

APPOLO STUDY CENTRE

GEOGRAPHY AND INDIAN ECONOMY DEC MONTHLY TEST - 1

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MONSOON, RAINFALL, WEATHER, CLIMATE

8TH Term I

Unit - 2 - Weather And Climate

Introduction

- Climate is one of the basic elements in the natural environment. It affects landforms, soil types, fauna and flora. It influences man to a large extent.
- Weather and climate influence man's activities like what we eat, wear, the house in which we live and work, farming, sailing, fishing, modern transport and even our play time etc. Hence one should have knowledge about the weather and climate. So, in this chapter we are going to learn about weather and climate, its elements and how they influence our lifestyle

Weather

- Weather is the day today conditions(state) of the atmosphere at any place as regards sunshine, temperature, cloud cover, Wind fog condition, air pressure, humidity, precipitation and such other elements. It refers to short periods like a day, a week, a month or a little longer and as such the weather changes from time to time in a day and one period to the other in an year.

Earth's atmosphere is a layer of gases surrounding the planet earth and retained by the earth's gravity. It contains about 78% nitrogen, 21% oxygen, 0.97% argon, 0.03% carbon dioxide and 0.04% trace amounts of other gases and water vapour

Climate

- **Climate is generally defined as the average conditions (state) of the weather of a place or a region. The average atmospheric conditions are determined by measuring the weather elements for a long period of time which is usually for 35 years. The elements of weather and climate are the same. The climate does not change often like weather.**

The word Climate is derived from the ancient Greek word "Klimo" which means "Inclination".

Controlling factors of weather and climate

- Angle of the sun's rays, the length of daytime, altitude, distribution of land and water bodies, location and direction of mountain ranges, air pressure, winds and ocean currents are the major factors which affect the weather and climate of a region.
- The earth is spherical in shape. So, the sun's rays fall unevenly on the earth's surface. The Polar regions receive slanting sun's rays. Hence there is little or no sunlight, thus there is an extreme

cold winters. Vertical sun's ray's fall directly on regions around the equator, hence the climate is very hot and almost no winters. The difference in temperature makes the air and water move in currents. Warm air rises and creates more space for air beneath, while cool air settles down.

Scientific study of weather is called Meteorology and the scientific study of climate is called climatology

Elements of weather and climate

- Temperature, rainfall, pressure, humidity and wind are the major elements of weather and climate.

Temperature

- Temperature is one of the key elements of weather and climate. The earth and its atmosphere get heated from the sun through insolation. The degree of heat present in the air is termed as temperature. Apart from sun's rays, the heat in air also depends the atmospheric mass to a small extent.

Distribution of weather elements are shown by means of Isolines on maps. Isolines are those which join the places of equal values. Isolines are given different names based on the weather element they represent.

Isotherm	Equal Temperature
Isocryme	Equal Lowest mean temperature for a specified period
Isohel	Equal Sunshine
Isolobar	Equal Pressure tendency showing similar changes over a given time
Isobar	Equal atmospheric pressure
Isohyet	Equal amount of rainfall.

- Temperature varies with time due to changes in the level of radiation which reach the earth surface. This is due to motions of the earth (The rotation and revolution) and inclination of the earth's axis.
- The temperature influences the level of humidity, the process of evaporation, condensation and precipitation.
- Heat energy from solar radiation is received by the earth through three mechanisms. They are radiation, conduction and convection. The Earth's atmosphere is heated more by terrestrial radiation than insolation.

Temperature varies both horizontally and vertically. Temperature decreases with increasing height is known as Lapse rate which is 6.5 degree celsius per 1000 meters in troposphere

Factors affecting the distribution of temperature

- Latitude, altitude, nature of land, ocean currents, prevailing winds, slope, shelter and distance from the sea, natural vegetation and soil are the major factors which affect the distribution of temperature.

Measuring Temperature

- The temperature of a unit volume of air at a given time is measured in scales like Celsius, Fahrenheit, and Kelvin. Meteorologist measures the temperature by the Thermometer, Stevenson screen and minimum and maximum Thermometer. The energy received by the earth through insolation is lost by outgoing radiation. Atmosphere is mainly heated by outgoing radiation from 2 to 4pm .So the maximum temperature is recorded between 2 and 4 pm regularly and minimum temperature is recorded around 4 am before sunrise.

Mean Temperature

- The average of maximum and minimum temperatures within 24 hours is called mean daily temperature $[(87^{\circ}\text{F}+73^{\circ}\text{F})/2=80^{\circ}\text{F}]$. Diurnal range of temperature is the difference between the maximum and minimum temperatures of a day. Annual range of temperature is the difference between the highest and lowest mean monthly temperatures of a year. The distribution of temperature is shown by means of Isotherms. Isotherms are imaginary lines which connect the same temperatures of different places.

Heat zones of the earth

- The fact that the earth is spherical in shape results in different parts of the earth getting heated differently. Based on the heat received from the sun, Earth is divided into three heat zones. They are

Torrid Zone

- It is a region between the tropic of cancer and the tropic of Capricorn. This region receives the direct rays of the sun and gets the maximum heat from the sun. This zone known as the torrid or the tropical zone

Temperate zone

- This zone lies between the Tropic of cancer and the Arctic circle in the Northern Hemisphere and between the Tropic of Capricorn and the Antarctic circle in the southern Hemisphere. This zone gets the slanting rays of the sun and the angle of the sun's rays goes on decreasing towards the poles. Thus this zone experiences moderate temperature.

Frigid Zone

- The frigid zone lies between the Arctic circle and the North Pole and between the Antarctic circle and the South Pole. This region also known as Polar region. Since it receives the extremely low temperature throughout the year, these regions are covered with snow.

Highest Temperature ever recorded

- The highest temperature ever recorded on the earth is 56.7°C (134°F). It was recorded on 10th July 1913 at Greenland Ranch of Death Valley, California, USA.

Lowest Temperature ever recorded

- The lowest temperature ever recorded on the earth is -89.2°C (-128.6°F ; 184.0 K). It was recorded on 21st July, 1983 at Soviet Vostok Station in Antarctica.

Rainfall

- Rain is a liquid water in the form of droplets that have condensed from atmospheric water vapour and then become heavy enough to fall under gravity. Rain is a major component of the water cycle and is responsible for depositing most of the fresh water on the Earth. It is the source of water for all purposes. There is a close relationship between the temperature and rainfall distribution. Generally rainfall is high in the equatorial region and decreases gradually towards poles. Rainfall is measured by Rain gauge.
- The weight of air above a given area on the earth's surface is called atmospheric pressure or air pressure. The air pressure is measured by Barometer. The standard air pressure at sea level is 1013.25mb . At the earth's surface the pressure is 1.03kg. per sq cm . The variation in standard atmospheric pressure is found both horizontally and vertically. Based on the level of pressure, it is categorised into low pressure and high pressure. Low pressure area is an area in the atmosphere where the pressure is lower than its surrounding areas. In this situation, the wind from the surroundings blow towards the centre of low pressure. High pressure is an area of atmosphere where the barometric pressure is higher than its surrounding areas. In this case, the wind from the centre of high pressure blows towards the surrounding low pressure areas. Low pressure system is marked as "L" on weather map, whereas the high pressure system is marked as "H". Low pressure systems are also called as a depression and cyclones. High pressure system is called anti cyclones. Low pressure leads to cloudiness, wind, and precipitation. High pressure leads to fair and calm weather. Isobar is used to show the distribution of air pressure.

Highest pressure ever recorded.

The highest ever air pressure at sea level was recorded at Agata, Russia on 31st December, 1968. The pressure was 1083.8mb

Lowest pressure ever recorded

The lowest pressure of 870mb was recorded at Typhoon Tip, near Guam, Mariana Island in Pacific Ocean on 12th October, 1979.

- Humans are not sensitive to small variation in air pressure. But the small variations in pressure that do exist largely determine the wind and storm patterns of the earth. The distribution of atmospheric pressure is controlled by altitude, atmospheric temperature, air circulation, earth rotation, water vapour, atmospheric storms etc.

Measuring air pressure

- Meteorologist uses barometer/aneroid barometer to measure the air pressure. Barograms are used for recording continuous variation in atmospheric pressure.

Humidity

- Humidity refers to the degree of water vapour present in the atmosphere in gaseous form in particular time and place. It ranges from 0-5 percent by volume in atmosphere. Climatically it is an important constituent of the atmosphere and its quantity depends on the level of temperature. So, the level of humidity decreases towards poles from equator. Humidity is expressed in different ways.
- **Specific humidity** is a ratio of the water vapor content of the mixture to the total air content on a mass basis. It is expressed in grams of vapour per kilogram of air
- **Absolute Humidity** is the mass or weight of water vapour present per unit volume of air. It is expressed usually in grams per cubic meter of air.
- **Relative humidity** is a ratio between the actual amount of water vapour present in the air and the maximum amount of water vapour it can hold at a given temperature. It is expressed as a percentage.
- Generally, warm air holds more water vapour than the cold air. When relative humidity reaches 100%, the air gets saturated. In this condition the temperature is said to be at dew-point. Further cooling will condense the water vapour into the clouds and rain. Relative humidity affects human health and comfortness. Very high and very low humidity are injurious to health. It also affects the stability of different objects, buildings and electrical applications.

Measurement of Humidity

- Hygrometer is used to measure the humidity. (which comprises wet and dry bulb-plate side by side in the Stevenson screen)

With decreasing air pressure, the availability of oxygen to breathe also decreases. At very high altitudes, atmospheric pressure and available oxygen get so low that people can become sick and even die. Mountain climbers use bottled oxygen when they ascend very

high peaks. They also take time to get used to the altitude as the quick move from high pressure to low pressure can cause decompression sickness. Aircraft create artificial pressure in the cabin which makes the passengers remain comfortable while flying.

Wind

- The horizontal movement of air is called wind. Vertical movement of air is said as air current. The winds move from high pressure to low pressure. Unlike other elements a wind is made up of a series of gusts and eddies which can only be felt and not seen. Winds get their name from the direction from which they blow i.e, wind blows from south west is called southwest wind.

The wind systems are broadly categorized into three as follows.

- Planetary winds
- Seasonal winds
- Local winds

- Planetary Winds are the ones which blow almost in the same direction throughout the year. So, they are called as Permanent or planetary winds. Trade winds, Westerlies and polar easterlies are the types of prevailing winds.
- Seasonal winds are those which change their direction according to season in a year. They are called as monsoon winds. These winds blow from sea to land during summer and land to sea during winter. Local winds are the winds blow over a small area only during a particular time of a day or a short period of a year. Land and sea breezes are example of these winds.
- The Beaufort scale is a scale for measuring wind speed. It is based on observation rather than accurate measurement. It is the most widely used system to measure wind speed today. The scale was developed in 1805 by Francis Beaufort, an officer of the Royal Navy and first officially used by HMS Beagle.

Al-Balakhi, an Arab Geographer collected climatic data from the Arab travellers and prepared the First climatic Atlas of the world

Measuring wind direction and speed

- Meteorologist measures wind direction using wind vane or weather cock. Wind speed is measured by anemometer. Wind rose is a diagram used to depict the direction and periods (No. of days) of prevailing winds on map. Meteorograph or triple register is an instrument which records wind speed and direction, sunshine and precipitation. It also provides graphic representation.

Brazil has a large area where the average wind speed is low. Gabon, Congo and DR Congo in Africa, Sumatra, Indonesia and Malaysia are the least windy places on earth.

10th Full Book

Unit 2- Climate & Natural Vegetation of India

Equable climate is also called as the British climate, Which is neither too hot nor too cold

The factors affecting the climate

- Climate of India is affected by the factors of latitude, distance from the seas, monsoon wind, relief features and jet stream.

Latitude

- Latitudinally, India lies between 8°4'N and 37°6'N latitudes. The Tropic of cancer divides the country into two equal halves. The area located to the south of Tropic of cancer experiences high temperature and no severe cold season throughout the year whereas, the areas to the north of this parallel enjoys sub-tropical climate. Here, summer temperature may rise above 40°C and it is close to freezing point during winter.

Altitude

- When the altitude increases, The temperatures decreases. Temperature decreases at the rate of 6.50C for every 1000 metres of ascent. It is called normal lapse rate.
- Hence, places in the mountains are cooler than the places on the plains. That is why the places located at higher altitudes even in south India have cool climate. Ooty and several other hill stations of south India and of the Himalayan ranges like Mussourie, Shimla etc., are much cooler than the places located on the Great Plains.

Distance from the Sea

- Distance from the sea does not cause only temperature and pressure variations but also affects the amount of rainfall. A large area of India, especially the peninsular region, is not very far from the sea and this entire area has a clear maritime influence on climate. This part of the country does not have a very clearly marked winter and the temperature is equable almost throughout the year. Areas of central and north India experience much seasonal variation in temperature due to the absence of influence of seas. Here, summers are hot and winters are cold. The annual temperature at Kochi does not exceed 30°C as its location is on the coast while it is as high as 40°C at Delhi, since it is located in the interior part. Air near the coast has more moisture and greater potential to produce precipitation. Due to this fact, the amount of rainfall at Kolkata located near the coast is 119 cm and it decreases to just 24 cm at Bikaner which is located in the interior part.

Monsoon Wind

- The most dominant factor which affects the climate of India is the monsoon winds. These are seasonal reversal winds and India remains in the influence of these winds for a considerable part of a year. Though, the sun's rays are vertical over the central part of India during the mid-June, the summer season ends in India by the end of May. It is because the onset of southwest monsoon brings down the temperature of the entire India and causes moderate to heavy rainfall in many parts of the country. Similarly, the climate of southeast India is also influenced by northeast monsoon.

Relief

- Relief of India has a great bearing on major elements of climate such as temperature, atmospheric pressure, direction of winds and the amount of rainfall. The Himalayas acts as a barrier to the freezing cold wind blows from central Asia and keep the Indian subcontinent warm. As such the north India experiences tropical climate even during winter. During southwest monsoon, areas on the western slope of the Western Ghats receive heavy rainfall. On the contrary, vast areas of Maharashtra, Karnataka, Telangana, Andhra Pradesh and Tamil nadu lie in rain shadow or leeward side of the Western Ghats receive very little rainfall. During this season, Mangalore, located on the coast gets the rainfall of about 280 cm whereas the Bengaluru located on the leeward side receives only about 50 cm rainfall.

Jet Streams

- Jet streams are the fast moving winds blowing in a narrow zone in the upper atmosphere. According to the Jet stream theory, the onset of southwest monsoon is driven by the shift of the sub tropical westerly jet from the plains of India towards the Tibetan plateau. The easterly jet streams cause tropical depressions both during southwest monsoon and retreating monsoon.

Monsoon

- The word 'monsoon' has been derived from the Arabic word 'Mausim' which means 'season'. Originally, the word 'monsoon' was used by Arab navigators several centuries ago, to describe a system of seasonal reversal of winds along the shores of the Indian Ocean, especially over the Arabian Sea. It blows from the south-west to north-east during summer and from the north-east to south-west during winter.
- Monsoons are a complex meteorological phenomenon. Meteorologists have developed a number of concepts about the origin of monsoons. According to the Dynamic concept, Monsoon wind originates due to the seasonal migration of planetary winds and pressure belts following the position of the sun. During summer solstice, the sun's rays fall vertically over the Tropic of cancer. Therefore, all the pressure and wind belts of the globe shift northwards. At this time, Inter -Tropical Convergence Zone (ITCZ) also moves northward, and a major part of Indian landmass comes under the influence

of southeast trade winds. While crossing equator this wind gets deflected and takes the direction of southwest and becomes south-west monsoon. During the winter season, the pressure and wind belts shift southward, thereby establishing the north-east monsoon (trade winds) over this region. Such systematic change in the direction of planetary winds is known as monsoon.

Atacama desert is the driest place on the earth.

Seasons

The meteorologists recognize the four distinct seasons in India. They are;

- Winter or cold weather season (January - February).
- Pre Monsoon or summer or hot weather season (March - May).
- Southwest monsoon or rainy season (June - September).
- Northeast monsoon season (October - December).

Winter or cold weather season

- During this period, the vertical rays of the sun falls over tropic of capricorn which is far away from India. Hence, India receives the slanting sun's rays which results in low temperature. The cold weather season is characterized by clear skies, fine weather, light northerly winds, low humidity and large day time variations of temperature. During this season a high pressure develops over north India and a north-westerly wind blows down the Indus and Ganges valleys. In south India, the general direction of wind is from east to west. The mean temperature increases from north to south, the decrease being sharp as one moves northwards in the north-western part of the country. The mean daily minimum temperatures range from 22°C in the extreme south, to 10°C in the northern plains and 6°C in Punjab. The rain during this season generally occurs over the Western Himalayas, Tamil nadu and Kerala. Western disturbances and associated trough in westerlies are main rain bearing system in northern part of the country. The jet stream plays a dominant role in bringing these disturbances to India. These disturbances cause rainfall in Punjab, Haryana and Himachal Pradesh, and snowfall in the hills of Jammu and Kashmir. This rainfall is very useful for the cultivation of winter wheat.

Pre Monsoon or summer or hot weather season

- During this season, the vertical rays of the sun falls over the peninsular India. Hence, there is a steady increase in temperature from south to north. It is practically hot and dry in the entire country in the initial part of this season. Weather over the land areas of the country is influenced by thunderstorms associated with rain and sometimes with hail mostly in the middle and later part. During this season, temperature starts

increasing all over the country and by April, the interior parts of south India record mean daily temperatures of 30°C–35°C. Central Indian land mass becomes hot with day-time maximum temperature reaching about 40°C at many locations. Many stations in Gujarat, North Maharashtra, Rajasthan and North Madhya Pradesh exhibit high day-time and low night-time temperatures during this season.

- Because of the atmospheric pressure conditions, the winds blow from southwest to northeast direction in Arabian Sea and Bay of Bengal. They bring pre monsoon showers to the west coast during the month of May. There are few thunder showers called “Mango Showers” which helps in quick ripening of mangoes along the coast of Kerala and Karnataka. “Norwesters” or “Kalbaisakhis” are the local severe storms or violent thunderstorms associated with strong winds and rain lasting for short durations. It occurs over the eastern and north eastern parts over Bihar, West Bengal and Assam during April and May. They approach the stations from the northwesterly direction.

Southwest monsoon or Rainy Season

- The southwest monsoon is the most significant feature of the Indian climate. The onset of the southwest monsoon takes place normally over the southern tip of the country by the first week of June, advances along the Konkan coast in early June and covers the whole country by 15th July. The monsoon is influenced by global phenomenon like ElNino.
- Prior to the onset of the southwest monsoon, the temperature in north India reaches upto 46°C. The sudden approach of monsoon wind over south India with lightning and thunder is termed as the ‘break’ or ‘burst of monsoon’. It lowers the temperature of India to a large extent. The monsoon wind strikes against the southern tip of Indian land mass and gets divided into two branches. One branch starts from Arabian sea and the other from Bay of Bengal. The Arabian sea branch of southwest monsoon gives heavy rainfall to the west coast of India as it is located in the windward side of the Western Ghats. The other part which advances towards north is obstructed by Himalayan Mountains and results in heavy rainfall in north. As Aravalli Mountain is located parallel to the wind direction, Rajasthan and western part do not get much rainfall from this branch. The wind from Bay of Bengal branch moves towards northeast India and Myanmar. This wind is trapped by a chain of mountains namely Garo, Khasi and Jaintia are mainly responsible for the heaviest rainfall caused at Mawsynram located in Meghalaya. Later on, this wind travel towards west which results in decrease in rainfall from east to west. Over all about 75% of Indian rainfall is received from this monsoon. Tamil nadu which is located in the leeward side receives only a meagre rainfall.

Post monsoon or Retreating or Northeast monsoon season

- The southwest monsoon begins to retreat from north India by the end of September due to the southward shifting pressure belts. The southwest monsoon wind returns

from Indian landmass and blows towards Bay of Bengal. The coriolis force deflects this wind and makes it to blow from northeast. Hence, it is known as Northeast monsoon or Post-monsoon season. The season is associated with the establishment of the north-easterly wind system over the Indian subcontinent. Andhra Pradesh, Tamil nadu, Kerala and south interior Karnataka receive good amount of rainfall accounted for 35% of their annual total. Many parts of Tamil nadu and some parts of Andhra Pradesh and Karnataka receive rainfall during this season due to the storms forming in the Bay of Bengal. Large scale losses to life and property occur due to heavy rainfall, strong winds and storm surge in the coastal regions. The day time temperatures start falling sharply all over the country. The mean temperature over north-western parts of the country shows a decline from about 38°C in October to 28°C in November.

Mawsynram, the place which receives highest rainfall (1141 cm) in the world. It is located in Meghalaya.

Distribution of rainfall

- The average annual rainfall of India is 118 cm. However, spatial distribution of rainfall in the country is highly uneven. About 11% area receives over 200 cm of annual rainfall, 21% area receives 125 to 200 cm, 37% area receives 75 to 125 cm, 24% area gets 35 to 75 cm and 7% area gets less than 35 cm. The Western coast, Assam, South Meghalaya, Tripura, Nagaland and Arunachal Pradesh are the heavy rainfall areas which get more than 200 cm rainfall. The whole of Rajasthan, Punjab, Haryana, Western and Southwestern parts of Uttar Pradesh, Western Madhya Pradesh, the entire Deccan Trap or Plateau region east of Western Ghats except for a narrow strip along Tamil nadu coast receive a low rainfall of less than 100 cm. The rest of the areas receive a rainfall ranging between 100 and 200 cm.

12thbook
Unit 7 - Sustainable Development

- United Nations and Sustainable Development Sustainability was first featured in the principles adopted by the United Nations Conference on the Human Environment held at Stockholm on 16 June 1972. It was now realized that development needed to be sustainable – it should not only focus on economic and social matters, but also on matters related to the use of natural resources. The United Nations commissioned a group of 22 people from both developed and developing countries to identify long-term environmental strategies for the international community. This World Commission on Environment and Development (WCED), was headed by Gro Harlem Brundtland, then the Prime Minister of Norway. This commission came to be known as the Brundtland Commission, which submitted its report, entitled Our common future, to the UN in 1987.
- The Brundtland Report focused on the needs and interests of humans. It was concerned with securing a global equity for future generations by redistributing resources towards poorer nations to encourage their economic growth in order to enable all human beings to achieve their basic needs. The report highlighted the three fundamental components of sustainable development, the environment, the economy, and society, which later became known as the triple bottom line.
- The 1992 and 2002 Earth Summits held at Rio de Janeiro and Johannesburg were the United Nations Conference on Environment and Development (UNCED), a direct result of the Brundtland Commission. An important achievement of the Rio summit was an agreement on the Climate Change Convention which led to the Kyoto Protocol which you have learned about earlier.
- The United Nations Conference on Sustainable Development (UNCSD), also known as Rio 2012, Rio+20 or Earth Summit 2012 was the third and recent International conference on sustainable development. It was hosted by Brazil in Rio de Janeiro from 13 to 22 June 2012.

Concept and Goals of Sustainable Development

- In 1980 the International Union for the Conservation of Nature introduced the term "sustainable development". Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.
- A primary goal of sustainable development is to achieve a reasonable and equitably distributed level of economic wellbeing that can be continued for many human generations.

Sustainable Development Goals (SDGs)

- In 1992, the UN Conference on Environment and Development published the Earth Charter, which outlined the building of a just, sustainable, and peaceful global society in the 21st century. The action plan was known as 'Agenda 21' for sustainable development.
- In September 2015, the United Nations General Assembly formally adopted the "Universal, integrated and transformative" 2030 Agenda for Sustainable Development, a set of 17 Sustainable Development Goals (SDGs). The goals are to be implemented and achieved in every country from the year 2016 to 2030.
- Countries adopted a set of goals to end poverty, protect the planet and ensure prosperity for all as part of a new sustainable development agenda. Each goal has specific targets to be achieved over the next 15 years.
- For the goals to be reached, everyone needs to do their part: governments, the private sector, civil society and people.

End poverty in all its forms everywhere

- One in five people in developing countries still live on less than \$1.90 a day, many people risk slipping back into poverty. Economic growth must be inclusive to provide sustainable jobs and promote equality.

End hunger, achieve food security and improved nutrition and promote sustainable agriculture

- Agriculture, forestry and fisheries can provide nutritious food for all and generate decent incomes, while supporting people-centred rural development and protecting the environment. A profound change of the global food and agriculture system is needed if we are to nourish today's 815 million hungry and the additional 2 billion people expected by 2050.

Ensure healthy lives and promote well-being for all at all ages

- Significant strides have been made in increasing life expectancy and reducing some of the common killers associated with child and maternal mortality. Major progress has been made on increasing access to clean water and sanitation, reducing malaria, tuberculosis, polio and the spread of HIV/AIDS.

Ensure inclusive and quality education for all and promote lifelong learning

- Major progress has been made towards increasing access to education at all levels and increasing enrolment rates in schools particularly for women and girls. For example,

the world has achieved equality in primary education between girls and boys, but few countries have achieved that target at all levels of education.

Achieve gender equality and empower all women and girls

- Gender equality is not only a fundamental human right, but a necessary foundation for a peaceful, prosperous and sustainable world.

Ensure access to water and sanitation for all

- Clean, accessible water for all is an essential part of the world we want to live in. There is sufficient fresh water on the planet to achieve this. But due to bad economics or poor infrastructure, every year millions of people, most of them children, die from diseases associated with inadequate water supply, sanitation and hygiene. By 2050, at least one in four people is likely to live in a country affected by chronic or recurring shortages of fresh water.

Ensure access to affordable, reliable, sustainable and modern energy for all

- Energy is central to nearly every major challenge and opportunity the world faces today. Sustainable energy is opportunity - it transforms lives, economies and the planet.

Promote inclusive and sustainable economic growth, employment and decent work for all

- Sustainable economic growth will require societies to create the conditions that allow people to have quality jobs that stimulate the economy while not harming the environment. Job opportunities and decent working conditions are also required for the whole working age population.

Build resilient infrastructure, promote sustainable industrialization and foster innovation

- Inclusive and sustainable industrial development is the primary source of income generation, allows for rapid and sustained increases in living standards for all people, and provides the technological solutions to environmentally sound industrialization.

Reduce inequality within and among countries

- To reduce inequality, policies should be universal in principle paying attention to the needs of disadvantaged and marginalized populations

Make cities inclusive, safe, resilient and sustainable

- Cities are hubs for ideas, commerce, culture, science, productivity, social development and much more. At their best, cities have enabled people to advance socially and

economically Common urban challenges include congestion, lack of funds to provide basic services, a shortage of adequate housing and declining infrastructure.

Ensure sustainable consumption and production patterns

- Sustainable consumption and production is about promoting resource and energy efficiency, sustainable infrastructure, and providing access to basic services, green and decent jobs and a better quality of life for all. Its implementation helps to achieve overall development plans, reduce future economic, environmental and social costs, strengthen economic competitiveness and reduce poverty.

Take urgent action to combat climate change and its impacts

- Climate change is now affecting every country on every continent. It is disrupting national economies and affecting lives, costing people, communities and countries dearly today and may be even more tomorrow.

Conserve and sustainably use the oceans, seas and marine resources

- The world's oceans – their temperature, currents and life – drive global systems that make the earth habitable for humankind. Careful management of this essential global resource is a key feature of a sustainable future.

Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss

- Forests cover 30 per cent of the Earth's surface and in addition to providing food security and shelter, forests are key to combating climate change, protecting biodiversity and the homes of the indigenous population. Thirteen million hectares of forests are being lost every year while the persistent degradation of dry lands has led to the desertification of 3.6 billion hectares.

Promote just, peaceful and inclusive societies

- This Goal is dedicated to the promotion of peaceful and inclusive societies for sustainable development, the provision of access to justice for all, and building effective, accountable institutions at all levels.

Revitalize the global partnership for sustainable development

- A successful sustainable development agenda requires partnerships between governments, the private sector and civil society. These inclusive partnerships built upon principles and values, a shared vision, and shared goals that place people and the planet at the centre, are needed at the global, regional, national and local level.

Paris Agreement

To address climate change, countries adopted the Paris Agreement at the COP21 in Paris

on 12 December 2015. The Agreement entered into force shortly thereafter, on 4 November 2016. In the agreement, all countries agreed to work to limit global temperature rise to well below 2°C, and given the grave risks, to strive for 1.5°C.

Climate Change and Sustainability

- The Earth's climate has changed throughout history. In the last 650,000 years there have been several cycles of glacial and warm periods each lasting thousands or millions of years. Most of these climate changes are attributed to very small variations in earth's orbit that changes the amount of solar energy our planet receives. It is understood that at present the Earth's climate is getting warmer which is referred to as 'Global Warming'. Earth's temperature has gone up about one degree Fahrenheit in the last 100 years. This is a very small change but small changes in earth's temperature can have big effects. Some effects are already happening such as melting of glaciers, rise in the level of oceans, prolonged droughts, excessive rain and floods, etc.

Reasons for Climate change

- Burning fossil fuels emits gases into the atmosphere. Burning fossil fuel to provide energy, coupled with the effects of major transportation and deforestation causes a rapid increase in global temperatures. This can change the climate of a place.
- **Effects of climate change** - Scientists had predicted in the past that the result from global climate change are now occurring, loss of sea ice, accelerated sea level rise and longer, more intense heat waves.
- **Temperatures will continue to rise** - Experts agree that greenhouse gases which trap heat and prevent it from leaving the earth's atmosphere are mostly responsible for the temperature spike.
- **Frost-free season (and growing season) will lengthen** - it could actually have detrimental effects on the crops we grow. Warmer weather helps pests survive longer which can destroy crops. Rising temperatures are also expected to contribute to a shift in areas which are agriculturally most productive and the crops that grow there.
- **Changes in precipitation patterns** - The contrast between wet and dry areas will increase globally. In other words, the wet areas will get wetter and the dry areas will get drier.
- **More droughts and heat waves** - With rising temperatures and shifting rainfall patterns, heat waves and droughts are increasing in frequency and intensity.
- **Sea level rise** - Scientists have determined that global sea level has been steadily rising since 1900 at a rate of at least 0.1 to 0.25 centimeter per year. Sea level can rise by two different mechanisms with respect to climate change.

- **Arctic likely to become ice-free** - The Arctic Ocean is expected to become essentially ice free in summer before mid-century.

UNFCCC Process for Climate Change Adaptation, On 17, May 2017: Policy makers, implementers, supporters and investors from all over the world met during the UNFCCC Bonn Climate Change Conference at the Technical Expert Meeting (TEM) on Adaptation to discuss 'Integrating climate change adaptation with the Sustainable Development Goals and the Sendai Framework for Disaster Risk Reduction.

Response to Climate Change

- There are two main responses to climate change.
- **Mitigation** - which addresses the root causes of climate change, by reducing greenhouse gas emissions.
- **Adaptation** - seeks to lower the risks posed by the consequences of climatic changes. Both approaches will be necessary to deal with the global changes that have already been set in motion.

Mitigation measures:

- It is important that we learn how to reduce climate change, and put them into practice now, before it is too late.
- **Cleaner alternative energy sources:** One important way to fight climate change is to reduce our reliance on and usage of fossil fuels, and depend on alternative renewable and greener sources of energy such as wind energy, solar energy, water or hydropower, biomass, and geothermal energy.
- **Energy saving tips** - we can adopt energy saving tips by investing in more expensive energy-saving appliances like the compact fluorescent light (CFL) bulbs, Air-conditioners, refrigerators etc. Switching off our electrical appliances when not in use.
- **Green driving tips** - The best strategy to reduce toxic gas emissions is definitely to reduce the use of automobiles. Use public transport, carpooling, use of electricity powered cars or two wheelers can be an alternative.
- **Reduce - Reuse - Recycle practices** - Reducing, reusing and recycling helps us conserve resources and energy, and reduce pollution and greenhouse gas emissions produced thereby.
- **Re-forestation** - The cleanest and most efficient remover of carbon dioxide from our atmosphere actually is nothing but green plants and trees. The rate at which we are cutting down our trees and forests to make way for human developments has greatly reduced the earth's ability to remove carbon dioxide from the atmosphere.

- **Organic farming** - Soils are an important sink for atmospheric carbon dioxide. Nevertheless, deforestation making way for conventional agriculture is increasingly depleting this sink. Sustainable and organic agriculture helps to counteract climate change by restoring soil organic matter content as well as reduce soil erosion and improve soil physical structure. Organic farming uses natural fertilizers and helps maintain crop yields.

Watershed management and its importance

- Watershed is a geographical area drained by a stream or a system connecting stream in which water from all over an area flow under gravity to a common drainage channel. A watershed system delivers water through rills, gullies and streams to a larger body of water.
- Watershed management is proper utilization of land and water resource for optimum production with minimum hazards to natural resources. It relates to soil and water conservation proper land uses, promote afforestation and sustainable farming practices, conserve farmland and pastureland, maintaining soil fertility, proper management of local water for farming, drainage, construct small dams for flood protection, improving individuals standard of living and thereby promote ecological balance.

Key steps in watershed management

- Watershed plans should first identify the characteristics of the watershed and inventory the watershed's natural resources. The first steps in watershed management planning are to:
 - Delineate and map the watershed's boundaries and the smaller drainage basins within the watershed.
 - Map and prepare an Inventory of resources in the watershed
 - Prepare an Inventory and map the natural and manmade drainage systems in the watershed.
 - Prepare an Inventory and map land use and land cover
 - Prepare a soil map of the watershed
 - Identify areas of erosion, including stream banks and construction sites.
 - Identify the quality of water resources in the watershed as a baseline; and

- Prepare a map and Inventory of pollution sources, both point sources (such as industrial discharge pipes) and nonpoint sources (such as municipal storm water systems, failing septic systems, illicit discharges).

Watershed Management in India:

- Watershed development project in the country has been sponsored and implemented by Government of India from early 1970s onwards. Various watershed development programs like Drought Prone Area Program (DPAP), Desert Development Program (DDP), River Valley Project (RVP), National Watershed Development Project for Rain-fed Areas (NWDPA) and Integrated Wasteland Development Program (IWDP) were launched subsequently in various hydro-ecological regions. Entire watershed development programs primarily focused on soil conservation and rainwaterharvesting during 1980s and before.

Rain Water Harvesting (RWH)

- Millions of people throughout the world do not have access to clean water for domestic purposes. In many parts of the world conventional piped water is either absent, unreliable or too expensive. One of the biggest challenges of the 21st century is to overcome the growing water shortage. Rain Water Harvesting (RWH) has thus regained its importance as a valuable alternative or supplementary water resource, along with more conventional water supply technologies. Water shortages can be relieved if rain water harvesting is practiced more widely.

Need for Rain Water Harvesting

- To overcome the situation of inadequacy of water supply.
- The most economical way to increase the ground water table.
- To replenish the sub soil of the urban area covered with pavements.
- To recharge the underground water table at places where the availability of rain water is higher or to overcome the situation of water logging.
- Rain water harvesting also improves the quality of underground water through a process called dilution.
- To get water for irrigation of greenbelts, farms, gardens, etc.

Rain Water Harvesting Techniques

- There are two main techniques of rain water harvestings:
- Storage of rain water on surface for future use. Recharge to ground water.

- The storage of rain water on surface is a traditional technique and structures used were underground tanks, ponds, check dams, weirs, etc. Recharge of ground water is a new concept of rain water harvesting and the structures generally used are: Recharge pits filled with boulders, gravels, and coarse-sand, Wells, Trenches etc.

Environmental Impact Assessment

- Every country strives to progress ahead. One aspect of progress is economic development through manufacturing and trading. Every country builds industries which provide employment, serve the consumers needs and help to generate revenue. The dominant pattern of development that humankind has followed in recent decades has brought about large scale changes in the earth systems. We are already feeling the impact of these changes upon our health, livelihoods and safety. On the other hand, the fruits of development are not equally distributed. Some countries and some communities have a high standard of living, while others are not able to meet their basic needs.
- Development projects in the past were undertaken without any consideration about their environmental consequences. As a result rivers and lakes have been polluted, air pollution has reached threatening levels and piling of domestic and industrial wastes has resulted in land degradation. Industrialization and economic growth provided material comforts but at the same time deteriorated the quality of life.

The Objective of EIA

- To identify, predict and evaluate the economic, environmental and social impact of development activities
- To provide information on the environmental consequences for decision making and
- To promote environmentally sound and sustainable development through the identification of appropriate alternatives and mitigation measures.

Steps in the EIA Process

The eight steps of the EIA process:

- **Screening:** First Stage of EIA, which determines whether the proposed project, requires an EIA and if it does, then the level of assessment required.
- **Scoping:** This stage identifies the key impacts that should be investigated. This stage also defines the time limit of the study.
- **Impact analysis:** This stage of EIA identifies and predicts the likely environmental and social impact of the proposed project and evaluates the significance

- **Mitigation:** This step in EIA recommends the actions to reduce and avoid the potential adverse environmental consequences of development activities.
- **Reporting:** This stage presents the result of EIA in a form of a report to the decision-making body and other interested parties.
- **Review of EIA:** It examines the adequacy and effectiveness of the EIA report and provides the information necessary for decision -making.
- **Decision-making:** It decides whether the project is rejected, approved or needs further change.
- **Post monitoring:** This stage comes into play once the project is commissioned. It checks to ensure that the impacts of the project do not exceed the legal standards and implementation of the mitigation measures are in the manner as described in the EIA report.

Environmental Impact Assessment in India

- EIA was introduced in India in 1978, with respect to river valley projects. On 27 January 1994, the Union Ministry of Environment and Forests (MEF), Government of India, under the Environmental (Protection) Act 1986, made Environmental Clearance (EC) mandatory for expansion or modernisation or for setting up new projects listed in Schedule 1 of the notification. Since then there have been 12 amendments made in the EIA notification of 1994. Both central and state authorities share the responsibility of EIA's development and management. EIA is now mandatory for 30 categories of projects, and these projects get Environmental Clearance (EC) only after the EIA requirements are fulfilled.
- The MoEF recently notified new EIA legislation in September 2006. The notification makes it mandatory for all projects to get environment clearance from the central government under the following categories:
 - Industries
 - Mining
 - Thermal power plants
 - River valley projects
 - Infrastructure and CRZ (Coastal Regulation Zone)
 - Nuclear power projects.

- However, the new legislation has entrusted the decision of clearing projects on the state government depending on the size/ capacity of the project. EIA appraises the environmental health and social implications of planned developmental projects. It thus links environment with development. The goal of EIA is to ensure environmentally safe and sustainable development.

Measures for Promotion of Sustainable Development

- As discussed earlier, the United Nations 17 Sustainable Development Goals and 169 targets are part of the 2030 Agenda for Sustainable Development adopted by 193 Member States at the UN General Assembly Summit in September 2015, and which came into effect on 1 January 2016. These goals are the result of international consultations that brought national governments and millions of citizens from across the globe together to negotiate and adopt the global path to sustainable development for the next 15 year.
- The SDGs and targets will stimulate action in the following critically important areas: poverty, hunger, education, health and well-being, education, gender equality, water and sanitation, energy, economic growth and decent work, infrastructure, industry and innovation, reducing inequalities, sustainable cities, consumption and production, climate action, ecosystems, peace and justice, and partnership. This agenda recognises that it is not enough to focus on economic growth alone but in creating more equal societies, and a safer and more prosperous planet.

Baripada: A hamlet that conserves forest, promotes growth

Baripada, a small hamlet straddling the Maharashtra-Gujarat border, is a collective tribal wisdom which has taken it to the next level. With a population of barely 1,000, the village has not only helped conserve their forest but also meet the United Nations' sustainable development goals, benefiting everyone in the process.

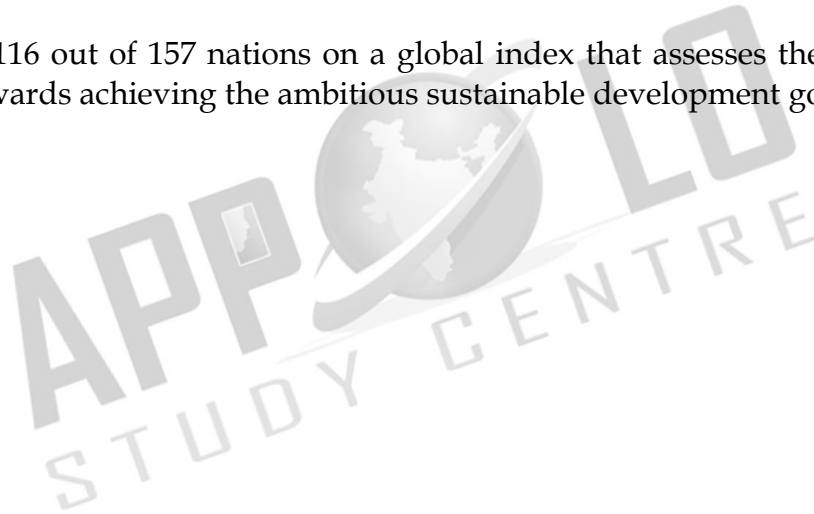
The villagers conserved the forest. And, forest helped in conservation of water. Water enabled agriculture and farming. Farming brought prosperity, which in turn helped improve literacy. And, literacy broadened horizons and led us to total transformation.

Having developed dairy and poultry over the years, the villagers have also evolved a system for marketing their products. This ensured a steady flow of revenue and kept poverty at bay. The villagers share their common land with landless families to ensure 'zero hunger' and 'reduction of inequality'.

Besides, the villagers are game for any experiments involving water, land, forest conservations, biodiversity registration, biogas, solar power, building basic infrastructure through public participation. "Decisions on prohibition, tree plantation were made at the village meeting and immediately implemented. But, to restrict entry of humans and animals in the 445 hectares of village forest was a major task".

Which countries are achieving the UN Sustainable Development Goals fastest?

- The ultimate aim of the Sustainable Development Goals is to end poverty, protect the planet and ensure prosperity for everyone. Each goal has specific targets that need to be met by 2030.
- So how close are countries to meeting them? To find out, non-profit organization Bertelsmann Stiftung and the UN Sustainable Development Solutions Network have created a prototype index that measures their performance.
- Sweden leads the list, followed by Denmark and Finland. Among the G7 countries, only Germany and France can be found among the top ten performers. The United States ranks 42nd on the Index, while Russia and China rank 62nd and 71st respectively. Also in the top 20 were Canada (13th), the Czech Republic (15th) and Slovenia (17th). Asia-Pacific's top performers Japan, Singapore and Australia rounded off the list at 18th, 19th and 20th, respectively. The SDG Index underlines that despite achieving high percentages, all countries still have their work cut out to close the remaining gap.
- India ranks 116 out of 157 nations on a global index that assesses the performance of countries towards achieving the ambitious sustainable development goals (SDGs).



INDIAN ECONOMY

PLANNING COMMISSION, NITI AYOJ, NATIONAL DEVELOPMENT COUNCIL

6th Economics

Unit 1 - Economics an Introduction

Consumers Goods:

The finished goods which are bought from the market to fulfill the daily needs of the consumers is called consumer goods. Example: rice, clothes, bicycles, etc

- We had a system of exchanging goods for other goods, called barter system. For example, exchange a bag of rice for enough clothes”.
- “A person who has rice in surplus and a person who has cloth in surplus, will exchange on the basis of their needs. But, here the problem is that the person who has clothes should have the willingness to buy rice. Only then, the exchange through barter system will take place”.
- The exchange commodities, they may lead to certain problems, when comparing the differences in the value of commodity. To solve this problem, people invented a tool called money”.

The amount from the income which is left for future needs after consumption is called savings.

- Early man, who hunted and gathered food, later learnt to cultivate crops. When they found rivers which provided them water, settled down permanently near the rivers. These permanent settlements were called villages. Agriculture remains to be the root of our economy even today. Man has no limits for his demand and desire. Based on this, man started to learn new occupations. Those who are involved in farming and grazing are called farmers or cultivators”.
- “Agriculture and industries are helpful in the economic development of our country. Our country’s economy is based on three economic activities”.

PRIMARY ACTIVITIES

They are concerned with the production of raw materials for food stuff and industrial use. Primary activities include

Agriculture

Cattle rearing

Fishing

Mining

Collection of fruits, nuts, honey, rubber, resin and medicinal herbs, lumbering.

- “Agriculture is the primary occupation. There won’t be any kind of facilities like our cities. At the same time, they get their basic needs fulfilled easily. There are small shops. Vegetables are grown in abundance, just like rice and pulses. Though the sugar that is added in our milk, coffee and tea is produced in sugar mills, the raw material sugarcane is cultivated in villages. From chilies to mustard, all those provisions used for food are grown in villages.”
- “Even Gandhiji has said that the villages are the backbone of our country”.
- More than 50 percentage of the world’s populations live in cities. In our state Tamil Nadu, 47 percentage of the people are in cities.

SECONDARY ACTIVITIES

The raw materials obtained from the primary activities are converted into finished products through machinery on a large scale. These activities are called secondary activities.

Industries are classified on the basis of the availability of raw materials, capital and ownership.

On the basis of raw materials, industries are classified as
Agro based industries – Cotton textiles, Sugar mills and Food processing.
Forest based industries – Paper mills, Furniture making, Building Materials.
Mineral based industries – Cement, Iron, Aluminium Industries.
Marine based industries – Sea food processing.

TERTIARY ACTIVITIES

“I already told you that industries produce goods and distribute them to the people. For this purpose, some services are required. These services are called tertiary activities or service sectors. The service sector serves the people to fulfill their daily needs like:

Transport – roadways, railways, waterways, airways

Communication – Post, Telephone, Information Technology etc

Trade – Procurement of goods, selling

Banking – Money transactions, banking services

7th Term - I

Unit 1: Production

- There are two main activities in an economy, production and consumption. Similarly there are two kinds of people, producers and consumers. Well-being is made possible by efficient production and by the interaction between producers and consumers. In the interaction, consumers can be identified in two roles both of which generate well-being. Consumers can be both customers of the producers and suppliers to the producers. The customers' well-being arises from the commodities they are buying and the suppliers' well-being is related to the income they receive as compensation for the production inputs they have delivered to the producers.

Meaning of Production

- Production is a process of combining various material inputs and immaterial inputs in order to make something for consumption (the output). It is the act of creating an output, a good or service which has value and contributes to the utility of individuals.
- Production in economics refers to the creation of those goods and services which have exchange value. It means the creation of utilities. Utility means want satisfying power of a product. Utilities are in the nature of form utility, time utility and place utility.

Types of Utility

Form utility

If the physical form of a commodity is changed, its utility may increase.

Eg. Cotton increases, if it is converted into clothes.

Place utility

If a commodity is transported from one place to another, its utility may increase.

Eg. If rice transported to Tamilnadu to Kerala, its utility will be more.

Time utility

If the commodity is stored for future usage, its utility may increase.

Eg. Agricultural commodities like Paddy, Wheat, etc. are stored for the regular uses of consumers throughout the year.

Indian Economy is a Mixed Economy. Private and Public Sector are existing together.

Types of Production

- ❖ There are three types of production
- ❖ Primary production
- ❖ Secondary Production

❖ Tertiary or Service Production

Primary Production

- Primary production is carried out by 'extractive' industries like agriculture, forestry, fishing, mining and oil extraction. These industries are engaged in such activities as extracting the gifts of nature from the earth's surface, from beneath the earth's surface and from the oceans.

Secondary Production

- This includes production in manufacturing industry, turning out semi-finished and finished goods from raw materials and intermediate goods, conversion of flour into bread or iron ore into finished steel. They are generally described as manufacturing and construction industries, such as the manufacture of cars, furnishing, clothing and chemicals, as also engineering and building.

Example: Primary sector and Secondary sector Production

Cotton (Primary sector) - Cotton Industry (Secondary Sector) = Cloth Production

Iron ore (Primary sector) - Iron Industry (Secondary sector) = Material Production

Wheat flour (Primary sector) - Bread Factory (Secondary Sector) = Food Production

Tertiary Production

- Industries in the tertiary sector produce all those services which enable the finished goods to be put in the hands of consumers. In fact, these services are supplied to the firms in all types of industry and directly to consumers. Examples cover distributive traders, banking, insurance, transport and communications. Government services, such as law, administration, education, health and defence, are also included.

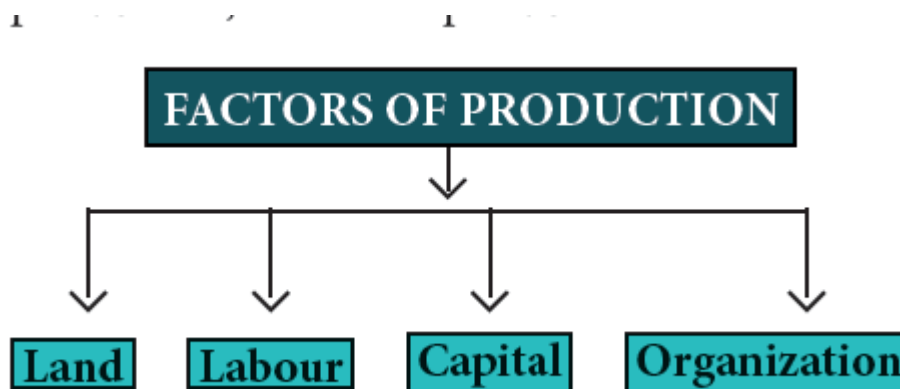
The most to the Gross Domestic Product of our country is contributed by the tertiary sector

Factors of Production

- Human activity can be broken down into two components, production and consumption. When there is production, a process of transformation takes place. Inputs are converted into an output. The inputs are classified and referred to as land, labour, and capital. Collectively the inputs are called factors of production.
- When the factors of production are combined in order to produce something, a fourth factor is required. Goods and services do not produce themselves but need some conscious thought process in order to plan and implement manufacture. This thought process is often called Entrepreneurship and Organization.

Factors of production

- ❖ Primary Factors and
 - ❖ Derived Factors.
- Primary factors are land and labour. These are naturally given and without them no goods can be produced.
 - Derived factors are Capital and Organization. These derived factors, when combined with the primary factors of production, raise total production.



Land

- Land as a factor of production refers to all those natural resources or gifts of nature which are provided free to man. It includes within itself several things such as land surface, air, water, minerals, forests, rivers, lakes, seas, mountain, climate, and weather. Thus, land includes all things that are not made by man.

Land : Land can take on various forms, from agricultural land to commercial real estate to the resources available from a particular piece of Land

Characteristics of Land

Land is a Free Gift of Nature

- Man has to make efforts in order to acquire other factors of production. But to acquire land no human efforts are needed. Land is not the outcome of human labour. Rather, it existed even long before the evolution of man.

Land is fixed in supply

- The total quantity of land does not undergo any change. It is limited and cannot be increased or decreased with human efforts. No alteration can be made in the surface area of land.

Land is imperishable

- All man-made things are perishable and these may even go out of existence. But land is indestructible. Thus it cannot go out of existence. It is not destructible.

Land is a Primary Factor of Production:

- In any kind of production process, we have to start with land. For example, in industries, it helps to provide raw materials, and in agriculture, crops are produced on land.

Land is Immovable:

- It cannot be transported from one place to another. For instance, no portion of India's surface can be transported to some other country.

Land has some Original Indestructible Powers

- There are some original and indestructible powers of land, which a man cannot destroy. Its fertility may be varied but it cannot be destroyed completely.

Land Differs in Fertility

- Fertility of land differs on different pieces of land. One piece of land may produce more and the other less.
- As a gift of nature, the initial supply price of land is zero. However, when used in production, it becomes scarce. Therefore, it fetches a price accordingly.

Labour

- Labour is the human input into the production process. Alfred Marshall defines labour as, 'the use of body or mind, partly or wholly, with a view to secure an income apart from the pleasure derived from the work'.

Adam Smith is known as Father of Economics and his Economics is wealth Economics. He wrote two classic works, "The Theory of Moral sentiments (1759)", and "An inquiry into the nature and causes of the wealth of Nations (1776)".

Characteristics of Labour

- Labour is more perishable than other factors of production. It means labour cannot be stored. The labour of an unemployed worker is lost forever for that day when he does

not work. Labour can neither be postponed nor accumulated for the next day. It will perish. Once time is lost, it is lost forever.

- Labour is an active factor of production. Neither land nor capital can yield much without labour.
- Labour is not homogeneous. Skill and dexterity vary from person to person. Labour cannot be separated from the labourer.
- Labour is mobile. Man moves from one place to another from a low paid occupation to a high paid occupation.
- Individual labour has only limited bargaining power. He cannot fight with his employer for a rise in wages or improvement in work-place conditions. However, when workers combine to form trade unions, the bargaining power of labour increases.

Division of Labour

- The concept 'Division of Labour' was introduced by the Adam Smith in his book 'An enquiry into the nature and causes of wealth of nations'.
- Division of labour means dividing the process of production into distinct and several component processes and assigning each component in the hands of a labourer or a set of labourers, who are specialists in that particular process.

Example: A Tailor stitches a shirt in full. In the case of Garments exporters, cutting of cloth, stitching of hands, body, collars, holes for buttons, stitching of buttons etc., are done independently by different workers. Therefore, they are combining the parts into a whole shirt.

Merits of division of labour

- It improves efficiency of labour when labour repeats doing the same tasks. Facilities the use of machinery in production, resulting in inventions. Ex. More's Telegraphic Codes. Time and Materials are put to the best and most efficient use.

Demerits of division of labour

- Repetition of the same task makes labour to feel that the work is monotonous and stale. It kills the humanity in him. Narrow specialization reduces the possibility of labour to find alternative avenues of employment. This results in increased unemployment. Reduce the growth of handicrafts and the worker loses the satisfaction of having made a commodity in full.

Capital

- Capital is the man made physical goods used to produce other goods and services. In the ordinary language, capital means money. In economics, capital refers to that part of man-made wealth which is used for the further production of wealth. All wealth is not capital but all capital is wealth.
- According to Marshall, 'Capital consists of those kinds of wealth other than free gifts of nature, which yield income'.

Forms of capital

- Physical Capital or Material ResourcesEx. Machinery, tools, buildings, etc.Money capital or Monetary resourcesEx. Bank deposits, shares and securities, etc.Human capital or Human ResourcesEx. Investments in education, training and health

- ❖ Characteristics of Capital
- ❖ Capital is a passive factor of production
- ❖ Capital is man-made
- ❖ Capital is not an indispensable factor of production
- ❖ Capital has the highest mobility
- ❖ Capital is productive
- ❖ Capital lasts over time
- ❖ Capital involves present sacrifice to get future benefits.

Entrepreneur

- An entrepreneur is a person who combines the different factors of production (land, labour and capital), in the right proportion and initiates the process of production and also bears the risk involved in it.
 - The entrepreneur is also called 'Organizer'. In, modern times, an entrepreneur is called 'the changing agent of the society'. He is not only responsible for producing the socially desirable output but also to increase the social welfare.
- ❖ Characteristics of Entrepreneur
 - ❖ Identifying profitable investible opportunities
 - ❖ Deciding the location of the production unit
 - ❖ Making innovations
 - ❖ Deciding the reward payment
 - ❖ Taking risks and facing uncertainties.

11th STD Economics

Unit - 1

Introduction to Micro-Economic

Introduction

- A subject should have a name or a title that facilitates a clear and correct understanding of its contents. In a subject like Economics, there are many books available with titles such as 'Introductory Economics', 'Economics: An Introduction', 'Basic Economics', 'Elements of Economics', 'Elementary Economics', 'Fundamentals of Economics' etc. But these books have the same contents, though each is intended to serve readers of a different levels of interest and capacity.
- A good introduction to a subject, besides containing the meaning of its title, should have an explanation of the nature and scope of the subject, i.e., whether the subject is traditional or modern, static or dynamic. The readers should be in a position to clearly classify the subject as belonging to either arts alone, or to science alone or to both. The significance of all the branches of the subject should find a place in it. As they go through the introduction, the readers should be able to understand the relationships of the subject with other subjects. Newer areas incorporated into the subject and the newer ways of comprehending its contents are to be highlighted in the introduction. The methodologies applied in the derivation of its laws are to be stated in such an introduction.

