NATIONAL INCOME ANALYSIS

Learning Objectives

At the end of the lesson the student should be able to:

- Explain fully the various concepts of national income.
- Appreciate the importance of compiling national income figures.
- Use national income figures to compare the standards of living over time and between countries and know the problems involved.
- Explain fully why national output and employment fluctuate around their long term trends
- Show how the country can manipulate its resources for faster growth using the relationship between income, consumption and savings.

1.1 Definition of National Income

National Income is a measure of the money value of goods and services becoming available to a nation from economic activities. It can also be defined as the total money value of all final goods and services produced by the nationals of a country during some specific period of time – usually a year – and to the total of all incomes earned over the same period of time by the nationals.

Different Concepts of National Income

a) Gross Domestic Product

The money value of all goods and services produced within the Gunry but excluding net income from abroad.

b) Gross National Product The sum of the values of a) final goods and rervices produced by the nationals or citizens of a country during the year, both within and outside the country.

Net National Produce

The money value of the total volume of production (that is, the gross national product) after allowance has been made for depreciation (capital consumption allowance).

d) Nominal Gross National Product

The value, at current market prices, of all final goods and services produced within some period by a nation without any deduction for depreciation of capital goods.

e) Real Gross National Product

This is the national output valued at the prices during some base year or nominal GNP corrected for inflation.

f) National Income Accounting

This refers to the measuring of the total flow of output (goods and services) and of the total flow of inputs (factors of production) that pass through all of the markets in the economy during the same period. To see exactly what national income includes, how it is measured, and what it can tell us, we start with economic models: By economic models we mean:

'A simplification of a real world or a practical situation aimed at explaining

	Subsidies	6,056	
	Net property income from abroad	<u>1,948</u>	<u>11,190</u>
Less:	Estimated depreciation on capital assets		259,437 <u>36,490</u>
			<u>222,947m</u>

(ii) Using Factor Incomes for Calculating National Income

A second method is to sum up all the incomes to individuals in the form of wages, rents, interests and profits to get domestic incomes. This is because each time something is produced and sold someone obtains income from producing it. It follows that if we add up all incomes we should get the value of total expenditure, or output. Incomes earned for purposes other than rewards for producing goods and services are ignored. Such incomes are gifts, unemployment or relief benefits, lottery, pensions, and grants for students etc. These payments are known as *transfer income (payments)* and including them will lead to *double counting*. The test for inclusion in the national income calculation is therefore that there should be a "quid pro quo" that the money should have been paid against the exchange of a good or service. Alternatively, we can say that there should be a "real" flow in the opposite direction to the money flow. We must also include income obtained from subsistence output. This is the opposite case from transfer payments since there is a flow of really goods and services, but no corresponding money flow. It becomes necessary to "impute" values for the income that would have been received. Similarly, workers may, in addition to cost income, receive *income in kind;* if employees are provided with *rent free pousing*, the rent which they would have to pay for those houses on the open market should, in principle, be "imputed" as part of their income room caployment. The sum of these incomes gives gross domestic product (7). This includes incomes earned by foreigners at home and excludes incomes earned by a time includes incomes canned by Domestic Income we ald the Property Income from abroad. This gives Gross National Income Viron this we deduct deprectation to give Net National Income.

Country Y National Income rewards to factors	1999
(in £	
Incomes from employment	
Wages and salaries	143,348
Pay in cash and kind of HM Forces	
Employers' contribution to National Health Insurance	10,632
Employers' contribution to other funds	12,971
	170,072
Income from self-employment	23,123
Other Incomes	
Profits of companies	

Surpluses of public corporations		9,661
Surpluses of other public enterprises (-)		
		(109)
Rent		17,424
Imputed charge for consumption of capital		2,456
		264,157
Less: Stock appreciation		(4,326)
		259,831
Add: net property income from abroad		1,948
		261,779
Less: Residual error	2,342	
Estimated depreciation on capital assets	<u>36,490</u>	<u>(38,832)</u>
		<u>222,947m</u>

Table 1.1 Calculating National Income from factor Incomes

Note: The residual error is a small error (about 1%) is the Olection of these figures.

(iii) Using the ational Output for Calculating National Income A final unchood which is an e correct is the "output method" or the value added approach. This involves adding up the total contributions made by the various sectors of the economy. "Value Added" is the value added by each industry to the raw materials or processed products that it has bought from other industries before passing on the product to the next stage in the production process. This approach therefore, centers on *final products*. Final products will include *capital goods* as well as consumer goods since while intermediate goods are used up during the period in producing other goods; capital goods are not used up (apart from "wear and tear" or depreciation) during the period and may be thought of as consumer goods "stored up" for future periods. Final output will include "subsistence output", which is simply the output produced and consumed by households themselves. Because subsistence output is not sold in the market, some assumption has to be made to value them at some price. We also take into account the *final output of government*, which provides education, medical services such a s care and general administrative services.

However, since state education and other governmental services are not sold on the market we shall not have market prices at which to value them. The only obvious means of doing this is to value public services at what it costs the government to supply them that is, by the *wages bill spent on teachers, doctors, and the like*. When calculating the GDP in this matter it is necessary to avoid *double counting*.

engages in numerous activities such as defending the country, making and enforcing the laws, building roads, running schools, and predicting weather.

When the government produces goods and services that households desire such as roads and air traffic control, it is obviously engaged in a useful activity and is obviously adding to the sum total of valuable output. The national income statistician count as part of the GNP every government expenditure on goods and services, whether it is to build *a scud missile to promote police protection, or to pay a civil servant to file and re-file papers from a now defunct ministry*.

Definitions:

Transfer Payments: Are any payments made to households by the government that are not made in return for the services of factors of production i.e. there is no Quid pro Quo. Such payments do not lead directly to any increase in output and for this reason they are not included in the nation GNP.

Disposable Income: This is the income which households actually have available to spend or to save. To calculate disposal income, which is indicated by Ya, the statistician must make several adjustments to GNP.

First, all those elements of the value of output that are not paid out to households must be *deducted:* business savings represent receipts by firms from the sale of output that are withheld by firms for their own uses, and corporation taxes are receipt by firms from the sale of output that are paid over to the government. Secondly, personal income taxes must be *deducted* from the income paid to ucceen this in order to obtain the amount households actually have available 5 found or save. Finally, it is necessary to *add* government transfer available 5 found or save. Finally, it is necessary to *add* government transfer available to households. Although these are not themselves a part of GNP, they are made available to households to spend and save, and are thus a part of a sporable income. Thus a sposar income is:

personal income tax s paid by households, plus transfer payments received by households.

Real and nominal measures

Output, Expenditure and Income can be valued at current market price in which case we speak, for example, of *money or Nominal NNP*, *or NNP* valued at current prices. Changes from one year to another are then a compound of changes in physical quantities and prices. Output, Expenditure and Income can also be valued at the prices ruling in some base year. In this case,

each year's quantity is priced at its base-year prices and then summed. We then speak, for example, of GDP at constant prices, or REAL GDP. Changes in constant-price GDP give a measure of real or quantity changes in total output.

Equilibrium Income

In this model, aggregate desired expenditure has three components: Consumption, Investment and Government Expenditure:

$$\mathbf{E} = \mathbf{C} + \mathbf{I} + \mathbf{G}$$

In conclusion, it must be added that the causation of business cycles is a complex matter and the above is only one of a number of possible explanations.

1.12 Review Questions:

- A hypothetical closed economy has a national income model of the form y = C + I + I1. G where C = 30 + 0.8Y and I and G and private investment and government expenditure are exogenously determined t 50 and 80 units respectively. Compute the national equilibrium level of income for this economy using aggregate income equals aggregate expenditure and withdrawals and equal injection methods.
- 2. What are some of the limitations using Gross National Product as a measure of economic performance?
- 3. With the help of a diagram explain the circular flow of income and expenditure
- Briefly explain the following concepts i) 4.

Gross domestic product ii) Gross national product iii) Net national product Nominal gross national product v) iv) Real gross national product

- National income accounting vi)
- resale.co.uk Explain the approaches to measuring national income 5.
- Explain the difficulties in measuring nation 6.
- 7. ile of a national incom Describe factors affectin
- per Opica income to compare standard of living over 8.
- Briefly explain the Keynesian Theory of Consumption 9.
- 10. Briefly define the following economic terms i)

Propensity to consume

- ii) Marginal propensity to save iii) Investment
- iv) Actual income and full employment income v)
- Autonomous Expenditure
- The Multiplier vi)