

# Economics

## Singapore-Cambridge General Certificate of Education Advanced Level Higher 2 (2020) (Syllabus 9757)

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The Common Last Topics highlighted in yellow will not be examined in 2020 A-Level national examination.



## INTRODUCTION

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### Desired Outcomes of Education and Learning of Economics in Singapore

The Desired Outcomes of Education are attributes that educators aspire for every Singaporean to possess upon the completion of his formal education. These outcomes establish a common purpose for educators, and drive the Ministry of Education's policies and programmes.

The person who is schooled in the Singapore Education system embodies the Desired Outcomes of Education. He has a good sense of self-awareness, a sound moral compass, and the necessary skills and knowledge to take on challenges of the future. He is responsible to his family, community and nation. He appreciates the beauty of the world around him, possesses a healthy mind and body, and has a zest for life. In sum, he is

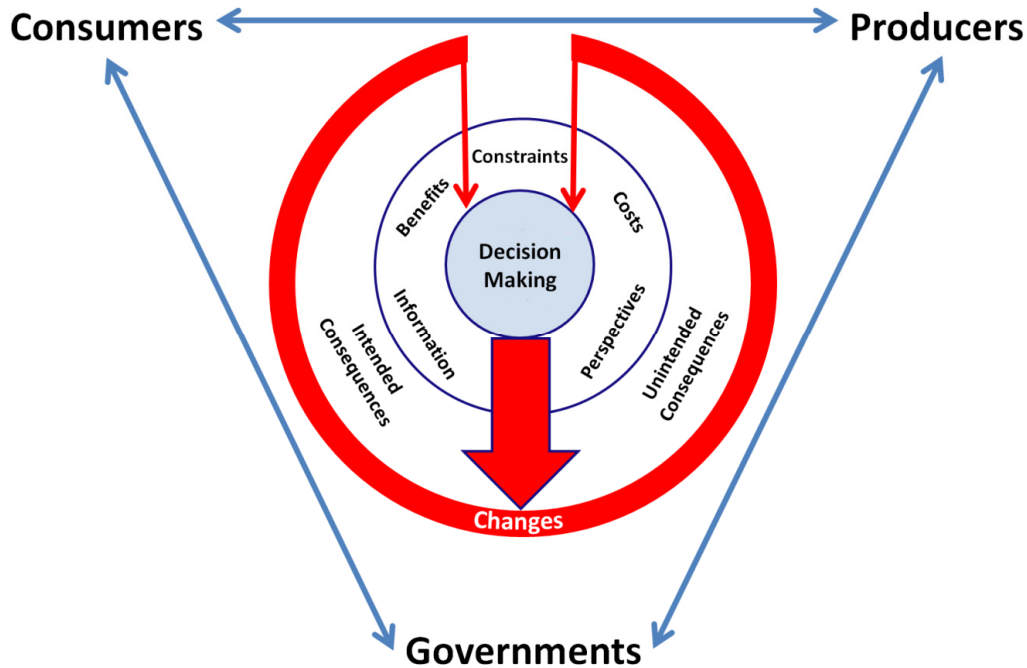
- a **confident person** who has a strong sense of right and wrong, is adaptable and resilient, knows himself, is discerning in judgment, thinks independently and critically, and communicates effectively
- a **self-directed learner** who questions, reflects, perseveres and takes responsibility for his own learning
- an **active contributor** who is able to work effectively in teams, is innovative, exercises initiative, takes calculated risks, and strives for excellence
- a **concerned citizen** who is rooted to Singapore, has a strong sense of civic responsibility, is informed about Singapore and the world, and takes an active part in bettering the lives of others around him.

The learning of Economics is aligned with the Desired Outcomes of Education. Through the application of economic concepts, theories and principles, candidates develop the capacity to assess the role of economic agents in the allocation of scarce resources and adopt multiple perspectives in understanding real-world economic issues. Candidates recognise trade-offs and consequences that result from decision-making to arrive at well-reasoned decisions. Candidates thus develop a set of knowledge, skills and values that encourages them to take an active interest in the domestic and global economy as contributing and concerned citizens.

