AQA A-LEVEL ECONOMICS · 7136

ECONOMICS



EXAM QUESTION PACK

3.1.8.3 PUBLIC GOODS, PRIVATE GOODS AND QUASI-PUBLIC GOODS

SCORE	PERCENTAGE
/328	%

STEMUP

These questions belong to AQA, not to us.

The examination questions, mark schemes and examiner reports in this pack were written and published by AQA. They are past assessment materials, reproduced here so that students can revise from them.

What we do not own

STEMUP is not affiliated with AQA and does not own, and makes no claim to own, any of the question, mark scheme or examiner report material in this pack. AQA has not endorsed, approved or been involved in the production of it. AQA and the qualification titles used here belong to their respective owners and appear for identification only.

Where to find the originals

AQA publishes its past papers, mark schemes and examiner reports free of charge. Always check the current specification at aqa.org.uk before you revise, because content and wording can change between series.

If you hold the rights to any material in this pack and would like it amended or removed, contact admin@stemup.co.uk and we will act on it.

1. It is generally accepted that we need to adopt new ways of charging for the use of our roads. This is partly because of worsening congestion, but is also due to the reduction in revenue generated from taxes on fuels as a result of more fuel-efficient vehicles.

Assess the view that a system of road-pricing is the best way to tackle the problem of worsening traffic congestion in the UK.

[25 marks]

2. It is 'difficult to judge whether GM crops will boost productivity to feed the world and create social benefits or cause market failure through monopoly, environmental damage and adverse side effects on human health' (**The Global Context Extract B**, line 38–40).

Using the data and your economic knowledge, evaluate the view that the UK Government should support the production and use of GM crops.

[25 marks]

STEMUP.CO.UK

3. THE GLOBAL CONTEXT

Extract B: Diminishing returns and food production

The British political economist Thomas Malthus (1766-1834) argued that because cultivatable land is in fixed supply, food production is subject to the law of diminishing returns and cannot keep pace with population growth. Technological improvements and international trade have meant that his gloomy predictions of famine and drought have largely been avoided, certainly for industrialised countries like the UK. Now that the world has more than 6 billion people, predicted to rise to 9 billion by 2050, there is a worry once again that diminishing returns will set in. Some estimates suggest that the world's undernourished could soon number over a billion people.

Genetically modifi ed (GM) crops are seen by some experts as providing a way around the problem of diminishing returns. Supporters of GM technology claim that by developing crops that are resistant to disease, drought, salty soil and flooding, more land can be cultivated and existing farmland used more efficiently. The result is improved agricultural productivity. They also claim that private goods like rice and tomatoes can be turned into merit goods by being modifi ed to contain vaccines or cures for diseases.

Anti-GM groups have mounted high profile campaigns against what the media have called 'Frankenstein foods'. In response, the British frozen food chain Iceland decided that there was a competitive advantage in announcing that all of its products would aim to be GM-free and the major British supermarkets quickly followed. Meanwhile, the UK Government's official position is that it has an open mind, and that its priority is to protect human health and the environment while being 'pro-consumer choice'. In the USA, the 'choice' argument has been undermined by the view that foods containing GM products need not be labelled as such.

Can GM crops really guarantee 'food security'? Critics claim that a lack of spending power, not food supply, is the real problem, with poor people in failing economies often starving in front of full stores and granaries. They also claim that GM crops cause negative externalities. For instance, their pollen can contaminate the crops of nearby organic businesses. Also, most GM crops are developed for resistance to weed-killers and pesticides, and this encourages farmers to use more chemicals, killing wildlife and reducing biodiversity. Furthermore, there are fears that eating GM foods might have long-term risks to human health which have yet to be fully investigated.

Regulations in Europe are so strict that it costs a seed manufacturer at least ten times as much to develop a new GM crop than a conventional crop. This means that only big companies can afford to develop them. Globally, the American company Monsanto controls the seeds on over 80 per cent of the world area of planted GM crops. Furthermore, Monsanto bans 'seed saving'. It uses patent laws to sue farmers if they save seeds for planting, rather than buying new seeds every year.

