

Mark Scheme (Results) Summer 2007

GCE

GCE Economics (6352) Paper 1

Question 1 Nurses and Teachers priced out of housing

(a) With reference to Extract 1 and Figure 1, explain how rising house prices might have affected the supply of nurses and teachers to many parts of Britain. (3)

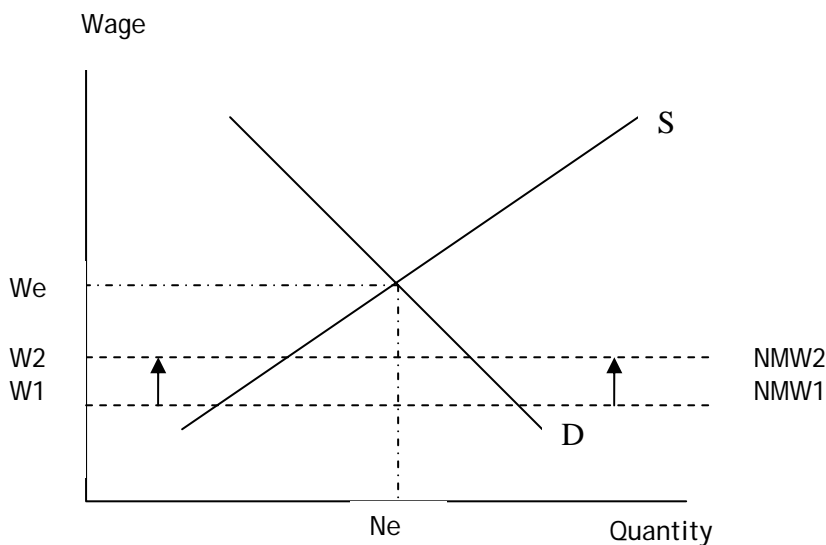
- Rising house prices have decreased the supply of teachers & nurses (1).
- Reference to Extract 1 or Figure 1. For example 'nurses & teachers are being priced out of nine from every ten towns across Britain' / house price to earnings ratio increasing (1).
- Housing has become unaffordable for nurses and teachers (1).

(b) Analyse why 'significant increases in the National Minimum Wage have been ineffective in reducing staff shortages in nursing and teaching' (Extract 1, lines 11-12). (6)

- Definition of National Minimum Wage (NMW) (1).
- The NMW is below the market wage for teachers & nurses (1). As the NMW increases it still remains below the market wage for teachers and nurses (1).
- Significant increases in NMW have been added to a low base (1) - so the NMW is still relatively low (1).
- The NMW may have risen less quickly than house prices (1) - so nurses & teachers cannot afford to buy property in many parts of Britain - staff shortages remain (1).
- NMW does not address other causes of staff shortages e.g. very high house prices, training, work load and stress (1).

Also award for a relevant labour market diagram. However, it is possible to achieve maximum marks without a diagram.

Teachers / Nurses Labour Market



Correct diagram 4 marks for depicting:

- Demand & supply curves (1)
- The market equilibrium wage & quantity for teachers / nurses (W_e & N_e) (1)
- NMW line set below the market equilibrium wage (1)
- An increase in NMW but line still below the market equilibrium wage (1)

- (c) (i) With reference to Extract 2, examine the likely impact of the 'government key worker living scheme' on nurse and teacher shortages for London and the South-East.

(5)

- The key worker scheme will help to reduce nurse & teacher shortages (1).
- It offers 30,000 key workers a loan of £50,000 towards house purchase (1).
- The scheme should increase affordability of homes for key workers in many areas (1).

Evaluation (2 marks for any one factor)

The success of the key worker scheme will depend on various factors:

- Its availability to nurses & teachers on a long term basis.
- The interest payments on the £50,000 loan.
- Whether the number of nurses & teachers supported by the scheme will increase since 30,000 is relatively small.
- Future increases in house prices and whether the key worker loan sum increases at the same rate.
- The £50,000 loan may still be insufficient to enable teachers to purchase property in many areas of the country e.g. Gerrards Cross in Buckinghamshire.
- The scheme is quite substantial with £690 million spent on it in the first year and so significant improvement might be expected.

