

National Income

1. MACROECONOMICS: IMPORTANCE AND LIMITATIONS

Macroeconomics has been variously described. According to R.G.D. Allen, "The term 'macro economics' applies to the study of relations between broad economic aggregates." In Culbertson's view, "Macro- economic theory is the theory of income, employment, prices and money. Professor K.E. Boulding calls macroeconomics "that part of economics which studies the overall averages and aggregates of the system." These definitions do not adequately describe the nature and scope of macroeconomics. As Edward Shapiro puts it, "Macroeconomics attempts to answer the truly "big" questions of economic life-full employment or unemployment, capacity or undercapacity of production, a satisfactory or unsatisfactory rate of growth, inflation or price-level stability." In short, macroeconomics gives bird's eyeview of the economic system as a whole. It examines the forest, not the trees. It is concerned with the basic problem of the determination of the flow of income. The basic theoretical structure is the model of the circular flow of income in the economy.

Importance of Macroeconomics

Prof. J.K. Mehta feels that so long as men live in society, the economist cannot afford to neglect the study of macro-economy. The theoretical and the practical importance of macroeconomics would be clear from the following arguments:

- 1. Functioning of an Economy. Macroeconomic analysis is of paramount importance in getting us an idea of the functioning of an economic system. It is very essential for a proper and accurate knowledge of the behaviour pattern of the aggregative variables, as the description of a large and complex economic system is impossible in terms of numerous individual items.
- 2. Formulation of Economic Policies. Macroeconomics is of great help in the formulation of economic policies. The days of 'laissez faire' are over and government intervention in economic policies. The days of 'laissez faire' are over and government intervention in economic policies. in economic matters is an accomplished fact. Governments deal not with individuals but with

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4. Understanding and Controlling Economic Fluctuations. Economic and abstract theorising.

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5. Inflation and Deflation. Macroeconomic approach is of utmost importance to 5. Inflation and Deflation and deflation. Different sections of society are analyse and understand the effects of the value of money. Macroeconomic analysis enables us to take certain steps to counteract the adverse influences of inflation and deflation

6. Study of National Income. It is the study of macroeconomics which has brough forward the immense importance of the study of national income and social accounts. In microeconomy such a study was relegated to the background. It is the study of national income which enables us to know that three-fourth of the world is living in abject poverty. Without a study of national income, as a result of the development in macroeconomics; it was not possible to formulate correct economic policies.

7. Study of Economic Development. As a result of advanced study in macroeconomics, it has become possible to give more attention to the problem of development of underdeveloped countries. Study of macroeconomics has revealed not only the glaring inequalities of wealth within an economy but has also shown the vast differences in the standards of living of the people in various countries necessitating the adoption of important steps to promote their economic welfare.

Limitations

Excessive Generalisation. Despite the immense importance of macroeconomics, there is the danger of excessive generalisation from individual experience to the system as a whole. If an individual withdraws his deposits from the bank, there is no harm in it, but if all the people rushed to withdraw deposits, the bank would perhaps collapse.

Excessive Thinking in terms of Aggregates. Again, macroeconomics suffers from excessive thinking in terms of aggregates, as it may not be always possible to get the homogeneous constituents. Prof. Boulding has pointed out that 2 apples + 3 apples = 5 apples is

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Heterogeneous Elements. It may, however, be remembered that macroeconomics Heterous aggregates as consumption, saving, investment and income, all composed of deals with such quantities. Money is the only measuring rod But the value of money itself keeps helerogeneous rendering economic aggregates immeasurable and incomparable in real terms. As on changing, or average of heterogeneous individual quantities lose their significance for accurate economic policy.

pifferences within Aggregates. Under this approach one is likely to overlook the within aggregates. For example, during the first decade of planning in India (from differences, the national income increased by 42%, this, however, doesn't mean that the income of all the constituents— the wage earners or salaried persons—increased by as much as that of of all the control of businessmen. Hence, it takes no account of differences within aggregates.

But these limitations may be taken more in the nature of practical difficulties in formulating meaningful aggregates rather than factors invalidating the immense importance of macroeconomic meanings. With the commencement of Keynes's General Theory and his basic equation Y = C+I, analysis. The study of macroscopy and his basic equation Y = C+I, analysis. In the study of macroeconomics has deepened. Significant 'breakthroughs' in the interest in the study of macroeconomics has deepened. Significant 'breakthroughs' in the computation of national income accounts (the study of which forms the very basis of macroeconomics) prove it beyond doubt that the limitations of macroeconomic studies are not insurmountable.

Social Accounting

The presentation of the national income and expenditure accounts in a form showing the transactions during a given period between the different sectors of the economy is called social accounting. The tabulations are set out in the form of a matrix showing the source of inputs of each sector or part of sector and the distribution of their outputs. The production sector, for instance, shows for an industry how much of its inputs were bought from other home industries, how much it imported and how much it spent on wages, salaries and dividends. At the same time, it shows how much of its output it sold to other industries, how much it exported and how much was consumed by private individuals or the government sector. These transactions of the producers' sector are counterbalanced by corresponding transactions of the other sectors. For example, the personal sector shows the value and source of incomes earned from the producers' sector and others, and the way these incomes are spent on the outputs of the various industries

Much work on the development and analysis of these macro economic statistics for economic or on imports or are saved prediction was undertaken at Cambridge University, U.K. under the direction of Professor I.R. Stone. Later on, Professor W. Loentief has developed the Input-Output Analysis which shows the technical interdependence among the various sectors of an economy. Another branch of social accounting is the Flow-of-Funds Analysis which deals with the financial markets in the economy.

2. CONCEPTS OF NATIONAL INCOME BEFORE KEYNES

The idea of 'national income' has attracted the attention of economic thinkers and policy makers since the inception of Economics. But Keynes showed its importance. We study the views of prominent economists who developed the ideas before Keynes.

Principles of Economics Marshall's views on National Income. Marshall defined national income in his Principles of

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nomics in the following words:

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"The labour and capital of a country, acting and immaterial, including services of all kinds certain net aggregate of commodities, material and immaterial, including services of all kinds certain net aggregate of commodities, material and certain net aggregate of c income or revenue of the country, or the national dividend."1

me or revenue of the country, or the me or revenue of the country, or the me or revenue of the country, or the material income or national dividend is theoretically sound, simple and Marshall's concept of national income makes clear the deen is and Marshall's concept of national income of national income makes clear the deep insight quite comprehensive. A review of his definition of national income makes clear the deep insight quite comprehensive. A review of his definition of national dividend suffers for the supplementary of the supplementary of national dividend suffers for the supplementary of national dividend supplementary of national dividend supplementary of national dividend supplementary of nati quite comprehensive. A review of his definition of national dividend suffers from the which Marshall possessed. However, Marshall's concept of national dividend suffers from the following practical difficulties