Almost every single piece of evidence on each side of the debate is contested, making it difficult to judge whether GM crops will boost productivity to feed the world and create social benefits or cause market failure through monopoly, environmental damage and adverse side-effects on human health.

Source: news reports, 2008 / 9

4. ‘The UK’s strong reliance on landfill indicates the existence of widespread environmental market failure’ (**The Global Context Extract B**, lines 16 −17).

Using the data and your economic knowledge, evaluate alternative methods of correcting market failure arising from waste disposal.

[25 marks]

5. **THE GLOBAL CONTEXT**

Extract B: The recycling market

Scrap metal dealers are once again touring housing estates in their pick-up trucks obtaining steel and other metals from householders. Increased demand for steel and other metals on world markets has led to a change in the fortunes of these dealers, who are price takers.

Recycling has become a global activity. In 2009, with gold selling internationally at well over $1000 an ounce, there were TV adverts from companies wanting to buy unwanted jewellery. A mobile phone also contains tiny traces of precious metals which can be extracted profitably from the millions of phones discarded each year. This is done at large processing centres, usually near sea ports, and much of the recovered material is exported to factories in China. The Olympic stadium in Beijing, China, was built almost entirely using recycled steel.

Germans, Scandinavians and Canadians are used to sorting their rubbish into different coloured bins. But instead of matching the recycling rates achieved in some countries, the UK still dumps many potentially useful materials. These include plastics, glass, paper and metals, which are buried in landfill sites partly because there are insufficient market incentives for recycling. The UK’s strong reliance on landfill indicates the existence of widespread environmental market failure. Landfill creates greenhouse gases, threatens to pollute water sources and wastes scarce resources.

Some critics suggest that it would be better for the UK to aim at waste reduction, eliminating unnecessary packaging and other ‘bads’ at the production and retail stages. The UK pressure group *Waste Watch* also suggests more reuse, for example encouraging people to buy second-hand clothes from charity shops. However, other methods, such as returnable milk bottles, are in sharp decline.

There are now landfill taxes and regulations which provide incentives for recycling. Households could face the prospect of fines for breaking ‘bin-bag rules’. However, this may lead to unintended consequences such as illegal dumping of waste. *Waste Watch* wants national targets and other policies to promote composting because, by weight, garden and kitchen waste make up the majority of material sent to landfill. *Waste Watch* also suggests increasing the landfill tax each year and extending it to cover incineration and other waste-disposal methods.

Recovery is a further option. In less developed countries, some homeless people live on city rubbish dumps making a living from what they can find and sell. In the UK, market conditions are such that the metal in a 2p coin is now actually worth 3p. Some experts even predict that within ten years it will be economic to excavate landfill sites to ‘mine’ the tin cans and other scrap materials that have been buried there.

Source: news reports, 2009−10

STEMUP.CO.UK

6. Discuss whether markets alone can be relied upon to reduce the problems of environmental pollution.

[25 marks]

7. Explain what is meant by 'property rights' (**The Global Context Extract B**, line 20) **and** analyse how an absence of property rights can worsen the environmental market failures of **both** pollution **and** the rapid depletion of natural resources.

[9 marks]

STEMUP.CO.UK

8.

THE GLOBAL CONTEXT

Extract B: Climate change

In 2004, Russia signed up to the Kyoto Protocol, an international agreement on policies to manage climate change. This committed Russia to a United Nations programme to reduce emissions of greenhouse gases. In 2010, Russia's emissions were as low as their 1990 levels, but this was less to do with environmental policy and more to do with the collapse of heavy industry following the fall of the Soviet Union. A large contribution towards the UK's Kyoto targets also came from deindustrialisation. However, China, like the USA, did not sign up to the Kyoto Protocol.

International action to control carbon emissions is necessary. One policy is known as 'carbon trading'. Countries agree overall emissions limits and try to create an international market for permits to pollute. The idea is to put a money value on emissions and, over time, to create incentives for businesses to invest in less-polluting technology. As well as the large compulsory 'compliance' market for carbon credits, there is also a smaller voluntary market for 'carbon offsets'.

