working hard to improve its established COBA methodology. These environmental effects can be studied through a computer simulation of what a new motorway or by-pass will look like once it has been built. This enables its impact (EIA as it is known) to be assessed and for any other effects on communities to be established.

The New Approach has not replaced COBA. Far from this, it is applied alongside the COBA model in order to ensure as far as is possible that the new road is built in the best possible way. Critics of the system complain that such environmental factors are impossible to quantify and that this only compounds to undermine the poor confidence that some groups in the community have about the whole process by which we appraise new roads in the UK.

Stretch and challenge extension

To some extent therefore the New Approach has offset some of the environmental criticism's of the COBA model for appraising new road schemes. It will never remove all of the criticisms, not least because some groups in the community firmly believe that no more new roads should be built, irrespective of their benefits. By improving the means of selecting a route for a new road, the New Approach ~~gives~~ provides a major improvement over the COBA model, the underlying principles of which have been used for over 40 years.

Weak Candidates answer

A road is a form of public good (quasi) which are explained in part (a) is paid for by the government from the taxation we pay. For many years now the Department of Transport has used a cost benefit method called COBA to decide which roads should be built.

The COBA model measures the benefits and the costs of building a new road. The benefits come about because travellers spend less time travelling as there will be less congestion. They also save money on petrol, repairs to vehicles and other cost savings. New roads also mean less accidents so there are these benefits to be considered. The costs are for the capital cost and the annual cost of maintaining the road.

The problem with COBA is that it does not cover all of the costs and benefits of when a new road is built. We are increasingly worried about the environmental effects for example. The new approach was brought in a few years ago to make decisions on new roads rather more acceptable since it took into account some of the things that many people were unhappy about.

5 Unit F585: *The Global Economy*

Question 1 (c)

Comment on the extent to which rapid economic growth, such as that experienced in China, is desirable. [10]

Strong Candidates answer

Rapid economic growth in China has brought many benefits to the Chinese economy. Economic growth is a measure of how an economy' output, income and expenditure is rising. Since the standard of living is related to the material well-being of an economy, rising GDP will make it possible for consumers to enjoy greater levels of consumption of goods and services and be better off. In addition, since the economy is producing more output it will need to employ more of the three factors of production – land, labour and capital. Greater employment of labour will have a number of benefits for the economy, making rapid economic growth desirable. These benefits include not just higher incomes and expenditure but also more tax receipts for the government. This will allow the government to spend more on health and education. Higher GDP, increased life expectancy and higher literacy levels will increase the measured level of human development as measured in the HDI.

The rapid growth of an economy such as China will also be desirable to other economies. Rising aggregate demand in China will generate an increase in demand for goods and services produced in by other economies. This will cause higher export demand, creating employment and incomes in the global economy. This will directly feed through into higher AD in economies such as the UK or the US. Rapid economic growth in China raises world demand – this is especially important at a time when domestic economies such as the US are suffering the consequences of a slowdown in economic activity due to the credit squeeze.

Rapid economic growth also brings costs. Too rapid growth might not be sustainable. An economy can only grow in the long term as rapidly as its productive capacity increases. This means that, in the short term, rapid economic growth might be undesirable as it will put upward pressure on prices, generating demand-pull inflation. Rapid economic growth will, therefore, not be sustainable because to deal with the problem of inflation, governments will have to raise interest rates to reduce the growth in spending and encourage consumers to save more. Rapid economic growth will also bring environmental costs. Depending on how the economic growth is achieved there may be an increase in negative externalties, such as the traffic congestion in Shanghai. This causes MSC to be higher than MPC, creating overproduction and consumption. There may be too much production and consumption taking place with rapid economic growth. Another cost might be for other countries. Rapid economic growth in China will drive up the demand for energy globally, This will increase the demand for oil and gas. These goods have price inelastic supply in the short run, so there will be a more than proportionate increase in the price of such goods. This will create higher production costs in other economies, so China's rapid economic growth will not be beneficial for them.
Overall, rapid economic growth in China will generate economic benefits and costs. The benefits make the growth desirable whereas the costs make it less so. It depends, therefore, whether the benefits outweigh the cost – if they do, economic growth is desirable.

Stretch and challenge answer

Economic growth is the increase in a nation's inflation-adjusted Gross Domestic Product (GDP) measured as the percentage change over a period of time, normally over a year.
Whether rapid economic growth, such as that experienced in China, is desirable depends in part on the balance of the benefits and costs of economic growth but also on whether the perspective taken. Economic growth may be desirable for China, its consumers and its producers, but may have undesirable consequences for other national economies, the environment and the global economy.