### Disciplinary Thinking in A-Level Economics

Globalisation, changing demographics and technological advancements are some of the key driving forces of the future. To help candidates thrive in a fast-changing world, one of the key 21st Century Competencies emphasised in the Economics Curriculum is Sound Reasoning and Decision Making, under the domain of Critical and Inventive Thinking.

Given the importance of decision-making skills, the decision-making approach through an economic lens will be used to front disciplinary thinking in A-Level Economics, with the visual representation and outline as follows.

**A Framework for Disciplinary Thinking in A-Level Economics**

In light of the central economic problem of scarcity, decision-making is fundamental. Scarcity leads to the inevitability of choices and trade-offs. In the context of the Economics syllabus, decision-making is framed as a process where candidates analyse how decisions are made from the perspectives of different economic agents (consumers, producers and governments), adjusting for dynamic changes where appropriate. Candidates will have to take account of the benefits, constraints, costs, perspectives and other necessary information, while recognising the impact of the intended and unintended consequences arising from the decisions made and the corresponding trade-offs. Candidates will also recognise that decision-making by economic agents can have multifaceted implications, where decisions made by an economic agent can have an impact on other economic agents.

## AIMS

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The syllabus is intended to provide the basis for a broad understanding of economics. Specifically, the syllabus aims to develop in candidates:

1. an understanding of fundamental economic concepts, theories and principles, and of the tools and methods of analysis used by economists
2. the ability to use the tools and methods of economic reasoning to explain and analyse economic issues, and to evaluate perspectives and decisions of economic agents
3. the habit of reading critically, from a variety of sources, to gain information about the changing economic activities and policies at the national and international levels
4. the ability to use evidence in making well-reasoned economic arguments to arrive at rational and considered decisions.

## **ASSESSMENT OBJECTIVES**

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Candidates are expected to:

### **AO1: Knowledge and Understanding**

- Demonstrate knowledge and understanding of economic concepts, theories and principles.

### **AO2: Interpretation and Evaluation of Information**

- Interpret economic information presented in textual, numerical or graphical form.
- Make valid inferences from information presented and evaluate the reliability of information given.

### **AO3: Application and Analysis**

- Apply relevant economic concepts, theories and principles to analyse contemporary issues, perspectives and policy choices.
- Construct coherent economic arguments.

### **AO4: Evaluation**

- Evaluate critically alternative theoretical explanations, contemporary issues, perspectives and policy choices.
- Recognise unstated assumptions and evaluate their relevance.
- Synthesise economic arguments to arrive at well-reasoned judgements and decisions.

## SCHEME OF ASSESSMENT

### Specification grid

The assessment comprises two compulsory written examination papers: Paper 1 (Case Studies) and Paper 2 (Essays). Taken as a whole, both papers will incorporate a good balance of questions on microeconomics and macroeconomics.

H2 Economics	Description	Overall Marks (Weighting)	Duration
<b>Paper 1</b> <b>Case Studies</b>	<p>There will be two compulsory case studies.</p> <p>Candidates are required to answer all questions for each case study.</p> <p>Each case study carries 30 marks and constitutes 20% of the total marks. About 12 marks of each set of case study questions will be for data response questions, and about 18 marks will be for higher-order questions.</p>	60 marks (40%)	2 hours 15 minutes
	<ul style="list-style-type: none"> <li>For Paper 1, questions testing AO1 + AO2 + AO3 will comprise about 40% of the marks and questions testing AO1 + AO2 + AO3 + AO4 will comprise about 60% of the marks.</li> </ul>		
<b>Paper 2</b> <b>Essays</b>	<p>Candidates are required to <b>answer a total of three essay questions</b>, of which one must be from Section A, one from Section B and one from either Section A or B.</p> <p><u>Section A:</u> Three essay questions focusing mainly on microeconomics will be set. Candidates must answer at <b>least one</b> question from this section.</p> <p>Each question carries 25 marks.</p> <p><u>Section B:</u> Three essay questions focusing mainly on macroeconomics will be set. Candidates must answer at <b>least one</b> question from this section.</p> <p>Each question carries 25 marks.</p>	75 marks (60%)	2 hours 15 minutes
	<ul style="list-style-type: none"> <li>For Paper 2, questions testing AO1 + AO3 will comprise about 40% of the marks and questions testing AO1 + AO2 + AO3 + AO4 will comprise about 60% of the marks.</li> </ul>		