Economics: Meaning

- The term or word 'Economics' comes from the Ancient Greek oikonomikos (oikos means "households"; and, nomos means "management", "custom" or "law"). Thus, the term 'Economics' means 'management of households'. The subject was earlier known as 'Political Economy', is renamed as 'Economics', in the late 19th century by Alfred Marshall.

Economics: Its Nature

- The nature of a subject refers to its contents and how and why they find a place in the subject. This nature is understood by studying the various definitions given by the notable economists. The existence of multiplicity of the definitions makes some scholars comment that a search for a clear definition of Economics is an exercise in futility. J. M. Keynes, for example, observes that "Political Economy is said to have strangled itself with definitions". Their presence makes studying a subject interesting, exciting, enjoyable, or worthwhile. In fact, their presence in a social science subject is a clear sign of the growth of the science. It indicates that there exists freedom for people associated with such as science to formulate fresh definitions. These associates appreciate and make use of the opportunity afforded to them and come up with a plethora of definitions saying: 'The more, the merrier'. Each definition represents a

unique generalisation. A wide variety of definitions paves the way to arrive a near-complete agreement on the subject-matter of Economics.

- A science grows stage by stage, and at every stage, its newer definition emerges and a concept associated with it receives some special emphasis. However, the study of a subject is made possible when it possesses its clear cut definition and boundary.
 - A science grows stage by stage, and at every stage, its newer definition emerges and a concept associated with it receives some special emphasis. However, the study of a subject is made possible when it possesses its clear cut definition and boundary.
1. Smith's Wealth Definition, representing the Classical era;
 2. Marshall's Welfare Definition, representing the Neo-Classical era;
 3. Robbins' Scarcity Definition, representing the New Age; and,
 4. Samuelson's Growth Definition, representing the Modern Age.

Wealth Definition: Adam Smith

- Adam Smith (1723- 1790), in his book "An Inquiry into Nature and Causes of Wealth of Nations" (1776) defines "Economics as the science of wealth". He explains how a nation's wealth is created and increased. He considers that the individual in the society wants to promote his own gain and in this process, he is guided and led by an "invisible hand". He states that every man is motivated by his self interest. This means that each person works for his own good.
- Smith favours the introduction of "division of labour" to increase the quantum of output. Severe competition in factories and society helps in bettering the product. Supply force is very active and a commodity is made available to the consumers at the lowest price.

The publication of Adam Smith's "The Wealth of Nations" in 1776, has been described as "the effective birth of economics as a separate discipline".

Criticism

For Smith, Economics consists of 'wealthgetting' activities and 'wealth-spending' activities. An undue emphasis is given to material wealth. Wealth is treated to be an end in itself. This view leads him to ignore human welfare as an essential part of Economics. Smith gives his definition when religious and spiritual values are held high. Ruskin and Carlyle regard Economics as a 'dismal science', "pig science" etc. as it teaches selfishness which is against ethics.

Welfare Definition: Alfred Marshall

- Alfred Marshall (1842-1924) in his book "Principles of Economics" (1890) defines Economics thus: "Political Economy" or Economics is a study of mankind in the

ordinary business of life; it examines that part of individual and social action which is most closely connected with the attainment and with the use of the material requisites of well-being. Thus, it is on one side a study of wealth; and on the other, and more important side, a part of the study of man.”

The important features of Marshall’s definition are:

- ❖ Economics does not treat wealth as the be-all and end-all of economic activities. Man promotes primarily welfare and not wealth.
- ❖ The science of Economics contains the concerns of ordinary people who are moved by love and not merely guided or directed by the desire to get maximum monetary benefit.
- ❖ Economics is a social science. It studies people in the society who influence one another.

Criticism

- Marshall regards only material things. He does not consider immaterial things, such as the services of a doctor, a teacher and so on. They also promote people’s welfare.
- In the theory of wages, Marshall ignores the amount of money that goes as reward for the services of ‘immaterial’ services.
- Marshall’s definition is based on the concept of welfare. But it is not clearly defined. Welfare varies from person to person, country to country and one period to another. Marshall clearly distinguishes between those things that are capable of promoting welfare of people and those things that are not. Things like liquor that are not capable of promoting welfare but command a price, come under the purview of Economics
- However, welfare means happiness or comfortable living conditions of an individual or group of people. The welfare of an individual or nation is dependent not only on the stock of wealth possessed but also on political, social and cultural activities of the nation.

Scarcity Definition: Lionel Robbins

- Lionel Robbins published a book “An Essay on the Nature and Significance of Economic Science” in 1932. According to him, “Economics is a science which studies human behaviour as a relationship between ends and scarce means which have alternative uses”.

The major features of Robbins’ definition are:

- Ends refer to human wants. Human beings have unlimited number of wants.

- On the other hand, resources or means that go to satisfy the unlimited human wants are limited or scarce in supply. The scarcity of a commodity is to be considered only in relation to its demand.
- Further, the scarce means are capable of having alternative uses. Hence, an individual grades his wants and satisfies first his most urgent want. Thus, Economics, according to Robbins, is a science of choice.

Criticism

- Robbins does not make any distinction between goods conducive to human welfare and goods that are not. In the production of rice and alcoholic drink, scarce resources are used. But the production of rice promotes human welfare, while that of alcoholic drinks does not. However, Robbins concludes that Economics is neutral between ends.
- Economics deals not only with the micro-economic aspects of resource allocation and the determination of the price of a commodity, but also with the macro-economic aspects like how national income is generated. But, Robbins reduces Economics merely to theory of resource allocation.
- Robbins' definition does not cover the theory of economic growth and development.

Growth Definition: Samuelson

- Paul Samuelson defines Economics as "the study of how men and society choose, with or without the use of money, to employ scarce productive resources which could have alternative uses, to produce various commodities over time, and distribute them for consumption, now and in the future among various people and groups of society".

The major implications of this definition are as follows:

- Like Robbins, Samuelson states that the means are scarce in relation to unlimited ends and that such means could be put to alternative uses.
- Samuelson makes his definition dynamic by including the element of time in it. Therefore, his definition covers the theory of economic growth.
- Samuelson's definition is applicable also in a barter economy, where money is not used.
- His definition covers various aspects like production, distribution and consumption.
- Samuelson treats Economics as a social science, whereas Robbins regards it as a science of individual behaviour.

- Of all the definitions discussed above, the 'growth' definition stated by Samuelson appears to be the most satisfactory.

Scope of Economics

- The scope of the subject of Economics refers to on the subject-matter of Economics. It throws light on whether it is an art or a science and if science, whether it is a positive science or a normative science.

Economics: Its subject-Matter

- Economics focuses on the behaviour and interactions among economic agents, individuals and groups belonging to an economic system. It deals with the activities such as the consumption and production of goods and services and the distribution of income among the factors of production. The activities of the rational human beings in the ordinary business of life under the existing social, legal and institutional arrangement are included in the Science of Economics; the abnormal persons and the socially unacceptable and unethical activities are excluded.
- Economics studies the ways in which people use the available resources to satisfy their multiplicity of wants. Scarcity is a problem indicating the gap between what people want and what they are able to get. This scarcity can be eliminated either by limiting the human wants or by increasing the supply of the goods that satisfy the human wants. The method of getting more is resorted to, rather than the method of wanting less.
- Economics is concerned with activities of human being only. Human beings are related to one another and the actions of one member affect those of the other members in the society. Hence, Economics is called a Human Science or Social Science.
- The activities of rational or normal human beings are the subject-matter of Economics.
- All human activities related to wealth constitute the subject-matter of Economics. Thus, human activities not related to wealth (non-economic activities) are not treated in Economics. For example, playing cricket for pleasure, mother's child care.
- It is customary to clarify whether Economics is an art or a science; and if it is a science, to observe its specific features.

Economics is an Art and a Science

Economics as an Art

- Art is the practical application of knowledge for achieving particular goals. Economics provides guidance to the solutions to all the economic problems.

- C. Pigou, Alfred Marshall and others regard Economics as an art.

Economics as a Science

- Science is a systematic study of knowledge. All its relevant facts are collected, classified and analyzed with its scale of measurement. Using these facts, science develops the co-relationship between cause and effect. Scientific laws derived are tested through experiments; and future predictions are made. These laws are universally applicable and accepted. Economists like Robbins, Jordon and Robertson argue that Economics is a science like Physics, Chemistry etc., since, it has several similar characteristics. Economics examines the relationships between the causes and the effects of the problems. Hence, it is rightly considered as both an art and a science. In fact, art and science are complementary to each other.

Economics: Positive science Normative science

- Positive science deals with what it is, means, it analyses a problem on the basis of facts and examines its causes. For example, at the time of a price increase, its causes are analysed.
- On the other hand, normative science responds to a question like what ought to be. Here, the conclusions and results are not based on facts, but on different considerations belonging to social, cultural, political, religious realms. They are basically subjective in nature.
- In short, positive science is concerned with 'how? and why?' and normative science with 'what ought to be'. The distinction between the two can be explained. An increase in the rate of interest, under positive science, would be looked into as to why and how can it be reduced, whereas under normative science, it would be seen as to whether it is good or bad.

Three statements about each type are given below:

Positive Economics

- ❖ An increase in money supply implies a price-rise in an economy.
- ❖ As the irrigation facilities and application of chemical fertilizers expand, the production of food-grains increases.
- ❖ An increase in the birth rate and a decrease in the death rate reflect the rate of growth of population.

Normative Economics

- ❖ Inflation is better than deflation.

- ❖ More production of luxury goods is not good for a less-developed country.
- ❖ Inequalities in the distribution of wealth and incomes should be reduced.

Basic Concepts in Economics

- Like other sciences, Economics also has concepts to explain its theories. A complete and clear grasp of their meaning is necessary when the theories associated with them are studied. Only a preliminary acquaintance is now attempted here.

Goods and Services

- Both goods and services satisfy human wants. In Economics, the term 'goods' implies the term 'services' also, unless specified otherwise. Goods (also called 'products', 'commodities', 'things' etc)
 - ❖ as material things, they are tangible;
 - ❖ have physical dimensions, i.e., their physical attributes can be preserved over time;
 - ❖ exist independently of their owner;
 - ❖ are owned by some persons;
 - ❖ are transferable;
 - ❖ have value-in exchange;

Kinds of Goods (and Services)

Free and Economic goods

- Free goods are available in nature and in abundance. Man does not need to incur any expenditure to own or use them. For example air, and sun shine. Water was also an example in the past, but at present it has exchange value. So it is not a free good.
- Milton Friedman, a Nobel laureate, popularises a saying: "There is no such thing as a free lunch". He means that it is impossible to get something for nothing. Even those offered 'free' always costs a person or the society as a whole. Its cost, however, is hidden. It is an externality. Someone can benefit from an externality or from a public good, but someone-else has to pay the cost of producing these benefits. In Economics, it refers to 'opportunity cost'.
- On the other hand, economic goods are not available in plenty. They are scarce in supply. Man has to spend money to own or use them.

Consumer goods and Capital goods:

- Consumer goods directly satisfy human wants, TV, Furniture, Automobile etc.
- Capital-goods (also called producer's goods) don't directly satisfy the consumer wants. They help to produce consumer goods. For example, machines do not directly satisfy the consumers, but in factories, the manufacturers need them.

Perishable goods and Durable goods:

- Perishable goods are short-lived. Their life-span is limited. For example fish, fruits, flower etc do not have a long life.
- Durable goods and semi-durable goods have a little longer life-time than the Perishable goods. For example, a table, a chair etc.

Services

- Along with goods, services are produced and consumed. They are generally, possess the following:

Intangible:

- Intangible things aren't physical objects but exist in connection to other things, for example, brand image, goodwill etc. But today, the intangible things are converted and stored into tangible items such as recording a music piece into a pen-drive. They are marketed as a good.

Heterogeneous:

- Services vary across regions or cultural backgrounds. They can be grouped on the basis of quality standards. A single type service yields multiple experiences. For example, music, consulting physicians etc.

Inseparable from their makers:

- Services are inextricably connected to their makers. For example, labour and labourer are inseparable; and,

Perishable:

- Services cannot be stored as inventories like assets. For example, it is useless to possess a ticket for a cricket-match once the match is over. It cannot be stored and it has no value in exchange.

Utility

Meaning

- 'Utility' means 'usefulness'. In Economics, utility is the wantsatisfying power of a commodity or a service. It is in the goods and services for an individual consumer at a particular time and at a particular place.

Characteristics of Utility

- Utility is psychological. It depends on the consumer's mental attitude. For example, a vegetarian derives no utility from mutton;
- Utility is not equivalent to usefulness. For example, a smoker derives utility from a cigarette; but, his health gets affected;
- Utility is not the same as pleasure. A sick person derives utility from taking a medicine, but definitely, it is not providing pleasure;
- Utility is personal and relative. An individual obtains varied utility from one and the same good in different situations and places;
- Utility is the function of the intensity of human want. An individual consumer faces a tendency of diminishing utility;
- Utility is a subjective concept it cannot be measured objectively and it cannot be measured numerically;
- Utility has no ethical or moral significance. For example, a cook derives utility from a knife using which he cuts some vegetables; and, a killer wants to stab his enemy by that knife. In Economics, a commodity has utility, if it satisfies a human want;

Types of Utility

- The following are the types of utility

Form Utility:

- An individual consumer obtains utility from a good or service only when it is available in a particular form. Raw materials in their original form may not possess utility for a consumer. But in their changed forms as they become finished products, they provide utility to him. For example, cotton as a raw material may not possess utility for a consumer; but as it gets a new form as a cloth, it yields the consumer utility.

Time Utility:

- A sick man derives time utility from blood not at the time of its donation, but only at the operation-time, i.e., when it is used.

Place Utility:

- A student derives place utility from a book not at the place of its publication (production centre) but only at the place of his education (consumption centre).

Service Utility:

- An individual consumer derives service utility from a service made available at the time when he most needs it. For example, clients obtain service utility from their lawyers, patients derive service utility from the doctors and so on.

Possession Utility:

- When a student buys a book or dictionary from a book seller, then only it gives utility.

Knowledge Utility:

- It is the utility derived by having knowledge of a particular thing. Advertisement serves as a source of information on an object.

Measurability of Utility

- Wants of a person are satisfied by the act of consumption. The consumer derives utility, measured in terms of 'Utils'. An 'Util' is a unit of measurement of utility. An individual pays a price for the unit of the good, equal to the utility derived. Marshall states that utility can be measured indirectly using the 'measuring rod of money'.

Price

- Price is the value of the good expressed in terms of money. Price of a good is fixed by the forces of demand for and supply of the good. Price determines what goods are to be produced and in what quantities. It also decides how the goods are to be produced.

Market

- Generally, market means a place where commodities are bought and sold. But, in Economics, it represents
- where buyers and sellers enter into an exchange of goods and services over a price.

Cost

- Cost refers to the expenses incurred to produce or acquire a given quantum of a good. Together with revenue, it determines the profit gained or the loss incurred by a firm.

Revenue

- Revenue is income obtained from the sale of goods and services. Total Revenue (TR) represents the money obtained from the sale of all the units of a good. Thus, $TR = P \times Q$, where TR is Total Revenue; P is the price per unit of the good; and Q is the Total Quantity of the goods sold.

Equilibrium Diagram

Stable Equilibrium

- Prof. Stigler states that “equilibrium is a position from which there is no net tendency to move”. Its absence is referred to as disequilibrium. Consumer’s equilibrium occurs when he gets maximum satisfaction. The equilibrium of the Producer occurs when he gets maximum profit. A resource is in equilibrium when it gets fully employed and gets its maximum payment. Thus, static equilibrium is based on given and constant prices, quantities, income, technology, population etc.

Particular Equilibrium and General Equilibrium

- An equilibrium, when it pertains to a single variable, may be called particular equilibrium.
- An equilibrium, on the other hand, when it relates to numerous variables or even the economy as a whole, may be called general equilibrium.

Income

- Income represents the amount of monetary or other returns, either earned or unearned small or big, accruing over a period of time to an economic unit. Nominal income refers to income, expressed in terms of money. It is termed as the money income. Real income is the amount of goods that can be purchased with money as income. It is the purchasing power of income which is based on the rate of inflation.

Methods of Economics, Facts, Theories and Laws

Methods of Economics Deduction and Induction

- Like any other science, Economics also has its laws or generalisations. These laws govern the activities in the various divisions of Economics such as Consumption,

Production, Exchange and Distribution. The logical process of arriving at a law or generalization in a science is called its method.

Economics uses two methods: deduction and induction.

Deductive Method of Economic Analysis

- It is also named as analytical or abstract method. It consists in deriving conclusions from general truths; it takes few general principles and applies them to draw conclusions. The classical and neo-classical school of economists notably, Ricardo, Senior, J S Mill, Malthus, Marshall, Pigou, applied the deductive method in their economic investigations.

Steps of Deductive Method

- The analyst must have a clear and precise idea of the problem to be inquired into.
- The analyst clearly defines the technical terms used in the analysis. Further, assumptions of the theory are to be precise.

Deduce hypothesis from the assumptions taken.

- Hypotheses should be verified through direct observation of events in the real world and through statistical methods. (eg) There exists an inverse relationship between price and quantity demanded of a good.

Inductive Method of Economic Analysis

- Inductive method, also called empirical method, is adopted by the “Historical School of Economists”. It involves the process of reasoning from particular facts to general principle.

Economic generalizations are derived in this method, on the basis of

1. Experimentations;
 2. Observations; and,
 3. Statistical methods.
- Data are collected about a certain economic phenomenon. These are systematically arranged and the general conclusions are drawn from them.

By observing the data, conclusions are easily drawn.

Generalization of the data and then Hypothesis Formulation

Verification of the hypothesis (eg.Engel's law)

- Economists today are of the view that both these methods are complementary. Alfred Marshall has rightly remarked: "Inductive and Deductive methods are both needed for scientific thought, as the right and left foot are both needed for walking".

Economics: Facts, Theories

- Using the methods, the economist observes facts, such as, changes in the price of a commodity. Similarly, the quantity demanded of that commodity also varies. And he observes these movements and comes up with a theory that these two movements are inversely related, i.e., when the price increases, the quantity demanded of that commodity decreases and vice versa. Thus, he formulates his theory of demand.
- He tests his theory by collecting further facts and when his theory stands the test of time and obtains universal acceptance, the theory is raised to the status of a law.

Nature of Economic Laws

- A Law expresses a causal relation between two or more than two phenomena. Marshall states that the Economic laws are statement of tendencies, and those social laws, which relate to those branches of conduct in which the strength of the motives chiefly concerned can be measured by money price.
- In natural sciences, a definite result is expected to follow from a particular cause. In Economic science, the laws function with cause and effect. The consequences predicted by the data, necessarily and invariably follow.
- However, Economic laws are not as precise and certain as the laws in the physical sciences. Marshall holds the opinion that there are no laws of economics which can be compared for precision with the law of gravitation.

Importance of Micro Economics

- ❖ To understand the operation of an economy
- ❖ To provide tools for economic policies
- ❖ To examine the condition of economic welfare
- ❖ Efficient utilization of resources
- ❖ Useful in international trade
- ❖ Useful in decision making:

- ❖ Optimal resource allocation
- ❖ Basis for prediction
- ❖ Price determination
- A physical scientist carrying out controlled experiments in his laboratory can test the scientific laws very easily by changing the conditions obtaining there. Changes in Economics science cannot be brought about easily. As a result, prediction regarding human behaviour is likely to go wrong. There are exceptions to the Law of Demand. Thus, economic laws are not inviolable.
- As unpredictability is invariably associated with the economic laws. Marshall compares them to the laws of tides. Just as it cannot be predicted and said with certainty that a high tide would follow a low tide, unpredictability prevails in Economics. Human behaviour is volatile. Economic laws are not assertive but they are indicative. The Law of Demand, for example, states that other things remaining the same, the quantity demanded of a commodity increases, as its price decreases and vice versa.
- The use of the assumption 'other things remaining the same' (*ceteris paribus*) in Economics makes the Economic laws hypothetical. It might be argued that the laws in other sciences can also be called hypothetical. It should be admitted however that in the case of Economics, the hypothetical elements in its laws are a little less pronounced than in the laws of physical sciences.
- But since money is used as the measuring rod, laws in economics are more exact, precise and accurate than the other social sciences. As the value of the measuring-rod money is not constant, there is always an hypothetical element surrounding the laws of Economics.
- Some economic laws are simply truisms. For example, saving is a function of income. Another example of truism is: human wants are unlimited.

Economics: Its sub Divisions

- Economics has been divided into some branches.

Consumption

- Human wants coming under consumption is the starting point of economic activity. In this section the characteristics of human wants based on the behaviour of the consumer, the diminishing marginal utility and consumer's surplus are dealt with.

Production

- Production is the process of transformation of inputs into output. This division covers the characteristics and role of the factors of production namely Land, Labour, Capital and Organization and also the relationship between inputs and output.

Exchange

- Exchange is concerned with price determination in different market forms. This division covers trade and commerce. Consumption is possible only if the produced commodity is placed in the hands of the consumer.

Distribution

- Production is the result of the coordination of factors of production. Since a commodity is produced with the efforts of land, labour, capital and organization, the produced wealth has to be distributed among the cooperating factors. The reward for factors of production is studied in this division under rent, wages, interest and profit. Distribution studies about the pricing of factors of production.

Economics: Its Types

- Economics is a rapidly growing subject and its horizon has been expanding. The basic thrust of the subject is that there should be efficient allocation of the available scarce resources to obtain maximum welfare to the people on a sustainable basis. Given below are some of the major branches of the subject, where such efficient resource allocation is made.

Micro-economics

- Micro Economics is the study of the economic actions of individual units say households, firms or industries. It studies how business firms operate under different market conditions and how the combined actions of buyers and sellers determine prices. Micro economics covers
 - ❖ Value theory (Product pricing and factor pricing)
 - ❖ Theory of economic welfare

Macro-economics

- Macro economics is the obverse of micro economics. It is concerned with the economy as a whole. It is the study of aggregates such as national output, inflation, unemployment and taxes. The General Theory of Employment, Interest and Money published by Keynes is the basis of modern macro economics.

Difference between Micro Economics and Macro Economics

Micro Economics	Macro Economics
It is that branch of economics which deals with the economic decisionmaking of individual economic agents such as the producer, the consumer etc.	It is that branch of economics which deals with aggregates and averages of the entire economy. E.g., aggregate output, national income, aggregate savings and investment, etc.
It takes into account small components of the whole economy.	It takes into consideration the economy of the country as a whole.
It deals with the process of price determination in case of individual products and factors of production.	It deals with general price-level in any economy.
It is known as price theory	It is also known as the income theory.
It is concerned with the optimization goals of individual consumers and producers	It is concerned with the optimization of the growth process of the entire economy.

International Economics

- In the modern world, no country can grow in isolation. Every country is having links with the other countries through foreign capital, investment (foreign direct investment) and international trade.

Public Economics

- Public finance is concerned with the income or revenue raising and expenditure incurring activities of the public authorities and with the adjustment of the one with the other. The scope of Public Finance covers Public expenditure, Public revenue, Public debt and financial administration.

Developmental Economics

- The countries have been classified into developed, developing and underdeveloped on the criteria of per capita income, Human Development Index and Happiness Index. The Development Economics deals with features of developed nations, obstacles for development, Economic and Non-economic factors influencing development, various growth models and strategies.

Health Economics

- Health Economics is an area of applied economics. It covers health indicators, preventive and curative measures, medical research and education, Rural Health Mission, Drug Price control, Neo natal care, Maternity and Child health, Budgetary allocation for health etc.

Environmental Economics

- Depletion of natural resources stock and pollution result from rapid economic development. Hence the need for the study of Environmental Economics which analyses the inter relationship between economy and environment. Environmental Economics is a study of inter disciplinary tools for the problems of ecology, economy and environment.

Basic Economic Problems

- If resources are abundant and wants are so few, then there would be no economic problem. But this situation can never exist. Resources are always scarce and our wants are numerous. Hence in every society certain choices have to be made.

The Economic problem

- ❖ Wants, desires, unlimited
- ❖ Resources Scarce not freely available
- ❖ Economic choice
- ❖ Economics
How people use resources to satisfy unlimited wants.

What and how much to produce?

- Every society must decide on what goods it will produce and how much of these it will produce. In this process, the crucial decisions include:
 - ❖ Whether to produce more of food, clothing and housing or to have more luxury goods
 - ❖ Whether to have more agricultural goods or to have industrial goods and services
 - ❖ Whether to use more resources in education and health or to use more resources in military services
 - ❖ Whether to have more consumption goods or to have investment goods
 - ❖ Whether to spend more on basic education or higher education

How to Produce?

- Every society has to decide whether it will use labour-intensive technology or capital intensive technology; that is whether to use more labour and less more machines and vice versa.

For whom to produce?

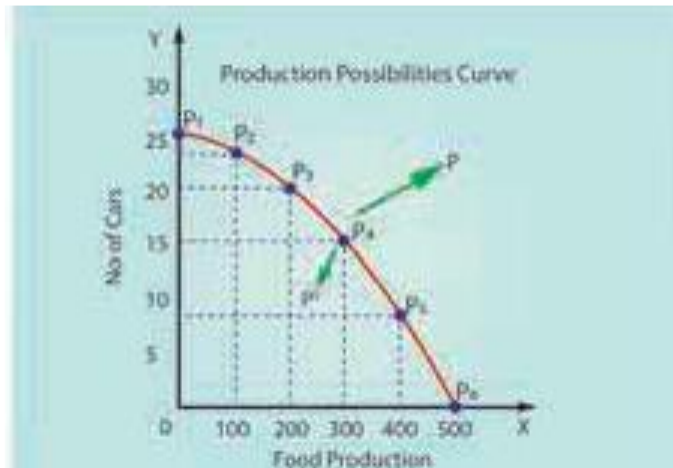
- Every society must also decide how its produce be distributed among the different sections of the society. It must also decide who gets more and who gets less. It should also decide whether or not a minimum amount of consumption be ensured for everyone in the society. Due to the scarcity of resources, a society faces the compulsion of making choice among alternatives. It faces the problem of allocating the scarce resources to the production of different possible goods and services and of distributing the produced goods and services among individuals within the economy.

Production Possibility Curve

- The problem of choice between relatively scarce commodities due to limited productive resources with the society can be illustrated with the help of a geometric device, is known as production possibility curve. Production possibility curve shows the menu of choice along which a society can choose to substitute one good for another, assuming a given state of technology and given total resources.
- The explanation and analysis of production possibility curve is based upon certain assumptions, some of them are following
 - ❖ The time period does not change. It remains the same throughout the curve.
 - ❖ Techniques of production are fixed.
 - ❖ There is full employment in the economy
 - ❖ Only two goods can be produced from the given resources.
 - ❖ Resources of production are fully mobile.
 - ❖ The factors of production are given in quantity and quality
 - ❖ The law of diminishing returns operates in production.
- Every production possibility curve is based upon these assumptions. If some of these assumptions changes or neglected, then it affects the nature of production possibility curve.
- To draw this curve we take the help of production possibilities schedule, as shown below.
- This schedule suggests that if all resources are thrown into the production of food, a maximum of 500 tons of food can be produced, given the existing technology. If on the

other hand, all resources are instead used for producing cars, 25 cars can be produced. In between these two extreme possibilities exist. If we are willing to give up some food, we can have some cars.

- We can obtain a production possibility curve by drawing production possibilities schedule graphically. The quantity of food is shown on x-axis and the number of cars is shown on y-axis, the different six production possibilities are being shown as point P₁P₂P₃P₄P₅&P₆



Food production

- If we assume that innumerable production possibilities exist between any two production possibilities schedule, we get the production possibility curve P₁ to p₆. This shows the locus of points of the different possibilities of production of two commodities, which a firm or an economy can produce, with the help of given resources and the techniques of production. Points outside the production possibility (e.g. point p) are unattainable as society's resources of production are not sufficient to give output beyond the curve. Points lying inside the curve like p₁ are attainable by the society but at these points resources production are not fully employed. For example, if society is producing at point p₇ then it can increased the production of food keeping the no of cars constant or it can increase the production of cars keeping the food grain output constant or it can increased the output of both the goods simultaneously.

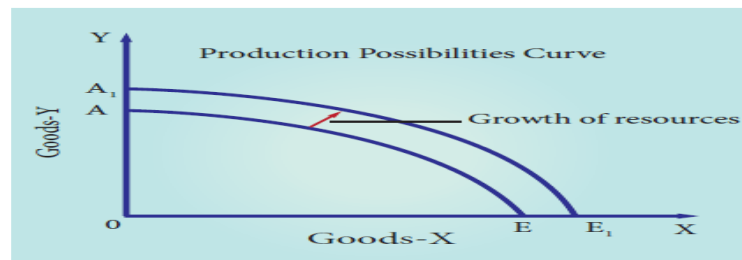
The PPC shifts upward or downward due to:

1. The change in the supply of productive resources and
 2. The change in the state of technology.
- The production capacity of an economy grows overtime through increase in resource supplies and improvement of technology. This enables PPC to shift upward from AE

to A_1E_1 as shown in figure below. This outward shift of the PPC is the basic feature of economic growth.

Uses of production possibility curve

- Through the device of PPC can be used for many analytical purposes. We shall discuss below some of its popular uses.



The problem of choice

- The problem of choice arise because of the given limited resources and unlimited wants, may relate to the allocation of resources between the goods for the higher income group and the lower income group and the goods for the defense and the civilians. Since PPC is the locus of the combination of the goods the problem of choice will not arises when we choose any point on PPC.

The Notion of Scarcity

- We can explain the notion of scarcity with the help of PPC. We know that every society possesses only a specific amount of resources, which can produce only limited amount of output even with the help of best technology, Economic scarcity of best fact of life. The production possibility curve reflects the constraints imposed by the element of economic scarcity.

Solution of central problems

- The central problems of an economy can be explained with the help of PPC. The solution of problem of what to produce involves the decision regarding the choice of location on the production possibility curves. A production combination represented by any point inside the PPC indicates that the economy is using inefficient methods of production and inefficient combination of resources.

Conclusion

- This chapter has given a broad overview of economics. Moreover the present certain common characteristics of economics definitions of Wealth, Welfare, Scarcity & Growth free essential questions an economy must solve; what to produce, how to produce and for whom to produce and also looked at division of economics,

distinguishing between Micro and Macroeconomics. It has introduced some basic concepts frequently appearing throughout the lessons.

- It is perhaps both importance, the study of economics is an intellectually fascinating adventure highly relevant and it affects people's life. Every now and then after learning lesson, think of economic activities in and around you. Perhaps in this way learning of economics makes to think like an economist.



Unit -7 Indian Economy

Meaning of Growth and Development

- A country's economic growth is usually measured by National Income, indicated by Gross Domestic Product (GDP). The GDP is the total monetary value of the goods and services produced by that country over a specific period of time, usually one year.
- The level economic development is indicated not just by GDP, but by an increase in citizens' quality of life or well-being. The quality of life is being assessed by several indices such as Human Development Index (HDI), Physical Quality of Life Index (PQLI) and Gross National Happiness Index (GNHI).

Gross National Happiness Index (GNHI)

The term "Gross National Happiness" was coined by the fourth king of Bhutan, Jigme Singye Wangchuck, in 1972. It is an indicator of progress, which measures sustainable development, environmental conservation promotion of culture and good governance.

- On the basis of the level of economic development, nations are classified as developed and developing economies.
- Developed economies are those countries which are industrialised, utilise their resources efficiently and have high per capita income. The USA, Canada, U.K, France, and Japan are some of the developed economies. Developed economies are also termed as Advanced Countries. On the other hand, countries which have not fully utilized their resources like land, mines, workers, etc., and have low per capita income are termed as under developed economies. Examples of underdeveloped countries are Sub Saharan Africa, Bangla Desh, Myanmar, Pakistan, Indonesia etc. They are also termed as Undeveloped Countries or Backward Nations or Third World Nations.

Indian Economy

- Indian economy is the Seventh largest economy of the world. Being one of the top listed countries. In terms of industrialization and economic growth, India holds a robust position with an average growth rate of 7% (approximately).
- Even though the rate of growth has been sustainable and comparatively stable, there are still signs of backwardness.

Features of a Developed Economy

1. High National Income

2. High Per Capita Income
3. High Standard of Living
4. Full Employment of Resources
5. Dominance of Industrial Sector
6. High Level of Technology
7. High Industrialisation
8. High Consumption Level
9. High Level of Urbanisation
10. Smooth Economic Growth
11. Social Equity, Gender Equality and Low Levels of Poverty
12. Political Stability and Good Governance

The diametrically opposite features of Indian Economy are discussed below in detail.

Features of Indian Economy

Strengths of Indian Economy

India has a mixed economy

- Indian economy is a typical example of mixed economy. This means both private and public sectors co-exist and function smoothly. On one side, some of the fundamental and heavy industrial units are being operated under the public sector, while, due to the liberalization of the economy, the private sector has gained importance. This makes it a perfect model for public – private partnership.

Agriculture plays the key role

- Agriculture being the maximum pursued occupation in India, it plays an important role in its economy as well. Around 60% of the people in India depend upon agriculture for their livelihood. In fact, about 17% of our GDP today is contributed by the agricultural sector. Green revolution, ever green revolution and inventions in bio technology have made agriculture self sufficient and also surplus production. The export of agricultural products such as fruits, vegetables, spices, vegetable oils, tobacco, animal skin, etc. also add to foreign earning through international trading.

An emerging market

- India has emerged as vibrant economy sustaining stable GDP growth rate even in the midst of global downtrend. This has attracted significant foreign capital through FDI and FII. India has a high potential for prospective growth. This also makes it an emerging market for the world.

Emerging Economy

- Emerging as a top economic giant among the world economy, India bags the seventh position in terms of nominal Gross Domestic Product (GDP) and third in terms of Purchasing Power Parity (PPP). As a result of rapid economic growth Indian economy has a place among the G20 countries.

Fast Growing Economy

- India's economy is well known for high and sustained growth. It has emerged as the world's fastest growing economy in the year 2016-17 with the growth rate of 7.1% in GDP next to People's Republic of China.

Fast growing Service Sector

- The service sector, contributes a lion's share of the GDP in India. There has been a high rise growth in the technical sectors like Information Technology, BPO etc. These sectors have contributed to the growth of the economy. These emerging service sectors have helped the country go global and helped in spreading its branches around the world.

Large Domestic consumption

- With the faster growth rate in the economy the standard of living has improved a lot. This in turn has resulted in rapid increase in domestic consumption in the country. The standard of living has considerably improved and life style has changed.

Rapid growth of Urban areas

- Urbanization is a key ingredient of the growth of any economy. There has been a rapid growth of urban areas in India after independence. Improved connectivity in transport and communication, education and health have speeded up the pace of urbanization.

Stable macro economy

- The Indian economy has been projected and considered as one of the most stable economies of the world. The current year's Economic survey represents the Indian economy to be a "heaven of macroeconomic stability, resilience and optimism. According to the Economic Survey for the year 2014-15, 8%-plus GDP growth rate has

been predicted, with actual growth turning out to be a little less (7.6%). This is a clear indication of a stable macroeconomic growth.

Demographic dividend

- The human capital of India is young. This means that India is a pride owner of the maximum percentage of youth. The young population is not only motivated but skilled and trained enough to maximize the growth. Thus human capital plays a key role in maximizing the growth prospects in the country. Also, this has invited foreign investments to the country and outsourcing opportunities too.

Weakness of Indian Economy

Large Population

- India stands second in terms of size of population next to China and our country is likely to overtake China in near future. Population growth rate of India is very high and this is always a hurdle to growth rate. The population growth rate in India is as high as 1.7 per 1000. The annual addition of population equals the total population of Australia.

Inequality and poverty

- There exists a huge economic disparity in the Indian economy. The proportion of income and assets owned by top 10% of Indians goes on increasing. This has led to an increase in the poverty level in the society and still a higher percentage of individuals are living Below Poverty Line (BPL). As a result of unequal distribution of the rich becomes richer and poor becomes poorer.

Increasing Prices of Essential Goods

- Even though there has been a constant growth in the GDP and growth opportunities in the Indian economy, there have been steady increase in the prices of essential goods. The continuous rise in prices erodes the purchasing power and adversely affects the poor people, whose income is not protected.

Weak Infrastructure

- Even though there has been a gradual improvement in the infrastructural development in the past few decades, there is still a scarcity of the basic infrastructure like power, transport, storage etc.

Inadequate Employment generation

- With growing youth population, there is a huge need of the employment opportunities. The growth in production is not accompanied by creation of job. The Indian economy is characterized by 'jobless growth'.

Outdated technology

- The level of technology in agriculture and small scale industries is still outdated and obsolete.

Demographic trends in India

- Scientific study of the characteristics of population is known as Demography. The various aspects of demographic trends in India are:

- ❖ Size of population
- ❖ Rate of growth
- ❖ Birth and death rates
- ❖ Density of population
- ❖ Sex-ratio
- ❖ Life-expectancy at birth
- ❖ Literacy ratio

Size of Population

Census Year	Population (in crores)	Average annual growth rate
1901	23.84	-
1911	25.21	0.56
1921	25.13	-0.03
1931	27.90	1.04
1941	31.87	1.33
1951	36.11	1.25
1961	43.92	1.96
1971	54.81	2.20
1981	68.33	2.22
1991	84.33	2.16
2001	102.70	1.97
2011	121.02	1.66

- Over a period of 100 years, India has quadrupled its population size. In terms of, size of population, India ranks 2nd in the world after China. India has only about 2.4% of the world's geographical area and contributes less than 1.2% of the world's income, but accommodates about 17.5% of the world's population. In other words, every 6th

person in the world is an Indian. Infact, the combined population of just two states namely, Uttar Pradesh and Maharashtra is more than the population of United States of America, the third most populous country of the world. Some of the states in India have larger population than many countries in the world.

- The negative growth during 1911-21 was due to rapid and frequent occurrence of epidemics like cholera, plague and influenza and also famines. The year 1921 is known as the 'Year of Great Divide' for India's population as population starts increasing.
- During 1951, population growth rate has come down from 1.33% to 1.25%. Hence it is known as 'Year of Small divide'.
- In 1961, population of India started increasing at the rate of 1.96% i.e, 2%. Hence 1961 is known as 'Year of Population Explosion'. In the year 2001, the Population of India crossed one billion (100 crore) mark.
- The 2011 census reveals growth of youth population which is described as 'demographic transition'.

Birth rate and death rate

Crude Birth rate:

It refers to the number of births per thousand of population.

Crude Death rate:

- It refers to the number of deaths per thousand of population
- Crude birth and death rates of India during various years.

Birth rate and death rate

Year	C.B.R	C.D.R.
1951	39.9	27.4
2001	25.4	8.4
2011	21.8	7.11

- Birth rate was 39.9 in 1951; it fell to 21.8 in 2011. Although the birth rate has declined, the decline is not so remarkable. The death rate has declined from 27.4 in 1951 to 7.1 in 2011. However, from the data it is clear that the fall in birth rates is less than that of death rates.
- Kerala has the lowest birth rate (14.7) and Uttar Pradesh has the highest birth rate (29.5). West Bengal has the lowest death rate (6.3) and Orissa (9.2) has the highest.

Among States Bihar has the highest decadal (2001-11) growth rate of population, while Kerala has the lowest growth rate. The four states Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh called BIMARU states have very high population.

Density of population

- It refers to the average number of persons residing per square kilometre. It represents the man- land ratio. As the total land area remains the same, an increase in population causes density of population to rise.

Density of population

Year	Density of population (No. of persons per sq. km)
1951	117
2001	325
2011	382

- Just before Independence, the density of population was less than 100. But after independence, it has increased rapidly from 117 in 1951 to 325 in 2001. According to 2011 census, the present Density of population is 382. Thus, the pressure of population on land has been rising. Kerala, West Bengal, Bihar and Uttar Pradesh have density higher than the India's average density. Bihar is the most densely populated state in the country with 1,102 persons living per sq.km followed by West Bengal with 880. Arunachal Pradesh has low density of population of only 17 persons.

Sex ratio

- It refers to the number of females per 1,000 males. It is an important indicator to measure the extent of prevailing equity between males and females at a given point of time.

Census year	Sex ratio(Number of females per1000 males)
1951	946
2001	933
2011	940

- In India, the sex ratio is more favourable to males than to females. In Kerala, the adult sex ratio is 1084 as in 2011. The recent census (2011) shows that there has been a marginal increase in sex ratio. Haryana has the lowest sex ratio of 877 (2011) among other states, while Kerala provides better status to women as compared to other States with 1084 females per 1000 males.

Life expectancy at birth

- It refers to the mean expectation of life at birth. Life expectancy has improved over the years. Life expectancy is low when death rate is high and / or instances of early death are high. On the other hand, life expectancy is high when death rate is low and / or instances of early death are low.

Year	Male	Female	Overall
1951	32.5	31.7	32.1
1991	58.6	59.0	58.7
2001	61.6	63.3	62.5
2011	62.6	64.2	63.5

- During 1901 - 11, life expectancy was just 23 years. It increased to 63.5 years in 2011. A considerable fall in death rate is responsible for improvement in the life expectancy at birth. However the life expectancy in India is very low compared to that of developed countries.

Literacy ratio

- It refers to the number of literates as a percentage of the total population. In 1951, only one-fourth of the males and one-twelfth of the females were literates. Thus, on an average, only one-sixth of the people of the country were literates. In 2011, 82% of males and 65.5% of females were literates giving an overall literacy rate of 74.04% (2011). When compared to other developed countries and even Sri Lanka this rate is very low.

Census year	Literate persons	Males	Females
1951	18.3	27.2	8.9
2001	64.8	75.3	53.7
2011	74.04	82.1	65.5

- Kerala has the highest literacy ratio (92%) followed by Goa (82%), Himachal Pradesh (76%), Maharashtra (75%) and Tamil Nadu (74%). Bihar has the lowest literacy ratio (53%) in 2011.

Natural Resources

- Any stock or reserve that can be drawn from nature is a Natural Resource. The major natural resources are - land, forest, water, mineral and energy. India is rich in natural resources, but majority of the Indians are poor. Nature has provided with diverse climate, several rivers for irrigation and power generation, rich minerals, rich forest and diverse soil.

Types of Natural resources

- **Renewable Resources:** Resources that can be regenerated in a given span of time. E.g. forests, wildlife, wind, biomass, tidal, hydro energies etc.
- **Non-Renewable Resources:** Resources that cannot be regenerated. E.g. Fossil fuels coal, petroleum, minerals, etc.

Land Resources

- In terms of area India ranks seventh in the world with a total area of 32.8 lakh sq. km. It accounts for 2.42% of total area of the world. In absolute terms India is really a big country. However, land- man ratio is not favourable because of the huge population size.
- According to Agricultural Census, the area operated by large holdings (10 hectares and above) has declined and area operated under marginal holdings (less than one hectare) has increased. This indicates that land is being fragmented and become ineconomic.

Forest Resources

- India's forest cover in 2007 is 69.09 million hectare which constitutes 21.02 per cent of the total geographical area. Of this, 8.35 million hectare is very dense forest, 31.90 million hectare is moderately dense forest and the rest 28.84 million hectare is open forest.

Important Mineral Resources Iron-Ore

- India possesses high quality iron-ore in abundance. The total reserves of iron-ore in the country are about 14.630 million tonnes of haematite and 10,619 million tonnes of magnetite. Hematite iron is mainly found in Chhattisgarh, Jharkhand, Odisha, Goa and Karnataka. The major deposit of magnetite iron is available at western coast of Karnataka. Some deposits of iron ore are also found in Kerala, Tamil Nadu and Andhra Pradesh.

Coal and Lignite

- Coal is the largest available mineral resource. India ranks third in the world after China and USA in coal production. The main centres of coal in India are the West Bengal, Bihar, Madhya Pradesh, Maharashtra, Odisha and Andhra Pradesh. Bulk of the coal production comes from Bengal-Jharkhand coalfields.

c. Bauxite

- Bauxite is a main source of metal like aluminium. Major reserves are concentrated in the East Coast bauxite deposits of Odisha and Andhra Pradesh.

Mica

- Mica is a heat resisting mineral which is also a bad conductor of electricity. It is used in electrical equipment's as an insulator. India stands first in sheet mica production and contributes 60% of mica trade in the world. The important mica bearing pegmatite is found in Andhra Pradesh, Jharkhand, Bihar and Rajasthan.

Crude Oil

- Oil is being explored in India at many places of Assam and Gujarat. Digboi, Badarpur, Naharkatia, Kasimpur, Palliaria, Rudrapur, Shivsagar, Mourn (All in Assam) and Hay of Khambhat, Ankaleshwar and Kalol (All in Gujarat) are the important places of oil exploration in India.

Gold

- India possesses only a limited gold reserve. There are only three main gold mine regions—KolarGoldfeld, Kolar district and HuttiGoldfeld in Raichur district (both in Karnataka) and RamgiriGoldfeld in Anantpur district (Andhra Pradesh).

Diamond

- As per UNECE the total reserves of diamond is estimated at around 4582, thousand carats which are mostly available in Panna(Madhya Pradesh),Rammallakota of Kurnur district of Andhra Pradesh and also in the Basin of Krishna River.
- The new Kimberlile fields have been discovered in Raipur and Pastar districts of Chhattisgarh, Nuapada and Bargarh districts of Odisha, Narayanpet - Maddur Krishna areas of Andhra Pradesh and Raichur-Gulbarga districts of Karnataka.

Economic Infrastructure

- Infrastructural development means the development of many support facilities. These facilities may be divided into (a) economic infrastructure and (b) social infrastructure. Economic infrastructure includes - transport, communication, energy, irrigation, monetary and financial institutions. Social infrastructure includes - education, training and research, health, housing and civic amenities.

Economic Infrastructure

- Economic infrastructure is the support system which helps in facilitating production and distribution. For instance, railways, trucks, posts and telegraph offices, ports, canals, power plants, banks, insurance companies etc. are all economic infrastructure of an economy. They help in the production of goods and services.

Transport

- For the sustained economic growth of a country, a well-connected and efficient transport system is needed. India has a good network of rail, road, coastal shipping, and air transport. The total length of roads in India being over 30 lakh km, India has one of the largest road networks in the world. In terms of railroads, India has a broad network of railroad lines, the largest in Asia and the fourth largest in the world. The total rail route length is about 63,000 km and of this 13,000 km is electrified. The major Indian ports including Calcutta, Mumbai, Chennai, Vishakhapatnam and Goa handle about 90% of sea-borne trade and are visited by cargo carriers and passenger liners from all parts of the world. A comprehensive network of air routes connects the major cities and towns of the country. The domestic air services are being looked after by Indian Airlines and private airlines. The international airport service is looked after by Air India.

Indian Railways Provide Wi-Fi Facility First in India is Bangalore Railway Station

Air India and Indian Airlines were merged on August 27, 2007 to form National Aviation Company of India Ltd. (NACIL)

The National Harbour board was set up in 1950 to advise the Central and State Governments on the management and development of ports, particularly minor ports

Energy

- Electrical energy is one of the necessary components of our life. Nowadays, without electricity, we cannot survive in this world of technology. The energy sources are classified under two heads based on the availability of the raw materials used, while generating energy.
 1. Non-renewable energy sources
 2. Renewable energy sources

Non-renewable energy sources

- As the name suggests, the sources of energy which cannot be renewed or re-used are called non-renewable energy sources. Basically these are the energy sources which will get exhausted over a period of time. Some of the examples of this kind of resources are coal, oil, gas etc.

Renewable energy sources

- These are the kind of energy source which can be renewed or reused again and again. These kinds of materials do not exhaust or literally speaking these are available in

abundant or infinite quantity. Example for this kind include **1. Solar energy 2. Wind energy 3. Tidal energy 4. Geothermal energy 5. Biomass energy** Sometimes renewable sources are also called non-conventional sources of energy since, these kinds of materials or these ways of energy production were not used earlier or conventionally.

Social Infrastructure

- Social infrastructure refers to those structures which are improving the quality of manpower and contribute indirectly towards the growth of an economy. These structures are outside the system of production and distribution. The development of these social structures help in increasing the efficiency and productivity of manpower. For example, schools, colleges, hospitals and other civic amenities. It is a fact that one of the reasons for the low productivity of Indian workers is the lack of development of social infrastructure. The status and developments in the social infrastructure in India are discussed below.

Education

Education in India

- Imparting education on an organized basis dates back to the days of 'Gurukul' in India. Since then the Indian education system has flourished and developed with the growing needs of the economy. The Ministry & Human Resource Development (MHRD) in India formulates education policy in India and also undertakes education programs.

Education system in India

- Education in India until 1976 was the responsibility of the State governments. It was then brought under concurrent list (both Centre and State). The Centre is represented by the Ministry of Human Resource Development decides the India's education budget. The education system in India consists of primarily six levels:

1. Nursery Class,
2. Primary Class,
3. Secondary Level,
4. Higher Secondary Level,
5. Graduation, 6. Post-Graduation

Education Institutions in India:

- Education in India follows the 10+2 pattern. For higher education, there are various State run as well as private institutions and universities providing a variety of courses and subjects. The accreditation of the universities is decided under the University Grant Commission Act. The Education Department consists of various schools, colleges and universities imparting education on fair means for all sections of the society. The budget share of the education sector is around 3% of GDP, of this largest proportion

goes for school education. However, per pupil expenditure is the lowest for school students.

Health

a. Health in India

- Health in India is a state government responsibility. The Central Council Of Health and Welfare formulates the various health care projects and health department reform policies. The administration of health industry in India as well as the technical needs of the health sector are the responsibility of the Ministry Of Health And Welfare.
- Health care in India has many forms. These are the ayurvedic medicine practice, unani or galenic herbal care, homeopathy, allopathy, yoga, and many more. Each different healthcare form has its own treatment system and practice patterns. The medical practicing in India needs a proper licensing from the Ministry of Health. All medical systems are now under one ministry viz AYUSH.

Health Care Services in India:

- The health care services in India are mainly the responsibility of the Ministry of Health. State wise, health status is better in Kerala as compared to other States. Compared to other developed countries, India's health status is not satisfactory. India's health status is poor compared to Sri Lanka.

Contributions of Indian Economic Thinkers

Tiruvalluvar

- The economic ideas of Tiruvalluvar are found in his immortal work, Thirukkural, a book of ethics. Even though scholars differ widely over the estimation of the period of Tiruvalluvar, it is generally believed that, he belongs to the Sangam age in Tamil Nadu around third century A.D. Tiruvalluvar's work is marked by pragmatic idealism.
- A large part of Valluvar's economic ideas are found in the second part of Tirukkural, the porutpal. It deals with wealth. Tiruvalluvar is a fundamental thinker. He believes that rains are the basic support of life. Since rain provides food, it forms the basis for stable economic life. Agriculture which is the most fundamental economic activity depends on rain, "It is rain that both ruins and aids the ruined to rise".

Factors of Production

- Tiruvalluvar has made many passing references about the factors of production viz., Land, Labour, Capital, Organisation, Time, Technology etc. He says, "Unfailing harvest, competent body of men, group of men, whose wealth knows no diminution, are the components of an economy". (Kural 61)

Agriculture

- According to Tiruvalluvar, agriculture is the most fundamental economic activity. They are the axle-pin of the world, for on their prosperity revolves prosperity of other sectors of the economy, "The ploughmen alone", he says "live as the freemen of the soil; the rest are mere slaves that follow on their toil"(Kural 1032). Valluvar believes that agriculture is superior to all other occupation.

Public Finance

- Tiruvalluvar has elaborately explained Public Finance under the headings Public Revenue, Financial Administration and Public expenditure. He has stated these as 1) Creation of revenue, 2) Collection of revenue, 3) Management of revenue 4) Public expenditure

Public Expenditure

- Valluvar has recommended a balanced budget. "It is not a great misfortune for a state if its revenues are limited, provided the expenditure is kept within bounds." He has given certain guidelines for a budgetary policy. "Budget for a surplus, if possible, balances the budget at other times, but never budget for a deficit." Valluvar advocates the following main items of public expenditure: 1) Defence 2) Public Works and 3) Social Services.

External Assistance

- Valluvar was against seeking external assistance. According to Kural No. 739, countries taking external assistance are not to be considered as countries at all. In other words, he advocated a self-sufficient economy.

Poverty and Begging

- Valluvar considers freedom from hunger as one of the fundamental freedoms that should be enjoyed by every citizen. According to him 'poverty' is the root cause of all other evils which would lead to ever-lasting sufferings. It is to be noted that the number of people living below poverty line, begging, sleeping on the roadsides and rag picking in India has been increasing.

Wealth

- Valluvar has regarded wealth as only a means and not an end. He said, "Acquire a great fortune by noble and honourable means." He condemned hoarding and described hoarded wealth as profitless richness. To him industry is real wealth and labour is the greatest resource.

Welfare State

- Tiruvalluvar is for a welfare state. In a welfare state there will be no poverty illiteracy, disease and industry. The important elements of a welfare state are 1) perfect health of the people without disease 2) abundant wealth, 3) good crop 4) prosperity and happiness and 5) full security for the people.

Mahatma Gandhi

- Gandhian Economics is based on ethical foundations. In 1921, Gandhi wrote, "Economics that hurts the moral well-being of an individual or a nation is immoral, and therefore, sinful." Again in 1924, he repeated the same belief: "that economy is untrue which ignores or disregards moral values".

Salient Features of Gandhian Economic Thought

1. Village Republics:

- To Gandhi, India lives in villages. He was interested in developing the villages as self-sufficient units. He opposed extensive use of machinery, urbanization and industrialization.

2. On Machinery:

- Gandhi described machinery as 'Great sin'. He said that "Books could be written to demonstrate its evils... it is necessary to realize that machinery is bad. Instead of welcoming machinery as a boon, we should look upon it as an evil. It would ultimately cease.

3. Industrialism:

- Gandhi considered industrialism as a curse on mankind. He thought industrialism depended entirely on a country's capacity to exploit.

4. Decentralization:

- He advocated a decentralized economy, i.e., production at a large number of places on a small scale or production in the people's homes.

5. Village Sarvodaya:

- According to Gandhi, "Real India was to be found in villages and not in towns or cities." So he suggested the development of self-sufficient, self-dependent villages.

6. Bread Labour:

- Gandhi realized the dignity of human labour. He believed that God created man to eat his bread by the sweat of his brow. Bread labour or body labour was the expression that Gandhi used to mean manual labour.

7. The Doctrine of Trusteeship:

- Trusteeship provides a means of transforming the present capitalist order of society into an egalitarian one. It gives no quarter to capitalism. However, now India experiences both casino capitalism and crony capitalis

8. On the Food Problem:

- Gandhi was against any sort of food controls. He thought such controls only created artificial scarcity. Once India was begging for food grain, but India tops the world with very large production of foodgrains, fruits, vegetables, milk, egg,meat etc.,

9. On Population:

- Gandhi opposed the method of population control through contraceptives. He was, however, in favour of birth control through Brahmacharya or self-control. He considered self-control as a sovereign remedy to the problem of over-population.

10. On Prohibition:

- Gandhi advocated cent per cent prohibition. He regarded the use of liquor as a disease rather than a vice. He felt that it was better for India to be poor than to have thousands of drunkards. But ,now many states depend on revenue from liquor sales.

