INDIAN ECONOMY

Key concepts

Sixth edition

Sankarganesh Karuppiah

Mc Graw Hill

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To my
Ammachi (Grandma)

Contents

Foreword

Indian economic development involves a wide range of changes in a variety of economic and social indicators. In this context, the author of the book has provided an introduction to the key concepts of Indian economy covering ten important chapters reflecting Indian perspectives ranging from human development, poverty, unemployment, public finance, money and capital market, trade and capital. Keeping in view of the requirements of the students who appear for various professional and competitive examinations both at the central and state levels, this book has been written in a lucid style, providing informative and interesting contributions on Indian economy. Besides providing multiple choice questions, the author also has given subject index for better clarity, comprehensive and easy reference. Therefore, the book can also be used even by students with no prior knowledge of economic subject. I congratulate K. Sankarganesh for bringing out this timely and useful book at a young age, which shows his commitment and dedication.

Dr. D. Rudrappan M.A., M.Phil., Ph.D.,
Professor of Economics & Development Studies,
Covenant University,Ota,
Ogun state, Nigeria.

Preface to Sixth Edition

At the time of conceptualising this book, a decade back, my aim was to write a book for self study. As I graduated in economics through distance education and learnt economics on my own without attending classrooms, I was confidnet that I could write such a book. The response of the readers of the previous editions shows that my confidence was at the optimum level and not overconfidence.

The second aim was to help the readers read economic news and higher level books rather than giving something in economics on a platter as I believe in the proverb 'give a man a fish and you feed him for a day; teach a man to fish and you feed him for a lifetime'. This aim was also fulfilled as many readers who had the chance to give feedback expressed that they were now able to understand basic concepts related to Indian economy and could read newspapers and higher level books without much difficulty.

The third aim was to write a book which is eternal and would not need update and revision. This aim was on a wrong belief that the basic concepts won't change and are eternal. The concepts related to Indian economy undergo change to be in line with international standards. The changes are followed and updated and additional features are added in this book.

From the first edition, this edition has come a long way. Interaction with the readers helped to make some corrections in the book.

Additional features of the 6th edition

- A new chapter Constitution and Indian Economy is added
- The chapter on Human Development Index is updated based on Human Development Report 2018
- The Chapter on Poverty and Unemployment is revamped based on NSSO reports and other relevant literature
- The tax sharing mechanism in the post GST era is updated and the features of GST Council is added
- Additional concepts like Effective Revenue Deficit, Fiscal Destination vs Origin Principle are added

I thank my personal designer S. Kathiravan and the designer at Insight Publishing Solutions. I thank the Publisher McGraw Hill. My special thanks to M. Karthikeyan of Aram IAS academy and Ridhi Gupta, Assistant Manger, MHE. I thank Ms. Shukti Mukherjee and the content development team consisting Malvika Shah, Gagan Gusai and Sachin Kumar for their continuous support. Above all, thanks to those 75,000 plus readers who read and supported this book.

SANKARGANESH KARUPPIAH

Preface to First Edition

The doubts my friends and I had in economics prodded me to write this book. Though many books in economics and dictionary of economics are available in the market, this book is brought to you to provide the concepts which are essential, relevant to the Indian economy and scattered in many books under one umbrella and to give more clarity to you in economic concepts with some practical examples. This book is also aimed to avoid blind reading. So some of the chapters are a bit technical and go into details of the concept. This book is brought not to ensure high marks in competitive exams but to make your reading of economics in newspapers and books without any aversion to economics and to make the subject a more loved one for you. I hope the purpose of this book will be served to the maximum possible extent.

I extend my sincere thanks to my friends and those who helped me in one or another way to bring out my first book. Muni Raja patiently typed the preliminary draft of the book. He typed it not in a blind manner but improved the style of this book with his suggestions. P. Surendaran had drawn various diagrams and also taught me how to do that. P. Amarnath read the first three chapters of this book meticulously and corrected spelling mistakes. Likewise my friend, Arun Shanker Gorky, helped in proofreading and pointed out

contradictions and missing concepts in this book, which were corrected and included subsequently. The following IRS colleagues also helped in proofreading and gave valuable suggestions - R. Menaka, M Rani Kanchana, Neeju Gupta, K. Rohan Raj, Nithya Durai Raju, Madhusmita Sahoo, Vikram Pagaria, and M. Karthik Manickam. R. Menaka and M. Rani Kanchana gave critical comments which helped in improving the quality of the book. Neeju Gupta and K. Rohan Raj read all the chapters of this book and gave valuable coments. I thank Thiru. R. Ravichandran, Additional Director General, National Academy of Direct Taxes, Nagpur who read the chapter on Capital Market and gave his valuable comments.

I extend my sincere thanks to Prof. Dr. D. Rudrappan who not only wrote an encouraging foreword but also gave valuable inputs in improving the standard of the book. I extend my sincere thanks to Ganesa Subramanian, who encouraged me in writing this book from the start to this day. I also extend my sincere thanks to Kavin Mukhil publications and the production head of Kavin Mukhil Publications, Ganapathy Subramanian, designer S. Kathirava. Last but not the least, my thanks goes to printer D. Krishnakumar as well.

K. SANKARGANESH

How to use this book

The reader need not read this book again and again and by heart it. Simply read the book once or twice and use it as a reference book like a dictionary with the help of the index provided at the back. On account of the dynamic nature of the Indian economy this book has deliberately avoided data as much as possible. Therefore, all the data given is only for the sake of understanding.

Any suggestions can be mailed to indianeconomykey@gmail.com

Keep yourself updated by reading the newspaper.

AUTHOR DISCLAIMER

The views expressed in this book are of the author and in no way reflect the views of the Ministry of Finance, Government of India, where author works.

