



★ NATIONAL INCOME

- National Income is defined as the **net value of all economic goods and services** produced within the **domestic territory of a country in an accounting year** plus the **net factor income from abroad**.

★ Introduction

- Just as there are accounting conventions which measure the performance of business, there are conventions for measuring and analyzing the economic performance of a nation.
- National Income Accounting, pioneered by the **Nobel prize-winning economists Simon Kuznets and Richard Stone**, is one such measure.

★ IMPORTANT CONCEPTS

- $GNPMP = GDPMP + \text{Net Factor Income from Abroad}$
- $NDPMP = GDPMP - \text{Depreciation}$
- $NDPMP = NNP - \text{Net Factor Income from Abroad}$
- $NNPMP = GNPMP - \text{Depreciation}$
- $NNPMP = NDPMP + \text{Net Factor Income from abroad}$
- $NNPMP = GDPMP + \text{Net Factor Income from Abroad} - \text{Depreciation}$
- $\text{Market Price} = \text{Factor Cost} + \text{Net Indirect Taxes}$
- $\text{Market Price} = \text{Factor Cost} + \text{Indirect Taxes} - \text{Subsidies}$
- $\text{Factor Cost} = \text{Market Price} - \text{Net Indirect Taxes}$
- $\text{Factor Cost} = \text{Market Price} - \text{Indirect Taxes} + \text{Subsidies}$

★ Introduction

- The **Central Statistical Organization (CSO)** in the **Ministry of Statistics and Program Implementation (MoSP&I)** is responsible for the compilation of **National accounts statistics**.
- At the **State level**, **State Directorates of Economics and Statistics (DESS)** have the responsibility of compiling their **State Domestic Product** and other aggregates.

★ IMPORTANT CONCEPTS

- $\text{Gross Domestic Product at Factor Cost (GDPFC)} = \text{GDPMP} - \text{Indirect Taxes} + \text{Subsidies}$
- **Net Domestic Product at Factor Cost (NDPFC)** is defined as the total factor incomes earned by the factors of production = $\text{NDPFC} = \text{NDPMP} - \text{Net Indirect Taxes}$
- $\text{Private Income} = \text{Factor income from net domestic product accruing to the private sector} + \text{Net factor income from abroad} + \text{National debt interest} + \text{Current transfers from government} + \text{Other net transfers from the rest of the world}$.

IMPORTANT CONCEPTS

- Personal income is a measure of the actual current income receipt of persons from all sources. $PI = NI + \text{income received but not earned} - \text{income earned but not received}$.
- Disposable Personal Income (DI) that is available for their consumption or savings $DI = PI - \text{Personal Income Taxes} - \text{Non Tax Payments}$

Measurement of National Income

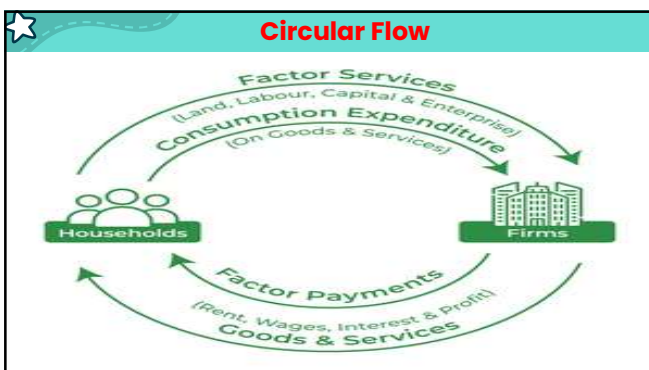
Method	Data required	What is measured
Phase of Output: Value added method (Product Method)	The sum of net values added by all the producing enterprises of the country	Contribution of production units
Phase of income: Income Method	Total factor incomes generated in the production of goods and services	Relative contribution of factor owners
Phase of disposition: Expenditure method	Sum of expenditures of the three spending units in the economy, namely, government, consumer households, and producing enterprises	Flow of consumption and investment expenditures

IMPORTANT CONCEPTS

- The calculation of real GDP gives us a useful measure of inflation known as GDP deflator.
- The **GDP deflator** is the **ratio of nominal GDP** in a given year to **real GDP** of that year.
- $$\text{GDP Deflator} = \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100$$
- $$\text{Real GDP} = \frac{\text{Nominal GDP}}{\text{GDP Deflator}} \times 100$$
- $$\text{Inflation Rate in Year 2} = \frac{\text{GDP Deflator in Year 2} - \text{GDP Deflator in Year 1}}{\text{GDP Deflator in Year 1}} \times 100$$
- $$\text{GDP Per-capita} = \frac{\text{GDP (Adjusted by Inflation)}}{\text{Total Population}}$$

Methods of Measurement of National Income

Value Added Method
Value of Output During the Year [Unit Produced × Price] [Sales + Change in Stock (CI-Op)] [Value of Output Primary + Secondary + Tertiary]
- Value of Intermediate Consumption
= Gross Value Added MP = GDPMP
- Depreciation
= NDPMP
- NIT
= NDPFC
+ NFIA = NNPFCC



Methods of Measurement of National Income

Income Method
Compensation of Employees [Salary/Wages in Cash + Salary/Wages in Kind + Employer's Contribution to Social Security Scheme]
+ Operating Surplus [Rent + Royalty + Interest + Profit] Profit = Dividend + Corporate Tax + Undistributed Profit
+ Mixed Income of Self Employed
= NDPFC
+ NFIA
= NNPFCC

Methods of Measurement of National Income

Expenditure Method
Private Final Consumption Expenditure
+ Government Final Consumption Expenditure
+ Gross Domestic Capital Formation [Gross Domestic Fixed Capital Formation + Change In Stock]
+ Net Exports
= GDPMP
- Depreciation - NIT
= NDPFC + NFIA
= NNPCG

CHALLENGES

- Inadequacy of data and lack of reliability of available data.
- Presence of non-monetized sector.
- Production for self-consumption.
- Absence of recording of incomes due to illiteracy and ignorance.
- Lack of proper occupational classification and
- Accurate estimation of consumption of fixed capital.

Points to Remember

- **Income method** may be most suitable for **developed economies** where people properly file their income tax returns.
- With the growing facility in the use of the commodity flow method of estimating expenditures, an increasing proportion of the national income is being estimated by expenditure method.
- As a matter of fact, **countries like India are unable to estimate their national income wholly by one method.**
- Thus, in the **agricultural sector**, net value added is estimated by the **production method**,
- in the **small scale sector** net value added is estimated by the **income method** and
- in the **construction sector** net value added is estimated by the **expenditure method**.