From China's perspective, rapid economic growth will bring many significant benefits. GDP is a measure of the value of the goods and services produced by an economy. Rising real GDP will cause an increase, not just in the value of output, but also in the nation's real income. Assuming no increase in population over the period of economic growth, the nation's real GDP per capita will increase. As a result there will be an increase in the Chinese standard of living and material well-being. This is likely, in China's case, to be accompanied by an increase in employment. Whilst economic growth does not necessarily imply economic development, real GDP per capita is an important component of measures of economic development such as the Human Development Index. Rising incomes (both for firms and workers) increases the tax take for the government. This will allow greater expenditure on a range of merit goods, public goods and goods and services with positive externalities. It would be possible, therefore, for the Chinese government to increase expenditure on health and education. In the longer term, this will bring benefits in terms of higher literacy and life expectancy. This will further raise China's HDI.

The extent to which growth is desirable, however, depends on whether the benefits of economic growth are widely spread amongst the population. Whilst some economists believe that growth benefits 'trickle down' to all, it is possible that the benefits are received by only a few. Rising GDP and rising income inequality would limit the extent of the benefit of rapid economic growth. For example, the benefits of economic growth might not reach the rural poor in China. Without active measures to redistribute income it may be that growth is only desirable for some. Growing affluence in urban areas may attract rural migrants putting pressure on urban infrastructure. The consequence may be that rapid economic growth brings with it environmental problems, creating negative externalities. The external costs of growth may be higher than the private costs of growth, resulting in economic inefficiencies. For economic growth to be truly desirable, therefore, it must also be sustainable. The extent to which Chinese growth is sustainable depends on the willingness of the Chinese authorities to intervene to internalise the negative externalities of growth, for example through making polluters pay for environmental damage caused. Rapid growth may also be unsustainable, and therefore undesirable, if the pace of growth exceeds the long term potential growth of the economy. The extent to which this is a problem depends on whether measures are put in place to increase the economy's productive capacity, raising long run aggregate supply.

China's rapid economic growth brings opportunities and threats for the global economy too. The opportunities centre around the trade benefits for other economies as a result of rising aggregate demand in China. These may be limited, though, by an appreciation of China's exchange rate or by restrictions on trade which make access to the Chinese market difficult. There may be global environmental problems resulting from higher demand for energy from the rapidly growing economy. Without global measures in place to price the environment, the benefits of rapid economic growth my be more illusory than real.

In summary, there are clear benefits of rapid economic growth of an economy such as China. Whether growth is desirable, however, depends on ways of ensuring that the costs of economic growth are minimised relative to the benefits. This calls for government intervention by the Chinese authorities and for global action to ensure growth is environmentally sustainable.

Weak Candidates answer

China is one of the fastest growing economies in the world today. All sort of products are now made in China, including lots of high tech goods such as electronics. Multinational companies are attracted to economies like China and India because of their cheap labour, so they are able to make higher profits. They employ lots of people too, which means that the Chinese people are much better off with rapid economic growth. More people employed means that there will be higher incomes in China, which increases the quality of life and the standard of living. It will left people out of poverty as they are able to earn high wages.

Economic growth is caused by an increase in aggregate demand. This is made up of C+I+G+(X – M). So rapid economic growth will increase spending by consumers, giving them a higher standard of living and more income. Higher AD will result in higher GDP, which is a measure of a nation’s income, output or expenditure. The GDP per person will also be bigger and there will be less people in poverty or suffering from infant mortality. The government in China will be able to send more people to school, so more children will be able to read and write. The adult literacy rate will be higher. Rapid economic growth will reduce poverty in China – more people will be employed in industry and less people in agriculture which is a good sign of economic development.

An economy is not developed if it has lots of people in subsistence agriculture, so by producing more output the Chinese economy will develop. Its HDI will increase because there is more output, better health and more literacy.
Rapid economic growth is just what China needs to get better economically. It is now one of the economic super-powers, bigger than the US economy. Rapid economic growth brings more incomes, more jobs and less poverty and raises the standard of living. That’s why rapid economic growth is desirable – it means that economic development can happen quickly.