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 1. Difficulty in conducting a detailed census of production. It is really correct estimate of the production of all the commodicated and the commodicated are considered as a second conduction of the production of the commodicated are considered as a second conduction of the production of the commodicated are considered as a second conduction of the production of the commodities are considered as a second conduction of the production of the commodities are considered as a second conduction of the production of the commodities are conduction. 1. Difficulty in conducting 1 is really very difficult to make a statistically correct estimate of the production of all the commodities and very difficult to make a statistically correct estimate of the production of all the commodities and very difficult to make a statistically correct estimate of the production of all the commodities and very difficult to make a statistically correct estimate of the production of all the commodities and very difficult to make a statistically correct estimate of the production of all the commodities and very difficult to make a statistically correct estimate of the production of all the commodities and very difficult to make a statistically correct estimate of the production of all the commodities and very difficult to make a statistically correct estimate of the production of all the commodities and very difficult to make a statistically correct estimate of the production of all the commodities and very difficult to make a statistically correct estimate of the production of all the commodities and very difficult to make a statistically correct estimate of the production of all the commodities and very difficult to make a statistically correct estimate of the production of all the commodities and very difficult to make a statistical production of the p very difficult to make a statistically correct every difficult services turned out in a country during a specific services turned out in a country during a specific services turned out in a country during a specific services turned out in a country during a specific services turned out in a country during a specific services turned out in a country during a specific services turned out in a country during a specific services turned out in a country during a specific services turned out in a country during a specific services turned out in a country during a specific services turned out in a country during a specific services turned out in a country during a specific services turned out in a country during a specific services turned out in a country during a specific service services and services turned out in a country during a specific service service services and services services turned out in a country during a specific service service services and services services and services services services and services services services services and services servi and most comprehensive census of production and most comprehensive census of productions in the structure and organisation of to speak of less developed countries where the imperfections in the structure and organisation of to speak of less developed countries where the economies do not permit such a large scale data collection, the conduct of census of production even in advanced countries is not an easy task.
- 2. Difficulty in Aggregation. The aggregation of the outputs of goods and services is also not easy. The different commodities and services constitute heterogeneous statistical units (wheat in tonnes, cloth in metres, cotton in bales, petroleum in gallons and electricity in kilowatts) In this heterogeneity of the units of measurement of outputs the aggregation may be considered much difficult. However, this difficulty is surmountable. If all the physical weights are convened into monetary units, the aggregation no longer poses any problem.
- 3. Difficulty in monetary evaluation of goods and services. There are a number of commodities which are produced but whose output is not evaluated before consumption. A farmer, for instance, retains a part of the tot al produce for self-consumption. This portion of the produce is not evaluated by the normal market operations. Thus even if a higher level of output has been achieved, the amount of marketed produce may remain the same and there fore the estimate of national output cannot be regarded as accurate.
- 4. Double counting. The major difficulty in adopting Marshall's definition was the possibility of double counting of the products. Since industries are related to other industries and since a product has to pass through a number of successive stages of production, there is likelihood of double counting in the aggregate output of the community. The repeated inclusion of the same products at different stages of production is called double counting.

Pigou's views on National Income

Pigou defined the national income or dividend as "that part of the objective income of the community including, of course, income derived from abroad which can be measured in money"?

The Pigovian definition of national income was considered as quite practicable, elastic and convenient. It does not give any rigid concept of national income. According to it, all the goods and services which are transacted in a specific year in exchange of money may be included in the

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National Income National dividend of the country. Pigou's emphasis upon monetary exchange was thus a definite national dividence over the Marshallian concept of national income. In fact, this definition attempted to pallone over the difficulties of measuring national dividend which were inherent in Marshall's definition.

Pigou's definition, however, suffered from the flaw that the distinction between the goods pigou's and those not exchanged for money was artificial. After all, the goods exchanged for money do not differ in kind in any fundamental way from those which are not exchanged lot housewife cooks the meals for her own family, her services do not form a part of marketed. It dividend. But if the same meals are being prepared to be served in a hotel or restaurant, the national dividend a part of it. Similarly, when a house if the national discourse a part of it. Similarly, when a housewife cooks the meals for her own the services are not a part of national dividend but if she also prepares the family means for a paying guest, a part of the services rendered definitely becomes a part of national meals of the housewives in a locality decide to produce the part of national meals for If the housewives in a locality decide to purchase the meals from one another, the dividend call such housewives would form a part of the dividend of all such housewives would form a part of the national dividend. The same thing can services they the well-known illustration given by services of the well-known illustration given by Pigou about the maid servant marrying her be salu according the same services. Since her services will no longer be paid, they become excluded from the national dividend of the country.

Secondly, Pigou's definition of national income is of very limited significance in the poor countries where a very large proportion of goods and services might be exchanged through barter.

Fisher's Views on National Income

Fisher made a very significant departure from the line followed by Marshall and Pigou. He adopted the level of satisfaction as the basis for measurement of national income in place of the stock of goods and services produced during a year. In his words, "... the national dividend or income consists solely of services as received by ultimate consumers, whether from their material or from their human environments. Thus, a piano or an overcoat made for me this year is not a part of this year's income but an addition to capital. Only the services rendered to use during this year by these things are income." This definition gave a new perspective to the concept of national income as it measured the welfare of the community rather than its economic performance in respect of the production of goods and services. But adoption of this approach makes objective measurement of national income much more difficult. The measurement of income through goods and services is much more specific and meaningful than that through the flow of subjective satisfaction. The difficulties might be aggravated by the durable goods for which the measurement of the spread of satisfaction over time cannot be easily determined.

Keynes's Concept of National Income

While explaining the concept of national income, Keynes made a departure from the earlier thinking on the concept. Throught the idea of circular flow of income, he held that national income in another name of national expenditure. He adopted an approach which helped in the aggregative analysis of income and employment. Keynes had suggested three approaches to national income in his book known as The General Theory. 1. Aggregate expenditure (on consumption and investment goods) Approach.

- 2. Factor incomes approach.
- 3. Sale proceeds minus cost approach.

1. The Aggregate Expenditure Approach. Keynes had explained the aggregate through the following algebraic relation

expenditure approach through the following algebraic relation

Here A stands for aggregate sale proceeds received by all the entrepreneurs in the community of aggregate purchases made by the entrepreneurs from other entrepreneurs and other entrepreneurs. Here A stands for aggregate sale proceeds received the entrepreneurs from other entrepreneurs and the community and A₁ is the amount of aggregate purchases made by the entrepreneurs and other intermediates. Here A stands for aggregate purchases made by the amount of aggregate purchases made by the amount of aggregate purchases made by the consumer and A_1 is the amount of aggregate purchases made by the consumer the purchases are in the form of raw materials, tools, equipments and other intermediate. These pur chases are in the form A what remains is the purchases made by the consumer and the purchases are in the form A what remains is the purchases made by the consumer. and A_1 is the amount of the form of raw materials, the purchases made by the consumers from products. If A_1 is deducted from A what remains is the purchases made by the consumers from products. the entrepreneurs or consumer's outlay. ntrepreneurs or consumer's outray.

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G'-B' is the net value of the capital good and improvement while G' period before any expenses are incurred on the maintenance and improvement while G' is the period before any expenses are incurred of the current production period. Thus G' - B' = G' actual value of capital equipments at the end of the current production period. In order to maintain the current production period. actual value of capital equipments at the cital of the country actual value of capital equipments at the cital of the country is the capital consumption during the current production period. In order to maintain the country is the capital consumption by an equivalent amount of investigation of the country is the capital consumption by an equivalent amount of investigation of the country is the capital consumption by an equivalent amount of investigation of the country is the capital consumption of the country is the capital consumption of the capital cons is the capital consumption during the current processing the country's capital intact, it is essential to offset this capital consumption by an equivalent amount of investment capital intact, it is essential to offset this capital consumption by an equivalent amount of investment capital intact, it is essential to offset this capital consumption by an equivalent amount of investment in the current period was only capital intact, it is essential to offset this superior in the current period was only enough in G is just equal to (G'-B'), it shows that investment in the current period was only enough in offset capital consumption. If O (consumption in O) (consumptin in O) (consumption in O) (consumption in O) (consumption in O) period falls short of the amount necessary G exceeds (G'-B'), there is some positive investment exceeding the amount required for depreciation etc.

Thus $(A - A_1)$ shows consumers' outlay and (G'-B'-G) represents net investment outlaw So the components of income can be written as

$$(A - A_1) + (G' - B' - G) = Y$$

Consumption + Investment = National Income

2. The Factor Income Approach. Keynes' second approach to national income is in terms of the incomes received by all the factors of production. He has expressed the national income aggregate as the sum of the receipts of factors of production like land, labour and capital plus the earnings or profits accruing to the entrepreneurs i.e.

$$Y = F + E_p$$

where F denotes payments received by land, labour and capital and E_p shows the entrepreneural

3. The Sale-proceeds minus Cost Approach. Keynes's third approach to national income is based on aggregate sales minus cost. The view implies that national income of a community lies somewhere between the gross national product and the net national product National income falls short of GNP but exceeds NNP. Keynes does not deduct the whole of depreciation and replacement cost, but only a part of it which he terms 'user's cost.'