KEYNESIAN THEORY OF DETERMINATION OF NATIONAL INCOME

- **The classical economists** maintained that the economy is self-regulating and is always capable of **automatically achieving equilibrium at the 'natural level'** of real GDP or output, which is the level of real GDP that is obtained **when the economy's resources are fully employed.**
- **While circumstances arise** from time to time that cause the economy to **fall below or to exceed the natural level of real GDP**, wage and price flexibility will bring the economy back to the natural level of real GDP.

LIMITATION OF NATIONAL INCOME

- Lack of an agreed definition of national income.
- Accurate distinction between final goods and intermediate goods.
- Issue of transfer payments.
- Services of durable goods.
- Difficulty of incorporating distribution of income.
- Valuation of a new good at constant prices, and valuation of government services.

KEYNESIAN THEORY OF DETERMINATION OF NATIONAL INCOME

- **Keynes** argued that **markets would not automatically lead to full-employment equilibrium** and the resulting natural level of real GDP.
- The economy **could settle** in equilibrium **at any level of unemployment.**
- Keynesians believe that **prices and wages are not so flexible**; they are **sticky**, especially downward.

AGGREGATE DEMAND FUNCTION

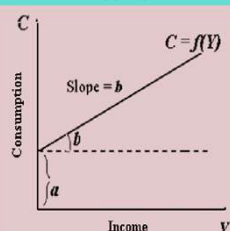
- Aggregate demand (AD) is what economists call total planned expenditure.
- In a simple two sector economy, the ex-ante aggregate demand (AD) for final goods or aggregate expenditure consists of only two components:
 - Ex ante aggregate demand for consumer goods (C), and
 - Ex ante aggregate demand for investment goods (I)
- $AD = C + I$
- $AD = C + \bar{I}$

MARGINAL PROPENSITY TO CONSUME (MPC)

- The concept of MPC describes the relationship between change in consumption (ΔC) and the change in income (ΔY).
- The value of the increment to consumer expenditure per unit of increment to income is termed the Marginal Propensity to Consume (MPC).
- $\Delta C / \Delta Y$
- $C = a + bY$

THE CONSUMPTION FUNCTION

- Consumption function expresses the functional relationship between aggregate consumption expenditure and aggregate disposable income, expressed as:
 - $C = f(Y)$



AVERAGE PROPENSITY TO CONSUME (APC)

- Just as marginal propensity to consume, the average propensity to consume is a ratio of consumption defining income consumption relationship.
- The ratio of total consumption to total income is known as the average propensity to consume (APC).
- $APC = C/Y$
- The conventional Keynesian MPC is assumed to have a constant value less than 1.00 and usually greater than 0.50**

THE CONSUMPTION FUNCTION

- The Keynesian assumption is that consumption increases with an increase in disposable income, but that the increase in consumption will be less than the increase in disposable income ($b < 1$). i.e. $0 < b < 1$.
- This fundamental relationship between income and consumption plays a crucial role in the Keynesian theory of income determination.

THE SAVING FUNCTION

- Saving is a function of disposable income: $S = f(Y)$
- By definition, national income $Y = C + S$, Therefore, $S = Y - C$
- $MPS = \frac{\Delta s}{\Delta y} = 1 - b$
- $APS = \text{Total Saving} / \text{Total Income} = \frac{s}{y}$

★ THE SAVING FUNCTION

- Marginal Propensity to Consume (MPC) is always **less than unity**, but **greater than zero**, i.e., $0 < b < 1$
- Also, $MPC + MPS = 1$; we have $MPS \ 0 < b < 1$.
- Thus, saving is an increasing function of the level of income because the marginal propensity to save (MPS) = $1 - b$ is **positive**, i.e. saving increases as income increases.

★ INVESTMENT MULTIPLIER

- It shows the responsiveness of change in Investment on change in Income.
- $K = \frac{\Delta y}{\Delta I}$
- The process stops due to **Leakages** i.e. **Savings**.
- $K = \frac{1}{1-MPC}$ or $\frac{1}{MPS}$
- The process behind the multiplier can be compared to the 'ripple effect' of water.
- The **maximum value of multiplier** is **infinity** when the value of **MPC** is **1** i.e. the economy decides to consume the whole of its additional income.
- We conclude that the **value of the multiplier** is the **reciprocal of MPS**.

★ AGGREGATE SUPPLY

- Ex ante or planned aggregate supply is the total supply of goods and services which firms in a national economy plan on selling during a specific time period.
- It is equal to the national income of the economy, which is either consumed or saved.
- $Y = AS = C + S$

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★ TWO SECTOR MODEL

- $AD = AS$
- $C + I = C + S$
- $I = S$
- **AS** is also known as **Expected Value**
- **AD** is also known as **Realized Value**

★ THREE SECTOR MODEL

- $AS = AD$
- $Y = AD$
- $Y = C + I + G$
- $C + S + T = C + I + G$
- $Y = \frac{1}{(1-b+bt)} [a-bT + I + G]$

FOUR SECTOR MODEL

- $AS = AD$
- $Y = AD$
- $C + S + T = C + I + G + (X - M)$
- $C + S + T + M = C + I + G + X$
- $S + T + M = I + G + X$ (Equilibrium Condition)
- $M = \bar{M} + mY$
- \bar{M} = Autonomous Imports
- m = Propensity to Imports ($m = \frac{\Delta M}{\Delta Y}$)
- Y = Income

INFLATIONARY GAP

- If the **aggregate demand** is for an amount of **output greater than the full employment level of output**, then we say there is **excess demand**.
- Excess demand gives rise to 'inflationary gap' which is the amount by which **actual aggregate demand exceeds the level of aggregate demand required to establish the full employment equilibrium**.
- This is the sort of gap that tends to occur during a **business-cycle expansion** and sets in motion forces that will cause **demand pull inflation**.

DEFLATIONARY GAP

- If the **aggregate demand** is for an amount of **output less than the full employment level of output**, then we say there is **deficient demand**.
- Deficient demand gives rise to a 'deflationary gap' or 'recessionary gap'.
- Recessionary gap also known as 'contractionary gap' arises in the Keynesian model of the macro economy when the **equilibrium level of aggregate production achieved in the short-run falls short of what could be produced at full employment**.