## **Description of components**

### **Paper 1 (Case Studies)**

The paper will include two case studies. Each of these will consist of two to three pages of data presented in textual, numerical or graphical form. Each will present contemporary multifaceted economic issues or policies, which may be from one or more themes in the syllabus.

The data for each case study will be followed by six or seven part-questions including sub-parts. These questions will require candidates to apply relevant economic concepts, theories and principles in analysing, synthesising and evaluating economic issues, perspectives or policies, with reference to the data provided.

About 12 marks of each set of case study questions will be for data response questions, and about 18 marks will be for higher-order questions.

### **Paper 2 (Essays)**

Questions in Section A will focus mainly on microeconomics and questions in Section B will focus mainly on macroeconomics. Each essay question may or may not be divided into part (a) and part (b). Questions may be put in real-world contexts.

Candidates are expected to apply relevant economic concepts, theories and principles to analyse issues and to evaluate perspectives or policies. They should synthesise and construct coherent arguments to arrive at well-reasoned judgements and decisions.

### **Use of calculators**

The use of a calculator as approved by the Singapore Examinations and Assessment Board is allowed for Paper 1 and Paper 2.

## SYLLABUS CONTENT

The syllabus content comprises three core themes:

- The Central Economic Problem
- Markets
- The National and International Economy

Using the disciplinary thinking framework in A-Level Economics which focuses on decision-making, candidates will have the opportunity to explain, analyse and apply economic concepts, theories and principles through the above themes. Candidates will also evaluate economic issues and policy choices in a real-world context and appreciate the interconnectedness across the themes.

### Theme 1: The Central Economic Problem

Theme 1 introduces candidates to the Central Economic Problem of unlimited wants and limited resources. The scarcity of resources necessitates choice and leads to decision-making. Through examining how the concepts of scarcity, choice and opportunity cost are faced by economic agents (consumers, producers and governments), candidates will be able to understand the Central Economic Problem facing societies, and how economic agents use available information, and also consider perspectives, constraints, costs and benefits in their decision-making. Candidates will also understand that decisions made by economic agents often have both intended and unintended consequences.

This theme provides the foundation for the study of microeconomic and macroeconomic topics in Markets (Theme 2) and the National and International Economy (Theme 3) respectively, where the decision-making approach and concepts of scarcity, choice and opportunity cost recur.

#### Theme 1.1 Scarcity as the Central Economic Problem

##### Economics Content

#### 1.1 Scarcity as the Central Economic Problem

##### 1.1.1 Scarcity, choice and resource allocation

- a. Concept of scarcity and the inevitability of choices by economic agents (consumers, producers and governments)
- b. Concept of opportunity cost and the nature of trade-offs in the allocation of resources

##### 1.1.2 Rational decision-making process by economic agents

- a. Understanding objectives of economic agents
  - Consumers – maximisation of utility
  - Producers – maximisation of profits
  - Governments – maximisation of social welfare
- b. Recognising constraints
- c. Gathering information and considering perspectives
- d. Weighing costs and benefits in decision-making\*
- e. Recognising trade-offs
- f. Recognising intended and unintended consequences

*Note:*

*\*A marginalist approach to weighing costs and benefits is the expected approach. Cost-benefit analysis (CBA) is not required.*

