

CHANGES TO THE SYLLABUS AND CORE READING FOR SUBJECT CT7 FOR THE 2008 EXAMINATIONS

1 Changes to the Syllabus and their impact on Core Reading

There have been no changes to the Syllabus.

2 Changes to Core Reading

UNIT 1

Some of the material in this Unit has been reorganised. The revised Unit is attached.

UNIT 2, SECTION 2

Two paragraphs describing the income and substitution effects have been clarified to read:

The shift from the old consumption bundle to the intermediate bundle with the same utility is the substitution effect. The income effect is the change from the intermediate bundle to the final bundle.

The substitution effect of a price change is always negative; this is because the change in quantity demanded is in the opposite direction to the change in price. The income effect of a price change can either be negative (when the change in quantity demanded is in the opposite direction from the change in price and the good is a normal good), or positive (when the change in quantity demanded is in the same direction as the change in price and the good is an inferior good).

UNIT 5, SECTION 3

The third paragraph has been deleted.

UNIT 8

The treatment of transfer payments has been revised throughout this Unit and Sections 2 and 5 amended. The revised Unit is attached.

UNIT 10, SECTION 2

An additional sentence has been added at the end of Section 2 as follows:

The amount and cost of government debt is a major factor which companies have to consider when designing their own bond issues.

UNIT 13

A number of changes have been made to this Unit. The revised Unit is attached.

Other minor changes have been made to correct typographical errors and to improve the style of the Core Reading.

UNIT 1 — SUPPLY AND DEMAND

Discuss the interaction between supply and demand in the provision of a product and the way in which equilibrium market prices are determined.

Syllabus objectives

- (i)
1. Describe and discuss the scope of economics in terms of the problems of the allocation of scarce resources.
 2. Discuss the functioning of free market and mixed economies.
 3. Sketch supply and demand curves.
 4. Describe and discuss how, in a free market, supply and demand for a good are equated by the equilibrium price.
 5. Explain the meaning of the terms normal good, inferior good, luxury good, necessity good and Giffen good.
 6. Explain and discuss the meaning of the terms complementary goods and substitute goods.
 7. Explain and discuss the reasons for movements along, and shifts in, supply and demand curves.
 8. Explain and discuss how controls on prices or subsidies can affect the levels of supply and demand.
 9. Explain and discuss how controls on supply affect prices.

Define elasticity of demand and supply and discuss the effects on a market of different levels of elasticity.

- (ii)
1. Define:
 - price elasticity of demand
 - price elasticity of supply
 - cross price elasticity of demand
 - income elasticity of demand

2. Describe and discuss the implications of:
 - elastic demand
 - unit elasticity
 - inelastic demand
3. Calculate the numerical value of elasticities from given data.
4. Discuss the factors which might give rise to different levels of elasticity.

1 The scope of economics

Economics is the study of the allocation of scarce resources. In economics the words “resources”, “scarce” and “allocation” have very specific meanings as set out below:

Economists often categorise **resources** into three broad types:

<i>Land</i>	All natural resources
<i>Labour</i>	All human effort
<i>Capital</i>	All man-made resources used in production

Sometimes labour is split into “employed labour” (i.e. people who work for someone else) and “entrepreneurs” (i.e. people who own businesses).

A resource is **scarce** if there would not be enough of it to satisfy all the people who would want to make use of it if it had a zero price.

There are three main **allocation** problems which have to be solved by any economic system:

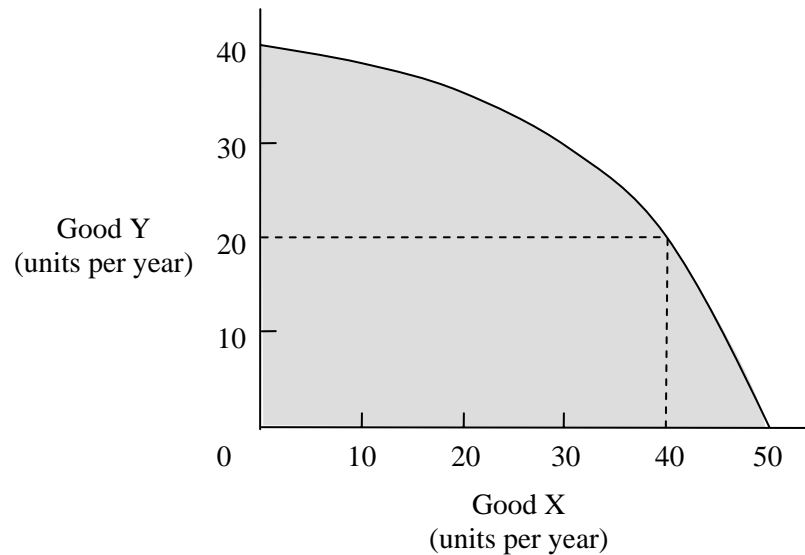
- (1) Which goods and services should be produced (and in what quantities)?
- (2) How should these goods and services be produced?
- (3) Who should consume the goods and services that have been produced?

1.1 The production possibility frontier

There is a limit to the amount of goods and services which can be produced from scarce resources. This limit defines a boundary between what is attainable and what is not attainable. This boundary is the **production possibility frontier** and it defines the trade-offs between the goods and services which can be produced.

The chart below shows the production possibility frontier for two goods, X and Y.

The production possibility frontier for Good X and Good Y



The chart shows combinations of Good X and Good Y which can be produced from the available resources, e.g. 0 units of Good X and 40 units of Good Y; 50 units of Good X and 0 units of Good Y. The curve shows the limits to production; the combination of goods outside the frontier cannot be produced. Only combinations on or inside the frontier curve can be produced.

Production efficiency occurs on the frontier curve. Producing combinations of goods inside the frontier curve is inefficient because it is possible to use the available resources to produce more of either or both goods.

At all points on the frontier curve, producing fewer units of one good is necessary to produce more units of the other good. The **opportunity cost** of producing more of one good is the loss of the best alternative foregone. So, in the chart, the opportunity cost of producing 1 more unit of Good X is the number of units of Good Y which must be given up. (Opportunity cost is referred to again in Unit 4.)

2 Types of economy

In a **centrally controlled economy**, a central agency decides what is to be produced, how it is to be produced, and for whom it is produced. In this context a central agency is a government department, staffed by economists and administrators, who will try to make sure that the decisions they make produce a consistent plan. In practice, some local control may exist over the method of production and consumers retain some choice as to which goods they consume.

In a **free market economy** there is no government intervention. The interaction of supply and demand, driven by individuals acting in their own self interest, solves all the allocation questions. The goods produced are those for which the amount that consumers are willing to pay exceeds the cost of production. The methods of production are the ones that minimise the costs of production. Consumption patterns are determined by which goods and services consumers are willing and able to pay for.

Mixed economies fall between the two extremes of centrally controlled and free market economies. Some allocation decisions are made by the free market, some by the government, and some by markets in which the government intervenes to a limited extent.

3 Supply and demand

A supply curve for product i shows for each price of good i (shown on the vertical axis) the quantity supplied of good i (shown on the horizontal axis), holding all other things equal.

A demand curve for product i shows for each price of good i (shown on the vertical axis) the quantity demanded of good i (shown on the horizontal axis), holding all other things equal.

The syllabus requires an ability to draw supply and/or demand curves (and label axes appropriately) based on any of the following:

- *numerical data*
- *mathematical functions*
- *direct instructions e.g. “draw a demand curve which has unit elasticity at all price levels”*

The syllabus also requires an ability to draw supply and/or demand curves which illustrate other concepts covered by the syllabus e.g. a demand curve under a rationing system.

Although price is the independent variable, it is the convention in economics to put price on the vertical axis and quantity traded on the horizontal axis. Also, negative values are ignored.

3.1 Movements along, and shifts in, supply and demand curves

A movement along a demand curve is referred to as a change in the *quantity demanded*. A change in the price of Good i will result in a movement along the demand curve.

A shift of the demand curve is referred to as a change in *demand*. A shift in a demand curve will occur if any of the following change:

- the price of other goods
- consumer incomes
- consumer tastes

Each of the three factors could cause the demand curve to shift downwards to the left (a decrease in demand) or upwards to the right (an increase in demand).