INFLATIONARY GAP

DEFLATIONARY GAP

PUBLIC FINANCE

- Since the **1930s**, the traditional functions of the state have been supplemented with the economic functions (also called the fiscal functions or the public finance function)
- **Richard Musgrave (1959)** introduced the three branch taxonomy of the role of government in a market economy namely, **resource allocation, income redistribution and macroeconomic stabilisation**.

GOVERNMENT INTERVENTION

- Government intervention to direct the functioning of the economy is based on the belief that the objective of the economic system and the role of government is to improve the wellbeing of individuals and households.

STABILIZATION FUNCTION

- The stabilisation function is concerned with the performance of the aggregate economy in terms of labour employment and capital utilization, overall output and income, general price levels, economic growth and balance of international payments.

ALLOCATION FUNCTION

- The allocation responsibility of the governments involves appropriate corrective action when private markets fail to provide the right and desirable combination of goods and services.

MARKET FAILURE

- Market failures, which hold back the efficient allocation of resources, occur mainly due to imperfect competition, presence of monopoly power, collectively consumed public goods, externalities, factor immobility, imperfect information, and inequalities in the distribution of income and wealth.



DISTRIBUTION FUNCTION

- The distribution function aims at redistribution of income so as to ensure equity and fairness to promote the wellbeing of all sections of people and is achieved through taxation public expenditure, regulation and preferential treatment of target populations.

MARKET POWER

- Market power or monopoly power is the ability of a firm to profitably raise the market price of a good or service over its marginal cost.
- Firms that have market power are price makers and therefore, can charge a price that gives them positive economic profits.

EXTERNALITIES

- Externalities, also referred to as 'spillover effects', 'neighbourhood effects' 'third-party effects' or 'side-effects', occur when the actions of either consumers or producers result in costs or benefits that do not reflect as part of the market therefore are external to the market.

PUBLIC GOODS

- Paul A. Samuelson who introduced the concept of 'collective consumption good' in his path-breaking 1954 paper 'The Pure Theory of Public Expenditure' is usually recognized as the first economist to develop the theory of public goods.
- A public good (also referred to as collective consumption good or social good) is defined as one which all enjoy in common in the sense that each individual's consumption of such a good leads to no subtraction from any other individuals' consumption of that good.

TYPES OF EXTERNALITIES

- Negative Production Externalities
- Positive Production Externalities
- Negative Consumption Externalities
- Positive Consumption Externalities

PUBLIC GOODS

Private Goods	Public Goods
No Free Rider Problem	Free Rider Problem is there
These are Excludable It is possible to exclude or prevent consumers who have not paid for them from consuming them or having access to them.	Non-excludable
Consumption of Private Goods is Rivalrous The purchase and consumption of a private good by one individual prevents another individual from consuming it.	Non-rivalrous
	Indivisibility
	More Vulnerable to Externalities & Other Issues such as inadequate property rights, and free rider problems.

CAUSES OF EXTERNALITIES

- Externalities cause market inefficiencies because they hinder the ability of market prices to convey accurate information about how much to produce and how much to buy.
- Since externalities are not reflected in market prices, they can be a source of economic inefficiency.

PUBLIC GOODS

Private Goods	Public Goods
A few examples are: food items, clothing, movie ticket, television, cars, houses etc.	A few examples of public goods are: national defence, highways, public education, scientific research which benefits everyone, law enforcement, lighthouses, fire protection, disease prevention and public sanitation.

GLOBAL PUBLIC GOODS

- Global public goods are those public goods with benefits/costs that potentially extend to everyone in the world.
- These goods have widespread impact on different countries and regions, population groups and generations throughout the entire globe.

ASYMMETRIC INFORMATION

- Asymmetric information occurs when there is an imbalance in information between the buyer and the seller i.e., when the buyer knows more than the seller, or the seller knows more than the buyer.
- This can distort choices.

THE FREE RIDER PROBLEM

- A free rider is a person who benefits from something without expending effort or paying for it.
- In other words, free riders are those who utilize goods without paying for their use.
- Example is Wikipedia

ADVERSE SELECTION

- Adverse selection generally refers to any situation in which one party to a contract or negotiation, such as a seller, possesses information relevant to the contract or negotiation that the corresponding party, such as a buyer, does not have; this asymmetric information leads the party lacking relevant knowledge to make suboptimal decisions and suffer adverse effects.

INCOMPLETE INFORMATION

- Complete information is an important element of competitive market.
- Perfect information implies that both buyers and sellers have complete information about anything that may influence their decision making.

MORAL HAZARD

- Moral hazard is opportunism characterized by an informed person's taking advantage of a less-informed person through an unobserved action.

BUDGET

- A **budget is a statement** that presents the details of **'where the money comes from'** and **'where the money goes to'**.
- The **finances of the government** of India have traditionally been controlled by the **Ministry of Finance**.
- The **budget is prepared** by the **Ministry of Finance** in consultation with **NITI Aayog** and other relevant ministries.
- The budget must be **presented and approved** by **both houses of parliament before the beginning of the fiscal year** (April 1 to March 31).

BUDGET

- The Lok Sabha has the power to **concur or to refuse** any demand or even to reduce the amount of grant sought by government.
- **The budget is laid on the table of the Rajya Sabha** soon after the Finance Minister has completed her/his budget speech in the Lok Sabha.
- **The Rajya Sabha, does not vote on the demands for grants** and there is **only a general discussion** on the budget.
- After the general discussion on the budget proposals and voting on demands for grants have been completed, the government introduces the **Appropriation Bill**.
- The Appropriation Bill is intended to give authority to government to **incur expenditure from and out of the Consolidated Fund of India**.
- **Motions for reduction** to various demands for grants are made in the form of **'cut motions'** seeking to reduce the sums sought by government.

BUDGET

- Despite the fact that the term **'budget'** has not been used in the Indian Constitution, the process of making it is generally referred to as **budgeting**.
- **Article 112** of the constitution provides that in respect of every financial year the 'president shall cause to be laid before both the houses of parliament a statement of the estimated receipts and expenditure of the government of India for that year, referred to as the **"Annual Financial Statement"**'.

BUDGET

- **The Finance Bill** seeking to give effect to the government's taxation proposals is introduced in Lok Sabha immediately after the presentation of the general budget.
- The Parliament has to pass the **Finance Bill within 75 days** of its introduction.
- **On the last day** of the days allotted for discussion on the demands for grants, the **speaker puts all the outstanding demands for grants to the vote of the house**.
- This process is known as **'Guillotine'**.
- **After the Finance Bill has been passed** by the Lok Sabha, it is **transmitted to the Rajya Sabha for its recommendations**.
- The bill being a money bill, **Rajya Sabha has to return it within a period of 14 days**, with or without recommendations.