- (c) (ii) Explain *two* measures, other than those mentioned in the extracts, that the government might undertake to reduce shortages of nurses and teachers. (4)

Identification (1 + 1) and analysis (1 + 1)

Be prepared to accept various factors for example:

- Increase salaries
 - Tax concessions
 - Improved pensions
 - Reduce length of working week or longer paid holidays.
 - Reduce work load for teachers / nurses
 - Clear career progression / subsidies for training
 - Recruit teachers / nurses from overseas / encourage immigration
 - Major advertising recruitment campaign
 - Rent allowances / transport subsidies
 - Reduce length of qualifying time
- Do not accept**
- Increase in National Minimum Wage
 - Expansion of key worker scheme
 - House building programmes

(d) (i) Analyse *two* types of economies of scale from which house building companies might benefit as a result of the planned building programme in the South East (*Extract 2, lines 11-12*).

(6)

- Understanding of economies of scale for example, shown by definition / diagram or in explanation (up to 2 marks).
- Accept both internal and external economies of scale. Internal may include purchasing, technical, managerial, financial, marketing, risk bearing economies of scale applied to house building. External may include reference to pool of labour, ancillary services and agglomeration (2 + 2 marks).

If no application to house building, award a maximum of 4 marks.

(d) (ii) Discuss *one* external cost and *one* external benefit from building more than 1.1 million homes in the South East by 2016. (6)

- Definition of externalities / costs or benefits from production or consumption that the price mechanism fails to take into account (2).

Also award for the difference between social and private costs / benefits (1); third party effects / outside of the transaction (1); spillover effects (1); costs or benefits external to an exchange (1). Externalities could be exemplified by diagrams (1 + 1).

- External costs include: road congestion; increased pressure on public services such as schools & hospitals; environmental problems such as wildlife damage, visual, noise & air pollution in house building; encroachment on green belt land. (1)
- External benefits include: job creation; increased housing could make more affordable and so reduce shortages of key workers such as nurses & teachers (1).

Evaluation (2 marks for any one factor)

- Consideration of whether the external cost is more significant than the external benefit. The building programme appears to be on a massive scale!
- Consideration of how externalities from building 1.1 million homes might change over time.
- Consideration of factors which might affect the impact of the external cost or benefit chosen.

- (e) Examine the likely effectiveness of *two* measures the government might use to reduce road congestion resulting from the housing expansion planned for the South East.
(10)

Identification of two measures (1 + 1) and application / analysis (2 + 2 or 3 + 1)

There are various measures candidates might consider:

- Road pricing
- Car pool lanes / car sharing lanes (e.g. new lane on M1 motorway) or dedicated bus lane (M4 link to Heathrow).
- Increase tax on fuel / motor vehicle license fee (road tax) / purchase of motor vehicles. This may be shown by indirect tax diagram.
- Increase subsidies on public transport such as bus & rail services. This may be shown by subsidy diagram.
- Increase expenditure on road construction / widening.
- Careful planning of new housing in areas with good road transport connections.

Evaluation (2 + 2 marks)

- **Road pricing:** cost of implementing & operating scheme / peak & off peak charges / impact on low income motorists / raise tax revenue / enable cuts in fuel duties / fair as based on polluter pays principle / reduce non-essential journeys / unpopular among motorists.
- **Car pool lanes / car sharing:** cost of implementing & operating scheme / danger of under-utilisation of lanes.
- **Increase fuel tax / motor vehicle license tax / purchase of motor vehicles:**
May lead to protests / unfair and may not work as taxes not directly linked to congestion / discussion of elasticity issues.
- **Public transport subsidies:** Opportunity cost implications for government / higher taxes / inferior good issue / elasticity issue.
- **Increase expenditure on road construction / widening:** Opportunity cost implications / higher taxes / impact on environment / encourage growth in road traffic / time period to build more roads.
- **Careful planning of new housing:** South East roads already congested so this is unlikely to be effective.