For example, an organisation can be paid to plant trees to allegedly offset the damage that an airline journey does to the ozone layer. Some companies are using these offsets, together with greater energy efficiency and reduced polluting activities, to claim to be 'carbon neutral'. Some environmentalists are suspicious of offset schemes and claim, for instance, that offset schemes have hidden environmental costs.

Some economists argue that the pollution and depletion of communal resources such as clean air, water reserves and fish stocks are made worse by a lack of property rights. Critics say that carbon trading amounts to 'privatisation of the atmosphere', with property rights in this vast new market being grabbed by speculators or by those who already pollute the most. They also claim that activities such as buying credits from Russia are an 'accounting fraud' because they do not necessarily arise from energy efficiency but from the collapse of heavy industry. There is concern that carbon trading is a further blow to manufacturing and that service industries are treated more leniently. If the UK relies on manufactured imports, it can be argued that factories located in China are actually creating UK emissions.

Some major UK businesses appear happier with permit trading than with alternative policies such as quotas on emissions or the taxation of fuel. There is a suspicion that carbon trading might mislead the public into believing that pollution from airlines and other industries is no longer damaging. Governments are accused of being overgenerous in allotting permits to industries that they see as nationally important, such as car manufacturing and electricity generation. While the UK might reduce its domestic demand for carbon, it continues to contribute to the world supply of fossil fuels through activities such as oil prospecting and opencast mining. Russia, China and less-developed countries with coal reserves show few signs of reducing their output of this form of carbon.

Source: news reports, 2010

9.

'Many ideas in the UK for coping with rising health care costs are imported from other EU countries' (**The European Union Context Extract F**, lines 1 and 2).

Using the data and your economic knowledge, assess whether the UK Government should encourage greater use of market forces in the provision of health care.

[25 marks]

STEMUP.CO.UK

10. Distinguish between price elasticity of demand and income elasticity of demand, **and** analyse why, when people have medical insurance, the price elasticity of demand for medical treatment might be 'very low' while the income elasticity of demand is 'likely to be high' (**The European Union Context Extract E**, lines 22 to 24).

[9 marks]

11. **THE EUROPEAN UNION CONTEXT**

Extract E: The price of health

The European Health Insurance Card (EHIC) is issued free to EU citizens via national governments. It allows anyone entitled to state health care in their home country to receive basic medical treatment in another member state for free or at a reduced cost. While there is no charge for the EHIC, insurance-based health care systems generally involve the purchase of a policy from a company which then pays for treatment for people whose medical conditions are covered.

The UK's National Health Service (NHS) is predominantly in the public sector and is mostly paid for out of taxation. Treatment is 'universal', available to all UK citizens, and usually to visitors as well. While there are some treatments for which charges might be made, for example, for some dental work and spectacles, a guiding principle of the founders of the NHS was that treatment should be based on 'need' rather than 'ability to pay', and provided 'free at the point of use'. In the UK there is also a private sector consisting of hospitals and other facilities. They mostly work with commercial health insurance companies, but they can undertake some work on contract for the NHS.

In Germany, private health care is used approximately twice as much by patients as it is in the UK, but this does not necessarily mean that patients pay directly for their treatment. Roughly one-third of German hospitals are owned by the state, another third are not-for-profit organisations and the remaining third are in the private sector. German citizens can use any hospital in the system.

The founders of the NHS thought that its costs would fall as living standards rose and the population became healthier. However, when the state or an insurance company acts between the patient and the health provider, the patient's price elasticity of demand for medical treatment is likely to be very low, while income elasticity of demand is likely to be high. Costs have increased due to these unusual elasticities, together with new drugs, more sophisticated medical technology, a wider range of treatments, more complex procedures and increased life expectancy.

STEMUP.CO.UK

12. **THE EUROPEAN UNION CONTEXT**

Extract F: UK health reforms

Many ideas in the UK for coping with rising health care costs are imported from other EU countries. For example, in 2002, the Labour Government introduced the idea of 'Foundation Trust Hospitals', which had been tried in Spain. These not-for-profit organisations are able to set their own clinical and financial priorities and have greater freedom to borrow money, invest their surpluses, and form public-private partnerships. Meanwhile, in Spain, some doctors were complaining that their newly formed Foundation Hospitals had fewer beds, fewer staff and more complaints from patients than before. Some hospitals were returned to their former status because they were said to be bureaucratic, inefficient and 'cherry-picking', that is choosing the easiest patients to treat.