BUDGET

- The budget is discussed in two stages in the **Lok Sabha**.
- **First**, there is the **general discussion** on the budget as a whole.
- After the first stage of general discussion on the union budget is over, the **house is adjourned for a fixed period**.
- **During this period**, the **demands for grants** of various ministries/ departments are **considered by the standing committees** concerned, and once the reports are presented by these committees within the stipulated time, the **house proceeds to discussion and conducts ministry-wise voting on demands for grants**.

BUDGET

- However, from **2017-18**, the date of presentation of the budget has been advanced to **1st February**.
- An important budgetary reform was the **merger of railway budget with the general budget** from the budget for financial year **2017-18**.

TYPES OF BUDGET

Balanced Budget	Surplus Budget	Deficit Budget
TR = TE	TR > TE	TR < TE

TR Means Capital Receipts + Revenue Receipts

TE Means Capital Expenditure + Revenue Expenditure

CE = Result in creation of physical or financial assets or reduction in financial liabilities. E.g. acquisition of land, Repayment of loans.

RE = Expenses incurred for the normal functioning of the government departments. E.g. interest payments on debt, grants given to state governments and other parties (even though some of the grants may be meant for creation of assets).

TYPES OF BUDGET

- Fiscal Deficit: (Signifies Borrowings)

Fiscal Deficit = Total Expenditure - Total Receipts Excluding Borrowing

	RR = 100	RE = 150
Borrowings = 200	CR = 400	CE = 350
	TR = 500	TE = 500
Fiscal Deficit = 200	Budget Deficit = 200	

- Fiscal Deficit = (Revenue Expenditure + Capital Expenditure) - (Revenue Receipts + Capital Receipts excluding borrowing)
- Fiscal Deficit = (Revenue Expenditure - Revenue Receipts) + (Capital Expenditure - Capital Receipts excluding borrowing)
- Fiscal Deficit = Revenue Deficit + (Capital Expenditure - Capital Receipts excluding borrowing)

TYPES OF BUDGET

CR = Receipts that lead to a reduction in the assets or an increase in the liabilities. E.g. recoveries of loans, earnings from disinvestment.

RR = Receipts which neither create any liability nor cause any reduction in the assets. E.g. tax revenues and non-tax revenues.

DEFICIT

- The fiscal deficit will have to be financed by borrowing.
- Therefore fiscal deficit points to the total borrowing requirements of the government from all sources.
- In case **revenue deficit occupies a substantial share of fiscal deficit**, it is an indication that a large part of **borrowing is used for consumption purposes rather than for investment**.
- Primary Deficit:**
- Primary deficit = Fiscal deficit - Net Interest liabilities
- Net interest liabilities interest payments minus interest receipts by the government on domestic lending.
- Fiscal deficit indicates **borrowing requirement inclusive of interest payment**, primary deficit indicates **borrowing requirement exclusive of interest payment**.

TYPES OF BUDGET

Budget Deficit = Total Expenditure - Total Receipts

RR = 100	RE = 150
CR = 200	CE = 350
TR = 200	TE = 500
Budget Deficit = 200	

Revenue Deficit = Revenue Expenditure - Revenue Receipts

RR = 100	RE = 150
Revenue Deficit = 50	

FISCAL POLICY

- Fiscal policy involves the use of government spending, taxation and borrowing to influence both the pattern of economic activity and level of growth of aggregate demand, output, and employment.
- Fiscal policy is in the nature of a demand-side policy.
- The significance of fiscal policy as a strategy for achieving certain socio-economic objectives was not recognised or widely acknowledged before 1930 due to the faith in the limited role of government advocated by the then prevailing laissez-faire approach.

Objective of Fiscal Policy

maintenance of price stability

achievement and maintenance of full employment,

acceleration of the rate of economic development, and

equitable distribution of income and wealth

TOOLS OF FISCAL POLICY

- The tools of fiscal policy are taxes, government expenditure, public debt and the government budget.
- **EXPANSIONARY FISCAL POLICY:**
- Expansionary fiscal policy is designed to stimulate the economy during the contractionary phase of a business cycle and is accomplished by increasing aggregate expenditures and aggregate demand through an increase in all types of government spending and / or a decrease in taxes.
- **CONTRACTIONARY FISCAL POLICY:**
- Contractionary fiscal policy is designed to restrain the levels of economic activity of the economy during an inflationary phase by decreasing the aggregate expenditures and aggregate demand through a decrease in all types of government spending and/ or an increase in taxes.

FUNCTIONS OF MONEY

- generally acceptable
- durable or long-lasting
- effortlessly recognizable.
- difficult to counterfeit i.e. not easily reproducible by people
- relatively scarce, but has elasticity of supply
- portable or easily transported
- possessing uniformity; and
- divisible into smaller parts in usable quantities or fractions without losing value

PUMP PRIMING

- Pump priming involves a one-shot injection of government expenditure into a depressed economy with the aim of boosting business confidence and encouraging larger private investment.
- It is a temporary fiscal stimulus in order to set off the multiplier process.

Classical Approach: The Quantity Theory of Money (QTM)

- The quantity theory of money, **one of the oldest theories** in Economics, was first propounded by **Irving Fisher** of Yale University in his book '**The Purchasing Power of Money**' published in 1911 and later by the neoclassical economists.
- Demand for Money is for Transaction Purposes.
- **Changes in the general level of commodity prices or changes in the value or purchasing power of money are determined first and foremost by changes in the quantity of money in circulation.**
- Fisher's version, also termed as 'equation of exchange' or 'transaction approach'
- $MV = PT$ (MV Supply Side, PT Demand Side)
- $MV + M'V' = PT$

MONEY

- Money can be **anything** that can serve as a.....
- **store of value**, which means people can save it and use it later—smoothing their purchases over time;
- **unit of account**, that is, provide a common base for prices; or
- **medium of exchange**, something that people can use to buy and sell from one another.
- Money can be defined for policy purposes as the set of liquid financial assets, the variation in the stock of which could impact on aggregate economic activity.
- As a statistical concept, money could include certain liquid liabilities of a particular set of financial intermediaries or other issuers'.
- (Reserve Bank of India Manual on Financial and Banking Statistics, 2007)

The Cambridge Approach

- In the **early 1900s**, Cambridge Economists **Alfred Marshall**, **A.C. Pigou**, **D.H. Robertson** and **John Maynard Keynes** (then associated with Cambridge) put forward a fundamentally **different approach to quantity theory**, known as **cash balance approach**.
- $Md = k PY$
- The term '**k**' in the above equation is called '**Cambridge k**'.
- It is a parameter reflecting **economic structure and monetary habits**, namely the **ratio of total transactions to income** and the **ratio of desired money balances to total transactions**.
- The equation above explains that.....
- **demand for money (M) = k proportion of the total money income.**

The Keynesian Theory of Demand for Money

- Keynes' theory of demand for money is known as 'Liquidity Preference Theory'.
- 'Liquidity preference', a term that was coined by John Maynard Keynes in his masterpiece **'The General Theory of Employment, Interest and Money' (1936)**,
- People's desire to hold money rather than securities or long-term interest-bearing investments.
- According to Keynes, people hold money (M) in cash for three motives:
 - Transactions motive,
 - Precautionary motive,
 - Speculative motive.

