

Economics

Advanced GCE **2888**

Economics in a European Context

Mark Scheme for June 2010

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1 (a) Using the data in Extract 1, compare:

- the trend in the EU price of gas and electricity for large industrial consumers over the period shown;
- the price of electricity for large industrial consumers in the UK and France over the period shown;
- the rate of inflation in Hungary with that in the euro zone over the period shown.

[6]

Synoptic knowledge:

- Module 2881 – Section 5.1.2 Competitive markets and how they work (the nature of a competitive market, determination of equilibrium price)
- Module 2883 – Section 5.3.1 Government macro-economic policy objectives and indicators of national economic performance (the use of data to measure economic performance, including international comparisons).

Outline of content

Summary statement	Quantification
<i>EU27 gas and electricity prices</i> <ul style="list-style-type: none"> Both gas and electricity prices increased over the period 2000–2007 In relative terms the price of gas increased more than the price of electricity Electricity prices increased continuously unlike gas prices which fell twice during 2004 and 2007. 	<ul style="list-style-type: none"> Gas prices increased by 56% whereas the price of electricity increased by 34%.
<i>Price of electricity in UK and France</i> <ul style="list-style-type: none"> Electricity prices in France were constant whereas they rose in the UK. 	<ul style="list-style-type: none"> Electricity prices in the UK almost doubled (increased by 97%).
<i>Rate of inflation in Hungary and the euro area</i> <ul style="list-style-type: none"> Euro area inflation rate was more stable than that in Hungary Overall, the rate of inflation in Hungary has fallen over the period whereas that in euro area is higher in 2007 than in 2001. 	

1 mark for each summary point

1 further mark for each quantification

Maximum of two marks per indicator

Max of 6 marks.

(b) Analyse the case for deregulation and liberalisation of all EU energy markets.**[9]****Synoptic knowledge:**

Module 2881 –	Section 5.1.2 Competitive markets and how they work (the nature of a competitive market, role of markets in influencing choice and allocating resources). Section 5.1.3 Firms and how they operate (the spectrum of competition – main forms of market structure: monopoly, monopolistic competition and oligopoly).
Module 2882 –	Section 5.2.1 Economic efficiency within competitive markets (the conditions for efficient allocation of resources including the concepts of allocative, productive and Pareto efficiency, competition and the efficient allocation of resources). Section 5.2.2 Why markets may not work efficiently (the causes and consequences of why markets may not work efficiently to include market dominance).
Modules 2884/5 –	Sections 5.4.2/5.5.2 Theories of market structure and competitive behaviour (the models of perfect competition, monopolistic competition, oligopoly and monopoly, the concept of contestability in markets, comparison of outcomes in terms of prices, output, profit and efficiency).

Outline of content

Definition and explanation of the terms deregulation and liberalisation.

Analysis of the case for deregulation and liberalisation should be conducted through use of appropriate economic theory, such as a comparison of outcomes of competitive and uncompetitive market structures and/or contestable market theory. There should be reference to the benefits which might be expected in terms of economic efficiency – there should be explicit reference to productive and allocative efficiency gains from deregulation and liberalisation for a L3 mark to be awarded. These benefits should be explained rather than merely stated – i.e. candidates should offer justification of why a deregulated and liberalised energy market in the EU would bring about efficiency gains.

An alternative approach which might be adopted by some candidates would be to explain the benefits of deregulation and liberalisation using economic analysis of the benefits of the Single European Market applied to energy markets.

Distinguishing between application (L2) and analysis (L3) is the key thing in marking responses to this question. L2 answers are likely to be characterised by unsubstantiated statements of the benefits of deregulation and/or liberalisation. Alternatively, they may paraphrase some of the Extract material picking out the disadvantages of regulated markets and state control of prices but without adding their own explanation.

Level 3	For an analysis of the case for deregulation and liberalisation of the EU's energy markets.	[7-9]
Level 2	For the application of knowledge of the benefits of deregulation and liberalisation of the EU's energy markets or of the disadvantages of regulated markets and state control of prices in these markets.	[4-6]
Level 1	For knowledge and understanding of deregulation and/or liberalisation only.	[1-3]

- 2 **Comment on the extent to which government subsidies might encourage an increase in the supply of energy from renewable sources.** [10]

Synoptic knowledge

- Module 2881 – Section 5.1.2 Competitive markets and how they work (demand, determinants of demand, supply, determinants of supply, equilibrium, changes in demand and supply, effects of changes on equilibrium price and quantity, the supply curve for an individual firm and for the market as a whole, distinctions between movements along, and shifts of, supply curves, individual and market demand curves, distinction between movements along, and shifts of, demand curves, elasticity of demand – price and cross elasticity of demand: meanings and determinants of each, their use and relevance in business situations).
- Module 2882 – Section 5.2.2 Why markets may not work efficiently (the causes and consequences of why markets may not work efficiently to include the market failures of externalities)
Section 5.2.3 Making choices and the impact of government intervention on market outcomes and efficiency.
(The way governments, in pursuit of their economic, social and distributional objectives, intervene in markets to correct market failure through subsidies, the impact of these forms of intervention on markets, the ways in which governments may create rather than remove distortions).