User's cost constitutes the difference between the depreciation in the value of capital assets when these are used and the depreciation which would occur if these were allowed to remain idle plus the amount spent on their maintenance. We illustrate the concept of user cost through a numerical example. Let us suppose that a plant worth Rs. 1 lakh suffers a depreciation to the extent of Rs. 20,000 during the process of production in a year. Had the plant not been put to operation, even then the depreciation would have occurred due to disuse and rusting etc. We suppose that the plant depreciates by Rs. 4,000 and during the year Rs. 1,000 are spent on the unkeep of the plant. The user's cost is 1,000 and during the year Rs. 1,000 are spent on the upkeep of the plant. The user's cost in this case amounts to Rs. 1,000 are spent = Rs. 15,000. National Income

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National Income of the user's cost thus calculated for all the individual business units is aggregated, it will If the user the aggregate users cost Keynes observed that the income of the community can be determine by deducting user's cost from the aggregate sale proceeds. determine the aggregated, it will determine the aggregate by deducting user's cost from the aggregate sale proceeds. Income is denoted as Y = A - U

$$Y = A - U$$

This concept of income is a significant correlate of the level of employment. However, its This consumption. For estimation of net national and decision about how much should be spent on consumption. For estimation of net national income, it is necessary to deduct the be spent of costs also from A - U. Thus net national income is Y = A - U.

$$Y = A - U - V$$
$$Y = A - (U + V)$$

In the process of production, the entrepreneurs face two types of losses e.g. (1) involuntary and unexpected losses and (ii) involuntary and not unexpected losses. The former losses are of and unexpected losses. The former losses are of the nature of windfall losses which occur on account of uncertain and uncontrollable factors. the nature of the type of destruction due to fire or sinking of cargo ship etc. Such losses are The latter less anticipated by the entrepreneurs. The expenses incurred for such losses are debited note of the business account. The costs incurred to off-set the involuntary but not unexpected losses to the fivoruntary but not unexpected losses are, according to Keynes, the supplementary costs (V) which must be included in user's cost so are, acceptance of the total cost. By deducting user's costs plus supplementary costs from as to the aggregate sales, the net national income of the community can be estimated

Keyner's General Theory revolutionised the field of national income analysis. Gradually, after 1936, a system of national income accounting has been evolved which we discuss now.

3. CONCEPTS OF NATIONAL INCOME AND THEIR

INTERRELATIONSHIP

Macroeconomics works with aggregates. The central variable in it is 'income' which is very often called National Income. This concept is as much debated as it is popular. According to Prof. Samuelson, "It is the loose name we give for the money measure of overall annual flow of goods and services in an economy. National income is the sum total of all labour and property income earned in producing the national output." The National Income Committee appointed in India in 1948 expressed the concept in the simplest possible terms. "A national income estimate measures the volume of commodities and services turned out during a given period counted without duplication." That national income is a moncy measure of the final goods and services produced in a country is also stressed by Simon Kuznets: "It is the net output of commodities and services flowing during the year from the country's productive system in the hands of the ultimate consumers or into the net addition to the country's capital goods.

In national income accounting, different concepts of aggregate income are suitable for different purposes. Therefore, many different concepts of the net annual output are estimated. We explain them as under:

Gross National Product (GNP)

It is the total value of all final goods and services produced in the economy in one year. In the words of W.C. Peterson, "Gross National Product may be defined as the current market

value of all goods and services produced by the economy during an income period. While value of all goods and services produced by the economy during an income period. While value of all goods and services produced by the economy during an income period. While value of all goods and services produced by the economy during an income period. While value of all goods and services produced by the economy during an income period. While value of all goods and services produced by the economy during an income period. value of all goods and services produced by the economy data income period." White calculating national income in the form of GNP. We face the problem of double counting when the calculating national income in the bread prepared from that wheat. may count the wheat on well as the bread prepared from that wheat.

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es added.

The 'value added' method and the 'final products' method give the same results. While the The 'value added' method and the line process the 'final products' while the former takes into consideration the flow of output past each process the 'final products' method former takes into consideration the flow of output past each process the 'final products' method former takes into consideration the now of coupling and the end of a given period, with suitable counts the quantity of commodities which are delivered at the end of the period. The suitable counts the quantity of commodities which are delivered at the end of the period. counts the quantity of commodities which are defined and the end of the period. The 'value adjustments for the goods still in transit at the beginning procedures because every 5 adjustments for the goods still in transit at the organized procedures because every firm records added' method is in line with normal business accounting procedures because every firm records added' method is in line with normal business accounting procedures because every firm records added method is in line with hornar of materials used. The 'final products' method is beset with the value of its output and the value of actual output in consumer's goods and a number of difficulties in that it requires a division of actual output in consumer's goods and a number of difficulties in that it requires is a ready measure of national production capacity for producer's goods. GNP at market. Prices is a ready measure of national production capacity for use in an emergency.

Net National Product (NNP)

When we subtract depreciation charges for renewals, repairs and obsolescence from the GNP we obtain the Net National Product at market prices. Thus :

GNP at MP - Depreciation = NNP at market prices

Depreciation means the loss of value suffered by nation's stock of fixed capital (building machinery, equipment etc.) through wear and tear. The problem of valuing the depreciation of the capital stock is one of the most troublesome in the field of national income accounting. The convention has been to accept business records as a measure of depreciation without attempting to rework the estimates in terms of current replacement cost. Thus not national product means the market value of all final goods and services after providing for depreciation. The great ment of the concept of NNP is that it clarifies the net increase in total production over and above current consumption and current replacement investment. It signifies the long run improvement in physical productivity of capital. The concept of NN -P has the great advantage of telling us the net increase in total product. It stresses the long-term significance of maintaining the productive capacity of the economy. As such it is extremely useful in the study of economic growth.

Net National Income at Factor Cost

For judging the incomes received by the people of a country, we need the estimate of NNP at factor cost. It is the sum-total of all income payments made to the factors of production. The sum total of goods and services in a year is produced by the cooperation of the factors of

National Income production and as such proud national income production or by person prount form of wages at factor cost are as fo (1) All wages, se

services rendered, plus including imputed pay kinds of business, inch men like lawyers, net profits and corporate

Minus (5) Tran is made in return. I services, but transfer to another like intere and old age pension income as determin

The Relation Factor Cost

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Indirect Market prices. Go by the Governme cloth etc. Thus th production by the income actually producing a cert rents, interest ar is sold in the n made to factors market price or

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at factor cost.

^{1.} Subsidy is

te period." While ible counting. We One is to count and services are are meant to be ple counting is to value added in a uts from the total all the processes value of imports industries using

ples of Economics

from the sum of esults. While the products' method od, with suitable riod. The 'value ery firm records od is beset with ner's goods and tion capacity for

scence from the

apital (building, reciation of the ecounting. The hout attempting product means The great merit over and above n improvement ge of telling us the productive c growth.

timate of NNP roduction. The the factors of National and as such their money value is also distributed among the factors of production.

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production and as such their money value is also distributed among the factors of production. production and income may also be regarded as the total or incomes received by the factors of production. Hence, nation of by persons supplying the services or resources used in production. These payments production of wages, rent, interest and profits. Thus the chief constituents of national income at factor cost are as follows:

(1) All wages, salaries and supplementary incomes earned by employees against productive services rendered, plus (2) Interest paid to private individuals plus (3) Net rents of all individuals; services letter imputed payments like the rents of self-occupied houses plus (4) Net Profits of all individuals; including the income of individual beautiful the individual beautiful the individual beautiful the individual bea including the income of individual business like farmers, partnerships, professional kinds of business like farmers, partnerships, professional men like lawyers, net earnings of joint stock companies comprising dividend payments, undistributed profits and corporate taxes.