Abbreviations

ADR	American Depository Receipts
AFC	Asset Finance Company
AMS	Aggregate Measurement of Support
ANBC	Adjusted Net Bank Credit
AoA	Agreement on Agriculture
ARC	Asset Reconstruction Company
ARDC	Agriculture Refinance Development Corporation
BCCT	Banking Cash Transaction Tax
BOLT	BSE Online Trading
BoP	Balance of Payment
BSE	Bombay Stock Exchange
C	Consumption
CAC	Capital Account Convertibility
CAR	Capital Adequacy Ratio
CARDB	Cooperative Agriculture and Rural Development Bank
CD	Certificates of Deposit
CDS	Current Daily Status
CDSL	Central Depository Services Limited
CENVAT	Centralised Value Added Tax
CP	Commercial Paper
CPI	Consumer Price Index

CPI (AL)	Consumer Price Index (Agriculture Labour)
CPI (IW)	Consumer Price Index (Industrial Worker)
CPI (RL)	Consumer Price Index (Rural Labour)
CPI (UNME)	Consumer Price Index (Urban Non-Manual Employees)
CRAR	Capital to Risk Weighted Asset Ratio
CRR	Cash Reserve Ratio
CSO	Central Statistical Organisation
CWS	Current Weekly Status
DCA	Department of Company Affairs
DSB	Dispute Settlement Body
ECB	External Commercial Borrowings
EPF	Employees Provident Fund
ESOP	Employee Stock Option
ESOS	Employee Stock Purchase
FCNR (B)	Foreign Currency Non Resident (Bank)
FDI	Foreign Direct Investment
FI	Financial Institution
FII	Foreign Institutional Investment
FPO	Follow on Public Offering
FRBM	Fiscal Responsibility and Budget Management
FTP	Financial Transaction Plan
G	Government consumption
GATS	General Agreement on Trade in Services
GATT	General Agreement on Trade and Tariff
GDP	Gross Domestic Product
GDR	Global Depository Receipts
GII	Gender Inequality Index
GNI	Gross National Income
GNIE	Government Not Included Elsewhere
GNP	Gross National Product
GPF	General Provident Fund
HDI	Human Development Index
HDR	Human Development Report

HNI	High Net worth Individual
HSBC	Hong Kong Shanghai Banking Corporation
HTM	Held To Maturity
HUF	Hindu Undivided Family
I	Investment
IC	Investment Company
ICOR	Incremental Capital Output Ratio
IDBI	Industrial Development Bank of India
IDR	Indian Depository Receipts
IFCI	Industrial Finance Corporation of India
IHDI	Inequality Adjusted Human Development Index
IIP	Index of Industrial Production
IMF	International Monetary fund
IPO	Initial Public Offering
ITES	Information Technology Enabled Services
LAB	Local Area Bank
LAF	Liquidity Adjustment Facility
LC	Loan Company
LPG	Liberalisation, Privatisation, Globalisation
LIBOR	London Inter Bank Offer Rate
M	Import
ManVAT	Manufacturing Value Added Tax
MAT	Minimum Alternate Tax
MDPI	Multi Dimensional Poverty Index
MFN	Most Favoured Nation
MoA	Memorandum of Association
Mod VAT	Modified Value Added Tax
MRP	Mixed Recall Period Method
MSS	Market Stabilisation Scheme
NABARD	National Bank for Agriculture and Rural Development
NAV	Net Asset Value
NBFC	Non-Banking Financial Company
NDTL	Net Demand and Time Liabilities
NEAT	National Exchange Automated Trading

NHB	National Housing Bank
NNP	Net National Product
NNPFC	Net National Product at Factor Cost
NNPMP	Net National Product at Market Price
NPA	Non Performing Asset
NPISHs	Non-profit Institutions Serving Households
NR (E) RA	Non Resident (External) Rupee Account
NRO	Non Resident Ordinary Rupee account
NSC	National Saving Certificate
NSCCL	National Securities Clearing Corporation of India Limited
NSDL	National Securities Depository Limited
NSE	National Stock Exchange
NSSF	National Saving Scheme Fund
NSSO	National Sample Survey Organisation
NT	National Treatment
NTB	Non Tariff Barrier
OBE	Off- Balance Sheet Exposure
OME	Oil Marketing Enterprise
P	Price
PACS	Primary Agriculture Credit Societies
PD	Primary Dealer
PLB	Poverty Line Basket
PMI	Purchasing Manager's Index
PPP	Purchasing Power Parity
PPP US $	Purchasing Power Parity at US dollar
PSU	Public Sector Undertaking
Q	Quantity
QIB	Qualified Institutional Buyer
RBI	Reserve Bank of India
RRB	Regional Rural Bank
SBI	State Bank of India
SC	Scheduled Caste
SCB	State Cooperative Bank

SDR	Special Drawing Right
SEBI	ecurities and Exchange Board of India
SLR	Statutory Liquidity Ratio
SNA	System of National Accounts
STT	Securities Transaction Tax
ST	Scheduled Tribe
TRIMS	Trade Related Intellectual Measures
TRIPS	Trade Related Intellectual Property Rights
UNDP	United Nations Development Programme
URP	Uniform Recall Period Method
UPS	Usual Principal Status
USD	United States Dollar
VAT	Value Added Tax
WIPO	World Intellectual Property Organisation
WPI	Whole Sale Price Index
WTO	World Trade Organization
X	Export

CHAPTER

1

Introduction to Economics

There are many definitions for Economics. As the subject keeps on evolving, the definition also keeps on evolving. The father of Economics Adam Smith characterised economics as an inquiry into the nature and causes of the wealth of nations.

Thereafter, a lot many economists defined Economics in different ways based on their own research and perception. But none of them are universally accepted. So, it is better to have an idea about economics rather than having a definition.

An Idea About Economics

This is a study that centres on resources. Resources may be abundant or scarce; natural or man-made; monetary or non-monetary.

It is said so for the reason that the horizon of Economics has widened. Economics deals with scarce resources like diamonds and as well as resources like air, which available in plenty. It speaks about the prices of both. It points out the scarce nature of diamond as a reason for its high price and as air is available in plenty it is not priced. Adam Smith in his *Wealth of Nations* observes, "The things which have the greatest value in use have frequently little or no value in exchange; and, on the contrary, those which have the greatest value in exchange have frequently little or no value in use. Nothing is more useful than water: but it will purchase scarce anything; scarce anything can be had in exchange for it. A diamond, on the contrary, has scarce any value in use; but a very great quantity of other goods may frequently be had in exchange for it."[1] He discusses about the exchange value of both water and diamond. The first one is available in plenty, the second one is scarce. So, it is clear that it studies both abundance and scarcity. The causes and effects of inflation that are related to abundance of money as well as scarcity or shortage of goods and services are also studied. From these premises it is clear that Economics studies both scarcity and abundance. But most part of the economic study is devoted to the study of scarcity, as human tendency is to care for scarce resources.

It is stated as a study that centres on resources for the reason that it not only studies resources but also the factors, stake holders involved in creation, extraction and consumption. It deals with the allocation of resources, allocation of factors of production, consumption pattern of factors of production, the motive and aim of factors of production, behaviour of factors of production and consumers and the psychology behind these motives and aims and behaviour and so many other things.

