

D. The Lecture Programme and Readings

***Recommended Readings (Term 2: microeconomics)*⁸**

There is no single textbook which can be regarded as a substitute for the lectures. Lectures are designed to introduce the student not only to important and interesting economic problems, but also to the different analytical techniques employed by the economist. Thus, some topics are analysed by verbal reasoning only whilst others are examined by means of algebraic or other analytical forms of reasoning: diagrams, figures and graphs are used extensively to elucidate problems.

Although no textbook can be regarded as a substitute for the lectures, various books act as useful complements. The most appropriate of these is:

Begg, D., Fischer, S. and Dornbusch, R., Economics, 7th Edition, McGraw-Hill.

Other useful supplementary textbooks are:

Begg, D., Fischer, S. and Dornbusch, R., Foundations of Economics, 2nd edition McGraw-Hill

Stiglitz, J., and Driffill, J., Economics, Norton.

Mankiw, N. G., Principles of Economics, 3rd Edition, Thomson.

Perloff, J., Microeconomics, 3rd Edition, Pearson.

Lipsey, R. and Chrystal, K., Economics, 10th Edition, Oxford.

Additionally, there are several books which are useful complements to the above theoretical texts. These are listed below and focus on real-world applications of economic theories:

Griffiths, A. and Wall, S., Applied Economics, 7th Edition, Longman.

Parkin, M., Powell, M. and Matthews, K., Economics, 5th Edition, Addison-Wesley.

Sloman, J., Economics, 5th Edition, Prentice Hall.

You should also make every effort to read various topical and relevant publications which you can find in the Library: such as Economic Review, Economic Policy, Economics and Business, Oxford Review of Economic Policy, the Economist and the Financial Times.

⁸ Detailed readings and a lecture programme for macroeconomics in Term 2 will be distributed by Ben Knight at the start of Term 2.

Lecture Programme and Reading (Term 2: microeconomics)

Topic 1

Introduction:

Outline	What is Economics about? Scarcity and Resource Allocation Economic Modelling Theory and Evidence Graphing Data Rationality Strategic behaviour
Reading:	Begg, Fischer and Dornbusch, ch. 1 and 2. Parkin, Powell and Matthews, ch. 1 and 2.

Learning objectives - what you should know and understand after this part of the lecture course includes the following:

- (i) What is opportunity cost
- (ii) How to distinguish between positive and normative economics
- (iii) What *ceteris paribus* means
- (iv) What is an economic model
- (v) What is rationality
- (vi) What is strategic behaviour
- (vii) How to graph basic economic relationships

Topic 2

Market Equilibrium

Outline Demand, Supply and Equilibrium
 Comparative Statics
 Stability
 Elasticity
 Taxation and Intervention

Reading: Begg, Fischer and Dornbusch, ch 3 and 4
 Parkin, Powell and Matthews, ch 3 4, 5 and 6.

Additional reading: Frank, ch 2.
 Stiglitz and Drffill, ch 4, 5.
 Mankiw, 4, 5, 6.
 Griffiths and Wall, ch 16.

Learning objectives - what you should know and understand after this part of the lecture course:

- (i) How to define a demand curve
- (ii) How to define a supply curve
- (iii) The difference between movements along and shifts of the demand (and supply) curves
- (iv) How to define and measure elasticities
- (v) How to define market equilibrium and its properties
- (vi) What is meant by comparative static analysis
- (vii) How to define and measure the incidence of a tax

Topic 3 Demand Analysis: Consumer Theory

Outline Preferences and Constraints
 Utility Maximisation
 Budget Constraints
 Income and Substitution Effects
 Application to the Supply of Labour
 Market Demand Curves

Reading: Begg, Fischer and Dornbusch, ch 5.
 Parkin, Powell and Matthews, ch. 7, 8.
 Hope, ch 1

Additional reading: Frank, ch 3, 4, 5.
 Stiglitz and Driffill, ch 8, 9.