Question 2 Air Travel

- (a) With reference to Figure 1 and Extract 1, explain *three* factors which might account for the rising demand for air transport.

(6)

Candidates are required to identify correct increase / decrease in three factors with development (2 + 2 + 2 marks).

Extract 1 refers to four factors:

- Increase in incomes - positive income elasticity of demand for air travel.
- Increase in leisure time - people have more time to go on holiday.
- Increase in trade - increase in business air traffic as the global economy continues to grow.
- Decrease in price of air travel so making it more affordable.

Note, explicit use of data in Figure 1 is recognised to achieve full marks. Otherwise award a maximum of 5 marks.

Also accept other reasons for rise in demand for air transport e.g. population growth, changing fashion and tastes.

- (b) (i) What is meant by the term external benefits? (2)

- Benefits from production or consumption the price mechanism fails to take into account (2).

Also award for the difference between social and private benefits (1) / positive third party effects or benefits outside of the transaction (1) / positive spillover effects (1) / benefits external to exchange (1).

- (b) (ii) Explain two external benefits from the expansion of Heathrow airport. (4)

Any two factors (identification 1 mark and explanation 1 mark for each factor):

- The creation of additional jobs that serve the airport, e.g. retail stores, security, flight desks and airlines. Note: creation of 5000 jobs in the construction and 16500 jobs in operating Terminal 5 are private benefits and so not valid.
- Attract foreign investment into the economy so more businesses and employment. Incomes could also increase in the region.
- Increase tourism for the economy so more employment & income for shops, restaurants, hotels, theatres, clubs and attractions.
- Reduce journey times & delays for businessmen so more productive in meetings and time savings for firms.
- Improved government finances such as more tax revenue and less benefits.

- (c) (i) Using examples from Extract 2, distinguish between the private costs and external costs arising from Heathrow airport's expansion. Illustrate your answer with a diagram.
(8)

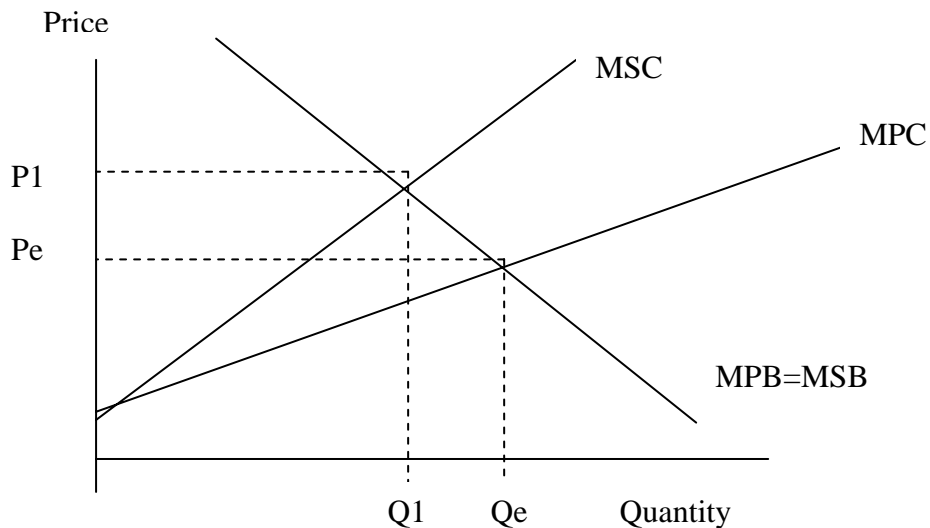


Diagram (Up to 2 marks)

- Correctly labelled diagram which has MPC (1) and MSC (1) curves.
- Note the candidates may draw parallel MPC and MSC curves.
- Note if candidate excludes 'marginal' then award up to 1 mark.

Definition of private costs (Up to 2 marks)

- Costs internal to an exchange (1) paid by the BAA of £4.2b (1) / producer or the price of the ticket for consumers (1).

Example of private costs (1)

- Examples include terminal building / aircraft stands / hotel / car park / new spur road / underground extension.

Definition of external costs (Up to 2 marks)

- Costs from production or consumption the price mechanism fails to take into account (2).

