



Institute  
and Faculty  
of Actuaries

# **Subject CT7 Business Economics Core Technical**

## **Syllabus**

for the 2018 exams

1 June 2017

### Aim

The aim of the Business Economics subject is to introduce students to the core economic principles and how these can be used in a business environment to help decision making and behaviour. It provides a grounding in the fundamental concepts of micro and macro economics as they affect the operation of insurance and other financial systems, both from the point of view of individuals and their requirements for financial security, and from the point of view of financial institutions and their ability to provide products that meet individual and institutional clients' needs.

### Links to other subjects

Subjects CT2 – Finance and Financial Reporting, CT8 – Financial Economics, CT9 – Business Awareness Module, CA1 – Actuarial Risk Management, ST5 – Finance and Investment Specialist Technical A and ST6 – Finance and Investment Specialist Technical B complement and develop the material introduced in this subject.

Other Specialist Technical subjects and all the Specialist Application subjects require the use of economic judgement.

### Objectives

On completion of the subject the trainee actuary will be able to:

- (i) Appreciate the relevance of economics to the world of business.
  1. Describe what is meant by opportunity cost and scarcity and their relevance to economic choice.
  2. Understand the core economic concepts involved in choices made by businesses relevant to the selection of outputs, inputs, technology, location and competition.
  3. Distinguish between microeconomics and macroeconomics.
- (ii) Discuss the workings of competitive markets.
  1. Describe how markets operate, explain the role of the price mechanism in a free market and discuss the behaviour of firms and consumers in such markets.
  2. Describe the factors which influence market demand and supply and describe and discuss how market equilibrium quantity and price are achieved.
  3. Discuss how markets react to changes in demand and supply.
  4. Define and calculate price and income elasticities of demand and price elasticity of supply. Calculate elasticities of demand using both original and average quantities. Discuss the factors that affect elasticity.
  5. Explain the effect of elasticity on the workings of markets in the short and long run.

6. Understand how firms deal with risk and uncertainty about future market movements.
- (iii) Discuss consumer demand and behaviour.
1. Understand the concept of utility and describe how it affects consumers' purchasing decisions.
  2. Describe how insurance companies help to reduce or remove risk.
  3. Explain what is meant by the terms “moral hazard” and “adverse selection”.
  4. Analyse simple insurance problems in terms of utility theory.
- (iv) Understand the importance of a firm's decision on product selection and marketing and advertising strategies.
1. Describe what is meant by product differentiation.
  2. Explain various marketing strategies that firms can adopt and the elements that could be involved in a marketing strategy.
  3. Explain the effects of advertising and features of a successful advertising campaign.
- (v) Gain a knowledge of the production function, costs of production, revenue and profit in order to understand a firm's price and output decisions.
1. Explain how the production function reflects the relationship between inputs and outputs in the short and long run.
  2. Define average and marginal physical product.
  3. Understand the meaning and measurement of costs and explain how these vary with output in the short and long run.
  4. Define total, average and marginal costs.
  5. Describe what is meant by “economies of scale” and explain the reasons for such economies and how a business can achieve efficiency in selecting the level of its inputs.
  6. Understand revenue and profit and explain how both are influenced by market conditions.
  7. Define and calculate average and marginal revenue.
  8. Describe how profit is measured, and explain how the firm arrives at its profit maximising output.
  9. Explain what is meant by the “shut-down” point in the short and long run.

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- (vi) Describe profit maximisation under perfect competition and monopoly.
1. Explain what determines the market power of a firm.
  2. Describe the main features of a market characterised by perfect competition and explain how firms in such markets determine output and price in the short and long run.
  3. Describe how monopolies emerge, how a monopolist selects its profit maximising price and output and how much profit a monopolist makes.
  4. Describe the barriers to entry in an industry and a contestable market and explain how these affect a monopolist's profit.
- (vii) Describe profit maximisation under imperfect competition.
1. Describe the behaviour of firms under monopolistic competition and explain why in this type of market only normal profits are made in the long run.
  2. Describe the main features of an oligopoly and explain how firms behave in an oligopoly.
  3. Discuss what determines competition and collusion of firms in an oligopoly and how the strategic decisions of such firms can be explained by game theory.
  4. Discuss if firms in an oligopoly act in consumers' interest.
- (viii) Understand the role of a firm's growth strategy on its profitability and survival.
1. Describe why businesses want to grow larger and explain the relationship between growth and profitability.
  2. Describe the constraints on a firm's growth and alternative growth strategies open to a firm.
  3. Describe the growth strategy of internal expansion, and explain how the firm may pursue vertical integration, product differentiation or diversification to achieve internal expansion.
  4. Explain why a firm may adopt the strategy of merging with, or taking over, other firms.
  5. Explain under what circumstances a firm might want to form a strategic alliance with other firms.
- (ix) Understand various pricing strategies that firms can adopt.
1. Describe how prices are determined in practice and factors that affect the ability of a firm to determine its prices.