Learning objectives – what you should know and understand after this part of the lecture course:

- (i) What are the properties of indifference curves
- (ii) What determines consumer choice
- (iii) How choice responds to changes in price and income
- (iv) How to derive demand curves
- (v) How to distinguish between the constant money and the constant real income demand curves
- (vi) How to derive household labour supply curves

Topic 4

Supply Analysis: Revenues and Costs

Outline Average, Marginal and Total Costs and Revenues
 Elasticity Revisited
 Choice of Production Technique
 Average, Total and Marginal Costs
 Economies and Diseconomies of Scale
 Short-run and Long-run Decisions
 Profit-Maximisation

Reading: Begg, Fischer and Dornbusch, ch. 6 and 7
 Parkin, Powell and Matthews, ch. 9, 10.
 Hope, ch 7.

Additional reading: Frank, ch 9, 10.
 Stiglitz and Driffill, ch 10, 11.
 Mankiw, 13.
 Griffiths and Wall, ch 3, 4, 7.
 Atkinson and Miller, ch 1, 2, 3.

Learning objectives - what you should know and understand after this part of the lecture course:

- (i) The relationship between demand and the firm's revenue curves
- (ii) How to derive cost curves from production functions
- (iii) The relationship between short-run marginal cost and returns to labour
- (iv) The difference between long-run and short-run costs
- (v) The concept of profit maximisation

Topic 5 Market Structure and Firm Behaviour (i)

Outline Pure Monopoly
 Perfect Competition
 Industry Supply Curves
 Natural Monopoly
 Market Structure

Reading: Begg, Fischer and Dornbusch, ch. 8, 9.
 Parkin, Powell and Matthews, ch. 11, 12.
 Hope, chs 9 and 10

Additional reading: Frank, ch 11, 12.
 Stiglitz and Driffill, ch 13, 14.
 Mankiw, 14, 15.
 Atkinson and Miller, ch 9.

Learning objectives - what you should know and understand after this part of the lecture course:

- (i) What defines monopoly and perfect competition
- (ii) What determines the firm's supply decisions
- (iii) What is meant by 'equilibrium of the firm'
- (iv) What is meant by 'equilibrium of the industry'
- (v) What is the importance of barriers to entry
- (vi) What is meant by monopoly welfare loss
- (vii) What is meant 'welfare economics' and by 'efficiency'
- (viii) What is meant by 'natural monopoly'
- (ix) The determinants of market structure

Topic 6 Market Structure and Firm Behaviour (ii)

- Outline Imperfect Competition
 Oligopoly and Interdependence
 Game Theory and Strategic Behaviour
 Entry Deterrence
 Contestability
 Industry and Competition policy
 Privatisation and regulation
- Reading: Begg, Fischer and Dornbusch, ch. 8, 9, 17, 18.
 Parkin, Powell and Matthews, ch. 13.
 Hope, ch. 11
- Additional reading: Frank, ch 13.
 Stiglitz and Driffill, ch 14.
 Mankiw, 16.
 Griffiths and Wall, ch 5, 6, 7, 8.
 Atkinson, Livesey and Milward, ch 5, 6.
 Atkinson and Miller, ch 10.

Learning objectives - what you should know and understand after this part of the lecture course:

- (i) The different forms of imperfect competition and their implications for price and for market behaviour and performance
- (ii) What is meant by ‘contestability’ and what are its implications
- (iii) What defines Industry and Competition policy, and its history, in the UK and Europe
- (iv) The history and economic analysis of nationalisation/privatisation and regulation in the UK

Topic 7 The Firm's Factor Markets: (i) The Labour Market

Outline Derived Demand for Labour
 Marginal Productivity Analysis
 Labour Supply Revisited
 Wage Determination

Reading: Begg, Fischer and Dornbusch, ch. 10 and 12.
 Parkin, Powell and Matthews, ch. 14, 15.
 Hope, chs 13 and 14

Additional reading: Frank, ch 14.
 Mankiw, 14.
 Griffiths and Wall, ch 14, 15.
 Atkinson, Livesey and Milward, ch 8.
 Atkinson and Miller, ch 14, 15.

Learning objectives - what you should know and understand after this part of the lecture course:

- (i) What is meant by the value of the marginal product of labour
- (ii) What determines the shape of the labour demand curve
- (iii) What is meant by monopsony
- (iv) How labour demand elasticity depends on the nature of competition in the product and labour markets
- (v) What are the possible effects of the UK government's current minimum wage policy

Topic 8

The Firm's Factor Markets: (ii) The Capital Market

Outline Demand and Supply of Capital Services
 Investment
 Rates of Return

Reading: Begg, Fischer and Dornbusch, ch. 12.
 Hope ch. 15

Additional reading: Frank, ch 15.
 Atkinson and Miller, ch 18, 19.