Factors of production refer to the participants in a production process. They are land, labour, capital and entrepreneur. The land is a base to establish the production unit, transportation and sometimes the source of raw material. Labour contributes her might physically and mentally. Capital is used to purchase men and material. An

entrepreneur brings in all other factors of production and puts them in to use, to produce what best can be produced using these. The entrepreneur may be either governmental or private.

A Study Under Controlled Atmosphere

In the technical specifications of a car the mileage of the car is mentioned as, say for example, 22 Kilometres per Litre (KMPL). It means the car runs for 22 kilometres per litre of fuel. But when it is bought and used it may not run 22 km per litre. Have you ever thought why this difference arises? The difference is due to the fact that the 22 KMPL is mentioned after a thorough check under certain laboratory conditions like well-laid road, perfect air pressure in tyre, traffic free atmosphere etc. but in actuality, all the roads are not well laid, the city traffic may be heavy and the air pressure may not be maintained properly all the time. These factors reduce the mileage of the car.

Likewise, certain varieties of seeds yield a high amount of produce in laboratory or in field trial but when it comes to mass scale production by farmers, the yield may not be the same. The reason is difference in atmospheric and other varying conditions of laboratory and field.

The same logic is applicable for Economics. The laboratory conditions are laid in the form of assumptions when it comes to the study of Economics. The economic theories and models are created under specific conditions and assumptions. For example, the demand theory considers that demand for goods and services are based on the level of price for specific goods and services under consideration. It says, if the price is high, the demand for the product is low and vice versa. It is said so because, the theory of demand assumes that other factors that have an impact on demand remain unchanged. But in actuality it is not the case. There are many other factors other than the price that have influence on the demand. The reason for making these assumptions are that the factors considered in theory play a major role

in deciding the outcome of the interplay of these factors. The other things do not have a significant influence but at the same time they cannot be ignored. The second reason for assumption is to simplify the study and build a base theory, based on which a further complicated study can be done by considering all other factors that have impact or influence on the issue under consideration. The assumption of other variables being unchanged is called *Ceteris paribus. The Economic Times* defines *Ceteris paribus* as "This commonly-used phrase stands for 'all other things being unchanged or constant'. It is used in conomics to rule out the possibility of 'other' factors changing, i.e. the specific causal relation between two variables is focused."[2]

In the way in which the laboratory-checked cars and seeds yield less on the field, the economic theories also deliver less in practice as the world is more complicated than what was considered while building economic theories and models. But these economic theories and models do not fail the world as due care is taken while building them and framing them to make them as close as possible to the realities of the world.

Two Main Streams

There are two main streams of Economics. They are Microeconomics and Macroeconomics.

The term 'Micro' is used to indicate something relating to a specific area, rather a general one. The term 'Macro' is used to denote something relating to a general area rather than being detailed or specific. Likewise, Microeconomics studies the specific area of Economics such as individuals, a smaller group like labourers, economics of a firm etc. Macroeconomics studies the economy of a nation as a whole.

The study of demand of individuals, the production function of a

production unit, also known as a 'firm', are covered under Microeconomics. At the same time the study of the demands of the nation, the production or supply level of a nation, the general level of employment etc. are covered under Macroeconomics.

A careful reading of the following table will give clarity on the question as to what is Microeconomics and what is Macroeconomics.

Issue considered	Is it Micro?	Is it Macro?
Quantity of orange demanded by Asstha Mathur	Yes	No
Quantity of orange demanded by North- east India	Yes	No
Quantity of orange demanded by India	Yes	No
Quantity of all products demanded by India	No	Yes
Price of orange in Nagpur	Yes	No
Price level of all products in India	No	Yes
Level of employment in Iron and steel industry	Yes	No
Level of employment in India	No	Yes

This book looks at Indian economy from the macroeconomic perspective, but does not dwell into theoretical aspects. It concentrates on the concepts and its practical implications.

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1 Adam Smith *Wealth of Nations*, Bantam Classic Edition / March 2003, p. 41.
2 http://economictimes.indiatimes.com/definition/ceteris-paribus - the web page accessed on 25.1.2014.