Inventory Approach to Transaction Balance

- **William Baumol (1952)** and **James Tobin (1956)** developed a deterministic theory of **transaction demand for money**, known as **Inventory Theoretic Approach**, in which money or '**real cash balance**' was **essentially viewed as an inventory** held for transaction purposes. (Emphasize on Store of Value)
- People hold an optimum combination of bonds and cash balance, i.e., an amount that minimises the opportunity cost.
- The optimal average money holding is: a positive function of income Y, a positive function of the price level P, a positive function of transactions costs c, and a negative function of the nominal interest rate i.

The Keynesian Theory of Demand for Money

- **Transactions motive:**
- Keynes did not consider the transaction balances as being affected by interest rates.
- The transaction demand for money is **directly related** to the **level of income**.
- The transactions demand for money is a **direct proportional and positive function of the level of income**.
- $L_r = kY$
- **Precautionary motive:**
- Many unforeseen and unpredictable contingencies involving money payments occur in our day to day life.
- Individuals as well as businesses **keep a portion of their income to finance such unanticipated expenditures**.
- Keynes regarded the precautionary balances just as balances under transactions motive as **income elastic** and by itself **not very sensitive to rate of interest**.

Friedman's Restatement of Quantity Theory of Money

- **Milton Friedman (1956)** extended Keynes' speculative money demand within the framework of **asset price theory**.
- Friedman treats the demand for money as **nothing more than the application of a more general theory of demand for capital assets**.

The Keynesian Theory of Demand for Money

- **Speculative motive:**
- When Current Rate is **High**: **Low** Speculative demand for money
- When Current Rate is **Low**: **High** Speculative demand for money
- The inference from the above is that the **speculative demand for money and interest** are **inversely related**.

Friedman's Restatement of Quantity Theory of Money

- Friedman identifies the following four determinants of the demand for money. The nominal demand for money.....
- **is a function of total wealth**, which is represented by permanent income divided by the discount rate, defined as the average return on the five asset classes in the monetarist theory world, namely money, bonds, equity, physical capital and human capital.
- **is positively related to the price level, P**. If the price level rises the demand for money increases and vice versa.
- **rises if the opportunity costs of money holdings (i.e. returns on bonds and stock) decline** and vice versa.
- **is influenced by inflation**, a positive inflation rate reduces the real value of money balances, thereby increasing the opportunity costs of money holdings.

Demand for Money as Behavior Towards Risk

- **James Tobin**, an **American economist**, in his analysis makes a valid assumption that people prefer more wealth to less.
- According to Tobin, when individuals are faced with various **safe and risky assets**, they diversify their portfolio by holding a balanced combination of safe and risky assets.
- According to Tobin, an individual's behaviour shows **risk aversion**, which means **they prefer less risk** to more risk **at a given rate of return**.

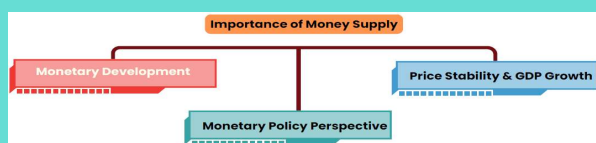
Interest Rate High	Demand for Holding Money Low	Interest Rate Low	Demand for Holding Money High	Bonds or Shares Risk High Return High Ready Money Risk Low Return Low
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Measurement of Money Supply

- The measures of money supply vary from country to country, from time to time and from purpose to purpose.
- Measurement of money supply is essential as **it enables a framework to evaluate whether the stock of money in the economy is consistent with the standards for price stability**, to understand the nature of deviations from this standard and to study the causes of money growth.
- In India, RBI has been publishing data on four alternative measures of money supply denoted by **M1, M2, M3, M4** besides the reserve money.

Concept of Money Supply

- Money Supply is the stock of money held by the public at a given point of time.



Measurement of Money Supply

- **M1** = Currency notes and coins with the people + demand deposits with the banking system (Current and Saving deposit accounts) + other deposits with the RBI.
- **M2** = M1 + savings deposits with post office savings banks.
- **M3** = M1 + time deposits with the banking system.
- **M4** = M3 + total deposits with the Post Office Savings Organization (excluding National Savings Certificates).

Sources of Money Supply

- The central banks of all countries are empowered to issue currency and therefore, **the central bank is the primary source of money supply in all countries**.
- In effect, **high powered money is the source of all other forms of money**.
- The supply responses of the commercial banking system of the country to the changes in policy variables initiated by the central bank to influence the total money supply in the economy.
- In India, RBI is the Central Bank.

Measurement of Money Supply

- In 1998, RBI Starts publishing a set of four new monetary aggregates.
- **NM1** = Currency with the public + Demand deposits with the banking system + 'Other' deposits with the RBI.
- **NM2** = NM1 + Short-term time deposits of residents (including and up to contractual maturity of one year).
- **NM3** = NM2 + Long-term time deposits of residents + Call/Term funding from financial institutions
- **L1** = NM3 + All deposits with the post office savings banks (excluding National Savings Certificates).
- **L2** = L1 + Term deposits with term lending institutions and refinancing institutions (F. I.s) + Term borrowing by F. I.s + Certificates of deposit issued by F. I.s.
- **L3** = L2+ Public deposits of non-banking financial companies

Measurement of Money Supply

- Reserve money, also known as central bank money, base money, or high-powered money, determines the level of liquidity and price level in the economy.
- Reserve Money** = Currency in circulation + Bankers' deposits with the RBI + Other deposits with the RBI
- Reserve Money** = Net RBI credit to the Government + RBI credit to the Commercial sector + RBI's Claims on banks + RBI's net foreign assets + Government's Currency liabilities to the public – RBI's net non-monetary Liabilities

Effects of Government Expenditure on Money Supply

- When the Reserve Bank lends to the governments under WMA/OD, it results in the generation of excess reserves (i.e., excess balances of commercial banks with the Reserve Bank).