Learning objectives - what you should know and understand after this part of the lecture course:

- (i) What is meant by discounting
- (ii) What determines whether an investment is profitable
- (iii) How this analysis can be applied to the issue of investing in Human Capital

E. Tutorial Programme and Exercise Sheets

As was stated above, the exercise sheet problem sets cover far more material than can be dealt with in the tutorials. Your tutor will indicate that subset of the material which you will cover in each meeting and will ask you to prepare certain material in advance. The questions which you do not cover in tutorials will be left for self-study. If you wish to raise any questions with your tutor or with the lecturer, then office hours and email correspondence is available to you.

In answering these exercise sheets, you should consult both your lecture notes and reading from the various textbooks. As well as the recommended reading, you are encouraged to search in the library for other readings in economics which you think might be useful. You can always ask the advice of the lecturer or tutor on the suitability of the literature you find.

Your tutor will not be expected to provide model answers: the main objective of the exercise sheets is to get you thinking about the material you are studying, not just to give you an encyclopedia of 'correct answers' to particular problems.

Exercise Sheet 0 (a preliminary – voluntary - exercise)

Tick the answers you think are correct.

1. Economics is the study of:
 - (a) how to produce the most goods for the most people
 - (b) how society decides what, how and for whom to produce
 - (c) how to avoid waste and inefficiency

2.
 - (a) If society's scarce resources are allocated efficiently, there will be some environmental pollution
 - (b) If society's scarce resources are allocated efficiently, there will be no environmental pollution
 - (c) Environmental pollution has nothing to do with efficient resource allocation.

3.
 - (a) By encouraging customers, lower food prices raise revenues of farmers
 - (b) By discouraging customers, higher oil prices reduce revenues of oil producers
 - (c) Neither of the above

4.
 - (a) Higher income tax rates are a disincentive to work
 - (b) Higher income tax rates are an incentive to work
 - (c) Income tax rates have only a small effect on the incentive to work

5. Public sector (eg., nationalised industries that are efficient:
 - (a) might still make losses
 - (b) should at least break even
 - (c) should make money only on activities providing a wider social service

6. The introduction of minimum wage legislation in the UK
 - (a) would necessarily raise unemployment
 - (b) could lead to greater employment
 - (c) would have effects which depended on the minimum wage level

(Continued over page)

You might find it helpful to read through chapters 1 and 2 of either Begg, Fischer and Dornbush or of Parkin, Powell and Matthews. You should then try to answer the following questions:

- (i) What is meant by each of the following terms
 - a) efficiency
 - b) opportunity cost
 - c) gross domestic product
 - d) efficiency
 - e) inflation
 - f) unemployment
 - g) gross domestic product
 - h) economic modelling
 - i) time-series data
 - j) cross-section data
 - k) index numbers
 - l) econometrics
 - m) a scatter diagram
 - n) a linear relationship
 - o) a non-linear relationship
- (ii) Distinguish between
 - a) positive and normative economics
 - b) nominal and real variables
 - c) current and constant prices
- (iii) What is the intended purpose of economic models?
Why do economists make 'assumptions'?
Should an economic model describe reality exactly, or even closely?
- (iv) What is the opportunity cost of going to see a football match?
What is the opportunity cost of having the afternoon off work in order to see a football match?
What is the opportunity cost of failing to attend lectures in order to play football (netball/hockey/whatever pastime of your choice)?

Exercise 1 (for Tutorial 1 in week 3, Term 2)

(Hint: I suggest you focus your tutorial discussion on questions 1, and 4(d), 4(e) and 4(f))

1. Define very concisely each of the following terms:
 - (a) Economic Scarcity
 - (b) Demand Curve
 - (c) A Shift in Demand
 - (d) Supply Curve
 - (e) Market Equilibrium
 - (f) Existence of Equilibrium
 - (g) Uniqueness of Equilibrium
 - (h) Stability of Equilibrium
 - (i) Ceteris Paribus Assumptions
2. Which of the following would probably lead to a shift in the demand curve for cinema tickets (and why and how)?
 - (a) A decrease in the price of admission.
 - (b) An increase in real incomes.
 - (c) A decrease in the price of DVD players.
 - (d) An increase in mortgage rates.
3. Define and explain the usefulness of the concepts of the price elasticities of demand and supply.