Jawaharlal Nehru

- Jawaharlal Nehru, one of the chief builders of Modern India, was the first Prime Minister of Independent India and he was there in that post till his death in 1964. He was a great patriot, thinker and statesman. His views on economics and social problems are found in the innumerable speeches he made and in the books he wrote.

Democracy and Secularism

- Jawaharlal Nehru was a firm believer in democracy. He believed in free speech civil liberty, adult franchise and the Rule of Law and Parliamentary democracy. Secularism, is another signal contribution of Nehru to India. In our country, there are many religions - Hinduism, Islam, Christianity, Buddhism, Jainism, Zoroastrianism, Sikhism and so on. But there is no domination by religious majority. Secularism means equal respect for all religions.

Planning

- Jawaharlal Nehru was responsible for the introduction of planning in our country. To Jawaharlal Nehru, the Plan was essentially an integrated approach for development. Initiating the debate on the Second Plan in the Lok Sabha in May 1956, Nehru spoke on the theme of planning. He said, "the essence of planning is to find the best way to utilize all resources of manpower, of money and so on." Planning for Nehru was essentially linked up with industrialization and eventual self-reliance for the country's economic growth on a self- accelerating growth. Nehru carried through this

basic strategy of planned development. Nehru's contribution to the advancement of science, research, technology and industrial development cannot be forgotten. It was during his period, many IITs and Research Institutions were established. He always insisted on "scientific temper".

Democratic Socialism

- Socialism is another contribution of Nehru to India. He put the country on the road towards a socialistic pattern of society. But Nehru's socialism is democratic socialism.

B. R. Ambedkar

- B.R.Ambedkar (1891-1956) was a versatile personality. He was the architect of the Indian Constitution, a custodian of social justice and a champion of socialism and state planning. Ambedkar's writings included "Ancient Indian Commerce" (a thesis submitted to the Columbia University for the award of the Master of Arts Degree in 1915), 'National Dividend of India: A Historical and Analytical Study (a thesis for which he was awarded Ph.D). His thesis was published as 'The Evolution of Provincial Finance in British India: A Study of the Provincial Decentralization of Imperial Finance'.
- Ambedkar's thesis on "Provincial Decentralization of Imperial Finance in British India" was accepted for the M. Sc degree in 1921. And his thesis "The Problem of the Rupee" was accepted for the award of the D.Sc degree by the London School of Economics in 1923. It is a miracle that RBI was conceptualized as per the guidelines presented by Ambedkar in his book, "The Problem of the Rupee;Its origin and its solution". The main economic ideas of Ambedkar may be studied under four broad headings:

Financial Economics

- Much of the work done by Ambedkar during his stay abroad mostly during the period 1913-1923, was in the field of Finance Economics. Ambedkar divided the evolution of provisional finance into three stages: (i). Budget by Assignment (1871-72 to 1876-77); (ii) Budget by Assigned Revenue (1877-78 to 1881-82); and (iii) Budget by Shared Revenues (1882-83 to 1920-1921).

Agricultural Economics

- In 1918, Ambedkar published a paper "Small Holding in India and their Remedies". Citing Adam Smith's 'Wealth of Nations', he made a fine distinction between "Consolidation of Holdings" and "Enlargement of Holdings".

Economics of Caste

- Ambedkar believed that caste was an obstacle to social mobility. It resulted in social stratification. He was of the firm view that individuals must be free to change their occupations. Moreover, the caste system caused social tensions. The caste system has resulted in the absence of social democracy in India as distinct from political democracy.

Economics of Socialism

- Ambedkar was a socialist. He was a champion of state socialism. He advocated the nationalization of all key industries and suggested state ownership of land and collective farming. He was for state monopoly of insurance business. Not only that, he advocated compulsory insurance for every citizen.
- There is no doubt that Ambedkar was a great economist. But his academic work as an economist was eclipsed by his greater contributions in the field of law and politics. Above all he was a great social reformer.

J. C. Kumarappa

- Joseph ChelladuraiKumarappa was born on 4 January 1892 in Tanjavur, Tamil Nadu. A pioneer of rural economic development theories, Kumarappa is credited for developing economic theories based on Gandhism - a school of economic thought he coined "Gandhian Economics".

Gandhian Economics

- J.C.Kumarappa strongly supported Gandhi's notion of village industries and promoted Village Industries Associations. Kumarappa worked to combine Christian and Gandhian values of "trusteeship", nonviolence and a focus on human dignity and development in place of materialism as the basis of his economic theories. While rejecting socialism's emphasis on class war and force in implementation, he also rejected the emphasis on material development, competition and efficiency in free-market economies. Gandhi and Kumarappa envisioned an economy focused on satisfying human needs and challenges while rooting out socio-economic conflict, unemployment, poverty and deprivation.
- Kumarappa worked as a Professor of economics at the Gujarat Vidyapith in Ahmedabad, while serving as the editor of Young India during the Salt Satyagraha. He founded the All India Village Industries Association in 1935; and was imprisoned for more than a year during the Quit India movement. He wrote during his imprisonment, Economy of Permanence: The Practice and Precepts of Jesus (1945) and Christianity: Its Economy and Way of Life (1945).
- Several of Gandhi's followers developed a theory of environmentalism. Kumarappa took the lead in a number of relevant books in the 1930s and 1940s. Historian

RamachandraGuha calls Kumarappa, “The Green Gandhian,” portraying him as the founder of modern environmentalism in India.

- Kumarappa worked for the Planning Commission of India and the Indian National Congress to develop national policies for agriculture and rural development. He also travelled to China, Eastern Europe and Japan on diplomatic assignments and to study their rural economic systems.

V.K.R.V. Rao

- According to P.R. Brahmananda, “ the great trinity of pre- independent and post independent Indian economists consisted of D.R.Gadgill, C.N.Vakil and V.K.R.V. Rao. These scholars were imbued with a missionary zeal and analysed the Indian economic problems with a view to designing and propagating economic policies/programmes and plans to India’s national advantage.” V.K.R.V: Rao was a prolific writer.

V.K.R.V: Rao was deeply interested in three large themes. They were:

- ❖ National Income,
- ❖ Food, nutrition and the distribution of good; and
- ❖ Employment and occupational distributions.

National Income Methodology

- As an applied economist, Rao’s name is remembered for his pioneering work on the enumeration of national income of India. Rao was a pupil of J.M. Keynes and he worked with Colin Clark. H.W Singer considered V.K.R.V Rao as “ the best equipped of all Keynes’ pupils. He attempted (i) to develop the national income concepts suited to India and developing countries generally; (ii) to analyse the concepts of investment, saving and the multipliers in an underdeveloped economy; and (iii) to study the compatibility of the national incomes of industrialized and underdeveloped countries. Rao’s paper on “Full Employment and Economic Development” was one of the earliest contributions in the field of development towards employment.

International Food Aid

- Rao was influential in creating ideas and shaping policy in the international attack on world poverty, not only through his contributions to the question of international aid and improved flows of external resources, but also through his activities in the field of food aid.

Support for Socialism

- During the early phases of planning in India, Rao supported the case of a socialist India, where the state would control the commanding heights of the economy and the public sector would play a dominant role in economic development.

Rao's Views on Industrialization

- In his pamphlet "what is wrong with Indian Economic Life?" (1938), Rao gave the following reasons for low per capita income and low levels of per capita nutrition in India.
 - ❖ Uneconomic holdings with subdivisions and fragmentation;
 - ❖ Low levels of water availability for crops;
 - ❖ Excess population pressure on agriculture due to the absence of a large industrial sector;
 - ❖ Absence of capital;
 - ❖ Absence of autonomy in currency policy, and in general in monetary matters encouraging holding of gold.

Village Clusters

- Rao felt that rural communities had to be given a viable base. Therefore he suggested that a cluster of villages should form a unit for rural development, so that both social and economic interactions between villages could develop, and they could effectively generate and fashion their own development with a more meaningful participation by people.

Investment, Income and Multiplier

- Rao's examination of the "interrelation between investment, income and multiplier in an under developed economy" (1952) was his major contribution to macroeconomic theory. As a thinker, teacher, economic adviser and direct policy maker, V.K.R.V. Rao followed the footsteps of his great teacher, John Maynard Keynes.

Institution Builder

- He founded three national level research institutes namely Delhi School of Economics, Institute of Economic Growth (both at Delhi) and Institute for Social and Economic Change (Bangalore)

Amartya Kumar Sen

- The Nobel citation refers to Sen's contributions to social choice theory, development economics, study on poverty and famines and concept of entitlements and capability development (1998).

Poverty and Famines

- Sen's "Poverty and Famines: An Essay on Entitlement and Deprivation" (1981) is both a theoretical and an applied work. In the book, several famines have been studied in the working of a general theoretical framework from an original angle. He examined various meanings of poverty and drew attention to the incidence of absolute and relative deprivation.

Poverty and Inequality

- Sen has carried out massive work on poverty and inequality in India. Sen's major point has been that the distribution of income/ consumption among the persons below the poverty line is to be taken into account.

The Concept of Capability

- The concept of capabilities developed by Sen has been cited as a better index of wellbeing than commodities or utilities. Capability, as defined by Sen, is the ability to transform Rawlsian primary goods to the achievement of wellbeing.

Entitlement

- Sen has included the concept of entitlement items like nutrition, food, medical and health care, employment, security of food supply in times of famine etc. He considered famine as arising out of the failure of establishing a system of entitlements.

Choice of Technique

- Sen's 'Choice of Technique' was a research work where he argued that in a labour surplus economy, generation of employment cannot be increased at the initial stage by the adaptation of capital-intensive technique.
- Conclusively, Amartya Sen, more than just an economist, is an ethical philosopher. He is a lover of freedom and a humanist. He has focused on the poor, viewing them not as objects of pity requiring charitable hand-outs, but as disempowered folk needing empowerment, education, health, nutrition, gender equality, safety net in times of distress; all are needed to empower people.

Conclusion

- This lesson mainly focused on some of the aspects of the Indian Economy and its resources, infrastructure facilities and energy. It also discussed the principles of Indian Economic thinkers to motivate the students to read good books on Economics Written by the great economists.

8. Indian Economy Before and After Independence

Introduction

- This chapter discusses the major events that took place in India before and after Independence. India was a colony for long. Colonialism refers to a system of political and social relations between two countries, of which one is the ruler and the other is its colony. The ruling country not only has political control over the colony but it also determines the economic policies of the subjugated country. Thus, the people living in a colony cannot take independent decisions in respect of utilisation of the country's resources and Important economic activities. India had the bitter experience of colonialism.

Indian Economy during the British Period

- Indian's sea route trade to Europe started only after the arrival of Vasco da Gama in Calicut, India on May 20, 1498. The Portuguese had traded in Goa as early as 1510. In 1601 the East India Company was chartered, and the English began their first inroads into the Indian Ocean. In 1614 Sir Thomas Roe was successful in getting permission from Jahangir for setting up factories and slowly moved all parts of India.

History of British Period

During the British period

Before the advent of the British, Indian practically lived in village. Thus the economy of the village was self-sufficient. But under the British rule only industries were allowed to develop. These economic and organization change brought down the economic condition of Indians. All the problems are chiefly related with health, housing, child and woman welfare and labour, recreation, crime and social disorganization. Due to these problems, the need for organized social work was realised.

- Hundred years after Battle of Plessey the rule of the East India Company finally did come to an end. In 1858, British Parliament passed a law through which the power for governance of India was transferred from the East India Company (EIC) to the British crown. Even the transfer of power from the East India Company to the British Crown did not materially alter the situation.

Britain had exploited India over a period of two centuries of its colonial rule. On the basis of the form of colonial exploitation, economic historians have divided the whole period into three phases: namely the period of merchant capital, the period of industrial capital, the period of finance capital.

Period of Merchant Capital

- The period of merchant capital was from 1757 to 1813.
- The only aim of the East India Company was to earn profit by establishing monopoly trade in the goods with India and the East India's.

- During this period, India had been considered as the best hunting ground for capital by the East Indian company to develop industrial capitalism in Britain.
- When Bengal and South India came under political control of the East India Company in 1750s and 1760s, the objective of monopoly trade was fulfilled.
- The company administration succeeded in generating huge surpluses which were repatriated to England, and the Indian leaders linked this problem of land revenue with that of the drain.
- Above all, the officers of the company were unscrupulous and corrupt.

Period of Industrial Capital

- The period of Industrial capital was from 1813 to 1858.
- During this period, India had become a market for British textiles.
- India's raw materials were exported to England at low price and imported finished textile commodities to India at high price. In this way, Indians were exploited.
- India's traditional handicrafts were thrown out of gear.

Period of Finance Capital

- The third phase was the period of finance capital starting from the closing years of the 19th century and continuing till independence. During this period, finance imperialism began to entrench itself through the managing agency firms, export - import firms, exchange banks and some export of capital.
- Britain decided to make massive investments in various fields (rail, road, postal system, irrigation, European banking system, and a limited field of education etc.) in India by plundering Indian capital.
- Railway construction policy of the British led to unimaginable as well as uneconomic. The poor Indian taxpayers had been compelled to finance for the construction of railways. The political power was handed over to the British Government by the East India Company in 1858.

Decline of Indian Handicrafts

- The Indian handicrafts products had a worldwide market. Indian exports consisted chiefly of hand weaved cotton and silk fabrics, calicoes, artistic wares, wood carving etc.
- Through discriminatory tariff policy, the British Government purposefully destroyed the handicrafts.

- With the disappearance of nawabs and kings, there was no one to protect Indian handicrafts.
- Indian handicraft products could not compete with machine-made products.
- The introduction of railways in India increased the domestic market for the British goods.

The Land Tenure Systems in India

- Land Tenure refers to the system of land ownership and management. The features that distinguish a land tenure system from the others relate to the following:
 - Who owns the land;
 - Who cultivates the land;
 - Who is responsible for paying the land revenue to the government.
- Based on these questions, three different types of land tenure existed in India before Independence. They were Zamindari system, Mahalwari system and Ryotwari system.

Zamindari System or the Land lord-Tenant System

- This system was created by the British East India Company, when in 1793, Lord Cornwallis introduced 'Permanent Settlement Act'. Under this system the landlords or the Zamindari were declared as the owners of the land and they were responsible to pay the land revenue to the government. The share of the government in total rent collected was fixed at 10/11th, the balance going to the Zamindars as remuneration.

Mahalwari System or Communal System of Farming

- After introduction of this system, it was later extended to Madhya Pradesh and Punjab. The ownership of the land was maintained by the collective body usually the villagers which served as a unit of management. They distributed land among the peasants and collected revenue from them and pay it to the state.

Ryotwari System or the Owner-Cultivator System

- This system was initially introduced in Tamil Nadu and later extended to Maharashtra, Gujarat, Assam, Coorg, East Punjab and Madhya Pradesh. Under this system the ownership rights of use and control of land were held by the tiller himself. There was

the direct relationship between owners. This system was the least oppressive system before Independence.

Process of Industrial Transition and Colonial Capitalism

- This process of industrial transition in India during the British period can be broadly classified into two as given below:

Industrial growth during the 19th century

- During the 19th century, British investors started to pioneer industrial enterprises in India as they had experiences of running industries at home. British enterprises also received maximum state support. Although the Britishers initiated industrialisation process in the 19th century, they were primarily interested in making profit and not in accelerating the economic growth in India. At the end of 19th century, there were about 36 jute mills, 194 cotton mills and a good number of plantation industries. The production of coal had risen to over 6 million tonnes per annum.

Industrial progress during the 20th century

- During the first part of 20th century, Swadeshi movement stimulated the industrialisation process in India. The existing industries and new industries had maintained a slow but steady growth till the outbreak of the First World War in 1914. By this time more than 70 cotton mills and 30 jute mills were set up. Coal production was doubled. The foundation of iron and steel industry was laid. Railway network was extended.
- During the period 1924-39, various major industries like iron and steel, cotton textiles, jute, matches, sugar, paper and pulp industry etc. were brought under protection scheme. This led to rapid expansion of protected industries in India. These protected industries captured the entire Indian market and eliminated foreign competition totally.
- Thus in the early part, British rule tried to transform the Indian economy as the producer of industrial raw materials and tried to capture Indian market for their industrial finished goods and thus started exploiting Indian economy in a different way. Later on, British capitalists gradually developed various industries like, jute, tea, coffee, cotton and textiles, paper and paper pulp, sugar etc, in India for locational advantages and exploited Indian labourers extensively.

Problems of British Rule

1. The British rule stunted the growth of Indian enterprise.
2. The economic policies of British checked and retarded capital formation in India.

3. The drain of wealth financed capital development in Britain.
4. Indian agricultural sector became stagnant and deteriorated even when a large section of Indian population was dependent on agriculture for subsistence.
5. The British rule in India led the collapse of handicraft industries without making any significant contribution to development of any modern industrial base.
6. Some efforts by the colonial British regime in developing the plantations, mines, jute mills, banking and shipping, mainly promoted a system of capitalist forms that were managed by foreigners. These profit motives led to further drain of resources from India.

Important Industrial Policies Prior to 1991

- India is the Asia's third largest economy. The 70 years of Independence have brought a remarkable change in the socio - economic landscape of India.

Industrial Policy of India 1948, 1956, 1977, 1980, 1990 & 1991

- Economic development of a country particularly depends on the process of industrialisation. At the time of Independence, India inherited a weak and shallow industrial base. Therefore during the post-Independence period, the Government of India took special emphasis on the development of a solid industrial base. The Industrial Policy Resolutions of 1948 and 1956 clearly stated the need for developing both small scale industries and large scale industries.

Industrial Policy Resolutions 1948

- The Government of India recognized the significant contribution of industrialization. Therefore the Government of India declared its first Industrial Policy on 6th April 1948. The main importance of this policy was that it ushered in India the system of mixed economy.

Industrial Policies

Industrial Policy 1948 -

Center's Monopoly: Government of India's Monopoly shall include Railways. Arms and ammunition, Atomic Energy, Postal Department.

State's Monopoly: State Monopoly shall include natural resources like coal, steel, manufacture of aircraft, cement, rubber automobile, wireless apparatus (Radio Receiving Sets) and mineral oil.

Unregulated Private Enterprises: It was kept open to private enterprises of individuals and co-operative societies to also involve.

1. Industries were classified into four groups such as public sector (strategic industries), public-cum-private Sector (key industries), and controlled private sector, private and co-operative sectors.
2. This policy endeavoured to protect cottage and small scale industries.
3. The central and state governments had a virtual monopoly in rail roads and exclusive rights to develop minerals, iron ore etc.
4. The Government encouraged the significance of foreign capital for industrialization but the government decided that the control should remain with Indian hands.

Industrial Policy Resolution 1956

1. The Industrial Policy of 1956 sought to give a dominant role to public sector. At the same time, it assured a fair treatment to the private sector.
2. The Government would support and encourage cottage and small scale enterprises by restricting volume of production in the large scale sector by differential taxation or by direct subsidies.
3. This industrial policy emphasized the necessity of reducing the regional disparities in levels of development.
4. The Government recognized the need for foreign capital for progressive Indenisation of foreign concerns.

Industrial Resolution Policy - 1956

Shaped by the Mahalanobis Model of growth which suggested that emphasis on heavy industries would lead the economic towards a long term higher growth path. The Industrial Policy Resolution - 1956 classified industries into three categories;

17 Industries:

Exclusively under the domain of the Government. These included inter alia, railway, air transport, arms and ammunition, iron and steel and atomic energy.

12 Industries:

Which were envisaged to be progressively State owned by Private Sector was expected to supplement the efforts of the State. The third category contained all the remaining industries and it was expected that private sector would initiate development of these industries but they would remain open for the state as well.

Green Revolution

- The term Green Revolution refers to the technological breakthrough in of agricultural practices. During 1960s the traditional agricultural practices were gradually replaced by modern technology and agricultural practices in India. Initially the new

technology was tried in 1960-61 as a pilot project in seven districts. It was called as the High Yielding Varieties Programme (HYVP).

Achievement of Green Revolution

1. The major achievement of the new strategy was to boost the production of major cereals viz., wheat and rice. India was depending on the US for the food grain. The US by using Public Law 480 (PL480) exported wheat to India. Indians were waiting for the ships to sip their food. On the other hand, India lost lots of minerals. The US could strategically exploit Indian mineral resources at cheapest price for manufacturing missiles and weapons, which gave job opportunity for larger US youth and largely contributed to US GDP. But now India is food surplus, exporting food grains to the European countries.
2. The Green revolution was confined only to High Yielding Varieties (HYV) cereals, mainly rice, wheat, maize and jowar.
3. This Strategy was mainly directed to increase the production of commercial crops or cash crops such as sugarcane, cotton, jute, oilseeds and potatoes.
4. Per hectare productivity of all crops had increased due to better seeds.
5. Green Revolution had positive effect on development of industries, which manufactured agricultural tools like tractors, engines, threshers and pumping sets.
6. Green Revolution had brought prosperity to rural people. Increased production had generated employment opportunities for rural masses. Due to this, their standard of living had increased.
7. Due to multiple cropping and more use of chemical fertilizers, the demand for labour increased.
8. Financial resources were provided by banks and co-operative societies. These banks provided loans to farmer on easy terms.

The New Agricultural strategy was also called by various names. Modern agricultural technology, seed - fertilizer - water technology, or simply green revolution.

Weaknesses of Green Revolution

1. Indian Agriculture was still a gamble of the monsoons.
2. This strategy needed heavy investment in seeds, fertilizers, pesticides and water.
3. The income gap between large, marginal and small farmers had increased. Gap between irrigated and rain fed areas had widened.

4. Except in Punjab, and to some extent in Haryana, farm mechanization had created widespread unemployment among agricultural labourers in the rural areas.
5. Larger chemical use and inorganic materials reduced the soil fertility and spoiled human health. Now organic farming is encouraged.

Rainbow Revolution	
1. Green revolution - Agriculture (Food grains productions)	7. White Revolution - Milk
2. Blue Revolution - Fish	8. Yellow Revolution - Oilseeds
3. Golden Revolution - Fruits / Apple	9. Black Revolution - Petroleum
4. Silver Revolution - Egg	10. Round Revolution - Potato
5. Red Revolution- Meat/Tomato	11. Grey Revolution - Fertilizers
6. Pink Revolution - Shrimp	12. Brown Revolution - Leather

Second Green Revolution

- The Government of India had implemented 'Second Green revolution' to achieve higher agricultural growth. The target of Second Green Revolution was to increase 400 million tons of food grain production as against about 214 million tons in 2006-07. This is to be achieved by 2020. In agricultural sector, the growth rate of 5% to 6% has to be maintained over next 15 years. There may be changes in these statistics.

Requirements of Second Green revolution:

- Introduction of Genetically Modified (GM) seeds which double the per acreage production.
- Contribution of private sector to market the usage of GM foods.
- Government can play a key role in expediting irrigation schemes and managing water resources.
- Linking of rivers to transfer surplus water to deficient areas.

Large Scale Industries

- The term "Large scale industries" refers to those industries which require huge infrastructure, man-power and a huge influx of capital assets. The term 'large scale industries' is a generic one including various types of industries in its purview. All the heavy industries of India like the iron and steel industry textile industry automobile manufacturing industry fall under the large scale industrial arena. However in recent years due to the IT boom and the huge amount of revenue generated by it the IT industry can also be included within the jurisdiction of the large scale industrial sector. Indian economy is heavily dependent on these large industries for its economic growth,

generation of foreign currency and for providing job opportunities to millions of Indians. The following are the major large scale industries in India.

Iron and steel industry

- First steel industry at Kulti, Near Jharia, West Bengal - Bengal iron works company in 1870.
- First large scale steel plant TISCO at Jamshedpur in 1907 followed by IISCO at Burnpur in 1919. Both belonged to private sector.
- The first public sector unit was “Vishveshvaraya Iron and Steel works” at Bhadravati.
- All these are managed by SAIL (at present all important steel plants except TISCO, are under public sector)
- Steel Authority of India Ltd (SAIL) was established in 1974 and was made responsible for the development of the steel industry.
- Presently India is the eighth largest steel producing country in the world.

Public sector steel plants

Location	Assistance
Rourkela (Odissa)	Germany
Bhilai (MP)	Russia
Durgapur (WB)	UK
Bokaro (Jharkhand)	Russia
Burnpur (WB)	Acquired from private sector in 1976
Vishakhapatnam(AP)	Russia
Salem (Tamil Nadu)	Government of India (No external assistance)
Vijai Nagar Karnataka)	Government of India
Bhadravati (Karnataka)	Nationalisation of Vishveshvarayya Iron and Steel Ltd(owned by Centre and State government)

Jute industry

- Jute industry is an important industry for a country like India, because not only it earns foreign exchange but also provides substantial employment opportunities in agriculture and industrial sectors.
- Its first modernised industrial unit was established at Reshra in West Bengal in 1855.
- The jute industry in the country is traditionally export oriented. India ranks number one in the raw jute and jute goods production and number two in export of jute goods in the world.

Cotton and textile industry

- Oldest industry of India, and employs largest number of workers.
- It is the largest organised and broad-based industry which accounts for 4% of GDP, 20% of manufacturing value-added and one third of total export earnings.
- The first Indian modernised cotton cloth mill was established in 1818 at Fort Gloaster near Calcutta. But this mill was not successful. The second mill named “Mumbai’s Spinning and Weaving Co.” was established in 1854 at Bombay by KGN Daber.

Sugar industry

- Sugar industry is the second largest industry among agriculture-based industries in India.
- India is now the largest producer and consumer of sugar in the world. Maharashtra contributes over one third of the Indian total sugar output, followed closely by Uttar Pradesh.

Fertiliser industry

- India is the third largest producer of nitrogenous fertilisers in the world.

Paper industry

- The first mechanised paper mill was set up in 1812 at Serampur in West Bengal.
- The paper industry in India is ranked among the 15 top global paper industries.

Silk industry

- India is the second-largest (first being China) country in the world in producing natural silk. At present, India produces about 16% silk of the world.
- India enjoys the distinction of being the only country producing all the five known commercial varieties of silk viz Mulberry, Tropical Tussar, Oak Tussar, Eri and Muga.

Petroleum and natural gas

- First successful Oil well was dug in India in 1889 at Digboi, Assam.
- At present a number of regions with oil reserves have been identified and oil is being extracted in these regions
- For exploration purpose, Oil and Natural Gas Commission (ONGC) was established in 1956 at Dehradun, Uttarakhand

Small Scale Industries

- Small scale industries play an important role for the development of Indian economy in many ways. About 60 to 70 percent of the total innovations in India comes from the SSIs. Many of the big businesses today were all started small and then nurtured into big businesses. The role of SSIs in economic development of the country is briefly explained in forthcoming paragraphs.

Role of SSIs in Economic Development

Provide Employment

- SSIs use labour intensive techniques. Hence, they provide employment opportunities to a large number of people. Thus, they reduce the unemployment problem to a great extent.
- SSIs provide employment to artisans, technically qualified persons and professionals, people engaged in traditional arts, people in villages and unorganized sectors.
- The employment-capital ratio is high for the SSIs.

Bring Balanced Regional Development

- SSIs promote decentralized development of industries as most of the SSIs are set up in backward and rural areas.
- They remove regional disparities by industrializing rural and backward areas and bring balanced regional development.
- They help to reduce the problems of congestion, slums, sanitation and pollution in cities. They are mostly found in outside city limits.
- They help in improving the standard of living of people residing in suburban and rural areas in India.
- The entrepreneurial talent is tapped in different regions and the income is also distributed instead of being concentrated in the hands of a few individuals or business families.

Help in Mobilization of Local Resources

- SSIs help to mobilize and utilize local resources like small savings, entrepreneurial talent etc., of the entrepreneurs, which might otherwise remain idle and unutilized.
- They pave way for promoting traditional family skills and handicrafts. There is a great demand for handicraft goods in developed countries.

- They help to improve the growth of local entrepreneurs and self-employed professionals in small towns and villages in India.

Pave for Optimisation of Capital

- SSIs require less capital per unit of output. They provide quick return on investment due to shorter gestation period. The payback period is quite short in SSIs.
- SSIs function as a stabilizing force by providing high output-capital ratio as well as high employment-capital ratio.
- They encourage the people living in rural areas and small towns to mobilize savings and channelize them into industrial activities.

Promote Exports

- SSIs do not require sophisticated machinery. Hence, import the machines from abroad is not necessary. On the other hand, there is a great demand for goods produced by SSIs. Thus they reduce the pressure on the country's balance of payments. However, with recent past large scale industries are able to borrow large funds with low interest rate and spend large sums on advertisements. Hence SSSs are gradually vanishing.
- SSIs earn valuable foreign exchange through exports from India.

Complement Large Scale Industries

- SSIs play a complementary role to large scale sector and support the large scale industries.
- SSIs provide parts, components, accessories to large scale industries and meet the requirements of large scale industries through setting up units near the large scale units.
- SSIs serve as ancillaries to large scale units.

Meet Consumer Demands

- SIs produce wide range of products required by consumers in India.
- Hence, they serves as an anti-inflationary force by providing goods of daily use.

Develop Entrepreneurship

- SSIs help to develop a class of entrepreneurs in the society. They help the job seekers to become job givers.

- They promote self-employment and spirit of self-reliance in the society.
- SSIs help to increase the per capita income of India in various ways.
- They facilitate development of backward areas and weaker sections of the society
- SSIs are adept in distributing national income in more efficient and equitable manner among the various participants of the society.

Micro, Small and Medium Enterprises (MSMEs)

- As on now, the following monetary limits have been used for defining different kinds of industrial service units. However, these limits are subject to changes over time.

Manufacturing Enterprises

- Micro Manufacturing Enterprises:** The investment in plant and machinery does not exceed Rs.25 lakhs.
- Small Manufacturing Enterprises:** The investment in plant and machinery is more than twenty five lakh rupees but does not exceed Rs.5crores.
- Medium Manufacturing Enterprises:** The investment in plant and machinery is more than Rs.5crores but not exceeding Rs.10crores.

Service Enterprises

- Micro Service Enterprises:** The investment in equipment does not exceed Rs. 10 lakh
- Small Service Industries:** The investment in equipment is more than Rs.10 lakhs but does not exceed Rs. 2 crores.
- Medium Service Enterprises:** The investment in equipment is more than Rs.2crores but does not exceed Rs.5crores.

Public Sector and Private sector banks

Public Sector Banks

- Public sector bank is a bank in which the government holds a major portion of the shares. Say for example, SBI is public sector bank; the government holding in this bank is 58.60%. Similarly PNB is a public sector bank; the government holds a stake of 58.87%. Usually, in public sector banks, government holdings are more than 50 percent. Public sector banks are classified into two categories: 1. Nationalised Banks 2. State Bank and its Associates.
- In case of nationalized banks, the government controls and regulates the functioning of the banking entity. Some examples are SBI, PNB, BOB, OBC, Allahabad Bank etc.

However, the government keeps reducing the stake in PSU banks as and when they sell shares. So, to that extent they can also become minority shareholders in these banks. This is in accordance with the privatization policy.

Private Sector Banks

- In these banks, most of the equity is owned by private bodies, corporations, institutions or individuals rather than government. These banks are managed and controlled by private promoters. Of the total banking industry in India, public sector banks constitute 72.9% share while the rest is covered by private players. In terms of the number of banks, there are 27 public sector banks and 22 private sector banks. As part of its differentiated banking regime, RBI, the apex banking body, has given license to Payments Bank and Small Finance Banks (SFBs). This is an attempt to boost the government's Financial Inclusion drive. (But, there may be other problems).
- As a result, Airtel Payments Bank and Paytm Payments Bank Limited have come up. How far these banks would help the poor people is not known.

Nationalisation of Banks

- After Independence, the Government of India adopted planned economic development. For this purpose, Five Year Plans came into existence since 1951. The main objective of the economic planning aimed at social welfare. Before Independence commercial banks were in the private sector. These commercial banks failed in helping the Government to achieve social objectives of planning. Therefore, the government decided to nationalize 14 major commercial banks on 19 July 1969. In 1980, again the government took over another 6 commercial banks.

Nationalization	
1969 14 banks with deposits above Rs.50crores were nationalized. 19 July 1969	1980 6 banks with deposits above Rs. 200 crores were Nationalized
1. Allahabad Bank	15 April 1980
2. Bank of Baroda	1. Andhra Bank
3. Bank of Maharashtra	2. Corporation Bank
4. Canara Bank	3. New Bank of India
5. Central Bank of India	4. Oriental Bank of Commerce
6. Dena Bank	5. Punjab & Sindh Bank
7. Indian Bank	6. Vijaya Bank
8. Indian Overseas Bank	
9. Punjab National Bank	
10. Syndicate Bank	
11. Union Bank	
12. United Bank of India	
13. UCO Bank	
14. Bank of India	

Objectives of Nationalization

- The Government of India nationalized the commercial banks to achieve the following objectives.
 1. The main objective of nationalization was to attain social welfare. Sectors such as agriculture, small and village industries were in need of funds for their expansion and further economic development.
 2. Nationalisation of banks helped to curb private monopolies in order to ensure a smooth supply of credit to socially desirable sections.
 3. In India, nearly 70% of population lived in rural areas. Therefore it was needed to encourage the banking habit among the rural population.
 4. Nationalisation of banks was required to reduce the regional imbalances where the banking facilities were not available.
 5. Before Independence, the numbers of banks were certainly inadequate. After nationalization, new bank branches were opened in both rural and urban areas.
 6. Banks created credit facilities mainly to the agriculture sector and its allied activities after nationalization.
- After New Economic Policy 1991, the Indian banking industry has been facing the new horizons of competitions, efficiency and productivity. With all these developments people in villages and slums depend largely on local money lenders for their credit need. This is unfortunate.

Performance of India's Five Year Plans

- Economic planning is the process in which the limited natural resources are used skillfully so as to achieve the desired goals. The concept of economic planning in India or five year plan is derived from Russia (then USSR). India has launched 12 five year plans so far. Twelfth five year plan will be the last one. The government of India has decided to stop the launching of five year plans and it was replaced by NITI Aayog.

First Five Year Plan (1951-1956)

- It was based on the Harrod-Domar Model.
- Its main focus was on the agricultural development of the country.
- This plan was successful and achieved the GDP growth rate of 3.6% (more than its target)

Second Five Year Plan (1956-1961)

- It was based on the P.C. Mahalanobis Model.
- Its main focus was on the industrial development of the country.
- This plan was successful and achieved the growth rate of 4.1%

Third Five Year Plan (1961-1966)

- This plan was called 'Gadgil Yojana' also.
- The main target of this plan was to make the economy independent and to reach self-propelled position or take off.
- Due to Indo -China war, this plan could not achieve its growth target of 5.6%

Plan Holiday (1966-1969)

- The main reason behind the plan holiday was the Indo-Pakistan war & failure of third plan.
- During this plan, annual plans were made and equal priority was given to agriculture, its allied sectors and the industry sector.

Fourth Five Year Plan (1969-1974)

- There are two main objectives of this plan i.e. growth with stability and progressive achievement of self reliance.
- This plan failed and could achieve growth rate of 3.3% only, against the target of 5.7%.

Fifth Five Year Plan (1974-1979)

- In this plan top priority was given to agriculture, next came industry and mines.
- Overall this plan was successful, which achieved the growth rate of 4.8% against the target of 4.4%.
- The draft of this plan was prepared and launched by D.P. Dhar. This plan was terminated in 1978.

Rolling Plan

- This plan was started with an annual plan for 1978-79 and as a continuation of the terminated fifth year plan.

Sixth Five Year Plan (1980-1985)

- The basic objective of this plan was poverty eradication and technological self-reliance. Garibi-Hatao was the motto.

- It was based on investment yojana.
- Its growth target was 5.2% but it achieved 5.7%.

Seventh Five Year Plan (1985-1990)

- Objectives of this plan included the establishment of the self-sufficient economy and opportunities for productive employment.
- For the first time, due to the pressure from private sector the private sector got the priority over public sector.
- Its growth target was 5.0% but it achieved 6.0%.

Annual Plans

- Eighth five year Plan could not take place due to volatile political situation at the centre. So two annual programmes are formed in 1990-91 & 1991-92.

Eighth Five Year Plan (1992-1997)

- In this plan the top priority was given to development of the human resources i.e. employment, education and public health.
- During this plan, New Economic Policy of India was introduced.
- This plan was successful and got annual growth rate of 6.8% against the target of 5.6%.

Ninth Five Year Plan (1997-2002)

- The main focus of this plan was “growth with justice and equity”.
- This plan failed to achieve the growth target of 7% and Indian economy grew only at the rate of 5.6%.

Tenth Five Year Plan (2002-2007)

- This plan aimed to double the per capita income of India in the next 10 years.
- It aimed to reduce the poverty ratio to 15% by 2012.
- Its growth target was 8.0% but it achieved only 7.2%.

Eleventh Five Year Plan (2007-2012)

- Its main theme was “faster and more inclusive growth”.
- Its growth rate target was 8.1% but it achieved only 7.9%

Twelfth Five Year Plan (2012-2017)

- Its main theme is “Faster, More Inclusive and Sustainable Growth”.
- Its growth rate target is 8%.
- Here it can be concluded that since the Indian Independence the five year plans of India played a very prominent role in the economic development of the country. These plans had guided the Government as to how it should utilise scarce resources so that maximum benefits can be gained. It is worthy to mention here that Indian Government adopted the concept of five year plans from Russia.

NITI Aayog

The Planning Commission has been replaced by the NITI Aayog on 1st January, 2015. NITI (National Institution for Transforming India) Aayog will monitor, coordinate and ensure implementation of the accepted sustainable development goals. NITI Aayog serves as a knowledge hub and monitors progress in the implementation of policies and programmes of the Government of India. It includes the matters of national and international importance on the economic front, dissemination of best practices from within the country and from other nations, the infusion of new policy ideas and specific issue-based support. In order to understand the achievements of the NITI Aayog, researches need to be done then and there.

Development Indicators

Human Development Index (HDI)

- United Nations Development Programme has been publishing Human Development Report annually since 1990. HDI helped the government to the real uplifting of standard of living of the people.

Human Development Index (HDI)

HDI was developed by the Pakistani Economist MahbubulHaq and the Indian Economist Amartya Kumar Sen in 1990 and was published by the United Nations Development Programme (UNDP). It is constructed based on Life Expectancy Index, Education Index and GDP Per Capita.

HDI is based on the following three indicators

1. Longevity is measured by life expectancy at birth,
 2. Educational attainments,
 3. Standard of living, measured by real GDP per capita (PPP\$).
- Before calculating HDI, the fixed minimum and maximum values of each indicator are chosen.

- The performance in each dimension is expressed as a value between 0 and 1 by applying the following formula $\text{Dimension Index} = \frac{(\text{Actual value} - \text{Minimum value})}{(\text{Maximum value} - \text{Minimum value})}$ According to Planning Commission's National Human Development Report 2011, HDI has improved significantly between 1980 and 2011. That is, The HDI went up from 0.302 in 1981 to 0.472 score in 2011.
- As per latest Human Development Report (2016) by the United Nations Development Programme (UNDP), India has been ranked 131st out of 188 countries. Out of 188 countries, India lies in Medium Human Development bracket. The other nations such as Bangladesh, Bhutan, Pakistan, Kenya, Myanmar and Nepal attained the medium human development. The HDR 2016 stated that regional disparities in education, health and living standards within India has caused India's downfall to 27 % on HDI score. India's HDI rank value in 2015 stood at 0.624, which had increased from 0.580 in 2010. India's rank in 2014 was 131.

Top three countries of HDI

Norway (0.949)	Australia (0.939)	Switzerland (0.939)
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Human Development Index (HDI)		
Dimensions	Indicator	Dimensions Index
Long and Healthy Life	Life Expectancy at Birth	Life Expectancy Index
Knowledge	Adult Literacy rate	Education Index
Decent Standard of Living	Cross enthrallment ratio	GDP Index
	GDP Per capita (PPP US\$)	

- Biswajeet Guha has stated that the calculation of HDI neglected many important aspects of human development. He has created four indices of HDI as HDI₁, HDI₂, HDI₃, and HDI₄. HDI₁ is based on UNDP methodology as given in Human Development Report. He has enlarged the scope of HDI by adding three more dimensions such as quality of life, poverty eradication, and urbanization. Various countries including India are continuously making efforts to improve and enlarge the scope of available statistical information.

Physical Quality of Life Index (PQLI)

- Morris D Morris developed the Physical Quality of Life Index (PQLI). The PQLI is a measure to calculate the quality of life (well-being of a country). For this, he included three indicators such as life expectancy, infant mortality rate and literacy rate. A scale of each indicator ranges from the number 1 to 100. Number 1 represents the worst performance by any country. 100 is the best performance. For example, in case of life expectancy, the upper limit of 100. This was assigned to 77 years which was achieved by Sweden in 1973. The lower limit of 1 was assigned to 28 years which was achieved by Guinea-Bissau in 1960. The main difference between the two is the inclusion of income in HDI and exclusion of income from PQLI. HDI represents both physical and financial attributes of development and PQLI has only the physical aspects of life.

Conclusion

- To conclude, the British were more focused on the money from Indians than good governance. Some positive things happened during British Rule. They eradicated systems like 'sati', introduced railway services, English language and education, infrastructure and basic principle of capitalist economy. After Independence, the Government of India formulated many policies with the help of Five year plans to achieve the growth target in various sectors. Among the other things, the major challenges that still continue are: poor health standard, female foeticide, declining child sex ratio, open defecation, social & economic inequalities, increasing slumming, urban congestion and declining qualities of basic environmental resources namely air, land and water.



9. Development Experiences in India

Introduction

- At the time of Independence in 1947, India was a typically backward economy. Owing to poor technological and scientific capabilities, industrialization was limited and lopsided. Agricultural sector exhibited features of feudal and semi-feudal institutions, resulting into low productivity. Means of transport and communications were underdeveloped. Educational and health facilities were grossly inadequate and social security measures were virtually non-existent. In brief, the country suffered from the twin problems of rampant poverty and widespread unemployment, both resulting in low standard of living.
- The year 1991 is an important landmark in the economic history of post-independent India. The country went through a severe economic crisis in the form of serious Balance of Payments problem. Indian economy responded to the crisis by introducing a set of policies known as Structural Reforms. These policies were aimed at correcting the weaknesses and rigidities in the various sectors of the economy such as Industry, Trade, Fiscal and Agriculture.

Meaning of Liberalization, Privatization and Globalization (LPG)

- The triple pillars of New Economic Policy are Liberalization, Privatization and Globalization (LPG)

Impacts of Liberalisation	
Positive Effects	Negative Effects
Increase In Foreign investment	Increase in Unemployment
Increase In production	Decrease in Tax Receipt
Technological advancement	
Increase in GDP growth rate	

Liberalization:

- Liberalization refers to removal or relaxation of governmental restrictions in all stages in industry. Delicensing, decontrol, deregulation, subsidies (incentives) and greater role for financial institutions are the various facets of liberalization.

Privatization:

- Privatization means transfer of ownership and management of enterprises from public sector to private sector. Denationalization, disinvestment and opening exclusive public sector enterprises to private sector are the gateways to privatization.

Globalization:

Impacts of Globalisation	
Positive Effects	Negative Effects
Expansion of market	But thought Completion
Development of infrastructure	Rise in Monopoly
Higher living Standards	Discourage Domestic Forms
International Co-operations	Increase in inequality

- Globalization refers to the integration of the domestic (Indian) economy with the rest of the world. Import liberalization through reduction of tariff and non-tariff barriers, opening the doors to Foreign Direct Investment (FDI) and Foreign Portfolio Investment (FPI) are some of the measures towards globalization.

Arguments in favour of LPG

1. Liberalization was necessitated because various licensing policies were said to be deterring the growth of the economy.
2. Privatization was necessitated because of the belief that the private sector was not given enough opportunities to earn more money.
3. Globalization was necessitated because today a developed country can grow without the help of the under developed countries. Natural and human resources of the developing countries are exploited by the developed countries and the developing economies are used as market for the finished goods of the developed countries. The surplus capital of the developed countries are invested in backward economies. Obsolete and out dated technologies of the developed countries can be easily sold to poor under developed countries. Ultimately, the rich countries can grow further at the cost of developing economies.

Arguments against LPG

- a. Liberalization measures, when effectively enforced, favour an unrestricted entry of foreign companies in the domestic economy. Such an entry prevents the growth of the local manufacturers.
- b. Privatization measures favour the continuance of the monopoly power. Only the powerful people can sustain in business markets. Social justice cannot be easily established and maintained. As a result, the disparities tend to widen among people and among regions.
- c. As globalization measures tend to integrate all economies of the world and bringing them all under one umbrella; they pave the way for redistribution of economic power at the world level. Only the already well-developed countries are favoured in this process and the welfare of the less-developed countries will be neglected. The

economic crises of the developed countries are easily spread to the developing economies through trade.

The following are the major changes after 1991:

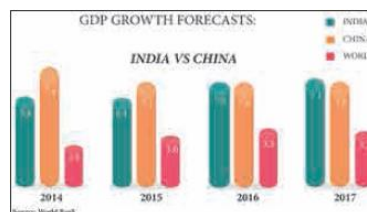
1. Foreign exchange reserves started rising.
 2. There was a rapid industrialization.
 3. The pattern of consumption started improving (or deteriorating).
 4. Infrastructure facilities such as express highways, metro rails, flyovers and airports started expanding (but the local people were thrown away).
- The benefits of this growth in some sectors have not reached the marginalized sections of the community. Moreover, the process of development has generated serious social, economic, political, demographic and ecological issues and challenges. Development brings benefits, but which section gets this benefit depends on socioeconomic structure of the society.
 - Despite all these initiatives in the Indian economy, a large section of the people of India continue to face basic economic problems such as poverty, unemployment, discrimination, social exclusion, deprivation, poor healthcare, rising inflation, agricultural stagnation, food insecurity and labour migration. However, for these problems, Government policies alone cannot be blamed. As new institutional economists suggest, the values, beliefs, norms etc. of the individuals also matter.

Disinvestment

Disinvestment means selling of government securities of Public Sector Undertakings (PSUs) to other PSUs or private sectors or banks. This process has not been fully implemented.

Relative Position of on Indian Economy

- (This discussion is suitable for a particular period only, there may be changes afterwards)



- According to International Monetary Fund, World Economic Outlook (October-2016), GDP (nominal) of India in 2016 at current prices was 42,251 billion. India contributed 2.99% of total world's GDP in exchange rate basis. India shared 17.5 percent of the total world population and 2.4 percent of the world surface area. India was now 7th largest economy of the world in 2016.

- India was at 3rd position after China and Japan among Asian countries. India shared 8.50% of total Asia's GDP (nominal) in 2016.

Industrial Sector Reforms

- The Prime Minister of India announced the new industrial policy on July 24, 1991. The new policy radically liberalized the industrial policy itself and de-regulated the industrial sector substantially. The primary objectives of the industrial policy were to promote major industries from the clutches of bureaucrats, to abolish restrictions on foreign direct investment, to liberate the indigenous enterprise from the restrictions of MRTP Act, to maintain a sustained growth in productivity and employment and also to achieve international competitiveness.

Important Initiatives by the Government towards Industrial Policy

- The policy has brought changes in the following aspects of industrial regulation:
 1. Industrial Delicensing
 2. De reservation of the industrial sector
 3. Public sector policy (dereservation and reform of PSEs)
 4. Abolition of MRTP Act
 5. Foreign investment policy and foreign technology policy.

Industrial De regulation	
Before 1991	After 1991
Industrial licensing for all commodities	Licensing restricted to alcohol, drugs etc.,
Private Sector not allowed in many industries	Only defence, energy, railway for public sector large scale privatization, disinvestment
Controls on price fixation and distribution	Market allowed to determine prices

1. **Industrial Delicensing policy:** the most important objective of the new industrial policy of 1991 was the end of the industrial licensing or the license raj or red tapism. Under the industrial licensing policies, private sector firms had to secure licenses to start an industry.
2. **De reservation of the industrial sector:** Previously, the public sector was given reservation especially in the capital goods and key industries. Under industrial deregulation, most of the industrial sectors were opened to the private sector as well. Under the new industrial policy, only three sectors viz., atomic energy, mining and railways will continue as reserved for public sector. All other sectors have been opened for private sector participation.

3. **Reforms related to the Public sector enterprises:** Reforms in the public sector were aimed at enhancing efficiency and competitiveness of the sector. The government identified strategic and priority areas for the public sector to concentrate. Loss making PSUs were sold to the private sector.
4. **Abolition of MRTP Act:** The New Industrial Policy of 1991 has abolished the Monopoly and Restrictive Trade Practices Act 1969. In 2010, the Competition Commission has emerged as the watchdog in monitoring competitive practices in the economy. The policy caused big changes including emergence of a strong and competitive private sector and a sizable number of foreign companies in India.
5. **Foreign investment policy:** Another major feature of the economic reform was red carpet welcome to foreign investment and foreign technology. This measure has enhanced the industrial competition and improved business environment in the country. Foreign investment including FDI and FPI were allowed. In 1991, the government announced a specified list of high-technology and high-investment priority industries wherein automatic permission was granted for foreign direct investment (FDI) upto 51 % foreign equity. The limit was raised to 74 percent and subsequently to 100 percent for many of these industries. Moreover, many new industries have been added to the list over the years. Foreign Investment Promotion Board (FIPB) has been set up to negotiate with international firms and approve foreign direct investment in select areas.

Impact of LPG on Agricultural Sector Reforms

- Since the inception of economic reforms, Indian economy has achieved a remarkable rate of growth in industry and service sector. However, this growth process bypassed the agricultural sector, which showed sharp deceleration in the growth rate (3.62 % during 1984/85 - 1995/96 to 1.97 percent in 1995/96 - 2004/05). The sector has recorded wide variations in yield and productivity and there was a shift towards cash crop cultivation. Moreover, agricultural indebtedness pushed several farming households into poverty and some of them resorted to extreme measures like suicides.

Crop Insurance

- Agriculture in India is highly prone to risks like droughts and floods. It is necessary to protect the farmers from natural calamities and ensure their credit eligibility for the next season. For this purpose, the Government of India introduced many agricultural schemes throughout the country. The Pradhan Mantri Fasal Bima Yojana (Prime Minister's Crop Insurance Scheme) was launched on **18 February 2016**. It envisages a uniform premium of only 2 % to be paid by farmers for Kharif crops and 1.5 % for Rabi crops. The premium for (annual) commercial and horticultural crops will be 5 %

Cold Storage

- India is the largest producer of fruits and second largest producer of vegetables in the world. In spite of that per capita availability of fruits and vegetables is quite low because of post-harvest losses which account for about 25% to 30% of production. Besides, quality of a sizable quantity of produce also deteriorates by the time it reaches the consumer. Most of the problems relating to the marketing of fruits and vegetables can be traced to their perishability. Perishability is responsible for high marketing costs, market gluts, price fluctuations and other similar problems. In order to overcome this constraint, the Government of India and the Ministry of Agriculture promulgated an order known as “Cold Storage Order, 1964” under Section 3 of the Essential Commodities Act, 1955. However, the cold storage facility is still very poor and highly inadequate.

Post Harvest measures

- The annual value of harvest and post-harvest losses of major agricultural produce at national level was of the order of Rs.92,651crores, calculated using production data of 2012-13 at 2014 and wholesale prices, estimated by the Indian Council of Agricultural Research (ICAR).

Food Items Waste (%)	
Crops	Cumulative wastages (%)
Cereals	5-6
Pulses	6 - 8
Oil seeds	3-10
Fruits &Vegetables	5-16
Milk	1
Fisheries (in land)	5
Fisheries (Marine)	10
Meat	3
Poultry	7

Source: Ministry of Food Processing Industries, GoI, 2016

Kisan Credit Card Scheme

A Kisan Credit Card (KCC) is a credit delivery mechanism that is aimed at enabling farmers to have quick and timely access to affordable credit. It was launched in 1998 by the Reserve Bank of India and NABARD. The scheme aims to reduce farmer dependence on the informal banking sector for credit - which can be very expensive and suck them into a debt spiral. The card is offered by cooperative banks, regional rural banks and public sector banks. Based on a review of the working of the KCC, the government has advised banks to convert the KCC into a smart card cum debit card.

- In order to reduce wastage of agricultural produce and minimize post-harvest losses, the Ministry of Food Processing Industries (MoFPI) has implemented various components of Central Sector Schemes, namely:

- Mega Food Parks; Integrated Cold Chain; Value Addition Preservation Infrastructure; Modernization of Slaughter house Scheme for Quality Assurance; Codex Standards; Research and Development and Other promotional activities.
- Further, the GoI extended support to arrest post harvest losses of horticulture and non-horticulture produce and to provide integrated cold chain and preservation infrastructure facilities from the farm gate to the consumer or from the production site to the market since 2008-09. However, the improvement is not visible for it is not substantial.

Agricultural Produce Market Committee

- Agricultural Produce Market Committee (APMC) is a statutory body constituted by state government in order to trade in agricultural or horticultural or livestock products.

Functions of APMC

1. To promote public private partnership in the ambit of agricultural markets.
2. To provide market led extension services to farmer.
3. To bring transparency in pricing system and transactions taking place in market in a transparent manner.
4. To ensure payments to the farmers for the sale of agricultural produce on the same day.
5. To promote agricultural activities.
6. To display data on arrivals and rates of agricultural produce from time to time into the market.

Agrarian Crisis after Reforms

- a. High input Costs: The biggest input for farmers is seeds. Before liberalisation, farmers across the country had access to seeds from state government institutions. The institutions produced own seeds and were responsible for their quality and price. With liberalization, India's seed market was opened up to global agribusinesses. Also, following the deregulation many state government institutions were closed down in 2003. These hit farmers doubly hard: seed prices shot up, and fake seeds made an appearance in a big way.
- b. Cutback in agricultural subsidies: Farmers were encouraged to shift from growing a mixture of traditional crops to export oriented 'cash crops' like chill, cotton and tobacco. Liberalisation policies reduced the subsidies on pesticide, fertilizer and

elasticity. As a result prices have increased by 300%. However, the prices of agricultural goods have not increased to that extent.

- c. Reduction of import duties: With a view to open India's markets, the liberalization reforms also withdrew tariffs and duties on imports. By 2001, India completely removed restrictions on imports of almost 1,500 items including food. As a result, cheap imports flooded the market, pushing prices of crops like cotton and pepper down.
- d. Paucity of credit facilities: After 1991 the lending pattern of commercial banks, including nationalised bank drastically changed. As a result, loan was not easily adequate. This has forced the farmers to rely on moneylenders who charge exorbitant rate of interest.

Trade Reforms:

- ❖ Trade Policy Reforms: The main features of the new trade policy as it has evolved over the years since 1991 are as follows:
- ❖ Free imports and exports: Prior to 1991, in India imports were regulated. From 1992, imports were regulated by a limited negative list. For instance, the trade policy of 1 April 1992 freed imports of almost all intermediate and capital goods. Only 71 items remained restricted. This would affect the domestic industries.
- ❖ Rationalization of tariff structure and removal of quantitative restrictions: The Chelliah Committees Report had suggested drastic reduction in import duties. It had suggested a peak rate of 50 percent. As a first step towards a gradual reduction in the tariffs, the 1991-92 budget had reduced the peak rate of import duty from more than 300 percent to 150 percent. The process of lowering the customs tariffs was carried further in successive budgets. This also affected the domestic industries.

Export and Import Policy

- The Government of India, Ministry of Commerce and Industry announced New Foreign Trade Policy on 01st April 2015 for the period of 2015-2020.

Salient Features of "EXIM POLICY (2015-2020)"

- The new EXIM policy has been formulated focusing on increasing in exports scenario, boosting production and supporting the concepts like Make in India and Digital India.
- Reduce export obligations by 25% and give boost to domestic manufacturing supporting the "Make in India" concept.
- As a step to Digital India concept, online procedure to upload digitally signed document by CA/CS/Cost Accountant are developed and further mobile app for filing tax, stamp duty has been developed.