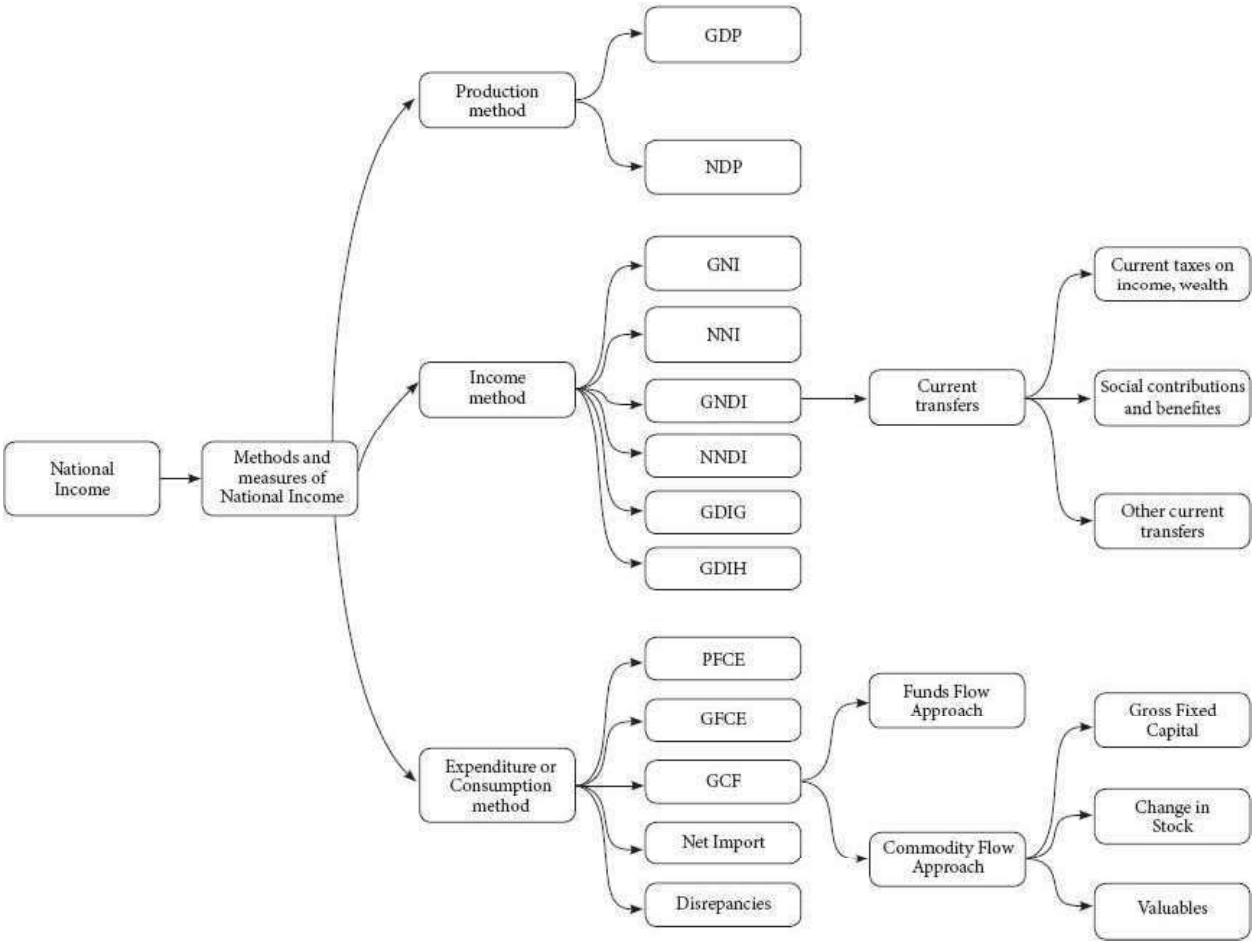
CHAPTER

2

National Income[1]

- Methods and Measures
- Estimates of National Income in India
- Related Terms

Mind Map 2.1



National Income of a country is the total income generated by the residents of a country in its economic territory in a particular period of time usually, one year. This definition of National Income is very generic and not in a strict sense of economics. The growth of National Income helps to know the progress of the country.

This chapter covers the methods of measuring National Income, measures of National Income, and its estimates in India.

National Income - Methods and Measures

There are various estimates of National Income, and each estimate helps in measuring the income from a different perspective. Before learning these methods, it is important to understand the flow of income among various players who take part and contribute to the

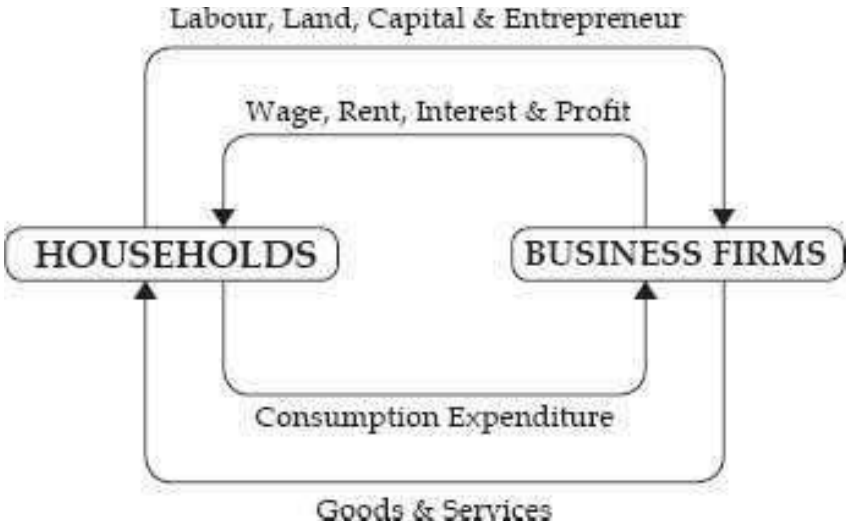
National Income.

There are four players namely, individuals or households, business firms or investors, government and foreign nationals. For the sake of simplicity, we shall consider only the first and second.

The figure 2.1 shows circular flow of income between households and business firms. The upper part shows the supply side of economy and the lower part shows the demand side of the economy.

In the upper part, the households supply factors of production viz., labour, land, capital and entrepreneur to business firms to produce goods and services. In return, the business firms give wage, rent, interest and profit to labour, land, capital and entrepreneur respectively.

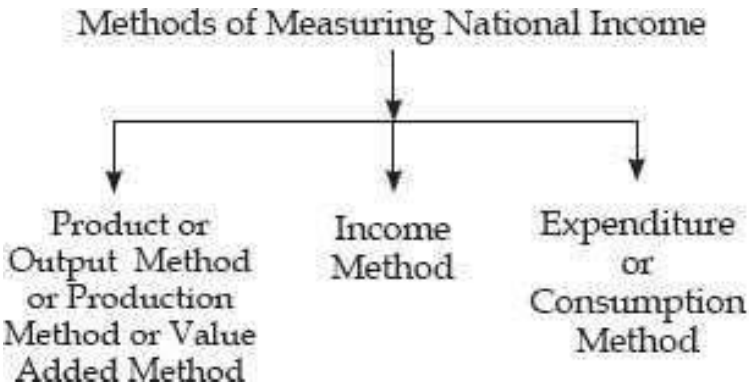
Figure 2.1 A graphical representation of flow of income



The wage, rent, interest and profit are expenditure to business firms but income to households. So, one's income is another's expenditure. Hence, it is evident that the expenditure of one player and the income of another player are equal. So, National Income can be calculated by compiling income of all or expenditure of all. The calculation of National Income by compiling income of household is called **Income Method.**

The bottom of the figure shows the flow of goods and services that are produced by business firms and demanded by the people. For the flow of goods and services produced and supplied by business firms, households pay money. Here, the value of goods and services produced (price × quantity) is equal to the expenditure incurred by households on purchase of those goods and services. Both are equal. So, the National Income can be calculated by calculating the total value of all goods and services or by compiling total expenditure incurred by the people. The former is called **Product Method (or) Output Method (or) Production Method (or) Value added method. The latter is called the Consumption Method (or) Expenditure Method.** This is shown in the following figure 2.2.

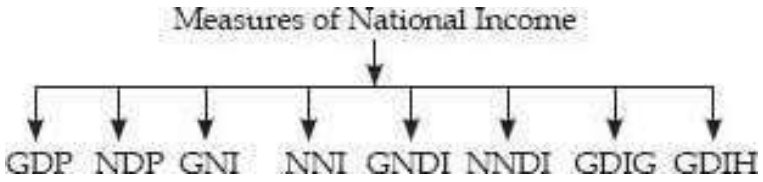
Figure 2.2



The Ministry of Statistics and Programme Implementation, Government of India, introduced a new series of national income estimation in January 2015 guided by the recommendations of the international guidelines on the subject, System of National Accounts (SNA), 2008. Let us call it, shortly, New Series.