A movement along a supply curve is referred to as a change in the *quantity supplied*. A change in the price of Good i will result in a movement *along* the supply curve.

A shift of the supply curve is referred to as a change in *supply*. A shift in supply will occur if either of the following change:

- the (opportunity) cost of resources needed to produce the good
- the technology available to produce the good

Either factor could cause the supply curve to shift to the left (a decrease in supply) or to the right (an increase in supply).

3.2 The equilibrium price

The market is in equilibrium when the quantity that firms want to supply is equal to the quantity that consumers want to buy. In the normal case where demand curves slope downwards and supply curves slope upwards, there is a unique price at which this will occur.

If the quantity supplied exceeds the quantity demanded, stocks will build up. This will lead to price cutting which will tend to restore equilibrium.

If the quantity demanded exceeds the quantity supplied, sellers may run out of stocks. This will lead to price rises which will tend to restore equilibrium.

If the market is to remain in equilibrium, a movement along a demand curve will occur if, and only if, there is a shift in the *supply* curve. Similarly, a movement along a supply curve will occur if, and only if, there is a shift in the *demand* curve.

4 Controls on prices and subsidies

4.1 Price ceilings

A price ceiling set below the free market price produces excess demand and shortages. Some suppliers may even be tempted to offer goods for sale illegally at a price above the price ceiling.

4.2 Price floors

A price floor set above the free market price will lead to excess supply. If the government does not buy up the extra supply, some suppliers may be tempted to break the minimum price rule and offer goods for sale at less than the official minimum.

4.3 Taxes and subsidies

The effect of indirect taxes and subsidies is to create a difference between the price paid by consumers and the price received by suppliers.

Taxes (and subsidies) on consumers will have the effect of shifting the demand curve, while taxes (and subsidies) on producers will shift the supply curve.

Consider a tax levied on suppliers. The effect of a tax on a commodity is to shift the supply curve to the left. As long as the demand curve slopes downwards and the supply curve slopes upwards, the imposition of a tax will raise the price paid by consumers and lower the price received by producers, in both cases by an amount less than the amount of the tax. The equilibrium quantity traded will reduce.

5 Controls on supply

5.1 Making supply illegal

The effect on supply will be that suppliers will only be prepared to produce at high prices. In economic terms, the supply curve will be shifted upwards. How far the supply curve shifts upwards may depend upon how severely the law is enforced. Prices will increase and the quantity traded will fall (possibly to zero).

5.2 Quotas

A quota is an upper limit on the quantity that producers can produce.

A quota is binding if it is set below the equilibrium quantity traded. A binding quota will increase prices.

5.3 Long run effects

Subsidies and all forms of controls on prices and on supply may have additional long term effects on demand and supply. For example, a price floor leading to frequent excess supply may result in a lower supply in the long run.

6 Elasticity

The elasticity of a function $y = f(x)$ at the point x is the ratio of the proportional change in y to the proportional change in x . Thus:

$$\text{own price elasticity of demand of good } i = \frac{\% \text{ change in } QD_i}{\% \text{ change in } P_i}$$

cross price elasticity of demand of good i with respect to the price of good j

$$= \frac{\% \text{ change in } QD_i}{\% \text{ change in } P_j}$$

$$\text{income elasticity of demand of good } i = \frac{\% \text{ change in } QD_i}{\% \text{ change in income}}$$

$$\text{(own price) elasticity of supply of good } i = \frac{\% \text{ change in quantity supplied of good } i}{\% \text{ change in price of good } i}$$

For theoretical work it is more useful to define elasticities in terms of partial derivatives rather than percentage changes.

7 Own price elasticity of demand

Often the terms “elasticity of demand”, “price elasticity of demand” and “own price elasticity of demand” are used interchangeably.

Since own price elasticity of demand is negative in just about all real life situations some economists adopt the convention of omitting the minus sign.