- Repeated submission of physical copies of documents available on Exporter Importer Profile is not required.
- Export obligation period for export items related to defence, military store, aerospace and nuclear energy to be 24 months.
- EXIM Policy 2015-2020 is expected to double the share of India in World Trade from present level of 3% by the year 2020. This appears to be too ambitious.

Special Economic Zones

- With a view to overcome the shortcomings experienced on account of the multiplicity of controls and clearances, absence of world-class infrastructure, and an unstable fiscal regime and with a view to attract larger foreign investments in India, the Special Economic Zones (SEZs) Policy was announced in April 2000.
- As part of the economic reforms, the system of taking over land by the government for commercial and industrial purposes was introduced in the country. As per the Special Economic Zones Act of 2005, the government has so far notified about 400 such zones in the country. Since the SEZ deprives the farmers of their land and livelihood, it is harmful to agriculture. In order to promote export and industrial growth in line with globalisation the SEZ was introduced in many countries

History of SEZ in India

<p>First ever export processing zone (EPZ) in Asia was set up by government of India in Kandla in 1965.</p>	<p>Based on the success of Kandle EPZ in the beginning of eighties, seven more EPZs were set up in Bombay, Noida Surat, Madras, Falta, Visakapattinam</p>	<p>To invite larger foreign investments in India, these EPZs were converted into special Economic Zones (SEZs) in the year 2000 under a new policy announced by the Government of India.</p>
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- India was one of the first in Asia to recognize the effectiveness of the Export Processing Zone (EPZ) model in promoting exports, with Asia's first EPZ set up in Kandla in 1965. The broad range of SEZ covers free trade zones, export processing zones, industrial parks, economic and technology development zones, high-tech zones, science and innovation parks, free ports, enterprise zones, and others.

Major Objectives of SEZs

1. To enhance foreign investment, especially to attract foreign direct investment (FDI) and thereby increasing GDP.
2. To increase shares in Global Export (International Business).

3. To generate additional economic activity.
4. To create employment opportunities.
5. To develop infrastructure facilities.
6. To exchange technology in the global market.

Main Characteristics of SEZ

- a. Geographically demarked area with physical security
- b. Administrated by single body/ authority
- c. Streamlined procedures
- d. Having separate custom area
- e. Governed by more liberal economic laws.
- f. Greater freedom to the firms located in SEZs. As a result, they need not respect the Government's rules and regulations. The social and environmental impacts were disastrous.

Fiscal Reforms

- A key element in the stabilization effort was to restore fiscal discipline. It means reduction of fiscal deficit to the extent of just 3% of GDP, as suggested by Fund Bank Policies. In this way, the budget aimed at containing government expenditure and augmenting revenues; reversing the downtrend in the share of direct taxes to total tax revenues and curbing conspicuous consumption. Some of the important policy initiatives introduced for correcting the fiscal imbalance were: reduction in fertilizer subsidy, abolition of subsidy on sugar and disinvestment of a part of the government's equity holdings in select public sector undertakings. Gradually expenditures on welfare measures were reduced; taxes on corporate sectors were reduced; and taxes on poor people were increased.

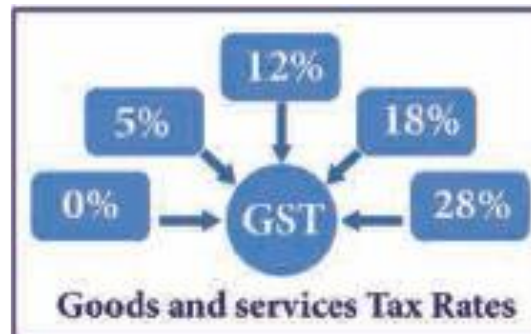
Goods and Services Tax (GST)

- Goods and Services Tax (GST) is defined as the tax levied when a consumer buys a good or service. It is proposed to be a comprehensive indirect tax levied on manufacture, sale and consumption of goods as well as services. GST aims to replace all indirect taxes levied on goods and services by the Indian Central and State governments. GST would eliminate the cascading effect of taxes on the production

and distribution of goods and services. It is also a “one-point tax” Unlike VAT which was a multipoint tax.

- The Goods and Service Tax Act was passed in the Parliament on 29th March 2017. The Act came into effect on 1st July 2017. Te motto is one nation, one market, one tax.

Current GST Rates in India



Advantages of GST

- Removing cascading tax effect
- Single point tax
- Higher threshold for registration
- Composition scheme for small business
- Online simpler procedure under GST
- Defined treatment for e-commerce
- Increased efficiency in logistics
- Regulating the unorganized sector

Monetary and Financial Sector Reforms

- Monetary reforms aimed at doing away with interest rate distortions and rationalizing the structure of lending rates. The new policy tried in many ways to make the banking system more efficient. Some of the measures undertaken were:
 - Reserve Requirements:** Reduction in statutory liquidity ratio (SLR) and the cash reserve ratio (CRR) were recommended by the Narasimham Committee Report, 1991. It was proposed to cut down the SLR from 38.5 percent to 25 percent within a time span of three years. Similarly it was proposed that the CRR be brought down to 3 to 5% over a period of four years.
 - Interest Rate Liberalisation:** Earlier, RBI controlled (i) the interest rates payable on deposits, (ii) the interest rates which could be charged for bank loans.
 - Greater competition among public sector, private sector and foreign banks and elimination of administrative constraints/**

- d. Liberalisation of bank branch licensing policy in order to rationalize the existing branch network.
- e. Banks were given freedom to relocate branches and open specialized branches
- f. Guidelines for opening new private sector banks.
- g. New accounting norms regarding classification of assets and provisions of bad debt were introduced in tune with the Narasimham Committee Report.

Conclusion

- There is no doubt that the Indian economy recorded ample achievements in some sectors after new economic policy. If the size of an economy provides the first impression of a country's political and economic strength, then India has indeed grown since 1991. In dollar terms, India's GDP crossed the \$2-trillion mark in 2015-16. Currently, the country is ranked ninth in the world in terms of nominal GDP. Once India was rebuked for its "Hindu rate of growth", a term used by Rajkrishna to refer to low rate of economic growth. The GDP growth rate of India is very much appreciated. This growth is also due to changes in accounting system. That is why the increased GDP growth rate has failed to alleviate the miseries of the common people and to reduce the socio, economic and environmental imbalances. The basic problems of unemployment, poverty ill-health and inequalities remain unsolved.

12th Economy

Unit - 1

Introduction To Macro Economics

“Macroeconomics is very much about tying together facts and theories”.

- Dorn Busch, Fischer and Startz

Introduction

- The subject Economics is classified into two branches, namely, Micro Economics and Macro Economics. Ragnar Frisch, a Norwegian economist and the co-recipient of the first Nobel Prize in Economic Sciences coined the words ‘micro’ meaning small and ‘macro’ meaning large in the year 1933. However, macroeconomics in its modern form, began with John Maynard Keynes and his book “The General Theory of Employment, Interest and Money” published in 1936. Keynes offered an explanation for fallout from the Great Depression, when goods remained unsold and workers unemployed. Hence, Keynes is regarded as the ‘Father of Modern Macro Economics’.

Meaning of macro Economics

- The word ‘Macro’ is derived from the Greek word ‘Makros’ meaning ‘large’. Hence, Macro Economics is the study of the economy as a whole. In other words, macro economics deals with aggregates such as national income, employment and output. Macro Economics is also known as ‘Income Theory’.
- The subject matters covered in Macro Economics are the areas such as employment, national income, inflation, business cycle, poverty, inequality, disparity, investment and saving, capital formation, infrastructure development, international trade, balance of trade and balance of payments, exchange rate and economic growth.

Importance of Macro Economics

- The importance and the need for introducing a macro outlook of an economy are given below:
- There is a need to understand the functioning of the economy at the aggregate level to evolve suitable strategies and to solve the basic problems prevailing in an economy.
- Understanding the future problems, needs and challenges of an economy as a whole is important to evolve precautionary measures.
- Macro economics provides ample opportunities to use scientific investigation to understand the reality.

- Macro economics helps to make meaningful comparison and analysis of economic indicators
- Macro economics helps for better prediction about future and to formulate suitable policies to avoid economic crises.

Scope of Macro Economics

- The study of macro economics has wide scope and it covers the major areas as follows.
- **National Income:** Measurement of national income and its composition by sectors are the basic aspects of macroeconomic analysis. The trends in National Income and its composition provide a long term understanding of the growth process of an economy.
- **Inflation:** Inflation refers to steady increase in general price level. Estimating the general price level by constructing various price index numbers such as Wholesale Price Index, Consumer Price Index, etc, are needed.
- **Business Cycle:** Almost all economies face the problem of business fluctuations and business cycle. The cyclical movements (boom, recession, depression and recovery) in the economy need to be carefully studied based on aggregate economic variables.
- **Poverty and Unemployment:** The major problems of most resource - rich nations are poverty and unemployment. This is one of the economic paradoxes. A clear understanding about the magnitude of poverty and unemployment facilitates allocation of resources and initiating corrective measures.
- **Economic Growth:** The growth and development of an economy and the factors determining them could be understood only through macro analysis.
- **Economic Policies:** Macro Economics is significant for evolving suitable economic policies. Economic policies are necessary to solve the basic problems, to overcome the obstacles and to achieve growth.

Limitations

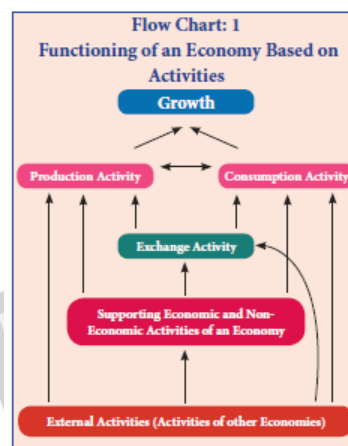
Macro economics suffers from certain limitations. They are:

1. There is a danger of excessive generalisation of the economy as a whole.
2. It assumes homogeneity among the individual units.
3. There is a fallacy of composition. What is good of an individual need not be good for nation and viceversa. And, what is good for a country is not good for another country and at another time.

- Many non - economic factors determine economic activities; but they do not find place in the usual macroeconomic books.

Economy and its Types

- The term economy has been defined by A. J. Brown as, “A system by which people earn their living.” J. R. Hicks defined as, “An economy is a cooperation of producers and workers to make goods and services that satisfy the wants of the consumers.”
- In short, an economy is referred to any system or area where economic activities are carried out. Each economy has its own character. Accordingly, the functions or activities also vary. The functioning of an economy by its activities is explained in flow chart 1.



- In an economy, the fundamental economic activities are production and consumption. These two activities are supported by several other activities. The ultimate aim of these activities is to achieve growth. The ‘exchange activity’ supports the production and consumption activities. These activities are influenced by several economic and non-economic activities. The major economic activities include transportation, banking, advertising, planning, government policy and others. The major non-economic activities are environment, health, education, entertainment, governance, regulations etc. In addition to these supporting activities, external activities from other economies such as import, export, international relations, emigration, immigration, foreign investment, foreign exchange earnings, etc. also influence the entire functioning of the economy.

Economies can be classified into different types based on the

- Status of Development:** Developed, underdeveloped, undeveloped and developing economies.
- System of Activities:** Capitalistic, Socialistic and Mixed Economies.
- Scale of Activities:** Small and Large Economies.

4. **Nature of Functioning:** Static and Dynamic Economies.
5. **Nature of Operation:** Closed and Open Economies.
6. **Nature of Advancement:** Traditional and Modern Economies.
7. **Level of National Income:** Low Income, Middle Income and High Income Economies.

Economic Systems

- Economic System refers to the manner in which individuals and institutions are connected together to carry out economic activities in a particular area. It is the methodology of doing economic activities to meet the needs of the society. There are three major types of economic systems. They are:
 1. Capitalistic Economy (Capitalism),
 2. Socialistic Economy (Socialism) and
 3. Mixed Economy (Mixedism)

Globalism

The term coined by Manfred D Steger (2002) to denote the new market ideology of globalisation that connects nations together through international trade and aiming at global development. This ideology is also termed as 'Extended Capitalism'.

- Capitalism and socialism are two extreme and opposite approaches. In capitalism, there is total freedom and private ownership of means of production. In socialism, there is no freedom for private and there is public ownership of means of production. Mixedism denotes the Co-existence of capitalism and socialism. The features, merits and demerits of various economic systems are discussed below.

Capitalistic Economy (Capitalism)

- Adam Smith is the 'Father of Capitalism'. Capitalistic economy is also termed as a free economy (*Laissez faire*, in Latin) or market economy where the role of the government is minimum and market determines the economic activities.
- The means of production in a capitalistic economy are privately owned. Manufacturers produce goods and services with profit motive. The private individual has the freedom to undertake any occupation and develop any skill. The USA, West Germany, Australia and Japan are the best examples for capitalistic economies. However, they do undertake large social welfare measures to safeguard the downtrodden people from the market forces.

Features of Capitalistic Economy

1. **Private Ownership of Property and Law of Inheritance:** The basic feature of capitalism is that all resources namely, land, capital, machines, mines etc. are owned by private individuals. The owner has the right to own, keep, sell or use these resources according to his will. The property can be transferred to heirs after death.
2. **Freedom of Choice and Enterprise:** Each individual is free to carry out any occupation or trade at any place and produce any commodity. Similarly, consumers are free to buy any commodity as per their choice
3. **Profit Motive:** Profit is the driving force behind all economic activities in a capitalistic economy. Each individual and organization produce only those goods which ensure high profit. Advance technology, division of labour, and specialisation are followed. The golden rule for a producer under capitalism is 'to maximize profit.'
4. **Free Competition:** There is free competition in both product and factor market. The government or any authority cannot prevent firms from buying or selling in the market. There is competition between buyers and sellers.
5. **Price Mechanism:** Price mechanism is the heart of any capitalistic economy. All economic activities are regulated through price mechanism i.e, market forces of demand and supply.
6. **Role of Government:** As the price mechanism regulates economic activity, the government has a limited role in a capitalistic economy. The government provides basic services such as, defense, public health, education, etc.
7. **Inequalities of Income:** A capitalist society is divided into two classes - 'haves' that is those who own property and 'have-nots' who do not own property and work for their living. The outcome of this situation is that the rich become richer and poor become poorer. Here, economic inequality goes on increasing.

Merits of Capitalism

1. **Automatic Working:** Without any government intervention, the economy works automatically.
2. **Efficient Use of Resources:** All resources are put into optimum use.
3. **Incentives for Hard work:** Hard work is encouraged and entrepreneurs get more profit for more efficiency.
4. **Economic Progress:** Production and productivity levels are very high in capitalistic economies.

5. **Consumers Sovereignty:** All production activities are aimed at satisfying the consumers.
6. **Higher Rates of Capital Formation:** Increase in saving and investment leads to higher rates of capital formation.
7. **Development of New Technology:** As profit is aimed at, producers invest on new technology and produce quality goods.

Demerits of Capitalism

1. **Concentration of Wealth and Income:** Capitalism causes concentration of wealth and income in a few hands and thereby increases inequalities of income.
2. **Wastage of Resources:** Large amount of resources are wasted on competitive advertising and duplication of products.
3. **Class Struggle:** Capitalism leads to class struggle as it divides the society into capitalists and workers.
4. **Business Cycle:** Free market system leads to frequent violent economic fluctuations and crises.
5. **Production of non essential goods:** Even the harmful goods are produced if there is possibility to make profit.

Socialistic Economy (Socialism)

- The **Father of Socialism** is Karl Marx. Socialism refers to a system of total planning, public ownership and state control on economic activities. Socialism is defined as a way of organizing a society in which major industries are owned and controlled by the government, A Socialistic economy is also known as 'Planned Economy' or 'Command Economy'.
- In a socialistic economy, all the resources are owned and operated by the government. Public welfare is the main motive behind all economic activities. It aims at equality in the distribution of income and wealth and equal opportunity for all. Russia, China, Vietnam, Poland and Cuba are the examples of socialist economies. But, now there are no absolutely socialist economies.

Features of Socialism:

1. **Public Ownership of Means of Production:** All resources are owned by the government. It means that all the factors of production are nationalized and managed by the public authority.

2. **Central Planning:** Planning is an integral part of a socialistic economy. In this system, all decisions are undertaken by the central planning authority.
3. **Maximum Social Benefit:** Social welfare is the guiding principle behind all economic activities. Investments are planned in such a way that the benefits are distributed to the society at large.
4. **Non-existence of Competition:** Under the socialist economic system there is absence of competition in the market. The state has full control over production and distribution of goods and services. The consumers will have a limited choice.
5. **Absence of Price Mechanism:** The pricing system works under the control and regulation of the central planning authority.
6. **Equality of Income:** Another essential feature of socialism is the removal and reduction of economic inequalities. Under socialism private property and the law of inheritance do not exist.
7. **Equality of Opportunity:** Socialism provides equal opportunity for all through free health, education and professional training.
8. **Classless Society:** Under socialism, there is a classless society and so no class conflicts. In a true socialist society, everyone is equal as far as economic status is concerned.

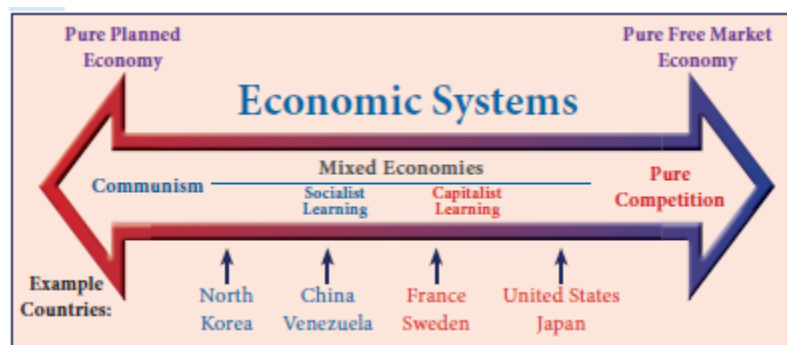
Merits of Socialism

1. **Reduction in Inequalities:** No one is allowed to own and use private property to exploit others.
2. **Rational Allocation of Resources:** The central planning authority allocates the resources in a planned manner. Wastages are minimised and investments are made in a pre planned manner.
3. **Absence of Class Conflicts:** As inequalities are minimum, there is no conflict between rich and poor class. Society functions in a harmonious manner.
4. **End of Trade Cycles:** Planning authority takes control over production and distribution of goods and services. Therefore, economic fluctuations can be avoided.
5. **Promotes Social Welfare:** Absence of exploitation, reduction in economic inequalities, avoidance of trade cycles and increase in productive efficiency help to promote social welfare.

Demerits of Socialism

1. **Red Tapism and Bureaucracy:** As decision are taken by government agencies, approval of many officials and movement of files from one table to other takes time and leads to red tapism.
2. **Absence of Incentive:** The major limitation of socialism is that this system does not provide any incentive for efficiency. Therefore, productivity also suffers.
3. **Limited Freedom of Choice:** Consumers do not enjoy freedom of choice over the consumption of goods and services.
4. **Concentration of Power:** The State takes all major decisions. The private takes no initiative in making economic decisions. Hence, the State is more powerful and misuse of power can also take place.

Mixed Economy (Mixedism):



- In a mixed economy system both private and public sectors co-exist and work together towards economic development. It is a combination of both capitalism and socialism. It tends to eliminate the evils of both capitalism and socialism. In these economies, resources are owned by individuals and the government. India, England, France and Brazil are the examples of mixed economy.

Features of Mixed Economy

1. **Ownership of Property and Means of Production:** The means of production and properties are owned by both private and public. Public and Private have the right to purchase, use or transfer their resources.
2. **Coexistence of Public and Private Sectors:** In mixed economies, both private and public sectors coexist. Private industries undertake activities primarily for profit. Public sector firms are owned by the government with a view to maximize social welfare.
3. **Economic Planning:** The central planning authority prepares the economic plans. National plans are drawn up by the Government and both private and public sectors abide. In general, all sectors of the economy function according to the objectives, priorities and targets laid down in the plan.

4. **Solution to Economic Problems:** The basic problems of what to produce, how to produce, for whom to produce and how to distribute are solved through the price mechanism as well as state intervention.
5. **Freedom and Control:** Though private has freedom to own resources, produce goods and services and distribute the same, the overall control on the economic activities rests with the government.

Merits of Mixed Economy

1. **Rapid Economic Growth:** The best advantage of mixed economy is that it promotes rapid economic growth. Thus, both public requirements and private needs are taken care of.
2. **Balanced Economic Growth:** Mixedism promotes balanced growth of the economy. It promotes balanced growth between agriculture and industry, consumer goods and capital goods, rural and urban etc.
3. **Proper Utilization of Resources:** In a mixed economy, the government can ensure proper utilization of resources. The government controls most of the important activities directly and the private sector indirectly.
4. **Economic Equality:** The government uses progressive rates of taxation for levying income tax to bring about economic equality.
5. **Special Advantages to the Society:** The government safeguards the interest of the workers and weaker sections by legislating on minimum wages, and rationing, establishing fair price shops and formulating social welfare measures.

Demerits of Mixed Economy

1. **Lack of Coordination:** The greatest drawback of mixedism is lack of coordination between public sector and private sector. As both work with divergent motives, it creates many coordination related problems.
2. **Competitive Attitude:** It is expected that both government and private should work with a complementary spirit towards the welfare of the society, but in reality they are competitive in their activities.
3. **Inefficiency:** Most of the public sector enterprises remain inefficient due to lethargic bureaucracy, red tapism and lack of motivation.
4. **Fear of Nationalization:** In a mixed economy, the fear of nationalization discourages the private entrepreneurs in their business operations and innovative initiatives.

5. **Widening Inequality:** Ownership of resources, laws of inheritance and profit motive of people widens the gap between rich and poor.

Ultimately the inequality of capitalism and inefficiency of socialism are found in mixed economies.

Comparison of Different Economic Systems

S.No.	Features	Capitalism	Socialism	Mixedism
1.	Ownership of Means of production	Private Ownership	Public Ownership	Private ownership and Public ownership
2	Economic Motive	Profit	Social Welfare	Social Welfare and Profit Motive
3.	Solution of Central Problems	Free Market System	Control Planning system	Central Planning System and Free Market System
4.	Government Role	Interanal Regulation only	Complete Involvement	Limited Role
5.	Income Distribution	Unequal	Equal	Less unequal
6.	Nature of Enterprise	Private Enterprise	Government Enterprise	Both Private and State Enterprises
7.	Economic Freedom	Complete Freedom	Lack of Freedom	Limited Freedom
8.	Major Problem	Inequality	Inefficiency	Inequality and Inefficiency

Concepts of Macro Economics

The important concepts used in macro economics are presented below:

Stock and Flow Variables

- Variables used in economic analysis are classified as stock and flow. Both stock and flow variables may increase or decrease with time.
- Stock refers to a quantity of a commodity measured at a point of time. In macro economics, money supply, unemployment level, foreign exchange reserves, capital etc are examples of stock variables.
- Flow variables are measured over a period of time. National Income, imports, exports, consumption, production, investment etc are examples of flow variables.
- Economic Models A model is a simplified representation of real situation. Economists use models to describe economic activities, their relationships and their behaviour. A

model is an explanation of how the economy, or part of the economy, works. Most economic models are built with mathematics, graphs and equations, and attempt to explain relationships between economic variables. The commonly used economic models are the supply-demand models and circular flow models and Smith models.

Circular Flow of Income

- The circular flow of income is a model of an economy showing connections between different sectors of an economy. It shows flows of income, goods and services and factors of production between economic agents such as firms, households, government and nations. The circular flow analysis is the basis of national accounts and macroeconomics.
- There are three models of circular flow of income, representing the major economic systems.
 1. Two Sector Model: It is for a simple economy with households and firms.
 2. Three Sector Model: It is for a mixed and closed economy with households, firms and government.
 3. Four Sector Model: It is for an open economy with households, firms, government and rest of the world (External sector).

Circular Flow of Income in a Two-Sector Economy:

There are only two sectors namely, household sector and firm sector.

- i. **Household Sector:** The household sector is the sole buyer of goods and services, and the sole supplier of factors of production, i.e., land, labour, capital and organisation. It spends its entire income on the purchase of goods and services produced by the business sector. The household sector receives income from firm sector by providing the factors of production owned by it.
 - ii. **Firms:** The firm sector generates its revenue by selling goods and services to the household sector. It hires the factors of production, i.e., land, labour, capital and organisation, owned by the household sector. The firm sector sells the entire output to households.
- In a two- sector economy, production and sales are equal and there will be a circular flow of Income and goods. The outer circle represents real flow (factors and goods) and the inner circle represents the monetary flow (factor price and commodity prices). Real flow indicates the factor services flow from household sector to the business sector to the household. The basic identities of the two- sector economy are as under:

$$Y = C + I$$

Where

Y is income; C is Consumption; I is investment

Circular Flow of Income in a Three- Sector Economy:

- In addition to household and firms, inclusion of the government sector makes this model a three-sector model. The government levies taxes on households and firms, purchases goods and services from firms, and receive factors of production from household sector. On the other hand, the government also makes social transfers such as pension, relief, subsidies to the households. Similarly, Government pays the firms for the purchases of goods and services. The Flow Chart illustrates three- sector economy model:
- Under three sector model, national income (Y) is obtained by adding Consumption expenditure (C), Investment expenditure (I) and Government expenditure (G).

Therefore:

$$Y = C + I + G$$

Circular Flow of Income in a Four-Sector Economy:

- In a Four-sector economy, in addition to household, firms and government, a fourth sector namely, external sector is included. In real life, only four-sector economy exists. This model is composed of four sectors namely,

(i) Households, (ii) Firms,
(iii) Government, (iv) External sector

- The external sector comprises exports and imports. It is illustrated in the Flow Chart.
- In four-sector economy, expenditure for the entire economy include domestic expenditure (C+I+G) and net exports (X- M). Therefore,

$$Y = C + I + G + (X - M)$$

Unit -11

Economics of Development and Planning

A good plan may fail due to faulty implementation. But a faulty plan cannot succeed through good implementation.

“Plan your work for today and every day, then work your plan.”

-Margaret Thatcher

Introduction

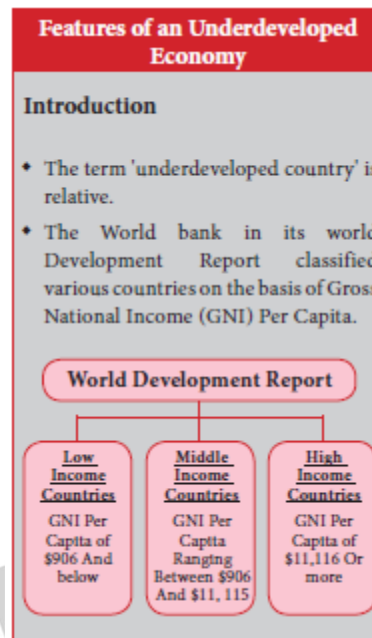
- The concept "development" refers to the structural changes towards betterment. Until the World War II, interest was rarely shown on the problems of the present day third World Countries. After the Second World War, economists started devoting their attention towards analyzing the problems of underdeveloped countries and formulating theories and models of development and growth. The Under Developed Countries (UDCs) were once the colonies of England and other European countries. After becoming free and independent, there was an awakening to march towards economic development.

Approaches to Economic Development

- There are two main approaches to the concept of development viz i) the traditional approach and ii) the new welfare oriented approach.
 1. Traditional Approach : The traditional approach defines development strictly in economic terms. The increase in GNP is accompanied by decline in share of agriculture in output and employment while those of manufacturing and service sectors increase. It emphasizes the importance of industrialization. It was assumed that growth in GNP per capita would trickle down to people at the bottom.
 2. New Welfare oriented Approach: During 1970s, economic development was redefined in terms of reduction of poverty, 'inequality' and unemployment within the context of a growing economy. In this phase, 'Redistribution with Growth' became the popular slogan.
- To quote Michael P. Todaro, "Development must, therefore, be conceived as a multidimensional process involving major changes in social structures, popular attitudes and national institutions as well as the acceleration of growth, the reduction of inequality and the eradication of absolute poverty".

Underdevelopment

- The UDCs are characterized by predominance of primary sector i.e. agriculture, low per capita income, widespread poverty, wide inequality in distribution of income and wealth, over population, low rate of capital formation, high rate of unemployment, technological backwardness, dualism etc.



Meaning of Underdevelopment

- The term underdevelopment refers to that state of an economy where levels of living of masses are extremely low due to very low levels of Percapita income, resulting from low levels of productivity and high growth rate of population.

Economic Growth Vs Economic Development

1. State of Development

- Generally speaking, economic development refers to the problems of underdeveloped countries and economic growth to those of developed countries.

2. Nature and Level of Change

- Development is a discontinuous and spontaneous change while growth is a gradual and steady change in the long run.

3. Scope of Change

- Growth simply means more output. But development refers to efficiency in production i.e. output per unit of input. It also implies changes in composition of output and in allocation of resources, reduction of poverty, inequality and unemployment.

4. Extent of change

- Economic development (wider concept than economic growth) is taken to mean growth plus structural change.

Differences between Economic Growth and Economic Development	
Economic Growth	Economic Development
Deals with the problems of Developed countries	Deals with the problems of UDCs
Change is gradual and steady	Change is discontinuous and spontaneous
Means more output	Means not only more output but also its composition
Concerns Quantitative aspects i.e. increase in per capita income	Quantitative as well as Qualitative
Narrow	Wider concept Development = Growth + Chang

Measurement of Economic Development

Economic development is measured on the basis of four criteria

- **Gross National Product (GNP):** GNP is the total market value of all final goods and services produced within a nation in a particular year, plus income earned by its citizens (including income of those located abroad), minus income of non-residents located in that country. GNP is one measure of the economic condition of a country, under the assumption that a higher GNP leads to a higher quality of living, all other things being equal.
- **GNP per capita:** This relates to increase in the per capita real income of the economy over the long period. This indicator of economic growth emphasizes that for economic development the rate of increase in real per capita income should be higher than the growth rate of population.
- **Welfare:** Economic development is regarded as a process whereby there is an increase in the consumption of goods and services by individuals. From the welfare perspective, economic development is defined as a sustained improvement in health, literacy and standard of living.
- **Social Indicators:** Social indicators are normally referred to as basic and collective needs of the people. The direct provision of basic needs such as health, education, food, water, sanitation and housing facilities check social backwardness.

Determinants of Economic Development

- Economic development is not determined by any single factor. Economic development depends on Economic, Social, Political and Religious factors.

Economic and Non-Economic Factors



Economic Factors

1. **Natural Resource:** The principal factor affecting the development of an economy is the availability of natural resources. The existence of natural resources in abundance is essential for development. A country deficient in natural resources may not be in a position to develop rapidly. But a country like Japan lacking natural resources imports them and achieve faster rate of economic development with the help of technology. India with larger resources is poor.
2. **Capital Formation:** Capital formation is the main key to economic growth. Capital formation refers to the net addition to the existing stock of capital goods which are either tangible like plants and machinery or intangible like health, education and research. Capital formation helps to increase productivity of labour and thereby production and income. It facilitates adoption of advanced techniques of production. It leads to better utilization of natural resources, industrialization and expansion of markets which are essential for economic progress.
3. **Size of the Market:** Large size of the market would stimulate production, increase employment and raise the National per capita income. That is why developed countries expand their market to other countries through WTO.
4. **Structural Change:** Structural change refers to change in the occupational structure of the economy. Any economy of the country is generally divided into three basic sectors: Primary sector such as agricultural, animal husbandry, forestry, etc; Secondary sector such as industrial production, constructions and Tertiary sector such as trade, banking and commerce. Any economy which is predominantly agricultural tends to remain backward.

5. **Financial System:** Financial system implies the existence of an efficient and organized banking system in the country. There should be an organized money market to facilitate easy availability of capital.
6. **Marketable Surplus:** Marketable surplus refers to the total amount of farm output cultivated by farmers over and above their family consumption needs. This is a surplus that can be sold in the market for earning income. It raises the purchasing power, employment and output in other sectors of the economy. The country as a result will develop because of increase in national income.
7. **Foreign Trade:** The country which enjoys favorable balance of trade and terms of trade is always developed. It has huge forex reserves and stable exchange rate.
8. **Economic System:** The countries which adopt free market mechanism (*laissez faire*) enjoy better growth rate compared to controlled economies. It may be true for some countries, but not for every country.

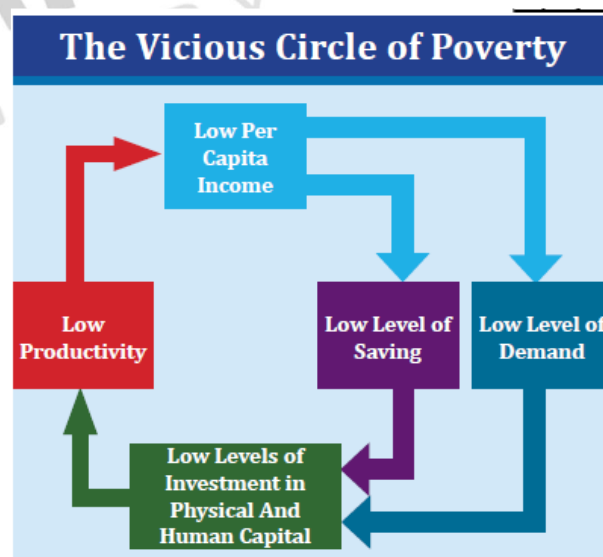
Non- Economic Factors

- 'Economic Development has much to do with human endowments, social attitudes, political conditions and historical accidents. Capital is a necessary but not a sufficient condition of progress.
- Ragnar Nurkse.
1. **Human Resources:** Human resource is named as human capital because of its power to increase productivity and thereby national income. There is a circular relationship between human development and economic growth. A healthy, educated and skilled labour force is the most important productive asset. Human capital formation is the process of increasing knowledge, skills and the productive capacity of people. It includes expenditure on health, education and social services. If labour is efficient and skilled, its capacity to contribute to growth will be high. For example Japan and China.
 2. **Technical Know-how:** As the scientific and technological knowledge advances, more and more sophisticated techniques steadily raise the productivity levels in all sectors. Schumpeter attributed the cause for economic development to innovation.
 3. **Political Freedom:** The process of development is linked with the political freedom. Dadabhai Naoroji explained in his classic work 'Poverty and Un-British Rule in India' that the drain of wealth from India under the British rule was the major cause of the increase in poverty in India.
 4. **Social Organization:** People show interest in the development activity only when they feel that the fruits of development will be fairly distributed. Mass participation in development programs is a pre-condition for accelerating the development process. Whenever the defective social organization allows some groups to

appropriate the benefits of growth. majority of the poor people do not participate in the process of development. This is called crony capitalism.

5. **Corruption free administration:** Corruption is a negative factor in the growth process. Unless the countries root-out corruption in their administrative system, the crony capitalists and traders will continue to exploit national resources. The tax evasion tends to breed corruption and hamper economic progress.
6. **Desire for development:** The pace of economic growth in any country depends to a great extent on people's desire for development. If in some country, the level of consciousness is low and the general mass of people has accepted poverty as its fate, then there will be little scope for development.
7. **Moral, ethical and social values:** These determine the efficiency of the market, according to Douglas C. North. If people are not honest, market cannot function.
8. **Casino Capitalism:** If People spend larger propotion of their income and time on entertainment liquor and other illegal activities, productive activities may suffer, according to Thomas Piketty.
9. **Patrimonial Capitalism:** If the assets are simply passed on to children from their parents, the children would not work hard, because the children do not know the value of the assets. Hence productivity will be low as per Thomas Piketty.

Vicious Circle of Poverty



- There are circular relationships known as the 'vicious circles of poverty' that tend to perpetuate the low level of development in Less Developed Countries (LDCs). Nurkse explains the idea in these words: "It implies a circular constellation of forces tending to act and react upon one another in such a way as to keep a poor country in a state of poverty. For example, a poor man may not have enough to eat; being underfed, his

health may be weak; being physically weak, his working capacity is low, which means that he is poor, which in turn means that he will not have enough to eat and so on. A situation of this sort relating to a country as a whole can be summed up in the proposition: "A country is poor because the country is poor".

- The vicious circle of poverty operates both on the demand side and the supply side.
- On the supply side, the low level of real income means low savings. The low level of saving leads to low investment and to deficiency of capital. The deficiency of capital, in turn, leads to low levels of productivity and back to low income. Thus the vicious circle is complete from the supply side.
- The demand-side of the vicious circle is that the low level of real income leads to a low level of demand which, in turn, leads to a low rate of investment and hence back to deficiency of capital, low productivity and low income.

Breaking the Vicious Circle of Poverty

- The vicious circle of poverty is associated with low rate of saving and investment on the supply side. In UDCs the rate of investment and capital formation can be stepped up without reduction in consumption. For this, the marginal rate of savings is to be greater than average rate of savings.
- To break the vicious circle on the demand side, Nurkse suggested the strategy of balanced growth. If investment is made in several industries simultaneously the workers employed in various industries will become consumers of each other's products and will create demand for one another. The balanced growth i.e. simultaneous investment in large number of industries creates mutual demand. Thus, through the strategy of balanced growth, vicious circle of poverty operating on the demand side of capital formation can be broken.

Planning

Meaning

- Planning is a technique, a means to an end being the realization of certain pre-determined and well-defined aims and objectives laid down by a central planning authority. The end may be to achieve economic, social, political or military objectives.

Definitions

- Economic Planning is "collective control or suppression of private activities of production and exchange". - Robbins
- "Economic Planning in the widest sense is the deliberate direction by persons in-charge of large resources of economic activity towards chosen ends". -Dalton

Economic Planning in India

- Consists of economic decisions, schemes formed to meet certain predetermined economic objectives and a road map of directions to achieve specific goals within specific period of time. The current thinking of economic planning is fairly new, somewhat rooted in Marxist socialism. In the 20th century, intellectuals, theorists, thinkers from Europe put forward the idea of state involvement to stop capitalism and the inequality of society.
- Soviet Union adopted economic planning for the first time in 1928 that enabled the country to turn into an industrial superpower. The idea of economic planning was strengthened during the Great Depression in 1930s. The outbreak of the World War II also required adequate and suitable planning of economic resources for the effective management after the effects of post war economy.
- After Independence, in 1948, a declaration of industrial policy was announced. The policy suggested the creation of a National Planning Commission and the elaboration of the policy of a mixed economic system. On January 26, 1950, the Constitution came into force. In logical order, the Planning Commission was created on March 15, 1950 and the plan era began on April 1, 1951 with the launch of the first five year plan (1951-56). The evolution of planning in India is stated below:
 1. **Sir M. Vishveshwarya (1934):** a prominent engineer and politician made his first attempt in laying foundation for economic planning in India in 1934 through his book, "Planned Economy of India". It was a 10 year plan.
 2. **Jawaharlal Nehru (1938):** set-up "National Planning Commission" by a committee but due to the changes in the political era and second World War, it did not materialize.
 3. **Bombay Plan (1940):** The 8 leading industrialists of Bombay presented "Bombay Plan". It was a 15 Year Investment Plan.
 4. **S. N Agarwal (1944)** gave the "Gandhian Plan" focusing on the agricultural and rural economy.
 5. **M.N. Roy (1945)** drafted 'People's Plan". It was aiming at mechanization of agricultural production and distribution by the state only.
 6. **J.P. Narayan (1950)** advocated, "Sarvodaya Plan" which was inspired by Gandhian Plan and with the idea of Vinoba Bhave. It gave importance not only for agriculture, but encouraged small and cottage industries in the plan.
- After considering all the plans, in the same year Planning Commission was set up to formulate Five Year Plan in India by Jawaharlal Nehru. He was the first Chairman of Planning Commission, Government of India.

Case for planning

- The economic planning is justified on the following grounds.

1. To accelerate and strengthen market

mechanism: The market mechanism works imperfectly in underdeveloped countries because of the ignorance and economy comprises the non-monetized sector. The product, factor, money and capital markets are not organized properly. Therefore the planned economy will be a better substitute for free economy.

2. To remove unemployment:

Capital being scarce and labour being abundant, the problem of providing gainful employment opportunities to an ever-increasing labour force is a difficult task. The need for planning in underdeveloped countries is further stressed by the necessity of removing widespread unemployment and disguised unemployment in such economies.

3. To achieve balanced development:

In the absence of sufficient enterprise and initiative, the planning authority is the only institution for planning the balanced development of the economy. For rapid economic development, underdeveloped countries require the development of the agricultural and industrial sectors, the establishment of social and economic overheads, the expansion of the domestic and foreign trade sectors in a harmonious way.

1. **Development of Agriculture and Industrial Sectors:** The need for developing the agriculture sector along with the industrial sector arises from the fact that agriculture and industry are interdependent. Reorganization of agriculture releases surplus labour force which can be absorbed by the industrial sector. Development of agriculture is also essential to supply the raw material needs of the industrial sector.

2. **Development of Infrastructure:** The agriculture and industrial sectors cannot develop in the absence of economic and social overheads. The building of canals, roads, railways, power stations, etc., is indispensable for agricultural and industrial development. Infrastructure involves huge capital investment long gestation period and low rate of return. The state alone can provide strong infrastructural bases through planning.

3. **Development of Money and Capital Markets:** The expansion of the domestic and foreign trade requires not only the development of agricultural and industrial sectors along with social and economic overheads but also the existence of financial institutions. Money and capital markets are not adequate in underdeveloped countries. This factor acts as an obstacle to the growth of industry and trade. So planning alone can provide sound money market and capital market.

4. **To remove poverty and inequalities:** Planning is the only path open to underdeveloped countries, for raising national and per capita income, reducing

inequalities and poverty and increasing employment opportunities. Has it happened in India in the last 65 years?

- Hence, Arthur Lewis says, “Planning is more necessary in backward countries to devise ways and means and to make concerted efforts to raise national income”

Case against planning

- The failure of market mechanism invited state intervention in economic activities through planning. The prime goals of economic planning are stabilization in developed countries and growth in LDCs. But the economic planning also is not free from limitations. It may retard private initiatives, hamper freedom of choice, involve huge cost of administration and stop the automatic adjustment of price mechanism. The arguments against planning are discussed below.

1. Loss of freedom

- The absence of freedom in decision making may act as an obstacle for economic growth. Regulations and restrictions are the backbone of a planned economy. The economic freedom comprises freedom of consumption, freedom of choice of occupation, freedom to produce and the freedom to fix prices for the products. Under planning, the crucial decisions are made by the Central Planning Authority. The consumers, producers and the workers enjoy no freedom of choice. Therefore, Hayek explains in his book ‘Road to Serfdom’ that centralized planning leads to loss of personal freedom and ends in economic stagnation. The decisions by the Government are not always rational.

But, freedom to private producers will be misused; profit will be given top priority, welfare will be relegated.

2. Elimination of Initiative

- Under centralized planning, there will be no incentive for initiatives and innovations. Planning follows routine procedure and may cause stagnation in growth. The absence of initiatives may affect progress in following ways.
 - a. The absence of private ownership and profit motive discourages entrepreneurs from taking bold decisions and risk taking. Attractive profit is the incentive for searching new ideas, new lines and new methods. These are missing in a planned economy.
 - b. As all enjoy equal reward under planned economy irrespective of their effort, efficiency and productivity, nobody is interested in undertaking new and risky ventures.
 - c. The bureaucracy and red tapism which are the features of planned economy, cripple the initiative as they cause procedural delay and time loss. The ease of doing

business is disrupted. It is because of this, even socialist countries like Russia and China offer incentives to private enterprises.

3. High cost of Management

- No doubt the fruits of planning such as industrialization, social justice and regional balance are good. But the cost of management of the economic affairs outweighs the benefits of planning. Plan formulation and implementation involve engagement of an army of staff for data collection and administration. As Lewis remarks, "The better we try to plan, the more planners we need". Inadequate data, faulty estimations and improper implementation of plans result in wastage of resources and cause either surplus or shortages.

4. Difficulty in advance calculations

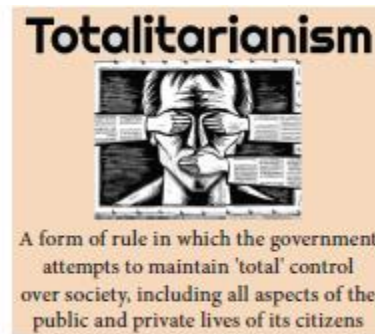
- Price mechanism provides for the automatic adjustment among price, demand and supply in a Laissez Faire economy. The producers and consumers adjust their supply and demand based on price changes. There is no such mechanism in a planned economy. Advance calculations in a precise manner are impossible to make decisions regarding the consumption and production. It is also very difficult to put the calculations into practice under planning. Excess supply and excess demand can also happen in the market oriented economy. Infact it has happened in many expitalistic economies, including the US.
- The arguments against planning are mostly concerned with centralized and totalitarian planning. The democratic planning, planning by inducement and decentralized planning especially under mixed economies give equal role for private sector and public sector. Planned economy appears to be more efficient operationally than a market economy. So the question is not one of plan or no plan but one of the type of plan. The right mix of market mechanism and state intervention in right proportion will promise accelerated economic growth accompanied by stability and social justice.

Types of planning



- Economic planning is a process under which attempts are made to achieve desired targets of economic development within a specified period of time. There are different types of planning which differ in ideology and the procedure in execution

1. Democratic Vs Totalitarian:



- Democratic planning implies planning within democracy. People are associated at every step in the formulation and implementation of the plan. A democratic plan is characterized by the widest possible consultations with the various state governments and private enterprises at the stage of preparation. The plan prepared by the Planning Commission is not accepted as such. It can be accepted, rejected or modified by the Parliament of the country.
- Under totalitarian planning, there is central control and direction of all economic activities in accordance with a single plan. Consumption, production, exchange, and distribution are all controlled by the state. In authoritarian planning, the planning authority is the supreme body. It decides about the targets, schemes, allocations, methods and procedures of implementation of the plan.

2. Centralized Vs Decentralized:

- Under centralized planning, the entire planning process in a country is under a central planning authority. This authority formulates a central plan, fixes objectives, targets and priorities for every sector of the economy. In other words, it is called 'planning from above'
- Under decentralized planning local organizations and institutions formulate, adopt, execute and supervise the plan without interference by the central authorities. In other words, it is called 'planning from below'.

3. Planning by Direction Vs Inducement:

- Under planning by direction, there is a central authority which plans, directs and orders the execution of the plan in accordance with pre-determined targets and priorities.
- Under planning by inducement, the people are induced to act in a certain way through various monetary and fiscal measures. If the planning authority wishes to encourage the production of a commodity, it can give subsidy to the firms. Thus, planning by

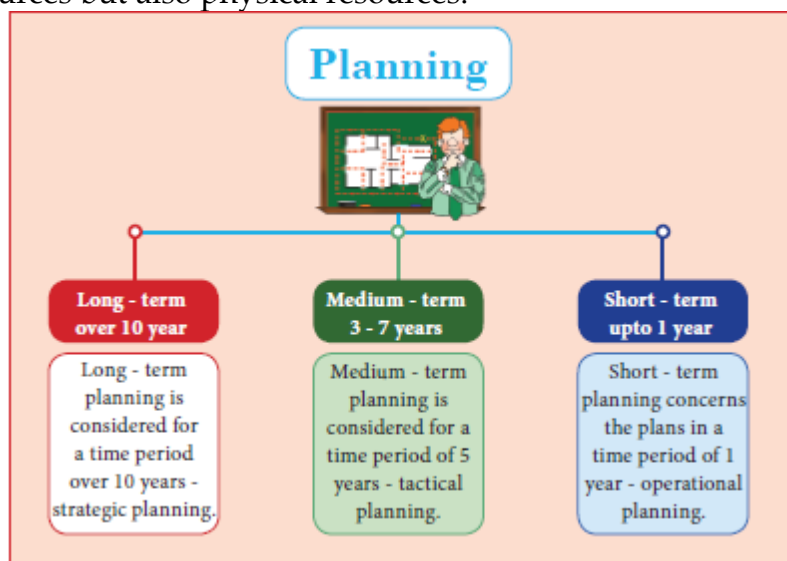
inducement is able to achieve the same results as under planning by direction but with less sacrifice of individual liberty.

4. Indicative Vs Imperative Planning:

- Indicative planning is peculiar to the mixed economies. It has been in practice in France since the Monnet Plan of 1947-50. In a mixed economy, the private sector and the public sector work together. Under this plan, the outline of plan is prepared by the Government. Then it is discussed with the representatives of private management, trade unions, consumer groups, finance institutions and other experts. The essential function of planning is coordination of different economic units. The state provides all types of facilities to the private sector. The private sector is expected to fulfill the targets and priorities. The state does not force the private sector but just indicate the areas of operation and targets to be fulfilled. In short, the planning procedure is soft and flexible.
- Under imperative planning, the state is all powerful in preparation and implementation of the plan. Once a plan is drawn up, its implementation is a matter of enforcement. The USSR President Stalin used to say, 'Our plans are our instructions'. There is complete control over the entire resources by the state. There is no consumer sovereignty. The Government policies and procedures are rigid. China and Russia follow imperative planning.

5. Short, Medium and Long term Planning:

- Short-term plans are also known as 'controlling plans'. They encompass the period of one year, therefore, they are also known as 'annual plans'. The medium-term plans last for the period of 3 to 7 years. But normally, the medium term plan is made for the period of five years. The medium-term planning is not only related to allocation of financial resources but also physical resources.



- Long-term plans last for the period of 10 to 30 years. They are also known as 'perspective plans'. The basic philosophy behind long-term planning is to bring structural changes in the economy.

6. Financial Vs Physical Planning:

- Financial planning refers to the technique of planning in which resources are allocated in terms of money while physical planning pertains to the allocation of resources in terms of men, materials and machinery.

7. Functional Vs Structural Planning:

- Functional planning refers to that planning which seeks to remove economic difficulties by directing all the planning activities within the existing economic and social structure. The structural planning refers to a good deal of changes in the socioeconomic framework of the country. This type of planning is adopted mostly in under developed countries.

8. Comprehensive Vs Partial Planning:

- General planning which concerns itself with the major issues for the whole economy is known as comprehensive planning whereas partial planning is to consider only the few important sectors of the economy.
- 13th August, 2014. The Prime Minister is the Chairperson of NITI Aayog and Union Ministers will be Ex-officio members. The Vice- Chairman of the NITI Aayog is the functional head and the first Vice- Chairman was Arvind Panangariya.

Functions of NITI Aayog

1. **Cooperative and Competitive Federalism:** To enable the States to have active participation in the formulation of national policy.
2. **Shared National Agenda:** To evolve a shared vision of national development priorities and strategies with the active involvement of States.
3. **Decentralized Planning:** To restructure the planning process into a bottom-up model.
4. **Vision and Scenario Planning:** To design medium and long-term strategic frameworks towards India's future.
5. **Network of Expertise:** To mainstream external ideas and expertise into government policies and programmes through a collective participation.
6. **Harmonization:** To facilitate harmonization of actions across different layers of government, especially when involving cross-cutting and overlapping issues across

multiple sectors; through communication, coordination, collaboration and convergence amongst all the stakeholders.

7. **Conflict Resolution:** To provide platform for mutual consensus to intersectoral, inter-departmental, inter-state as well as centre-state issues for all speedy execution of the government programmes.
8. **Coordinating Interface with the World:** It will act nodal point to harness global expertise and resources coming from International organizations for India's developmental process.
9. **Internal Consultancy:** It provides internal consultancy to Central and State governments on policy and programmes.
10. **Capacity Building:** It enables to provide capacity building and technology up-gradation across government, benchmarking with latest global trends and providing managerial and technical know-how.
11. **Monitoring and Evaluation:** It will monitor the implementation of policies and programmes and evaluate the impacts.
 - Initiatives like Atal Innovation Mission, Ayushman Bharat approach towards water conservation measures and the draft bill to establish the National Medical Commission to replace the Medical Council of India have all been conceptualized in NITI Aayog.
 - NITI Aayog is also bringing about a greater level of accountability. It has established a development monitoring and evaluation office which collects data on the performance of various ministries. Using such data, the Aayog makes performance based ranking of states to foster a spirit of competitive federalism. The success of NITI Aayog can be evaluated after a substantial period of time.

MONETARY POLICY, FISCAL POLICY, FINANCE COMMISSION, GST & TAXES

8th term - 1

Unit 1- Money, Savings and Investment

Introduction

Money is a fascinating subject and full of curiosities. It is important to capture this element for the students. The history of money and how various forms were used at different times is an interesting story. Modern forms of money are linked to the banking system.

Money is a fundamental discovery, which has eased the day to day transactions, valuing goods and services and has allowed us to store the wealth and trade in future. "Money is anything which is widely accepted in payment for goods or in discharge of other business obligations" Robertson. Money in some form, has been part of human history for at least the last 3000 years. Before that time, it is assumed that a system of bartering was likely used.

Evolution of Money

The word Money is derived from Roman word "Moneta Juno". It is the Roman goddesses and the Republic money of Roman Empire. The Indian rupee is derived from Sanskrit word 'Rupya' which means silver coin. Today we use paper notes, coins as money. But the evolution of this stage has not happened overnight. It took thousands of years to reach such a stage. There are many stages of evolution of money. The earliest and primitive stage is Barter system.

Barter system

Barter system is exchanging goods for goods without the use of money in the primitive stage. A barter system is an old method of exchange. This system has been used for centuries and long before money was invented. People exchanged services and goods for other services and goods in return. The value of bartering items can be negotiated with the other party. Bartering doesn't involve money which is one of the advantages. Hence Barter system had many deficiencies like,

1. Lack of double coincidence of wants,
2. Common measure of value
3. Indivisibility of commodities
4. Difficulties of storing wealth

Some of the major stages through which money has evolved are as follows: Commodity Money, Metallic Money, Paper Money, Credit Money, Near Money

and recent forms of Money. Money has evolved through different stages according to the time, place and circumstances.

Commodity Money

In the earliest period of human civilization, any commodity that was generally demanded and chosen by common consent was used as money. Goods like furs, skins, salt, rice, wheat, utensils, weapons etc. were commonly used as money. Such exchange of goods for goods was known as 'Barter Exchange'.

Metallic Money

With progress of human civilization, commodity money changed into metallic money. Metals like gold, silver, copper, etc. were used as they could be easily handled and their quantity can be easily ascertained. It was the main form of money throughout the major portion of recorded history.

History of Metallic Money

The precious metals especially gold, silver, bronze were used for metallic money. The standard weight and fineness of metal particularly gold and silver with a seal on it became medium of exchange. They were of different denomination easily divisible, portable and were convenient in making payment. King Midas of Lydia innovated metal coin in the 8th century BC (BCE) by the ancient historian Herodotus. But gold coins were in use in India many centuries than in Lydia. The earliest issuers of coins in the world are the ancient Indians along with Chinese and Lydian's from the middle east. The first time Indian coins were minted in the 6th century BC (BCE) by the Mahajanpadas known as Puranas, Karshapanas or Panas.

The Mauryas came up with the Punch Marked Coins minting of silver, gold copper or lead and Indo-Greek Kushan kings introduced the Greek custom of engraving portraits on the coins. Turkish sultans of Delhi has replaced the royal designs of Indian kings with Islamic Calligraphy by the 12th century AD (CE). The currency was made up of gold, silver and copper known as Tanka and lower valued coin known as Jittals. The Mughal Empire from 1526 AD consolidate the monetary system for the entire empire.