**Theme 1.1 Scarcity as the Central Economic Problem****Concepts and Tools of Analysis**

- Positive and normative economics\*
- Microeconomics and macroeconomics\*
- Scarcity, choice and opportunity cost
- Production possibility curve (PPC)
- Marginal cost, marginal benefit and marginalist principle
- Maximisation of utility\*
- Maximisation of profit: Marginal Revenue = Marginal Cost
- Maximisation of social welfare: Marginal Social Benefit = Marginal Social Cost

**Notes:**

*\*An awareness of the concepts of positive and normative economics is sufficient*

*\*An awareness of the concepts of microeconomics and macroeconomics is sufficient.*

*\*An awareness of how consumers allocate resources to maximise utility is sufficient. The formal derivation of utility maximisation is not required.*



## Theme 2: Markets

In Theme 2, candidates examine how markets deal with the Central Economic Problem and how decisions are made by economic agents in markets. Theme 2 provides candidates with a microeconomic analysis of how markets function and how these markets may fail to achieve efficient and equitable outcomes. Candidates will be able to understand how market forces of demand and supply interact to bring about market equilibrium. Candidates will also examine the strategies of firms to achieve their objectives. In addition, candidates will be able to understand that while decisions made by consumers and producers are necessary for the functioning of markets, these decisions may lead to inefficient and inequitable outcomes. Candidates will be able to discuss how governments may intervene through public policy measures to improve efficiency and equity while recognising limitations, unintended consequences and possible trade-offs of government intervention. This theme provides candidates with insights into real-world microeconomic issues and also creates opportunities to deepen their economic reasoning and analytical skills and to apply microeconomic concepts to both Singapore and the global economy.

Microeconomic concepts and theories in Themes 1 and 2 provide the foundation for candidates to extend their understanding of the micro-economy to the macro-economy in Theme 3.

### Theme 2.1 Price Mechanism and its Applications

#### Economics Content

#### 2.1 Price Mechanism and its Applications

##### 2.1.1 Price mechanism and its functions

- a. Resource allocation in a free market

##### 2.1.2 Interaction of demand and supply

- a. Determinants of demand and supply
- b. Equilibrium price and equilibrium quantity
- c. Changes in demand and supply leading to changes in market equilibrium

##### 2.1.3 Applications of demand and supply analysis to real-world markets\*

- a. Responsiveness of consumers and/or producers
  - Price, income and cross elasticities of demand – determinants and significance
  - Price elasticity of supply – determinants and significance
- b. Impact of market outcomes on consumers and producers
  - Consumer expenditure and producer revenue
  - Consumer and producer surplus
- c. Rationale and impact of government intervention on consumers and producers
  - Taxes and subsidies
  - Price controls – maximum and minimum prices
  - Quantity controls – quotas

*Note:*

*\*The focus is on the application of demand and supply analysis to any market. With reference to labour markets, Marginal Revenue Productivity theory of labour is not required.*

**Theme 2.1 Price Mechanism and its Applications****Concepts and Tools of Analysis**

- Price mechanism
- Consumer sovereignty
- Ceteris paribus
- Effective demand
- Law of diminishing marginal utility\*
- Demand curve
- Change in demand vs change in quantity demanded
- Supply curve
- Change in supply vs change in quantity supplied
- Determinants of demand – non-price factors
- Determinants of supply – non-price factors
- Market equilibrium – equilibrium price and quantity
- Market disequilibrium – shortage and surplus
- Price elasticity of demand
- Income elasticity of demand
  - Normal and inferior goods
- Cross elasticity of demand
  - Complements and substitutes
- Price elasticity of supply
- Consumer expenditure and producer revenue
- Consumer and producer surplus
- Taxes and subsidies
- Price controls – maximum and minimum prices
- Quantity controls – quotas

*Note:*

*\*Technical analysis of the law of diminishing marginal utility is not required.*

**Theme 2.2 Firms and Decisions****Economics Content****2.2 Firms and Decisions**

## 2.2.1 Objectives of firms

- a. Profit-maximising objective
  - Marginalist principle in determining profit maximising output and price
- b. Alternative objectives of firms
  - Entry deterrence, revenue maximisation, profit satisficing, and market share dominance