As mentioned earlier, there are various measures of National Income. They are similar to one another and shown in the following figure 2.3.

figure 2.3.



Before knowing about GDP and other measures of National Income it is essential to know about two other measures. They are GVA at basic prices and GVA at factor cost.

GVA at basic prices

GVA stands for Gross Value Added. GVA at basic prices is also called GVA at Producer's prices. The term Basic prices is the alternate term to describe Producer's prices. It is different from market prices or buyer's prices. The producer's price is equal to production cost. The buyer's prices over and above producer's prices include product taxes less product subsidies.

Buyer's prices = producer's price + (Product taxes – product subsidies)

The GVA is arrived from output of 11 industries (The 11 industries are listed in box 1.1). The output consists of input material and services which is called intermediate consumption and the value addition made to input material and services to bring it as final goods and services.

Output = Input materials and services + Value added

So to arrive at gross value added the intermediate consumption is deducted from output value. It is in formulaic as below:

GVA at basic prices = Output – Intermediate consumption

Take an example of wheat flour. It is manufactured in industries and is a final product of these industries. Let us take value of 1 kg wheat flour at basic price as `80. So the output is `80. To manufacture wheat flour, wheat and electricity are needed to be used as inputs. Wheat

and electricity are outputs of other industries. Wheat is output of agriculture sector (Sl. No 1 of box 2.1). Electricity is output of electricity, gas, water supply and other utility services sector (Sl. No 4 of box 1.1). They were already accounted as output of those sectors. Hence, they are deducted from output of manufacturing sector to arrive at value addition of manufacturing sector.

Let us assign value to the inputs.

Input value of wheat = ₹20

Input value of electricity = ₹10

Let us calculate gross value added by wheat flour manufacturing industry.

GVA at basic prices = Output – Intermediate consumption

Gross value added by wheat flour manufacturing industry = Output of wheat manufacturing – Inputs of wheat flour manufacturing

50 = 80 – 30

The gross value added by wheat flour manufacturing industry is ₹50.

The value addition is done by entrepreneur or enterprise engaging employees and plant and machinery. The entrepreneur or enterprise, employees and plant and machinery are called **factors of production**. The enterprise or entrepreneur, employees need to be rewarded.

In addition to these factors of production the services of government are being used for which the enterprise needs to pay land revenue, licence fee, etc. These payments to the government are to be made irrespective of the fact whether the production is done or not. These expenditures are called production taxes. At the same time the enterprises receive production subsidy from the government.

Box 2.1

1. Agriculture, forestry and fishing
2. Mining and quarry
3. Manufacturing
4. Electricity, gas, water supply and other utility services
5. Construction
6. Trade, repair, hotels and restaurants
7. Transport, storage, communication and service related to broadcasting
8. Real estate, ownership of dwelling and professional services
9. Public administration and defence
10. Financial services
11. Other services

Please don't memorise this list; just have a look at it

There is a difference between tax on products and tax on production. Tax on product includes taxes like sales tax and excise duty. It is the tax imposed as it was produced and sold. Tax on production refers to tax imposed irrespective of production like licence fees and land tax.

Production taxes or subsidies are paid or received with relation to production and are independent of the volume of actual production. Some examples are:

Production Taxes - Land Revenues, Stamps and Registration fees and Tax on profession.

Production Subsidies - Subsidies to Railways, Input subsidies to farmers, Subsidies to village and small industries, Administrative subsidies to corporations or cooperatives, etc.

The plant and machinery fall under the category of capital asset. It undergoes wear and tear in the manufacturing process and it is a sort of consumption and is called **consumption of fixed capital**.

The reward to employee, entrepreneur or enterprise and consumption of fixed capital is called **factor cost**. All these are expenditures to manufacture wheat flour. All these added together is the value addition done to wheat and electricity. It is the **Gross Value Added** by the wheat flour manufacturing industry.

Gross value added at basic prices = Compensation of Employees (CE) + Operating Surplus / Mixed income (OS/MI) + Consumption of Fixed Capital (CFC) + Production taxes less Production subsidies

The payments made to employees are called **compensation to employees (CE)** and the payments made to enterprises are called **operating surplus or mixed income (OS/MI)**. The machinery and buildings undergo wear and tear which leads to loss in their value. It is called **consumption of fixed capital (CFC)**. The production taxes are taken as net of production subsidies.

Compensation of Employees

Compensation of employees is defined as the total remuneration, in cash or in kind, payable by an enterprise to an employee in return for work done by the latter. It is simply known as the wage and salary paid to workers and employees either in cash or in kind. An example for payment made in kind is agriculture produce given to agriculture labourers.

Operating Surplus or Mixed Income

Operating surplus or mixed income is a measure of the surplus accruing from processes of production before deducting any explicit or implicit interest charges, rent or other property incomes payable on the financial assets, land or other natural resources required to carry on the production.

The surplus is arrived by deducting compensation to employees and production taxes less production subsidies and consumption of fixed capital from gross value added.

The surplus so arrived in the case of incorporated enterprises are called **Operating surplus**. The surplus arrived in the case of unincorporated enterprises are called **mixed income**.

Incorporated enterprises refer to enterprises that are established as a separate legal entity. A separate legal entity is an entity which can be treated like a human being. It is capable of entering into contracts and on failure of its contract it can be sued in a court. It can borrow from anybody and it has to repay. The examples of incorporated enterprises are Companies and Limited Liability Partnerships (LLPs) registered under the Companies Act.

If the legal entity is not able to repay the borrowed loan, the investors or promoters of the legal entity are not responsible to repay the loan availed by the company. For example for the default of Kingfisher Airlines Ltd., Vijay Mallya cannot be held responsible unless it is proven that he misused his position and misappropriated the borrowed funds.

Even the promoters' or investors' investment itself is a liability of the company it owes to investors or promoters. The company is altogether a separate person from the investors and promoters. The fixed assets and other assets created out of the investments are of the legal entity and not of the investor or promoters.

Unincorporated enterprises are enterprises that are not incorporated as separate legal entity. There is no distinction between the owners/investors and the entities. Examples of unincorporated entities are proprietorship concerns, partnership firms. The proprietorship concerns cannot enter into any contract. They cannot borrow. Everything should be done in the name and by the owner/investor.

The unincorporated enterprises are owned by households in which the owner(s) or members of the same household may contribute unpaid labour inputs of a similar kind to those that could be provided by paid employees. The households do not charge separately for the labour contributed by them for their own enterprises. They take the entire surplus. The surplus is described as mixed income because it implicitly contains an element of remuneration for work done by the owner, or other members of the household, that cannot be separately identified from the return to the owner as entrepreneur. In many cases the element of remuneration may dominate the value of mixed income.