In this era evolution of rupee occurred with Sher Shah Suri defeated Humayun and issued a silver coin of 178 gms known as rupiya and was divided into 40 copper pieces or paisa and during the whole Mughal period silver coin remained in use. During the British East India company i.e. 1600, the mughal currency remained popular but in 1717 AD, Farrukhsiyar the Mughal Emperor gave permission to the Britishes to coin Mughal Money at the Bombay mint. The British gold coins were termed as Carolina, the silver coins as Angelina, the copper coins as cupperoon and the tin coins as tinny.

Paper Money

It was found inconvenient as well as dangerous to carry gold and silver coins from place to place. So, invention of paper money marked a very important stage in the development of money. The development of paper money started on the basis of storage of gold and the receipts were issued by the goldsmiths for these storages. This receipt of goldsmiths were a substitute for money and became paper money. Paper money is regulated and controlled by Central bank of the country (Reserve Bank of India). At present, a very large part of money consists mainly of currency notes or paper money issued by the central bank.

Credit Money or Bank Money

Emergence of credit money took place almost side by side with that of paper money. People keep a part of their cash as deposits with banks, which they can withdraw at their convenience through cheques. The cheque (known as credit money or bank money), itself, is not money, but it performs the same as functions of money.

Near Money: The final stage in the evolution of money has been the use of bills of exchange, treasury bills, bonds, debentures, savings certificate etc.
Recent forms of Money

Plastic Money: The latest type of money is plastic money in the form of Credit cards and Debit cards. They aim for cashless transactions.

E-Money: Electronic Money is money which exists in banking computer systems and is available for transactions through electronic system.

Online Banking (Net Banking)

Online Banking, also known as internet banking is an electronic payment system that enables customers of a bank or other financial institutions to conduct a range of financial transactions through website.

E-Banking

Electronic banking, also known as National Electronic Funds Transfer (NEFT), is simply the use of electronic means to transfer funds directly from one account to another rather than by cheque or cash.

Value of Money

Value of money is meant the purchasing power of money over goods and services in a country. Thus it is related to the price level of goods and services. But the relation between the value of money and price level is an inverse one.

The value of money is of two types

1. Internal value of money

2. External value of money

The Internal value of money refers to the purchasing power of money over domestic goods and services. The External value of money refers to the purchasing power of money over foreign goods and services.

Nature of Money

There has been a lot of controversy and confusion over the meaning and nature of money (Scitovsky). "Money is a difficult concept to define, partly because it fulfills not one but three functions, each of them providing a criterion of moneyness: those of a unit of account, a medium of exchange, and a store of value". Sir John Hicks says that "Money is defined by its functions, anything is money which is used as money, "Money is what money does".

These are the functional definitions of money because they define money in terms of the functions it performs. Some economists define money in legal terms saying that "anything which the state declares as money is money". Such money possesses general acceptability and has the legal power to discharge debts. But people may not accept legal money by refusing to sell goods and services against the payments of legal tender money. On the other hand, they may accept some other things as money which are not legally defined as money in discharge of debts. This may circulate freely.

Functions of Money: Functions of money are classified into Primary or Main function, Secondary function and Contingent function.

Primary or main functions: The important functions of money performed in a very economy are classified under main functions:-

- i. **Medium of exchange or means of payment:** Money is used to buy the goods and services.
- ii. **Measure of value:** All the values are expressed in terms of money; it is easier to determine the rate of exchange between various types of goods and services.

Secondary functions

The three important secondary functions are

- i. **Standard of deferred payment:** Money helps the future payments too. A borrower borrowing today places himself under an obligation to pay a specified sum of money on some specified future date.
- ii. **Store of value or store of purchasing power:** Savings were discouraged under a barter system as some commodities are perishable. The introduction of money has helped to save it for the future as it is not perishable.

- iii. **Transfer of value or transfer of purchasing power:** Money makes the exchange of goods to distant places as well as abroad possible. It was therefore felt necessary to transfer purchasing power from one place to another.

Contingent functions

1. Basis of credit
2. Increase productivity of capital
3. Measurement and Distribution of National Income

Savings in Banks and Investments Savings

Savings are defined as the part of consumer's disposable income which is not used for current consumption, rather kept aside for future use. There are several ways through which a person can save money.

The banking facilitates saving money through various forms of accounts.

1. **Student Savings Account:** There are savings accounts some banks offer specifically for young people enrolled in high school or college, and they main feature more flexible terms such as lower minimum balance requirements.
2. **Savings Deposits:** Savings deposits are opened by customers to save the part of their current income. The customers can withdraw their money from their accounts when they require it. The bank also gives a small amount of interest to the money in the saving deposits.
3. **Current Account Deposit:** Current accounts are generally opened by business firms, traders and public authorities. The current accounts help in frequent banking transactions as they are repayable on demand.
4. **Fixed Deposits:** Fixed deposits accounts are meant for investors who want their principle to be safe and yield them fixed yields. The fixed deposits are also called as Term deposit as, normally, they are fixed for specified period.

Benefits of Savings

- ✓ You will be financially independent sooner.
- ✓ You would not have to worry any unforeseen expenses.
- ✓ In future, you will have financial backup in place if you lose your job.
- ✓ You will be prepared if your circumstances change.
- ✓ You will be more comfortable in retirement.
- ✓ Save today for better tomorrow

Intensity to save among the students

- ✓ Teach them about taxes and accounting.
- ✓ Involve them in grown-up money decisions.
- ✓ Encourage them to apply for scholarship.
- ✓ Help them budget and apply for student loans.
- ✓ Teach them personal savings.

Encourage them to open a student Sanchayeka Scheme.

Investments

The process of investing something is known as an investment. It could be anything, i.e. money, time efforts or other resources that you exchange to earn returns in future. Investment can be made in different investment vehicles like,

1. Stock
2. Bonds
3. Mutual funds
4. Commodity futures
5. Insurance
6. Annuities
7. Deposit account or any other securities or assets

An investment always comes with risks of losing money, but it is also true that you can reap more money with the same investment vehicle. It has a productive nature that helps in the economic growth of the country.

Comparison of Savings and Investments		
Basis for comparison	Savings	Investments
Meaning	Savings represents that part of the person's income which is not used for consumption	Investment refers to the process of investing funds in capital asset, with a view to generate returns
Purpose	Savings are made to fulfil short term or urgent requirements	Investment is made to provide returns and help in capital formation
Risk	Low or negligible	Very high
Returns	No or Less	Comparatively high
Liquidity	Highly liquid	Less liquid

Black Money

Black Money is any money on which it is not paid to the government. Black Money is money earned through any illegal activity controlled by country regulations. Black money proceeds are usually received in cash from underground economic activity and, as such, are not taxed.

The black money is accumulated by the criminals, smugglers, hoarders, tax-evaders and other anti-social elements of the society. In India, black money is funds earned in the black market, on which income and other taxes have not been paid. The total amount of black money deposited in foreign banks by Indians is unknown. The root cause for the increasing rate of black money in the country is the lack of strict punishments for the offenders.

Effects of Black Money on economy

1. Dual economy
2. Tax evasion, thereby loss of revenue to government.
3. Undermining equity
4. Widening gap between the rich and poor
5. Lavish consumption spending
6. Distortion of production pattern
7. Distribution of scarce resource
8. Effects on production.

Recent steps against Black Money

1. Under pressure from India and other countries, Switzerland has made key changes in its local laws governing assets allegedly stashed in Swiss Banks.
2. Special Investigation Team appointed by government on the directions of Supreme Court on black money.
3. Demonetization

Some Legislative Framework in India against to Black Money

1. Prevention of money laundering act 2002
2. Lokpal and Lokayukta act
3. Prevention of corruption act- 1988
4. The undisclosed foreign Income and Asset Bill (Imposition of Tax) 2015
5. Benami transactions prohibition act 1988 amended in 2016
6. The Real Estate (Regulation and Development) Act, 2016

NOTE

- ❖ Symbol of Rupee the Indian Rupee symbol designed by Mr. Udayakumar, Villupuram Dist. Tamil Nadu. It was approved by the Government of India on 15-July-2010
- ❖ **Inflation and Deflation:** Inflation refers to the prices are rising, the value of money will fall. Deflation refers to the prices are falling, the value of money will rise.
- ❖ **Demonetization:** In India, On 8-November-2016, the Government of India announced demonetization of all ₹500 and ₹1000 bank notes against Black Money.

9th book
3. Money and Credit

Almost all things used by man have a monetary value. In addition to that, the pay given for labour, wages and services are all fixed on the basis of money. The taxes and duties are also paid in the form of money. We would have seen our parents planning the expenses at our home every month. The monthly income, pending expenditure, savings, payment of interest etc., are all measured in terms of money. Not only at homes, but also the budgets of a country or states are also framed on the basis of money. The Government, as well as, private institutions and industries calculate their financial status through money. Thus, money plays a predominant and inseparable role in all our lives.

Barter System

If there arises a question, “Has man always used money?”, the answer would be ‘no’. How? When did money enter into the lives of men? In this lesson, let us learn about the evolution of money over the years. Ancient man hunted and gathered food. He lived in caves and forests. In later stages, he invented weapons for hunting and gathering food. Later, he invented fire and learnt to practise agriculture. He used mud to build houses and settle down in a place and also to make earthenware.

When the agricultural yield was high, they made handicrafts. When there was surplus in agricultural produce and other articles like earthenware, they exchanged it with people who needed them. For example, if a community had excess food stuff, they would exchange that with those who had excess pots. Likewise, when a particular grain grew in abundance in a region, it was exchanged for a different crop in another region. These articles which were exchanged through barter system can be termed as the first form of trade.

Coins

The barter system flourished wherever civilizations thrived. This system was active not only within a civilization, but also among civilizations. This was the initial form of international trade. During archaeological excavations in Egypt and Iraq (Mesopotamia), articles used during the Indus valley civilization were excavated. As years went by, there were issues found in barter system. For example there were problems in the exchanging needed goods. A person who had paddy was in need of earthenware for instance. But, the person who had pots and other utensils was not in need of paddy.

Thus, the needs of many people were not fulfilled. Measuring the quantity and value of the goods exchanged were found very difficult. To solve these issues, they fixed a common item with a standard value, for the effective exchange of goods. It was usually in the form of some metal. Metals were rare to find and could be maintained for a long time and never lost their value. Hence, the metals can be termed as the first form of money.

These may be the reasons why metals were chosen. Gold, silver and copper were the metals used first. They were called ancient currency. Leather, beads, shells, tobacco, salt, corn and even slaves were exchanged as barter, say economists. The later Cholas allowed the traders to have their own army. Historical evidences state that during this period, small traders and producers gave credit to the Tamil traders to support their export needs.

Natural Money

The metals such as silver and gold gained importance gradually all over the world. So, these metals were used as standard value in the exchange of goods. There is called as natural money.

Paper Money

As days went by, issues arose because while trade prospered, there were insufficient reserves of gold and silver. Mines also had a limited reserve of these metals. An alternative was found and coins were made using metals with lesser value. These were used to buy and sell goods of lesser value. It was used as the money of the poor people. Hence these coins were printed in large numbers. Paper money came into being as the next stage. This money was without form and people started saving in banks. The Great Economic Depression was also prompted the saving habit of the people. Money has become an inseparable part of everyone's life today. It has changed its form in the economic front. Money transactions are done through many ways in the electronic world.

History of Money

- 1. Barter System 9000 B.C (B.C.E):** During this period, exchange of goods was done through barter system. Man exchanged the surplus goods for other goods that he needed.
- 2. Coins 1100 B.C (B.C.E):** The Chinese have used small coins during this period. These coins were made in bronze. Countries bordering the Indian Ocean used shells as a medium of exchange.
- 3. Currency 600 B.C (B.C.E):** King Alyattes of Lydia announced publically that official currency will be used for trade. Lydia is a part of Turkey today. This Transaction of money spread throughout the Mediterranean region.
- 4. Gold Coin 1250 A.D (C.E):** The florin, a gold plated coin was introduced in Europe
- 5. Marco Polo 1290 A.D (C.E):** Paper money spread to Europe through the travels of Marco Polo
- 6. Printing of Currency 1661 A.D (C.E):** When new paper money was printed in

Sweden, it was not much welcome.

7. **Electronic Transfer 1860 A.D (C.E):** Through telegraph an effort was under taken to transfer money electronically.
8. **Credit Card 1946 A.D (C.E):** John Biggins invented the credit card
9. **Mobile Banking 1999 A.D (C.E):** European banks introduced mobile banking
10. **NFC 2008 A.D (C. E)** Near field communication (NFC) was introduced in Britain. In 2016, it came to India> It takes only about 7 to 8 seconds to transact money through NFC.

Electronic Transactions

One has to visit the bank and fill in a challan or produce a cheque to withdraw money from his account. Now this practice is gradually vanishing. Instead, one can easily withdraw the necessary amount from an Automated Teller Machine (ATM), with the help of an ATM debit card. One can easily withdraw the money needed at any time at ATMs located everywhere. A person can deposit money in their account without visiting the branch.

- ✓ Similarly, credit cards are also available, through which things are bought on credit and the amount can be paid later.
- ✓ Nowadays, instead of using cheques or Demand Drafts (DDs), online transactions through net banking are carried out. Through this, money is transacted to anyone who lives anywhere across the globe.
- ✓ Technology has advanced so much that even mobile banking is widely used nowadays.

Role of the Reserve Bank of India

A government has the responsibility to regulate money supply and oversee the monetary policy. Hoarding of money must be avoided at all costs in a country's economy. Only then money can be saved in banks. A major portion of the savings in banks are used for the development of industries, economic growth and various development schemes for the welfare of the poor. All the major and important banks were nationalised (1969) in India. The Reserve Bank of India (RBI) regulates the circulation of currency in India.

The Reserve Bank of India started its operations on 1st April 1935. It was permanently moved to Mumbai from the year 1937. RBI was nationalised in 1949. 85% of the printed currency is let for circulation. According to the statistics available as on August 2018, currency worth of 19 lakh crore are in circulation. **(source - Reserve Bank of India)**

Educational Loans

- ✓ Educational loan attempts to meet the educational aspirations of the society.
- ✓ A student is the main borrower.
- ✓ A parent, spouse or sibling can be the co-applicant.
- ✓ It is offered to students who want to pursue higher education in India or overseas.
- ✓ It can be taken for a full time, part - time or vocational course and Graduation or Post Graduation.
- ✓ There is no security required for the loan amount up to ` 4 lakhs
- ✓ The loan is repaid by the student generally after the employment.
- ✓ Students can apply through “Vidya Lakshmi Portal Education Loan Scheme”.

Relationship between Money and Prices

There is a close relationship between volume of circulation money and the price of things. 90% of the products are manufactured with the main aim of sales or meant for services. Growing crops and production are done on a commercial basis, rather than on a subsistence level. This phenomenon also increased the importance of the market and money.

The relationship between money and price is connected with the Monetary policy. There is a close relationship between the growth of money supply and inflation. Price controls play a very important role in a country's economic stability. This role is played by the Central Bank of our country, RBI in India. Currency is the medium of exchange in a country. The Indian currency is called the Indian Rupee (INR). In a country the foreign currency is called foreign exchange. Purchasing capacity of all currencies in the world are compared using the US dollar as the standard currency. This value differs from country to country. Most of the international trade transactions are carried out in US dollar.

How is currency printed in India?

One rupee and two rupee notes were first printed in India in the year 1917. The Reserve Bank of India is empowered to issue the Government of India notes since 1935. 500 rupee note currency was introduced later. In 1940, one Rupee notes were issued again. Till 1947, the currency notes with the image of King George VI were in circulation. After Independence, the Government of India issued currency notes.

In 1925, the British government established a government press at Nasik in Maharashtra. Currencies were printed three years later. In 1974, a press was started in Dewas, Madhya Pradesh. (Security Printing and Minting Corporation of India Ltd.) In the 1990s, two more presses were started in Mysuru, Karnataka and Salboni in West Bengal to print bank notes.

The Reserve Bank of India has the authority to decide the value of currency to be printed and how the amount should reach its destination safely. Around ten thousand workers are employed here. Countries like Sri Lanka, Bhutan, Iraq and Africa have drawn contracts for printing their currencies and sent to the respective countries. Though the RBI

has the power to print up to ten thousand rupee notes, at present a maximum of up to rupees two thousand is printed.

Foreign exchange rate equivalent to US Dollars

Country	Currency	Equivalent Value for 1 US Dollar (July 2018)
India	Rupee	68.72 rupees
England	Pound	0.76 pound
European Union	Euro	1.14 euro
Canada	Dollar	1.31 dollar
Japan	Yen	111.15 yen
China	Yuan	6.76 yuan
Saudi Arabia	Riyal	3.75 riyal
Australia	Dollar	1.35 dollar
Malaysia	Ringgit	4.05 ringgit
Pakistan	Rupee	124.2 rupees
SriLanka	Rupee	159.8 rupees

Functions of Money: When money replaced the barter system, a lot of practical issues were solved. Money acts a medium of exchange, a unit of measurement, a store of value and a standard of deferred payments. It plays an important role in transactions.

Medium of Exchange: Money should be accepted liberally in exchange of goods and services in a country.

Unit of Account: Money should be the common, standard unit of calculating a country's total consumer goods, products, services etc. For example, if a book costs ` 50, it means that the price of the book is equale to 50 units of money. Money is used to measure and record financial transactions in a country.

A Store of Value: Money is used as a store of purchasing power. It can be used to finance future payments.

Credit

Farmers avail credit during monsoons for buying seeds, agricultural input and other expenses. Traders and small entrepreneurs need credit for their needs. Even large industries receive credit to take up their new projects.

Credit is available from:

- ✓ Formal financial institutions like nationalised and private banks and co-operative banks
- ✓ Informal financial institutions
- ✓ Micro credit is received through Self Help Groups (SHG)

As far as nationalised banks and co-operative banks are concerned the interest to credit is comparatively lesser and there is gurantee for the pledged, goods.

Money supply is divided into four:

- M1 = Currency held with the public + cash Reserves in commercial and Co-operative banks + cash reserves in the RBI.
- M2 = M1 + Money saved in Post office and bank savings Accounts
- M3 = M1 + Time Deposits in Commercial and co-operative banks
- M4 = M3 + Post office savings Money

Informal Financial Institutions

Informal financial institutions are easily approachable to the customers with flexible procedures. But there are issues like the safety of items pledged high rates of interest and modes of recovery. People who live in a particular place or those who are involved in a certain work join together as a group and start saving. These are called as Self Help Groups. The nationalised banks provide help to these groups through micro-credit. . Credit given though Self Help Groups for street vendors, fishermen, especially women and the poor really make a difference in their life.

In Tamil Nadu, all the banks have 10,612 branches; across the state. They carry on a total transaction of around 15 lakh crore rupees during the financial year (2017-2018). A few salient features of the Tamil Nadu Bank transactions are given in the table below

Tamil Nadu - Banking Statistics	
Banking Activates (April 2017 - March 2018)	Rupees (approximately)
Deposits Received	7.17 Lakh crore
Loans sanctioned	7.84 lakh crore
Loans to micro & small enterprises	1.40 lakh crore
Priority sector Loans including Agriculture	3.56 lakh crore
Loans to weaker section	1.04 lakh crore
Education Loan	1.67 lakh crore
Credit Deposit Ratio	109.34%

NOTE

- ❖ During his rule(1540-1546) Sher Shah Suri set up a new civic and military administration and issued a coin of silver weighing 178 grams, which was termed the Rupiya. The silver coin remained in use during the Mughal period, the Maratha era and in British India as well.
- ❖ Dr. B.R. Ambedkar’s Ph.D.thesis on ‘The Problem of the Rupee - Its origin and

solution' was the reference tool and provided guidelines for the Reserve Bank of India Act of 1934.



10th Full Book

Unit 1 - GDP and its Growth: an Introduction

Economists call such tangible items “goods”. These goods are not free but have to be paid for.

Though you don't realise it in addition to these tangible things called goods, something else is being produced : the work done by the cooks and the people who serve the food. The activity of cooking and serving is not something you can feel and touch. Such activities are not tangible but are nevertheless crucial for you to enjoy the food. Economists call such activity “services”. As in the case of goods, these and other services are not free but have to be paid for.

What happens everyday in a hotel happens nation wide: goods and services are produced and paid for and this what the GDP measures.

The GDP is defined follows:

The GDP is the market value of all the final goods and services produced in the country during a time period.

Every part of the definition is important.

Goods and services: as you know by now, goods are tangible items while services are activities which are intangible .

Market value: This is the price at which goods and services are sold in the market.

The GDP measures all the goods and services produced in the country. For this, we have to add all the goods and services produced. However a nation produces a wide range of goods like rice, shoes , trains, milk, clocks, books and bicycles. If only the quantities are taken into account, there is no meaningful way to add these up. For example, how do you add 1000 litres of milk with 500 clocks?! Likewise there is no meaningful way to add the quantities of services since a wide range of services are produced , such as the work done by doctors, police, fire brigade, teachers, bus drivers and district collectors.

The GDP solves this problem by measuring the goods and services in the currency of the country, which is the rupee in the case of India. The rupee values are derived from the prices at which the goods and services are sold in the market. Only those goods and services with a market value are included in the GDP.

This implies that unless a good or service is sold in the market, it is not included in the GDP. For example if you pay ` 50 to get a manuscript typed in a computer centre, the service is included in the GDP since it is sold in the market. If you type the manuscript

yourself , the service typing a manuscript is not included in the GDP since you did not purchase it for a price in the market.

Final goods and services: Economists Tyler Cowen and Alex Tabarrok say that “final goods and services” are the goods and services which will be used or consumed and will not form a part of other goods and services. The goods and services which will be used for producing other goods and services and will form a part of the goods and services produced are called “intermediate goods”.

Only the final goods are included in the GDP. Intermediate goods are not counted in calculating the GDP because their value is included in the final goods. So if the intermediate goods are included in the GDP it will result in what is called “double counting”.

For example, a cup of tea bought in a hotel is a final good because it is consumed and does not form a part of producing something else. So the market value of the cup of tea, being a final good, is included in the GDP. Sugar which is mixed in the tea is an intermediate good because it is used in making tea and forms a part of the tea served. Suppose the tea is priced ` 10 a cup, of which the value of sugar used is ` 2. So the price of the cup of tea includes the ` 2 price of the spoon of sugar. If this value of sugar is included in the GDP , it will be counted twice: as a spoon of sugar and again as a part of the cup of tea. This is “double counting” and to avoid it the intermediate goods like sugar are excluded from GDP.

National Income

‘National Income is a measure of the total value of goods and services produced by an economy over a period of time, normally a year’. Commonly National Income is called as Gross National Product(GNP) or National Dividend.

Various terms associated with measuring of National Income

Gross National Product (GNP)

Gross National Product is the total value of (goods and services) produced and income received in a year by domestic residents of a country. It includes profits earned from capital invested abroad.

$$\text{GNP} = C + I + G + (X-M) + \text{NFIA}$$

C = Consumption

I = Investment

G = Government Expenditure

X-M = Export - Import

NFIA = Net Factor Income from Abroad)

Gross Domestic Product (GDP)

Gross Domestic Product (GDP) is the total value of output of goods and services produced by the factors of production within the geographical boundaries of the country.

Net National Product (NNP)

Net National Product (NNP) is arrived by making some adjustment with regard to depreciation that is we arrive the Net National Product (NNP) by deducting the value of depreciation from Gross National Product. (NNP = GNP – Depreciation)

Net Domestic Product (NDP)

Net Domestic Product (NDP) is a part of Gross Domestic Product, Net Domestic Product is obtained from the Gross Domestic Product by deducting the Quantum of tear and wear expenses (depreciation)

$$\text{NDP} = \text{GDP} - \text{Depreciation}$$

Per Capita Income (PCI)

Per capita Income or output per person is an indicator to show the living standard of people in a country. It is obtained by dividing the National Income by the population of a country.

$$\text{Per capita Income} = \text{National Income} / \text{Population}$$

In 1867-68 for the first time Dadabhai Navroji had ascertained the Per Capital Income in his book "Poverty and Un-British Rule of India".

Personal Income (PI)

Personal income is the total money income received by individuals and households of a country from all possible sources before direct taxes, therefore, personal income can be expressed as follows (PI = NI corporate Income Taxes – Undistributed corporate profits – social security contribution + Transfer payment).

Disposable Income (DI)

Disposable income means actual income which can be spent on consumption by individuals and families, thus, it can be expressed as

$$\text{DPI} = \text{PI} - \text{Direct Taxes}$$

(From consumption approach $\text{DI} = \text{Consumption Expenditures} + \text{Savings}$)

Gross Domestic Product (GDP)

Produced in the country: GDP of India includes only the market value of goods and services produced in India. For example the market value of apples produced in Kashmir are included in our GDP since Kashmir is in India. The market value of apples

produced in California, even if they are sold in Indian markets, are not included in our GDP because California is in the U.S.

Produced during a time period: The GDP of a country measures the market value of goods and services produced only during the specified time period. The goods and services produced in earlier periods are not included. If an year is the specified time period, the GDP of 2018 will include the market value of goods and services produced only during 2018. So a bicycle produced in 2017 will not be included in the GDP measure for 2018.

In India the GDP is measured both annually and quarterly. The annual GDP is for a financial year which is from April 1 of say 2017 to March 31, 2018. This is written as 2017-18. The quarterly GDP estimates are for each of the four quarters into which India's financial year is divided:

- ✓ First quarter, denoted Q1: April, May and June
- ✓ Second quarter, or Q2: July, August, September
- ✓ Third Quarter or Q3: October, November, December
- ✓ Fourth Quarter, or Q4: January, February, March.

The annual GDP for financial year 2017 - 18 will include only the goods and services produced during this financial year and will exclude the goods and services produced in the previous years. Likewise GDP for Q2 will include only the goods and services produced in Q2 and will not include the goods and services produced in Q1.

Gross Domestic Product (GDP) definition

Gross Domestic Product (GDP) represents the economic health of a country. It represents a sum of a country's production which consists of all purchases of goods and services used by individuals, firms, foreigners and the governing bodies. The monetary value of all the finished goods and services produced within a country's border in a specific time period.

$$GDP = C + I + G + (X - M)$$

C = Consumption I = Investment

G = Government Expenditure

(X - M) = X = Exports - M = Imports

The modern concept of GDP was first developed by Simon Kuznets for a US Congress report in 1934.

Methods of GDP Calculating

- ✓ **Expenditure Approach:** In this method, the GDP is measured by adding the expenditure on all the final goods and services produced in the country during a

specified period. The different types of expenditure are shown in this equation: $Y = C + I + G + (X - M)$

- ✓ **The Income Approach:** This method looks at GDP from the perspective of the earnings of the men and women who are involved in producing the goods and services. The income approach to measuring GDP (Y) is $Y = \text{wages} + \text{rent} + \text{interest} + \text{profit}$
- ✓ **Value-Added Approach:** A cup of tea served to you in a hotel is a “final good”. The goods used to produce it, tea powder, milk, and sugar, are “intermediate goods” since they form a part of the final good, the cup of tea. One way to measure the market value of the cup of tea is to add the value produced by each intermediate good used to produce it. Each intermediate good, the tea powder, milk and sugar, adds value to the final output, the cup of tea. In the value-added approach the value added by each intermediate good is summed to estimate the value of the final good. The sum of the value added by all the intermediate goods used in production gives us the total value of the final goods produced in the economy.

Importance of GDP

- Study of Economic Growth.
- Unequal distribution of wealth
- Problems of inflation and deflation.
- Comparison with developed countries of the world.
- Estimate the purchasing power.
- Public Sector.
- Guide to economic planning.

Limitations of GDP

The GDP is the most widely used measure of the state of the economy. While appreciating its usefulness, we should be aware of some of its limitations.

- **Several important goods and services are left out of the GDP:** The GDP includes only the goods and services sold in the market. The services provided by parents to their children is very important but it is not included in the GDP because it is not sold in the market. Likewise clean air, which is vital for a healthy life, has no market value and is left out of the GDP.
- **GDP measures only quantity but not quality:** In the 1970s schools and banks did not permit the use of ballpoint pens. This is because the ones available in India were of very poor quality. Since then, not only has there been a substantial increase in the quantity of ballpoint pens produced in India but their quality has also improved a lot. The improvement in quality of goods is very important but it is not captured by the GDP.

- **GDP does not tell us about the way income is distributed in the country:** The GDP of a country may be growing rapidly but income may be distributed so unequally that only a small percentage of people may be benefitting from it.
- **The GDP does not tell us about the kind of life people are living:** A high level of per capita real GDP can go hand-in-hand with very low health condition of people, an undemocratic political system, high pollution and high suicide rate.

Estimation of GDP

The Central Statistical Organisation (CSO), under the Ministry of Statistical department keeps the records. Its processes involves conducting an annual survey of industries and compilation of various indexes like the Index of Industrial Production (IIP) Consumer Price Index (CPI) etc.

Composition of Gross Domestic Product (GDP)

Indian economy is broadly divided into three sectors which contribute to the GDP namely Agriculture and allied activity, Industry and Services.

Primary Sector: (Agricultural Sector)

Agricultural sector is known as primary sector, in which agricultural operations are undertake. Agriculture based allied activities, production of raw materials such as cattle farm, fishing, mining, forestry, corn, coal etc. are also undertaken.

Secondary Sector: (Industrial Sector)

Industrial sector is secondary sectors in which the goods and commodities are produced by transforming the raw materials. Important industries are Iron and Steel industry, cotton textile, Jute, Sugar, Cement, Paper, Petrochemical, automobile and other small scale industries.

Tertiary: (Service Sector)

Tertiary sector is known as service sector it includes Government, scientific research, transport communication, trade, postal and telegraph, Banking, Education, Entertainment, Healthcare and Information Technology etc.. In the 20th century, economists began to suggest that, traditional tertiary services could be further distinguished from “quaternary” and “quinary” service sectors.

Contribution of different sectors in GDP of India

Services sector is the largest sector of India. Gross Value Added (GVA) at current prices for Services sector is estimated at 92.26 lakh crore in 2018-19. Services sector accounts for 54.40% of total India's GVA of 169.61 lakh crore Indian rupees. With GVA of `

50.43 lakh crore, Industry sector contributes 29.73%. While, Agriculture and allied sector shares 15.87%.

India is 2nd larger producer of agriculture product. India accounts for 7.39 percent of total global agricultural output. In Industrial sector, India world rank is 6 and in Service sector, India world rank is 8. Contribution of Agriculture sector in Indian economy is much higher than world's average (6.4%). Contribution of Industry and Services sector is lower than world's average 30% for Industry sector and 63% for Services sector.

Gross value added (GVA) is the measure of the value of goods and services produced in an area, industry or sector of an economy. In national accounts GVA is output minus intermediate consumption; it is a balancing item of the national accounts' production account.

GVA is linked as a measurement to Gross Domestic Product (GDP), as both are measures of output. The relationship is defined as $GVA + \text{taxes on products} - \text{subsidies on products} = GDP$

$GVA = GDP + \text{subsidies} - (\text{direct, sales}) \text{ taxes.}$

Year	Agriculture (%)	Industry (%)	Service (%)
1950-51	51.81	14.16	33.25
1960-61	42.56	19.30	38.25
1970-71	41.95	20.48	37.22
1980-81	35.39	24.29	39.92
1990-91	29.02	26.49	44.18
2000-01	23.02	26.00	50.98
2010-11	18.21	27.16	54.64
2011-12	17.86	27.22	54.91
2012-13	17.52	26.21	56.27
2013-2014	18.20	24.77	57.03
2015-2016	17.07	29.08	52.05
2016-17	17.09	29.03	52.08
2017-18	17.01	29.01	53.09

Economic Growth and Development

As per the economist AmartyaSen, economic growth is one aspect of economic development. Also, united nation see it like this "Economic development focuses not only on man's materialistic need but it focuses on overall development or rise in its living standards.

Economic Growth

It is the quantitative measure which considers the rise in the output produced in an economy or nation in a particular period in its monetary value. The key parameters of

economic growth in any economy are its Gross Domestic Product (GDP) and gross national product which helps in measuring the actual size of an economy.

For example, we say GDP of India is 2.8 trillion USD and ranked 6th in globe whereas GDP of the United States of America is 19.3 trillion USD and ranked one. It shows how much the production of goods and services has increased compared from last year in a quantitative manner. It has many parameters to measure and few of them are human Resources. They are Natural Resource, Advancement in technology, Capital formation, Political and social economic factors.

Economic Development

Economic development projects a broader picture of an economy which takes into account an increase in production level or output of an economy along with an improvement in the living standard of its citizens. It focuses more on socioeconomic factors rather than the just quantitative increase in production. Economic development is a qualitative measure which measures improvement in technology, labour reforms, rising living standards, broader institutional changes in an economy.

Human development Index (HDI) is apt tool to measure the real development in an economy.

Differences between Economic Growth and Economic Development

Comparison between Economic Growth and Economic Development	Economic Growth	Economic Development
Definition/ Meaning	It is the positive quantitative change in the output of an economy in a particular time period	It considers the rise in the output in an economy along with the advancement of HDI index which considers a rise in living standards, advancement in technology and overall happiness index of a nation.
Concept	Economic growth is the "Narrower" concept	Economic development is the "Broader" concept
Nature of Approach	Quantitative in nature	Qualitative in nature
Scope	Rise in parameters like GDP, GNP, FDI, FII etc.	Rise in life expectancy rate, infant, improvement in literacy rate, infant mortality rate and poverty rate etc.
Term/ Tenure	Short term in nature	Long-term in nature
Applicability	Developed nation	Developing economies
Measurement Techniques	Increase in national income	Increase in real national income i.e. per capita income

Frequency of Occurrence	In a certain period of time	Continuous process
Government Aid	It is an automatic process so may not require government support/aid or intervention	Highly dependent on government intervention as it includes widespread policies changes so without government intervention it is not possible
Wealth Distribution	Economic growth does not emphasize on the fair and equal distribution of wealth/income among all its people.	It focuses on a balanced and equitable distribution of wealth among all individual and tries to uplift the downgrade societies

Human Development Index

In 1990 MahbubulHaq, a Pakistani Economist at the United Nations, introduced the Human Development Index (HDI). The HDI is a composite index of life expectancy at birth, adult literacy rate and standard of living measured as a logarithmic function of GDP, adjusted to purchasing power parity.

India climbed one spot to 130 out of 189 countries in the latest human development rankings released today by the United Nations Development Programme (UNDP). India's HDI value for 2017 is 0.640, which put the country in the medium human development category. Between 1990 and 2017, India's HDI value incased from 0.427 to 0.640, an increase of nearly 50 percent - and an indicator of the country's remarkable achievement in lifting millions of people out of poverty.

Between 1990 and 2017, India's life expectancy at birth too increased by nearly 11 years, with even more significant gains in expected years of schooling. Today's Indian school-age children can expect to stay in school for 4.7 years longer than in 1990. Whereas, India's GNI per capita increased by a staggering 266.6 % between 1990 and 2017.

Developmental Path based on GDP and Employment

In the development path of India, it first undertook the policy of closed trade. This was to give a thrust to domestic industries and reduce dependence on foreign products and companies. Trade and interaction with the outside world remained limited. This outlook continued till 1991 when India finally decided to open its borders to free trade and liberalized its economy by allowing foreign companies to enter the Indian economy.

A thrust was given to employment generation under the Five Year plans. This was to make up for a rising population and lacking jobs to absorb the increased workforce size. Rural development was also given importance in India, for the important constituent it was of the Indian landscape.

Poverty alleviation came as a corollary of rural development and a part of the development path of India. India inherited a poverty-stricken economy from the British rule, which had destroyed its resource base completely.

The public sector was given significant importance, Private companies and industries were subject to strict regulations and standards. It was believed that the government was the sole protector of the people and would work towards social welfare.

India has sustained rapid growth of GDP for most of the last two decades leading to rising per capita incomes and a reduction in absolute poverty. Per capita incomes have doubled in 12 years. In Per capita income, placing India just inside the Middle Income Country category.

Life expectancy at birth is 65 years and 44% of children under 5 are malnourished. The literacy rate for the population aged 15 years and above is only 63% compared to a 71% figure for lower middle income countries.

India has followed a different path of development from many other countries. India went more quickly from agriculture to services that tend to be less tightly regulated than heavy industry. There are some emerging manufacturing giants in the Indian economy.

Gross National Happiness (GNH)

Gross National Happiness (GNH) is a philosophy that guides the government of Bhutan. It includes an index which is used to measure the collective happiness and well-being of a population. Gross National Happiness is instituted as the goal of the government of Bhutan in the Constitution of Bhutan, enacted on 18 July 2008.

The term Gross National Happiness was coined in 1972 during an interview by a British journalist for the Financial Times at Bombay airport when the then king of Bhutan, Jigme Singye Wangchuck, said "Gross National Happiness is more important than Gross National Product."

In 2011, The UN General Assembly passed Resolution "Happiness: towards a holistic approach to development" urging member nations to follow the example of Bhutan and measure happiness and well-being and calling happiness a "fundamental human goal."

GNH is distinguishable from Gross Domestic Product by valuing collective happiness as the goal of governance, by emphasizing harmony with nature and traditional values as expressed in the 9 domains of happiness and 4 pillars of GNH. The four pillars of GNH's are 1) sustainable and equitable socio-economic development; 2) environmental conservation; 3) preservation and promotion of culture; and 4) good governance.

The nine domains of GNH are psychological well-being, health, time use, education, cultural diversity and resilience, good governance, community vitality, ecological

diversity and resilience, and living standards. Each domain is composed of subjective (survey-based) and objective indicators. The domains weigh equally but the indicators within each domain differ by weight.

Factors supporting Indian development

A fast-growing population of working age. There are 700 million Indians under the age of 35 and the demographics look good for Indian growth in the next twenty years at least. India is experiencing demographic transition that has increased the share of the working-age population from 58 percent to 64 percent over the last two decades.

India has a strong legal system and many English-language speakers. This has been a key to attracting inward investment from companies such as those specialising in Information Technology.

Wage costs are low in India and India has made strides in recent years in closing some of the productivity gap between her and other countries at later stages of development.

India's economy has successfully developed highly advanced and attractive clusters of businesses in the technology space. For example witness the rapid emergence of Bangalore as a hub for global software businesses. External economies of scale have deepened their competitive advantages in many related industries.

Growth of GDP and Economic Policies

Many Economic Policies have been framed by the Government of India since independence for increasing rate of economic growth and economic development. The important economic policies are

➤ **Agriculture policy**

Agricultural policy is the set of government decisions and actions relating to domestic agriculture and imports of foreign agricultural products. Governments usually implement agricultural policies with the goal of achieving a specific outcome in the domestic agricultural product markets. Some overarching themes include risk management and adjustment, economic stability, natural resources and environmental sustainability research and development, and market access for domestic commodities. Some Agricultural policies are Price policy, land reform policy, Green Revolution, Irrigation policy, Food policy, Agricultural Labour Policy and Co-operative policy.

➤ **Industrial Policy**

Industrial development is a very important aspect of any economy. It creates employment, promotes research and development, leads to modernization and ultimately makes the economy self-sufficient. In fact, industrial development even

boosts other sectors of the economy like the agricultural sector (new farming technology) and the service sector. It is also closely related to the development of trade. Several industrial policies since 1948, Industrial policy on large scale industries Eg. Textile Industry policy, Sugar Industry policy, Price policy of industrial growth, Small scale industrial policy and Industrial Labour policy.

➤ **New Economic Policy**

The economy of India had undergone significant policy shifts in the beginning of the 1990s. This new model of economic reforms is commonly known as the LPG or Liberalisation, Privatisation and Globalisation model. The primary objective of this model was to make the economy of India the fastest developing economy in the globe with capabilities that help it match up with the biggest economies of the world. These economic reforms had influenced the overall economic growth of the country in a significant manner.

Some other policies in India

- ✓ Trade Policy - Import and Export policy (International Trade Policy), Domestic Trade Policy.
- ✓ Employment policy
- ✓ Currency and Banking Policy
- ✓ Fiscal and Monetary Policy
- ✓ Wage Policy
- ✓ Population Policy

➤ **GDP Growth of India**

India's economic growth story since the 1990s has been steady, stable, diversified, resilient and reflect strong macro economics fundamentals. Despite fluctuations in recent quarters due to disruptions caused by two major structural reforms - demonetisation and the Goods and Services Tax (GST). The world Bank projected a growth rate of 7.3% in the year 2018-19 and 7.5% 2019-2020. India's average economic growth between 1970 and 1980 has been 4.4% which rise by 1% point to 5.4% between the 1990 and 2000.

According to IMF World Economic Outlook (October-2018), GDP growth rate of India in 2018 is projected at 7.3% and India is 5th fastest growing nation of the world just behind Bangladesh.

Unit - 4 Government and Taxes

Introduction

Tax is levied by government for the development of the state's economy. The revenue of the government depends upon direct and indirect taxes. Direct taxes are levied on income of the persons and the indirect taxes are levied on goods and services by which the government mobilises its "financial resources".

Role of Government in Development Policies

The role of government and development policies

In India, the three levels of governments, namely, union, state and local, have been carrying out various functions for the benefit of people and society at large. These roles are divided into seven categories for easy understanding.

1. Defence: This is an essential security function to protect our nation from our enemies. We know that we have three services, namely, army, navy and air force. The Union government is responsible for creating and maintaining defence forces.

2. Foreign policy: In today's world, we need to maintain friendly relationships with all the other countries in the world. India is committed to world peace. We should also maintain cordial economic relationships through exports and imports, sending and receiving investments and labour. This service is also provided by the Union government.

3. Conduct of periodic elections: India is a democratic country. We elect our representatives to Parliament and state assemblies. The Union government creates laws and administrative system and conducts elections to these two legislature institutions. Similarly the state governments conduct elections to local bodies within the state.

4. Law and order: Both the Union and state governments enact numerous laws to protect our rights, properties and to regulate our economy and society. To settle disputes, the Union government has a vibrant judicial system consisting of courts at the national, state and lower levels and state governments take the responsibility for administering the police force in respective states.

5. Public administration and provision of public goods: The government generally administers the economy and society through various departments, for example, revenue department, schools, hospitals, rural development and urban development. The list of departments with the Union and state governments are available in the public domain. The local governments provide public goods like local roads, drainage, drinking water and waste collection and disposal.

6. Redistribution of income and poverty alleviation: Governments collect various taxes to finance the various activities mentioned earlier. The taxes are collected in a way that the high-income people can bring in more tax revenue to the government than the poor. The governments also spend money such that the poor are given some basic necessities of life like food, shelter, clothing, education, health care and monthly income to the very poor persons. Thus collecting taxes and spending for the poor is how the government redistributes income and introduces measures to reduce poverty.

7. Regulate the economy: The Union government, through the Reserve Bank of India, controls money supply and controls the interest rate, inflation and foreign exchange rate. The main objective is to remove too much of fluctuation in these rates. The Union also controls the economy through various other agencies such as Securities Exchange Board of India and Competition Commission of India. All the governments in India run public sector enterprises to provide important goods and services at affordable rates to the people.

Tax

The origin of the word "tax" is from "taxation," which means an estimate.

Taxation is a means by which governments finance their expenditure by imposing charges on citizens and corporate entities. The main purpose of taxation is to accumulate funds for the functioning of the government machinery. Tax has come into forefront on account of the new concept of "welfare state". Modern governments do not confine themselves to law and order only. The importance of public finance (tax) has vastly increased in recent years.

Taxes are compulsory payments to government without expectation of direct return (or) benefit to the tax payer. Prof. Seligman also defined a tax as "a compulsory contribution from a person to the government to defray the expenses incurred in the common interest of all, without reference to special benefits conferred."

Why Taxes?

The levying of taxes aims to raise revenue to fund governance or to alter prices in order to affect demand. States and their functional equivalents throughout history have used money provided by taxation to carry out many functions. Some of these include expenditures on economic infrastructure (transportation, sanitation, public safety, education, health care systems, to name a few), military, scientific research, culture and the arts, public works and public insurance and the operation of government itself. A government's ability to raise taxes is called its fiscal capacity.

Taxation in India has its roots from the period of Manu Smriti and Arthashastra. The present Indian tax system is based on this ancient tax system.

Tax system

Every type of tax has some advantages and some disadvantages. So we have a tax system, that is, a collection of variety of taxes. All countries use a variety of taxes. There

are some characteristics of tax system that economists think should be followed while designing a tax system. These characteristics are called as canons of taxation. From Adam Smith, many economists have given lists of canons of taxation. It is important to recall those common among them for discussion here.

Canon of equity - Since tax is a compulsory payment, all economists agree that equity is the cardinal principle in designing the tax system. The equity principal says that the rich should pay more tax revenue to government than the poor, because rich has more ability than the poor to pay the tax. Moreover, after payment of tax, you will find the economic difference is reduced between the rich and the poor. You can do an exercise to find out which of the taxes adhere to the canon of equity.

Canon of Certainty - Government should announce in advance the tax system so that every tax payer will be able to calculate how much tax amount one may have to pay during a year to the government. In other words, government should not change the tax system frequently and should not announce sudden changes in the tax system.

Canons of Economy and Convenience - These two canons are related. As tax payers we incur a cost to process our accounts and pay the tax, for example, salary paid to accountants and auditors. Similarly government also pays salary to its taxmen and run huge institutions. If the tax is simple, then the cost of collecting taxes (tax payer cost + tax collector cost) will be very low. Further, tax should be collected from a person at the time he gets enough money to pay the tax. This is called canon of convenience. A convenient tax reduces the cost of collecting tax.

Canons of Productivity and Elasticity - Government should choose the taxes that can get enough tax revenue to it. In other words, it should choose a few taxes that can fetch more tax revenue, instead of lots of taxes and each one of them getting a little tax revenue. This is canon of productivity. Tax is paid by the people out their incomes. Therefore the tax system should be designed in such a way that the people automatically pay more tax revenue if their incomes grow. This is called canon of elasticity. In a broader sense, as the economy is growing the people will get more income and consequently they will also pay more tax revenue to government if the tax system is elastic.

In India, Income Tax was introduced for the first time in 1860 by Sir James Wilson in order to meet the losses sustained by the Government on account of the Mutiny of 1857.

When expenditures exceed tax revenue, a government accumulates debt. A portion of taxes may be used to service past debts. Governments also use taxes to fund welfare and public services.

These services can include education systems, pensions for the elderly, unemployment benefits and public transportation. Energy, water and waste management systems are also common public utilities.

According to the proponents of the theory of money creation, taxes are not needed for government revenue, as long as the government in question is able to issue fiat money. The purpose of taxation is to maintain the stability of the currency, express public policy regarding the distribution of wealth, subsidising certain industries or population groups or isolating the costs of certain benefits such as highways or social security.

Types of Taxes

Direct Taxes

A tax imposed on an individual or organisation, which is paid directly, is a direct tax. The burden of a direct tax cannot be shifted to others. J.S. Mill defines a direct tax as “one which is demanded from the very persons who it is intended or desired should pay it.” Some direct taxes are income tax, wealth tax and corporation tax.

Income tax

Income tax is the most common and most important tax levied on an individual in India. It is charged directly based on the income of a person. The rate at which it is charged varies, depending on the level of income.

Corporate tax

This tax is levied on companies that exist as separate entities from their shareholders. It is charged on royalties, interest gains from sale of capital assets located in India and fees for a technical services and dividends.

Foreign companies are taxed on income that arises or is deemed to arise in India.

Income	For Indian Companies	For Foreign Companies
Less than ₹ 50 crore	25%	40%
More than ₹ 50 crore	30%	40%

Wealth tax

Wealth tax is charged on the benefits derived from property ownership. The same property will be taxed every year on its current market value. The tax is levied on the individuals and companies alike.

In India taxes are collected by all the three tiers of government. There are taxes that can be easily collected by the Union government. In India almost all the direct taxes are collected by the Union governments. Taxes on goods and services are collected by both Union and state governments. The taxes on properties are collected by local governments.

In India we collect more tax revenue through indirect taxes than through

direct taxes. The major indirect taxes in India are customs duty and GST. Both these taxes have different tax rates for different goods and services. The governments try to design in such a way that the rich consumers pay more tax than the poor. However, poor still pay more through these taxes. Therefore, many argue we should reduce the indirect taxes and increase the collection through direct taxes.

Indian tax system adheres to all the canons of taxation. But there are arguments that often the equity principle is compromised and productivity is lost when we tinker with tax system to the advantage of a few. We announce the tax system once in a year in the annual budget. It is very rarely breached by announcing mid-year tax changes. Therefore, Indian tax system adheres to canon of certainty more than anything else.

Indirect Taxes

If the burden of the tax can be shifted to others, it is an indirect tax. The impact is on one person while the incidence is on the another person. Therefore, in the case of indirect taxes, the tax payer is not the tax bearer.

Some indirect taxes are stamp duty, entertainment tax, excise duty and goods and service tax (GST).

Stamp duty

Stamp duty is a tax that is paid on official documents like marriage registration or documents related to a property and in some contractual agreements.

Entertainment tax

Entertainment tax is a duty that is charged by the government on any source of entertainment provided. This tax can be charged on movie tickets, tickets to amusement parks, exhibitions and even sports events.

Excise duty

An excise tax is any duty on manufactured goods levied at the movement of manufacture, rather than at sale. Excise is typically imposed in addition to an indirect tax such as a sales tax.

Goods and service tax (GST)

The goods and service tax (GST) is one of the indirect taxes. The GST was passed in Parliament on 29 March 2017. The act came into effect on 1 July 2017. The motto is one nation, one market, one tax.

Goods and service tax is defined as the tax levied when a consumer buys a good or service. That aims to replace all indirect taxes levied on goods and services by the Central and state governments. GST would eliminate the cascading effect of taxes on the

production and distribution of goods and services. It is also a “one-point tax” unlike value-added tax (VAT), which was a multipoint tax.

France was the first country to implement GST in 1954 and many other European countries introduced GST in 1970-80.

How Taxes Are Levied?

Tax is levied by the government progressively, proportionately as well as regressively.

Structure of Goods and Service Tax (GST)

State Goods and Service Tax (SGST): Intra state (within the state)
VAT/sales tax, purchase tax, entertainment tax, luxury tax, lottery tax and state surcharge and cesses

Central Goods and Service Tax (CGST): Intra state (within the state)
Central Excise Duty, service tax, countervailing duty, additional duty of customs, surcharge, education and secondary/higher secondary cess

Integrated Goods and Service Tax (IGST): Inter state (integrated GST)
There are four major GST rates: 5%, 12%, 18% and 28%. Almost all the necessities of life like vegetables and food grains are exempted from this tax.

Progressive tax

Progressive tax rate is one in which the rate of taxation increases (multiplier) as the tax base increases (multiplicand). The amount of tax payable is calculated by multiplying the tax base with the tax rate. In the case of a progressive tax, the multiplicand (income) increases. When income increases, the tax rate also increases. This is known as a progressive tax.

Example:

Tax Base	Tax Rate	Amount of Tax
10,000	10%	1000
20,000	15%	3000
30,000	25%	7500
40,000	40%	16000

Proportionate taxes

Tax levied on goods and service in a fixed portion is known as proportionate taxes. All tax payers contribute the same proportion of their incomes. In this method, the rate

oftaxation is the same regardless of the size of income. The tax amount realised varies in the same proportions that of income.

Example:

Tax Base	Tax Rate	Amount of Tax
10,000	10%	1000
20,000	10%	2000
30,000	10%	3000
40,000	10%	4000

Regressive Taxes

It implies that higher the rate of tax lower the income groups than in the case of higher income groups. It is a very opposite of progressive taxation.

Progressive Tax	Income increase	Tax also Increase	E.g. Income Tax
Proportional Tax	Income Increase	Tax Decrease	E.g. Corporate Tax
Regressive Tax	Income change	Same tax always	E.g. Sales Tax

Black Money

Black Money

Black money is funds earned on the blackmarket on which income and other taxes havenot been paid. The unaccounted money that is concealed from the tax administrator is called black money.

Recent Legislative Initiatives to curb Black Money in India

1. Constitution of the Special Investigation Team (SIT) on Black Money under Chairmanship and Vice-Chairmanship of two former Judges of Hon'ble Supreme Court.
2. Enactment of a comprehensive law - The Black Money (Undisclosed Foreign Income and Assets) and Imposition of Tax Act, 2015 .
3. Constitution of Multi-Agency Group (MAG) consisting of officers of Central Board of Direct Taxes (CBDT), Reserve Bank of India (RBI), Enforcement Directorate (ED) and Financial Intelligence Unit (FIU) for the investigation of recent revelations in Panama paperleaks.
4. Double Taxation Avoidance Agreements (DTAAs)/Tax Information Exchange Agreements (TIEAs)/Multilateral Conventions.
5. Foreign Account Tax Compliance Act (FATCA).

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|---|
| <ol style="list-style-type: none"> 6. Money-laundering Act, 2002 through the Finance Act, 2015. 7. Enactment of the Benami Transactions (Prohibition) Amendment Act, 2016 . 8. Launching of 'Operation Clean Money' on 31 January 2017. 9. Lokpal and Lokayukta act. 10. The Real Estate (Regulation and Development) Act, 2016. |
|---|

Causes of Black Money

Several sources of black money are identified as causes.

- 1. Shortage of goods:** Shortage of goods, whether natural or artificial, is the root cause of black money. Controls are often introduced to check black money.
- 2. Licensing proceeding:** It is firmly believed that the system of controls permits, quotas and licences are associated with maldistribution of commodities in short supply, which results in the generation of black money.
- 3. Contribution of the industrial sector:** Industrial sector has been the major contributor to black money. For example, the Controller of Public Limited Companies tries to buy commodities at low prices and get them billed at high amounts and pockets the difference personally.
- 4. Smuggling:** Smuggling is one of the major sources of black money. When India had rigid system of exchange controls, precious metals like gold and silver, textiles and electronics goods were levied a heavy excise duty. Bringing these goods by evading the authorities is smuggling.
- 5. Tax structure:** When the tax rate is high, more black money is generated.

Tax Evasion

Tax evasion is the illegal evasion of taxes by individuals, corporations and trusts. Tax evasion often entails taxpayers deliberately misrepresenting the true state of their affairs to the tax authorities to reduce their tax liability and includes dishonest tax reporting, such as declaring less income, profits or gains than the amounts actually earned, or overstating deductions.

Tax evasion is an activity commonly associated with the informal economy. One measure of the extent of tax evasion is the amount of unreported income, which is the difference between the amount of income that should be reported to the tax authorities and the actual amount reported.

Tax evasion activities included

- Underreporting income
- Inflating deductions or expenses
- Hiding money

- Hiding interest in offshore accounts

Causes of tax evasion

1 Tax evasion resulting in black money prevents the resource mobilisation efforts of the Union government. Shortage of funds distorts implementation of developmental plans and forces the government to resort to deficit financing in case public expenditure is inelastic.

2 Tax evasion interferes with the declared economic policies of the government by distorting saving and investment patterns and availability of resources for various sectors of the economy.

3 Tax evasion undermines the equity attribute of the tax system. Honest taxpayers willingly bear disproportionate tax burden, feel demoralised and lured to join the tax evaders' camp.

4 Tax evasion and black money encourage the concentration of economic power in the hands of undeserving groups in the country, which, in turn, is a threat to the economy in its way.

5. Evasion of tax consumes time and energy of tax administration to disentangle the intricate manipulations of tax dodgers.

Tax evasion penalties

1. If a person wilfully commits the act of tax evasion, he may face felony charges. Tax evasion penalties include imprisonment of up to five years and high amount as fines.

2 The defendant may also be ordered to pay for the costs of prosecution.

3 Other tax evasion penalties include community service, probation and restitution depending on the circumstances of the case.