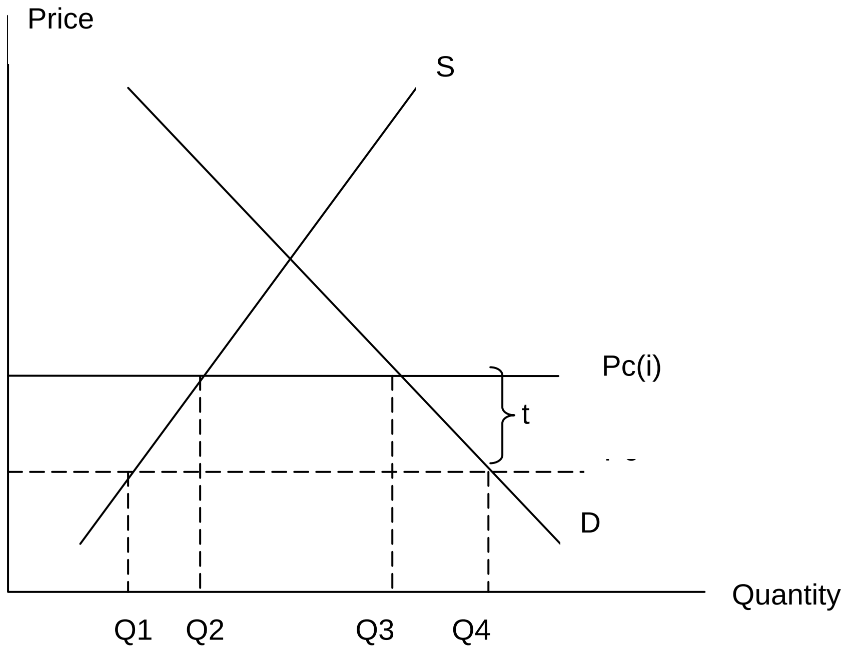
Question 2 (c)

Comment on the obstacle faced by economies, such as China, in international trade. [10]

Strong Candidates answer

China faces a significant obstacle to international trade in the form of quotas on its exports to the EU. Quotas are not the only obstacle, though. Others include tariffs which raise the price of imports, state aid which tends to favour domestic producers and technical product standards which make it hard for countries to gain access to market abroad.

In the diagram below we see the effect of both a quota and a tariff. The result of a quota is a reduction in the quantity demanded of textiles in the EU from Q4 to Q3 and EU suppliers are able to increase supply from Q1 to Q2. This is similar to the impact of a tariff of t which has the same impact on the EU market



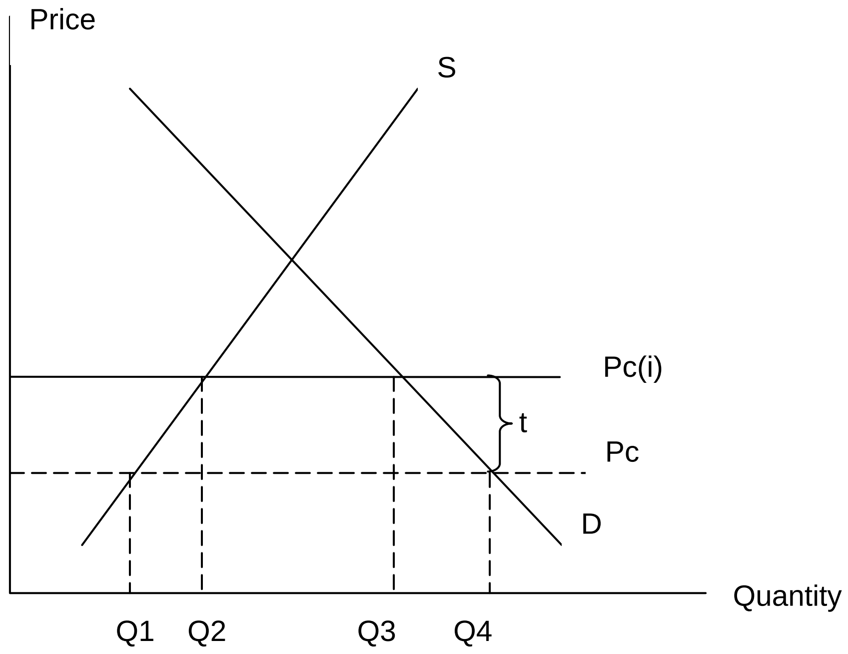
Such obstacles to international trade are likely to create significant problems for an economy such as China. Access to international markets is an important mechanism by which economic development can be promoted. Low levels of economic development result in low levels of income. As a result of low incomes, the level of savings in the economy is low for any given rate of saving. Since domestic investment has to be financed from domestic savings, this will constrain investment in the capital stock and limit economic development. The Chinese economy would be unable to break out of this development trap if it faced obstacles to international trade on a large scale. International trade has acted as the engine for China’s economic development. Domestically, this is likely to impact on employment and incomes with an adverse effect on economic and human development.