Minus (5) Transfer Payments. i.e., those income payments for which no productive service is made in return. In other words, these represent no payments for production of goods and is made services, but transfer of income through state or a similar public body from one set of individuals services, services, but the interest paid on national debt, social security payments (e.g., unemployment benefit and old age pensions) etc. These Transfer Payments must be deducted from the total national income as determined by adding the total payment made to the factors of production

The Relation between NNP at Market Price and National Income at Factor Cost

In national in accounting, the study of this relation is important. Three terms used here must be well understood.

Indirect Taxes. The phrase 'at factor cost' is to be contrasted with the phrase at Market prices. Goods produced are sold at market prices which include the indirect taxes imposed by the Government. Indirect taxes are levied on commodities, such as excise duty on beer and cloth etc. Thus the market value of the national product exceeds the income paid to the factors of production by the amount of indirect taxes. Hence, net national income at factor cost shows the income actually received by the factors of production. Let us presume that the actual cost of producing a certain output is Rs. 100 which is given to different factors of production as wages, rents, interest and profits. The Government imposes taxes worth Rs. 25 on this output so that it is sold in the market for Rs. 125. This is the market price of output, while income payments made to factors of production amount to Rs. 100 only. Thus, from the money value of NNP at market price or NNI we deduct the amount of indirect taxes to arrive at the net national income at factor cost.

NNP at MP - Indirect Taxes = Net National Income at Factor Cost.

Subsidy1. On the other hand, a subsidy causes the market price to be less than the factor cost. Subsidy is an aid in money. Suppose handloom cloth is subsidized at the rate of 10 paise per yard and sells at 90 paise per yard. Thus, while the consumer pays 90 paise per yard the factors of production will receive Re. I per yard. The money value of cloth at factor cost would be equal NNI at Factor Cost = NNI at MP plus Subsidies minus Indirect Taxes. to its market price plus the subsidies paid on it.

^{1.} Subsidy is a kind of financial help given by the government.

Government Surplus. Sometimes Governments render productive services and cannot be deducted before we can be serviced by the Government must be deducted before we can be serviced by the Government must be deducted before we can be serviced by the Government must be deducted before we can be serviced by the Government must be deducted before we can be serviced by the Government must be deducted before we can be serviced by the Government must be deducted before we can be serviced by the Government must be deducted before we can be serviced by the Government must be deducted before we can be serviced by the Government must be deducted before we can be serviced by the Government must be deducted before we can be serviced by the Government must be deducted before we can be serviced by the Government must be deducted before we can be serviced by the Government must be deducted before we can be serviced by the Government must be deducted before we can be serviced by the Government must be deducted before we can be serviced by the Government must be deducted before we can be serviced by the Government must be deducted before we can be serviced by the Government must be deducted by the Governmen Government Surplus. Sometimes Government must be deducted before we can find profits. These profits or surplus earned by the Government must be deducted before we can find profits. These profits or surplus earned by the Government treasury and the profits of profits. profits. These profits or surplus earned by the Government treasury and, therefore, out Net national Income at Factor Cost because these profits do not go to factors of production out Net national Income at Factor Cost because these profits do not go to factors of production out Net national Income at Factor Cost because these profits do not go to factors of production out Net national Income at Factor Cost because these profits do not go to factors of production out Net national Income at Factor Cost because these profits do not go to factors of production out Net national Income at Factor Cost because these profits do not go to factors of production out Net national Income at Factor Cost because these profits do not go to factors of production out Net national Income at Factor Cost because these profits do not go to factors of production out Net national Income at Factor Cost because these profits do not go to factors of production out Net national Income at Factor Cost because these profits do not go to factors of production out Net national Income at Factor Cost because these profits do not go to factors of production out Net national Income at Factor Cost because the government treasury and the profits of the pr profits. These profits of surprise of surprise profits of production out Net national Income at Factor Cost because these profits of production out Net national Income at Factor Cost because these profits of production out Net national Incomes but are deposited in the government treasury and, therefore, must be in the form of incomes but are deposited in the government treasury and, therefore, must be in the form of incomes but are deposited in the government treasury and, therefore, must be in the form of incomes but are deposited in the government treasury and therefore, must be in the form of incomes but are deposited in the government treasury and therefore, must be in the form of incomes but are deposited in the government treasury and therefore, must be in the form of incomes but are deposited in the government treasury and therefore, must be in the form of incomes but are deposited in the government treasury and therefore, must be in the form of incomes but are deposited in the government treasury and the government treasury are government treasury and the government treasury and the government treasury and the government treasury and the government treasury are government to the government treasury and the government treasure and the government treasure are government to the government tre in the form of incomes but are ucposite deducted Having understood these terms we now state the relation as under :

cted Having understood these terms we subsidies minus Indirect Taxes and Government NNI at Factor Cost = NNI at MP plus Subsidies minus Indirect Taxes and Government

In addition to the concept of net national income it is useful to have some idea of contain earned profits.

In addition to the concept of net national income particular purposes. Important amongst other income concepts which are required for some particular purposes. Important amongst these are the following

Personal Income

Ultimately, the welfare of the people of a country depends upon their personal incomes to the people of a country depends upon their personal incomes to the people of a country depends upon their personal incomes to the people of a country depends upon their personal incomes to the people of a country depends upon their personal incomes to the people of a country depends upon their personal incomes to the people of a country depends upon their personal incomes to the people of a country depends upon their personal incomes to the people of a country depends upon their personal incomes to the people of a country depends upon their personal incomes to the people of a country depends upon their personal incomes to the people of a country depends upon their personal incomes to the people of a country depends upon their personal incomes to the people of a country depends upon their personal incomes to the people of a country depends upon their personal incomes to the people of a country depends upon t People pay income taxes out of it. Personal Income is the total of incomes received by all People pay income taxes out of it. Persons and salaries, interest rent and dividends received by all persons from all sources, it consists of wages and salaries, interest rent and dividends received by all persons from all sources, it consists of wages and salaries, interest rent and dividends received by all persons from all sources, it consists of wages and salaries, interest rent and dividends received by all persons from all sources, it consists of wages and salaries, interest rent and dividends received by all persons from all sources, it consists of wages and salaries, interest rent and dividends received by all persons from all sources, it consists of wages and salaries. persons from all sources; it consists of regular to the consists of received by individuals including the corporate bodies (like clubs and churches treated as collective persons) by individuals including the corporate bodies (like clubs and churches treated as collective persons). by individuals including the corporate bother than the persons such as farmers, shopkeepers and it also includes mixed incomes of self-employed persons such as farmers, shopkeepers and It also includes mixed incomes of some public authorities by persons, such as pensions barristers, and all transfers received from public authorities by persons, such as pensions barristers, and all transfers received the peristons unemployment benefit, family allowances, etc. Personal income is thus equal to national income minus the undistributed profits of companies and public enterprises plus transfer payments received by persons. The difference between 'national income' and personal income is that transfer payments while excluded from 'national income' are included in personal income. The steps involved in calculating personal income may be shown as follows:

National Income

less Corporate profits

less Employer contributions for social insurance

plus Govt. Transfer payments

plus Business Transfer payments

plus Net interest paid by government

plus Interest paid by consumers

plus Dividends

less Employee contributions for social insurance

Equals PERSONAL INCOME

Disposable Income

Personal income as defined above is not the income over which persons have complete command to spend, to save or to give away in any manner they like. Income tax, national insurance contributions are obligatory payments which must be deducted to obtain what may be called Personal Disposable Income. Even in this income are included contributions like pension. fixed commitments like the hire-purchase instalments which further go to reduce the personal

National Income Disposable personal incom Income. These personal taxes profession tax. Disposable Inco

The concept of Disposab goods and services for person goods the concept is helpful in forec

THE TWO WAYS OF

There are two different the expenditures involved in expenditures approach. The the production of the GNP. The of GNP. A closer analysis o

GNP can be determine output, or by summing up Putting this in the form of a

Expenditure on a parti of that year's output

As a matter of fact, incomes are actually two a to those who have contribut and placed in the market.

For the economy as table. The summary statem are purchased either by th by foreign nations. It also sale of total output are a and profit income.

Table 26.

Output or expenditu

Consumption expendit plus

Investment expenditur plus

Government purchase plus

Expenditures by forei

ciples of Economics c services and carn before we can find actors of production therefore, must be

s and Government

ome idea of ecrtain Important amongsi

personal incomes es received by all dividends received collective persons). shopkeepers and such as pensions, o national income payments received e is that transfer ncome. The steps

have complete e tax, national n what may be is like pension, e the personal

National Income

pisposable personal income is thus obtained by deducting personal taxes from the Personal Disposable Income consists of personal outlant and profession tax. Disposable Income consists of personal outlays and personal saving

Disposable Income = Personal Income - Personal Taxes

= Personal consumption + Personal saving.

The concept of Disposable Income is especially useful in estimating the likely demand for The colors and services for personal use by individuals. In times of national emergency and scarcity, goods and scar the gap between available supplies and likely demands.

THE TWO WAYS OF LOOKING AT GNP

There are two different ways of looking at GNP. One is to look at GNP as the sum of all the expenditures involved in taking that total output of the market. This is called the output or the expenditures approach. The other is to look at it in terms of the income derived or created from expenditures of the GNP. This is called the earnings or allocation approach to the determination of GNP. A closer analysis of these two approaches will reveal that they amount to this.

GNP can be determined either by adding up all that is spent on a particular year's total output, or by summing up all the incomes derived from the production of that year's output. Putting this in the form of a simple equation we can say that

Expenditure on a particular year's output = The money income derived from the production of that year's output

As a matter of fact, this is more than an equation. It is an identity. Expenditures and incomes are actually two aspects of the same transaction. What is spent on a product is income to those who have contributed their human and property resources in getting that product produced and placed in the market.

For the economy as a whole we can expand the above identity to read as in the following table. The summary statement simply tells us that all final goods produced in the Indian economy are purchased either by the three domestic sectors - households, government and businesses - or by foreign nations. It also shows us that the total receipts which businessess acquire from the sale of total output are allocated among the various resources suppliers as wage, rent, interest and profit income.

Table 26.1. The Income and Output Approaches to GNP

Table 20.1. The	Incomes Approach
Output or expenditure approach	Wages
Consumption expenditure by households.	plus
nlue	Rents
Investment expenditures by business	plus = GNP = Profits
Government purchases of goods and services	-his
plus	Non-income charges or allocations
Expenditures by foreigners	

4. THE CIRCULAR FLOW AND NATIONAL INCOME

MEASUREMEN1

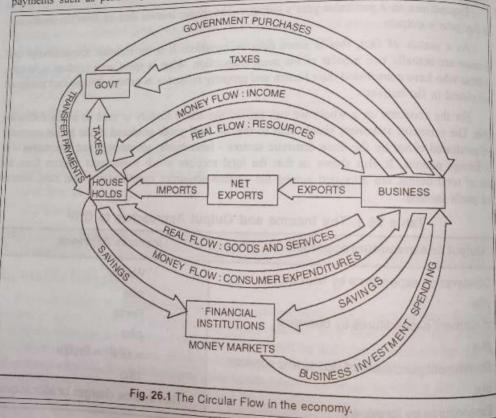
The value of an economy's total output can be measured in three ways. These three mellocal three total output. The following figure shows the flower than a figure shows the flower three total output. The value of an economy's total output can be included. The following figure shows the flow give the same value of the economy. It helps us in understanding of the economy. The three streams flow sod The value of an economy's total output. The three streams flow sode by side income and expenditure in a simple model of the economy. It helps us in understanding the income and expenditure and output. The three streams flow sode by side the streams flow sode streams flow sode the streams flow sode s give the same value of the same walter in a simple model of the economy. The three streams flow sode by side the identity of aggregate income, expenditure and output. The three streams flow sode by side the

the how.

The two main economic agents in the flow diagram are households and firms. The household, the services of which they The two main economic agents in the How diagram. The two main economic agents in the Households are thought of as the owners of factors of production, the services of which they sell to can be thought of as the owners of factors of production, the services of which they sell to can be thought of as the owners of factors of production, the services of which they sell to can be thought of as the owners of factors of production, the services of which they sell to can be thought of as the owners of factors of production, the services of which they sell to can be thought of as the owners of factors of production, the services of which they sell to can be thought of as the owners of factors of production, the services of which they sell to can be thought of as the owners of factors of production. can be thought of as the owners of factors of production, interest, rent and profit in the sell to firms in exchange for income variously called wages, salaries, interest, rent and profit in the firms in exchange for income variously called wages, salaries, interest, rent and profit in the firms in exchange for income variously called wages, salaries, interest, rent and profit in the firms in exchange for income variously called wages, salaries, interest, rent and profit in the firms in exchange for income variously called wages, salaries, interest, rent and profit in the firms in exchange for income variously called wages, salaries, interest, rent and profit in the firms in exchange for income variously called wages. firms in exchange for income variously called wages, all profits are assumed to be distributed simplified model of the economy shown in the diagram, all profits are assumed to be distributed simplified model of the economy shown in the firms use the factors of production to production to product on the firms. simplified model of the economy shown in the diagram, and the distributed simplified model of the economy shown in the diagram, and the factors of production to product to households and not retained by the firms. The firms use the factors of production to product to households and not retained by the firms. The firms use the factors of production to product to households and not retained by the firms. to households and not retained by the firms. The firms are sell to households, the government the various types of goods and services which they then sell to households, the government foreigners and other firms.

Secondly, the diagram given on page 692 shows that the part of household income which is Secondly, the diagram given on page on imports or is taken in taxes by the government not spent on consumption is either saved, spent on imports or is taken in taxes by the government spending include. not spent on consumption is either saved, spent of finance government spending, including transfer.

The government itself uses its tax revenue to finance government spending, including transfer. payments such as pensions, subsidies and grants.



National Income Thirdly, the diagram goods and services in a rebusinesses.

The idea behind this or annual income. The tw

5. MEASUREME

There are three me looked at from three vie three are flows in the which is the aggregate of in any one of the three income; as the national j measured by adding up

Since the volume a fundamental accoun period. It is

Income = Produ National Income

National Incom-Depreciation p

It is clear from the same result which national income. The of production are p people through expe the three facets of

The Product

Also known out the market val We add up the net value-added appr sectors : agricultur and other services by industrial orig factor cost.

The Income

This metho by way of pays national income s of Economics

hree methody the flow of standing the by side, Let

households ey sell to fit. In the listributed produce ernment

which is rament ransfer

Thirdly, the diagram shows that income and expenditure flows are money flows, output of the flow of resources in a real flow. Output is the result of the flow of resources. Thirdly, the diagram snows that income and expenditure flows are money flows, output of and services in a real flow. Output is the result of the flow of resources from households businesses.

The idea behind this diagram is to show to the student that we can measure annual output the income. The two must be equal. The luca. The two must be equal.

5. MEASUREMENT OF NATIONAL INCOME There are three wiew-points: as total output total product can be There are three view-points: as total output, total product or total expenditure. All these looked at from three view-points per period of time. They are three names for the looked at from three view points. as total output, total product or total expenditure. All these three are flows in the economy per period of time. They are three names for the same thing the aggregate output. As Cairneross has written. "The national income three are flows in the country per period of time. They are three names for the same thing three as the aggregate output. As Cairneross has written, "The national income can be looked at which is the aggregate output. As the national income measured by adding an one of the three ways: as the national income measured by adding which is the aggregate output. Os Cauneross has written, "The national income can be looked at which is one of the three ways; as the national income measured by adding up everybody's cuttout." in any one of the date of all the national income measured by adding up everybody's output..., as the national outlay income; as the national outlay adding up the value of all the things that people him and adding up the value of all the things that people him and adding up the value of all the things that people him and adding up the value of all the things that people him and adding up the value of all the things that people him and adding up the value of all the things that people him and adding up the value of all the things that people him and adding up the value of all the things that people him and adding up the value of all the things that people him and adding up the value of all the things that people him and adding up the value of all the things that people him and adding up the value of all the things that people him and adding up the value of all the things that people him and adding up the value of all the things that people him and adding up the value of all the things that people him and adding up the value of all the things that people him and adding up the value of all the things that people him and adding up the value of all the things that people him and adding the people him the pe income, as the national put the value of all the things that people buy and adding in their saving."

Since the volume of flows in a particular period of time must equal, we can closely define Since the volume identity which applies to a hypothetical economy in a particular a fundamental accounting identity which applies to a hypothetical economy in a particular

period. It is

= Expenditure on product or, more formally, Income = Product

= Net National Product National Income

= Expenditure on net national product, and also,

Expenditure Gross National Income = on gross National product.

It is clear from this fundamental identity that the measure of national income must give us the same result whichever the way we adopt. We explain below the three methods of measuring national income. The three methods measure the same flow. When production takes place, factors of production are paid. There is an income flow and an output flow. Output is purchased by people through expenditures which give rise to income. Thus income, output and expenditure are the three facets of the same coin.

The Product Method

Also known as the Inventory method or Commodity service method, it consists in finding out the market value of all final goods and services produced in a country during a given period. We add up the net production of all the 'industries' in the economy. For this we either adopt the value-added approach or the final goods approach. We find out the value added in different sectors: agriculture, mining, manufacturing, transportation, trade, finance, government, professional and other services. The total of these would give us net domestic product at factor cost classified by industrial origin. By adding net income from abroad to this total we get net national income at factor cost.

The Income Method

This method consists in adding together all the incomes accruing to the factors of production by way of payments in the form of wages, rents, interest and profits. The method gives us national income according to distributive shares.

The most important income share is that of labour. Labour is variously paid in the form of the most important income share is that of labour. Labour is variously paid in the form of the most important income share is that of labour. Labour is variously paid in the form of the most important income share is that of labour. Labour is variously paid in the form of the most important income share is that of labour. Labour is variously paid in the form of the most important income share is that of labour. Labour is variously paid in the form of the most important income share is that of labour. Labour is variously paid in the form of the most important income share is that of labour. Labour is variously paid in the form of the most important income share is that of labour. Labour is variously paid in the form of the most important income share is that of labour. Labour is variously paid in the form of the most important income share is that of labour. The most important income share is that of labour. Each of labour the form of the most important income share is that of capital rentals. To arrive at this we know wages, salaries, supplements, compensations and in kind also. All these payments when aggregate wages, salaries, supplements, compensations and in kind also. All these payments when aggregate wages, salaries, supplements, compensations and in kind also. All these payments when aggregate wages, salaries, supplements, compensations and in kind also. All these payments when aggregate wages, salaries, supplements, compensations and in kind also. All these payments when aggregate wages, salaries, supplements, compensations and in kind also. All these payments when aggregate wages, salaries, supplements, compensations and in kind also. The most important incompensations and in kind disc. The most important incompensations are incompensations and in kind disc. The most important incompensations are incompensations and in kind disc. The most important incompensations are incompensations and in kind disc. The most important incompensations are incompensations and in kind disc. The most important incompensation in the most important i wages, salaries, supplements, the second share is that of capital of corpora -tions, profits we have give us the share of wages. The second share is that of capital of corpora -tions, profits we have to find out the net interest, rent, dividends, undistributed profits of corpora -tions, profits capital to find out the net interest, rent, dividends, undistributed profits of corpora -tions, profits capital to find out the net interest, rent, dividends, undistributed profits of corpora -tions, profits capital to find out the net interest, rent, dividends, undistributed profits of corpora -tions, profits capital to find out the net interest, rent, dividends, undistributed profits of corpora -tions, profits capital to find out the net interest, rent, dividends, undistributed profits of corpora -tions, profits capital to find out the net interest, rent, dividends, undistributed profits of corpora -tions, profits capital to find out the net interest, rent, dividends, undistributed profits of corpora -tions, profits capital to find out the net interest, rent, dividends, undistributed profits of corpora -tions, profits capital to find out the net interest, rent, dividends, undistributed profits of corpora -tions, profits capital to find out the net interest, rent, dividends, undistributed profits of capital to find out the net interest. give us the share of wages, rent, dividends, undistributed problems, profits earned to find out the net interest, rent, dividends, undistributed problems to find out the net interest, rent, dividends, undistributed problems to find out the net interest, rent, dividends, undistributed problems to find out the net interest, rent, dividends, undistributed problems to find out the net interest, rent, dividends, undistributed problems to find out the net interest, rent, dividends, undistributed problems to find out the net interest, rent, dividends, undistributed problems to find out the net interest, rent, dividends, undistributed problems to find out the net interest, rent, dividends, undistributed problems to find out the net interest, rent, dividends, undistributed problems to find out the net interest, rent, dividends, undistributed problems to find out the net interest, rent, dividends, undistributed problems to find out the net interest, rent, dividends, undistributed problems to find out the net interest, rent, dividends, undistributed problems to find out the net interest, rent, dividends, undistributed problems to find out the net interest, rent, dividends, undistributed problems to find out the net interest of problems to find out the net in by state enterprises and cooperatives. Then the third shaded the shares are added to the shares are ad which may consist of wages, rem, indicated it we get Gross National Income, net national income. Adding depreciation to it we get Gross National Income,

Gross National Expenditure Method

This method involves the addition of personal consumption expenditures, gross private This method involves the addition of personal services and net foreign investment, of goods and services and net foreign investment. The domestic investment, state purchase of goods and services and net foreign investment. The domestic investment, state purchase of goods and depreciation from it gives NNP at market prices. Deducting depreciation from it gives NNP at market aggregate gives GNP at market prices taxes gives us net national income at factor cost aggregate gives GNP at market prices. Further deduction of indirect taxes gives us net national income at factor cost,

s. Further deduction of induced and the second types of statistics. Product method requires The three methods given above need different types of statistics. Product method requires The three methods given above need output. Income method can use personal taxes data a census of manufactures and agricultural output. Expenditure method requires extensions a census of manufactures and agricultural constraints of different enterprises. Expenditure method requires extensive family, and the financial statements of different enterprises. Expenditure method requires extensive family. and the financial statements of different control and the financial statements of different cont budget data. In developed economies such a such as the budget data and obtain national income estimates consistent with one another. But in use all the three methods and obtain hatcome in data made available to the government. So a mixed method is used.

6. CALCULATION OF NATIONAL INCOME- DIFFICULTIES

Although all methods are used almost in all countries to calculate national income, yet the calculation is a complex affair and is beset with conceptual and statistical difficulties. Kuznets mentions the following difficulties

- 1. Difficulty of defining the nation. The definition of 'nation' is used in the studies of national income. Na -tional income doesn't only include income produced within the country but also income earned in other countries by way of shipping charges, interest, insurance and banking, minus any payments made to foreign countries. Therefore, the definition of nation goes beyond the political boundaries.
- 2. Non-marketed services. Which kinds of goods and services should be included in national income? Commodities and services having money value are included in the national income but there are goods and services which may have no corresponding flow of money payments. Services performed for love, kindness and mercy and not for money have an economic value but have no money value. The difficulty is whether these services should be included in national income and how to measure their money value. For example, a paid maid servant's services are included in the national income but later when she marries the master, she is not paid any more, though she continues to perform the services. There is, thus, a reduction in the
- 3. Inapplicability of any one method. Another difficulty is regarding the method to be used in the estimation of national income. It is, however, preferred to use the three methods simultaneously depending upon the availability of statistics.
- 4. Which stage to choose. Regarding the stage of economic activity at which national income be calculated, it is agreed that any stage-production, consumption and distribution-may

National Income be adopted depending upon the be adopted as show the economic with the more suitable. the aim to more suitable; if the would be more would be more useful. 5. Paucity of statis

material. This difficulty is no material and sufficient statis reliant the available statistic India, unreliable and incomplete.

6. How to avoid associated with the invent associate material or labour maize worth rupees two h a wholesale dealer, who i calculate it at every stag increase in national incom avoid this difficulty is to consumption.

7. Identificati national income is that c calculation. A person received as interest pay and may be taken either both the categories, ag money from one perso solve this difficulty is incomes minus all tra

8. Self-const is that a substantial consumed directly b sector. The existence income very difficu

9. Multiple calculation of incor The production in and unorganised re

10. Incor people; they are s illiterate and do unreliable. All th rendered difficult find out correct

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nethod requires nal taxes data tensive family. ries, therefore another. But in ernment. So a

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come, yet the lties. Kuznets

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National Income he adopted depending upon the function the national income estimate is expected to discharge. If be adopted dependence of the economic progress and power of the economy, then the production stage be aim is to show suitable; if the aim is to measure the welfare of individuals, then consumption would be more useful,

paucity of statistics. Another important difficulty is the non-availability of statistical 5. Paucity

5. Paucity

This difficulty is not peculiar to under developed countries, but even in advanced countries and sufficient statistics are lacking. According to the National II. material. This difficient statistics are lacking. According to the National Income Committee of the available statistics, specially for agriculture and small-scale incl. reliable and statistics, specially for agriculture and small-scale industries, are extremely ledis, the available and incomplete. unreliable and incomplete.

6. How to avoid double counting. Another difficulty is of double counting usually 6. Notice the inventory method. Double counting implies the possibility of a commodity associated with material or labour being included in national income more than once e.g., a farmer sells like raw material two hundred to a mill-owner, the mill-owner further sells the maize flour to maize worth the maize flour to maize dealer, who further sells it to a retailer and who in turn sells it to consumer, if we a wholesale dealer, who further sells it money value will come to sink he will be sells it to consumer, if we a wholesale at every stage, its money value will come to eight hundred rupees but actually the calculate is a control income has been to the extent of two hundred rupees but actually the increase in national income has been to the extent of two hundred rupees only. The best way to increase in the increase in the calculate only the value of all goods and services that enter into final

7. Identification of transfer payments. Another difficulty in the calculation of national income is that of transfer payments associated with the income method of national income national income method of national income calculation. A person receives income of say Rs. 1,000 per year; part of it may have been calculation received as interest payment on government loans. This part is in the nature of transfer payments received as the income of the individual or of the government. If it figures under and may be taken either as the income of the individual or of the government. If it figures under both the categories, aggregate national income will be unduly inflated. Therefore, the transfer of money from one person or group to another person or group should be avoided. The best way to solve this difficulty is to consider only the disposable income of individuals or groups i.e. personal incomes minus all transfer payments.

8. Self-consumed production. Another difficulty mostly peculiar to backward countries is that a substantial part of the output is not exchanged for money in the market, it being either consumed directly by producers or bartered for other goods and services in the unorganised sector. The existence of a vast unorganised and non-monetised sector makes calculation of national

9. Multiple occupations. As a result of little specialisation of functions a precise income very difficult. calculation of income by industrial origin or by distributive shares is rendered almost impossible. The production in agricultural, and industrial, as a matter of fact in all sectors is highly scattered and unorganised rendering the calculation of national income very difficult.

10. Incorrect statistics. Other difficulties pertain to the social backwardness of the people; they are superstitious. People do not disclose their incomes easily and correctly, they are illiterate and do not keep proper accounts or if at all they keep any accounts, these are highly unreliable. All these difficulties exist in India and the calculation of national income has been rendered difficult in the past. Efforts are, however, being made to solve these difficulties so as to find out correct estimates of national income and per capita income in India.

In view of thse difficulties in national income estimation, the limited Nations has evolved a

methodology of preparing national income accounts.

7. SPECIAL DIFFICULTIES OF NATIONAL INCOME

CALCULATION IN UNDERDEVELOPED ECONOMIES These conceptual and statistical difficulties of national income calculation present themselves the conceptual and statistical difficulties of national income calculation present themselves the conceptual and statistical difficulties in more in under-These conceptual and statistical difficulties of hardon like India. The National Income in under-developed economics like India. The National Income in a more formidable manner in under-developed out the following difficulties in measuring the national in 1949) pointed out the following difficulties that the like the These conceptual and in under-developed economic in a more formidable manner in under-developed economic difficulties in measuring the national lands and the committee (appointed in 1949) pointed out the following difficulties in measuring the national lands are committee (appointed in 1949) account of these difficulties that the National lands are conceptual and the content of Committee (appointed in 1949) pointed out the following difficulties that the National Income income of India. It was primarily on account of these difficulties that the National Income income of India. It was primarily on account, did not adopt any single method; rather to be national income, did not adopt any single method; rather to be national income, did not adopt any single method; rather to be national income, did not adopt any single method; rather to be national income, did not adopt any single method; rather to be national income, did not adopt any single method; rather to be national income, did not adopt any single method; rather to be national income, did not adopt any single method; rather to be national income, did not adopt any single method; rather to be national income. Committee (appointed income of India. It was primarily on account of adopt any single method, rather 'Production Committee, while computing the national income, did not adopt any single method, rather 'Production Committee, while computing the national income, did not adopt any single method, rather 'Production Committee, while computing the national income, did not adopt any single method, rather 'Production Committee, while computing the national income, did not adopt any single method, rather 'Production Committee, while computing the national income, did not adopt any single method, rather 'Production Committee, while computing the national income, did not adopt any single method, rather 'Production Committee, while computing the national income, did not adopt any single method, rather 'Production Committee, while computing the national income, did not adopt any single method, rather 'Production Committee, while computing the national income, did not adopt any single method, rather 'Production Committee, while computing the national income, and the computing the national income, and the computing the national income in the computing the Committee, while computing the national income, that the control of the control of the computing the national income, that the computing the national income is the national income is the computing the national income is the national income is the computing the national income is the national income income is the national income is the national income is t difficulties were as follows:

- 1. Self-consumed, bartered production. A good portion of the produce is hold be being the bartered with the measuring rod of money. It is either a 1. Self-consumed, bartered produce is had brought to the market to be exchanged with the measuring rod of money. It is either consumed brought to the market to be exchanged for other goods and services. Only rough estimated brought to the market to be exchanged for other goods and services. Only rough estimates are directly by the producers or is exchanged for other goods and services. Only rough estimates are directly by the producers or is exchanged the produce. This difficulty is mostly in rural areas in agricultural sector made about this part of the produce. This difficulty is mostly in rural areas in agricultural sector made about this part of the produce. made about this part of the produce. This cannot be placed on the national income figures thus obtained
- 2. No systematic accounts. Large number of producers do not keep any accounts of their produce because most of them are illiterate. They mostly produce for self-consumption of their produce because most of them are not for the market. Thus, the national income estimates are based merely on oral inquiries from these producers and are not dependable as such.
- 3. Multiple occupations. It is very difficult to estimate the national income of India by industrial origin because there is little specialisation of functions; occupational classification is not scientific. People have been found engaged in a number of economic activities simultaneously
- 4. Unreliable, fabricated data. Besides, there are statistical difficulties in computing national income of India. Reliable statistics are not available, if these are available, these are not dependable.
- 5. The underground economy. Many transactions are missed in the calculation of Gross National Product, even though in principle they should be counted. Most illegal transactions are missed unless they are "laundered" into legitimate business. Income that is earned but not reported as income for tax purposes is usually missed, although some adjustments are made in the GDP calculations to take misreported income into account. The part of the economy that should be counted in gross domestic product (GDP) but is not is sometimes called the underground economy