In practice, all unincorporated enterprises owned by households that are not quasi-corporations are deemed to have mixed income, except owner-occupiers in their capacity as producers of housing services for own final consumption, households leasing dwellings and households employing paid domestic staff. For owner-occupiers and those leasing dwellings, all value added is operating surplus. For domestic staff all value added is compensation of employees (unless any taxes or subsidies on production are payable or receivable on the output).

Consumption of Fixed Capital

It is the decline in the current value of the stock of fixed assets owned and used by a producer as a result of physical deterioration, normal obsolescence or normal accidental damage.

The term depreciation is often used in place of consumption of fixed capital but it is avoided in the SNA because in commercial accounting the term depreciation is often used in the context of writing off of historic costs whereas in the SNA, consumption of fixed capital is dependent on the current value of the asset.

Writing off of historic cost denotes that irrespective of the amount of physical deterioration, normal obsolescence or normal accidental damage, reduction is made on a certain percentage of the value of the

fixed assets from the original purchase cost. For example if a machine was purchased for ₹1 lakh writing off at historic cost would refer to reducing ten thousands from the value of the machinery every year to arrive at the year-end value of the machinery.

In SNA consumption of fixed capital is arrived after deducting the current value of assets from the initial value of assets. The current value is estimated using various techniques available.

Consumption of fixed capital = Initial value of asset - Current value of asset

Initial value of asset is the actual value of asset at the beginning of the year and the current value of asset is the actual value of asset at the end of the year.

Production Taxes

The production taxes are taken as net of production subsidies i.e. production taxes minus production subsidies, as expenditure on account of production taxes come down to the extent of production subsidies. It is taken as **production taxes less production subsidies**. To put in formula the gross value added is as follows:

Let us assign value to the factors used for value addition to wheat and electricity to produce wheat flour.

Compensation of employees (CE) = ₹15

Operating surplus/ Mixed income (OS/MI) = ₹20

Consumption of fixed capital (CFC) = ₹10

Production taxes = ₹10

Production subsidies = ₹5

Gross value addition = 15 + 20 + 10 + (10 – 5) = 50

GVA at factor cost

The value of gross value addition made excluding the production taxes less production subsidies is called GVA at factor cost.

GVA at Factor Cost = Output – (Intermediate consumption) – (Production Taxes – Production subsidies)

GVA at Factor Cost = GVA at basic prices – (Production Taxes – Production subsidies)

GVA at Factor Cost = CE+OS or MI +CFC

Here the value addition is comprised only of reward to factors of production which is called factor cost.

From the above discussion it is clear that Gross Value Added is strictly a production measure defined only in terms of output and intermediate consumption.

With the clear understanding of the concepts of GVA at factor cost and GVA at basic prices we can move to the concepts of GDP and other measures of national income.

Production Method

1. Gross Domestic Product (GDP)

Gross domestic product (GDP) at market prices is equal to the sum of the gross value added of all **resident units** plus those taxes, less subsidies, on products. It denotes Gross Value Added plus tax on product less subsidies on products. GDP at market prices is called shortly GDP.

GDP = GVA at basic prices + (Product Taxes including import duties – Product Subsidies)

GDP = GVA at basic prices + Net Indirect Taxes

Product taxes are paid and product subsidies are received per unit of product. Some examples are:

Product Taxes: Excise duty, Sales tax, Service tax and Import and Export duties

Product Subsidies: Food, petroleum and fertiliser subsidies, interest subsidies given to farmers, households etc. through banks, subsidies for providing insurance to households at lower rates

It is necessary to have a clear idea about 'resident units'. The concept of residence in the SNA is not based on nationality or legal criteria. If an institutional unit has a centre of predominant economic interest in the economic territory of a country it is said to be a **resident unit** of that country; that is, when it engages for an extended period of one year or more in economic activities on its territory.

Box 2.2. Institutional sectors

Institutional units having similar principal functions, behaviour and objectives are grouped together and called **institutional sectors**. As per SNA there are five institutional sectors. They are explained below:

a. *Non-financial corporations* are institutional units that are principally engaged in the production of market goods and non-financial services.

b. *Financial corporations* are institutional units that are principally engaged in financial services including financial intermediation.

c. *General government* consists of institutional units that, in addition to fulfilling their political responsibilities and their role of economic regulation, produce services (and possibly goods) for individual or collective consumption mainly on a non-market basis and redistribute income and wealth.

d. *Households* are institutional units consisting of one individual or a group of individuals. All physical persons in the economy must belong to one and only one household. The principal functions of households are to supply labour, to undertake final consumption and, as entrepreneurs, to produce market goods and non-financial (and possibly financial) services. The entrepreneurial activities of a household consist of unincorporated enterprises that remain within the household except under certain specific conditions.

e. *Non-profit institutions serving households (NPISHs)* are legal entities that are principally engaged in the production of non-market services for households or the community at large and whose main resources are voluntary contributions. Examples for NPISHs are Trusts, NGOs, etc.

Institutional units are the economic units that can engage in the full range of transactions and are capable of owning assets and incurring liabilities on their own behalf. Examples for institutional units are manufacturing units, banks.

It is necessary to have a clear idea about 'economic territory'. The most commonly used concept of **economic territory** is the area under the effective economic control of a single government.

An economic territory includes islands, airspace, territorial waters and territorial enclaves in the rest of the world (such as embassies, consulates, military bases, scientific stations, information or immigration offices, that have immunity from the laws of the host territory) physically located in other territories. Economic territory has the dimensions of physical location as well as legal jurisdiction, so that corporations created under the law of that jurisdiction are part of that economy. The economic territory also includes special zones, such as free trade zones and offshore financial centres. These are under the control of the government and so are part of the economy, even though different regulatory and tax regimes may apply depending on the country where it is located. The territory excludes international

organisations and enclaves of other governments that are physically located in the territory.

GDP is a production measure as it is obtained by summing the gross value added of all resident institutional units, in their capacities as producers, and adding the values of any taxes, less subsidies, on production or imports to the gross value added.

2. Net Domestic Product (NDP)

Net Domestic Product (NDP) is arrived after deducting Consumption of Fixed Capital from gross domestic product.