As a member of the WTO, China may be able to challenge the obstacles to international trade. However, the WTO rules allow countries to protect their domestic markets from low cost competition whilst they restructure the industries affected. It would appear that, whilst the EU is given time to adjust to increased global competition, China’s economic and human development must wait. Global trading rules seem to be biased against China.

Stretch and challenger answer

Obstacle to international trade take many different forms. In the Extract material China is facing an obstacle imposed by the EU in the form of a quota. Other obstacles can include tariffs, state aid which subsidises domestic firms and laws which regulate what can be legally sold in a country. Developing economies, however, also face obstacles to international trade which are related to their level or stage of economic development.

Barriers to international trade imposed by other countries work by raising the cost of imports as the diagram below shows. For example a quota of Q3 – Q2, raises the price of Chinese imports from Pc to Pc(i). As a result, there is a reduction in the quantity demanded of textiles in the EU from Q4 to Q3 and EU suppliers are able to increase supply from Q1 to Q2. This is similar to the impact of a tariff of t which has the same impact on the EU market.



Tariff and non-tariff barriers to trade are not the only obstacles to international trade faced by economies such as China. Developing nations also face obstacle which result from within the economy.

One example of these is the infant industry. An infant industry is typical in developing economies and arises when an industry lacks the economies of scale necessary to compete in global markets. The lack of economies of scale is related to the small size of the domestic market caused by a low level of income. It results in higher unit costs for the industry and a lack of price competitiveness. In addition, low levels of income in developing countries might also restrict the amount of finance available to industries which restricts investment. This lower level of investment is likely to have an impact on labour productivity and consequently unit labour costs. Alternatively it may result in the production of low quality output which is hard to sell abroad. This kind of obstacle makes it difficult for developing economies to diversify production into the secondary sector of the economy and compete on international markets.

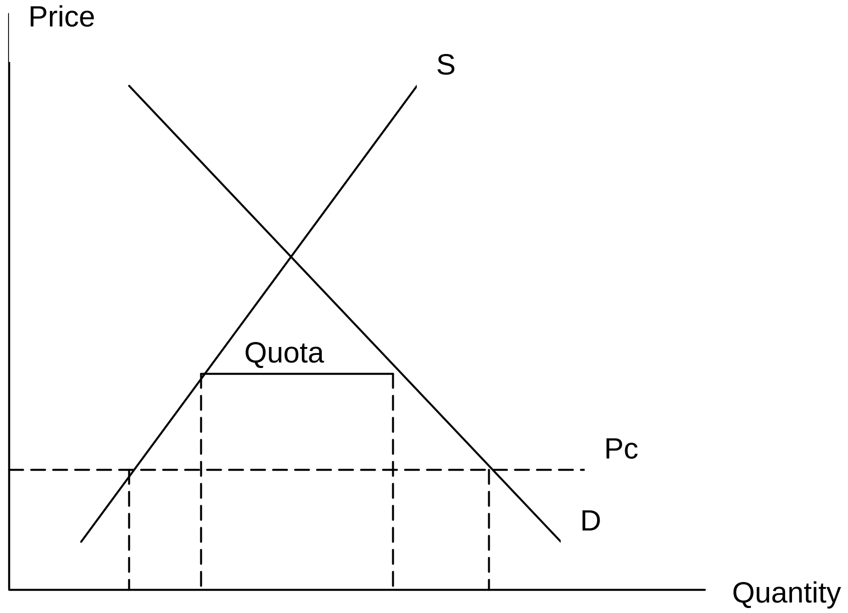
It may be argued that developing economies might overcome some of these obstacles, however, Trade negotiations can deliver results in reducing the obstacles faced by developing economies. This may require action by the WTO and could take considerable time. In some cases, some obstacles may be of advantage to developing economies. Quotas for example, by raising the price paid for imports, raise the value of trade. This may be a reason why limits on textile imports have been agreed by China, at least in the short term. It is hard to overcome infant industry inefficiencies without investment, although economies which have been able to attract foreign direct investment have been able to ‘import’ the investment needed to overcome the obstacles created by a low level of economic development. Multinational investment may also ‘open up’ international markets for developing economies, particularly where production is integrated globally. By allowing MNCs to take advantage of lower labour costs in developing nations, assembly of semi-finished products can be exported to production facilities elsewhere in the world.