The Concept of Money Multiplier

- The money multiplier approach to money supply propounded by Milton Friedman and Anna Schwartz (1963) considers three factors as immediate determinants of money supply
- a) the stock of high-powered money (H)
- b) the ratio of deposit to reserve, $e = \{R/D\}$ and
- c) the ratio of deposit to currency, $c = \{C/D\}$

The Credit Multiplier

- The Credit Multiplier** also referred to as the **deposit multiplier** or the **deposit expansion multiplier**, describes the amount of **additional money created by commercial bank through the process of lending the available money**, it has in excess of the central bank's reserve requirements.

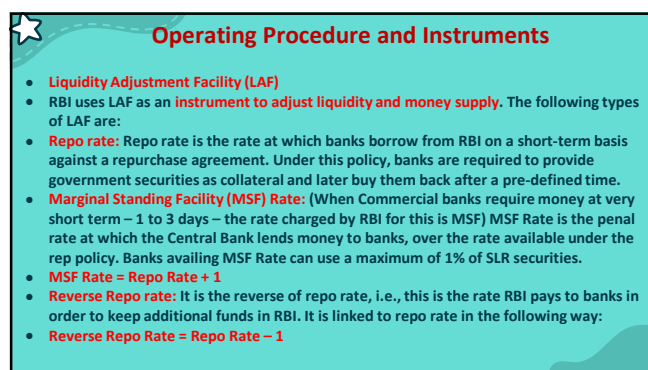
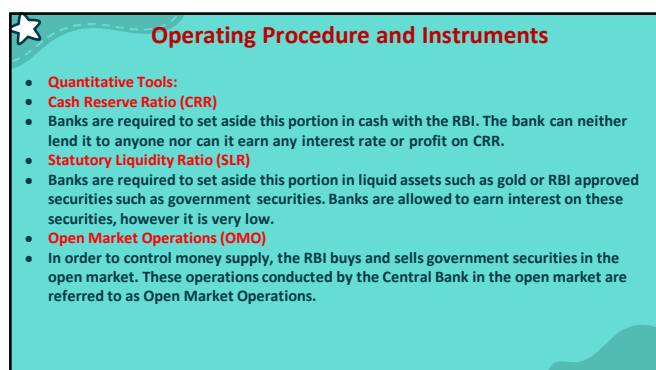
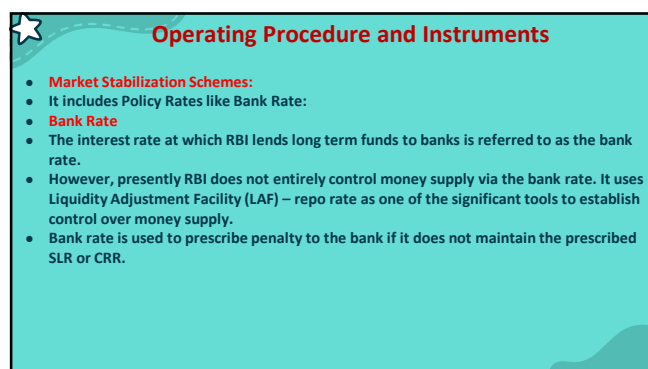
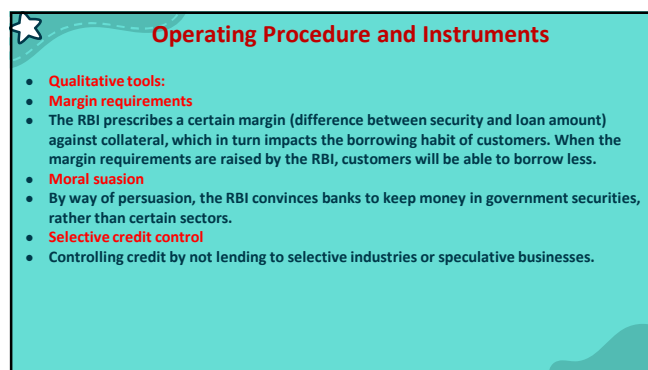
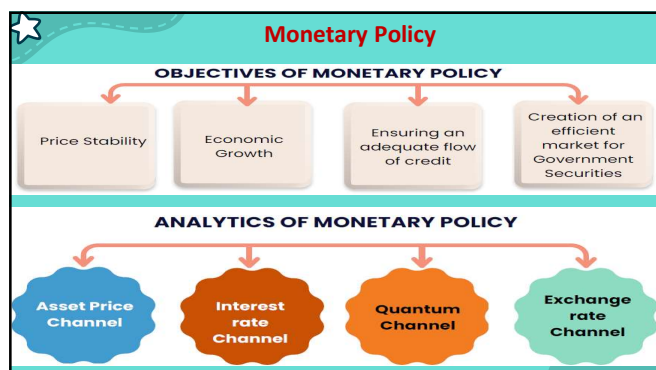
The Concept of Money Multiplier

- The money supply is defined as $M = m \times MB$
- Where M is the money supply, m is money multiplier and MB is the monetary base or high-powered money.
- Money Multiplier(m) = (Money Supply) / (Monetary Base)**
- The additional units of high powered money that goes into 'excess reserves' of the commercial banks do not lead to any additional loans and therefore, these excess reserve do not lead to the creation of deposits.
- When **the required ratio falls**, there will be **multiple expansions for demand deposits**.
- Excess reserve ratio is negatively related to the market interest rate**

Monetary Policy

- Monetary policy refers to the use of monetary policy instruments which are at the disposal of the central bank to regulate the availability, cost and use of money and credit so as to promote economic growth, price stability, optimum levels of output and employment, balance of payments equilibrium, stable currency or any other goal of government's economic policy.





Monetary Policy Committee

- The Monetary Policy Committee (MPC) consisting of six members shall determine the policy rate to achieve the inflation target through debate and majority vote by a panel of experts.
- The Monetary Policy Framework Agreement is an agreement reached between the Government of India and the Reserve Bank of India (RBI) on the maximum tolerable inflation rate as 4 percent Consumer Price Index (CPI) inflation with a deviation of 2 percent.
- Choice of a monetary policy action is rather complicated in view of the surrounding uncertainties and the need for exercising complex judgment to balance growth and inflation concerns.
- Additional complexities arise in the case of an emerging market like India.