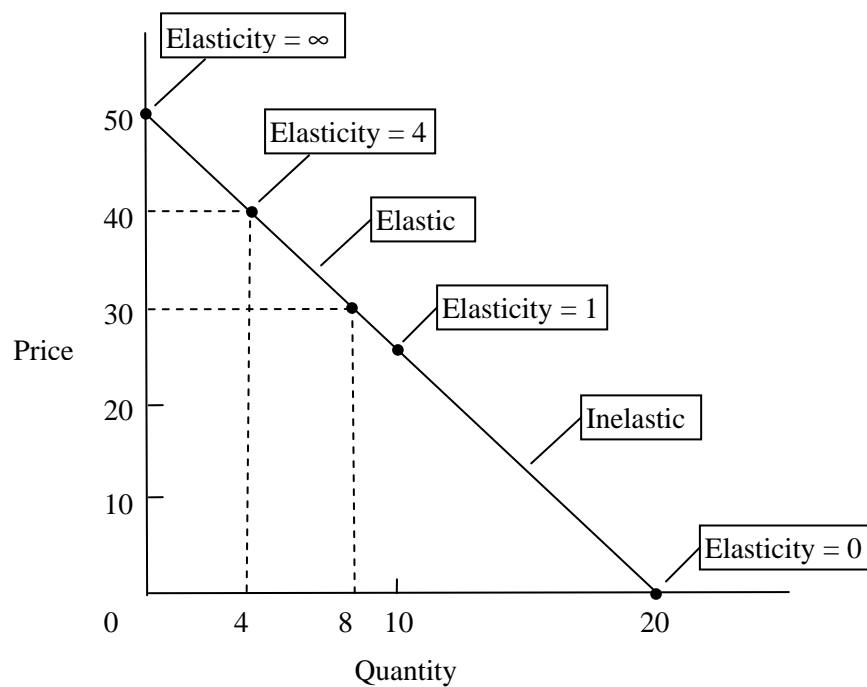
7.1 Implications for suppliers' revenue

Using the exact definition of elasticity:

- Demand is said to be “*elastic*” when the (own price) elasticity of demand is more negative than -1 . If demand is elastic, a price cut will increase a firm's revenue. A price rise will reduce a firm's revenue.

- Demand is said to have “*unit elasticity*” when the (own price) elasticity of demand is -1 . If demand has unit elasticity, a change in price will leave a firm’s revenue unchanged.
- Demand is said to be “*inelastic*” when the (own price) elasticity of demand is less negative than -1 . If demand is inelastic, a cut in price will reduce revenue. A rise in price will increase revenue.

7.2 Elasticity along a straight-line demand curve



The chart above illustrates how elasticity changes along a straight-line demand curve. It shows that:

- elasticity decreases as the price falls and the quantity demanded rises
- demand is unit elastic at the midpoint of the curve
- above the midpoint, demand is elastic
- below the midpoint, demand is inelastic
- demand is perfectly elastic where the quantity demanded is zero
- demand is perfectly inelastic where the price is zero

7.3 Factors that affect price elasticity of demand

Elasticity of demand is determined by the ease of substitution which is a function of:

- *the broadness of product definition*: it is easier to find a substitute for a product which is narrowly defined
- *the length of time considered*: it is easier to find and make use of a substitute in the long run than in the short run
- *the degree of brand loyalty/addiction*
- *the proportion of consumers' incomes spent on the good*
- *the degree of necessity / luxury of the good*

If it is easier to find a substitute for a product price elasticities will be high.

8 Income elasticity of demand

A **normal good** is a good for which the income elasticity of demand is positive. So the quantity demanded increases as income increases.

An **inferior good** is a good for which the income elasticity of demand is negative. So the quantity demanded falls as income increases.

A **luxury** is a good for which the income elasticity of demand is greater than 1. So a greater proportion of a person's income is spent on the good as income rises.

A **necessity** is a good for which the income elasticity of demand is less than 1. So a smaller proportion of a person's income is spent on the good as income rises.

A **Giffen good** is a good for which the own price elasticity of demand is positive. So, as its price rises, the quantity demanded increases. Giffen goods are a subset of inferior goods.

9 Cross elasticity of demand

Complementary goods are jointly consumed. They tend to have negative cross price elasticity of demand.

Substitute goods are alternatives to each other. They tend to have positive cross price elasticity of demand.

The key words in these definitions are really “jointly consumed” and “alternatives” to each other. Sometimes two goods may be substitutes in some uses and complements in other uses. Also note that the definitions given above used the words “*tend to have...*”. This is because it is possible for the cross price elasticity of demand for good i with respect to the price of good j to have the opposite sign to the cross price elasticity of demand for good j with respect to the price of good i .

10 Price elasticity of supply

10.1 Factors that affect elasticity of supply

This will depend upon how much firms’ costs change when they try to increase or decrease output. If it costs very little to produce an extra unit of output supply will be very elastic. If it is very expensive to supply another unit supply will be very inelastic. The costs will depend on the time period considered.

11 Elasticity and controls on markets

The *extent* of the effects of controls on markets depends upon the elasticity of demand and supply. For example, where demand is inelastic, any effect on the quantity demanded will tend to be small. Conversely, any effect on price will be large where demand is inelastic. With elastic demand, quantity effects will be large, and price effects small.

END

UNIT 8 — NATIONAL INCOME

Define what is meant by GDP, GNP and Net National Product, show how these concepts may be useful in describing the economy and in making comparisons between countries, and discuss their limitations.

Syllabus objectives

- (viii)
1. State the major factors which have to be taken into account in the management of a country's economy
 2. Explain the circular flow of income and the equivalence of national income, expenditure and output.
 3. Explain the difference between basic costs and market prices.
 4. Explain the relationship between savings and investment in the economy.
 5. Describe the constituents of Gross Domestic Product, Gross National Income and Gross Value Added at Basic Prices.
 6. Discuss the difficulties which might be encountered in placing a value on measures of national income.

1 Macroeconomics

In managing a country's economy there are three major factors to consider:

Internal

- unemployment
- inflation

External

- the balance of payments and exchange rates

These factors will be influenced by the overall level of economic activity, which the government will seek to control by means of *fiscal* policies (taxation and government spending) and *monetary* policies (control of the money supply and interest rates).

These issues are the subject matter of *Macroeconomics*.

2 The circular flow of income

The circular flow is the flow of money from firms to households (in return for the factor services provided) and from households to firms (in return for goods and services provided).

2.1 Measuring national income

The level of economic activity can be measured in one of three ways. Each method should give the same answer, although in practice recording errors may mean that this doesn't happen. The three methods of measuring economic activity are:

1. measuring the amount purchased (the "expenditure" method)
2. measuring the amount produced (the "output" method)
3. measuring the amount earned (the "income" method")

The expenditure method measures economic activity by summing the value of expenditure on final goods. "Final" goods are goods used to directly serve economic wants, as opposed to "intermediate" goods which are used up in order to produce other goods. Including intermediate goods would be double counting because intermediate goods would be counted again at later stages of production.

The output method measures economic activity by summing the value added by all firms. Value added is the difference between the price a good is sold for, and the cost of the intermediate goods used to make it.

The income method measures economic activity by summing the incomes of all factors of production.

2.2 Components of national income

Savings are defined to be the amount of current disposable income (Y_d) that is not spent. Thus households' incomes (from whatever source) can either be spent on consumption of final goods (denoted C), or on savings (S).

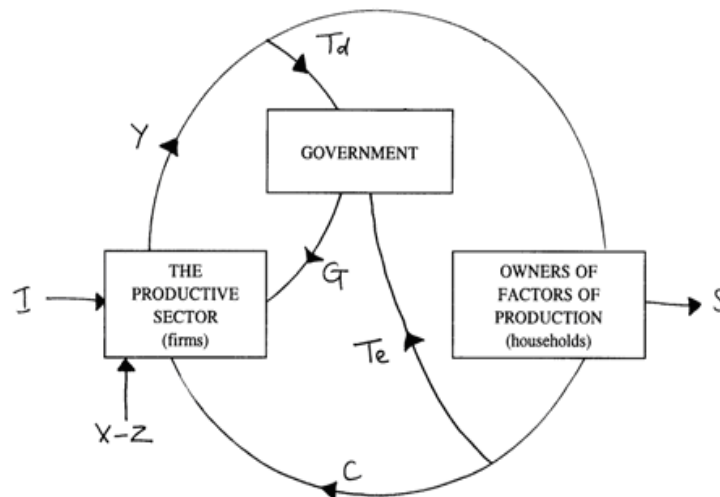
Investment is the production of new goods and services which are not used up at the time of production. Economists use the letter I to denote the level of investment. When measuring economic activity it is necessary to allow for increases in stocks as part of investment (i.e. capital) expenditure. However, only the increase in the real value of stocks should be included.

Government spending, denoted by G , is expenditure on goods and services (e.g. building hospitals, employing teachers).

The government will also make transfer payments which are payments for which no economic good or service is provided in return (e.g. unemployment benefit, interest on the national debt). These payments are not counted as part of economic activity but are treated as a “negative tax” in the model of national income. The letter T represents ‘net taxes’ and shows the net flow to the government from households and firms. This net tax figure can be split between that paid directly by firms (e.g. income tax) and by households on expenditure (e.g. VAT), denoted T_d and T_e in the diagram below.

Exports are goods and services produced in the domestic economy but consumed¹ abroad. Imports are goods and services produced abroad but consumed in the domestic economy. Exports are denoted X , and imports Z .

2.3 Diagrammatical representation of the circular flow



2.4 The equivalence of national income, expenditure and output

Producing output incurs costs which represent income of the suppliers of land and labour. Any difference between the value of output and the value of costs is, by definition, profits. Profits are income to the suppliers of capital. Therefore national income is equal to national output.

National expenditure is equal to national output because any unsold output is still included in the definition of “expenditure”.

¹ “Consumed” in this context refers to consumption, investment and government demand.

3 Gross national product and gross domestic product

3.1 Domestic versus national product

Gross Domestic Product (GDP) measures the level of economic activity in an economy. It can be defined in three equivalent ways:

1. the expenditure in the domestic economy on $C + I + G + X - Z$
2. the value added by all firms located in the domestic economy
3. the factor incomes of all factors of production located in the domestic economy

Domestic product includes production resulting from all activities taking place “at home”. This will *include* production by any foreign owned company but *exclude* any income earned by residents from production taking place outside the domestic territory. Thus GDP is also equal to the sum of primary incomes distributed by resident producer units.

Gross National Income (previously called Gross National Product or GNP) *excludes* that part of resident producers’ primary income paid overseas but *includes* the primary incomes generated overseas but paid to resident units. It is equal to GDP plus net property income from abroad. Net property income from abroad is the property income received from abroad by domestic citizens less the property income paid to overseas citizens.

For example, using the income method the following are added to GDP:

- wages paid for labour services provided overseas by citizens
- rent payments on overseas land owned by citizens
- money received from overseas in respect of capital owned by citizens

The sum of these three types of cross border flows is known as property income from abroad.

Gross Value Added is measured as the value of outputs *less* intermediate consumption. Thus

	Output
<i>less</i>	intermediate consumption
<i>less</i>	taxes, net of subsidies, on products
<i>equals</i>	Gross value added at basic prices.

3.2 Market prices versus basic cost

The expenditure measure of GDP ($C + I + G + X - Z$) gives GDP at *market* (or purchasers') *prices*. GDP at *basic prices* (i.e. Gross Value Added) excludes taxes (net of subsidies) on *products* (such as VAT).

Gross domestic product at basic prices is normally recorded. Otherwise, a change in the level of an indirect tax (e.g. VAT) would change the recorded level of economic activity, even if exactly the same volume of goods and services were being produced.

4 Difficulties in placing a value on measures of national income

4.1 Depreciation

The term “gross” refers to the fact that, when measuring domestic production, we have not allowed for an important phenomenon: capital consumption or *depreciation*. In calculating value added (as the difference between output and costs) we should include as a current cost that part of the capital goods used up in the production process — that is, the depreciation of the capital assets. “Net” concepts are net of this capital depreciation. Thus, if depreciation is deducted from GNP the measure of economic activity is known as “Net National Product”.

Depreciation is the true reduction in the value of assets due to wear and tear. In practice, estimates of depreciation are very difficult to make, and are likely to be inaccurate.