Also award for the difference between social and private costs (1) / negative third party effects (1) / negative spillover effects (1) / costs which are external to exchange (1).

Example of external cost (1)

- Examples include air pollution / smog / global warming / damage to ozone layer / respiratory illness / noise pollution.

- (c) (ii) Discuss the significance of *one* external cost from Heathrow airport's expansion, *other* than those mentioned in Extract 2. (4)

Candidates may refer to (up to 2 marks):

- increased traffic congestion on surrounding roads
- more road traffic accidents
- possible increase in risk of air traffic accidents
- more property blight for homes in the area
- scenic damage
- danger of further expansion into green belt land, especially if a new runway gets the go ahead
- surface run-off water pollution from oil & chemicals
- disposal of building rubble in landfill sites.

Evaluation (one point up to 2 marks)

- comparison with the external costs mentioned in the extract - is it more or less significant
- the magnitude of the external cost
- localised nature of the external cost
- Does the external cost add to the problems of the other external costs mentioned in extract 2?
- Is the project still worthwhile?

- (d) Examine the likely effectiveness of two measures a government might use to internalise the external costs from air transport. Refer to the last paragraph of Extract 2. (10)

The extract identifies several measures: indirect taxes, tougher environmental regulations, tradable carbon emission permits, subsidies for clean technology. Knowledge and analysis / application (3 + 3 marks).

Note candidates must go beyond mere identification of the measures.

- *Indirect taxes* - the tax acts to increase production costs and firms may pass on these costs to consumers. This will increase the price of flights and reduce demand. Candidates may illustrate by indirect tax diagram.
- *Environmental regulations* - these might include restrictions on night flights, restrictions on noise levels for landing & take-offs, controls on type of planes which are allowed to land at UK airports. The regulations are likely to increase the price of flights by limiting supply.
- *Tradable carbon emission permits* - these might be applied to the air pollution created from each flight. Airlines will have an incentive to use more fuel efficient engines and clean technology in their aircraft. Notion of buying & selling permits between airlines. The permits may increase the cost of air flights which may be passed onto consumers.

- *Subsidies for clean technology* - these might be applied to reduce noise & air pollution from air transport. Candidates may illustrate subsidy by diagram. Impact is to reduce external costs, so that the MSC curve moves closer to the MPC curve.

Evaluation (2 + 2 marks)

- Each measure may suffer from problem of **quantifying and attaching a monetary value on the external costs** from air transport. Consequently, it will be difficult to internalise and reach the social optimum position for the market. Reward candidates who use relevant externality diagram.
- **Indirect taxation** - effectiveness will depend on price elasticity of demand and the size of the tax.
- **Regulation** - effectiveness will depend on type of regulation; may lead to red tape and limit growth in tourism & business traffic. Problems of monitoring & enforcing regulations. Could be seen as a restriction to trade and invoke retaliation by other governments. The regulation may lead to government failure.
- **Tradable carbon emission permits** - effectiveness will depend on number of permits issued by government each year and how these might be reduced. Issues include measurement & valuation of air pollution, monitoring and enforcement of pollution permits system. Also heavy polluting airlines might be able to purchase permits from other airlines.
- **Subsidies for clean technology** may be expensive and have an opportunity cost for the government. Also, the effectiveness of subsidies will depend on the quality of clean technology available to reduce air & noise pollution.

(e) To what extent is the air space used by airplanes a public good? Justify your answer. (6)

- Definition of public good as 'a good which has characteristics of non-excludability and non-rivalry in consumption (1+1)'.
- Candidates should state that the air space above an airport is **not** a public good since:
 - Permission maybe required to use it or some people cannot afford it (Excludable in consumption) (1).
 - Competition between planes for flight slots (Rivalry in consumption) (1).
 - Air space is not a public good as it is possible to charge for individual flight slots - so excluding others from using it. (1)

Evaluation (one point up to 2 marks)

- Air space might be a public good for some of the time, depending on amount of air traffic / time of use (Quasi-public good).
- Air space not a public good as a free-for-all would lead to a collision.