4 Tax evasion penalties can be harsh, depending on the severity of the crime.

Tax and other Payments

Taxes are compulsory payments to government without expectation of direct return (or) benefit to the tax payer.

Payment includes income received from production and supply of goods and services of public enterprises and revenue from administrative activities. Payments from non-tax sources other than tax income is known as payments.

Some payments are fees, fines and penalties, and forfeitures.

S. No	Tax	Payments
1	Tax is compulsory to the government without getting any direct benefits	Fee is the payment for getting any service
2	If the element of revenue for general purpose of the state predominates, the levy becomes a tax	While a fee is a payment for a specific benefit/privilege although the special to the primary purpose of regulation in public interest.
3	Tax is a compulsory payment	Fee is a voluntary payment.
4	If tax is imposed on a person, he has to pay it; otherwise he has to be penalised	On the other hand fee is not paid if the person does not want to get the service
5	In this case, tax payer does not expect any direct benefit. Example: Income tax, gift tax, wealth tax, VAT etc.	Fee payer can get direct benefit for paying fee. Examples: stamp fee, driving license fee, government registration fee

Taxes and Development

The role of taxation in developing economics is as follows.

- 1. Resource mobilisation:** Taxation enables the government to mobilise a substantial amount of revenue. The tax revenue is generated by imposing direct taxes such as personal income tax and corporate tax and indirect taxes such as customs duty, excise duty, etc.
- 2. Reduction in inequalities of income:** Taxation follows the principle of equity. The direct taxes are progressive in nature. Also certain indirect taxes, such as taxes on luxury goods, is also progressive in nature.
- 3. Social welfare:** Taxation generates social welfare. Social welfare is generated due to higher taxes on certain undesirable products like alcoholic products.
- 4. Foreign exchange:** Taxation encourages exports and restricts imports. Generally developing countries and even the developed countries do not impose taxes on export items.
- 5. Regional development:** Taxation plays an important role in regional development. Tax incentives such as tax holidays for setting up industries in backward regions, which induces business firms to set up industries in such regions.
- 6. Control of inflation:** Taxation can be used as an instrument for controlling inflation. Through taxation the government can control inflation by reducing the tax on the commodities.

12th Economics

Unit 2 - National Income

“ The concept of national income is an indispensable preparation for tackling the great issues of unemployment, inflation and growth”.
- Samuelson

Introduction

National Income provides a comprehensive measure of the economic activities of a nation. It denotes the country's purchasing power. The growth of an economy is measured by the rate at which its real national income grows over time. National income thus serves as an instrument of economic planning. Further, national income is one of the most significant macroeconomic variables. Thus, a clear understanding of the meaning, concepts, measurement and uses of national income is essential.

Nobel laureate Simon Kuznets first introduced the concept of national income.

Meaning of National Income

In common parlance, National Income means the total money value of all final goods and services produced in a country during a particular period of time (one year).

Definitions

“The labour and capital of a country acting on its natural resources produce annually a certain net aggregate of commodities, material and immaterial including services of all kinds. This is the true net annual income or revenue of the country or national dividend”.
- Alfred Marsh

GDP and its detractors.

The welfare of a nation can scarcely be inferred from a measurement of national income as defined by the GDP... goals for more growth should specify of what and for what.

“The net output of the commodities and services flowing during the year from the country's productive system into the hands of the ultimate consumers or into net addition to the country's stock of capital goods”.
- Simon Kuznets.

Basic concepts of national income.

The following are some of the concepts used in measuring national income.

- GDP
- GNP
- NNP
- NNP at factor cost

- Personal Income
- Disposable Income
- Per capita Income
- Real Income
- GDP deflator

Gross Domestic Product (GDP)

GDP is the total market value of final goods and services produced within the country during a year. This is calculated at market prices and is known as GDP at market prices.

$$\text{GDP by expenditure method at market prices} = C + I + G + (X - M)$$

Where

C - consumption goods;

I - Investment goods;

G - Government purchases;

X - Exports; M - Imports (X - M) is net export which can be positive or negative.

a) Net Domestic Product (NDP)

NDP is the value of net output of the economy during the year. Some of the country's capital equipment wears out or becomes out dated each year during the production process. Thus

$$\text{Net Domestic Product} = \text{GDP} - \text{Depreciation.}$$

Gross National Product (GNP)

GNP is the total measure of the flow of final goods and services at market value resulting from current production in a country during a year, including net income from abroad. GNP includes five types of final goods and services:

1. value of final consumer goods and services produced in a year to satisfy the immediate wants of the people which is referred to as consumption (C);
2. gross private domestic investment in capital goods consisting of fixed capital formation, residential construction and inventories of finished and unfinished goods which is called as gross investment (I) ;
3. goods and services produced or purchased by the government which is denoted by (G) ; and
4. net exports of goods and services, i.e., the difference between value of exports and imports of goods and services, known as (X-M) ; Net factor incomes from abroad which

refers to the difference between factor incomes (wage, interest, profits) received from abroad by normal residents of India and factor incomes paid to the foreign residents for factor services rendered by them in the domestic territory in India (R-P);

- GNP at market prices means the gross value of final goods and services produced annually in a country plus net factor income from abroad (C + I + G + (X-M) + (R-P)).

$$\text{GNP at Market Prices} = \text{GDP at Market Prices} + \text{Net Factor income from Abroad.}$$

Net National Product (NNP) (at Market price)

Net National Product refers to the value of the net output of the economy during the year. NNP is obtained by deducting the value of depreciation, or replacement allowance of the capital assets from the GNP. It is expressed as,

$$\text{NNP} = \text{GNP} - \text{depreciation allowance}$$

(depreciation is also called as Capital Consumption Allowance)

NNP at Factor cost

NNP refers to the market value of output. Whereas NNP at factor cost is the total of income payment made to factors of production. Thus from the money value of NNP at market price, we deduct the amount of indirect taxes and add subsidies to arrive at the net national income at factor cost.

$$\text{NNP at factor cost} = \text{NNP at Market prices} - \text{Indirect taxes} + \text{Subsidies}$$

Personal Income

Personal income is the total income received by the individuals of a country from all sources before payment of direct taxes in a year. Personal income is never equal to the national income, because the former includes the transfer payments whereas they are not included in national income. Personal income is derived from national income by deducting undistributed corporate profit and employees' contributions to social security schemes and adding transfer payment.

$$\text{Personal Income} = \text{National Income} - (\text{Social Security Contribution and undistributed corporate profits}) + \text{Transfer payments}$$

Disposable Income

Disposable Income is also known as Disposable personal income. It is the individuals income after the payment of income tax. This is the amount available for households for consumption.

Disposable Income = Personal income - Direct Tax. As the entire disposable income is not spent on consumption,
 Disposal income = consumption + saving

Per Capita Income

The average income of a person of a country in a particular year is called Per Capita Income. Per capita income is obtained by dividing national income by population.

$$\text{Per Capita income} = \frac{\text{National Income}}{\text{Population}}$$

Real Income

Nominal income is national income expressed in terms of a general price level of a particular year in other words, real income is the buying power of nominal income. National income is the final value of goods and services produced and expressed in terms of money at current prices. But it does not indicate the real state of the economy. The real income is derived as follows:

P1 - Price index during current year;

P0 - Price index during base year

GDP deflator

GDP deflator is an index of price changes of goods and services included in GDP. It is a price index which is calculated by dividing the nominal GDP in a given year by the real GDP for the same year and multiplying it by 100.

$$\text{GDP deflator} = \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100$$

Methods of Measuring National Income

All goods and services produced in the country must be counted and converted against money value during a year. Thus, whatever is produced is either used for consumption or for saving. Thus, national output can be computed at any of three levels, viz., production, income and expenditure. Accordingly, there are three methods that are used to measure national income.

1. Production or value added method
2. Income method or factor earning method
3. Expenditure method

And if these methods are done correctly, the following equation must hold

$$\text{Output} = \text{Income} = \text{Expenditure}$$

GDP - By Sum of Spending, Factor Incomes or Output		
GDP (Expenditure)	GDP (Factor Incomes)	GDP (Value of Output)
Consumption	Income from people in jobs and in self employment (e.g. wages and salaries)	Value added from each of the main economic sectors
Government spending		
Investment spending		
Change in value of stocks	Profits of private sector business	These sectors are <ul style="list-style-type: none"> • Primary • Secondary • Manufacturing • Quaternary
Exports	Rent income from the ownership of land	
-Imports		
= GDP (known as aggregate demand)		

This is because the three methods are circular in nature. It begins as production, through recruitments of factors of production, generating income and going as incomes to factors of production.

Product Method

Product method measures the output of the country. It is also called inventory method. Under this method, the gross value of output from different sectors like agriculture, industry, trade and commerce, etc., is obtained for the entire economy during a year. The value obtained is actually the GNP at market prices. Care must be taken to avoid double counting.

The value of the final product is derived by the summation of all the values added in the productive process. To avoid double counting, either the value of the final output should be taken into the estimate of GNP or the sum of values added should be taken.

In India, the gross value of the farm output is obtained as follows :

- i. Total production of 64 agriculture commodities is estimated. The output of each crop is measured by multiplying the area sown by the average yield per hectare.
- ii. The total output of each commodity is valued at market prices.
- iii. The aggregate value of total output of these 64 commodities is taken to measure the gross value of agricultural output.
- iv. The net value of the agricultural output is measured by making deductions for the cost of seed, manures and fertilisers, market charges, repairs and depreciation from the gross value.

Similarly, the gross values of the output of animal husbandry, forestry, fishery, mining and factory establishments are obtained by multiplying their estimates of total production with market prices. Net value of the output in these sectors is derived by making deductions for cost of materials used in the process of production and depreciation allowances, etc. from gross value of output.

Net value of each sector measured in this way indicates the net contribution of the sector to the national income.

Precautions

The product method is followed in the underdeveloped countries, but it is less reliable because the margin of error in this method is large. In India, this method is applied to agriculture, mining and manufacturing, including handicrafts.

1. Double counting is to be avoided under value added method. Any commodity which is either raw material or intermediate good for the final production should not be included. For example, value of cotton enters value of yarn as cost, and value of yarn in cloth and that of cloth in garments. At every stage value added only should be calculated.
2. The value of output used for self consumption should be counted while measuring national income.
3. In the case of durable goods, sale and purchase of second hand goods (for example pre owned cars) should not be included.

Income Method (Factor Earning Method)

This method approaches national income from the distribution side. Under this method, national income is calculated by adding up all the incomes generated in the course of producing national product.

Steps involved

1. The enterprises are classified into various industrial groups.
2. Factor incomes are grouped under labour income, capital income and mixed income.
 - i. Labour income - Wages and salaries, fringe benefits, employer's contribution to social security.
 - ii. Capital income - Profit, interest, dividend and royalty
 - iii. Mixed income - Farming, sole proprietorship and other professions.
3. National income is calculated as domestic factor income plus net factor incomes from abroad. In short,

$$Y = w + r + i + \pi + (R - P)$$

w = wages, r = rent, i = interest, π = profits, R = Exports and P = Imports

This method is adopted for estimating the contributions of the remaining sectors, viz., small enterprises, banking and insurance, commerce and transport, professions, liberal arts and domestic service, public authorities, house property and foreign sector transaction.

Data on income from abroad (the rest of the world sector or foreign sector) are obtained from the account of the balance of payments of the country.

Precautions

While estimating national income through income method, the following precautions should be taken.

Items not to be included

1. Transfer payments are not to be included in estimation of national income as these payments are not received for any services provided in the current year such as pension, social insurance etc.
2. The receipts from the sale of second hand goods should not be treated as part of national income as they do not create new flow of goods or services in the current year.
3. Windfall gains such as lotteries are also not to be included as they do not represent receipts from any current productive activity.
4. Corporate profit tax should not be separately included as it has been already included as a part of company profit.

Items to be included

1. Imputed value of rent for self occupied houses or offices is to be included.
2. Imputed value of services provided by owners of production units (family labour) is to be included.

The Expenditure Method (Outlay method)

Under this method, the total expenditure incurred by the society in a particular year is added together. To calculate the expenditure of a society, it includes personal consumption expenditure, net domestic investment, government expenditure on consumption as well as capital goods and net exports. Symbolically,

$$\text{GNP} = C + I + G + (X-M)$$

C - Private consumption expenditure

I - Private Investment Expenditure

G - Government expenditure

X-M = Net exports

Precautions

1. Second hand goods: The expenditure made on second hand goods should not be included.
2. Purchase of shares and bonds: Expenditures on purchase of old shares and bonds in the secondary market should not be included.
3. Transfer payments: Expenditures towards payment incurred by the government like old age pension should not be included.
4. Expenditure on intermediate goods: Expenditure on seeds and fertilizers by farmers, cotton and yarn by textile industries are not to be included to avoid double counting. That is only expenditure on final products are to be included.

Factor cost (FC)
There are a number of inputs that are included into a production process when producing goods and services. These inputs are commonly known as factors of production and include things such as land, labour, capital and entrepreneurship.
Producers of goods and services incur a cost for using these factors of production. These costs are ultimately added onto the price of the product.
The factor cost refer to the cost of production that is incurred by a firm when producing goods and services.
Examples of such production costs include the cost of renting machines, purchasing machinery and land, paying salaries and wages, cost of obtaining capital, and the profit margins that are added by the entrepreneur.
The factor cost does not include the taxes that are paid to the government since taxes are not directly involved in the production process and, therefore, are not part of the direct production cost.
However, subsidies received are included in the factor cost as subsidies are direct inputs into the production.

Market price (MP)
Once goods and services are produced they are sold in a market place at a set market price.
The market price is the price that consumers will pay for the product when they purchase it from the sellers.
Taxes charged by the government will be added onto the factor price while subsidies provided will be reduced from the factor price to arrive at the market price.
Taxes are added on because taxes are costs that increase the price, and subsidies are reduced because subsidies are already included in the factor cost, and cannot be double counted when market price is calculated.
Thus, $MP = FC + \text{Indirect Taxes} - \text{Subsidies} \dots\dots$ Equation (1)
Or, $FC = MP - \text{Indirect Taxes} + \text{Subsidies} \dots\dots\dots$ Equation (2)

National Income (NNP_{FC}) = Gross Value Added by all the production Enterprises within the Domestic territory of the Country - Depreciation - Net Indirect Taxes + Net Factor

Income from Abroad

[Where, Net Indirect Taxes = Indirect tax – Subsidies]

[Gross Value Added = Value of Output – Intermediate Consumption]

Value of Output = Sales = Change in Stock

Where, Change in Stock = Closing Stock – Opening Stock

Note: If entire out put is sold within the year, then value of output will be equal to sales itself.

or

Value of Output = Price x Quantity Sold

$GDP_{MP} = \text{Private Final Consumption} + \text{Government Final Consumption Expenditure} + \text{Gross Domestic Capital Formation} + \text{Net Exports (Exports - Imports)}$

Importance of National Income Analysis

National income is of great importance for the economy of a country. Nowadays the national income is regarded as accounts of the economy, which are known as social accounts. It enables us

1. To know the relative importance of the various sectors of the economy and their contribution towards national income; from the calculation of national income, we could find how income is produced, how it is distributed, how much is spent, saved or taxed.
2. To formulate the national policies such as monetary policy, fiscal policy and other policies; the proper measures can be adopted to bring the economy to the right path with the help of collecting national income data.
3. To formulate planning and evaluate plan progress; it is essential that the data pertaining to a country's gross income, output, saving and consumption from different sources should be available for economic planning.
4. To build economic models both in short - run and long - run.
5. To make international comparison, inter - regional comparison and inter - temporal comparison of growth of the economy during different periods.
6. To know a country's per capita income which reflects the economic welfare of the country (Provided income is equally distributed)
7. To know the distribution of income for various factors of production in the country.
8. To arrive at many macro economic variables namely, Tax - GDP ratio, Current Account Deficit - GDP ratio, Fiscal Deficit - GDP ratio, Debt - GDP ratio etc.

Difficulties in Measuring National Income

In India, a special conceptual problem is posed by the existence of a large, unorganised and non-monetised subsistence sector where the barter system still prevails for transacting goods and services. Here, a proper valuation of output is very difficult.

Transfer payments

Government makes payments in the form of pensions, unemployment allowance, subsidies, etc. These are government expenditure. But they are not included in the national income. Because they are paid without adding anything to the production processes.

During a year, Interest on national debt is also considered transfer payments because it is paid by the government to individuals and firms on their past savings without any productive work.

Difficulties in assessing depreciation allowance

The deduction of depreciation allowances, accidental damages, repair and replacement charges from the national income is not an easy task. It requires high degree of judgment to assess the depreciation allowance and other charges.

Unpaid services

A housewife renders a number of useful services like preparation of meals, serving, tailoring, mending, washing, cleaning, bringing up children, etc. She is not paid for them and her services are not directly included in national income. Such services performed by paid servants are included in national income. The reason for the exclusion of her services from national income is that the love and affection of a housewife in performing her domestic work cannot be measured in monetary terms. Similarly, there are a number of goods and services which are difficult to be assessed in money terms for the reason stated above, such as rendering services to their friends, painting, singing, dancing, etc.

Income from illegal activities

Income earned through illegal activities like gambling, smuggling, illicit extraction of liquor, etc., is not included in national income. Such activities have value and satisfy the wants of the people but they are not considered as productive from the point of view of society.

Production for self-consumption and changing price

Farmers keep a large portion of food and other goods produced on the farm for self consumption. The problem is whether that part of the produce which is not sold in the market can be included in national income or not.

National income by product method is measured by the value of final goods and services at current market prices. But prices do not remain stable. They rise or fall. To solve this problem, economists calculate the real national income at a constant price level by the consumer price index.

Capital Gains

The problem also arises with regard to capital gains. Capital gains arise when a capital asset such as a house, other property, stocks or shares, etc. is sold at higher price than was paid for it at the time of purchase. Capital gains are excluded from national income.

Statistical problems

There are statistical problems, too. Great care is required to avoid double counting. Statistical data may not be perfectly reliable, when they are compiled from numerous sources. Skill and efficiency of the statistical staff and cooperation of people at large are also equally important in estimating national income.

The following are the some of the statistical problems:

1. Accurate and reliable data are not adequate, as farm output in the subsistence sector is not completely informed. In animal husbandry, there are no authentic production data available.
2. Different languages, customs, etc., also create problems in computing estimates.
3. People in India are indifferent to the official inquiries. They are in most cases non-cooperative also.
4. Most of the statistical staff are untrained and inefficient.

Therefore, national income estimates in our country are not very accurate or adequate. There is at least 10 per cent margin of error, i.e., national income is overestimated or underestimated by at least 10 per cent. That is why the GDP estimates for India varies from 2 trillion US dollar to 5 trillion US dollar.

National Income and Social Accounting

National income is also being measured by the social accounting method. Under this method, the transactions among various sectors such as firms, households, government, etc., are recorded and their interrelationships traced. The social accounting framework is useful for economists as well as policy makers, because it represents the major economic flows and statistical relationships among various sectors of the economic system. It becomes possible to forecast the trends of economy more accurately.

Social Accounting and Sector

Under this method, the economy is divided into several sectors. A sector is a group of individuals or institutions having common interrelated economic transactions. The economy is divided into the following sectors

- i. Firms,
- ii. Households,
- iii. Government,
- iv. Rest of the world and

v. Capital sector.

- Firms” undertake productive activities. Thus, they are all organizations which employ the factors of production to produce goods and services.
- Households” are consuming entities and represent the factors of production, who receive payment for services rendered by them to firms. Households consume the goods and services that are produced by the firms.

Thus, firms make payment to households for their services. Households spend money incomes they received on the goods and services produced by the firms. This is a circular flow of money between these two groups.

- The Government sector” refers to the economic transactions of public bodies at all levels, centre, state and local. In their work concerning social accounting, Edey and Peacock have defined government as a collective ‘person’ that purchases goods and services from firms. These purchases may be financed through taxation, public borrowings, or any other fiscal means. The main function of the government is to provide social goods like defence, public health, education, etc. This means satisfying the collective wants of society. However, public enterprises like Post Offices and railways are separated from the Government sector and included as “Firms”.
- Rest of the world sector” relates to international economic transactions of the country. It contains income, export and import transactions, external loan transaction, and allied overseas investment income and payments.
- Capital sector” refers to saving and investment activities. It includes the transactions of banks, insurance corporations, financial houses, and other agencies of the money market. These are not included under “Firms”. These agencies merely provide financial assistance to the firms’ activities.

While assessing sectoral contribution to GDP, the economy is divided into three namely Primary, Secondary and Tertiary sectors.

National Income and Welfare

National Income is considered as an indicator of the economic wellbeing of a country. The economic progress of countries is measured in terms of their GDP per capita and their annual growth rate. A country with a higher per capita income is supposed to enjoy greater economic welfare with a higher standard of living.

But the rise in GDP or per capita income need not always promote economic welfare. The per capita income as an index of economic welfare suffers from limitations which are stated below:

1. The economic welfare depends upon the composition of goods and services provided. The greater the proportion of capital goods over consumer goods, the

improvement in economic welfare will be lesser. Similarly the production of luxuries is meant for rich classes only.

2. Higher GDP with greater environmental hazards such as air, water and soil pollution will be little economic welfare.
3. The production of war goods will show the increase in national output but not welfare.
4. An increase in per capita income may be due to employment of women and children or forcing workers to work for long hours. But it will not promote economic welfare.

Therefore the Physical Quality of Life Index (PQLI) is considered a better indicator of economic welfare. It includes standard of living, life expectancy at birth and literacy.

National Income & Erosion of national Wealth

For achieving higher GDP, larger natural resources are being depleted or damaged. This means reduction of potential for future growth. Hence, it is suggested that while assessing national income, loss of natural resources should be subtracted from national income.

National income in terms of US\$

When Indian national income is expressed in terms of US\$, the former looks very low. If Purchasing Power Parity (PPP) method is adopted India looks better.

While producing economic goods, many environmental and social bads are also generated. Hence, they also must be considered while enumerating National income.

Chapter 3

Consumption and Investment Functions

The theory of multiplier and the theory of accelerator are the two sides of the theory of fluctuations just as the theory of demand and the theory of supply are the two sides of the theory of value. The full theory must be that which shows both sides in operation.

- J.R.Hicks.

Introduction

The primary macroeconomic objective is acceleration of growth of national income. We have already seen that national income comprises of consumption goods (C) and investment (I) goods. There is close correlation between investment and national income.

The multiplier refers to the change in national income resulting from change in investment. The value of multiplier itself depends on consumption function or marginal propensity to consume. The consumption function is the relationship between consumption expenditure and the national income. The unspent portion of national income is called saving which becomes investment and thereby capital. The relationship between consumption expenditure and the capital expenditure is explained by the principle of accelerator. All these variables are closely interconnected.

In this chapter one can learn the consumption function, psychological law of consumption, investment function, multiplier, accelerator and super multiplier.

Consumption Function

Meaning of Consumption Function

The consumption function or propensity to consume refers to income consumption relationship. It is a "functional relationship between two aggregates viz., total consumption and gross national income." Symbolically, the relationship is represented as

$$C = f(Y)$$

Where,

C = Consumption

Y = Income

f = Function

Thus the consumption function indicates a functional relationship between C and Y, where C is the dependent variable and Y is the independent variable, i.e., C is

determined by Y. This relationship is based on the ceteris paribus (other things being same) assumption, as only income consumption relationship is considered and all possible influences on consumption are held constant.

In fact, consumption function is a schedule of the various amounts of consumption expenditure corresponding to different levels of income. A hypothetical consumption schedule is given in Table 1.

Table : 1 Income - Consumption Schedule (₹Crores)

Income Y	Consumption C	Savings S
0	20	-20
60	70	-10
120	120	0
180	170	10
240	220	20
300	270	30
360	320	40

If we take $C = 100 + 0.8y$, then $MPC = 0.8$ Here, if $Y = 0$, $C = 100$; if $Y = 100$, $C = 180$;

if $Y = 200$, $C = 260$;

if $Y = 300$, $C = 340$ ($MPC = \Delta c / \Delta y = 0.8$)

In mathematical terms

$$C = a + b Y \text{ or } C = 20 + 0.8Y$$

Where $a > 0$ and $b < 1$

C= Consumption

a= constant or intercept = 20

Y= income

b= MPC (Marginal propensity to consume) = $0.8 = \Delta c / \Delta y$

The above table shows that consumption is an increasing function of income because consumption expenditure increases with increase in income. Here it is shown that when income is zero, people spend out of their past savings on consumption because they must eat in order to live (Autonomous Consumption).

Here, when $y = 120$, $C = 120$ (Point B is the diagram)

When $y = 180$, $C = 170$, $S = 10$ (Point S is the diagram)

If Y increases to 360, $C = 320$, $S = 40$

In the diagram, income is measured horizontally and consumption is measured vertically. In 45° line at all levels, income and consumption are equal. It is a linear consumption function based on the assumption that consumption changes by the same amount as does income.

Thus the consumption function measures not only the amount spent on consumption but also the amount saved. This is because the propensity to save is merely the propensity not to consume. The 45° line may therefore be regarded as a zero-saving line, and the shape and position of the C curve indicate the division of income between consumption and saving.

- (i) The Average Propensity to Consume = c / y
- (ii) The Marginal Propensity to Consume = $\Delta c / \Delta y$
- (iii) The Average Propensity to Save = s / y
- (iv) The Marginal Propensity to Save = $\Delta s / \Delta y$

(1) The Average Propensity to Consume:

The average propensity to consume is the ratio of consumption expenditure to any particular level of income.” Algebraically it may be expressed as under:

$$APC = C/Y$$

Where,
 C= Consumption
 Y = Income

(2) The Marginal Propensity to Consume:

The marginal propensity to consume may be defined as the ratio of the change in the consumption to the change in income. Algebraically it may be expressed as under:

$$MPC = \Delta C / \Delta Y$$

Where,
 ΔC = Change in Consumption
 ΔY = Change in Income
 MPC is positive but less than unity

$$0 < \Delta C / \Delta C < 1$$

(3) The Average Propensity to Save (APS):

The average propensity to save is the ratio of saving to income.

APS is the quotient obtained by dividing the total saving by the total

income. In other words, it is the ratio of total savings to total income. It can be expressed algebraically in the form of equation as under

$$APS = S / Y$$

Where,
S= Saving
Y=Income

(4) The Marginal Propensity to Save (MPS):

Marginal Propensity to Save is the ratio of change in saving to a change in income.

MPS is obtained by dividing change in savings by change in income. It can be expressed algebraically as

$$MPS = \Delta S / \Delta Y$$

ΔS = Change in Saving
 ΔY = Change in Income
Since $MPC + MPS = 1$
 $MPS = 1 - MPC$ and $MPC = 1 - MPS$

Generally the average ie APC is expressed in percentage and the MPC in fraction.

Income Y	Consumption C	APC % C/Y	APS % S/Y	MPC $\Delta C / \Delta Y$	MPC $\Delta S / \Delta Y$
120	120	(120/120) 100 = 100	(0/120) 0	-	-
180	170	(170 / 180) 100 = 94	(10 / 180) 100	50 / 60 = 0.83	0.17

Keyne's Psychological Law of Consumption:

Keynes propounded the fundamental Psychological Law of Consumption which forms the basis of the consumption function. He stated that "The fundamental psychological law upon which we are entitled to depend with great confidence both prior from our knowledge of human nature and from the detailed facts of experience, is that men are disposed as a rule and on the average to increase their consumption as their income increases but not by as much as the increase in their income." The law implies that there is a tendency on the part of the people to spend on consumption less than the full increment of income.

Assumptions:

Keynes's Law is based on the following assumptions:

1. Ceteris paribus (constant extraneous variables):

The other variables such as income distribution, tastes, habits, social customs, price movements, population growth, etc. do not change and consumption depends on income alone.

2. Existence of Normal Conditions:

The law holds good under normal conditions. If, however, the economy is faced with abnormal and extraordinary circumstances like war, revolution or hyperinflation, the law will not operate. People may spend the whole of increased income on consumption.

3. Existence of a Laissez-faire Capitalist Economy:

The law operates in a rich capitalist economy where there is no government intervention. People should be free to spend increased income. In the case of regulation of private enterprise and consumption expenditures by the State, the law breaks down.

Propositions of the Law:

This law has three propositions:

(1) When income increases, consumption expenditure also increases but by a smaller amount. The reason is that as income increases, our wants are satisfied side by side, so that the need to spend more on consumer goods diminishes. So, the consumption expenditure increases with increase in income but less than proportionately.

(2) The increased income will be divided in some proportion between consumption expenditure and saving. This follows from the first proposition because when the whole of increased income is not spent on consumption, the remaining is saved. In this way, consumption and saving move together.

(3) Increase in income always leads to an increase in both consumption and saving. This means that increased income is unlikely to lead to fall in either consumption or saving. Thus with increased income both consumption and saving increase.

The three propositions of the law

Income Y	Consumption C	Saving S=Y-C
120	120	0
180	170	10

240	220	20
-----	-----	----

Proposition (1):

Income increases by ₹ 60 crores and the increase in consumption is by ₹ 50 crores.

Proposition (2):

The increased income of ₹ 60 crores in each case is divided in some proportion between consumption and saving respectively. (i.e., ₹ 50crores and ₹ 10 crores).

Proposition (3):

As income increases consumption as well as saving increase. Neither consumption nor saving has fallen.

Diagrammatically, the three propositions are explained in Figure 4.2. Here, income is measured horizontally and consumption and saving are measured on the vertical axis. C is the consumption function curve and 45° line represents income consumption equality.

Proposition (1):

When income increases from 120 to 180 consumption also increases from 120 to 170 but the increase in consumption is less than the increase in income, 10 is saved.

Proposition (2):

When income increases to 180 and 240, it is divided in some proportion between consumption by 170 and 220 and saving by 10 and 20 respectively.

Proposition (3):

Increases in income to 180 and 240 lead to increased consumption 170 and 220 and increased saving 20 and 10 than before. It is clear from the widening area below the C curve and the saving gap between 45° line and C curve.

Determinants of Consumptionfunction: Subjective and ObjectiveFactors

J.M Keynes has divided factors influencing the consumption function into two namely: Subjective factors and Objective factors

A) Subjective Factors

Subjective factors are the internal factors related to psychological feelings. Major subjective factors influencing consumption function are given below.

Keynes lists eight motives which lead individuals to refrain from spending, they are:

1. **The motive of precaution:** To build up a reserve against unforeseen contingencies. Eg. Accidents, sickness
2. **The motive of foresight:** The desire to provide for anticipated future needs. Eg. Old age
3. **The motive of calculation:** The desire to enjoy interest and appreciation.
4. **The motive of improvement:** The desire to enjoy for improving standard of living.
5. **The motive of financial independence.**
6. **The motive of enterprise** (desire to do forward trading).
7. **The motive of pride.**(desire to bequeath a fortune)
8. **The motive of avarice.** (purely miserly instinct)

Keynes sums up the motives as Precaution, Foresight, Calculation, Improvement, Independence, Enterprise, Pride and Avarice.

The Government, institutions and business corporations and firms may also consume mainly because of the following four motives:

1. **The motive of enterprise:** The desire to obtain resources to carry out further capital investment without incurring debt.
2. **The motive of liquidity:** The desire to secure liquid resources to meet emergencies, and difficulties.
3. **The motive of improvement:** The desire to secure a rising income and to demonstrate successful management.
4. **The motive of financial prudence:**The desire to ensure adequate financial provision against depreciation and obsolescence and to discharge debt.

According to Keynes, the subjective factors do not change in the short run and hence consumption function remains stable in the short period.

B) Objective Factors

Objective factors are the external factors which are real and measurable. These factors can be easily changed in the long run. Major objective factors influencing consumption function are:

1) Income Distribution

If there is large disparity between rich and poor, the consumption is low because the rich people have low propensity to consume and high propensity to save. The

community with more equal distribution of income tends to have high propensity to consume. This view has been corroborated by V.K.R.V. Rao.

2) Price level

Price level plays an important role in determining the consumption function. When the price falls, real income goes up; people will consume more and propensity to save of the society increases.

3) Wage level

Wage level plays an important role in determining the consumption function and there is positive relationship between wage and consumption. Consumption expenditure increases with the rise in wages. Similar is the effect with regard to windfall gains.

4) Interest rate

Rate of interest plays an important role in determining the consumption function. Higher rate of interest will encourage people to save more money and reduces consumption.

5) Fiscal Policy

When government reduces the tax the disposable income rises and the propensity to consume of community increases. The progressive tax system increases the propensity to consume of the people by altering the income distribution in favour of poor.

6) Consumer credit

The availability of consumer credit at easy installments will encourage households to buy consumer durables like automobiles, fridge, computer. This pushes up consumption.

7) Demographic factors

Ceteris paribus, the larger the size of the family, the greater is the consumption. Besides size of family, stage in family lifecycle, place of residence and occupation affect the consumption function. Families with children of college education stagespend more than those of primary education and urban families spend more than rural families.

8) Duesenberry hypothesis

Duesenberry has made two observations regarding the factors affecting consumption.

a) The consumption expenditure depends not only on his current income but also past income and standard of living. As the individuals are accustomed to a particular standard of living, they continue to spend the same amount on consumption even though the current income is reduced.

b) Consumption is influenced by demonstration effect. The consumption standards of low income groups are influenced by the consumption standards of high income groups. In other words, the poor people want to imitate the consumption pattern of rich. This results in spending beyond their income level.

9) Windfall Gains or losses

Unexpected changes in the stock market leading to gains or losses tend to shift the consumption function upward or downward.

Investment Function

The investment function refers to investment -interest rate relationship. There is a functional and inverse relationship between rate of interest and investment. The investment function slopes downward.

$$I = f(r)$$

I = Investment (Dependent variable)

r = Rate of interest (Independent variable)

Meaning of investment

The term investment means purchase of stocks and shares, debentures, government bonds and equities. According to Keynes, it is only financial investment and not real investment. This type of investment does result in an addition to the stock of real capital of the nation.

In the views of Keynes, Investment includes expenditure on capital investment.

Types of investment

Autonomous Investment and Induced Investment

Autonomous Investment

- Investment that is not dependent
- on the national income
- Mainly done with the welfare
- motive and not for making profits
- Examples : Construction of road,
- bridges, School, Charitable houses

- Not affected by rise in raw materials
- or wages of workers
- Essential to development of nation
- and out of depression

i) Autonomous investment: Autonomous investment is the expenditure on capital formation, which is independent of the change in income, rate of interest or rate of profit.

This investment is independent of economic activity. Autonomous investment is income-inelastic, the volume of autonomous investment is the same at all levels.

The autonomous investment curve is horizontal, parallel to X axis.

In the times of economic depression, the governments try to boost the autonomous investment. Thus, autonomous investment is one of the key concepts in welfare economics.

Generally, Government makes autonomous investment because of the welfare consideration.

ii) Induced investment: Induced investment is the expenditure on fixed assets and stocks which are required when level of income and demand in an economy goes up.

Induced investment is profit motivated. It is related to the changes of national income. The relationship between the national income and induced investment is positive; decreases in national income leads to decrease in induced investment and vice versa. Induced investment is income elastic. It is positively sloped as shown here.

SI. No	Autonomous Investment	Induced Investment
1.	Independent	planned
2.	Income inelastic	Income elastic
3.	Welfare motive	Profit motive

Determinants of Investment Function

The classical economists believed that investment depended exclusively on rate of interest. In reality investment decision depends on a number of factors. They are as follows:

1. Rate of interest
2. Level of uncertainty
3. Political environment
4. Rate of growth of population
5. Stock of capital goods

6. Necessity of new products
7. Level of income of investors
8. Inventions and innovations
9. Consumer demand
10. Policy of the state
11. Availability of capital
12. Liquid assets of the investors

However, Keynes contended that business expectations and profits are more important in deciding investment. He also pointed out that investment depends on MEC (Marginal Efficiency of Capital) and rate of interest.

- i. Private investment is an increase in the capital stock such as buying a factory or machine.
- ii. The marginal efficiency of capital (MEC) states the rate of return on an investment project. Specifically, it refers to the annual percentage yield (output) earned by the last additional unit of capital.
- iii. If the marginal efficiency of capital is 5% and interest rates is 4%, then it is worth borrowing at 4% to get an expected increase in output of 5%.

Relationship between rate of interest and Investment:

An explanation of how the rate of interest influences the level of investment in the economy. Typically, higher interest rates reduce investment, because higher rates increase the cost of borrowing and require investment to have a higher rate of return to be profitable.

Interest rates and investment

As the real cost of borrowing rises, fewer investment projects are profitable.

If interest rates rise from 5% to 8%, then we get a fall in the amount of investment from ₹ 100 cr to ₹ 80 cr.

If interest rates are increased then it will tend to discourage investment because investment has a higher opportunity cost.

1. With higher rates, it is more expensive to borrow money from a bank.
2. Saving money in a bank gives a higher rate of return. Therefore, using savings to finance investment has an opportunity cost of lower interest payments.

If interest rates rise, firms will need to gain a better rate of return to justify the cost of borrowing using savings.

Marginal Efficiency of Capital.

MEC was first introduced by J.M Keynes in 1936 as an important determinant of autonomous investment. The MEC is the expected profitability of an additional capital asset. It may be defined as the highest rate of return over cost expected from the additional unit of capital asset.

Meaning of Marginal Efficiency of Capital (MEC) is the rate of discount which makes the discounted present value of expected income stream equal to the cost of capital.

MEC depends on two factors:

1. The prospective yield from a capital asset.
2. The supply price of a capital asset.

Factors Affecting MEC:

Three factors that are taken into consideration while making any investment decision

- 1 The cost of the capital asset
- 1 The expected rate of return
- from during its lifetime
- 1 The market rate of interest

The marginal efficiency of capital is influenced by short - run as well as ongrun factors. These factors are discussed in brief:

a) Short - Run Factors

- i. Demand for the product:** If the market for a particular good is expected to grow and its costs are likely to fall, the rate of return from investment will be high. If entrepreneurs expect a fall in demand for goods and a rise in cost, the investment will decline.
- ii. Liquid assets:** If the entrepreneurs are holding large volume of working capital, they can take advantage of the investment opportunities that come in their way. The MEC will be high.
- iii. Sudden changes in income:** The MEC is also influenced by sudden changes in income of the entrepreneurs. If the business community gets windfall profits, or tax

concession the MEC will be high and hence investment in the country will go up. On the other hand, MEC falls with the decrease in income.

- iv. **Current rate of investment:** Another factor which influences MEC is the current rate of investment in a particular industry. If in a particular industry, much investment has already taken place and the rate of investment currently going on in that industry is also very large, then the marginal efficiency of capital will be low.
- v. **Waves of optimism and pessimism:** The marginal efficiency of capital is also affected by waves of optimism and pessimism in the business cycle. If businessmen are optimistic about future, the MEC will be likely to be high. During periods of pessimism the MEC is under estimated and so will be low.

b) Long - Run Factors

The long run factors which influence the marginal efficiency of capital are as follows:

- i. **Rate of growth of population:** Marginal efficiency of capital is also influenced by the rate of growth of population. If population is growing at a rapid speed, it is usually believed that the demand of various types of goods will increase. So a rapid rise in the growth of population will increase the marginal efficiency of capital and a slowing down in its rate of growth will discourage investment and thus reduce marginal efficiency of capital.
- ii. **Technological progress:** If investment and technological development take place in the industry, the prospects of increase in the net yield brightens up. For example, the development of automobiles in the 20th century has greatly stimulated the rubber industry, the steel and oil industry etc. So we can say that inventions and technological improvements encourage investment in various projects and increase marginal efficiency of capital.
- iii. **Monetary and Fiscal policies:** Cheap money policy and liberal tax policy pave the way for greater profit margin and so MEC is likely to be high.
- iv. **Political environment:** Political stability, smooth administration, maintenance of law and order help to improve MEC.
- v. **Resource availability:** Cheap and abundant supply of natural resources, efficient labour and stock of capital enhance the MEC.

Marginal Efficiency of Investment

MEI is the expected rate of return on investment as additional units of investment are made under specified conditions and over a period of time. When cost of borrowing is

high, businesses are less motivated to borrow money and make investment on different projects because high cost of borrowing reduces profit margin of the business firms;

Marginal Efficiency of Capital(MEC)	Marginal Efficiency of Investment(MEI)
1) It is based on a given supply price for capital.	1) It is based on the induced change in the price due to change in the demand for capital.
2) It represents the rate of return on all successive units of capital without regard to existing capital.	2) It shows the rate of return on just those units of capital over and above the existing capital stock.
3) The capital stock is taken on the X axis of diagram.	3) The amount of investment is taken on the X - axis of diagram
4) It is a “stock” concept.	4) It is a “flow” concept.
5) It determines the optimum capital stock in an economy at each level of interest rate.	5) It determines the net investment of the economy at each interest rate given the capital stock.

Multiplier

The concept of multiplier was first developed by R.F. Khan in terms of employment. J.M Keynes redefined it as investment multiplier.

The multiplier is defined as the ratio of the change in national income to change in investment. If ΔI stands for increase in investment and ΔY stands for resultant increase in income, the multiplier $K = \Delta Y / \Delta I$. Since ΔY results from ΔI , the multiplier is called investment multiplier.

Assumptions of Multiplier:

Keynes’s theory of the multiplier works under certain assumptions which limit the operation of the multiplier. They are as follows:

1. There is change in autonomous investment.
2. There is no induced investment
3. The marginal propensity to consume is constant.
4. Consumption is a function of current income.
5. There are no time lags in the multiplier process.
6. Consumer goods are available in response to effective demand for them.
7. There is a closed economy unaffected by foreign influences.
8. There are no changes in prices.
9. There is less than full employment level in the economy.

Marginal propensity to consume and multiplier.

The propensity to consume refers to the portion of income spent on consumption. The MPC refers to the relation between change in consumption (C) and change in income(Y).

Symbolically

$$\text{MPC} = \Delta C / \Delta Y$$

The value of multiplier depends on MPC

$$\text{Multiplier (K)} = 1 / 1 - \text{MPC}$$

The multiplier is the reciprocal of one minus marginal propensity to consume. Since marginal propensity to save is $1 - \text{MPC}$. ($\text{MPC} + \text{MPS} = 1$). Multiplier is $1 / \text{MPS}$. The multiplier is therefore defined as reciprocal of MPS. Multiplier is inversely related to MPS and directly with MPC.

Numerically if MPC is 0.75, MPS is 0.25 and k is 4.

Using formula $k = 1 / 1 - \text{MPC}$
 $1 / 1 - 0.75 = 1 / 0.25 = 4$

Table 4.

Taking the following values, we can explain the functioning of multiplier

MPC	MPS	K
0.00	1.00	1
0.10	0.90	1.11
0.50	0.50	2.00
0.75	0.25	4.00
0.90	0.10	10.00
1.00	0.00	a

$$C = 100 + 0.8y;$$

$$I = 100$$

$$I = 10$$

$$Y = C + I$$

$$\begin{aligned} &= 100 + 0.8y + 100 \\ 0.2y &= 200 \\ Y &= 1000 \end{aligned}$$

Here, $C = 100 + 0.8y = 100 + (1000) = 900;$

$$S = 100 = I$$

After I is raised by 10, now $I = 110,$

$$\begin{aligned} Y &= 100 + 0.8y + 110 \\ 0.2y &= 210 \end{aligned}$$

$$Y = 210 / 0.2 = 1050$$

Here $C = 100 = 0.8(1050) = 940$; $S = 110 = I$

Diagrammatic Explanation.

At 45° line $y = C + S$

It implies the variables in axis and axis are equal.

The MPC is assumed to be at 0.8 ($C = 100 + 0.8y$)

The aggregate demand (C+I) curve intersects 45° line at point E.

The original national income is 500.

($C = 100 + 0.8y = 100 + 0.8(500) = 500$)

When I is 100, $y = 1000$, $C = 900$;

$S = 100 = I$

The new aggregate demand curve is $C+I' = 100 + 0.8y + 100 + 10$

$Y = 210/0.2 = 1050$

$C = 940$; $S = 110 = I$

Working of Multiplier

Suppose the Government undertakes investment expenditure equal to Rs. 100 crore on some public works, by way of wages, price of materials etc. Thus income of labourers and suppliers of materials increases by Rs. 100 crore. Suppose the MPC is 0.8 that is 80 %. A sum of Rs. 80 crores is spent on consumption (A sum of Rs. 20 Crores is saved). As a result, suppliers of goods get an income of Rs. 80 crores. They in turn spend Rs. 64 crores (80% of Rs. 80 cr). In this manner consumption expenditure and increase in income act in a chain like manner.

Positive Multiplier and Negative Multiplier Effects	
Positive Multiplier	Negative Multiplier
When an initial increases in an injection (or a decrease in a leakage) leads to a greater final increase in real GDP.	When an initial increases in an injection (or an increase in a leakage) leads to a greater final decrease in real GDP.

The final result is $\Delta Y = 100 + 100 \times \frac{4}{5} + 100 \times [\frac{4}{5}]^2 + 100 \times [\frac{4}{5}]^3$ or,

$\Delta Y = 100 + 100 \times 0.8 + 100 \times (0.8)^2 + 100 \times (0.8)^3$

$= 100 + 80 + 64 + 51.2 \dots$

$= 500$

that is $100 \times \frac{1}{1 - 4/5}$

$100 \times \frac{1}{1/5}$

$100 \times 5 = \text{Rs. } 500 \text{ crores}$

For instance if $C = 100 + 0.8Y$, $I = 100$,

Then $Y = 100 + 0.8Y + 100$

$$0.2Y = 200$$

$$Y = 200/0.2 = 1000 \rightarrow \text{Point B}$$

If I is increased to 110, then

$$0.2Y = 210$$

$$Y = 210/0.2 = 1050 \rightarrow \text{Point D}$$

For Rs. 10 increase in I , Y has increased by Rs. 50.

This is due to multiplier effect.

At point A, $Y = C = 500$

$$C = 100 + 0.8(500) = 500; S = 0$$

At point B, $Y = 1000$

$$C = 100 + 0.8(1000) = 900; S = 100 = I$$

At point D, $Y = 1050$

$$C = 100 + 0.8(1050) = 940; S = 110 = I$$

When I is increased by 10, Y increases by 50.

This is multiplier effect ($K = 5$)

$$K = 1/0.25 = 5$$

Classification of Multiplier:

1. Static and dynamic multiplier

- i. Static multiplier is otherwise known as simultaneous multiplier, timeless multiplier, and logical multiplier. Under static multiplier the change in investment and the resulting change in income are simultaneous. There is no time lag. There is also no change in MPC as the economy moves from one equilibrium position to another.
- ii. Dynamic multiplier is also known as 'sequence multiplier'. In real life, income level does not increase instantly with investment. In fact, there is a time lag between increase in income and consumption expenditure.

Leakages of multiplier

The multiplier assumes that those who earn income are likely to spend a proportion of their additional income on consumption. But in practice, people tend to spend their additional income on other items. Such expenses are known as leakages.

Payment towards past debts.

If a portion of the additional income is used for repayment of old loan, the MPC is reduced and as a result the value of multiplier is cut.

Purchase of existing wealth

If income is used in purchase of existing wealth such as land, building and shares money is circulated among people and never enters into the consumption stream. As a result the value of multiplier is affected.

Import of goods and services

Income spent on imports of goods or services flows out of the country and has little chance to return to income stream in the country. Thus imports reduce the value of multiplier.

Non availability of consumer goods

The multiplier theory assumes instantaneous supply of consumer goods following demand. But there is often a time lag. During this gap ($D > S$) inflation is likely to rise. This reduces the consumption expenditure and thereby multiplier value.

Full employment situation

Under conditions of full employment, resources are almost fully employed. So, additional investment will lead to inflation only, rather than generation of additional real income.

Uses of multiplier

1. Multiplier highlights the importance of investment in income and employment theory.
2. The process throws light on the different stages of trade cycle.
3. It also helps in bringing the equality between S and I.
4. It helps in formulating Government policies.
5. It helps to reduce unemployment and achieve full employment.

KINDS OF MULTIPLIER

1. Tax multiplier
2. Employment multiplier
3. Foreign Trade multiplier
4. Investment Multiplier

The Accelerator Principle

The origin of accelerator principle can be traced back in the writings of Aftalion (1909), Hawtrey (1913) and Bickerdike (1914). However, the systematic development of the simple accelerator model was made by J.M. Clark, in 1917. It was further developed by Hicks, Samuelson and Harrod in relation to the business cycles.

Meaning

A given increase in the demand for consumption goods in the economy generally leads to an accelerated demand for machineries (investment goods). Accelerator is the numerical value of the relation between an increase in consumption and the resulting increase in investment.

Acceleration Effects		
Increase in consumer demand	Firms get close to fill capacity	Firms Invest in meet rising demand

$$\text{Accelerator } (\beta) = \Delta I / \Delta C$$

ΔI = Change in investment outlays (Say 100)

ΔC = Change in consumption demand (Say 50)

The accelerator expresses the ratio of the net change in investment to change in consumption

Definition

“The accelerator coefficient is the ratio between induced investment and an initial change in consumption.”

Assuming the expenditure of ₹50 crores on consumption goods, if industries lead to an investment of ₹ 100 crores in investment goods industries, we can say that the accelerator is 2.

$$\text{Accelerator} = 100/50 = 2$$

Assumptions

1. Absence of excess capacity in consumer goods industries.
2. Constant capital - output ratio
3. Increase in demand is assumed to be permanent
4. Supply of funds and other inputs is quite elastic
5. Capital goods are perfectly divisible in any required size.

Operation of the Acceleration Principle

Let us consider a simple example. The operation of the accelerator may be illustrated as follows.

Let us suppose that in order to produce 1000 consumer goods, 100 machines are required. Also suppose that working life of a machine is 10 years. This means that every year 10 machines have to be replaced in order to maintain the constant flow of 1000 consumer goods. This might be called replacement demand.

Suppose that demand for consumer goods rises by 10 percent (ie from 1000 to 1100). This results in increase in demand for 10 more machines. So that total demand for machines is 20. (10 for replacement and 10 for meeting increased demand). It may be noted here a 10 percent increase in demand for consumer goods causes a 100 percent increase in demand for machines (from 10 to 20). So we can conclude even a mild change in demand for consumer goods will lead to wide change in investment.

Diagrammatic illustration:

Operation of Accelerator.

SS is the saving curve. II is the investment curve. At point E1, the economy is in equilibrium with OY1 income. Saving and investment are equal at OI2. Now, investment is increased from OI2 to OI4. This increases income from OY1 to OY3, the equilibrium point being E3. If the increase in investment by I2 I4 is purely exogenous, then the increase in income by Y1 Y3 would have been due to the multiplier effect. But in this diagram it is assumed that exogenous investment is only by I2 I3 and induced investment is by I3 I4. Therefore, increase in income by Y1 Y2 is due to the multiplier effect and the increase in income by Y2 Y3 is due to the accelerator effect.

Limitations

1. The assumption of constant capitaloutput ratio is unrealistic.
2. Resources are available only before full employment.
3. Excess capacity in capital goods industries is assumed.
4. Accelerator will work only if the increased demand is permanent.
5. Accelerator will work only when credit is available easily.
6. If there is unused or excess capacity in the consumer goods industry, the accelerator principle would not work.

Super Multiplier:(k and β interaction)

The super multiplier is greater than simple multiplier which includes only autonomous investment and no induced investment, while super multiplier includes induced investment.

In order to measure the total effect of initial investment on income, Hicks has combined the k and β mathematically and given it the name of the Super Multiplier. The super multiplier is worked out by combining both induced consumption and induced investment.

Leverage Effect

The combined effect of the multiplier and the accelerator is also called the leverage effect which may lead the economy to very high or low level of income propagation.

Symbolically

$$Y = C + I_A + I_P$$

Y = Aggregate income.

C = Consumption expenditure

I_A = autonomous investment

I_P = induced private investment

Unit 5 - Monetary Economics

Introduction

Monetary Economics is a branch of economics that provides a framework for analyzing money and its functions as a medium of exchange, store of value and unit of account. It examines the effects of monetary systems including regulation of money and associated financial institutions.

Money

Meaning

Money is anything that is generally accepted as payment for goods and services and repayment of debts and that serves as a medium of exchange. A medium of exchange is anything that is widely accepted as a means of payments. In recent years, the importance of credit has increased in all the countries of the world. Credit instruments are used on an extensive scale. The use of cheques, bills of exchange, etc. has gone up. It should however, be remembered that money is the basis of credit.

Definitions

Many economists developed definition for money. Among these, definitions of Walker and Crowther are given below:

“ Money is, what money does”
- Walker.

“Money can be anything that is generally acceptable as a means of exchange and at the same time acts as a measure and a store of value” .
-Crowther

The history of Barter system starts way back in 6000 BC

- Barter system was introduced by Mesopotamia tribes.
- Phoenicians adopted bartering of goods with various other cities across oceans.
- Babylonian's also developed an improved barter system, where goods were exchanged for goods.

Evolution of Money

Barter System

The introduction of money as a medium of exchange was one of the greatest inventions of mankind. Before money was invented, exchange took place by Barter, that is,

commodities and services were directly exchanged for other commodities and services. Under the barter system, buyers and sellers of commodities had to face a number of difficulties. Surplus goods were exchanged for money which in turn was exchanged for other needed goods. Goods like furs, skins, salt, rice, wheat, utensils, weapons, etc. were commonly used as money. Such exchange of goods for goods was known as “Barter Exchange” or “Barter System”.

Metallic Standard

After the barter system and commodity money system, modern money systems evolved. Among these, metallic standard is the premier one. Under metallic standard, some kind of metal either gold or silver is used to determine the standard value of the money and currency. Standard coins made out of the metal are the principal coins used under the metallic standard. These standard coins are full bodied or full weighted legal tender. Their face value is equal to their intrinsic metal value.

Gold Standard

Gold Standard is a system in which the value of the monetary unit or the standard currency is directly linked with gold. The monetary unit is defined in terms of a certain weight of gold. The purchasing power of a unit of money is maintained equal to the value of a fixed weight of gold.

Silver Standard

The silver standard is a monetary system in which the standard economic unit of account is a fixed weight of silver. The silver standard is a monetary arrangement in which a country's Government allows conversion of its currency into fixed amount of silver.

Paper Currency Standard

The paper currency standard refers to the monetary system in which the paper currency notes issued by the Treasury or the Central Bank or both circulate as unlimited legal tender. Paper currency is not convertible into any metal. Its value is determined independent of the value of gold or any other commodity. The paper standard is also known as managed currency standard. The quantity of money in circulation is controlled by the monetary authority to maintain price stability.

Plastic Money

The latest type of money is plastic money. Plastic money is one of the most evolved forms of financial products. Plastic money is an alternative to the cash or the standard “money”. Plastic money is a term that is used predominantly in reference to the hard plastic cards used every day in place of actual bank notes. Plastic money can come in many different forms such as Cash cards, Credit cards, Debit cards, Pre-paid Cash cards,

Store cards, Forex cards and Smart cards. They aim at removing the need for carrying cash to make transactions.

Crypto Currency

A digital currency in which encryption techniques are used to regulate the generation of units of currency and verify the transfer of funds, operating independently of a Central Bank.

Decentralised crypto currencies such as Bitcoin now provide an outlet for Personal Wealth that is beyond restriction and confiscation.

Functions of Money

The main functions of money can be classified into four categories:

1.Primary Functions:

i) Money as a medium of exchange:

This is considered as the basic function of money. Money has the quality of general acceptability, and all exchanges take place in terms of money. On account of the use of money, the transaction has now come to be divided into two parts. First, money is obtained through sale of goods or services. This is known as sale. Later, money is obtained to buy goods and services. This is known as purchase. Thus, in the modern exchange system money acts as the intermediary in sales and purchases.

ii) Money as a measure of value:

The second important function of money is that it measures the value of goods and services. In other words, the prices of all goods and services are expressed in terms of money. Money is thus looked upon as a collective measure of value. Since all the values are expressed in terms of money, it is easier to determine the rate of exchange between various types of goods in the community.

