AS

Economics

Economics Paper 1: The Operation of markets and market failure
Final Mark scheme

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Mark schemes are prepared by the Lead Assessment Writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every associate understands and applies it in the same correct way. As preparation for standardisation each associate analyses a number of students' scripts. Alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the Lead Assessment Writer.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

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SECTION A

The following list indicates the correct answers used in marking the candidates' responses.

KEY LIST

1	C	**11**	C
2	B	**12**	A
3	A	**13**	D
4	D	**14**	B
5	B	**15**	D
6	C	**16**	D
7	C	**17**	D
8	B	**18**	A
9	D	**19**	A
10	D	**20**	C

	Total
A	4
B	4
C	5
D	7
	20

Level of response marking instructions

Level of response mark schemes are broken down into levels, each of which has a descriptor. The descriptor for the level shows the average performance for the level. There are marks in each level.

Before you apply the mark scheme to a student's answer read through the answer and annotate it (as instructed) to show the qualities that are being looked for. You can then apply the mark scheme.

Step 1 Determine a level

Start at the lowest level of the mark scheme and use it as a ladder to see whether the answer meets the descriptor for that level. The descriptor for the level indicates the different qualities that might be seen in the student's answer for that level. If it meets the lowest level then go to the next one and decide if it meets this level, and so on, until you have a match between the level descriptor and the answer. With practice and familiarity you will find that for better answers you will be able to quickly skip through the lower levels of the mark scheme.

When assigning a level you should look at the overall quality of the answer and not look to pick holes in small and specific parts of the answer where the student has not performed quite as well as the rest. If the answer covers different aspects of different levels of the mark scheme you should use a best fit approach for defining the level and then use the variability of the response to help decide the mark within the level, ie if the response is predominantly level 3 with a small amount of level 4 material it would be placed in level 3 but be awarded a mark near the top of the level because of the level 4 content.

Step 2 Determine a mark

Once you have assigned a level you need to decide on the mark. The descriptors on how to allocate marks can help with this. The exemplar materials used during standardisation will help. There will be an answer in the standardising materials which will correspond with each level of the mark scheme. This answer will have been awarded a mark by the Lead Examiner. You can compare the student's answer with the example to determine if it is the same standard, better or worse than the example. You can then use this to allocate a mark for the answer based on the Lead Examiner's mark on the example.

You may well need to read back through the answer as you apply the mark scheme to clarify points and assure yourself that the level and the mark are appropriate.

Indicative content in the mark scheme is provided as a guide for examiners. It is not intended to be exhaustive and you must credit other valid points. Students do not have to cover all of the points mentioned in the Indicative content to reach the highest level of the mark scheme.

An answer which contains nothing of relevance to the question must be awarded no marks.

The levels of response grid below should be used when marking the 25 mark questions.

Level of response	Response	Max 25 marks
5	**Sound, focused analysis and well-supported evaluation that:** • is well organised, showing sound knowledge and understanding of economic terminology, concepts and principles with few, if any, errors • includes good application of relevant economic principles to the given context and, where appropriate, good use of data to support the response • includes well-focused analysis with clear, logical chains of reasoning • includes supported evaluation throughout the response and in a final conclusion.	**21–25 marks**
4	**Sound, focused analysis and some supported evaluation that:** • is well organised, showing sound knowledge and understanding of economic terminology, concepts and principles with few, if any, errors • includes some good application of relevant economic principles to the given context and, where appropriate, some good use of data to support the response • includes some well-focused analysis with clear, logical chains of reasoning • includes some reasonable, supported evaluation.	**16–20 marks**
3	**Some reasonable analysis but generally unsupported evaluation that:** • focuses on issues that are relevant to the question, showing satisfactory knowledge and understanding of economic terminology, concepts and principles but some weaknesses may be present • includes reasonable application of relevant economic principles to the given context and, where appropriate, some use of data to support the response • includes some reasonable analysis but which might not be adequately developed or becomes confused in places • includes fairly superficial evaluation; there is likely to be some attempt to make relevant judgments but these are not well-supported by arguments **and/or** data.	**11–15 marks**
2	**A fairly weak response with some understanding that:** • includes some limited knowledge and understanding of economic terminology, concepts and principles but some errors are likely • includes some limited, application of relevant economic principles to the given context **and/or** data to the question • includes some limited analysis but it may lack focus **and/or** become confused • includes attempted evaluation which is weak and unsupported.	**6–10 marks**
1	**A very weak response that:** • includes little relevant knowledge and understanding of economic terminology, concepts and principles • includes application to the given context which, at best, is very weak • includes attempted analysis which is weak and unsupported.	**1–5 marks**

SECTION B

Context 1 SUPERMARKETS **Total for this Context: 50 marks**

21 *Define 'internal economies of scale' **Extract B** (line 15).* ***[3 marks]***

Level of response	Response	Max 3 marks
1	• A full and precise definition is given.	**3 marks**
2	• The substantive content of the definition is correct, but there may be some imprecision or inaccuracy.	**2 marks**
3	• Some fragmented points are made.	**1 mark**

Examples of acceptable definitions worth 3 marks:

- a fall in average cost due to growth of the firm

Examples of a definition worth 2 marks:

- a fall in cost due to growth of the firm
- a fall in short-run average cost due to the growth of the firm
- a fall in average cost

Examples of a definition worth 1 mark:

- a fall in cost
- the benefits of large firms

MAXIMUM FOR PART 21: 3 MARKS

22 *Use **Extract B** to calculate the three firm concentration ratio for sales in the supermarket industry in December 2015.* ***[4 marks]***

For a correct answer: 61% or 0.61 0r 61:100	**4 marks**
For the correct value but with incorrect or missing units: 61 or 61/100	**3 marks**
For another value between 60% and 62%	**2 marks**
For the correct calculation but the wrong answer: 28 + 17 + 16	**2 marks**
For another value between 60 and 62 but with incorrect or missing units	**1 mark**
For any valid attempt at a calculation, even though the answer is incorrect	**1 mark**

MAXIMUM FOR PART 22: 4 MARKS

23	*Use **Extract A** to identify **two** significant points of comparison between the changes in real income and real food prices for low-income households in the UK over the period shown.* ***[4 marks]***

Award up to 2 marks for <u>each</u> significant point of comparison made.

Identifies a significant point of comparison. Makes accurate use of the data to support the comparison identified. Unit of measurement given accurately.	**2 marks**
Identifies a significant point of comparison but only one piece of data is given when two are needed **and/or** no unit of measurement is given **and/or** the unit of measurement is inaccurate **and/or** the wrong date is given. **OR** Identifies a significant feature of one data series with accurate use of the data (including the unit of measurement) but no comparison is made.	**1 mark**

If a student identifies more than 2 significant points of comparison, reward the best two.

Significant points include:

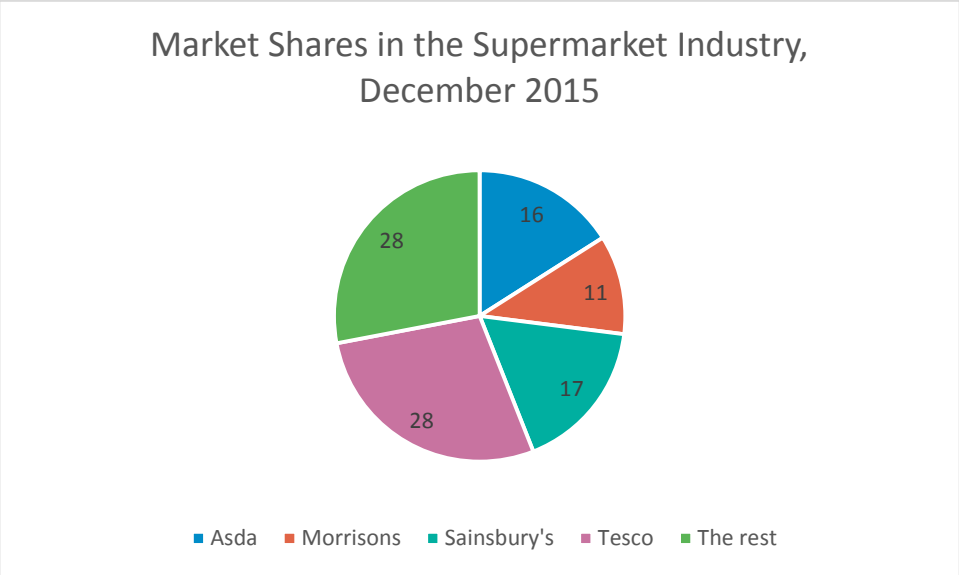
- real income was lower at the end of the period than the beginning, falling from an index of 100 to 92, whereas real food prices increased from an index of 100 to 112
- real income was highest in 2002-03 **and/or** 2004-05 at 100 on the index, whereas real food prices peaked at an index of 112 in 2013-14
- real income was lowest in 2008-09 at 84 on the index, whereas real food prices were lowest at an index of 99 from 2004-2007 (allow any year in this period)
- the range of the index of real income (84 to 100, ie 16) was greater than the range of the index of real food prices (99 to 112, i.e.13)
- the greatest decreases in the index of real incomes was 7 (points) from 98 to 91 in 2005-06 to 2006-07 and from 91 to 84 (this was the greater relative decrease) in 2007-08 to 2008-09, whereas the greatest/only decrease in the index of real food prices was from 100 to 99 in 2003-04 to 2004-05
- the greatest increase in the index of real incomes was 7 (points), from 84 to 91 in 2008-09 to 2009-10, whereas the greatest increase in the index of real food prices was an increase of 5, from 101 to 106 in 2007-08 to 2008-09
- the index of real incomes fluctuated throughout the period, eg in 2007-08 to 2008-09 it fell from 91 to 84 before rising the following year back to 91, whereas the index of real food prices only fell in 2003-04 to 2004-05 from 100 to 99 while in every other year, it rose or stayed the same.

Notes: **Do not allow that real food prices are higher than real incomes for most of the period.**
Index numbers have no units but valid points should refer to 'the index'.
Allow a margin of ± 1 on both indices.

MAXIMUM FOR PART 23: 4 MARKS

24	*Use the data in **Extract B** to complete the pie chart to show the market shares in the supermarket industry of each of the following in December 2015: Asda, Morrisons, Sainsbury's, Tesco and 'the rest'.* ***[4 marks]***

The correct diagram involves five sectors, with the correct areas and labels: Asda = 16%; Morrisons = 11%; Sainsbury's = 17%; Tesco = 28%; and 'the rest' = 28% **and/or** a key.



Accurately drawn and fully labelled pie chart, ie all five areas correct plus a clear indication of which sector is which.	**4 marks**
Accurately drawn pie chart, but with missing labels/key. **OR** Accurately labelled pie chart but with one or two sectors out of tolerance.	**3 marks**
Pie chart with missing labels/key and one or two sectors out of tolerance. **OR** Accurately labelled pie chart but with three or four sectors out of tolerance.	**2 marks**
Pie chart with one sector in tolerance and labelled/key. **OR** All sectors labelled/key but all sectors out of tolerance.	**1 mark**

Notes: The sectors can be in any order, with any starting point.
The sectors need to be named according to the supermarket and/or a key added, but the figures do not need to be written on the chart.
A title is not required.
Allow a margin of ± 2%.

MAXIMUM FOR PART 24: 4 MARKS

25 ***Extract B*** *(lines 2-3) refers to 'the monopoly power of well-established firms' in the supermarket industry.*

*Explain **two** factors that could influence the monopoly power of firms in the supermarket industry.* ***[10 marks]***

	An answer that:	**Max 10 marks**
Level 3	• identifies two valid factors • shows sound knowledge and understanding of relevant economic terminology, concepts and principles • includes good application of relevant economic principles **and/or** good use of data to support the response • includes well-focused analysis with a clear, logical chain of reasoning • may include a relevant diagram to support their explanation	**8-10 marks**
Level 2	• identifies at least one valid factor • shows reasonable knowledge and understanding of economic terminology, concepts and principles but some weaknesses may be present • includes reasonable application of relevant economic principles **and/or** data to the question • includes some reasonable analysis but it might not be adequately developed and may be confused in places • may include a relevant diagram to support their explanation	**4-7 marks**
Level 1	• identifies at least one valid factor • shows some limited knowledge and understanding of economic terminology, concepts and principles but some errors are likely • demonstrates very limited ability to apply relevant economic principles **and/or** data to the question • may include some very limited analysis but the analysis lacks focus **and/or** becomes confused • may include a diagram but the diagram is likely to be inaccurate in some respects or is inappropriate.	**1-3 marks**

Relevant issues include:

- market share
- number of competitors
- advertising
- degree of product differentiation
- economies of scale
- high start-up costs
- brand loyalty
- government intervention.

MAXIMUM FOR PART 25: 10 MARKS

26 ***Extract C*** *(lines 16-17) states 'have the changes in the supermarket industry been for the better, and if so, for whom?'*

Use the extracts and your knowledge of economics to assess whether the changes in the supermarket industry are likely to be better or worse for consumers ***and*** *firms.*

[25 marks]

Areas for discussion include:

- recent changes in the supermarket industry, eg increased competition from 'budget supermarkets' (including changes in market shares); falling real incomes (and rising food prices); increased online shopping
- the determinants of demand and supply, plus the significance of different elasticities
- different market structures and objectives of firms
- competitive markets versus monopoly power, and the competitive market process
- how markets and prices allocate resources
- possible market failures – positive and negative externalities; good food as a merit good; inequality and inequity
- impact on consumers – choice; information; prices in relation to incomes; economic welfare/ standard of living, etc.
- impact on supermarkets – cost, revenue and profit; economies of scale; efficiency
- impact on others – effects on suppliers; workers; those wishing to buy homes or use vacant land
- the significance of the changes in market shares and the time period over which they've occurred. What might happen in future?
- what if the government were to intervene?
- the significance of other data included in the Extracts, such as: recent shopping trends; possible action/reaction to adverse publicity by consumers, firms **and/or** government
- an overall assessment of whether the changes in the supermarket industry are likely to be better or worse for consumers and better or worse for firms; also maybe which firms or consumers gain or lose.

The use of relevant diagrams to support the analysis should be taken into account when assessing the quality of the candidate's response to the question.

Use the levels mark scheme on page 5 to award candidates marks for this question.

MAXIMUM FOR PART 26: 25 MARKS

Context 2 GAMBLING **Total for this Context: 50 marks**

27	*Define 'external costs'* ***Extract F*** *(line 18).*	***[3 marks]***

Level of response	Response	Max 3 marks
1	• A full and precise definition is given.	**3 marks**
2	• The substantive content of the definition is correct, but there may be some imprecision or inaccuracy.	**2 marks**
3	• Some fragmented points are made.	**1 mark**

Examples of acceptable definition worth 3 marks:

- the harmful or negative side-effects/third-party effects of an economic activity/production/consumption
- the cost on third-parties of an economic activity/production/consumption
- where the social cost is greater than the private cost of an economic activity/production/consumption

Examples of a definition worth 2 marks:

- where the social cost is greater than the private cost
- the costs on third parties

Examples of a definition worth 1 mark:

- negative externalities
- the difference between the social cost and the private cost
- for a candidate who uses an example which shows that they understand that external costs are the costs imposed on a third-party

No marks should be awarded to a candidate who just states external costs equals social costs (or costs to society).

MAXIMUM FOR PART 27: 3 MARKS

28 *Use **Extract E** to calculate, to **one** decimal place, the percentage change in the number of workers in the gambling sector between 2011 and 2015.* ***[4 marks]***

For a correct answer to 1dp: -9.3%, or 9.3% decrease (exact answer is -9.2546… %)	**4 marks**
For the correct value but with incorrect/missing units or without the direction of the change: -9.3 or 9.3%	**3 marks**
For the correct value but no minus sign and %: 9.3	**2 marks**
For another value between -9.2% or -9.3%	**2 marks**
For the correct calculation but the wrong answer: [(104 869 – 115 564) ÷ 115 564] x 100	**2 marks**
For another value between 9.2 and 9.3 but with incorrect or missing units **and/or** minus sign	**1 mark**
For any valid attempt at the calculation, even though the answer is incorrect: (don't credit more than once)	**1 mark**

MAXIMUM FOR PART 28: 4 MARKS

29	*Use **Extract D** to identify **two** significant points of comparison between the changes in income for bingo and the National Lottery in Great Britain over the period shown.* ***[4 marks]***

Award up to 2 marks for <u>each</u> significant point of comparison made.

Identifies a significant point of comparison. Makes accurate use of the data to support the comparison identified. Unit of measurement given accurately.	**2 marks**
Identifies a significant point of comparison but only one piece of data is given when two are needed **and/or** no unit of measurement is given **and/or** the unit of measurement is inaccurate **and/or** the wrong date is given. **OR** Identifies a significant feature of one data series with accurate use of the data (including the unit of measurement) but no comparison is made.	**1 mark**

If a student identifies more than 2 significant points of comparison, reward the best two.

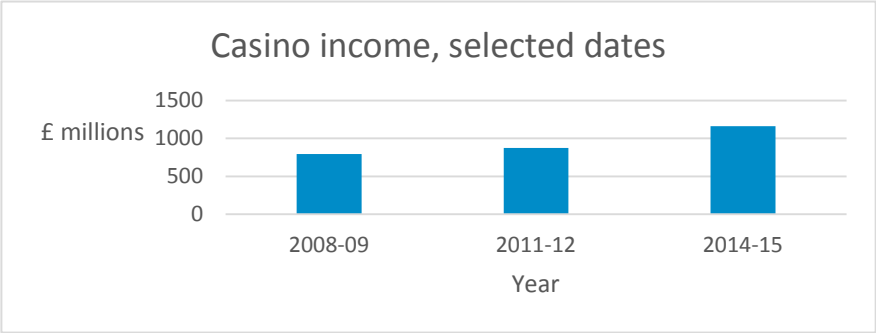
Significant points include:

- bingo income was lower at the end of the period than the beginning, falling from £703m to £662m, whereas National Lottery income increased from £2522m to £3232m
- bingo income was highest in 2008-09 at £703m, whereas National Lottery income peaked at £3280m in 2012-13
- bingo income was lowest in 2010-11 at £626m, whereas National Lottery income was lowest at £2522m in 2008-09
- the range of bingo income (£626m to £703m, ie £77m) was less than the range of National Lottery income (£2522m to £3280m, ie £758m)
- the greatest decrease in bingo income was £76m from £703m in 2008-09 to £627m in 2009-10, whereas the greatest/only decrease in National Lottery income was £180m from £3280m in 2012-13 to £3100m in 2013-14
- the greatest increase in both bingo income and National Lottery income was between 2010-11 and 2011-12, when bingo income rose by £55m from £626m to £681m, whereas National Lottery income rose by £284m from £2840m to £3124m
- bingo income fluctuated during the period, eg in 2011-12 to 2012-13, it rose from £681m to £701m before falling the next year to £672m, whereas National Lottery income only fell between 2012-13 and 2013-14 from £3280m to £3100m while in every other year, it rose
- National Lottery income was higher than bingo income in every year, eg in 2013-14, National Lottery income was £3100m whereas bingo income was £672m.

MAXIMUM FOR PART 29: 4 MARKS

30	*Use the data in **Extract D** to draw a bar chart to show income from casinos for the years 2008-09, 2011-12 and 2014-15.*	***[4 marks]***

The correct diagram involves three bars, with the correct height and labels: 2008-09 = £796m, 2011-12 = £873m and 2014-15 = £1161m **and/or** a key.



Accurately drawn and fully labelled bar chart, ie a labelled vertical axis, with all three bars correct plus a clear indication of which bar is which.	**4 marks**
Accurately drawn bar chart with vertical axis label missing/incorrect **and/or** no/incorrect indication of years. **OR** Accurately labelled bar chart but with one bar out of tolerance.	**3 marks**
Bar chart with vertical axis label missing/incorrect **and/or** no indication of years and one bar out of tolerance. **OR** Accurately labelled bar chart but with two bars out of tolerance.	**2 marks**
Bar chart with one bar in tolerance but missing/incorrect labelling. **OR** All bars labelled including the vertical axis (£m)/key but all bars out of tolerance.	**1 mark**

Notes: A chart with gaps between the bars is expected but do not penalise one with no gaps. Also accept bars with a discontinuity but if they start at a value above zero, deduct one mark from the mark obtained using the grid above.
The bars need to be named according to the year and/or a key added, but the figures do not need to be written on the bars.
A title is not required.
Allow a margin of ± £25m.

MAXIMUM FOR PART 30: 4 MARKS

31 ***Extract E*** *(lines 1-2) states that 'in 2007, before the recession, 68% of adults gambled, but by 2010, this had risen to 73%'.*

Explain ***two*** *factors that could have increased the percentage of adults who gamble.*

[10 marks]

	An answer that:	**Max 10 marks**
Level 3	• identifies two valid factors • shows sound knowledge and understanding of relevant economic terminology, concepts and principles • includes good application of relevant economic principles **and/or** good use of data to support the response • includes well-focused analysis with a clear, logical chain of reasoning • may include a relevant diagram to support their explanation	**8-10 marks**
Level 2	• identifies at least one valid factor • shows reasonable knowledge and understanding of economic terminology, concepts and principles but some weaknesses may be present • includes reasonable application of relevant economic principles **and/or** data to the question • includes some reasonable analysis but it might not be adequately developed and may be confused in places • may include a relevant diagram to support their explanation	**4-7 marks**
Level 1	• identifies at least one valid factor • shows some limited knowledge and understanding of economic terminology, concepts and principles but some errors are likely • demonstrates very limited ability to apply relevant economic principles **and/or** data to the question • may include some very limited analysis but the analysis lacks focus **and/or** becomes confused • may include a diagram but the diagram is likely to be inaccurate in some respects or is inappropriate.	**1-3 marks**

Relevant issues include:

- real income
- tastes/advertising/promotion
- technological changes making gambling more accessible
- perceived risk and reward/imperfect information
- availability of substitutes/variety of 'products'
- elasticity.

MAXIMUM FOR PART 31: 10 MARKS

32 ***Extract F*** *(lines 17-18) states 'should there be more regulations or taxes to try to reduce the effects of gambling, in terms of both its private and external costs?'*

Use the extracts and your knowledge of economics to assess whether the UK government should intervene more in the gambling industry.

[25 marks]

Areas for discussion include:

- recent changes and trends in, or affecting, the gambling industry, eg increased percentage of adults gambling; falling real incomes; technological changes
- possible market failures – imperfect information; negative externalities; gambling as a demerit good; inequality and inequity
- impact on individuals and their families, particularly the less well-off
- the determinants of demand and supply, plus the significance of different elasticities
- objectives of firms and the competitive market process
- the significance of other data included in the Extracts, such as: why people gamble; problems suffered by gamblers; odds of winning; minimum age and extent of enforcement of age restrictions; different interest groups
- reference to 'moral judgements' and relevance to people's views concerning the best option
- alternative forms of government intervention – regulation, tax, minimum age, etc.
- impact on revenue/expenditure of government
- arguments against more intervention – freedom of choice, sufficient regulation already, could drive some gambling underground
- the significance of the extent of, and changes in, gambling and the time period over which they've occurred. What might happen in future?
- market failure versus government failure
- how value judgements influence economic decision making and policy
- an overall assessment of whether the UK government should intervene more in the gambling industry.

The use of relevant diagrams to support the analysis should be taken into account when assessing the quality of the candidate's response the question.

Use the levels mark scheme on page 5 to award candidates marks for this question.

MAXIMUM FOR PART 32: 25 MARKS