Outline of content

Analysis should take the form of an explanation of how the policy of government subsidies would work to encourage the supply of energy from renewable sources and this should involve how government policy affects the relative price of renewable versus non-renewable energy and how changes in market prices influence the way in which energy is generated. Analysis is most easily demonstrated by the use of demand and supply diagrams, but this is not required for the award of L3 or L4 marks. In other words, the analysis can be textual rather than diagrammatic.

Commentary on the policy can take many different forms and is not expected to be extensive, but some development is required for the higher marks in L4 to be awarded. So for example, candidates might comment on:

- *effectiveness depends on relative prices on of non-renewable and renewable energy production – this has implications for the size of subsidy required to increase supply*
- *effectiveness determined by the demand for energy from renewable sources – lower prices may not be enough if renewable sources are less reliable*
- *effectiveness may depend on the nature of the subsidy – subsidies for research and development may be more effective than production subsidies in the long run as better technology is likely to reduce costs of production and to increase efficiency/reliability*
- *the extent to which other sources of energy production continue to be subsidised – issues related to relative rates of subsidisation*
- *as relatively ‘young’ industries effectiveness may depend on time – more effective in the long run than short run*
- *case studies of the policy measure and its effectiveness*
- *better candidates will, of course, relate the above issues to the concepts of PED and XED.*

Note that the question focuses on whether government subsidies will encourage an increase in supply – commentary on issues related to opportunity cost etc (e.g. efficiency of the measure as opposed to effectiveness) should not be credited.

- | | | |
|---------|---|--------|
| Level 4 | For a commentary on whether government subsidies might encourage an increase in the supply of energy from renewable sources. | [8-10] |
| Level 3 | For an analysis of how government subsidies might encourage an increase in the supply of energy from renewable sources. | [5-7] |
| Level 2 | For an application and critical understanding of how government subsidies might encourage an increase in the supply of energy from renewable sources. Responses in this level will either lack any economic underpinning. | [3-4] |
| Level 1 | For knowledge and understanding of subsidies only. | [1-2] |

3 Comment on the effectiveness of the EU's Emissions Trading Scheme in reducing the market failure created by the production of energy. [15]

Synoptic knowledge

- Module 2881 – Section 5.1.2 Competitive markets and how they work (demand, determinants of demand, supply, determinants of supply, equilibrium, changes in demand and supply, effects of changes on equilibrium price and quantity)
- Module 2882 – Section 5.2.1 Economic efficiency within competitive markets (The conditions for efficient allocation of resources including the concepts of allocative, productive and Pareto efficiency. Competition and the efficient allocation of resources)
- Module 2882 – Section 5.2.2 Why markets may not work efficiently (The causes and consequences of why markets may not work efficiently to include the market failures of negative externalities)
- Module 2882 – Section 5.2.3 Making choices and the impact of government intervention on market outcomes and efficiency (The way governments, in pursuit of their economic, social and distributional objectives, intervene in markets to correct market failure. The impact of these forms of intervention on markets. The ways in which governments may create rather than remove distortions)
- Modules 2884/5 – Sections 5.4.2 and 5.5.2 Theories of market structure and competitive behaviour in markets (The models of perfect competition, monopolistic competition, oligopoly and monopoly. The concept of contestability in markets. Comparison of outcomes in terms of prices, output, profit and efficiency.)

Outline of content

The basic structure to candidates' responses should be that of the 'two-handed economist', namely:

- *on the one hand, pollution permits are likely to be effective because*
- *on the other hand, pollution permits may not be effective because ...*

AND/OR

- *on the other hand, the effectiveness of pollution permits will depend upon ...*

Analysis

Candidates are expected to analyse why pollution permits can be expected to be effective in reducing the market failure created by the generation of energy. There should be an explicit explanation of the nature of the market failure in terms of over-production and under-pricing, which should be related to the conditions for an efficient allocation of resources.

The analysis is likely to be based on how pollution permits/emissions trading scheme works, but the focus should be on the effectiveness rather than a description of mechanics. Expect to see reference to: the allocation of a fixed number of permits; annual emissions must not exceed the amount held in permits; firms polluting below their allocated permits can trade spare permits at a price determined by the market; firms polluting above their allocation must buy permits at the market price; gradual reduction in the supply of permits raises their price and creates incentives for firms to reduce pollution; works with the market mechanism and internalises the negative externality by allowing the market to determine a price for pollution.

Commentary

Commentary begins when candidates question the effectiveness of pollution permits in reducing the market failure created by the generation of energy or when candidates start to recognise that their effectiveness is dependent on a number of conditions being fulfilled.