2.Secondary Functions

i) Money as a Store of value: Savings done in terms of commodities were not permanent. But, with the invention of money, this difficulty has now disappeared and savings are now done in terms of money. Money also serves as an excellent store of wealth, as it can be easily converted into other marketable assets, such as, land, machinery, plant etc.

ii) Money as a Standard of Deferred Payments: Borrowing and lending were difficult problems under the barter system. In the absence of money, the only in terms of goods and services. But the modern money-economy has greatly facilitated the borrowing and lending processes. In other words, money now acts as the standard of deferred payments.

iii) Money as a Means of Transferring Purchasing Power: The field of exchange also went on extending with growing economic development. The exchange of goods is now extended to distant lands. It is therefore, felt necessary to transfer purchasing power from one place to another.

3. Contingent Functions

i) Basis of the Credit System: Money is the basis of the Credit System. Business transactions are either in cash or on credit. For example, a depositor can make use of cheques only when there are sufficient funds in his account. The commercial banks create credit on the basis of adequate cash reserves. But, money is at the back of all credit.

ii) Money facilitates distribution of National Income: The task of distribution of national income was exceedingly complex under the barter system. But the invention of money has now facilitated the distribution of income as rent, wage, interest and profit.

iii) Money helps to Equalize Marginal Utilities and Marginal Productivities: Consumer can obtain maximum utility only if he incurs expenditure on various commodities in such a manner as to equalize marginal utilities accruing from them. Now in equalizing these marginal utilities, money plays an important role, because the prices of all commodities are expressed in money. Money also helps to equalize marginal productivities of various factors of production.

iv) Money Increases Productivity of Capital: Money is the most liquid form of capital. In other words, capital in the form of money can be put to any use. It is on account of this liquidity of money that capital can be transferred from the less productive to the more productive uses.

4. Other Functions

i) Money helps to maintain Repayment Capacity: Money possesses the quality of general acceptability. To maintain its repayment capacity, every firm has to keep assets in the form of liquid cash. The firm ensures its repayment capacity with money. Likewise, banks, insurance companies and even governments have to keep some liquid money (i.e., cash) to maintain their repayment capacity.

ii) Money represents Generalized Purchasing Power: Purchasing power kept in terms of money can be put to any use. It is not necessary that money should be used only for the purpose for which it has been served.

iii) Money gives liquidity to Capital: Money is the most liquid form of capital. It can be put to any use.

Supply of Money

Money supply means the total amount of money in an economy. It refers to the amount of money which is in circulation in an economy at any given time. Money supply plays a crucial role in the determination of price level and interest rates. Money supply viewed at a given point of time is a stock and over a period of time it is a flow.

Meaning of Money Supply

In India, currency notes are issued by the Reserve Bank of India (RBI) and coins are issued by the Ministry of Finance, Government of India (GOI). Besides these, the balance is savings, or current account deposits, held by the public in commercial banks is also considered money. The currency notes are also called fiat money and legal tenders.

Money supply is a stock variable. RBI publishes information for four alternative measures of Money supply, namely M_1, M_2, M_3 and M_4 .

M_1 = Currency, coins and demand deposits

M_2 = M_1 + Savings deposits with post office savings banks

M_3 = M_2 + Time deposits of all commercial and cooperative banks

M_4 = M_3 + Total deposits with Post offices.

M_1 and M_2 are known as narrow money

M_3 and M_4 are known as broad money

The gradations are in decreasing order of liquidity.

Currency Symbol

The new symbol designed by D.Udaya Kumar, a post graduate of IIT Bombay was finally selected by the Union cabinet on 15th July, 2010. The new symbol, is an amalgamation of Devanagari 'Ra' and the Roman 'R' without the stem. The symbol of India rupee came into use on 15th July, 2010. After America, Britain, Japan, Europe Union. India is the 5th country to accept a unique currency symbol.

Determinants of Money Supply

1. Currency Deposit Ratio (CDR); It is the ratio of money held by the public in currency to that they hold in bank deposits.
2. Reserve deposit Ratio (RDR); Reserve Money consists of two things (a) vault
3. cash in banks and (b) deposits of commercial banks with RBI.
4. Cash Reserve Ratio (CRR); It is the fraction of the deposits the banks must keep with RBI.
5. Statutory Liquidity Ratio (SLR); It is the fraction of the total demand and time
6. deposits of the commercial banks in the form of specified liquid assets.

Quantity Theories of Money

Quantity theories of money explain the relationship between quantity of money and value of money. Here, we are given two approaches of Quantity Theory of Money, viz. Fisher's Transaction Approach and Cambridge Cash Balance Approach.

(a) Fisher's Quantity Theory of Money:

The quantity theory of money is a very old theory. It was first propounded in 1588 by an Italian economist, Davanzatti. But, the credit for popularizing this theory in recent years rightly belongs to the well-known American economist, Irving Fisher who published his book, "The Purchasing Power of Money" in 1911. He gave it a quantitative form in terms of his famous "Equation of Exchange".

The general form of equation given by Fisher is

$$MV = PT$$

Where M = Money Supply/quantity of Money

V = Velocity of Money

P = Price level

T = Volume of Transaction.

Fisher points out that in a country during any given period of time, the total quantity of money (MV) will be equal to the total value of all goods and services bought and sold (PT).

$$MV = PT$$

$$\text{Supply of Money} = \text{Demand for Money}$$

This equation is referred to as "Cash Transaction Equation".

It is expressed as $P = MV / T$ which implies that the quantity of money determines the price level and the price level in its turn varies directly with the quantity of money, provided 'V' and 'T' remain constant.

The above equation considers only currency money. But, in a modern economy, bank's demand deposits or credit money and its velocity play a vital part in business. Therefore, Fisher extended his original equation of exchange to include bank deposits M_1 and its velocity V_1 . The revised equation was:

$$PT = MV + M_1V_1$$

$$P = (MV + M_1V_1) / T$$

From the revised equation, it is evident, that the price level is determined by

- (a) the quantity of money in circulation 'M'
- (b) the velocity of circulation of money 'V'
- (c) the volume of bank credit money M1
- (d) the velocity of circulation of credit money V1 and the volume of trade (T)

Diagrammatic Illustration

Figure (A) shows the effect of changes in the quantity of money on the price level. When the quantity of money is OM, the price level is OP. When the quantity of money is doubled to OM₂, the price level is also doubled to OP₂. Further, when the quantity of money is increased four-fold to OM₄, the price level also increases by four times to OP₄. This relationship is expressed by the curve $OP = f(M)$ from the origin at 450.

Figure (B), shows the inverse relation between the quantity of money and the value of money, where the value of money is taken on the vertical axis. When the quantity of money is OM, the value of money is OI / P . But with the doubling of the quantity of money to OM₂, the value of money becomes one-half of what it was before, (OI / P_2) . But, with the quantity of money increasing by four-fold to OM₄, the value of money is reduced by OI / P_4 . This inverse relationship between the quantity of money and the value of money is shown by downward sloping curve $IO / P = f(M)$.

b) Cambridge Approach (Cash Balances Approach)

i) Marshall's Equation

The Marshall equation is expressed as:

$$M = KPY$$

Where

M is the quantity of money

Y is the aggregate real income of the community

P is Purchasing Power of money

K represents the fraction of the real income which the public desires to hold in the form of money.

Thus, the price level $P = M/KY$ or the value of money (The reciprocal of price level) is $1/P = KY/M$

The value of money in terms of this equation can be found out by dividing the total quantity of goods which the public desires to hold out of the total income by the total supply of money.

According to Marshall's equation, the value of money is influenced not only by changes in M, but also by changes in K

ii) Keynes' Equation

Keynes equation is expressed as:

$$n = pk \text{ (or) } p = n / k$$

Where

n is the total supply of money

p is the general price level of consumption goods

k is the total quantity of consumption units the people decide to keep in the form of cash,

Keynes indicates that K is a real balance, because it is measured in terms of consumer goods.

According to Keynes, peoples' desire to hold money is unaltered by monetary authority. So, price level and value of money can be stabilized through regulating quantity of money (n) by the monetary authority.

Later, Keynes extended his equation in the following form:

$$n = p (k + rk') \text{ or } p = n / (k + rk')$$

Where,

n = total money supply

p = price level of consumer goods

k = peoples' desire to hold money in hand (in terms of consumer goods) in the total income of them

r = cash reserve ratio

k' = community's total money deposit in banks, in terms of consumers goods.

In this extended equation also, Keynes assumes that, k, k' and r are constant. In this situation, price level (P) is changed directly and proportionately changing in money volume (n).

Inflation

Both inflation and deflations are evils of economy. So, understanding of these is essential.

Meaning of Inflation

Inflation is a consistent and appreciable rise in the general price level. In other words, inflation is the rate at which the general level of prices for goods and services is rising and consequently the purchasing power of currency is falling.

Definition

“ Too much of Money chasing too few goods”

- Coulbourn

“A state of abnormal decrease in the quantity of purchasing power” Gregorye

Types of Inflation

On the basis of speed

(i) Creeping inflation (ii) Walking inflation (iii) Running inflation and (iv) Galloping inflation or Hyper inflation.

- i. **Creeping Inflation:** Creeping inflation is slow-moving and very mild. The rise in prices will not be perceptible but spread over a long period. This type of inflation is in no way dangerous to the economy. This is also known as mild inflation or moderate inflation.
- ii. **Walking Inflation:** When prices rise moderately and the annual inflation rate is a single digit (3% - 9%), it is called walking or trolling inflation.
- iii. **Running Inflation:** When prices rise rapidly like the running of a horse at a rate of speed of 10% - 20% per annum, it is called running inflation.
- iv. **Galloping inflation:** Galloping inflation or hyper inflation points out to unmanageably high inflation rates that run into two or three digits. By high inflation the percentage of the same is almost 20% to 100% from an overall perspective.

The first hyper inflation of the 21st century Zimbabwe's annual inflation rate surged to an unprecedented 3714 percent at the end of April 2007.

Demand-Pull Vs Cost-Push inflation

- i. **Demand-Pull Inflation:** Demand and supply play a crucial role in deciding the inflation levels in the society at all points of time. For instance, if the demand is high for a product and supply is low, the price of the products increases.
- ii. **Cost-Push Inflation:** When the cost of raw materials and other inputs rises inflation results. Increase in wages paid to labour also leads to inflation.

Wage-Price Spiral

Wage-price spiral is used to explain the cause and effect relationship between rising wages and rising prices or inflation.

Other types of inflation (on the basis of inducement)

- i. **Currency inflation:** The excess supply of money in circulation causes rise in price level.
- ii. **Credit inflation:** When banks are liberal in lending credit, the money supply increases and thereby rising prices.
- iii. **Deficit induced inflation:** The deficit budget is generally financed through printing of currency by the Central Bank. As a result, prices rise.
- iv. **Profit induced inflation:** When the firms aim at higher profit, they fix the price with higher margin. So prices go up.
- v. **Scarcity induced inflation:** Scarcity of goods happens either due to fall in production (eg. farm goods) or due to hoarding and black marketing. This also pushes up the price. (This has happened in Venezuela in the year 2018)
- vi. **Tax induced inflation:** Increase in indirect taxes like excise duty, custom duty and sales tax may lead to rise in price (eg. petrol and diesel). This is also called taxflation.

Causes of Inflation

The main causes of inflation in India are as follows:

- i. **Increase in Money Supply:** Inflation is caused by an increase in the supply of money which leads to increase in aggregate demand. The higher the growth rate of the nominal money supply, the higher is the rate of inflation.
- ii. **Increase in Disposable Income:** When the disposable income of the people increases, it raises their demand for goods and services. Disposable income may increase with the rise in national income or reduction in taxes or reduction in the saving of the people.
- iii. **Increase in Public Expenditure:** Government activities have been expanding due to developmental activities and social welfare programmes. This is also a cause for price rise.
- iv. **Increase in Consumer Spending:** The demand for goods and services increases when they are given credit to buy goods on hire-purchase and installment basis.
- v. **Cheap Money Policy:** Cheap money policy or the policy of credit expansion also leads to increase in the money supply which raises the demand for goods and services in the economy.

- vi. **Deficit Financing:** In order to meet its mounting expenses, the government resorts to deficit financing by borrowing from the public and even by printing more notes. This raises aggregate demand in relation to aggregate supply, thereby leading to inflationary rise in prices.
- vii. **Black Assests, Activities and Money:** The existence of black money and black assests due to corruption, tax evasion etc., increase the aggregate demand. People spend such money, lavishly. Black marketing and hoarding reduces the supply of goods. These trends tend to raise the price level further.
- viii. **Repayment of Public Debt:**Whenever the government repays its past internal debt to the public, it leads to increase in the money supply with the public. This tends to raise the aggregate demand for goods and services.
- ix. **Increase in Exports:** When exports are encouraged, domestic supply of goods decline. So prices rise.

Effects of Inflation

The effects of inflation can be classified into two heads:

- (1) Effects on Production and
- (2) Effects on Distribution.

1. Effects on Production:

When the inflation is very moderate, it acts as an incentive to traders and producers. This is particularly prior to full employment when resources are not fully utilized. The profit due to rising prices encourages and induces business class to increase their investments in production, leading to generation of employment and income.

- i. However, hyper-inflation results in a serious depreciation of the value of money and it discourages savings on the part of the public.
- ii. When the value of money undergoes considerable depreciation, this may even drain out the foreign capital already invested in the country.
- iii. With reduced capital accumulation, the investment will suffer a serious set-back which may have an adverse effect on the volume of production in the country. This may discourage entrepreneurs and business men from taking business risk.
- iv. Inflation also leads to hoarding of essential goods both by the traders as well as the consumers and thus leading to still higher inflation rate.
- v. Inflation encourages investment in speculative activities rather than productive purposes.

2. Effects on Distribution

- i. **Debtors and Creditors:** During inflation, debtors are the gainers while the creditors are losers. The reason is that the debtors had borrowed when the purchasing power of money was high and now repay the loans when the purchasing power of money is low due to rising prices.
- ii. **Fixed-income Groups:** The fixed income groups are the worst hit during inflation because their incomes being fixed do not bear any relationship with the rising cost of living. Examples are wage, salary, pension, interest, rent etc.
- iii. **Entrepreneurs:** Inflation is the boon to the entrepreneurs whether they are manufacturers, traders, merchants or businessmen, because it serves as a tonic for business enterprise. They experience windfall gains as the prices of their inventories (stocks) suddenly go up.
- iv. **Investors:** The investors, who generally invest in fixed interest yielding bonds and securities have much to lose during inflation. On the contrary those who invest in shares stand to gain by rich dividends and appreciation in value of shares.

Measures to Control Inflation

Keynes and Milton Friedman together suggested three measures to prevent and control of inflation.

1. Monetary measures,
2. Fiscal measures (J.M. Keynes) and
3. Other measures.

1. **Monetary Measures:** These measures are adopted by the Central Bank of the country. They are (i) Increase in Bankrate (ii) Sale of Government Securities in the Open Market (iii) Higher Cash Reserve Ratio (CRR) and Statutory Liquidity Ratio (SLR) (iv) Consumer Credit Control and (v) Higher margin requirements (vi) Higher Repo Rate and Reverse Repo Rate.
2. **Fiscal Measures:** Fiscal policy is now recognized as an important instrument to tackle an inflationary situation. The major anti-inflationary fiscal measures are the following: Reduction of Government Expenditure, Public Borrowing and Enhancing taxation.
3. **Other Measures:** These measures can be divided broadly into short-term and long-term measures.
 - i. Short-term measures can be in regard to public distribution of scarce essential commodities through fair price shops (Rationing). In India whenever shortage of

basic goods has been felt, the government has resorted to import so that inflation may not get triggered.

- ii. Long-term measures will require accelerating economic growth especially of the wage goods which have a direct bearing on the general price and the cost of living. Some restrictions on present consumption may help in improving saving and investment which may be necessary for accelerating the rate of economic growth in the long run.

Meaning of Deflation, Disinflation and Stagflation

Deflation: The essential feature of deflation is falling prices, reduced money supply and unemployment. Though falling prices are desirable at the time of inflation, such a fall should not lead to the fall in the level of production and employment. But if prices fall from the level of full employment both income and employment will be adversely affected.

Disinflation: Disinflation is the slowing down the rate of inflation by controlling the amount of credit (bank loan, hire purchase) available to consumers without causing more unemployment. Disinflation may be defined as the process of reversing inflation without creating unemployment or reducing output in the economy.

Stagflation: Stagflation is a combination of stagnant economic growth, high unemployment and high inflation.

Trade Cycle

The economic activity in a capitalist economy will have its periodic ups and downs. The study of these ups and downs is called the study of Business cycle or Trade cycle or Industrial Fluctuation.

Meaning of Trade Cycle

A Trade cycle refers to oscillations in aggregate economic activity particularly in employment, output, income, etc. It is due to the inherent contraction and expansion of the elements which energize the economic activities of the nation. The fluctuations are periodical, differing in intensity and changing in its coverage.

Definition

“A trade cycle is composed of periods of good trade characterised by rising prices and low unemployment percentages altering with periods of bad trade characterised by falling prices and high unemployment percentages”.

- J.M. Keynes

Phases of Trade Cycle

The four different phases of trade cycle is referred to as (i) Boom (ii) Recession (iii) Depression and (iv) Recovery..

Phases of Trade Cycle

- i. **Boom or Prosperity Phase:** The full employment and the movement of the economy beyond full employment is characterized as boom period. During this period, there is hectic activity in economy. Money wages rise, profits increase and interest rates go up. The demand for bank credit increases and there is all-round optimism.
- ii. **Recession:** The turning point from boom condition is called recession. This happens at higher rate, than what was earlier. Generally, the failure of a company or bank bursts the boom and brings a phase of recession. Investments are drastically reduced, production comes down and income and profits decline. There is panic in the stock market and business activities show signs of dullness. Liquidity preference of the people rises and money market becomes tight.
- iii. **Depression:** During depression the level of economic activity becomes extremely low. Firms incur losses and closure of business becomes a common feature and the ultimate result is unemployment. Interest prices, profits and wages are low. The agricultural class and wage earners would be worst hit. Banking institutions will be reluctant to advance loans to businessmen. Depression is the worst phase of the business cycle. Extreme point of depression is called as “trough”, because it is a deep point in business cycle. Any person fell down in deeps could not come out from that without other’s help. Similarly, an economy fell down in trough could not come out from this without external help. Keynes advocated that autonomous investment of the government alone can help the economy to come out from the depression.
- iv. **Recovery:** After a period of depression, recovery sets in. This is the turning point from depression to revival towards upswing. It begins with the revival of demand for capital goods. Autonomous investments boost the activity. The demand slowly picks up and in due course the activity is directed towards the upswing with more production, profit, income, wages and employment. Recovery may be initiated by innovation or investment or by government expenditure (autonomous investment).



Unit - 6

Banking

“Commercial Banks are the institutions that make short term loans to business and in the process create Money’.”
- Culbertson

Introduction

Finance is the life blood of all economic activities such as trade, commerce, agriculture and industry. A bank is generally understood as an institution which provides fundamental financial services such as accepting deposits and lending loans. Banking sector acts as the backbone of modern business world. The banking system significantly contributes for the development of any country. Due to the importance in the financial stability of a country, banks are highly regulated in most countries.

Historical Development

The Ricks Banks of Sweden, which had sprung from a private bank established in 1656 is the oldest central bank in the world. It acquired the sole right of note issue in 1897. But the fundamentals of the art of banking have been developed by the Bank of England (1864) as the first bank of issues.

A large number of central banks were established between 1921 and 1954 in compliance with the resolution passed by the International Finance Conference held at Brussels in 1920. The South African Reserve Bank (1921), the Central Bank of China (1928), The Reserve Bank of New Zealand (1934), The Reserve Bank of India (1935), the Central Bank of Ceylon (1950) and the Bank of Israel (1954) were established.

Commercial banks

Commercial bank refers to a bank, or a division of a large bank, which more specifically deals with deposit and loan services provided to corporations or large/middle-sized business - as opposed to individual members of the public/small business. They do not provide, long-term credit, as liquidity of assets is to be maintained.

Functions of Commercial Banks:

Commercial banks are institutions that conduct business with profit motive by accepting public deposits and lending loans for various investment purposes.

The functions of commercial banks are broadly classified into primary functions and secondary functions, which are shown in the picture

Functions of Commercial Banks

(a) Primary Functions:

1. Accepting Deposits

It implies that commercial banks are mainly dependent on public deposits. There are two types of deposits, which are discussed as follows

i. Demand Deposits

It refers to deposits that can be withdrawn by individuals without any prior notice to the bank. In other words, the owners of these deposits are allowed to withdraw money anytime by writing a withdrawal slip or a cheque at the bank counter or from ATM centres using debit card.

ii. Time Deposits

It refers to deposits that are made for certain committed period of time. Banks pay higher interest on time deposits. These deposits can be withdrawn only after a specific time period by providing a written notice to the bank.

2. Advancing Loans

It refers to granting loans to individuals and businesses. Commercial banks grant loans in the form of overdraft, cash credit, and discounting bills of exchange.

(b) Secondary Functions

The secondary functions can be classified under three heads, namely, agency functions, general utility functions, and other functions.

1. Agency Functions: It implies that commercial banks act as agents of customers by performing various functions.

(i) Collecting Cheques

Banks collect cheques and bills of exchange on the behalf of their customers through clearing house facilities provided by the central bank.

(ii) Collecting Income

Commercial banks collect dividends, pension, salaries, rents, and interests on investments on behalf of their customers. A credit voucher is sent to customers for information when any income is collected by the bank.

(iii) Paying Expenses

Commercial banks make the payments of various obligations of customers, such as telephone bills, insurance premium, school fees, and rents. Similar to credit voucher, a debit voucher is sent to customers for information when expenses are paid by the bank.

(2) General Utility Functions: It implies that commercial banks provide some utility services to customers by performing various functions.

(i) Providing Locker Facilities

Commercial banks provide locker facilities to its customers for safe custody of jewellery, shares, debentures, and other valuable items. This minimizes the risk of loss due to theft at homes. Banks are not responsible for the items in the lockers.

(ii) Issuing Traveler's Cheques

Banks issue traveler's cheques to individuals for traveling outside the country. Traveler's cheques are the safe and easy way to protect money while traveling.

(iii) Dealing in Foreign Exchange

Commercial banks help in providing foreign exchange to businessmen dealing in exports and imports. However, commercial banks need to take the permission of the Central Bank for dealing in foreign exchange.

3. Transferring Funds

It refers to transferring of funds from one bank to another. Funds are transferred by means of draft, telephonic transfer, and electronic transfer.

4. Letter of Credit

Commercial banks issue letters of credit to their customers to certify their creditworthiness.

(i) Underwriting Securities

Commercial banks also undertake the task of underwriting securities. As public has full faith in the creditworthiness of banks, public do not hesitate in buying the securities underwritten by banks.

(ii) Electronic Banking

It includes services, such as debit cards, credit cards, and Internet banking.

(C) Other Functions:

(i) Money Supply

It refers to one of the important functions of commercial banks that help in increasing money supply. For instance, a bank lends ₹5 lakh to an individual and opens a demand deposit in the name of that individual. Bank makes a credit entry of Rs.5 lakh in that account. This leads to creation of demand deposits in that account. The point to be noted here is that there is no payment in cash. Thus, without printing additional money, the supply of money is increased.

(ii) Credit Creation

Credit Creation means the multiplication of loans and advances. Commercial banks receive deposits from the public and use these deposits to give loans. However, loans offered are many times more than the deposits received by banks. This function of banks is known as 'Credit Creation'.

(iii) Collection of Statistics:

Banks collect and publish statistics relating to trade, commerce and industry. Hence, they advise customers and the public authorities on financial matters.

Mechanism/ Technique of Credit Creation by Commercial Banks

Bank credit refers to bank loans and advances. Money is said to be created when the banks, through their lending activities, make a net addition to the total supply of money in the economy. Likewise, money is said to be destroyed when the loans are repaid by the borrowers to the banks and consequently the credit already created by the banks is wiped out in the process.

Banks have the power to expand or contract demand deposits and they exercise this power through granting more or less loans and advances and acquiring other assets. This power of commercial bank to create deposits through expanding their loans and advances is known as credit creation.

Primary / Passive Deposit and Derived / Active Deposit

The modern banks create deposits in two ways. They are primary deposit and derived deposit. When a customer gives cash to the bank and the bank creates a book debt in his name called a deposit, it is known as a “primary deposit”. But when such a deposit is created, without there being any prior payment of equivalent cash to the bank, it is called a ‘derived deposit’.

Primary Deposits
<ul style="list-style-type: none"> • It is out of these primary deposits that the bank makes loans and advances to its customers. • The initiative is taken by the customers themselves. In this case, the role of the bank is passive. • So these deposits are also called “Passive deposits”.

Credit Creation literally means the multiplication of loans and advances. Every loan creates its own deposits. Central Bank insists the banks to maintain a ratio between the total deposits they create and the cash in their possession.

For the purpose of understanding, it is assumed that all banks are obliged to keep the ratio between cash and its deposits at a minimum of 20 percent.

1. The banks do not keep any excess reserves, in other words, it would exhaust possible avenues of income earning activities like giving loans etc. up to the maximum extent after attaining the minimum cash reserves.
2. There are no drains in the supply of money i.e., the public do not suddenly want to hold more ideal currency or withdraw from the time deposits.

Under the above assumptions, when a customer deposits a sum of Rs.1000 in a bank, the bank creates a deposit of Rs. 1000 in his favor. Bank deposits (Bank Money) have increased by Rs.1000. But, at this stage, there is no increase in the total supply of money with the public, because the above extra bank money of Rs.1000 is offset by the cash of Rs.1000 deposited in the bank.

The bank has now additional cash of Rs.1000 in its custody. Since it is required to keep only a cash reserve of 20 per cent, this means that Rs. 800 is excess cash reserve with it. According to the above assumption, the bank should lend out this Rs. 800 to the public. Suppose, it does so, and the debtor deposits the money in his own account with another bank B, Bank is creating a deposit of Rs. 800. Bank B then has also excess cash reserve of Rs. 640(800-160). It could, in its turn, lend out Rs. 640. This Rs. 640 will, in its turn find its way with, say Bank C; it will create a deposit of Rs. 640 and so on.

The total deposits will now grow into Rs. 1000+800+640+.....till ultimately the excess cash reserve peters out. It can be shown that when that stage is reached the total of the above will be Rs. 5000.

Money Multiplier = $1/20\% = 1/20/100 = 1/20 \times 100 = 5$
Credit creation is $1000 \times 5 = \text{Rs. } 5000$.

Role of Commercial Banks in Economic Development of a Country

1. Capital Formation

Banks play an important role in capital formation, which is essential for the economic development of a country. They mobilize the small savings of the people scattered over a wide area through their network of branches all over the country and make it available for productive purposes.

Now-a-days, banks offer very attractive schemes to induce the people to save their money with them and bring the savings mobilized to the organized money market. If the banks do not perform this function, savings either remains idle or used in creating other assets, (eg. gold) which are low in scale of plan priorities.

2. Creation of Credit

Banks create credit for the purpose of providing more funds for development projects. Credit creation leads to increased production, employment, sales and prices and thereby they bring about faster economic development.

3. Channelizing the Funds towards Productive Investment

Banks invest the savings mobilized by them for productive purposes. Capital formation is not the only function of commercial banks. Pooled savings should be allocated to various sectors of the economy with a view to increase the productivity. Then only it can be said to have performed an important role in the economic development.

4. Encouraging Right Type of Industries

Many banks help in the development of the right type of industries by extending loan to right type of persons. In this way, they help not only for industrialization of the country but also for the economic development of the country. They grant loans and advances to manufacturers whose products are in great demand. The manufacturers in turn increase their products by introducing new methods of production and assist in raising the national income of the country. Sometimes, sub-prime lending is also done. That is how there was an economic crisis in the year 2007-08 in the US.

5. Banks Monetize Debt

Commercial banks transform the loan to be repaid after a certain period into cash, which can be immediately used for business activities. Manufacturers and wholesale traders cannot increase their sales without selling goods on credit basis. But credit sales may lead to locking up of capital. As a result, production may also be reduced. As banks are lending money by discounting bills of exchange, business concerns are able to carry out the economic activities without any interruption.

6. Finance to Government

Government is acting as the promoter of industries in underdeveloped countries for which finance is needed for it. Banks provide long-term credit to Government by investing their funds in Government securities and short-term finance by purchasing Treasury Bills. RBI has given Rs. 68,000 crores to the government of India in the year 2018-19, this is 99% the RBI's surplus.

7. Employment Generation

After the nationalization of big banks, banking industry has grown to a great extent. Bank's branches are opened frequently, which leads to the creation of new employment opportunities.

8. Banks Promote Entrepreneurship

In recent days, banks have assumed the role of developing entrepreneurship particularly in developing countries like India by inducing new entrepreneurs to take up the well-formulated projects and provision of counseling services like technical and managerial guidance. Banks provide 100% credit for worthwhile projects, which is also technically feasible and economically viable. Thus commercial banks help for the development of entrepreneurship in the country.

Non-Banking Financial Institution (NBFI)

A non-banking financial institution (NBFI) or non-bank financial company (NBFC) is a financial institution that does not have a full banking license or is not supervised by the central bank.

The NBFIs do not carry on pure banking business, but they will carry on other financial transactions. They receive deposits and give loans. They mobilize people’s savings and use the funds to finance expenditure on investment activities. In short, they are institutions which undertake borrowing and lending. They operate in both the money and the capital markets.

NBFIs can be broadly classified into two categories. Viz., (1) Stock Exchange; and (2) Other Financial institutions. Under the latter category comes Finance Companies, Finance Corporations, ChitFunds, Building Societies, Issue Houses, Investment Trusts and Unit Trusts and Insurance Companies.

Central Bank

A central bank, reserve bank, or monetary authority is an institution that manages a state’s currency, money supply, and interest rates. Central banks also usually oversee the commercial banking system of their respective countries.

Functions of Central Bank (Reserve Bank of India)

The Reserve Bank of India (RBI) is India’s central banking institution, which controls the monetary policy of the Indian rupee. It commenced its operations on 1 April 1935 in accordance with the Reserve Bank of India Act, 1934. The original share capital was divided into shares of Rs.100 each fully paid, which were initially owned entirely by private shareholders. Following India’s independence on 15 August 1947, the RBI was nationalised on 1 January 1949.

1. **Monetary Authority:** It controls the supply of money in the economy to stabilize exchange rate, maintain healthy balance of payment, attain financial stability, control inflation, strengthen banking system.
2. **The issuer of currency:** The objective is to maintain the currency and credit system of the country. It is the sole authority to issue currency. It also takes action to control the circulation of fake currency.
3. **The issuer of Banking License:** As per Sec 22 of Banking Regulation Act, every bank has to obtain a banking license from RBI to conduct banking business in India.

RESERVE BANK OF INDIA		
History	Administration	Functions
<ul style="list-style-type: none"> • Formed on April 1, 1935 in accordance with the RBI Act, 1934 • Nationalized on January 1, 1949 (Fully owned by GOI) • Headquarter moved 	<ul style="list-style-type: none"> • It is the Central Bank/ Regulator for all bank in India • Also called “Lender of Last Resort” • Governors and 4 Deputy Governors along with a 	<ul style="list-style-type: none"> • Issues currency • Banker to the government {It collects receipts of funds and makes payments on behalf of the government}

<p>from Calcutta to Mumbai in 1937</p> <ul style="list-style-type: none"> • Osborne Smith was the first Governor of RBI 	<p>central board of directors appointed by the GOI.</p>	<ul style="list-style-type: none"> • Regulator of Indian Banking system • Custodian of Forex • Controller of credit
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The process of issuing paper currency was started in the 18th century. Private Banks such as the bank of Bengal the bank of Bombay and the Bank of Madras – first printed paper money.

The first rupee was introduced by Sher Shah Suri based on a ratio of 40 copper pieces (paisa) per rupee. The name was derived from the Sanskrit word Raupya, meaning silver. Each banknote has its amount written in 17 languages (English and Hindi on the front and 15 other on the back) illustrating the diversity of the country.

4. **Banker to the Government:** It acts as banker both to the central and the state governments. It provides short-term credit. It manages all new issues of government loans, servicing the government debt outstanding and nurturing the market for government securities. It advises the government on banking and financial subjects.
5. **Banker's Bank:** RBI is the bank of all banks in India as it provides loan to banks, accept the deposit of banks, and rediscount the bills of banks.
6. **Lender of last resort:** The banks can borrow from the RBI by keeping eligible securities as collateral at the time of need or crisis, when there is no other source.
7. **Act as clearing house:** For settlement of banking transactions, RBI manages 14 clearing houses. It facilitates the exchange of instruments and processing of payment instructions.
8. **Custodian of foreign exchange reserves:** It acts as a custodian of FOREX. It administers and enforces the provision of Foreign Exchange Management Act (FEMA), 1999. RBI buys and sells foreign currency to maintain the exchange rate of Indian rupee v/s foreign currencies.
9. **Regulator of Economy:** It controls the money supply in the system, monitors different key indicators like GDP, Inflation, etc.
10. **Managing Government securities:** RBI administers investments in institutions when they invest specified minimum proportions of their total assets/liabilities in government securities.
11. **Regulator and Supervisor of Payment and Settlement Systems:** The Payment and Settlement Systems Act of 2007 (PSS Act) gives RBI oversight authority for the

payment and settlement systems in the country. RBI focuses on the development and functioning of safe, secure and efficient payment and settlement mechanisms.

12. **Developmental Role:** This role includes the development of the quality banking system in India and ensuring that credit is available to the productive sectors of the economy. It provides a wide range of promotional functions to support national objectives. It also includes establishing institutions designed to build the country's financial infrastructure. It also helps in expanding access to affordable financial services and promoting financial education and literacy.
13. **Publisher of monetary data and other data:** RBI maintains and provides all essential banking and other economic data, formulating and critically evaluating the economic policies in India. RBI collects, collates and publishes data regularly.
14. **Exchange manager and controller:** RBI represents India as a member of the International Monetary Fund [IMF]. Most of the commercial banks are authorized dealers of RBI.
15. **Banking Ombudsman Scheme:** RBI introduced the Banking Ombudsman Scheme in 1995. Under this scheme, the complainants can file their complaints in any form, including online and can also appeal to the Ombudsman against the awards and the other decisions of the Banks.
16. **Banking Codes and Standards Board of India:** To measure the performance of banks against Codes and standards based on established global practices, the RBI has set up the Banking Codes and Standards Board of India (BCSBI).

Credit Control Measures

Credit control is the primary mechanism available to the Central banks to realize the objectives of monetary management. The RBI is much better placed than many of credit control. The statutory basis for the control of the credit system by the Reserve Bank is embodied in the Reserve Bank of India Act, 1934 and the Banking Regulation Act, 1949.

Credit Control Measures	
General (Quantitative)	Selective (Quantitative)
1. Bank Rate 2. Open Market Operations 3. Variable Cash Reserve Ratio	1. Rationing of Credit 2. Direct Action 3. Moral suasion 4. Publicity 5. Regulation of Consumer' Credit 6. Marginal Requirements

Methods of Credit Control

I. Quantitative or General Methods:

1. Bank Rate Policy:

The bank rate is the rate at which the Central Bank of a country is prepared to re-discount the first class securities. It means the bank is prepared to advance loans on approved securities to its member banks. As the Central Bank is only the lender of the last resort the bank rate is normally higher than the market rate. For example: If the Central Bank wants to control credit, it will raise the bank rate. As a result, the deposit rate and other lending rates in the money-market will go up. Borrowing will be discouraged, and will lead to contraction of credit and vice versa.

2. Open Market Operations:

In narrow sense, the Central Bank starts the purchase and sale of Government securities in the money market.

In Broad Sense, the Central Bank purchases and sells not only Government securities but also other proper eligible securities like bills and securities of private concerns. When the banks and the private individuals purchase these securities they have to make payments for these securities to the Central Bank.

3. Variable Reserve Ratio:

a) Cash Reserves Ratio:

Under this system the Central Bank controls credit by changing the Cash Reserves Ratio. For example, if the Commercial Banks have excessive cash reserves on the basis of which they are creating too much of credit, this will be harmful for the larger interest of the economy. So it will raise the cash reserve ratio which the Commercial Banks are required to maintain with the Central Bank.

Similarly, when the Central Bank desires that the Commercial Banks should increase the volume of credit in order to bring about an economic revival in the economy. The central Bank will lower down the Cash Reserve Ratio with a view to expand the lending capacity of the Commercial Banks.

Variable Cash Reserve Ratio as an objective of monetary policy was first suggested by J.M. Keynes. It was first followed by Federal Reserve System in United States of America. The commercial banks as per the statute has to maintain reserves based on their demand deposit and fixed deposit with central bank is called as Cash Reserve Ratio.

If the CRR is high, the commercial bank's capacity to create credit will be less and if the CRR is low, the commercial bank's capacity to create credit will be high.

b) Statutory Liquidity Ratio:

Statutory Liquidity Ratio (SLR) is the amount which a bank has to maintain in the form of cash, gold or approved securities. The quantum is specified as some percentage of

the total demand and time liabilities (i.e., the liabilities of the bank which are payable on demand anytime, and those liabilities which are accruing in one month's time due to maturity) of a bank.

II. Qualitative or Selective Method of Credit Control:

The qualitative or the selective methods are directed towards the diversion of credit into particular uses or channels in the economy. Their objective is mainly to control and regulate the flow of credit into particular industries or businesses. The following are the frequent methods of credit control under selective method:

1. Rationing of Credit
2. Direct Action
3. Moral Persuasion
4. Method of Publicity
5. Regulation of Consumer's Credit
6. Regulating the Marginal Requirements on Security Loans

1. Rationing of Credit

This is the oldest method of credit control. Rationing of credit as an instrument of credit control was first used by the Bank of England by the end of the 18th Century. It aims to control and regulate the purposes for which credit is granted by commercial banks. It is generally of two types.

a) The variable portfolio ceiling: It refers to the system by which the central bank fixes ceiling or maximum amount of loans and advances for every commercial bank.

b) The variable capital asset ratio: It refers to the system by which the central bank fixes the ratio which the capital of the commercial bank should have to the total assets of the bank.

2. Direct Action

Direct action against the erring banks can take the following forms.

- a) The central bank may refuse to altogether grant discounting facilities to such banks.
- b) The central bank may refuse to sanction further financial accommodation to a bank whose existing borrowing are found to be in excess of its capital and reserves.
- c) The central bank may start charging penal rate of interest on money borrowed by a bank beyond the prescribed limit.

3. Moral Suasion

This method is frequently adopted by the Central Bank to exercise control over the Commercial Banks. Under this method Central Bank gives advice, then requests. and

persuades the Commercial Banks to co-operate with the Central Bank in implementing its credit policies.

4. Publicity

Central Bank in order to make their policies successful, take the course of the medium of publicity. A policy can be effectively successful only when an effective public opinion is created in its favour.

5. Regulation of Consumer's Credit:

The down payment is raised and the number of installments reduced for the credit sale.

6. Changes in the Marginal Requirements on Security Loans:

This system is mostly followed in U.S.A. Under this system, the Board of Governors of the Federal Reserve System has been given the power to prescribe margin requirements for the purpose of preventing an excessive use of credit for stock exchange speculation.

This system is specially intended to help the Central Bank in controlling the volume of credit used for speculation in securities under the Securities Exchange Act, 1934.

The Repo Rate and the Reverse Repo Rate are the frequently used tools with which the RBI can control the availability and the supply of money in the economy. RR is always greater than RRR in India

Repo Rate: (RR)	Reverse Repo Rate (RRR)
The rate at which the RBI is willing to lend to commercial banks is called Repo Rate. Whenever banks have any shortage of funds they can borrow from the RBI, against securities. If the RBI increases the Repo Rate, it makes borrowing expensive for banks and vice versa. As a tool to control inflation, RBI increases the Repo Rate, making it more expensive for the banks to borrow from the RBI. Similarly, the RBI will do the exact opposite in a deflationary environment.	The rate at which the RBI is willing to borrow from the commercial banks is called reverse repo rate. If the RBI increases the reverse repo rate, it means that the RBI is willing to offer lucrative interest rate to banks to park their money with the RBI. This results in a decrease in the amount of money available for banks customers as banks prefer to park their money with the RBI as it involves higher safety. This naturally leads to a higher rate of interest which the banks will demand from their customers for lending money to them.

Reserve Bank of India and Rural Credit

In a developing economy like India, the Central bank of the country cannot confine itself to the monetary regulation only, and it is expected that it should take part in development function in all sectors especially in the agriculture and industry.

Role of RBI in agricultural credit

RBI has been playing a very vital role in the provision of agricultural finance in the country. The Bank's responsibility in this field had been increased due to the predominance of agriculture in the Indian economy and the inadequacy of the formal agencies to cater to the huge requirements of the sector. In order to fulfill this important role effectively, the RBI set up a separate Agriculture Credit Department. However, the volume of informal loans has not declined sufficiently.

Functions of Agriculture Credit Department:

- a. To maintain an expert staff to study all questions on agricultural credit;
- b. To provide expert advice to Central and State Government, State Co-operative Banks and other banking activities.
- c. To finance the rural sector through eligible institutions engaged in the business of agricultural credit and to co-ordinate their activities.

The duties of the RBI in agricultural credit were much restricted as it had to function only in an ex-officio capacity being the Central Bank of the country. It could not lend directly to the farmers, but the supply of rural credit was done through the mechanism of refinance with institutions specializing in rural credit. Primary societies may borrow from Central Co-operative Bank, and the latter may borrow from the apex or the State Co-operative Bank, which in its turn might get accommodation facilities from the RBI.

The RBI was providing medium-term loans also for a period exceeding 15 months to 5 years for reclamation of land, construction of irrigation works, purchase of machinery, etc.

The Reserve Bank of India was also providing long-term loans to finance permanent changes in land and also for the redemption of old debts.

With the establishment of National Bank for Agriculture and Rural Development (NABARD), all the functions of the RBI relating to agricultural credit had been taken over and looked after by NABARD since 1982. Since then, all activities relating to rural credit are entirely looked after by NABARD.

The Agricultural Refinance Development Corporation (ARDC)

Farmers in India require mainly medium term and long term loans and they face a lot of difficulties in getting them. The only organization providing long term credit is Land Development Banks which have lagged behind and recorded only limited success. The credit requirements of the agricultural sector are increasing year after year. With the aim of bridging the gap in agricultural finance and to extend credit for projects involving agricultural development, an organization called the Agricultural Refinance Development Corporation (ARDC) was established by an Act of Parliament and it started functioning from July 1, 1963.

Objectives of the ARDC:

- i. To provide necessary funds by way of refinance to eligible institutions such as the Central Land Development Banks, State Co-operative Banks, and Scheduled banks.
- ii. To subscribe to the debentures floated by the Central Land Development banks, State Co-operative Banks, and Scheduled banks, provided they were approved by the RBI.

Regional Rural Banks (RRBs)

One of the important points of the 20 points economic programme of Mrs. Indira Gandhi during emergency was the liquidation of rural indebtedness by stages and provide institutional credit to farmers and artisans in rural areas. It was in pursuance of this aspect of the New Economic programme that the Government of India setup Regional Rural Banks (RRBs) on 1975. The share capital of RRB is subscribed by the Central Government (50%), the State Government concerned (15%), and the sponsoring commercial bank (35%).

The main objective of the RRBs is to provide credit and other facilities particularly to the small and marginal farmers, agricultural labourers, artisans and small entrepreneurs so as to develop agriculture, trade, commerce, industry and other productive activities in the rural areas.

Concessions to RRBs

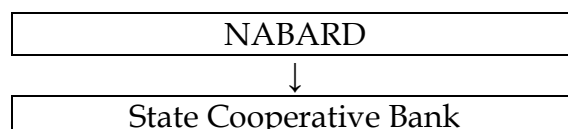
From the beginning, the sponsor banks have continued to provide managerial and financial assistance to RRBs and also other concessions such as lower rate of interest (8.5 per cent) on the latter's borrowings from sponsor banks. Further, the cost of staff deputed to RRBs and training expenses of RRB staff are borne by the sponsor banks.

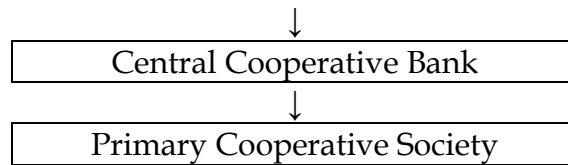
The RBI has been granting many concessions to RRBs:

- a. They are allowed to maintain cash reserve ratio at 3 per cent and statutory liquidity ratio at 25 per cent; and
- b. They also provide refinance facilities through NABARD.

NABARD and its role in Agricultural credit

Since its inception, RBI has shown keen interest in agricultural credit and maintained a separate department for this purpose. RBI extended short-term seasonal credit as well as medium-term and long-term credit to agriculture through State level co-operative banks and Land Development banks.





Three Tier Cooperative Credit Structure

At the same time, RBI has also set up the Agricultural Refinance Development Corporation (ARDC) to provide refinance support to the banks to promote programmes of agricultural development, particularly those requiring term credit. With the widening of the role of bank credit from “agricultural development” to “rural development” the Government proposed to have a more broad-based organization at the apex level to extend support and give guidance to credit institutions in matters relating to the formulation and implementation of rural development programmes.

A National Bank for Agriculture and Rural Development (NABARD), was therefore, set up in July 1982 by an Act of parliament to take over the functions of ARDC and the refinancing functions of RBI in relation to co-operative banks and RRBs. NABARD is linked organically with the RBI by the latter contributing half of its share capital the other half being contributed by the Government of India(GOI). GOI nominates three of its Central Board Directors on the board of NABARD. A Deputy Governor of RBI is appointed as Chairman of NABARD.

Functions of NABARD

NABARD has inherited its apex role from RBI i.e, it is performing all the functions performed by RBI with regard to agricultural credit.

- i. NABARD acts as a refinancing institution for all kinds of production and investment credit to agriculture, small-scale industries, cottage and village industries, handicrafts and rural crafts and real artisans and other allied economic activities with a view to promoting integrated rural development.
- ii. It provides short-term, medium-term and long-term credits to state co-operative Banks (SCBs), RRBs, LDBs and other financial institutions approved by RBI.
- iii. NABARD gives long-term loans (upto 20 Years) to State Government to enable them to subscribe to the share capital of co-operative credit societies.
- iv. NABARD gives long-term loans to any institution approved by the Central Government or contribute to the share capital or invests in securities of any institution concerned with agriculture and rural development.
- v. NABARD has the responsibility of co-ordinating the activities of Central and State Governments, the Planning Commission (now NITI Aayog) and other all India and

State level institutions entrusted with the development of small scale industries, village and cottage industries, rural crafts, industries in the tiny and decentralized sectors, etc.

- vi. It has the responsibility to inspect RRBs and co-operative banks, other than primary co-operative societies.
- vii. It maintains a Research and Development Fund to promote research in agriculture and rural development

Reserve bank of India and industrial finance

Though industries get finance from commercial banks, the quantum and the term will be very much limited generally. Commercial banks lend for short term only, as they get only short-term deposits from the public. Further lending to industries is only a fragment of the total lending by the banks.

Hence, there is a need and urgency of establishing long-term credit facilities to industries. The institutional set-up in India for financing in India for financing and promoting industries are as follows

All-India Level Institutions:

1. Industrial Finance Corporation of India (IFCI)

This was first in the chain of establishment of financial corporations to provide financial assistance for industrial development. This was established on July 1, 1948 under the Act of the Parliament. IFCI provides assistance to the industrial concerns in the following ways:

- i) Long-term loans; both in rupees and foreign currencies.
- ii) Underwriting of equity, preference and debenture issues.
- iii) Subscribing to equity, preference and debenture issues.
- iv) Guaranteeing the deferred payments in respect of machinery imported from abroad or purchased in India; and
- v) Guaranteeing of loans raised in foreign currency from foreign financial institutions.

Financial assistance of IFCI can be availed by any Limited Company in the public, private or joint sector, or by a co-operative society incorporated in India, which is engaged or proposes to be engaged in the specified industrial activities. Such financial assistance will be available for the setting up of new industrial projects and also for the expansion diversification, renovation or modernisation of existing ones. The IFCI also provides financial assistance on concessional terms for setting up industrial projects in industrially less developed districts in the States or Union Territories notified by the Central Government,

The IFCI raises its resources by way of (a) issue of bonds in the market; (b) borrowing from Industrial Development Bank of India and the Central Government; (c) foreign credit secured from foreign financial institutions and borrowings in the international capital markets.

3. Industrial Credit and Investment Corporation of India (ICICI)

Functions of ICICI

- Assistance to industries
- Provision of foreign currency loans
- Merchant banking
- Letter of credit
- Project promotion
- Housing loans
- Leasing operations

This was set up on 5th January 1955 as a joint-stock company on the advice given by a three-man mission sponsored by the World Bank and The Government of USA to the Government of India. The principal purpose of this institution is to channelize the World Bank funds to industry in India and also to help build up a capital market. Initially the capital of ICICI was held by private companies, institutions and individuals. But now, a very large part of its equity capital is held by public sector institutions, such as banks, LIC, GIC and its subsidiaries, as 'this private institution was nationalized.

The significant feature of the operations of ICICI is the foreign currency loans sanctioned by this institution to industries. Since its inception, nearly 50 per cent of its disbursement had been in foreign currencies. This is possible because of the facility it enjoys of raising funds in foreign currencies. The World Bank has been the single largest source of such funds. Since 1973, the ICICI has entered the international capital markets also for raising foreign currency loans.

The major portion of its rupee resources is raised by way of debentures in the capital market. The ICICI also borrows from the Industrial Development Bank of India and the Government. The major portion of its assistance has gone to the private sector.

Industrial Development Bank of India (IDBI)

The Industrial Development Bank of India has been conceived with the primary object of creating an apex institution to co-ordinate the activities of other financial institutions, including banks. The Development Bank was a wholly owned subsidiary of the Reserve Bank of India upto February 15, 1976. It was delinked from the RBI with effect from February 16, 1976 and made an autonomous corporation fully owned by the Government of India.

Functions of IDBI: The functions of IDBI fall into two groups (i) Assistance to other financial institutions; and (ii) Direct assistance to industrial concerns either on its own or

in participation with other institutions. The IDBI can provide refinance in respect of term loans to industrial concerns given by the IFC, the SFCs, other financial institutions notified by the Government, scheduled banks and state cooperative banks.

A special feature of the IDBI is the provision for the creation of a special fund known as the Development Assistance Fund. The fund is intended to provide assistance to industries which require heavy investments with low anticipated rate of return. Such industries may not be able to get assistance in the normal course. The financing of exports was also undertaken by the IDBI till the establishment of EXIM BANK in March, 1982.

State Level Institutions

1. State Financial Corporation (SFCs)

The government of India passed in 1951 the State Financial Corporations Act and SFCs were set up in many states. The SFCs are mainly intended for the development of small and medium industrial units within their respective states. However, in some cases they extend to neighbouring states as well.

The SFCs provide loans and underwriting assistance to industrial units having paid-up capital and reserves not exceeding Rs. 1 crore. The maximum amount that can be sanctioned to an industrial concern by SFC is Rs. 60 lakhs.

SFCs depend upon the IDBI for refinance in respect of the term loans granted by them. Apart from these, the SFCs can also make temporary borrowings from the RBI and borrowings from IDBI and by the sale of bonds.

State Industrial Development Corporations (SIDCOs)

The Industrial Development Corporations have been set up by the state governments and they are wholly owned by them. These institutions are not merely financing agencies; they are entrusted with the responsibility of accelerating the industrialization of their states.

SIDCOs provide financial assistance to industrial concerns by way of loans guarantees and underwriting of or direct subscriptions to shares and debentures. In addition to these, they undertake various promotional activities, such as conducting techno-economic surveys, project identification, preparation of feasibility studies and selection and training of entrepreneurs. They also promote joint sector projects in association with private promoter in such type of projects. SIDCOs take 26 percent, private co-promoter takes 25 percent of the equity, and the rest is offered to the investing public. SIDCOs undertake the development of industrial areas by providing all infrastructural facilities and initiation of new growth centers. They also administer various State government incentive schemes. SIDCOs get refinance facilities from IDBI. They also borrow through bonds and accept deposits.

Monetary Policy

Monetary Policy is the macroeconomic policy being laid down by the Central Bank towards the management of money supply and interest rate. It is the demand side economic policy used by the government of a country to achieve macroeconomic objectives like inflation, consumption, growth and liquidity. The monetary policy gained its significance after the World War II, thanks to the initiation made by Milton Friedman, who is associated with the doctrine of “monetarism” and who received Nobel Prize in 1976. He boldly announced in his book “Monetary History of the United States, 1867 – 1960” that the Great Depression of the 1930’s was largely the outcome of the bungling monetary policies of the Federal Reserve System.

Monetary Policy: Expansionary Vs. Contractionary

Expansionary policy is cheap money policy when a monetary authority uses its tools to stimulate the economy. An expansionary policy maintains short-term interest rates at a lower than usual rate or increases the total supply of money in the economy more rapidly than usual. It is traditionally used to try to combat unemployment by lowering interest rates in the hope that less expensive credit will entice businesses into expanding. This increases aggregate demand (the overall demand for all goods and services in an economy), which boosts short-term growth as measured by gross domestic product (GDP) growth.

The Contractionary monetary policy is dear money policy, which maintains short-term interest rates higher than usual or which slows the rate of growth in the money supply or even shrinks it. This slows short-term economic growth and lessens inflation. Contractionary monetary policy can lead to increased unemployment and depressed borrowing and spending by consumers and businesses, which can eventually result in an economic recession if implemented too vigorously.

Objectives of Monetary Policy

The monetary policy in developed economies has to serve the function of stabilization and maintaining proper equilibrium in the economic system. But in case of underdeveloped countries, the monetary policy has to be more dynamic so as to meet the requirements of an expanding economy by creating suitable conditions for economic progress. It is now widely recognized that monetary policy can be a powerful tool of economic transformation.

The specific objectives of monetary policy are

1. Neutrality of Money
2. Stability of Exchange Rates
3. Price Stability
4. Full Employment
5. Economic Growth

6. Equilibrium in the Balance of Payments

1. Neutrality of Money

Economists like Wicksteed, Hayek and Robertson are the chief exponents of neutral money. They hold the view that monetary authority should aim at neutrality of money in the economy. Monetary changes could be the root cause of all economic fluctuations. According to neutralists, the monetary change causes distortion and disturbances in the proper operation of the economic system of the country.

2. Exchange Rate Stability

Exchange rate stability was the traditional objective of monetary authority. This was the main objective under Gold Standard among different countries. When there was disequilibrium in the balance of payments of the country, it was automatically corrected by movements. It was popularly known as “Expand Currency and Credit when gold is coming in; contract currency and credit when gold is going out.” This system will correct the disequilibrium in the balance of payments and exchange rate stability will be maintained.

It must be noted that if there is instability in the exchange rates, it would result in outflow or inflow of gold resulting in unfavorable balance of payments. Therefore, stable exchange rates are advocated.

3. Price Stability

Economists like Crustave Cassel and Keynes suggested price stabilization as a main objective of monetary policy. Price stability is considered the most genuine objective of monetary policy. Stable prices repose public confidence. It promotes business activity and ensures equitable distribution of income and wealth. As a consequence, there is general wave of prosperity and welfare in the community.