## 2.2.2 Costs and revenue

- a. Costs and revenue concepts\*
  - Distinction between short run and long run
  - Average and marginal costs and revenue
  - Internal and external economies and diseconomies of scale

*Note:*

*\* Derivation of cost and revenue curves is not required.*

## 2.2.3 Firms' decisions and strategies

- a. Characteristics of market structures\*
- b. Decisions and strategies including price and output, price discrimination\*, shut-down decision\*, growth of firms, diversification, innovation, product differentiation, competition vs collusion

## 2.2.4 Impact of decisions and strategies on consumers, firms and governments, including efficiency and equity, and consumer welfare.

*Notes:*

*\*Diagrammatic analysis of the comparison of types of market structure is not required.*

*\*Knowledge and analysis of third degree price discrimination will suffice. Knowledge and understanding of first and second degree price discrimination is not required. Diagrammatic analysis of third degree price discrimination is not required.*

*\*Diagrammatic analysis of the shut-down decision is not required.*

**Theme 2.2 Firms and Decisions****Concepts and Tools of Analysis**

- Profit maximisation: Marginal Revenue = Marginal Cost
- Entry deterrence, revenue maximisation, profit satisficing, market share dominance
- Short run vs long run
- Fixed cost vs variable cost
- Total cost, average cost, marginal cost
- Total revenue, average revenue, marginal revenue
- Internal and external economies and diseconomies of scale
- Barriers to entry
- Concentration ratio\*
- Market structures
  - Perfect competition, monopolistic competition, oligopoly, monopoly
- Price discrimination
- Shut-down condition
- Product differentiation
- Competition versus collusion
  - Cartels, contestable markets
- Efficiency
  - Allocative, productive and dynamic efficiency

*Note:*

*\*An awareness of the concentration ratio and its calculation is sufficient.*

<b>Theme 2.3 Market Failure</b>
<b>Economics Content</b>
<p><b>2.3 Market Failure</b></p> <p>2.3.1 Efficiency and equity in relation to markets</p> <p>2.3.2 Market failure and its causes</p> <p>a. Public goods</p> <ul style="list-style-type: none"> <li>• Characteristics of non-excludability and non-rivalry</li> </ul> <p>b. Positive and negative externalities in consumption and production</p> <ul style="list-style-type: none"> <li>• Divergence between private cost/benefit and social cost/benefit</li> </ul> <p>c. Merit and demerit goods</p> <p>d. Market dominance</p> <p>e. Information failure/imperfect information</p> <p>f. Factor immobility</p> <p>2.3.3 Government intervention in markets</p> <p>a. Policy measures including taxes and subsidies, quotas and tradeable permits, joint and direct provision, rules and regulations, and public education in addressing market failure</p> <p>b. Effectiveness of policy measures and government failure</p>
<b>Theme 2.3 Market Failure</b>
<b>Concepts and Tools of Analysis</b>
<ul style="list-style-type: none"> <li>• Market failure</li> <li>• Allocative efficiency</li> <li>• Deadweight loss</li> <li>• Equity</li> <li>• Marginal private benefit and cost</li> <li>• Marginal external benefit and cost</li> <li>• Marginal social benefit and cost</li> <li>• Social versus private (market) optimum</li> <li>• Over-consumption and production</li> <li>• Under-consumption and production</li> <li>• Public goods <ul style="list-style-type: none"> <li>– Non-excludability and non-rivalry</li> </ul> </li> <li>• Positive and negative externalities</li> <li>• Merit and demerit goods</li> <li>• Market dominance</li> <li>• Information failure/Imperfect information <ul style="list-style-type: none"> <li>– Asymmetric information – moral hazard, adverse selection*</li> </ul> </li> <li>• Factor immobility</li> </ul> <p><i>Note:</i></p> <p><i>*Imperfect information is synonymous with information failure.</i></p> <p><i>*Asymmetric information is a subset of information failure. Technical analyses of moral hazard and adverse selection are not required.</i></p>