It is less likely that developing economies face obstacles to trade where they enjoy a comparative advantage in production of certain commodities or some unique factor endowment, particularly in terms of natural resources such as mineral deposits. It is unlikely that developed nations will place restrictions on the import of commodities which they themselves are unable to produce. However, the capital requirements fro extraction may still create an obstacle to international trade. On top of this, basic commodity prices are notoriously volatile due to price inelasticities of demand and supply. In addition, low income elasticities of demand may result in a long term decline in the terms of trade for some economies who specialise in the production of such goods. This will create an obstacle to trade in that, over time, a greater volume of trade will be required to maintain export earnings.

In summary, obstacles to trade can be both outside an economy' control or result from a low level of development. The latter, though difficult to remove, can be tackled whereas the actions of other countries require political power to 'negotiate away'

Weak Candidates answer

Extracts 4 and 5 show how Chinese exports to the EU are being limited by the use of quotas. These are an obstacle which China faces in international trade. A quota is a physical limit on the amount of a good or service which can be imported into a country. This limits the amount that China can export to the EU.
As can be seen in the diagram below a quota restricts imports into the EU and pushes up the price of imports. EU consumers buy less Chinese textiles as a result. This makes it harder for Chinese firms to sell to the EU and is a barrier to international trade. A quota works a bit like a tariif. Less supply from China increases the price of textiles in the EU, so that demand is reduced. Firms in the EU are able to supply more. The effect is that there is less of the market for Chinese producers.



In commentary this is bad news to the women who knit textiles in Zhuhangxi. The only way for them to export is by exporting to a third country.

Question 3

Discuss the extent to which China's rapid economic development will impact on the global economy. [20]

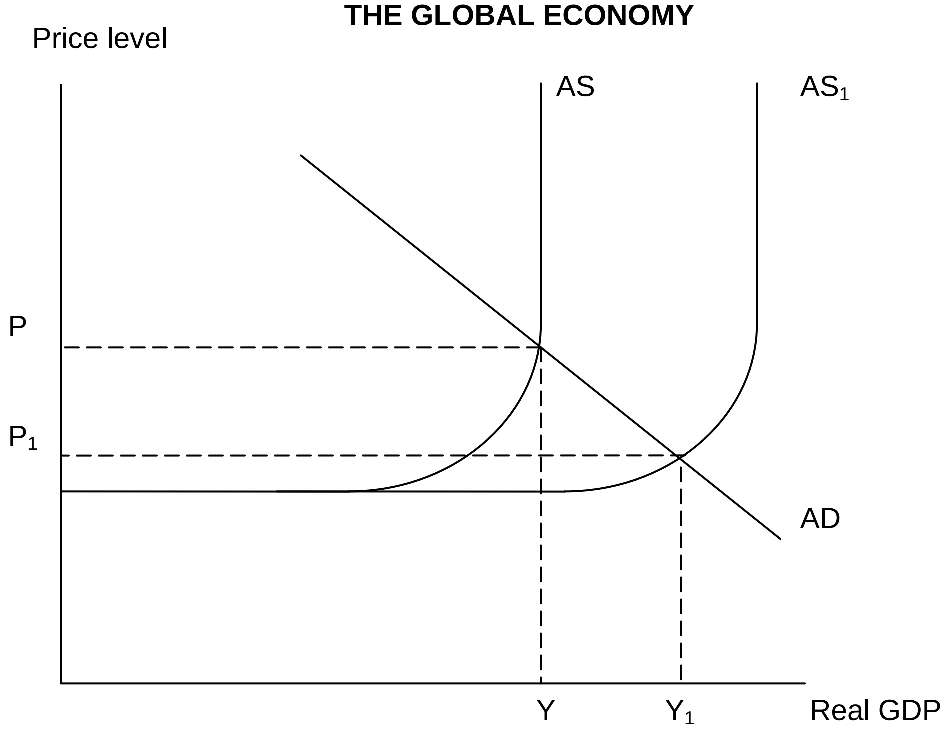
Strong Candidates answer

Stretch and challenge extension shown by material in [brackets in *italics* and **bold type**]

China's rapid economic development will have a significant impact on the global economy. China can be categorised as a large under-developed economy with vast reserves of cheap labour and a government committed to the pursuit of rapid economic growth. It has become a major player in international markets since it joined the World Trade Organisation (WTO).