Theory of Absolute Advantage

- According to Adam Smith's Absolute Cost Advantage theory, a country will specialize in the production and export of a commodity in which it has an absolute cost advantage.

International Trade

- International trade is the exchange of goods and services as well as resources between countries and involves greater complexity compared to internal trade.

Theory of Comparative Advantage

- Ricardo's theory of comparative advantage states that a nation should specialize in the production and export of the commodity in which its absolute disadvantage is smaller (this is the commodity of its comparative advantage) and import the commodity in which its absolute disadvantage is greater (this is the commodity of its comparative disadvantage).

Mercantilists View of International Trade

- Mercantilism advocated maximising exports in order to bring in more precious metals and minimising imports through the state imposing very high tariffs on foreign goods.

Heckscher Ohlin Theory of Trade

- The Heckscher-Ohlin theory of trade, also referred to as Factor-Endowment Theory of Trade or Modern Theory of Trade, states that comparative advantage in cost of production is explained exclusively by the differences in factor endowments.

Factor Price Equalization Theorem

- The Factor-Price Equalization Theorem states that international trade equalizes the factor prices between the trading nations.
- Therefore, with free trade, wages and returns on capital will converge across the countries.

The Instruments of Trade Policy

- Tariff, also known as customs duty is defined as a financial charge in the form of a tax, imposed at the border on goods going from one customs territory to another.
- Tariffs are the most visible and universally used trade measures.

New Trade Theory

- American economist and journalist Paul Krugman received the 2008 Nobel Prize for Economics for his work in economic geography and in identifying international trade patterns.
- New Trade Theory is the latest entrant to explain the rising proportion of world trade in the developed world and bigger developing economies (such as BRICS) which trade in similar products.
- These countries constitute more than 50% of world trade.
- According to this theory, two key concepts Economies of Scale and Network effects, affects international trade in a major way.

Non-Tariff Measures

- Non-tariff measures (NTMs) are policy measures, other than ordinary customs tariffs, that can potentially have an economic effect on international trade in goods, changing quantities traded or prices or both

The Instruments of Trade Policy

- Trade policy encompasses all instruments that governments may use to promote or restrict imports and exports.

Technical Measures

- Sanitary and Phytosanitary (SPS) measures: applied to protect human, animal or plant life from risks, arising from addition, pests, contaminants, toxins or disease causing organisms.
- Technical Barriers to trade specifying details such as size, shape, design, labelling/markings, etc.

Non-Technical Measures

- Non-technical measures relate to trade requirements; for example; shipping requirements, custom formalities, trade rules, taxation policies, etc.
- **Import Quotas:** Restrictions on physical amount of imported goods
- **Price Control Measures:** Imposing taxes on charges
- **Non-Automatic Licensing and Prohibitions:** limiting or prohibiting certain types of import
- **Financial Measures:** Regulating access to and cost of foreign exchange.
- **Government Procurement Policies:** Govt. may lay down policies w.r.t procurements.
- **Trade-Related Investment Measures:** May include rules on local content requirements of production
- **Embargos:** Total ban on import or export of some commodities to a particular country or region for some or indefinite period.

Major Types of Trade Agreements

- Unilateral trade agreements,
- Bilateral agreements,
- Regional preferential trade agreements,
- Trading bloc,
- Free-trade area,
- Customs union,
- Common market and economic and monetary union.

Export Related Measures

- **Ban of Export:** Exports of certain items may be banned during shortages.
- **Export Taxes:** An export tax is a tax collected on exported goods and may be either specific or ad valorem and an export subsidy includes financial contribution to domestic producers in the form of grants, loans, equity infusions also usually provide etc. or give some form of income or price support. Both distort trade.
- **Export subsidies and Incentives:** Given by government to boost exports.
- **Voluntary Export-Restraints:** Voluntary Export Restraints (VERs) refer to a type of informal quota administered by an exporting country voluntarily restraining the quantity of goods that can be exported out of a country during a specified period of time, imposed based on negotiations to appease the importing country and to avoid the effects of possible trade restraints.

GATT

- The General Agreement on Tariffs and Trade (GATT) provided the rules for much of world trade for 47 years from 1948 to 1994.
- Eight multilateral negotiations known as trade rounds held under the GATT auspices.
- The 8th of the Uruguay Round of 1986-94 was last under GATT and culminated in the birth of WTO.

Trade Negotiations

- International trade negotiations, especially the ones aimed at formulation of international trade rules, are complex interactive processes engaged in by countries having competing objectives.

WTO

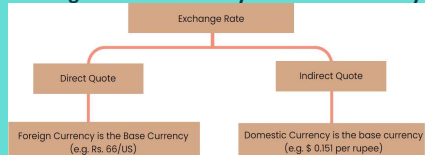
- The eighth of the Uruguay Round of 1986-94, was the last and most consequential of all rounds and culminated in the birth of WTO and a new set of agreements replacing the General Agreement on Tariffs and Trade (GATT).
- The WTO does its functions by acting as a forum for trade negotiations among member governments, administering trade agreements, reviewing national trade policies, cooperating with other international organizations and assisting developing countries in trade policy issues through technical assistance and training programmes.

WTO

- The WTO Activities are supported by the Secretariat located in Geneva, headed by a Director General. It has a three-tier system of decision-making.
- The top level decision-making body is the Ministerial Conference, followed by councils namely, the General Council and the Goods Council, Services Council and Intellectual Property (TRIPS) Council.
- The principal objective of the WTO is to facilitate the flow of international trade smoothly, freely, fairly and predictably.
- Members: The WTO currently has 164 members, of which 117 are developing countries or separate customs territories accounting for about 95% of world trade.

Exchange Rate and Its Economic Effects

- Exchange rate is the rate at which the currency of one country exchanges for the currency of another country.



Cross rate

The rate between Y and Z which is derived from the given rates of another set of two pairs of currency (say, X and Y, and X and Z) is called cross rate.

- **Exchange Rate Regime:** An exchange rate regime is the system by which a country manages its currency in respect to foreign currencies.

Guiding Principles of WTO

- Trade without discrimination, most-favoured-nation treatment (MFN)
- The national treatment principle (NTP)
- Free trade
- Predictability
- General prohibition of quantitative restrictions
- Greater competitiveness
- Tariffs as legitimate measures for protection
- Transparency in decision making
- Progressive liberalisation
- Market access and
- A transparent, effective, and verifiable dispute settlement mechanism.