During 2011 and 2012, the UK Coalition Government legislated for NHS reforms, promoting the idea of an 'internal market' in health provision, with local doctors working in groups to buy hospital services on behalf of their patients. In February 2012, a hospital in East Anglia was the first in the NHS to be taken over by a private company, which hoped to clear the hospital's £45m debts and make it 'profitable' by 'competing' for patients with neighbouring hospitals.

13. 'The supply and use of water result in many externalities, both positive and negative' (**The Global Context Extract B**, line 16).

Using the data and your economic knowledge, evaluate UK government policies that could be used to deal with problems associated with the supply and use of water.

[25 marks]

STEMUP.CO.UK

14. **THE GLOBAL CONTEXT**

Extract B: Water, water everywhere

Access to clean water is closely linked to production, income and wealth, both within and free good. However, only a small proportion can be used to support human life and even this is not freely available to all.

As underground water levels drop in industrialised countries, and as waterways become polluted, some places, like southern Spain, are desperately short of water. Meanwhile, poorer countries, such as Bangladesh, sometimes suffer from too much water, with sudden disastrous floods. Unlike developed countries, such as the Netherlands, they cannot afford flood defence infrastructure. In Kenya, people living in villages without drinkable water can see irrigation systems in nearby fields spraying water over vegetables and flowers being grown for export to Europe.

There are problems with property rights to water. Indeed, some experts have predicted that, during the twenty-first century, countries controlling the world's fresh water supplies will be in a similarly powerful position to that of the twentieth century's oil producers, and that wars might even take place because of disputes over water.

The supply and use of water result in many externalities, both positive and negative. One-third of the water used by UK households is flushed down the toilet. The water used to carry human waste through sewers has to be kept separate from drinking water. When the water industry was privatised by the UK Government, shares were sold in 'water and sewerage businesses', and these companies were regulated by OFWAT (The Water Services Regulation Authority) for their commercial activities as regional monopolies, and by the Environment Agency for their wider impact such as the extraction of water from rivers.

In recent years, several regions of the UK have repeatedly been declared to be suffering from 'drought', and there has been some debate over which policy responses are appropriate. These include hosepipe bans, metering of water supplies, a national 'grid' for transporting water around rivers and canals, and more reservoirs. The privatised companies have made massive investment in infrastructure which has transformed polluted rivers such as the Wandle, near London, from open sewers into trout streams, but further measures are necessary to prevent annual droughts.

15. In August 2011, the UK Secretary of State for Culture said that while there were many local television stations broadcasting in the USA, they did not exist in the UK due to 'market failure'. He proposed a subsidy of £40m from public funds to help create stations which would then be financed by advertising.

Explain why TV broadcasting might be classified as a public good **and** explain why TV broadcasting can also have some characteristics of a private good.

[15 marks]

16. Explain what is meant by 'market failure' (**The Global Context Extract C**, line 13) **and** analyse **two** reasons why markets might fail to provide adequate pensions.

[9 marks]

STEMUP.CO.UK

17.

THE GLOBAL CONTEXT

Extract C: Pensions and poverty

A major factor in tackling global poverty is the provision of adequate pensions. According to the think tank, Pensionwatch, four out of five older people around the world have no access to a pension, with many millions living in poverty or working well into their old age. Around 80 countries have some form of state pension which gives a basic income in old age.

An important question is whether individuals should take responsibility for their old age by choosing to contribute to a scheme provided by the state, or an employer, or via the insurance industry. Only a few wealthier countries also have a basic 'universal' state pension, financed from general taxation rather than contributions. These have a cost to the taxpayer but they reduce the social costs of old age poverty.

Statisticians can make long-term predictions of population changes and yet many private and public sector pension schemes are in crisis as countries are faced with ageing populations and rising levels of national debt. This can be seen as government failure, caused by poor forward planning. There has also been some market failure. For instance, due to the selling of inappropriate insurance-based private pension schemes, and a significant fall in the value of pensions being provided by even the better schemes, many consumers have lost trust in the private sector pensions industry.

It could be that many people are simply too poor to be able to afford to save, or it might be that people often prefer current consumption over future consumption. This form of market failure could be tackled by the government imposing a high rate of compulsory pension saving, as in Chile and Singapore. There was a small step in this direction in the UK in 2012 when the government launched 'auto-enrolment', an occupational pension scheme pioneered in Australia and New Zealand where employees are automatically included unless they opt out. While rich countries argue over who should pay for pensions, and by what methods, in poor countries, where pensions are needed the most, they are likely not to exist at all.

Sources: news reports, government statistics, 2013

18.

'In future, many young British people will have to adopt the German tradition of renting rather than buying, unless they eventually inherit a house from their parents. This has major implications for many aspects of the economy, including the mobility of labour and the distribution of wealth.' (**The European Union Context Extract F**, lines 17−20)

Should government intervene in the UK housing market, for example using subsidies, or leave the provision of housing to market forces? Using the data and your knowledge of economics, justify your answer.

[25 marks]

19.

Explain what is meant by the term 'externalities' (**The European Union Context Extract E**, line 12) **and** analyse how housing can create **both** positive **and** negative externalities.

[9 marks]

STEMUP.CO.UK

20. THE EUROPEAN UNION CONTEXT

Extract F: Housing and inequality

The EU Commission has said: 'Decent housing at an affordable price in a safe environment is a fundamental need and right. Ensuring this need is met, which is likely to alleviate poverty and social exclusion, is still a significant challenge in a number of European countries.' Housing inequality can result in part from income inequality and can, in turn, help cause wealth inequality. Most houses are bought using mortgages which are issued by banks and building societies on the basis of income. The UK's 'Right to Buy' policy, dating from the 1980s, makes a one-off redistribution of wealth from the state to low income families when tenants buy their council houses at a subsidised price. Regional and international differences enable some house owners to convert their housing assets into other forms of wealth. For example, someone who sells a former council house they have owned for 30 years in south-east England might release enough profit to be able to purchase a similar house in north-west England, or even two houses in Bulgaria, while still having cash left over.

In most EU countries, 'austerity' pressures on public finances can be expected to cause a further withdrawal by government from a direct role in housing. The financial crash of 2007 was made worse in Europe by excessive property speculation, particularly in the UK, Ireland and Spain. In future, many young British people will have to adopt the German tradition of renting rather than buying, unless they eventually inherit a house from their parents. This has major implications for many aspects of the economy, including the mobility of labour and the distribution of wealth. Moreover, in 2013, a government 'Help to Buy' scheme, intended to assist first-time buyers with their deposits, has also subsidised would-be landlords buying property to rent out. Yet the UK remains short of social housing and affordable private housing.

Source: News reports, 2014

21. THE EUROPEAN UNION CONTEXT

Extract E: Housing tenure and externalities

Most Spaniards and Estonians live in flats, while most people in the UK and Ireland live in semi-detached houses. Housing markets are made up of different sectors or 'tenures' which describe the legal basis under which houses are occupied. Most of the population of the EU live in owner-occupied houses. Social housing is built or funded by the public sector and, in the past, the UK has been almost unique in Europe in providing such houses mainly through local councils. In France, this is done by not-for-profit organisations, similar to UK housing associations. About two-thirds of tenants across the EU pay a market price rent, while the rest receive some form of subsidy. In the UK, the concept of social housing has become complicated by the large number of private landlords whose tenants are receiving welfare benefits. While the UK government has moved away from rent controls, it has attempted to influence rents indirectly by capping housing benefits for low income tenants.

While housing has many of the characteristics of a merit good, externalities from housing can be positive or negative. Bad housing is often associated with crime, ill-health and other problems, and the opposite is true of good housing. Tenure can also be linked to externalities, for example, if poorly designed social housing, such as an inner-city block of flats, is compared with high-quality private housing in a prosperous area. Much depends on the quality of the build, the surrounding social conditions and the economic infrastructure.

Source: News reports, 2014

STEMUP.CO.UK

22. The lack of clearly defined property rights in a country is most likely to lead to

A overproduction of merit goods. ⬭

B equality of private costs with social costs. ⬭

C overuse of scarce natural resources. ⬭

D an efficient allocation of resources. ⬭

[1 mark]

23. **Pollution and Climate Change Extract E** (lines 18-20) states 'They argue that the pollution and depletion of communal resources such as clean air, water reserves and fish stocks are made worse by a lack of property rights'.

With the help of a diagram, explain how the absence of property rights can worsen the environmental market failures of **both** pollution **and** the rapid depletion of natural resources.

[9 marks]

24. **Pollution and climate change**

Extract E: Climate change

In 2004, Russia signed up to the Kyoto Protocol, an international agreement on policies to manage climate change. This committed Russia to a United Nations programme to reduce emissions of greenhouse gases. In 2010, Russia's emissions were as low as their 1990 levels, but this was less to do with environmental policy and more to do with the collapse of heavy industry following the fall of the Soviet Union. A large contribution towards the UK's Kyoto targets also came from deindustrialisation. However, China, like the USA, did not sign up to the Kyoto Protocol.

International action to control carbon emissions is necessary. One policy is known as 'carbon trading'. Countries agree overall emissions limits and try to create an international market for permits to pollute. The idea is to put a money value on emissions and, over time, to create incentives for businesses to invest in less-polluting technology. As well as the large compulsory 'compliance' market for carbon credits, there is also a smaller voluntary market for 'carbon offsets'.

For example, an organisation can be paid to plant trees to allegedly offset the damage that an airline journey does to the ozone layer. Some companies are using these offsets, together with greater energy efficiency and reduced polluting activities, to claim to be 'carbon neutral'. Some environmentalists and economists are suspicious of offset schemes and claim, for instance, that offset schemes have hidden environmental costs. They argue that the pollution and depletion of communal resources such as clean air, water reserves and fish stocks are made worse by a lack of property rights.

Source: news reports, 2010

STEMUP.CO.UK

25. ‘Most consumers know, more or less, when and why they are likely to want to replace a TV set or mobile phone. Nobody really knows in advance when or why they might need to go into hospital for a new knee-cap or hip joint.’

Discuss whether economic welfare would necessarily be increased if the provision of merit goods and public goods were always left to governments without ever involving markets.

[25 marks]

26. ‘The UK government would be happy with state control of British railways “as long as it’s not the British state”’ (**Extract C**, lines 19 – 21).

Evaluate, using the data and your knowledge of economics, the case for and against the UK government privatising public services while allowing foreign ownership of these services.

[25 marks]

27. ‘A third runway at Heathrow is essential for the success of the economy of London and the UK.’

‘A third runway at Heathrow would be an environmental disaster and cause huge market failure.’

Explain how an investment project, such as airport expansion, can be commercially successful and yet produce market failure.

[15 marks]

28. Which one of the following distinguishes a private good from a pure public good?

A A private good can only be provided by private firms and not the government ⬭

B Consumption of a private good creates negative externalities for other consumers ⬭

C Consumers of a private good have full knowledge of any externalities in its production ⬭

D One person’s consumption of a private good reduces the amount available for other consumers ⬭

[1 mark]

29. The tragedy of the commons can be applied to the fishing industry. What is the nature of this market failure?

A Over-fishing resulting in declining fish populations ⬭

B The imposition of fishing quotas by the European Union ⬭

C The positive externalities associated with fish consumption ⬭

D The third-party effects on dolphins as a result of tuna fishing ⬭

[1 mark]

STEMUP.CO.UK

30. **INVESTIGATION**

Scenario

You are an economist working for the Ministry of Housing, Communities and Local Government (MHCLG).
You have been asked to investigate the state of the UK housing market.
As part of this investigation, you are to provide answers to three questions.

Referring to the **Extracts A**, **B**, **C** and **D**, use them and your knowledge of economics to help you answer this question.

After considering **Extract E**, and the original evidence in Extracts **A**, **B**, **C** and **D**, would you recommend that the Government should increase its spending on housing? Justify your recommendation.

[25 marks]

STEMUP.CO.UK