NDP = GDP – Consumption of Fixed Capital

In principle, the concept of value added should not include the consumption of fixed capital. Consumption of fixed capital is not a current expenditure. It is a reduction in the value of previously created fixed assets when they are used up in the production process. It is just a reduction in the value of fixed assets. Wear and tear is like evaporation of petrol and diesel. It means it is spent but did not benefit anybody. It is a part of expenditure in the production process but not of income of anybody who is involved in the production process. Thus, theoretically, value added should be a net concept and GDP should be a net concept. Hence consumption of fixed capital is deducted from GDP and thereby NDP is arrived at.

However, gross measures of product and income are commonly used for various reasons. It is due to difficulty in measuring and obtaining data of consumption of fixed capital and to enable international comparison. The calculation of consumption of fixed capital requires that statisticians estimate the present value of the stock of fixed assets, the lifetime of various types of assets, patterns of depreciation, etc. Estimation requires well qualified statisticians, data and tools which generally not available in all countries. Hence, not all countries make such calculations. The estimations done by different countries are not comparable due to the difference in the methodology followed and

estimation with inadequate data .

The gross measure is devoid of these difficulties to some extent and comparable as all countries measure value addition on gross basis and they are generally considered more comparable between countries. So, GDP is broadly used even if it is economically inferior to NDP, on a conceptual basis. However, NDP should also be calculated, with improved estimates of consumption of fixed capital when necessary, in order to provide a significant tool for various types of analysis.

Income Method

3. Gross National Income (GNI)

Gross national income (GNI) is the aggregate value of the gross balances of primary incomes of all resident institutional units. **It is an income measure.**

Primary incomes are incomes that accrue to institutional units as a consequence of their involvement in processes of production or ownership of assets that may be needed for purposes of production.

A major item of primary income is compensation of employees that represents the income accruing to individuals in return for their labour input into production processes. Primary incomes that accrue by lending or renting financial or natural resources, including land, to other units for use in production is called **property income**. As these two components are earned by factors of production namely labour and entrepreneur they are also called **factor income**. Receipts from taxes on production and imports (less subsidies on production and imports) are treated as primary incomes of governments.

Primary incomes do not include the payments of social contributions to social insurance schemes and the receipt of benefits from them, current taxes on income, wealth, etc. and other current transfers. In short it does not include the current transfers. Current transfers are explained later.

As explained earlier the value added is equal to the income accrued to institutional units involved in the production process that is value addition process. Hence GDP should be equal to GNI.

But all the income does not accrue to resident institutional units. Primary incomes generated in the production activity of resident producer units within the economic territory are distributed mostly to other resident institutional units. However, part of them may go to non-resident units. In the same way part of primary incomes generated in the production activity in the Rest of the World by their resident units are distributed to their non-resident units. Some of their non-resident units may be our resident units and some income is distributed to our resident units. Hence GNI can be arrived by adding net primary income to GDP.

The difference between primary income accrued to non-resident institutional units in the economic territory of a country and income accrued to resident institutional units in the ROW is called **net primary income from Rest of the World (ROW)**.

As per SNA 2008, GNI is equal to GDP less primary incomes payable to non-resident units plus primary incomes receivable from non-resident units. In other words, GNI is equal to GDP less taxes net of subsidies on production and imports, compensation of employees and property income payable to the rest of the world plus the corresponding items receivable from the rest of the world. Thus GNI is the sum of gross primary incomes receivable by resident institutional units or sectors form domestic economic territory and foreign economic territory. GNI is expressed in formulaic form as follows:

GNI = GDP + [(taxes less subsidies on production and imports + compensation of employees and property income payable to the rest of the world)– (taxes less subsidies on production and imports + compensation of employees and property income receivable from the rest of the world)]

The shortened version of the above formula is as below:

GNI = GDP + Net Primary Income from Rest of the World (ROW)

The word net indicates receipt of resident institutional units less payment to non-resident institutional units. The word Rest of World indicates area lying outside the economic territory.

The press note on New Series Estimates of National Income, Consumption Expenditure, Saving and Capital Formation released by Ministry of Statistics and Programme Implementation, Government of India, dated January 30, 2015, has the formulae for various measures of national income. As per this note the formula for GNI is,

GNI = GDP + Net Primary income from Rest of the World (ROW)

It has formula for net primary income from Rest of the World also. As per this note the Net Primary Income from Rest of the World (ROW) has two components. They are Net Compensation of Employees and Net Property and Entrepreneurial Income. In formulaic form it is written as follows:

Net Primary Income from Rest of the World (ROW) = Net Compensation of Employees + Net Property and Entrepreneurial Income

Hence,

GNI = GDP + Net Compensation of Employees from Rest of the World (ROW) + Net Property and Entrepreneurial Income from Rest of the World (ROW)

The Net Primary Income of the government is not accounted as per the above formula. The press note didn't elaborate the reason for the same.

If Net Primary Income from ROW is positive GNI is higher than GDP and vice versa.

GNI > GDP if Net Primary Income from ROW is positive.

GNI < GDP if Net Primary Income from ROW is negative.

Difference between GDP and GNI

Both GDP and GNI are obtained by summing over the same set of resident institutional units; there is no justification for labelling one as "domestic" and the other as "national". Both aggregates refer to the total economy defined as the complete set of resident institutional units or sectors. The difference between them is not one of coverage but the fact that GDP measures production while GNI measures income. Both have an equal claim to be described as domestic or national. However, as the terms "gross *domestic* product" and "gross *national* income" are deeply embedded in economic usage, the SNA did not propose to change them. Emphasis should be given, however, to the third rather than second letter of the acronym to emphasise the fact that GDP refers to production (output) and GNI to income.

The catch word for GDP is "product" and the catch word for GNI is "income". GDP is strictly a production measure and GNI is strictly an income measure.

4. Net National Income (NNI)

Net National Income (NNI) is arrived after deducting Consumption of Fixed Capital from gross national income.

NNI = GNI – Consumption of Fixed Capital

It is known as national income. By dividing this by estimated population **Per Capita Income** is arrived at.

5. Gross National Disposable Income (GNDI)

Disposable income refers to the income that is available which can be disposed (spent) or saved.

Disposable Income = Income available for spending + Income available for saving

All the income received cannot be spent. Direct tax payments like income tax are to be paid out of income. These have to be deducted to arrive at disposable income.

Gross national disposable income measures the income available to the total economy for final consumption and gross saving. National disposable income is the sum of disposable income of all resident institutional units or sectors.

The whole primary income received by the factors of production involved in the production process is not retained by them. A part is transferred to non-residents. At the same time resident units may receive transfers originating out of primary incomes in the Rest of the World.