### Theme 3: The National and International Economy

Theme 3 provides candidates with an overview of the workings and linkages of the national and international economy. The key focus is on governments as economic agents, while recognising that the extent of government intervention differs among economies. Candidates will examine macroeconomic aims, issues and policies relating to growth, inflation, unemployment, exchange rates, balance of trade and income distribution, *with particular reference to the Singapore context*. Candidates will examine Singapore's position in the global economy and the impact of globalisation on the Singapore economy. In particular, candidates will examine the impact of external trends and developments on the national, regional and international economies, and their implications for policy choices and decisions of governments.

In Theme 3, candidates will use concepts, theories and principles from Themes 1 and 2 to examine the problem of scarcity of resources and the concept of trade-offs at the broader level of the national and international economy.

#### Theme 3.1 Introduction to Macroeconomics

##### Economics Content

#### 3.1 Introduction to Macroeconomics

3.1.1 Circular flow of income as an interactive model involving households, firms, government and the foreign sector

3.1.2 Aggregate demand (AD) and aggregate supply (AS)

- a. Factors affecting AD and AS
- b. Equilibrium level of national output and general price level
- c. Multiplier effect of changes in aggregate demand (AD)

#### Theme 3.1 Introduction to Macroeconomics

##### Concepts and Tools of Analysis

- Circular flow of income
- Aggregate demand and factors affecting aggregate demand
- Aggregate supply and factors affecting aggregate supply
- National output
- General price level
- Multiplier effect

**Theme 3.2 Macroeconomic Aims and Policies****Economics Content****3.2 Macroeconomic Aims and Policies**

## 3.2.1 Macroeconomic aims in relation to

- a. Living standards and its indicators
  - Material and non-material aspects
- b. Economic performance and its indicators
  - Economic growth
    - Sustainable growth
    - Inclusive growth (case of Singapore)
  - Price stability
  - Full employment
  - Favourable balance of trade

## 3.2.2 Macroeconomic issues – causes and consequences in relation to

- a. Economic growth
- b. Inflation and deflation
- c. Full employment and unemployment
- d. Balance of trade deficit and surplus

## 3.2.3 Macroeconomic policies to achieve macroeconomic aims

- a. Policy measures and their effectiveness influencing AD/AS
  - Fiscal policy
    - Government expenditure and revenue
  - Monetary policy
    - Centred on interest rates
    - Centred on exchange rates (case of Singapore)
  - Supply-side policies
    - Policies to improve quantity, quality and mobility of factors of production
    - Policies to increase efficiency and remove barriers to competition and trade in product markets
    - Policies to give incentives and encourage enterprise

## Theme 3.2 Macroeconomic Aims and Policies

### Concepts and Tools of Analysis

- Standard of living
  - Material and non-material well-being
  - Gross Domestic Product (GDP) and Gross National Income (GNI)
  - Human Development Index (HDI)
- Income distribution
  - Income inequality
  - Gini coefficient
- Economic growth
  - Actual and potential growth
  - Sustainable growth
  - Inclusive growth
- Full employment and unemployment
  - Types of unemployment
- Price stability
  - Inflation and deflation
  - Consumer price index (CPI)
- Nominal and real concepts
- Balance of trade surplus and deficit
- Current account of the balance of payments\*
- Short-term capital flows
- Long-term capital flows
  - Foreign direct investment
- Fiscal policy
  - Discretionary fiscal policy
  - Automatic stabilisers
- Government budget surplus and deficit\*
- Monetary policy
- Interest rates
- Exchange rate appreciation and depreciation
- Supply-side policies

*Notes:*

*\*An awareness of only the key components of the balance of payments account (current, capital and financial) is required. Knowledge of balance of payments accounting (including sign convention) is **not** required.*