From the perspective of the global economy, China's rapid economic development represents a supply-side shock. The effect of China's rapid development and its integration into the global economy will be that the world's aggregate supply curve will shift to the right to AS_1. The result is that world output will rise (to Y_1) and there will be a fall in the average or general price level in the global economy (to P_1). China's rapid economic development will be, therefore, a significant boost to the global economy – it will stimulate economic growth and put downward pressure on inflation. This can best be seen in the way in which economies throughout the world, but particularly in the

THE GLOBAL ECONOMY



developed world, have benefited from cheaper imports from China. The influx of Chinese goods onto world markets represents an increase in global competition. This is likely to force existing firms to become more productively efficient, which will lead to improvements in the global allocation of resources.

Again from a global point of view, China's rapid economic development will lead to an increase in the gains from trade. Comparative advantage theory shows that specialisation and trade raises world output and allows countries to consume outside their production possibility frontier (PPF). Since China's rapid economic development has been outward looking, these benefits have been shared globally.

[, although the distribution of these benefits may be unequal with some coutries benefiting more than others. This is especially true for countries which share a similar comparative advantage to China as they might lose out from China's rapid economic development and huge export drive]. The benefits arise from China's comparative advantage in labour intensive production, which it enjoys because of its endowment of large amounts of cheap labour. ***[The extent of these benefits, though, is difficult to determine as they will depend on the terms of trade – the ratio of export prices to import prices.]***

This positive view of the impact of China's rapid economic development on the global economy can be challenged. The reason for China's growth is not wholly down to its comparative advantage and factor endowment. The United States has complained that China has deliberately under-valued its exchange rate in order to promote its price competitiveness in the global economy. The argument is that China's rapid economic development has been possible because of the large current account deficits on the balance of payments in the US. From this point of view, China's rapid economic development has created big trade imbalances in the global economy. This could threaten global economic stability, as countries try to correct current account deficits by raising interest rates or dampening down on economic activity.

It is also true that the increased global competition, which has come hand-in-hand with China's rapid economic development, has caused a decline in manufacturing output and employment in the developed world. These negative impacts could be significant if the unemployment created turns out to be structural rather than frictional. ***[This is more likely to be a problem if the global economy enters a slowdown or recession as alternative employment will be limited. So long as the global economy continues to grow, employment opportunities in other sectors of developed economies will materialise. The extent of any problem of structural unemployment depends on the geographical and occupationally mobility, both of which can be improved by appropriate supply side policies. Economic change requires economies and labour markets to be dynamic and flexible to minimise the costs of change].***The location of industry has been affected too, as companies in the developed world have re-located production to China in order to re-gain international competitiveness. In addition, the rapid growth in China has increased the demand for energy and put upward pressure on oil prices, raising production costs throughout the world. ***[Whilst some countries in the global economy are disadvantaged by rising commodity prices for others this will be an opportunity to gain higher export revenue and increase their own economic development. For other developing economies, China's rapid economic development represents an increase in export opportunities].***

In conclusion, it can be seen that China's rapid economic development is likely to have both a beneficial and negative impacts on the global economy. The benefits of lower prices for consumers come at the cost of jobs, particularly in manufacturing industry in the developed world. ***[Overall, the extent of the impact is likely to be positive. Many of the negative effects reflect changes in the distribution of world output rather an overall decline. Economic theory would tend to support an increase in competition whether it be at the market or global level.]***

Weak Candidates answer

China's rapid economic development has increased competition in global markets, such as the textile market. This has brought both threats and opportunities to firms in the global economy. The result has been that some textile companies such as Ulster Weavers have had to make staff redundant and close their production facilities. This is because the price of textiles has fallen and firms in Europe have found it difficult to remain competitive, at a time when their costs are rising. The loss in jobs will cause unemployment in Europe to rise. This could cause family problems and stress and an increase in crime. The government will have to spend more money on unemployment benefits, leading to a budget deficit. Workers are angry at the loss of jobs, which will cause a loss of motivation and production in firms hit by this increased competition.

These things will have a negative impact on the economies of many countries, as the diagram below shows. As the rest of the world imports more from China there will be a reduction in aggregate demand in their economies. The AD curve shifts left and there is a reduction of output to Y_1. With lower GDP there will be more people unemployed and a reduction in the standard of living.