2. Describe average cost pricing and price discrimination.
  3. Understand pricing strategy for multiple products and explain how pricing varies with the stage in the life of a product.
- (x) Understand the reasons for government intervention in the market.
1. Explain and discuss the extent to which businesses meet the interests of consumers and society in general.
  2. Explain in what sense perfect markets are “socially efficient” and why most markets fail to achieve social efficiency.
  3. Describes the ways in which governments intervene in markets in order to influence business behaviour and explain the drawbacks of such intervention.
  4. Explain and discuss whether taxation or regulation could be more useful in correcting markets’ shortcomings.
- (xi) Understand the relationship between the government and the individual firm.
1. Describe the main targets of “competition policy” and explain the extent to which it is effective.
  2. Understand and explain why a free market fails to achieve the optimal amount of research and development.
  3. Describe the various forms of intervention that the government can undertake in order to encourage technological advance and innovation.
- (xii) Understand globalisation and multinational business.
1. Understand what is meant by globalisation and describe its impact on business.
  2. Explain what is driving the process of globalisation and whether the world benefits from globalisation of business.
- (xiii) Understand the importance of international trade.
1. Describe the growth of international trade and its benefits to countries and firms.
  2. Explain the advantages of specialisation.
  3. Discuss the arguments for trade restriction and protection of domestic industries.
  4. Explain the role of the World Trade Organisation (WTO) in international trade.

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- (xiv) Understand the macroeconomic environment of the business.
1. State and describe the main macroeconomic variables that governments seek to control.
  2. Explain what determines the level of economic activity and hence the overall business climate.
  3. Describe the effect on business output if a stimulus is given to the economy.
  4. Distinguish between actual and potential growth.
  5. Describe why economies experience periods of boom followed by periods of recession and explain factors which influence the length and magnitude of the phases of a business cycle.
  6. Describe the causes and costs of unemployment and how unemployment relates to the level of business activity.
  7. Understand the determination of the price level in the economy by the interaction between aggregate supply and aggregate demand in a simple AS-AD model.
  8. Describe the causes and costs of inflation and how inflation relates to the level of business activity.
  9. Explain what is meant by GDP and describe how it is measured.
  10. Understand the representation of the economy as a simple model of the circular flow of income.
- (xv) Understand what is meant by the balance of payments and how exchange rates are determined.
1. Describe what is meant by “the balance of payments” and how trade and financial movements affect it.
  2. Explain how exchange rates are determined and how changes in exchange rates affect business.
  3. Explain the relationship between the balance of payments and the exchange rates.
  4. Discuss the advantages and disadvantages of fixed and floating exchange rates.
  5. Explain how governments and/or central banks seek to influence the exchange rates, and describe the implications of such actions for other macroeconomic policies and for business.

- (xvi) Understand the role of money and interest rates in the economy.
1. Describe the function of money.
  2. Describe what determines the amount of money in the economy, what causes it to grow and what is the role of banks in this process.
  3. Describe how interest rates are determined.
  4. Explain the relationship between money and interest rates.
  5. Explain why central banks play a crucial role in the functioning of the economies.
  6. Describe how a change in the money supply and/or interest rates affects the level of business activity.
- (xvii) Understand what determines the level of business activity and how it affects unemployment and inflation.
1. Understand how the equilibrium level of income is determined within a simple Keynesian model.
  2. Understand the concept of the multiplier and calculate its value.
  3. Describe the effect of a rise in money supply on output and prices.
  4. Describe the relationship between unemployment and inflation and whether the relationship is stable.
  5. Understand how business and consumer expectations affect the relationship between unemployment and inflation and explain how such expectations are formed.
  6. Describe how a policy of targeting inflation affects the relationship between unemployment and inflation.
  7. Describe what determines the course of a business cycle and its turning points.
  8. Discuss whether the business cycle is caused by changes in aggregate demand, or changes in aggregate supply (or both).
- (xviii) Understand how macroeconomic policies impact on businesses.
1. Describe the types of macroeconomic policy that are likely to impact on business and explain the way in which this impact takes effect.
  2. Describe the impact of fiscal policy on the economy and business, and factors that determine its effectiveness in smoothing out economic fluctuations.

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3. Describe the fiscal rules adopted by the government and discuss if following these rules is a good idea.
  4. Explain how monetary policy works in the UK and the Eurozone and describe the roles of the Bank of England and the European Central Bank.
  5. Explain how targeting inflation influences interest rates and hence the economic activity.
  6. Discuss the merits of following a simple inflation target as a rule for determining interest rates, and offer an alternative rule.
- (xix) Understand how supply side policies impact on businesses.
1. Describe the effect of supply side policies on business and the economy.
  2. Describe the types of supply side policies that can be pursued and examine their effectiveness.
  3. Explain the impact on business of a policy of tax cuts.
  4. Describe the major types of policy open to governments to encourage increased competition.

**END OF SYLLABUS**