Monday 11 May 2015 – Morning

AS GCE ECONOMICS

F581/01 Markets in Action

Candidates answer on the Question Paper.

OCR supplied materials: None

Other materials required: • Calculators may be used

INSTRUCTIONS TO CANDIDATES

• Write your name, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
• Use black ink. HB pencil may be used for graphs and diagrams only.
• Answer all the questions.
• Read each question carefully. Make sure you know what you have to do before starting your answer.
• Write your answer to each question in the space provided. If additional space is required, you should use the lined pages at the end of this booklet. The question number(s) must be clearly shown.
• Do not write in the bar codes.

INFORMATION FOR CANDIDATES

• The number of marks is given in brackets [ ] at the end of each question or part question.
• The total number of marks for this paper is 60.
• The quality of your written communication will be taken into account in the marking of your answer to the question labelled with an asterisk (*).
• This document consists of 16 pages. Any blank pages are indicated.
The Po Valley – controversy in one of Europe’s major agricultural areas over market-driven change

A change is taking place in agriculture in the Po Valley in northern Italy, the heartland of Italy’s agricultural industry. This is partly because of the European Union’s (EU) promotion of the use of energy from renewable resources. The EU subsidises farmers who grow biofuel crops which can be turned into fuel.

According to a survey carried out in 2011, 1.6% of the surface of the Po Valley was used for the production of biofuel crops. A local farmer commented, “Many farmers have stopped breeding pigs and cattle, growing rice and wheat and have begun to grow biofuel crops. But they have lost their ability to think in the long term. These biofuel crops will destroy the fertility of the soil within ten years and are also changing the landscape.”

Some conservationists claim that this switch to biofuel crops, such as maize, has already changed the ecosystem of the Valley. A local conservationist commented, “We risk becoming a desert as biofuel crops need much more water than rice and wheat to grow. The natural water supply cannot satisfy this demand.” It is claimed that there will not be enough water for the irrigation of the rice fields in the Po Valley. Another impact would be that open spaces, rivers and lakes, currently freely available for leisure activities will be reduced as more land is claimed for maize production.

Others, however, say that the changes in the region are a perfect example of market economics in action, with farmers switching to growing biofuel crops which will meet the consumer demand for affordable and sustainable energy. They argue that the extra revenue from growing biofuel crops has prevented many farmers from going out of business and that farmers are simply responding to market forces.

Since farmers can flood or drain fields within a few days, they can decide relatively quickly at the beginning of each growing season whether to grow rice, wheat or maize depending on the market price of each crop.

Other farmers in the Valley grow grapes for wine. Changes in the output of grapes are much slower as it takes seven years for a newly-planted grape vine to produce grapes that can be made into wine.

The price of agricultural products can change by significant amounts from year to year. Fig. 1 shows changes in the price and supply of some crops produced in the Po Valley in 2011 compared with 2010.

<table>
<thead>
<tr>
<th>Changes in the price and supply of wine grapes and rice produced in the Po Valley in 2011 compared with 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>% change in price</td>
</tr>
<tr>
<td>Wine grapes</td>
</tr>
<tr>
<td>Rice</td>
</tr>
<tr>
<td>% change in quantity supplied</td>
</tr>
<tr>
<td>Wine grapes</td>
</tr>
<tr>
<td>Rice</td>
</tr>
</tbody>
</table>

Fig. 1
1 With reference to the case study, describe what is meant by ‘the economic problem’.

..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
..........................................................................................................................................................
......................................................................................................................................................... [4]

2 Using a demand and supply diagram, explain why the price of an agricultural product may increase by a significant amount.
3 (a) What is meant by the term ‘consumer surplus’?

..............................................................................................................................
..............................................................................................................................
..............................................................................................................................
.............................................................................................................................. [2]

(b) Using a supply and demand diagram, show how consumer surplus would change if the supply of a product decreased.

![Supply and Demand Diagram](image-url)
4  (a) What is meant by price elasticity of supply?
...................................................................................................................................................
...................................................................................................................................................
...................................................................................................................................................
................................................................................................................................................... [2]

(b) Calculate the price elasticity of supply of:

(i)  wine grapes
...................................................................................................................................................
...................................................................................................................................................
................................................................................................................................................... [1]

(ii) rice
...................................................................................................................................................
...................................................................................................................................................
................................................................................................................................................... [1]
(c) Comment on the significance of the figures which you have calculated in part (b).
Explain two reasons why the demand for some agricultural products is more price elastic than other agricultural products.

1. .......................................................................................................................................................
   ..........................................................................................................................................................
   ..........................................................................................................................................................
   ..........................................................................................................................................................

2. .......................................................................................................................................................
   ..........................................................................................................................................................
   ..........................................................................................................................................................
   ..........................................................................................................................................................
   .......................................................................................................................................................... [4]
Comment on whether the agricultural market in the Po Valley is becoming more allocatively efficient.
Comment on whether open spaces, rivers and lakes such as those in the Po Valley would always be considered to be a public good.
Discuss whether subsidies to producers always correct market failure.
If additional answer space is required, you should use the following lined page(s). The question number(s) must be clearly shown in the margins.