Floating Exchange Rate Regime

- The equilibrium value of the exchange rate of a country's currency is market determined i.e the demand for and supply of currency relative to other currencies, determines the exchange rate.
- A floating exchange rate allows a government to pursue its own independent monetary policy and there is no need of market intervention or maintenance of reserves.
- But, volatile exchange rates generate a lot of uncertainties in relation to international transactions,
- Examples: Advanced economies like U.S.A, New Zealand, Sweden.

A Few WTO Concerns

- Slow progress of multilateral negotiations,
- Uncertainties resulting from regional trade agreements,
- Inadequate or negligible trade liberalisation,
- Those which are specific concerns to the developing countries,
- Protectionism and lack of willingness among developed countries to provide market access,
- Difficulties that they face in implementing the present agreements,
- Apparent north-south divide,
- Exceptionally high tariffs,
- Tariff escalation, erosion of preferences and difficulties with regard to adjustments

Fixed Exchange Rate Regime

- Also referred to as pegged exchange rate, is an exchange rate regime under which a country's government announces, or decrees, what its currency will be worth in terms of either another country's currency or a basket of currencies or another measure of value, such as gold.
- A central bank may implement soft peg policy under which the exchange rate is generally determined by the market, or a hard peg where the central bank sets a fixed and unchanging value for the exchange rate
- A fixed exchange rate avoids currency fluctuations and eliminates exchange rate risks and transaction costs, enhances international trade and investment and lowers the levels of inflation.
- But, the central bank has to maintain an adequate amount of reserves and be always ready to intervene in the foreign exchange market.

Nominal Vs. Real Exchange Rate

- Nominal Exchange Rate states how much of one currency can be traded for a unit of another currency.
- Real Exchange Rate: The 'Real Exchange Rate' incorporates changes in prices and describes 'how many' of a good or service in one country can be traded for 'one' of that good or service in a foreign country.
- Real exchange rate = Nominal exchange rate \times Domestic price Index / Foreign price Index
- Real Effective Exchange Rate (REER) is the nominal effective exchange rate (a measure of the value of a currency against a weighted average of several foreign currencies) divided by a price deflator or index of costs.

Changes in Exchange Rate

DEVALUATION (REVALUATION)	DEPRECIATION (APPRECIATION)
\$1 = Rs. 80 \$1 = Rs. 85	\$1 = Rs. 80 \$1 = Rs. 85
Devaluation is a deliberate downward adjustment in the value of a country's currency relative to another country's currency or group of currencies or standard.	Depreciation is a decrease in a currency's value (relative to other major currency benchmarks) due to market forces of demand and supply under a floating exchange rate and not due to any government or central bank policy actions.
Revaluation refers to a discrete official increase of the otherwise fixed par value of a nation's currency.	Appreciation is an increase in a currency's value due to market forces of demand and supply under a floating exchange rate and not due to any government or central bank policy interventions.

Changes in Exchange Rate

- **Home-currency depreciation** (which is the same as foreign-currency appreciation) takes place when there is an increase in the home currency price of the foreign currency (or, alternatively, a decrease in the foreign currency price of the home currency).
- The home currency thus becomes relatively less valuable.
 - Exchange rate depreciation lowers the relative price of country's export (Export Increases).
 - Raises the relative price of import (Import Falls).
 - Leads to output expansion.
 - Encourages economic activity.
 - Increases international competitiveness.
 - Improves Balance of Trade.

Foreign Exchange Market

- The wide-reaching collection of markets and institutions that handle the exchange of foreign currencies is known as the foreign exchange market.
- Being an over-the-counter market, it is not a physical place; rather, it is an electronically linked network bringing buyers and sellers together and has only very narrow spreads.
- On account of arbitrage, regardless of physical location, at any given moment, all markets tend to have the same exchange rate for a given currency.
- Arbitrage refers to the practice of making risk-less profits by intelligently exploiting price differences of an asset at different dealing places.

Changes in Exchange Rate

- **Home-currency appreciation** (or foreign-currency depreciation) takes place when there is a decrease in the home currency price of foreign currency (or alternatively, an increase in the foreign currency price of home currency).
- The home currency thus becomes relatively more valuable.
 - Currency Appreciation raises the price of exports (Export falls).
 - Increases imports.
 - Adverse effects on competitiveness.
 - Causes larger deficit.
 - Worsens the Balance of Trade.

Types of Transactions in Foreign Exchange Market

- **SPOT MARKET:** Current transactions which are carried out in the spot market and exchange involves immediate delivery.
- **FORWARD AND /OR FUTURE MARKET:** Contracts buy or sell currencies for future delivery which are carried out in forward and/or future.

International Capital Movements

- Foreign capital may flow into an economy in different ways, such as foreign aid, grants, borrowings, deposits from non-resident Indians, investments in the form of foreign portfolio investment (FPI) and foreign direct investment (FDI).

FDI Prohibited in India

- Lottery business including Government/private lottery, online lotteries, etc.
- Gambling and betting including casinos, etc.
- Chitfunds
- Nidhi company
- Trading in Transferable Development Rights
- Real Estate Business or Construction of Farm Houses

International Capital Movements

Foreign Direct Investment (FDI)	Foreign Portfolio Investment (FPI)
Investment involves creation of physical assets	Investment is only in financial assets
Has a long term interest and therefore remain invested for long	Only short term interest and remain invested for short periods generally
Relatively difficult to withdraw	Relatively easy to withdraw
Not inclined to be speculative	Speculative in nature
Often accompanied by technology transfer	Not accompanied by technology transfer
Direct impact on employment of labour and wages	No direct impact on employment of labour and wages
Enduring control interest in management	No abiding interest in management and control
Securities are held with significant degree of influence by the investor on the management of the enterprise	Securities are held purely as a financial investment and no significant degree of influence on the management of the enterprise

Thank You

Modes of FDI

- Opening of a subsidiary or associate company in a foreign country,
- Equity injection into an overseas company,
- Acquiring a controlling interest in an existing foreign company,
- Mergers and acquisitions(M&A)
- Joint venture with a foreign company.
- Green field investment
- Brownfield investments
 - (i) Green field investment (establishment of a new overseas affiliate for freshly starting production by a parent company).
 - (ii) Brownfield investments (a form of FDI which makes use of the existing infrastructure by merging, acquiring or leasing, instead of developing a completely new one. For e.g., in India 100% FDI under automatic route is allowed in Brownfield Airport projects.