The term “national income” is often used to refer to any (or all) of the above measures of economic activity (e.g. as in “National Income Accounts”). Confusingly it can also be given a very specific definition:

- national income is the economy's net national product measured at basic cost

4.2 Inflation

Economists use the “GNP deflator” to convert nominal economic activity to real economic activity. The GNP deflator is similar to the CPI, but whereas the CPI only looks at changes in the price of consumption goods (C), the GNP deflator considers price changes in C, I, G, X and Z .

4.3 Exchange rates

One use of measures of economic activity is to compare the sizes of different economies.

There is a problem in making comparisons like this because it is not clear which exchange rate should be used:

- It is probably better to use the average exchange rate applicable over the year in question, rather than just the end year exchange rate.
- A more realistic comparison is obtained by converting GNP at what is known as the “purchasing power parity” exchange rate rather than at the market exchange rate.

4.4 Net economic welfare

Even real economic activity per capita translated at purchasing power parity exchange rates will be an imperfect measure for making comparisons of the average person's welfare. Other factors which we could allow for include:

- unreported market transactions
- non-marketed goods and services
- externalities
- leisure time

5 The savings investment relationship

5.1 Savings and investment in a one sector economy

Algebraically:

$$Y \equiv C + S$$

Income equals expenditure, and expenditure consists of C and I . So:

$$Y \equiv C + I$$

Combining the previous two equations:

$$S \equiv I$$

5.2 Savings and investment in a three sector economy

The equation for national income (at basic cost), Y , in terms of national expenditure (where C , I , G , X and Z are measured at market prices) is:

$$Y \equiv C + I + G + X - Z - T_e$$

The amount of savings (S) in this complex economy is still defined to be that part of disposable income that consumers do not spend:

$$\begin{aligned} S &\equiv Y_d - C \\ &\equiv (Y - T_d) - C \end{aligned}$$

Rearranging the last equation gives:

$$Y \equiv C + S + T_d$$

Equating the right hand side of the two expressions for Y gives:

$$C + I + G + X - Z - T_e \equiv C + S + T_d$$

Therefore:

$$I + G + X \equiv S + T_e + T_d + Z \equiv S + T + Z$$

This last equation has a very important interpretation. It says that “injections” (i.e. I , G and X) into the circular flow of income are identically equal to “leakages” (i.e. S , T , and Z).

Note that $T = T_e + T_d$ represents “net taxes” as explained in section 2.2.

The result $S \equiv I$ in a one sector economy (i.e. a closed economy without a government) is just a special case of the more general “injections \equiv leakages” identity.

Economists sometimes talk about “surpluses” and “deficits” of the three different sectors (private sector, government and foreign).

- The private sector is in surplus when it saves more than it invests: $S > I$.
- The government is in surplus when net tax revenues exceed total spending:

$$T > G.$$

Note that T represents “net taxes” as explained in section 2.2.

- The foreign sector is in surplus when the foreign sector is exporting more to us than it is importing from us: $Z > X$

The surpluses (+) and deficits (–) of the three sectors must sum to zero, so that the “injections \equiv leakages” identity holds. However, either one or two of the sectors may be in surplus, so long as the other one or two sectors are in deficit.

END

UNIT 13 — ECONOMIC STATISTICS

Describe the major factors affecting the rate of inflation, the level of interest rates, the exchange rate, the level of unemployment and the rate of economic growth in the economy of an industrialised country.

Syllabus objectives

(xii) 1. Describe and discuss the principal economic statistics.

1 Issues in the publication of national statistics

It is useful to note some general features of the principal economic statistics.

1.1 Seasonal adjustment

Many figures are produced as crude data, and also as seasonally adjusted data. The point of seasonal adjustments is to allow observation of underlying trends which would otherwise be obscured by seasonal fluctuations.

1.2 Real values

Most figures that are measured in monetary units are produced in real terms.

1.3 Timing of data

Data is usually published soon after the end of the period to which it refers. In some cases the initial data is a provisional estimate of the main data. At a later stage a more accurate figure will be published. In some cases this is accompanied by a more detailed breakdown of the data.

2 Data on the level of economic activity

2.1 Quarterly national accounts figures

These show the country's *Gross Domestic Product* and *Gross National Product* (see Unit 8).

2.2 Other measures of historic economic activity

Figures are published for *consumer spending* subdivided into spending on *consumer durables* and *non-durables*.

Fixed investment expenditure. These figures show the purchase of new machines and factories by manufacturing industry.

Stocks. Figures for the real volume of stocks, raw materials and work-in-progress held by manufacturers, wholesalers and retailers.

Industrial production. An index showing the real volume of industrial and manufacturing output.

Monthly index of retail sales. This is an index showing the real volume of sales.

2.3 Forward looking measures of economic activity

National agencies often survey expectations of future activity. For example in the United Kingdom the CBI (Confederation of British Industry) publishes the results of two questionnaires which it sends to companies:

- (i) *The CBI Industrial Trends Survey*
- (ii) *The CBI Distributive Trades Survey*

The most frequently reported statistic is the balance of firms expecting sales to increase over the next few months over those expecting a fall in sales.

The government publishes *cyclical indicators* which try to predict up-turns and down-turns in the economy.

Various organisations publish the results of their own *macroeconomic* models. These usually provide forecasts for the key economic variables of inflation, gross domestic product, unemployment and the balance of payments over the next two or three years.

3 Unemployment statistics

There are two sources of data on unemployment.

The official measure of unemployment in the UK comes from a survey of households in which people are asked if they are currently looking for work. This is known as the labour force survey.

These figures are compiled in an internationally agreed way and are therefore suitable for international comparisons.

The second measure in the UK is the claimant count. This is based on the number of people in receipt of unemployment related benefits.

4 Inflation statistics

4.1 Consumer Prices Index

The *Consumer Prices Index* (CPI) is published monthly by the government. It refers to prices over a few days in the middle of the previous month. Usually, the figure quoted in the press and on television is the percentage change in the index over the previous 12 months. In the UK the CPI is the authoritative measure of inflation, forming the basis for the government's inflation target and it is the internationally comparable measure of inflation.

The index is calculated as a weighted average of the price index for a large number of goods and services bought by households. It covers goods purchased in shops as well as services paid for from the home. The weights used to construct the index are in proportion to a typical household's expenditure as determined by a regular survey of household expenditure and these weights are periodically updated. Other price indices include different items. For example, the Retail Prices Index (RPI) in the UK include housing costs.

4.2 Producer price index

Two sets of price indices are published under this heading. There is an index of *input* prices, and also an index of *output* prices.

4.3 National average earnings index

The *National Average Earnings Index* (NAEI) is published monthly by the government. It covers both manual and non-manual employees.

The index is constructed by sampling a number of firms and using weights derived from the Census of Employment.

5 The balance of payments and exchange rate

5.1 Balance of payments

Monthly figures are published for the balance of payments, typically split between "visible" and "invisible" items (see Unit 11). Analyses will show balances with major trading partners (countries and regional groups).

5.2 Exchange rate and foreign currency reserves

In addition to individual currency exchange rates, an exchange rate index (ERI) is usually compiled. This measures the value of the domestic currency against a basket of other currencies. The index is compiled using weights which reflect the importance of the other currencies for the country's overseas trade.

Official reserve figures are published monthly by the government or the Central Bank.

6 Other economic statistics

6.1 Public Sector Borrowing Requirement

Monthly figures for categories of spending, categories of revenue and privatisation proceeds are published by the government.

6.2 Money supply

Detailed figures are published by the Central Bank and the retail banks each month. However, most interest is focused on M0 and M4 (see Unit 6).

6.3 Institutional cashflow

Figures for cashflow into institutional investors may be published periodically. The figures typically detail where the money is invested (domestic shares, overseas shares, property and Government securities).

6.4 Financial markets

Commercial publications such as the Financial Times and the Wall Street Journal produce a mass of data which is of interest to investors. The figures which are of most interest to economists include:

- indices showing the overall level of the stock market
- gilts prices and yields
- current exchange rates
- forward exchange rates
- commodity prices
- forward commodity prices

6.5 International data

Statistics are provided on an international basis by organisations such as the OECD, the IMF, the World Bank, the United Nations, the ILO and the World Trade Organisation. Regional data is provided by organisations such as the EBRD, the European Central Bank and the Asian Development Bank.

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