But it is admitted that price stability does not mean ‘price rigidity’ or price stagnation’. A mild increase in the price level provides a tonic for economic growth. It keeps all virtues of a stable price.

4. Full Employment

During world depression, the problem of unemployment had increased rapidly. It was regarded as socially dangerous, economically wasteful and morally deplorable. Thus, full employment was considered as the main goal of monetary policy. With the publication of Keynes’ General Theory of Employment, Interest and Money in 1936, the objective of full employment gained full support as the chief objective of monetary policy.

5. Economic Growth

Economic growth is the process whereby the real per capita income of a country increases over a long period of time. It implies an increase in the total physical or real output, production of goods for the satisfaction of human wants.

Therefore, monetary policy should promote sustained and continuous economic growth by maintaining equilibrium between the total demand for money and total production capacity and further creating favourable conditions for saving and investment. For bringing equality between demand and supply, flexible monetary policy is the best course.

6. Equilibrium in the Balance of Payments

Equilibrium in the balance of payments is another objective of monetary policy which emerged significant in the post war years. This is simply due to the problem of international liquidity on account of the growth of world trade at a more faster speed than the world liquidity.

It was felt that increasing of deficit in the balance of payments reduces the ability of an economy to achieve other objectives. As a result, many less developed countries have to curtail their imports which adversely affects development activities. Therefore, monetary authority makes efforts to maintain equilibrium in the balance of payments.

Recent Advancements in Banking Sector

E- Banking

Online banking, also known as internet banking, is an electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transactions through the financial institution's website. The online banking system typically connects to or be part of the core banking system operated by a bank and is in contrast to branch banking which was the traditional way customers accessed banking services.

Today, "virtual banks" (or "direct banks") have only an internet presence, which enables them to lower costs than traditional brick-and-mortar banks.

RTGS and NEFT

Inter Bank Transfer enables electronic transfer of funds from the account of the remitter in one Bank to the account of the beneficiary maintained with any other Bank branch. There are two systems of Inter Bank Transfer - RTGS and NEFT. Both these systems are maintained by RBI. NEFT operates in half hourly batches. Currently there are twenty three settlements from 8 am to 7 pm on all working days including working Saturdays. Therefore, the beneficiary can expect to get the credit for the transactions put through between 8 am to 5.30 pm on all working days including working Saturdays on the same day.

For transactions settled in the 6.30 and 7 pm batches on all working days including working Saturdays, the credit will be afforded either on the same day or on the next working day.

NEFT	RTGS
National electronic Fund Transfer	Real Time Gross Settlement
Transactions happens in batches hence slow	Transactions Happens in real time hence fast
Timings : 8:00 am to 6:30 pm (12: 30 pm on Saturday)	Timings : 9:00 am to 4:30 pm (1:30 pm on Saturday)
No minimum limit	Minimum amount for RTGS transfer is ₹ 2 lakhs

ATM (Automated Teller Machine)

ATMs transformed the bank tech system when they were first introduced in 1967. The next revolution in ATMs is likely to involve contactless payments. Much like Apple Pay or Google Wallet, soon we will be able to conduct contactless ATM transactions using a smartphone.

Some ATM innovations are already available overseas. For example, biometric authentication is already used in India, and its recognition is in place at Qatar National Bank ATMs. These technologies can help overall bank security by protecting against ATM hacks.

Paytm

Payments Bank. In August 2015, Paytm received a license from RBI to launch a payments bank. The Paytm Payments Bank is a separate entity in which founder Vijay Shekhar Sharma will hold 51% share, One97 Communications holds 39% and 10% will be held by a subsidiary of One97 and Sharma.

Debit card and Credit Card

A Debit card is a card allowing the holder to transfer money electronically from their bank account when making a purchase.

A credit card is a payment card issued to users (cardholders) to enable the cardholder to pay a merchant for goods and services based on the cardholder's promise to the card issuer to pay them for the amounts so paid plus the other agreed charges. The card issuer (usually a bank) creates a revolving account and grants a line of credit to the cardholder, from which the cardholder can borrow money for payment to a merchant or as a cash advance. In other words, credit cards combine payment services with extensions of credit. Complex fee structures in the credit card industry may limit customers' ability to shopping.

Recent Issues

Once the borrower fails to make interest or principal payments for 90 days the loan is considered to be a non-performing asset (NPA). NPAs are problematic for financial institutions since they depend on interest payments for income. As on now the size of NPAs is estimated to be around 10 lakh crores. As a result, the banks do not have adequate capital. Hence the Government (of India) is forced to infuse capital to the banks by using poor tax-payers money. Already more than a sum of Rs. 2 lakh crores have been injected. During 2018 - 19, the GOI has infused Rs. 68,000 crores into the banking system. Thus the NPAs ultimately affect the common people.

Merger of Banks

Union Cabinet decided to merge all the remaining five associate banks of State Bank Group with State Bank of India in 2017. After the Parliament passed the merger Bill, the subsidiary banks have ceased to exist.

Five associates and the Bharatiya Mahila Bank have become the part of State Bank of India (SBI) beginning April 1, 2017. This has placed State Bank of India among the top 50 banks in the world. The five associate banks that were merged are State Bank of Bikaner and Jaipur (SBBJ), State Bank of Hyderabad (SBH), State Bank of Mysore (SBM), State Bank of Patiala (SBP) and State Bank of Travancore (SBT). The other two Associate Banks namely State Bank of Indore and State Bank of Saurashtra had already been merged with State Bank of India. After the merger, the total customer base of SBI increased to 37 crore with a branch network of around 24,000 and around 60,000 ATMs across the country.

Money Market

Money market is the mechanism through which short term funds are loaned and borrowed. It designates financial institutions which handle the purchase, sale and transfer of short term credit instruments. Commercial banks, acceptance houses, Non Banking Financial Institutions and the Central Bank are the institutions catering to the requirements of short term funds in the money Market.

Capital Market

Capital Market is a part of financial system which is concerned with raising capital by dealing in shares, bonds and other long term investments.

The market where investment instruments like bonds, equities and mortgages are traded is known as the capital market

Demonitisation

Demonitisation is the act of stripping a currency unit of its status as legal tender. It occurs whenever there is a change of national currency. The current form or forms of money is pulled from circulation, often to be replaced with new coins or notes. On 8

November 2016, the Indian Prime Minister Mr.NarendraModi announced the demonetization of all Rs. 500 and Rs. 1000 bank notes of the Mahatma Gandhi Series. However, more than 99% of those currencies came back to the RBI.

Objectives of Demonetisation

1. Removing Black Money from the country.
2. Stopping of Corruption.
3. Stopping Terror Funds.
4. Curbing Fake Notes



9. Fiscal Economic

“Incomings may be scant; but yet, no failures there, If in expenditure you rightly learn to spare”.

- Thirukkural No.478

Introduction

The term ‘Fiscal Economics’ is a new one; the old and popular term of the subject is ‘Public Finance’. The subject Public Finance is related to the financing of the State activities and it discusses the financial operations of the Government treasury. The term fiscal is derived from Greek word which means basket and symbolizes the public purse. Hence the subject ‘Public Finance’ has been newly termed ‘Fiscal Economics’.

Public Finance studies the manner in which the state raises and spends the resources. The state is concerned with the collective wants of the citizens.

The modern state is a welfare state. The activities of the state have increased extensively and intensively. To perform these activities, the state needs funds. This chapter deals with the Public Revenue, Public Expenditure, Public Debt, Budget, Federal Finance and Local Finance.

Meaning of Public Finance

Public finance is a study of the financial aspects of Government. It is concerned with the revenue and expenditure of the public authorities and with adjustment of the one to the other.

Definitions

“Public finance is one of those subjects that lie on the border line between Economics and Politics. It is concerned with income and expenditure of public authorities and with the adjustment of one to the other”.

-Huge Dalton

“Public finance is an investigation into the nature and principles of the state revenue and expenditure”.

-Adam Smith

Subject Matter / Scope of Public Finance

In Modern times, the subject ‘Public Finance’ includes five major sub-divisions, viz., Public Revenue, Public Expenditure, Public Debt, Financial Administration and Fiscal Policy.

1. Public Revenue

Public revenue deals with the methods of raising public revenue such as tax and non-tax, the principles of taxation, rates of taxation, impact, incidence and shifting of taxes and their effects.

2. Public Expenditure

This part studies the fundamental principles that govern the Government expenditure, effects of public expenditure and control of public expenditure.

3. Public Debt

Public debt deals with the methods of raising loans from internal and external sources. The burden, effects and redemption of public debt fall under this head.

4. Financial Administration

This part deals with the study of the different aspects of public budget. The budget is the Annual master financial plan of the Government. The various objectives and steps in preparing a public budget, passing or sanctioning, allocation evaluation and auditing fall within financial administration.

5. Fiscal Policy

Taxes, subsidies, public debt and public expenditure are the instruments of fiscal policy.

Public finance and Private finance

Public finance deals with study of income, expenditure, borrowing and financial administration of the government. Private finance is the study of income, expenditure, borrowing and financial administration of individual or private companies. Both public and private finance are fundamentally similar in nature but different from each other on various operational aspects. The similarities and dissimilarities between public and private finance have been explained below.

Similarities

1. Rationality

Both public finance and private finance are based on rationality. Maximization of welfare and least cost factor combination underlie both.

2. Limit to borrowing

Both have to apply restraint with regard to borrowing. The Government also cannot live beyond its means. There is a limit to deficit financing by the state also.

3. Resource utilisation

Both the private and public sectors have limited resources at their disposal. So both attempt to make optimum use of resources.

4. Administration

The effectiveness of measures of the Government as well as private depends on the administrative machinery. If the administrative machinery is inefficient and corrupt it will result in wastages and losses.

Dissimilarities

1. Income and Expenditure adjustment

The government adjusts the income to the expenditure while individuals adjust their expenditure to the income. Private finance involves stitching coat according to cloth available whereas public finance decides the cloth according to the need for the coat.

2. Borrowing

The government can borrow from internal and external sources; it can borrow from the people by issuing bonds. However, an individual cannot borrow from himself.

3. Right to print currency

The government can print currency. This involves the creation, distribution and monitoring of currency. The private sector cannot create currency.

4. Present vs. future decisions

The public finance is more involved with future planning and making long-term decisions. These investments could include building of schools, hospitals and infrastructure. The private finance makes financial decisions on projects with a short term vision.

5. Objective

The public sector's main objective is to provide social benefit in the economy. The private sector aims to maximize personal benefit i.e. Profit.

6. Coercion to get revenue

The sources of income of a private individual is relatively limited while those of the Government is wide. The Government can use its power and authority.

7. Ability to make huge and deliberate changes

The public finance has the ability to make big decisions on income. For example, it can effectively and deliberately adjust the revenue. But individuals cannot make such massive decisions.

Functions of Modern State

The modern state is a welfare state and not just police state. The state assumes greater roles by creating economic and social overheads, ensuring stability both internally and externally, conserving resources for sustainable development and so on.

(i) Defence

The primary function of the Government is to protect the people from external aggression and internal disorder. The government has to maintain adequate police and military forces and render protective services.

(ii) Judiciary

Rendering justice and settlement of disputes are the concern of the government. It should provide adequate judicial structure to render justice to all classes of citizens.

(iii) Enterprises

The regulation and control of private enterprise fall under the purview of the modern State. Ownership of certain enterprises and operating them successfully are the responsibilities of the government.

(iv) Social Welfare

It is the duty of the state to make provisions for education, social security, social insurance, health and sanitation for the betterment of the people in the country.

(v) Infrastructure

Modern States have to build the base for the economic development of the country by creating social and economic infrastructure.

(vi) Macro-economic policy

The Government has to administer fiscal policy and monetary policy to achieve macro-economic goals.

(vii) Social Justice

During the process of growth of an economy, certain sections of the society gain at the cost of others. The Government needs to intervene with fiscal measures to redistribute income.

(viii) Control of Monopoly

Concentration of economic power is another evil to be corrected by the Government. So, the state intervenes through control of monopolies and restrictive trade practices to curb concentration of economic power.

In fine, the state can play three kinds of roles.

- i) As a producer of goods and services.
- ii) As a supplier of public goods and social goods.
- iii) As a regulator of the system.

Public Expenditure

Meaning

Public expenditure refers to Government spending incurred by Central, State and Local governments of a country.

Definition

Public expenditure can be defined as, "The expenditure incurred by public authorities like central, state and local governments to satisfy the collective social wants of the people is known as public expenditure".

Classification of public expenditure are as follows:

1. Classification on the Basis of Benefit:

Cohn and Plehn have classified the public expenditure on the basis of benefit into four classes:

- a) Public expenditure benefiting the entire society, e.g., the expenditure on general administration, defence, education, public health, transport.
- b) Public expenditure conferring a special benefit on certain people and at the same time common benefit on the entire community, e.g. administration of justice etc.
- c) Public expenditure directly benefiting particular group of persons and indirectly the entire society, e.g. social security, public welfare, pension, unemployment relief etc.
- d) Public expenditure conferring a special benefit on some individuals, e.g., subsidy granted to a particular industry.

2. Classification on the Basis of Function:

Adam Smith classified public expenditure on the basis of functions of government in the following main groups:

- a) **Protection Functions:** This group includes public expenditure incurred on the security of the citizens, to protect from external invasion and internal disorder, e.g., defence, police, courts etc.

b) Commercial Functions: This group includes public expenditure incurred on the development of trade and commerce, e.g., development of means of transport and communication etc.

c) Development Functions: This group includes public expenditure incurred for the development infrastructure and industry.

Causes for the Increase in Government Expenditure

The modern state is a welfare state. In a welfare state, the government has to perform several functions viz Social, economic and political. These activities are the cause for increasing public expenditure.

1. Population Growth

During the past 67 years of planning, the population of India has increased from 36.1 crore in 1951, to 121 crore in 2011. The growth in population requires massive investment in health and education, law and order, etc. Young population requires increasing expenditure on education & youth services, whereas the aging population requires transfer payments like old age pension, social security & health facilities.

2. Defence Expenditure

There has been enormous increase in defence expenditure in India during planning period. The defence expenditure has been increasing tremendously due to modernisation of defence equipment. The defence expenditure of the government was ₹ 10,874 crores in 1990-91 which increased significantly to ₹ 2,95,511 crores in 2018-19.

3. Government Subsidies

The Government of India has been providing subsidies on a number of items such as food, fertilizers, interest on priority sector lending, exports, education, etc. Because of the massive amounts of subsidies, the public expenditure has increased manifold.

The expenditure on subsidies by central government in 1990-91 was ₹ 9581 crores which increased significantly to ₹ 2, 29,715.67 crores in 2018-19. Besides this, the corporate sectors also receive subsidies (incentives) of more than ₹ 5 lakh crores.

4. Debt Servicing

The government has been borrowing heavily both from the internal and external sources, As a result, the government has to make huge amounts of repayment towards debt servicing.

The interest payment of the central government has increased from ₹ 21,500 crores in 1990-91 to ₹5, 75,794crores in 2018-19.

5. Development Projects

The government has been undertaking various development projects such as irrigation, iron and steel, heavy machinery, power, telecommunications, etc. The development projects involve huge investment.

6. Urbanisation

There has been an increase in urbanization. In 1950-51 about 17% of the population was urban based. Now the urban population has increased to about 43%. There are more than 54 cities above one million population. The increase in urbanization requires heavy expenditure on law and order, education and civic amenities.

7. Industrialisation

Setting up of basic and heavy industries involves a huge capital and long gestation period. It is the government which starts such industries in a planned economy. The under developed countries need a strong of infrastructure like transport, communication, power, fuel, etc.

8. Increase in grants in aid to state and union territories

There has been tremendous increase in grant-in-aid to state and union territories to meet natural disasters.

Public Revenue

Public revenue occupies an important place in the study of public finance. The Government has to perform several functions for the welfare of the people. They involve substantial amount of public expenditure which can be financed only through public revenue. The amount of public revenue to be raised depends on the necessity of public expenditure and the people's ability to pay.

Meaning

The income of the government through all sources is called public income or public revenue.

According to Dalton, the term "Public Income" has two senses – wide and narrow. In its wider sense it includes all the incomes or receipts which a public authority may secure during any period of time. In its narrow sense, it includes only those sources of income of the public authority which are ordinarily known as "revenue resources." To avoid ambiguity, the former is termed "public receipts" and the latter "public revenue."

In a narrow sense, it includes only those sources of income of the Government which are described as “revenue resources”. In broad sense, it includes loans raised by the Government also.

Classification of Public Revenue.

Public revenue can be classified into two types.

Meaning

Tax is a compulsory payment by the citizens to the government to meet the public expenditure. It is legally imposed by the government on the tax payer and in no case taxpayer can refuse to pay taxes to the government.

Definitions

“A Tax is a compulsory payment made by a person or a firm to a government without reference to any benefit the payer may derive from the government.”
-AnatolMurad

“A Tax is a compulsory contribution imposed by public authority, irrespective of the exact amount of service rendered to the tax payer in return and not imposed as a penalty for any legal offence.”
- Dalton

Characteristics of Tax

1. A tax is a compulsory payment made to the government. People on whom a tax is imposed must pay the tax. Refusal to pay the tax is a punishable offence.
2. There is no quid pro quo between a taxpayer and public authorities. This means that the tax payer cannot claim any specific benefit against the payment of a tax.
3. Every tax involves some sacrifice on part of the tax payer.
4. A tax is not levied as a fine or penalty for breaking law.

Some of the tax revenue sources are

- ❖ Income tax
- ❖ Corporate tax
- ❖ Sales tax
- ❖ Surcharge and
- ❖ Cess

Non-Tax Revenue

The revenue obtained by the government from sources other than tax is called Non-Tax Revenue. The sources of non-tax revenue are

1. Fees

Fees are another important source of revenue for the government. A fee is charged by public authorities for rendering a service to the citizens. Unlike tax, there is no compulsion involved in case of fees. The government provides certain services and charges certain fees for them. For example, fees are charged for issuing of passports, driving licenses, etc.

2. Fine

A fine is a penalty imposed on an individual for violation of law. For example, violation of traffic rules, payment of income tax after the stipulated time etc.

3. Earnings from Public Enterprises

The Government also gets revenue by way of surplus from public enterprises. Some of the public sector enterprises do make a good amount of profits. The profits or dividends which the government gets can be utilized for public expenditure.

4. Special assessment of betterment levy

It is a kind of special charge levied on certain members of the community who are beneficiaries of certain government activities or public projects. For example, due to a public park or due to the construction of a road, people in that locality may experience an appreciation in the value of their property or land.

5. Gifts, Grants and Aids

- ◆ A grant from one government to another is an important source of revenue in the modern days. The government at the Centre provides grants to State governments and the State governments provide grants to the local government to carry out their functions.
- ◆ Grants from foreign countries are known as Foreign Aid. Developing countries receive military aid, food aid, technological aid, etc. from other countries.

6. Escheats

It refers to the claim of the state to the property of persons who die without legal heirs or documented will.

Canons of Taxation:

The characteristics or qualities which a good tax should possess are described as canons of taxation. It must be noted that canons refer to the qualities of an isolated tax and

not to the tax system as a whole. A good tax system should have a proper combination of all kinds of taxes having different canons. According to Adam Smith, there are four canons or maxims of taxation. They are as follows:

1. Canon of Ability

The Government should impose tax in such a way that the people have to pay taxes according to their ability. In such case a rich person should pay more tax compared to a middle class person or a poor person.

2. Canon of Certainty

The Government must ensure that there is no uncertainty regarding the rate of tax or the time of payment. If the Government collects taxes arbitrarily, then these will adversely affect the efficiency of the people and their working ability too.

3. Canon of Convenience

The method of tax collection and the timing of the tax payment should suit the convenience of the people. The Government should make convenient arrangement for all the tax payers to pay the taxes without difficulty.

4. Canon of Economy

The Government has to spend money for collecting taxes, for example, salaries are given to the persons who are responsible for collecting taxes. The taxes, where collection costs are more are considered as bad taxes. Hence, according to Smith, the Government should impose only taxes whose collection costs are very less and cheap

Direct Tax and Indirect Tax

Direct Tax

A direct tax is referred to as a tax levied on person's income and wealth and is paid directly to the government; the burden of such tax cannot be shifted. The tax is progressive in nature. It is levied according to the paying capacity of the person, i.e. the tax is collected more from the rich and less from the poor people.

The plans and policies of the Direct Taxes are being recommended by the Central Board of Direct Taxes (CBDT) which is under the Ministry of Finance, Government of India

Merits of Direct Taxes

1. Equity

Direct taxes are progressive i.e. rate of tax varies according to tax base. For example, income tax satisfies the canon of equity.

2. Certainty

Canon of certainty can be ensured by direct taxes. For example, an income tax payer knows when and at what rate he has to pay income tax.

3. Elasticity

Direct taxes also satisfy the canon of elasticity. Income tax is income elastic in nature. As income level increases, the tax revenue to the Government also increases automatically.

4. Economy

The cost of collection of direct taxes is relatively low. The tax payers pay the tax directly to the state.

Demerits of Direct Taxes

1. Unpopular

Direct taxes are generally unpopular. It is inconvenient and less flexible.

2. Productivity affected

According to many economists direct tax may adversely affect productivity. Citizens are not willing to earn more income because in that case they have to pay more taxes.

3. Inconvenient

The tax payers find it inconvenient to maintain accounts, submit returns and pay tax in lump sum.

4. Tax Evasion

The burden of direct tax is so heavy that tax-payers always try to evade taxes. This ultimately leads to the generation of black money, which is harmful to the economy.

Indirect Tax

Indirect Tax is referred to as a tax charged on a person who purchases the goods and services and it is paid indirectly to the government. The burden of tax can be easily shifted to the another person. It is levied on all persons equally whether rich or poor.

There are several types of Indirect Taxes, such as:

Excise Duty: Payable by the manufacturer who shifts the tax burden to retailers and wholesalers.

Sales Tax: Paid by a shopkeeper or retailer, who then shifts the tax burden to customers by charging sales tax on goods and services.

Custom Duty: Import duties levied on goods from outside the country, ultimately paid for by consumers and retailers.

Entertainment Tax: Liability is on the cinema theatre owners, who transfer the burden to cinema goers.

Service Tax: Charged on services like telephone bill, insurance premium such as food bill in a restaurant etc.

Merits of Indirect Taxes

(1) Wider Coverage

All the consumers, whether they are rich or poor, have to pay indirect taxes. For this reason, it is said that indirect taxes can cover more people than direct taxes. For example, in India everybody pays indirect tax as against just 2 percent paying income tax.

(2) Equitable

The indirect tax satisfies the canon of equity when higher tax is imposed on luxuries used by rich people.

(3) Economical

Cost of collection is less as producers and retailers collect tax and pay to the Government. The traders act as honorary tax collectors.

(4) Checks harmful consumption

The Government imposes indirect taxes on those commodities which are harmful to health e.g. tobacco, liquor etc. They are known as sin taxes.

(5) Convenient

Indirect taxes are levied on commodities and services. Whenever consumers make purchase, they pay tax along with the price. They do not feel the pinch of paying tax.

Demerits of Indirect Taxes

(1) Higher Cost of Collection

The cost of collection of indirect taxes is higher than the direct taxes. The Government has to spend huge money to collect indirect taxes.

(2) Inelastic

Indirect taxes are less elastic compared to direct taxes. As indirect taxes are generally proportional.

(3) Regressive

Indirect taxes are sometimes unjust and regressive in nature since both rich and poor persons have to pay same amount as taxes irrespective of their income level.

(4) Uncertainty

The rise in indirect taxes increase the price and reduces the demand for goods. Therefore, the Government is uncertain about the expected revenue collection. So Dalton says under indirect taxes 2+2 is not 4 but 3 or even less than 3.

(5) No civic Consciousness

As the tax is hidden in price, the consumers are not aware of paying tax.

Basis For Comparison	Direct Tax	Indirect Tax
Meaning	Direct tax is referred to as the tax, levied on person's income and wealth and is paid directly to the government.	Indirect Tax is referred to as the tax, levied on a person who consumes the goods and services and is paid indirectly to the government.
Nature	Progressive	Regressive
Incidence and Impact	Falls on the same person.	Falls on different persons.
Tax base	Income or wealth of the assessee	Purchase/sale/manufacture of goods and provision of services
Evasion	Tax evasion is possible.	Tax evasion is hardly possible because it is included in the price of the goods and services.
Inflation	Direct tax helps in controlling the inflation.	Indirect taxes push up price inflation.
Imposition and collection	Imposed on and collected from assesses, i.e. Individual, HUF (Hindu Undivided Family), Company, Firm etc.	Imposed on and collected from consumers of goods and services but paid and deposited by the assessee.

Burden	Cannot be shifted.	Can be shifted
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GST (Goods and Service Tax)

- ◆ GST is an Indirect Tax which has replaced many Indirect Taxes in India. The Goods and Service Tax Act was passed in the Parliament on 29th March 2017. The Act came into effect on 1st July 2017; Goods & Services Tax in India is a comprehensive, multi-stage, destination-based tax that is levied on every value addition.
- ◆ In simple words, Goods and Service Tax (GST) is an indirect tax levied on the supply of goods and services. This law has replaced many indirect tax laws that previously existed in India.
- ◆ GST is one indirect tax for the entire country.
- ◆ Under the GST regime, the tax will be levied at the final point of sale. In case of intra-state sales, Central GST and State GST will be charged. Inter-state sales will be chargeable to Integrated GST.

Destination Based

Consider goods manufactured in Tamil Nadu and are sold to the final consumer in Karnataka. Since Goods & Service Tax is levied at the point of consumption, in this case, Karnataka, the entire tax revenue will go to Karnataka and not Tamil Nadu.

Components of GST

The component of GST are of 3 types. They are: CGST, SGST & IGST.

CGST: Collected by the Central Government on an intra-state sale (Eg: Within state/ union territory)

SGST: Collected by the State Government on an intra-state sale (Eg: Within state/ union territory)

IGST: Collected by the Central Government for inter-state sale (Eg: Maharashtra to Tamil Nadu)

In most cases, the tax structure under the new regime will be as follows:

Transaction	New Regime	Old Regime	

Sale within the State	CGST + SGST	VAT + Central Excise/Service tax	Revenue will be shared equally between the centre and the State
Sale to another State	IGST	Central Sales Tax + Excise/Service Tax	There will only be one type of tax (central) in case of inter-state sales. The Centre will then share the IGST revenue based on the destination of goods.

Nature of Sales tax, VAT and GST

1. Sales tax was multipoint tax with cascading effect.
2. VAT was multipoint tax without cascading effect.
3. GST is one point tax without cascading effect.

Advantages of GST

1. GST will mainly remove the cascading effect on the sale of goods and services. Removal of cascading effect will directly impact the cost of goods. Since tax on tax is eliminated in this regime, the cost of goods decreases.
2. GST is also mainly technologically driven. All activities like registration, return filing, application for refund and response to notice need to be done online on the GST Portal. This will speed up the processes.

Public Debt

In the 18th and 19th centuries, the role of the state was minimum. But since 20th century there has been enormous increase in the responsibilities of the state. Hence the state has to supplement the traditional revenue sources with borrowing from individuals, and institutions within and outside the country. The amount of borrowing is huge in the under developed countries to finance development activities. The debt burden is a big problem and most of the countries are in debt trap.

Definitions

“The debt is the form of promises by the Treasury to pay to the holders of these promises a principal sum and in most instances interest on the principal. Borrowing is resorted to in order to provide funds for financing a current deficit.”

- Philip E.Taylor

“The receipt from the sale of financial instruments by the government to individuals or firms in the private sector, to induce the private sector to release manpower and real resources and to finance the purchase of these resources or to make welfare payments or subsidies”.

Types of Public Debt

i) Internal public debt

An internal public debt is a loan taken by the Government from the citizens or from different institutions within the country. An internal public debt only involves transfer of wealth.

The main sources of internal public debt are as follows:

- ◆ Individuals, who purchase government bonds and securities;
- ◆ Banks, both private and public, buy bonds from the Government.
- ◆ Non-financial institutions like UTI, LIC, GIC etc. also buy the Government bonds.
- ◆ Central Bank can lend the Government in the form of money supply. The Central Bank can also issue money to meet the expenditures of the Government.

ii) External public debt

When a loan is taken from abroad or from an international organisation it is called external public debt. The main sources of External public debt are IMF, World Bank, IDA and ADB etc. Loan from other countries and the Governments.

Causes for the Increase in Public debt

The causes for enormous growth of public debt may be studied under the following sub-headings:

1. War and Preparation of war

Waging war has become one of the important causes for incurring debts by the governments. In modern times, the preparation for war and nuclear defence programmes take away the major share of the government's revenue and so it incurs debt.

2. Social obligations

Modern states are considered to be 'Welfare States' and they have to undertake many social obligations like public health, sanitation, education, insurance, transport and communications, etc., besides providing the minimum necessities of life to the citizens of the country. To finance these, the State has to incur a heavy public debt.

3. Economic Development and Deficit

The government has to undertake many projects for economic development of the country. Construction of railways, power projects, irrigation projects, heavy industries, etc., could be thought of only by means of mobilising resources in the form of public debt.

Due to heavy public expenditure, the governments always face deficit budget. Such deficits have to be financed only through borrowings.

4. Employment

Most of the governments of modern days face the problem of unemployment and it has become the duty to solve this by making huge public expenditure. To solve the unemployment problem, and to fight recession, the government has to make huge expenditures. For this the States have to resort to public debt.

5. Controlling inflation

The Government can withdraw excess money from circulation, by raising public debt and thus prevent prices from rising.

6. Fighting depression

During the depression phase, private investment is lacking. The Government applies compensatory public spending by borrowing from internal and external sources.

Methods of Redemption of Public Debt

The process of repaying a public debt is called redemption. The Government sells securities to the public and at the time of maturity, the person who holds the security surrenders it to the Government. The following methods are adopted for debt redemption.

(1) Sinking Fund

Under this method, the Government establishes a separate fund known as "Sinking Fund". The Government credits every year a fixed amount of money to this fund. By the time the debt matures, the fund accumulates enough amount to pay off the principal along with interest. This method was first introduced in England by Walpol.

(2) Conversion

Conversion of loans is another method of redemption of public debt. It means that an old loan is converted into a new loan. Under this system a high interest public debt is converted into a low interest public debt. Dalton felt that debt conversion actually relaxes the debt burden.

(3) Budgetary Surplus

When the Government presents surplus budget, it can be utilised for repaying the debt. Surplus occurs when public revenue exceeds the public expenditure. However, this method is rarely possible.

(4) Terminal Annuity

In this method, Government pays off the public debt on the basis of terminal annuity in equal annual instalments. This is the easiest way of paying off the public debt.

(5) Repudiation

It is the easiest way for the Government to get rid of the burden of payment of a loan. In such cases, the Government does not recognise its obligation to repay the loan. It is certainly not paying off a loan but destroying it. However, in normal case the Government does not do so; if done it will lose its credibility.

(6) Reduction in Rate of Interest

Another method of debt redemption is the compulsory reduction in the rate of interest, during the time of financial crisis.

(7) Capital Levy

When the Government imposes levy on the capital assets owned by an individual or any institution, it is called capital levy. This levy is imposed on capital assets above a minimum limit on a progressive scale. The fund so collected can be used by the Government for paying off war time debt obligations. This is the most controversial method of debt repayment.

Budget

The word 'budget' is said to have its origin from the French word "Bougett" which refers to 'a small leather bag'. The budget is an annual financial statement which shows the estimated income and expenditure of the Government for the forthcoming financial year.

Definitions

"It is a document containing a preliminary approved plan of public revenue and expenditure".

-ReneyStourn.

"The budget has come to mean the financial arrangements of a given period, with the usual implication that they have been submitted to the legislature for approval".

- Bastabale

Union Budget and State Budget

India is a federal economy, hence public budget is divided into two layers of the Government. According to the Indian Constitution, the Central Government has to submit annual financial statement, i.e., Union Budget under Article 112 to the Parliament and each State Government has to submit the same for the State in the Legislative Assembly under Article 202.

Types of Budget

Revenue and Capital Budget

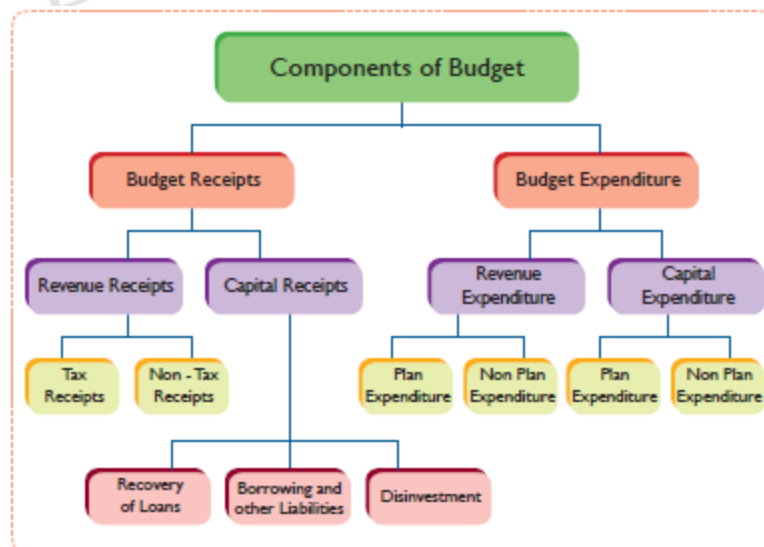
On the basis of expenditure on revenue account and other accounts, a budget can be presented in two ways:

i) Revenue Budget: It consists of revenue receipts and revenue expenditure. Moreover, the revenue receipts can be categorised into tax revenue and non-tax revenue. Revenue expenditure can also be categorised into plan revenue expenditure and non-plan revenue expenditure.

ii) Capital Budget: It consists of capital receipts and capital expenditure. In this case, the main sources of capital receipts are loans, advances etc. On the other side capital expenditure can be categorised into plan capital expenditure and non-plan capital expenditure.

iii) Supplementary Budget: During the time of war emergencies and natural calamities like tsunami, flood etc, the expenditures allotted in the budget provisions are not always enough. Under these circumstances, a supplementary budget can be presented by the Government to tackle these unforeseen events.

iv) Vote - on - Account: Under Article 116 of the Indian Constitution, the budget can be presented in the middle of the year. The reason may be political in nature. The existing Government may or may not continue for the year, on account of the fact that elections are due, then the Government places a 'lame duck budget'. This is also called 'Vote-on-account Budget'.



The vote on account budget is a special provision by which the Government gets permission from the parliament to incur expenditures on necessary items till the budget is

finally passed in the parliament. The legal permission of both the Houses of the parliament for the withdrawal of money from the Consolidated Fund of India to meet the requisite expenses till the budget is finally approved is known as vote-on - account budget. This type of budget is generally sanctioned for not more than two months.

v) Zero Base Budget: The Government of India presented Zero-Base-Budgeting (ZBB first) in 1987-88. It involves fresh evaluation of expenditure in the Government budget, assuming it as a new item. The review has been made to provide justification or otherwise for the project as a whole in the light of the socio-economic objectives which have been already set up for this project and as well as in view of the priorities of the society.

vi) Performance Budget: When the outcome of any activity is taken as the base of any budget, such budget is known as 'Performance Budget'. For the first time in the world, the performance budget was made in USA. The Administrative Reforms Commission was set up in 1949 in America under Sir Hooper. This commission recommended making of a 'Performance Budget' in USA. In the Performance Budget, it is the compulsion of the government to tell 'what is done', 'how much done' for the betterment of the people. In India, the Performance Budget is also known as 'Outcome Budget'.

vii) Balanced Budget Vs. Unbalanced Budget

A. Balanced Budget

Balanced budget is a situation, in which estimated revenue of the government during the year is equal to its anticipated expenditure.

Government's estimated Revenue = Government's Proposed Expenditure
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B. Unbalanced Budget

The budget in which Revenue & Expenditure are not equal to each other is known as Unbalanced Budget.

Unbalanced budget is of two types:

1. Surplus Budget
2. Deficit Budget

1. Surplus Budget

The budget is a surplus budget when the estimated revenues of the year are greater than anticipated expenditures.

Government Estimated Revenue >

Estimated Government Expenditure

2. Deficit Budget

Deficit budget is one where the estimated government expenditure is more than expected revenue.

Government's estimated Revenue
<
Government's proposed Expenditure

Budgetary Procedure

Budgetary procedure refers to the system through which the budget is prepared, enacted and executed.

(A) Preparation of the Budget

The Ministry of Finance prepares the Central Budget every year. At the state level the finance department is responsible for the Annual State Budget. While preparing the budget, the following factors are taken into account:

- The macro economic targets to be achieved within a plan period;
- The basic strategy of the budget;
- The financial requirements of different projects;
- Estimates of the revenue expenditures (includes defence expenditure, subsidy, interest payment on debt etc.);
- Estimates of the capital expenditures (includes development of railways, roadways, irrigations etc.);
- Estimates of revenue receipts from tax and non-tax revenues;
- Estimates of capital receipts from the recovery of loans, disinvestment of public sector units, market borrowings etc.
- Estimates of the gap between revenue receipts and revenue expenditure; and
- Estimates of fiscal deficit, primary deficit, and revenue deficit.

(B) Presentation of the Budget

The hon'ble Minister of Finance, on behalf of the Central Government, places the Union Budget before Parliament on the eve of a new financial year. Similarly at state levels, the Hon'ble Finance Minister of the respective State Government places the State Budget before the State Legislature.

According to the Indian Constitution, all money bills must be initiated in the Lower House. All the money bills are first placed before the Lok Sabha at the Centre, and before the Vidhan Sabha at the State level. The demands of various tax proposals are included in the budget. After the finance bill is passed, an appropriation bill is presented to give legal

effect to the voted demands, and to authorise the expenditure as per the budget. In this way, the budgets are enacted in India.

(c) Execution of the Budget

The budget is mainly executed by different departments of the Government. Proper execution of the budgetary provisions is important for the efficient utilisation of the allocated funds.

Parliamentary Control over the Budget

In India, the Government Accounts are maintained in three parts:

- (i) Consolidated Fund
- (ii) Contingency Fund
- (iii) Public Accounts

There are also two committees of parliament, viz,

- (i) The Public Accounts Committee, and
- (ii) The Estimates Committee.

These committees keep a constant vigil on the expenditure so that no Ministry or Department exceeds the amount sanctioned to it.

Budgetary Deficits

Budget deficit is a situation where budget receipts are less than budget expenditures. This situation is also known as government deficit.

In reference to the Indian Government budget, budget deficit is of four major types.

- (a) Revenue Deficit
- (b) Budget Deficit
- (c) Fiscal Deficit, and
- (d) Primary Deficit

(A) Revenue Deficit

It refers to the excess of the government revenue expenditure over revenue receipts. It does not consider capital receipts and capital expenditure. Revenue deficit implies that the government is living beyond its means to conduct day-to-day operations.

$$\text{Revenue Deficit (RD)} = \text{Total Revenue Expenditure (RE)} - \text{Total Revenue Receipts (RR)},$$

When $RE - RR > 0$

(B) Budget Deficit

Budget deficit is the difference between total receipts and total expenditure (both revenue and capital)

$$\text{Budget Deficit} = \text{Total Expenditure} - \text{Total Revenue}$$

(C) Fiscal Deficit

$$\text{Fiscal deficit (FD)} = \text{Budget deficit} + \text{Government's market borrowings and liabilities}$$

(D) Primary Deficit

Primary deficit is equal to fiscal deficit minus interest payments. It shows the real burden of the government and it does not include the interest burden on loans taken in the past. Thus, primary deficit reflects borrowing requirement of the government exclusive of interest payments.

$$\text{Primary Deficit (PD)} = \text{Fiscal deficit (PD)} - \text{Interest Payment (IP)}$$

Federal Finance

Federal finance refers to the system of assigning the source of revenue to the Central as well as State Governments for the efficient discharge of their respective functions i.e. clear-cut division is made regarding the allocation of resources of revenue between the central and state authorities.

- ◆ Division of Powers: In our Constitution, there is a clear division of powers so that none violates its limits and tries to encroach upon the functions of the other and functions within own sphere of responsibilities. There are three lists enumerated in the Seventh Schedule of constitution. They are: the Union list, the State list and the Concurrent List.
- ◆ The Union List consists of 100 subjects of national importance such as Defence, Railways, Post and Telegraph, etc.
- ◆ The State List consists of 61 subjects of local interest such as Public Health, Police etc.
- ◆ The Concurrent List has 52 subjects important to both the Union and the State, such as Electricity, Trade Union, Economic and Social Planning, etc.

Central State Financial Relationship

(I) Union Sources

1. Corporation tax
2. Currency, coinage and legal tender, foreign exchange.
3. Duties of customs including export duties.
4. Duties of excise on tobacco and certain goods manufactured or produced in India.
5. Estate duty in respect of property other than agricultural land.
6. Fees in respect of any of the matters in the Union List, but not including any fees taken in any Court.
7. Foreign Loans.
8. Lotteries organized by the Government of India or the Government of a State.
9. Post Office Savings Bank.
10. Posts and Telegraphs, telephones, wireless, Broadcasting and other forms of communication.
11. Property of the Union.
12. Public Debt of the Union.
13. Railways.
14. Rates of stamp duty in respect of Bills of Exchange, Cheques, Promissory Notes, etc.
15. Reserve Bank of India.
16. Taxes on income other than agricultural income.
17. Taxes on the capital value of the assets, exclusive of agricultural land of individuals and companies.
18. Taxes other than stamp duties on transactions in stock exchanges and future markets.
19. Taxes on the sale or purchase of newspapers and on advertisements published therein.
20. Terminal taxes on goods or passengers, carried by railways, sea or air.

(II) State Sources

1. Capitation tax
2. Duties in respect of succession to agricultural land.
3. Duties of excise on certain goods produced or manufactured in the State, such as alcoholic liquids, opium, etc.
4. Estate duty in respect of agricultural land.
5. Fees in respect of any of the matters in the State List, but not including fees taken in any Court.
6. Land Revenue.
7. Rates of stamp duty in respect of documents other than those specified in the Union List.
8. Taxes on agricultural income.
9. Taxes on land and buildings.
10. Taxes on mineral rights, subject to limitations imposed by Parliament relating to mineral development.
11. Taxes on the consumption or sale of electricity.
12. Taxes on the entry of goods into a local area for consumption, use or sale therein.

13. Taxes on the sale and purchase of goods other than newspapers.
14. Taxes on the advertisements other than those published in newspapers.
15. Taxes on goods and passengers carried by road or on inland waterways.
16. Taxes on vehicles.
17. Taxes on animals and boats.
18. Taxes on professions, trades, callings and employments.
19. Taxes on luxuries, including taxes on entertainments, amusements, betting and gambling.
20. Tolls.

(III) Taxes Levied and Collected by the union but Assigned to the States (Art.269)

1. Duties in respect of succession to property other than agricultural land.
2. Estate duty in respect of property other than agricultural land.
3. Taxes on railway fares and freights.
4. Taxes other than stamp duties on transactions in stock exchanges and future markets.
5. Taxes on the sale or purchase of newspapers and on advertisements published therein
6. Terminal taxes on goods or passengers carried by railways, sea or air.
7. Taxes on the sale or purchase of goods other than newspapers where such sale or purchase takes place in the course of inter-State trade or commerce.

(IV) Duties levied by the Union but collected and Appropriated by the states (Art.268)

Stamp duties and duties of excise on medicinal and toilet preparation (those mentioned in the Union List) shall be levied by the Government of India but shall be collected.

(i) In the case where such duties are leviable within any Union territory, by the Government of India.

(ii) In other cases, by the States within which such duties are respectively leviable.

(v) Taxes which are Levied and Collected by the Union but which may be Distributed between the Union and the States (Arts.270 and 272)

1. Taxes on income other than agricultural income.
2. Union duties of excise other than such duties of excise on medicinal and toilet preparations as are mentioned in the Union List and collected by the Government of India.

“Taxes on income” does not include corporation tax. The distribution of income-tax proceeds between the Union and the States is made on the recommendations of the Finance Commission.

Principles of Federal Finance

In the case of federal system of finance, the following main principles must be applied:

1. Principle of Independence.
2. Principle of Equity.
3. Principle of Uniformity.
4. Principle of Adequacy.
5. Principle of Fiscal Access.
6. Principle of Integration and coordination.
7. Principle of Efficiency.
8. Principle of Administrative Economy.
9. Principle of Accountability.

1. Principle of Independence

Under the system of federal finance, a Government should be autonomous and free about the internal financial matters concerned. It means each Government should have separate sources of revenue, authority to levy taxes, to borrow money and to meet the expenditure. The Government should normally enjoy autonomy in fiscal matters.

2. Principle of Equity

From the point of view of equity, the resources should be distributed among the different states so that each state receives a fair share of revenue.

3. Principle of Uniformity

In a federal system, each state should contribute equal tax payments for federal finance. But this principle cannot be followed in practice because the taxable capacity of each unit is not of the same.

4. Principle of Adequacy of Resources

The principle of adequacy means that the resources of each Government i.e. Central and State should be adequate to carry out its functions effectively. Here adequacy must be decided with reference to both current as well as future needs. Besides, the resources should be elastic in order to meet the growing needs and unforeseen expenditure like war, floods etc.

5. Principle of Fiscal Access

In a federal system, there should be possibility for the Central and State Governments to develop new source of revenue within their prescribed fields to meet the growing financial needs. In nutshell, the resources should grow with the increase in the responsibilities of the Government.

6. Principle of Integration and coordination

The financial system as a whole should be well integrated. There should be perfect coordination among different layers of the financial system of the country. Then only the federal system will survive. This should be done in such a way to promote the overall economic development of the country.

7. Principle of Efficiency

The financial system should be well organized and efficiently administered. There should be no scope for evasion and fraud. No one should be taxed more than once in a year. Double taxation should be avoided.

8. Principle of Administrative Economy

Economy is the important criterion of any federal financial system. That is, the cost of collection should be at the minimum level and the major portion of revenue should be made available for the other expenditure outlays of the Governments.

9. Principle of Accountability

Each Government should be accountable to its own legislature for its financial decisions i.e the Central to the Parliament and the State to the Assembly.

History of Finance Commission

- ◆ Finance commission is a quasi-judicial body set up under Article 280 of the Indian Constitution. It was established in the year 1951, to define the fiscal relationship framework between the Centre and the state.
- ◆ Finance Commission aims to reduce the fiscal imbalances between the centre and the states (Vertical imbalance) and also between the states (horizontal imbalance). It promotes inclusiveness.
- ◆ A Finance Commission is set up once in every 5 years. It is normally constituted two years before the period. It is a temporary Body.
- ◆ The 14th Finance Commission was set up in 2013. Its recommendations were valid for the period from 1st April 2015 to 31st March 2020.
- ◆ The 15th Finance Commission has been set up in November 2017. Its recommendations will be implemented starting 1 April 2020.

Finance Commission	Year of establishment	Chairman	Operational duration
First	1951	K. C. Neogy	1952-57
Second	1956	K. Santhanam	1957-62

Third	1960	A. K. Chanda	1962-66
Fourth	1964	P. V. Rajamannar	1966-69
Fifth	1968	Mahaveer Tyagi	1969-74
Sixth	1972	K. Brahmananda Reddy	1974-79
Seventh	1977	J. M. Shelat	1979-84
Eighth	1983	Y. B. Chavan	1984-89
Ninth	1987	N. K. P. Salve	1989-95
Tenth	1992	K. C. Pant	1995-2000
Eleventh	1998	A. M. Khusro	2000-05
Twelfth	2002	C. Rangarajan	2005-10
Thirteenth	2007	Dr. Vijay L. Kelkar	2010-15
Fourteenth	2013	Dr. Y. V Reddy	2015-20
Fifteenth	2017	N. K. Singh	2020-25

Functions of Finance Commission of India

Article 280 (3) speaks about the functions of the Finance Commission. The Article states that it shall be the duty of the Commission to make the recommendations to the President as to:

The distribution between the Union and the States of the net proceeds of taxes, which may be divided between them and the allocation among the states of the respective shares of such proceeds;

To determine the quantum of grants-in-aid to be given by the Centre to states [Article 275 (1)] and to evolve the principles governing the eligibility of the state for such grant-in-aid;

Article 280 of the Constitution mandates the finance commission to recommend the distribution of the net proceeds of taxes between the Centre and the states every five years.

15th Finance Commission's recommendations on tax sharing between Centre and States are to kick in from April 2020

Any other matter referred to the Commission by the President of India in the interest of sound finance. Several issues like debt relief, financing of calamity relief of states, additional excise duties, etc. have been referred to the Commission invoking this clause.

Local Finance

Local finance refers to the finance of local bodies in India. There is a large variety of local bodies in India. We have the following main four local bodies which are functioning today in our country:

Types of Local Bodies

1. Village Panchayats
2. District Boards or ZilaParishads
3. Municipalities
4. Municipal Corporations

Village Panchayats:

- ◆ **Establishment:** The jurisdiction of a panchayat is usually confined to one revenue village. In some cases, though not very frequently, two or more small villages are grouped under one panchayat. The establishment of panchayat raj is the avowed policy of most states in India.
- ◆ **Functions**
 - a. The functions of panchayats range over a wide area including civil, economic and so on. Thus small disputes may be disposed of by panchayats on the spot.
 - b. Roads, primary schools, village dispensaries etc. are to be managed by panchayats.
 - c. The supply of water, both for drinking and irrigation, falls within their field of responsibility, and in some cases farming, marketing, storage, etc. are entrusted to them.

Sources of revenue of Village Panchayats

The following are the sources of revenue of village panchayats.

- (i) general property tax,
- (ii) taxes on land,
- (iii) profession tax, and
- (iv) tax on animals and vehicles.

Other taxes include service tax, octroi, theatre tax, pilgrim tax, tax on marriage, tax on birth and deaths, and labour tax. As a matter of fact, taxes are levied by the panchayats only with the sanction of the state government, and there are certain limits in respect of tax rates which have to be observed.

2. District Boards OrZilaParishads:

- ◆ **Establishment:** In rural areas, district boards or ZilaParishads are established at district level. The territorial jurisdiction of a district board is generally a revenue district.
- ◆ **Functions**

In Tamil Nadu, the ZilaParishad is a co-ordinating body which exercises general supervision over the working of PanchayatSamitis and advises them on implementation of Development Schemes.

Sources of revenue of District Boards

- i. Grants-in-aid from the state government.
- ii. Land Cesses.
- iii. Toll, fees etc.
- iv. Income from the property and loans from the state governments.
- v. Grants for the centrally sponsored schemes relating to development work.
- vi. Income from fairs and exhibitions.
- vii. Property tax and other taxes which the state governments may authorise the district boards.

3. Municipalities

Establishment and Functions: The municipalities are bodies or institutions which are established in urban areas for looking after local affairs, such as, sanitation, public health, local roads, lighting, water supply, cleaning of streets, maintenance of parks and gardens, maintenance of hospitals, dispensaries and veterinary hospitals, provision of drainage, provision of primary education, organising of fairs and exhibitions etc. However, all these functions are performed subject to the control of the state government.

Sources of revenue of municipalities

- (i) taxes on property
- (ii) taxes on goods, particularly octroi and terminal tax
- (iii) personal taxes, taxes on profession, trades and employment
- (iv) taxes on vehicles and animals
- (v) theatre or show tax, and
- (vi) grants-in-aid from state government.

4. Municipal Corporations

Establishment and Functions:

The municipal corporations have wide powers and enjoy greater freedom as compared to municipalities. The municipal corporations are usually entrusted with the functions, such as, water supply and drainage, lighting, roads, slum clearance, housing and town planning etc. The rapid increase in the population of cities has definitely added to the functions of municipal corporations.

Sources of revenue of Corporations

- (i) tax on property,
- (ii) tax on vehicles and animals,
- (iii) tax on trades, calling and employment,
- (iv) theatre and show tax,
- (v) taxes on goods brought into the cities for sale,
- (vi) taxes on advertisements,
- (vii) octroi and terminal tax etc.

The corporations have a fair degree of freedom in respect of their choice and modification of these taxes, subject to the maximum and minimum rates laid down by the law.



Unit 9 – Fiscal Economics

Fiscal policy

As an instrument of macro-economic policy, fiscal policy has been very popular among modern governments. The growing importance of fiscal policy was due to the Great Depression and the development of 'New Economics' by Keynes.

Meaning of Fiscal Policy

In common parlance fiscal policy means the budgetary manipulations affecting the macro economic variables – output, employment, saving, investment etc.

Definitions

“The term fiscal policy refers to a policy under which the Government uses its expenditure and revenue programmes to produce desirable effects and avoid undesirable effects on the national income, production and employment”

– Arthur Smithies

“By fiscal policy is meant the use of public finance or expenditure, taxes, borrowing and financial administration to further our national economic objectives”

– Buehler

Fiscal Instruments

Fiscal Policy is implemented through fiscal instruments also called 'fiscal tools' or fiscal levers: Government expenditure, taxation and borrowing are the fiscal tools.

i) **Taxation:** Taxes transfer income from the people to the Government. Taxes are either direct or indirect. An increase in tax reduces disposable income. So taxation should be raised to control inflation. During depression, taxes are to be reduced.

ii) **Public Expenditure:** Public expenditure raises wages and salaries of the employees and thereby the aggregate demand for goods and services. Hence public expenditure is raised to fight recession and reduced to control inflation.

iii) **Public debt:** When Government borrows by floating a loan, there is transfer of funds from the public to the Government. At the time of interest payment and repayment of public debt, funds are transferred from Government to public.

Objectives of Fiscal Policy:

1. Full Employment
2. Price Stability

3. Economic Growth
4. Equitable Distribution
5. External Stability
6. Capital Formation
7. Regional Balance

The Fiscal Policy is useful to achieve the following objectives:

1. Full Employment

Full Employment is the common objective of fiscal policy in both developed and developing countries. Public expenditure on social overheads help to create employment opportunities. In India, public expenditure on rural employment programmes like MGNREGS is aimed at employment generation.

2. Price Stability

Price instability is caused by mismatch between aggregate demand and aggregate supply. Inflation is due to excess demand for goods. If excess demand is caused by Government expenditure in excess of real output, the most effective measure is to cut down public expenditure. Taxation of income is the best measure if excess demand is due to private spending. Taxation reduces disposable income and so aggregate demand.

To fight depression, the Government needs to increase its spending and reduce taxation.

3. Economic Growth

Fiscal Policy is used to increase the productive capacity of the economy. Tax is to be used as an instrument for encouraging investment. Tax holidays and tax rebates for new industries stimulate investment. Public sector investments are to be increased to fill the gap left by private investment. When resource mobilization through tax measures is inadequate, the Government resorts to borrowing both from internal and external sources to finance growth projects.

4. Equitable distribution

Progressive rates in taxation help to reduce the gap between rich and poor. Similarly progressive rates in public expenditure through welfare schemes such as free education, noon meal for school children and subsidies promote the living standard of poor people.

5. Exchange Stability

Fluctuations in international trade cause movements in exchange rate. Tax concessions and subsidy to export oriented units help to boost exports. Customs duties on import of non-essential items help to cut import bill. The reduction in import duty on

import of raw material and machinery enables reduction in cost and make the exports competitive.

6. Capital formation

Capital formation is essential for rapid economic development. Tax relief helps to increase disposable income, savings and thereby capital formation. Government expenditure on infrastructure development like power and transport encourages private investment.

7. Regional balance

Fiscal incentives for industries in the backward regions help to narrow down regional imbalances. Public expenditure may be used to start industrial estates so that industrial activity is stimulated in backward regions.