What do you think is meant by:

- i) The price elasticity of imports
- ii) The income elasticity of imports
- iii) The wage elasticity of labour demand

and why might these be important?

4. In the market for second-hand DVD players the demand and supply curves are represented by the following equations:

$$X^D = 130 - 5p$$

$$X^S = -10 + 5p$$

where p is measured in £'s per unit and X^D and X^S in units per year.

- (a) Graph both the supply and demand curves.
- (b) Calculate the price elasticity of demand when the price falls from £16 to £12.
- (c) Calculate the price elasticity of demand when the price falls from £15 to £13.
- (d) From the formula:

$$P\eta_D = \frac{\Delta Q}{Q} \cdot \frac{P}{\Delta P} = \frac{\Delta Q}{\Delta P} \cdot \frac{P}{Q}$$

Calculate the price elasticity of demand at the particular point on the demand curve where price is equal to £14.

(Hint: you can work out the value of $\Delta Q/\Delta P$ as it is just the inverse of the slope. And you can work out the value of Q if you know the value of P (and you know that, for this question, $P=14$)).

- (e) Calculate the price elasticity of demand at the particular point on the demand curve where price is equal to £12.
- (f) Calculate the price elasticity of demand at the particular point on the demand curve where price is equal to £10. What do your answers to (d), (e) and (f) tell you?
- (g) Indicate on your graph the ranges over which demand is inelastic and elastic.
- (h) What is the equilibrium price-quantity solution given these demand curves?

Exercise 2 **(for Tutorial 2 in week 5, Term 2)**
(Hint: I suggest you give priority to questions 3 and 4)

1. Explain fully what is meant by each of the following terms:
 - a) Non-satiation
 - b) Transitivity of preferences
 - c) Ordinal ranking
 - d) Indifference
2. State whether each of the following statements is true or false:
 - a) Indifference curves always slope downwards to the right if the consumer prefers more to less.
 - c) Indifference curves never intersect if the consumer has consistent preferences.
 - c) The slope of the budget line depends only upon the relative prices of the two goods.
 - d) The budget constraint shows the maximum affordable quantity of one good given the quantity of the other good that is being purchased.
 - e) An individual maximises utility where his/her budget line is just tangent to an indifference curve.
3. Draw both a budget constraint and an indifference curve in X,Y-space to show a utility-maximising outcome. From this diagram, derive the constant money income demand curve for X.
4. Now derive the Constant Real Income Demand Curve. Is this always negatively-sloped? Explain your answer. What determines the relative slopes of the CMIDC and the CRIDC?

5. State whether each of the following statements is true or false:

- a) All Giffen goods are inferior goods
- b) All inferior goods are Giffen goods,

Explain your answers.

6. The substitution effect of an increase in the price of a good unambiguously reduces the quantity demanded of that good. Examine in detail the relationship between the shape of the indifference curves and the shape of the CRIDC.

7. Consider an individual's labour supply decision. Will an increase in income tax reduce the amount of labour supplied?

(Hint: use indifference curve analysis to answer this question)

Exercise 3

(for Tutorial 3 in week 7, Term 2)

(Hint: I suggest you give priority to questions 3, 6 and 9.)

1. Total Revenue is maximised when Marginal Revenue is zero and price elasticity of demand is -1. Explain why.
2. Profit is measured by Total Revenue (TR) minus Total Cost (TC). When $TR = TC$ the firm is said to be making a 'normal' profit. Explain how 'normal' profit does not necessarily mean 'zero' profit.
3. Profit is maximised when Marginal Revenue equals Marginal Cost. Explain why. Discuss the general optimising rule of 'equating at the margin', giving further examples of other applications of this concept.
4. Why might it be argued that profit-maximisation, as a goal of firm behaviour, depends on the assumption of 'owner-control'? Discuss this argument. What alternative objectives might firms have and how does this depend on the structures of ownership and control? (Hint: see Griffiths and Wall).
5. Define the following terms:
 - (i) Inputs and output
 - (ii) A production function
 - (iii) Constant returns to labour
 - (iv) Decreasing returns to labour
 - (v) Increasing returns to labour

Illustrate CRL, DRL and IRL in a diagram with output on the vertical axis and labour on the horizontal axis.