Tax evasion is usually thought to be the major incentive for people to participate in the underground economy. Studies estimate the size of the U.S. underground economy ranging from 5 percent to 30 percent of GDP. This is probably much smaller than the size of the underground economy in most European countries. Estimates of Italy's underground economy range from 10 percent to 35 percent of Italian national income. In India the underground economy estimates range from 30 percent to 40 percent of her GNP. At the lower end of the scale, estimates for

Why should we care about the underground economy? To the extent that gross national income reflects only a part of economic activity instead of a complete measure of what the

National Income economy produces, it is misle economy if people work in the measured if the size of the Secondly, when we compare be missing the considered its In underdeveloped co either lacking, or cover or compilations (like censuses made, therefore, to 'mixed

8. IMPORTANCE

National income is economic situation of a individual as well as the g in one form or another. expenditure. It is the for income and per capita re in the economy. Since the Money' in 1936, ther considerations like the investment. There is a whole. The developmen national income or na importance after the pu national income remain basic to the study of K judged by an increase studies in recent years

- 1. Economic analysis and policy. N economic activity in of the economy and
- 2. Economi long-term and shorthaving a prior know also kept in view th
- 3. Economy the structure of the sectors of the econ learn how income
 - 4. Inflatio figures enable us timely anti-inflatio

the produce is not s either consumed ough estimates are agricultural sector al income figures

keep any accounts self-consumption, ral inquiries from

I income of India al classification is s simultaneously. ties in computing ble, these are not

he calculation of egal transactions earned but not nts are made in e economy that the underground

articipate in the y ranging from the underground my range from nomy estimates e, estimates for

gross national re of what the

National incomposition of the underground economy without reporting this feet and officially produces, where the size of the underground economy without reporting this fact to the government of the size of the underground economy varies between countries. scondly, if the size of the underground economy varies between countries—as it does—we can seed when we compare GNP between countries. For example, India's GNP measured when we compare GNP between countries. For example, India's GNP would be much be misled when the considered its underground sector as part of the economy.

In underdeveloped countries many facts and figures essential for the income method are In underection of the income method are all lacking, or cover only a small proportion of the population. Same applies to statistical lacking (like censuses of production), available in advanced area. other lacking. (like censuses of production), available in advanced economies. Recourse has to be therefore, to 'mixed method', i.e., the combination of inventors and the control of the co compilations (in 'mixed method', i.e., the combination of inventory method and income method.

8. IMPORTANCE OF NATIONAL INCOME STUDIES

National income is generally believed to be the most important single index of the overall National Nat economic structures as well as the government have to maintain the accounts of their incomes and expenditures individual as well as the government have a clear idea of their incomes and expenditures individual as of another. They must have a clear idea of the sources of income and the heads of one form. It is the foremost duty of a welfare government to know the changes in national expenditure of the publication of Kouras' (Constitution of the economic progress income and P. Since the publication of Keynes' 'General Theory of Employment, Interest and in the economy. Since the publication of Keynes' 'General Theory of Employment, Interest and m me to the macro has been a changeover from micro-analysis to macro economic Money considerations like the aggregate national income, national consumption, national saving and investment. There is a shift from the constituent parts of an economy to the economy as a whole. The development of modern macroeconomic analysis was primarily due to the concept of national income or national dividend. As such, national income analysis has assumed great importance after the publication of Keynes' General Theory. Before its publication, the study of national income remained confined to a few academic scholars. The study of national income is basic to the study of Keynesian theory of employment as the total performance of an economy is judged by an increase in income and employment. The growing importance of national income studies in recent years is due to the following reasons

- 1. Economic Policy. National income figures are an important tool of macroeconomic analysis and policy. National income estimates are the most comprehensive measures of aggregate economic activity in an economy. It is through such estimates that we know the aggregate yield of the economy and can lay down future economic policy for development
- 2. Economic Planning. National income statistics are the most important tools for long-term and short-term economic planning. A country cannot possibly frame a plan without having a prior knowledge of the trends in national income. The Planning Commission in India also kept in view the national income estimates before formulating the five-year plans.
- 3. Economy's Structure. National income statistics enable us to have clear idea about the structure of the economy. It enables us to know the relative importance of the various sectors of the economy and their contribution towards national income. From these studies we learn how income is produced, how it is distributed, how much is spent, saved or taxed.
- 4. Inflationary and Deflationary Gaps. National income and national product figures enable us to have an idea of the inflationary and deflationary gaps. For accurate and timely anti-inflationary and deflationary policies, we need regular estimates of national income.

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5. Budgetary Policies. Modern governments try to prepare their budgets within the

5. Budgetary Policies. Modern governments anticyclical policies according to the framework of national income data and try to formulate anticyclical policies according to the framework of national income data and try to formulate framework of national income estimates. Even the taxation and borrowing policies are so framed as to avoid fluctuations in national income.

6. National Expenditure. National Income studies show how national expenditure is

- 6. National Expenditure. National investment expenditure. It enables us to provide divided between consumption expenditure and investment expenditure. It enables us to provide divided between consumption expenditure and its provide for reasonable depreciation to maintain the capital stock of a community. Too liberal allowance of for reasonable depreciation to maintain and unnecessarily lead to a reduction in consumption 7. Distribution of grants-in-aid. National income estimates help a fair distribution
- 7. Distribution of grants of grants in-aid by the federal governments to the state governments and other constituent units
- 8. Standard of Living Comparison. National income studies help us to compare 8. Standard of Living of people in different countries and of people living in the same country at different times.
- 9. International sphere. National income studies are important even in the international sphere as these estimates not only help us to fix the burden of international payments equitably amongst different nations but also enable us to determine the subscriptions and quotas of different countries to international organisations like the U.N.O., I.M.F., I.B.R.D. et c.
- 10. Defence and Development. National income estimates help us to divide the national product between defence and development purposes. From such figures we can easily know how much can be spared for war by the civilian population.
- 11. Public Sector. National income figures enable us to know the relative roles of public and private sectors in the economy. If most of the activities are performed by the state, we can easily conclude that public sector is playing a dominant role.

9. DERIVATION OF REAL NATIONAL INCOME

Real national income is a measure of the goods and services at the disposal of a country for consumption and investment. Changes in real national income register the real change in the country's production. Since national income is commonly measured in money terms, real national income can be obtained from money national income in two ways:

- 1. By estimating national product at some fixed prices. For example, in India, under the revised series of national income accounting, we estimate national income at the
- 2. By using a GNP deflator. In this method, the national income estimates at current sare obtained. These are called partial GND prices are obtained. These are called nominal GNP estimates. Then we select a base year whose price index number we know already. We compare the base year price index and obtain the GNP deflate. year price index and obtain the GNP deflator as follows:

GNP deflator = Current year price index

the GNP deflator is 220/200 = 22/20 = 11/10 = 1.1.

Suppose the current year price index is 220 while the base year price index was 200, then 220/200 = 22/20 = 11/10 = 1.1In order to obtain the real national income we divide the nominal GNP Gaure with the GNP deflator.

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- 2. 9 increase in allowed. E slums, pollu affected. B
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