*\*National debt and methods of budget deficit financing are **not** required.*

**Theme 3.3 Globalisation and the International Economy****Economics Content****3.3 Globalisation and the International Economy****3.3.1 Globalisation and its impact on the economy**

- a. Factors affecting globalisation
- b. Benefits and costs of globalisation

**3.3.2 Trade policy decisions and its impact on the economy**

- a. Free trade
  - Theory of comparative advantage
  - Benefits of free trade
  - Patterns of trade (case of Singapore)
- b. Protectionism
  - Protectionist measures
  - Benefits and costs of protectionism
- c. Economic co-operation and trade agreements between countries\*
  - Benefits and costs

**Note:**

*\*An awareness of the forms of economic co-operation and trade agreements between countries is sufficient. Detailed knowledge of the forms of economic integration, institutional knowledge and legislation is not required. Diagrammatic analysis of economic co-operation and trade agreements between countries is not required.*

**Theme 3.3 Globalisation and the International Economy****Concepts and Tools of Analysis**

- Globalisation
- Theory of comparative advantage
- Dynamic comparative advantage
- Free trade
- Patterns of trade
- Free trade versus protectionism
- Protectionist measures
  - Tariffs and non-tariff measures
- International and regional economic co-operation



## APPENDIX

### Recommended Reading

1. General Texts	Title	Publisher	Year
Bamford, Colin et al.	Cambridge International AS Level and A Level Economics, 3rd Edition	Cambridge University Press	2014
Begg, Fischer and Dornbusch	Economics, 11th Edition	McGraw Hill	2014
Case, Karl E, Fair, Ray C and Sharon Oster	Principles of Economics, 12th Edition	Pearson Education	2018
Frank, Robert and Bernanke, Ben	Principles of Economics, 6th Edition	McGraw Hill	2016
Heyne, Paul, Boettke, Peter and Prychitko, David	The Economic Way of Thinking, 13th Edition	Pearson Education	2013
Lipsey, Richard G and Chrystal, K Alec	Economics, 13th Edition	Oxford University Press	2015
Mankiw, Gregory	Principles of Economics, 8th Edition	Cengage Learning	2018
Mankiw, N Gregory, Quah, Euston and Wilson, Peter	Principles of Economics: An Asian Edition, 2nd Edition	Cengage Learning	2013
McConnell, Campbell R and Brue, Stanley	Microeconomics: Principles, Problems and Policies, 21st Edition	McGraw Hill	2018
McEachern, William A	Microeconomics: A Contemporary Introduction, 10th Edition	Cengage Learning	2013
McEachern, William A	Macroeconomics: A Contemporary Introduction, 10th Edition	Cengage Learning	2014
Miller, Roger	Economics Today, 18th Edition	Pearson Education	2016
O'Sullivan, Arthur and Sheffrin, Steven and Perez, Stephen	Economics: Principles, Applications and Tools, 9th Edition	Pearson Education	2017
Parkin, Michael	Economics, 12th Edition	Pearson Education	2015
Sexton, Robert L	Exploring Economics, 7th Edition	Cengage Learning	2015
Sloman, John, Wride, Alison and Garratt, Dean	Economics, 10th Edition	Pearson Education	2018
Sloman, John	Essentials of Economics, 7th Edition	Pearson Education	2016

<b>2. Supplementary Text</b>	<b>Title</b>	<b>Publisher</b>	<b>Year</b>
Tan, Say Tin et al.	Economics in Public Policies – <i>The Singapore Story</i>	Marshall Cavendish Education	2009

<b>3. Reference Sources</b>	<b>Title</b>	<b>Publisher</b>
Pearce, David W	MIT Dictionary of Modern Economics, 4th Edition	MIT Press
Pass, Christopher; Lowes, Bryan and Davies, Leslie	Collins Dictionary: Economics, 3rd Edition	Harper Collins

<b>4. Journals</b>	<b>Frequency</b>	<b>Publisher</b>
Economic Review	Quarterly	Philip Allan
Economics Today	Quarterly	Economics Today Ltd