Gross national disposable income is equal to GNI less current transfers (other than taxes, less subsidies, on production and imports) payable to non-resident units, plus the corresponding current transfers receivable by resident units from the rest of the world.

GNDI = GNI + (Current transfers receivable by resident units from the Rest of the World – Current transfers payable to non-resident units to the Rest of the World)

GNDI = GNI + Net current transfers from ROW

As said earlier GNI does not include current transfers, the GNDI is arrived at by adding it to GNI.

Current transfer is a transaction in which one institutional unit provides a good or service to another unit. It is provided without receiving from the latter any good or service directly in return as counterpart. It does not oblige one or both parties to acquire, or dispose of, an asset.

Current transfer payments are made as a part of social responsibility. The receiver need not pay anything in return directly. These payments are made not against any productive activity on the part of the

receiver. The examples are, old age pension, unemployment compensation, disaster relief payment, interest paid on public debt, taxes paid to government, etc.

Tax paid to government is an example of current transfer. Tax is a compulsory levy payable by an institutional unit to the government without any corresponding entitlement to receive a definite and direct quid pro quo from the government. Quid pro quo refers to something given or taken equivalent to another.

Three main kinds of current transfers are:
a. Current taxes on income, wealth, etc.;
b. Social contributions and benefits;
c. Other current transfers.

a. Current taxes on income, wealth, etc,

It consists mainly of taxes on the incomes of households or profits of corporations and of taxes on wealth that are payable to the government. To put it in short, it consists of income tax and wealth tax payable by the households and corporations to the government.

b. Social contributions and benefits

Social contributions are payments to social insurance schemes and other social security payments like provident fund, payment to new pension scheme, etc. These payments are made either by employers or employees or by both. Households themselves make these kinds of payments in their capacity as employed, self-employed or unemployed persons.

Social benefits are current transfers received by households. It is intended to provide for the needs that arise from certain events or circumstances, for example, sickness, unemployment, retirement, housing, education or family circumstances. Social benefits may be provided under social insurance schemes or by social assistance.

Example for social insurance schemes are Pradhan Mantri Suraksha Bima Yojana /Pradhan Mantri Jeevan Jyoti Bima Yojana and example for social assistance is Indira Gandhi National Old Age Pension Scheme.

c. Other current transfers

The current transfers other than current taxes on income, wealth and social contributions and social benefits are called other current transfers. Other current transfers include the following:

i) Net premiums and claims under non-life insurance policies

ii) Current transfers between different kinds of government units, usually at different levels of government, and also between general government and foreign governments, such as transfers under aid programmes intended to sustain the consumption levels of populations affected by war or natural disasters such as droughts, floods or earthquakes

iii) Current transfers to and from NPISHs and

iv) Current transfers between resident and non-resident households i.e, foreign remittances between resident and non-resident households.

These current transfer payments and receipts are between resident institutional units, or between resident and non-resident units. Transfer from one resident unit to other resident unit does not make any impact on the disposable income of an economy as it is within the economy. If it reduces disposable income of one resident unit who pays, it increases the disposable income of receiving resident unit. But the current transfers between resident and non-resident units affect the disposable income of the economy. The net of current transfer paid to and received from non-resident units is called net current transfer from ROW.

If net current transfer from ROW is positive GNDI is higher than GNI and vice versa.

GNDI > GNI if net current transfer from ROW is positive.

GNDI < GNI if net current transfer from ROW is negative.

The press note on New Series Estimates of National Income, Consumption Expenditure, Saving and Capital Formation released by Ministry of Statistics and Programme Implementation, Government of India, dated January 30, 2015, has the formulae for various measures of national income. As per this note the formula for GNDI is as follows:

GNDI = GNI + Net other current transfers from ROW

The same press note has remarks on the formula. It reads *"Other Current Transfers refers to current transfers other than the primary incomes"*. From this remark it can be inferred that **other net current transfers** include all the three components of current transfers viz., Current taxes on income, wealth, etc., Social contributions and benefits; and other current transfers.

6. Net National Disposable Income (NNDI)

By adding net other current transfers from ROW to NNI the NNDI can be arrived at.

NNDI = NNI + net other current transfers from ROW

By deducting the consumption of fixed capital from gross national disposal income also net national disposable income is obtained.

NNDI = GNDI – Consumption of fixed capital

7. Gross Disposable Income of Government (GDIG)

As said earlier, the disposable income is the total of income available for spending and income available for saving.

Gross Disposable income of Government = GFCE + Gross Savings of

General Government

Where

GFCE stands for Government Final Consumption Expenditure.

8. Gross Disposable Income of Households (GDIH)

The Gross Disposable Income of Households can be arrived at from Gross National Disposable Income by deducting Gross Disposable Income of Government and Gross Savings of All Corporations.

GDIH = GNDI – GDIG – Gross Savings of All Corporations

The above calculation of national income is based on output method. The national income can be calculated based on expenditure method too.

Expenditure Method

The calculation of GDP above was by gross value added method or output method and GNI was by income method. The GDP can be calculated by expenditure method. As seen in the flow of income, output is equal to expenditure. Hence, GDP can be calculated by expenditure method as well.

The income earned is used for consumption and savings. The total of these should be equal to income.

Income = Consumption expenditure + Savings

The consumption expenditure is done by both private and government. Savings are ultimately used for investments in fixed assets and financial assets. Investments in fixed assets and financial assets put together are called capital formation.

So the above formula can be rewritten as follows:

Income = Consumption expenditure + Capital formation

As per System of National Accounts (SNA), 2008 in India the formula for GDP under expenditure method is as follows:

GDP = PFCE + GFCE + GCF + Export of Goods and Services – Import of Goods and Services) + Discrepancies

Where,

PFCE – Private Final Consumption Expenditure

GFCE – Government Final Consumption Expenditure

GCF – Gross Capital Formation

In the above formula PFCE, GFCE and Export of Goods and Services – Import of Goods and Services are expenditure items. GCF is a savings item.

In the SNA, final consumption expenditure is incurred only by general government, NPISHs and households. Corporations do not have final consumption expenditure. They may purchase the same kinds of goods or services as households use for final consumption (for example electricity or food) but such goods or services are either used for intermediate consumption or provided to employees as remuneration in kind.

I. Private Final Consumption Expenditure

Final consumption expenditure is the amount of expenditure on consumption goods and services. The final consumption expenditure borne by private is called private final consumption expenditure. Here by the word private we mean households. All consumption expenditure by households is incurred by them for their own benefit. The final consumption expenditures are incurred both within the economic territory and in ROW. The PFCE is expressed in formulaic form as below: