

Microeconomics Essay Questions

General Equilibrium

200527 Q6

"Free trade makes everyone better off. The UK could, and therefore should, unilaterally abolish all trade tariffs." Discuss.

170526 Q5

An economy experiences an increase in the cost of exporting (equivalent to a fall in the price it receives for its exports). What is the general equilibrium effect of this on the economy? How does it change the structure of production, the returns to factors of production, and household welfare? How is your answer modified if the economy also experiences a reduction in labour supply? Do your answers provide insight into the possible economic impact of Brexit?

150529 Q6

"When markets are competitive, buyers and sellers don't need to know anything about each other. As long as they know the market prices, the equilibrium will be efficient." "When there is asymmetric information between buyers and sellers, market failure is the likely result." Discuss these two claims. How can they be reconciled?

120523 Q6

"Though workers are free to move between member countries of the European Union (EU), in practice they are reluctant to do so. This explains why factor prices are not equal across the EU." Discuss.

Welfare

220525 Q5

The senior tutor in an Oxford college wants to rank all the students in a group, in order to allocate a prize. In this ranking she wants to aggregate the opinions that different tutors have over these students. If you had to design a social choice rule, or some other mechanism, to help her with this task, which features should it have and why?

210526 Q5

A small rural community wants to select one out of a number of proposals. Start by suggesting an intuitive real-life situation on which all the community members may reasonably have single-peaked preferences over the proposals at stake. For the example that you introduce, discuss what relevant factors could be considered by the community while deciding which mechanism to use in order to reach an optimal choice. Analyse formally one reasonable mechanism that could be used, with its main advantages and disadvantages.

200527 Q5

"To decrease inequality, the government should subsidise bread and tax caviar." Discuss.

190529 Q5

The university's Student Union (SU) has asked you to advise them on the design of a voting system to elect the next SU President. Every student is eligible to vote, and it is likely that there will be many candidates. Discuss the key trade-offs in voting system design, and whether there is a particular voting system that you would recommend.

170526 Q6

What criterion should society use to compare different social outcomes? Can such a criterion be derived from individuals' preferences? Can it be used in practice to evaluate the value of policy changes?

160527 Q5

"Increasing returns to scale are pervasive in the modern economy. Some are internal to firms, others take the form of spillovers (positive reciprocal externalities) between firms." What problems does this pose for the theory of general competitive equilibrium? How should our understanding of the welfare effects of policy be adapted to incorporate increasing returns to scale?

140530 Q6

State the first fundamental theorem of welfare economics and outline a proof of the theorem. The government is seeking to achieve a more equitable distribution of income in society. What policy instruments might it use? Is there a trade-off between equity and efficiency? How might such a trade-off influence the choice of policy instruments used by government?

130522 Q6

Explain carefully how the presence of increasing returns to scale affects the scope of the fundamental theorems of welfare economics.

Applied Welfare

220525 Q6

"Positive externalities have, by their nature, a positive impact on society and can therefore be disregarded by policy makers." Discuss.

210526 Q6

The UK government is thinking about providing for free a new Covid-19 app dedicated to improving the mental health and well-being of UK residents. Would such an app qualify as a public good? Why or why not? What funding mechanisms (e.g., use of taxation, crowdfunding, etc.) should the government use to ensure that the cost of the app is covered and why?

190529 Q6

"Tradeable conscription permits are an efficient way to provide national defence." Discuss.

180526 Q5

"Taxes cause economic inefficiency."

- (a) Explain the reasoning underpinning this statement.
- (b) Give examples of two different types of tax for which this statement need not be true, explaining in detail why not.
- (c) What are the implications of your analysis for reform of the tax system?

180526 Q6

What techniques are available to estimate the expected social value of a proposed public investment project (e.g. an infrastructure project)? Why might the techniques and valuations used for a public project differ from those used in calculating a private commercial rate of return?

160527 Q6

A group of countries is seeking to take collective action to reduce greenhouse gas emissions. What policy scheme would you advise them to adopt? What difference would it make if many countries were outside the group?

150529 Q6

Explain the Samuelson condition for the efficient provision of a public good. Evaluate the following alternative proposals for funding the BBC:

- (a) A broadcast levy, to be paid by all households, regardless of whether they watch television.
- (b) Pay-per-view, where consumers pay for each programme watched.
- (c) Subscriptions, where a subscription provides access to a particular channel.
- (d) A licence fee, as at present, paid by all households where television is watched.

Are there any economic reasons to think that the alternative proposals might result in different types of TV programmes?

140530 Q9

What instruments can a country use to control its emissions of greenhouse gases? What are the advantages and disadvantages of these instruments? Ecoland uses policy instruments to cut its greenhouse gas emissions. It also trades with other countries that have no policy in place. Should this influence Ecoland's policy? Ecoland proposes a cap and trade policy to other countries. How does a cap and trade system work? Could it be designed in a way that makes it attractive for other countries to join?

130522 Q7

What does microeconomic theory tell us about the private provision of public goods? Do the television services offered by BSkyB* accord well with the theory?

120523 Q7

How does the presence of privately held information about the benefit that an agent derives from a public good confound attempts to achieve a Pareto optimal allocation of resources?

Game Theory

210526 Q7

Is it possible to justify the use of the Nash equilibrium concept as a predictor of how a game will be played by simply appealing to players' rationality? If not, how else can you justify the usefulness of Nash Equilibrium? Given this, do you think that Nash Equilibrium is a reasonable solution concept?

Industrial Organisation

220525 Q7

Suppose that two firms in a duopoly currently act non-cooperatively. They propose a merger. Outline how oligopoly theory can help the competition authority to determine the conditions under which the proposed merger should be allowed. How would your analysis of the merger of these two firms change if there were initially more than two firms in the industry (while it is still two firms who plan to merge)?

200527 Q7

Some US presidential candidates advocate breaking up the so-called 'Big Tech' giants (FAANG - Facebook, Amazon, Apple, Microsoft, Google), for example by unwinding Facebook's acquisition of Instagram and WhatsApp earlier this decade. What are the economic arguments for and against this?

190529 Q7

What criteria should the competition authority use when approving, or prohibiting, a merger? Under what circumstances are these criteria likely to hold? (Credit will be given for the use of examples or case studies to illustrate your answer.)

180526 Q7

"A merger between two rival firms is a form of collusion. Anti-trust authorities should ban such mergers, just as they penalize firms who collude in other ways." Discuss.

170526 Q7

Does the analysis of collusion using the theory of repeated games give useful hints to oligopolists who are trying to collude? Does the analysis help anti-trust authorities who would like to deter collusion?

160527 Q7

When considering a proposed merger between two or more firms, how would a competition authority determine the size of the market within which the merging firms operate? Having determined the size of the market, how would the competition authority assess whether the merger should be allowed?

150529 Q8

When a competition authority considers the possible effects of a merger, how can it assess: (i) any increase in market power that might arise from the merger; and (ii) any cost efficiencies that might arise from the merger? Should a competition authority ever permit a merger if it increases market power?

150529 Q9

Using the concept of subgame perfection, explain how firms might be able to collude in a market. How would you expect the number of firms in the market to affect their ability to collude successfully?

140530 Q7

What strategy or strategies could an incumbent firm use to try to deter the entry of a new rival? Will such attempts at deterrence always be profitable and credible?

140530 Q10

"In a repeated game, almost any outcome of the stage game can be supported as an equilibrium." Is this true? If so, how can the theory of repeated games give us any insight into oligopolistic behaviour?

130522 Q8

Should competition authorities try to deter collusion among firms? What policies could be used to reduce the amount of collusion in a market?

120523 Q8

Explain how horizontal mergers can raise prices and lower consumer surplus. Why should horizontal mergers ever be allowed?

Decision Theory

Risk

220525 Q8

Suppose that you are a financial advisor, that all your clients are expected utility maximisers and that you want to give them individualised advice. What exact information, about their utility function over money and other relevant factors, is fundamental in order to understand their risk attitudes? Why is the Arrow-Pratt theorem relevant in this context? How would you design a survey using lotteries to obtain the desired information from client responses?

210526 Q8

Explain how expected utility is constructed using a utility function u over money. What property of u corresponds to the decision maker being risk averse? What does it mean for one decision maker to be more risk averse than another and how would that be reflected in their respective utility functions? What does it mean, in terms of behaviour, that a person exhibits decreasing absolute risk aversion (DARA) and what properties would the utility function of such a person exhibit? Discuss whether the observation of elite professionals in sport insuring themselves against injury is a reason to reject the DARA hypothesis.

200527 Q8

"Insurance companies emerged because individuals in an economy have different attitudes to risk and different levels of wealth." Do you agree?

190529 Q8

There is a lottery such that anyone with a ticket will win one of three prizes: low (\$40), medium (\$50), or high (\$60). Judith is indifferent between buying a ticket and not; so is Hamnet. Consider three different changes (each to the basic set-up):

- (a) the current wealth of each of them increases by \$1000;

- (b) the probabilities of the low and high returns both increase by the same amount;
 - (c) the probability of the low return increases and the probability of the high return decreases by the same amount.
- As a result of any of these changes, Judith would be willing to buy a ticket, but Hamnet wouldn't. For each of the three changes, can their responses be reconciled with Judith and Hamnet being expected-utility maximisers with increasing utility functions?

180526 Q8

What is risk aversion? What do we mean when we say that Greg is more risk averse than Jamal? How might we test whether or not that assertion is true? What does "lottery A is more risky than lottery B" mean? How might we show this in theory, and in practice?

170526 Q8

Under what conditions is expected utility theory a useful guide to decision making in the face of uncertainty?

170526 Q9

Hugh believes that he is low risk - he locks windows and doors when he leaves home, and he doesn't leave candles burning when he goes to bed. He faces insurance that is actuarially unfavourable, and so decides not to buy any. Is he acting optimally? How might competitive insurance companies overcome the problem of serving both low risk and high risk individuals?

160527 Q8

"If everyone in an economy had the same level of wealth and the same attitude to risk, then there would be no scope for insurance." Do you agree?

150529 Q10

Pat argues, "Sure, I don't like risk. But if I always choose the option with the higher expected value, over the long run the wins and losses will more or less cancel out, except that I will end up getting a higher payoff on average. So it is irrational to be averse to risk." Evaluate Pat's argument.

140530 Q8

Explain, applying the ideas of risk-spreading and risk-sharing, the role of the twin institutions of joint stock companies and stock markets in mitigating risk. What does economic theory suggest about the limitations to this role?

130522 Q9

Why is expected utility theory useful?

130522 Q10

Consider a model of competitive provision of insurance, where each of the risk-neutral companies can offer insurance at a fixed price p per unit, and then consumers can choose their level of cover subject to not over-insuring. (Thus, if a consumer would require a reimbursement of q in the event of a loss, then she must pay a premium of pq to her chosen insurer.) What market outcomes are possible when the consumers are privately informed of their own probability of incurring a loss?

120523 Q9

"Maximising expected utility is the reasonable thing to do when facing choices with risky outcomes." Why?

Information Economics

220525 Q9

Consider a risk-neutral principal and an agent. Both the principal and the agent observe the realised profit level (which can be low or high), but only the agent knows the effort that they put in (which can be low or high). Evaluate the truth of the following statements, explaining your reasoning.

- (a) There is a positive agency cost if and only if the principal chooses to induce high effort and the agent is risk-averse.
- (b) With risk-averse agents, the more risk-averse the agent, the higher the agency cost.
- (c) With risk-averse agents, the larger the difference between the high and low profit levels, the larger the difference between wages in the two states of the world when the principal wants to induce high effort.

210526 Q9

Consider an educational signalling model. In two otherwise identical countries, you observe different equilibria. Country A is in a pooling equilibrium, while country B is in a separating equilibrium. Can you say which country faces greater welfare losses? Can we say which type of equilibrium is preferred by the least able agents in these countries? And by the most able agents?

200527 Q9

Explain the term "agency cost" in the context of Principal-Agent problems. Why does it arise? There are a number of situations under which the agency cost is absent (or zero). What are these situations? For each one, describe the outcome and how the Principal achieves it.

190529 Q9

"When prospective employees are able to signal their ability, competitive employers are no better off, employees with lower productivity are definitely worse off, and even employees with higher productivity might be worse off." Do you agree? Does it follow that removing the ability off signal would result in a Pareto improvement?

180526 Q9

There is a project with an uncertain outcome (high or low) that depends on the level of effort (high or low) exerted by whoever undertakes it - the high outcome is more likely when effort is high than when effort is low. If a social planner were making the decision, she would want high effort to be exerted. However, there is a risk-neutral principal that owns the project, and an agent who will undertake it on their behalf. If the agent is also risk neutral, explain what the principal would do and why. What level of effort will be exerted? From now on, assume that the agent is risk averse. When effort is observable, what level of effort will the principal specify, and how will they determine the wage? When effort is not observable, will the principal want to specify the same level of effort?

170526 Q9

A risk-neutral principal wants to hire an agent to undertake a project. What considerations does the principal take into account when designing the optimal contract? (For illustration purposes, you may assume that there are just two possible levels of gross profit, and two levels of effort that the agent can exert.) Compare the optimal risk-sharing contracts when effort is observable and when it is not: if the principal wants to induce different effort levels in these two situations, who is better or worse off? If on the other hand the principal wants to induce the same effort level in these two situations, is anyone better or worse off?

120523 Q10

Mozart moved from Salzburg to Vienna in 1781, hoping for a position at the Habsburg court. Instead of applying for a position, he waited for the emperor to call him, because "if one makes any move oneself, one receives less pay." Discuss the situation of asymmetric information with particular reference to the notions of signalling and/or screening equilibria.