To be effective:

- *it must be possible to measure pollution and to monitor it*
- *it must be possible for authorities to enforce permits*
- *there must be a clear target set for emissions and this should correspond to an output at which the $MSB = MSC$*
- *there should be a large number of firms involved in the scheme so that a 'correct' market price can be determined by a large number of buyers and sellers*
- *there should be firms who find it easy and less costly to reduce pollution than others*
- *there should be few 'transactions' costs in trading and there should be perfect information and knowledge for the market to function well.*

These points can be developed by explaining what might happen if the conditions are not met and the implications this would have for the effectiveness of the scheme to tackle the market failure created by negative externalities.

Level 4	For a discussion of the effectiveness of pollution permits, such as the EU's emissions trading scheme, in reducing the market failure created by the generation of energy.	[9-15]
	Band 2 – The discussion will be developed beyond simple points or statements and include explanation, justification and judgement.	[13-15]
	Band 1 – Answers in this Band will consider the problems of pollution permits but there will be little development beyond simple points or statements.	[10-12]
Level 3	For an analysis of why pollution permits might be effective in tackling the market failures created by the generation of energy only OR why pollution permits might not be effective in tackling the market failures created by the generation of energy only .	[5-9]
Level 2	For an application and critical understanding of why pollution permits might be effective in reducing the market failures created by the generation of energy AND/OR why pollution permits might not be effective in reducing the market failures created by the generation of energy.	[3-4]
Level 1	For knowledge and understanding of pollution permits and/or market failure only.	[1-2]

- 4 Discuss whether membership of the EU's single currency would be in the interests of countries such as Hungary and the Czech Republic. [20]

Synoptic knowledge

Module 2888 – Section 5.8.2 Economic and Monetary Union (EMU)
(The benefits and costs of European monetary union. The microeconomic pros and cons of the euro. The macroeconomic pros and cons of the euro. The performance of the eurozone economy, including the performance of national economies within the eurozone.)

Outline of content

The benefits of membership of the euro area include:

- **elimination of transaction costs** – membership eliminates the costs of exchanging currencies in trade with the rest of the euro area. These are on-going benefits in the long run and reduce the costs of trade, reducing prices, reducing the scope for price discrimination;
- **reduced exchange rate uncertainty** – the exchange rate risk in trade with other members of the euro area is eliminated. Lower real rates of interest are likely. This is likely to lead to greater consumption and investment and therefore economic growth as it creates certainty in trade. Again, this is an on-going benefit;
- **greater price transparency** – prices in a single currency are more easily comparable leading to greater competition and trade amongst members of the euro area. This promotes economic growth and employment - the benefit is on-going.

There are costs of membership of the euro area, including:

- **loss of monetary policy sovereignty** – the ability to determine interest rates to suit the individual circumstances of the economy may lead to problems (for some this may be high inflation, for others low growth);
- **restriction on the use fiscal policy** – the Stability and Growth Pact constrains an economy's ability to use deficit financing to cushion the impact of recession
- **lack of real convergence** – an extension of the above two points;
- **price increases** – conversion to the euro may result in one-off hikes in prices as firms take advantage of the uncertainty created in the switch from one currency to another.

Analysis of the benefits requires more than just explanation of each benefit. There should be an attempt to explain how they will impact on economic growth, inflation and unemployment.

Discussion of the likely benefits clearly requires recognition that there may be costs of membership as well as benefits. Higher level evaluation will focus on the extent of the benefits or costs or distinguish between the short run and long run. For example, the extent of the benefits and costs depends on the degree of real convergence and integration with the euro area.

- Level 4 For a discussion of whether membership of Europe's single currency would be in the interests of countries such as Hungary and the Czech Republic. [12-20]
- Band 2 – In this Band discussion will focus on the extent of the benefits **RELATIVE** to the costs **AND** distinguish between short and long run effects or develop evaluation of the benefits by considering the nature and importance of real convergence. In short, the evaluation will be developed beyond simple points or statements and include explanation, justification and judgement. [17-20]
- Band 1 – Answers in this Band will consider the benefits and costs of membership of the euro only. [12-16]
- Level 3 For an analysis of either the benefits of membership of the euro area or the costs but not both. [5-9]
- Level 2 For an application and critical understanding of the benefits and/or costs of membership of the euro area, but without underpinning economic analysis. It is important that responses containing some economic analysis are not placed in this Level. [3-4]
- Level 1 For knowledge and understanding of the euro area only or the issues raised in the Extracts. [1-2]

Specification Grid

AO	Question 1		Question 2	Question 3	Question 4	TOTAL
	(a)	(b)				
AO1	3	3	2	2	2	12
AO2	3	3	2	2	2	12
AO3		3	3	5	7	18
AO4			3	6	9	18
TOTAL	6	9	10	15	20	60

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