6. Show in a diagram how to derive the marginal product of labour from the production function. Show also how to derive the (short-run) Total Cost curve from the production function. From this derive the (short-run) Marginal Cost curve. Examine the relationship between the MPL and the SMC curves. Explain the relationship between the two.
7. Define the following terms:
 - (a) Short-run
 - (b) Long-run
 - (c) Marginal Cost
 - (d) Average Cost
 - (e) Fixed Cost
 - (f) Short-run Average Variable Cost (SAVC)
 - (g) Short-run Average Fixed Cost (SAFC)

8. Explain what is meant by:
- (i) Economies of scale
 - (ii) Increasing returns to scale
 - (iii) Constant returns to scale
 - (iv) Marginal returns to labour
9. Which of the following statements about the **short-run** marginal cost curve are not true? (Discuss and consider each case thoroughly.)
- (a) Marginal cost equals average cost when average cost is at a minimum.
 - (b) When average cost is falling, marginal cost will be below average cost.
 - (c) Marginal cost is greater than average cost when the number of units produced is greater than the optimum technical output.
 - (d) Marginal cost will be rising under conditions of diminishing marginal returns to labour.
 - (e) Marginal cost is unaffected by changes in factor prices.
 - (f) Marginal cost depends in part upon fixed costs.
10. Explain what is meant by:
- (a) The marginal principle
 - (b) The sunk cost fallacy.

Exercise 4

(for Tutorial 4 in week 9, Term 2)

(Hint: I suggest you give priority to questions 3 and 6.)

1. Explain the relationship between:
 - (i) LTC and STC?
 - (ii) LAC and SAC?
2. Show why:
 - (a) A firm will maximise profits when $SMC = MR$, so long as $AR > SAVC$
 - (b) A perfectly competitive firm's s-run supply curve is given by its SMC curve. (All or just part of SMC?)
 - (c) A perfectly competitive firm's l-run supply curve is given by its LMC curve. (All or just part of LMC?)
 - (d) In the long-run, fixed costs don't matter.
3. In a diagram, derive the short-run supply curve (SRSS) for a perfectly competitive industry. Assume all firms are equally efficient and show a situation in which, given the industry demand curve and the SRSS you have derived, the typical firm is making a sub-normal profit. What behaviour will this induce? What can you conclude about the shape of the long-run supply curve (LRSS) in this perfectly competitive industry? What happens to the shape of the LRSS if firms are not all equally efficient? Specify your assumptions.
4. What defines an equilibrium for a perfectly competitive firm? What defines a long-run equilibrium for a perfectly competitive industry?
5. What would be the effects on a perfectly competitive market equilibrium of:
 - (i) An exogenous increase in market demand
 - (ii) An exogenous increase in costs of production
6. Explain what is meant by monopoly welfare loss. Are there circumstance under which monopoly is welfare-enhancing compared to competition?

Exercise 5

(for Tutorial 5 in week 1, Term 3)

(Hint: I suggest you give priority to questions 2, 3 and 7.)

1. What is meant by monopolistic competition?
2. Define the following terms:
 - (a) Prisoners' Dilemma
 - (b) Dominant Strategy
 - (c) Stable (Nash) Equilibrium
3. What determines the market structure of an industry?
4. What is meant by the term Natural Monopoly? What are the policy implications of natural monopoly?
5. Explain why the profit-maximising level of labour demand occurs where $MFC = MVPL$. How does labour demand depend upon the degree of competition in both the labour and product markets?
6. What is meant by the marginal product of capital?
7. (By referring to ch 14 of BFD - including the Appendix to that chapter.) What is meant by discounting? Define 'Present Value'. What is the present value of a stream of income of £100 for three years? How are present value calculations useful in making investment decisions? Define 'Net Present Value'. What light does the analysis of investment shed on decisions about continuing in post-compulsory education?