

**National Institute of Technology  
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**School of Management Studies  
MS4002D Industrial Economics**

**Assignment**

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Semester 7 ME03**

**Q1.** We usually see that the wealth and prosperity of a country are expressed using various measures, for example like GDP; while there are a set of separate development indicators, for example like HDI, which differ from quantitative measurement of economic growth, and instead focus on the qualitative measurement of economic development of a nation. Then,

- a) What is the difference between economic growth and economic development?
- b) Can you elaborate upon some such commonly used measures/indicators of economic growth and development?
- c) Mention the ranking of India in those indicators in recent years.
- d) Briefly discuss about World Happiness Index and India's recent performance in it.

**Answer**

a) Difference between economic growth and economic development

Economic growth and economic development are often used interchangeably, but they have distinct meanings.

Economic growth refers to the quantitative increase in the production of goods and services in an economy over a period of time. It is typically measured using metrics like gross domestic product (GDP), gross national product (GNP), or per capita income.

Economic development, on the other hand, encompasses a qualitative improvement in the overall well-being of a country's population. It goes beyond simply producing more goods and services and considers factors like poverty reduction, education, healthcare, infrastructure, and environmental sustainability.

In simpler terms, economic growth is about the size of the economy, while economic development is about the standard of living of the people.

b) Commonly used measures/indicators of economic growth and development

Economic growth indicators:

Gross domestic product (GDP): The total value of all goods and services produced within a country's borders in a given period.

Gross national product (GNP): The total value of all goods and services produced by a country's citizens, regardless of where they are produced.

Per capita income: The average income per person in a country.

Economic development indicators:

Human Development Index (HDI): A composite measure of a country's achievements in three key dimensions: life expectancy, education, and standard of living.

Literacy rate: The percentage of people aged 15 and above who can read and write with understanding.

Infant mortality rate: The number of infant deaths per 1,000 live births.

Access to education and healthcare: The percentage of people with access to primary, secondary, and tertiary education, and the percentage of people with access to basic healthcare.

c) India's ranking in those indicators in recent years

Economic growth indicators:

GDP growth rate: India's GDP growth rate has been among the fastest in the world in recent years, averaging around 7% per annum.

Per capita income: India's per capita income has been increasing steadily, but it remains relatively low compared to developed countries.

Economic development indicators:

HDI: India's HDI ranking has improved from 0.429 in 1990 to 0.645 in 2022, but it still ranks among the lower-middle-income countries.

Literacy rate: India's literacy rate has increased from 52% in 1991 to 74% in 2018.

Infant mortality rate: India's infant mortality rate has declined from 60 per 1,000 live births in 1990 to 28 per 1,000 live births in 2021.

Access to education and healthcare:

Primary school enrollment rate: India's primary school enrollment rate is almost 100%.

Secondary school enrollment rate: India's secondary school enrollment rate is around 75%.

Tertiary education enrollment rate: India's tertiary education enrollment rate is around 25%.

Access to basic healthcare: India's public healthcare system is vast but underfunded, and access to quality healthcare varies significantly across different regions and socioeconomic groups.

d) World Happiness Index and India's recent performance

The World Happiness Index (WHI) is an annual ranking of countries based on their citizens' perceptions of happiness, life satisfaction, and well-being. It is based on surveys conducted by Gallup World Poll.

India's ranking on the WHI has fluctuated in recent years, but it has generally been on a downward trend. In 2022, India ranked 134th out of 146 countries surveyed. This decline is attributed to various factors, including rising inequality, poverty, and unemployment.

In conclusion, while India has made significant progress in terms of economic growth, it still faces significant challenges in achieving sustainable and inclusive economic development. Addressing these challenges will require concerted efforts from the government, businesses, and civil society to improve education, healthcare, infrastructure, and social welfare.

**Q2.** Inflation is a term used to describe the rate at which prices for goods and services rise over time. Governments and central banks use a variety of tools to control inflation, including adjusting interest rates, controlling the money supply, and implementing fiscal policies such as taxation and government spending.

- a) How inflation is measured in India? Which all measures we usually use to report inflation statistics?
- b) What is the current inflation rate in India?
- c) Elaborate the measures usually adopted by RBI and government of India to control inflation.
- d) What is the upper and lower limit of inflation target fixed by RBI in India?

**Answer**

- a) How inflation is measured in India? Which all measures we usually use to report inflation statistics?

Inflation in India is primarily measured using two indices:

**Consumer Price Index (CPI):** The CPI is a measure of the average change in prices paid by households for a basket of consumer goods and services. It is calculated by the Ministry of Statistics and Programme Implementation (MOSPI) on a monthly basis.

**Wholesale Price Index (WPI):** The WPI is a measure of the average change in prices of goods traded at wholesale markets. It is calculated by the Ministry of Commerce and Industry on a weekly basis.

In addition to CPI and WPI, other measures of inflation are also used in India, such as the GDP deflator and the implicit price deflator for private consumption expenditure.

b) What is the current inflation rate in India?

As of October 2023, India's retail inflation, measured by the CPI, was at 4.87%. The WPI, which measures inflation at the wholesale level, was at -0.52% in October 2023.

c) Elaborate the measures usually adopted by RBI and government of India to control inflation.

The Reserve Bank of India (RBI) and the Government of India use a variety of tools to control inflation. Some of the most common measures include:

**Monetary policy:** The RBI uses monetary policy to control the money supply in the economy. By raising or lowering interest rates, the RBI can influence the demand for goods and services, which can in turn affect inflation.

**Fiscal policy:** The Government of India uses fiscal policy to influence the overall level of spending and taxation in the economy. By increasing taxes or cutting government spending, the government can reduce the demand for goods and services, which can help to control inflation.

**Supply-side measures:** The government also implements supply-side measures to improve the supply of goods and services in the economy. This can include policies to improve infrastructure, promote investment, and increase agricultural productivity.

d) What is the upper and lower limit of inflation target fixed by RBI in India?

The RBI has set an inflation target of 4% with a lower tolerance limit of 2% and an upper tolerance limit of 6%. This means that the RBI aims to keep inflation between 2% and 6%, but it will allow inflation to temporarily deviate from this target if necessary to achieve other macroeconomic objectives, such as economic growth.

**Q3.** The financial market is a place where buyers and sellers come together to trade in financial assets such as bonds, stocks, derivatives, currencies, and commodities. The two most important components of the financial market are the money market and the capital market.

- a) Elaborate upon the money market instruments prevalent in India, by briefly explaining their specific features.
- b) How capital market differs from money market? Explain it in the context of India.
- c) Write briefly upon: Bombay Stock Exchange, SENSEX, National Stock Exchange, NIFTY, and SEBI.
- d) Discuss about what is meant by “Open Market Operations” conducted by Reserve Bank of India and try to explain the rationale behind it.



## **Answer**

### **a) Money market instruments prevalent in India**

The money market is a crucial component of the financial system, facilitating the flow of short-term funds between institutions. In India, several money market instruments play a vital role in managing liquidity and regulating interest rates. Here's a brief overview of some important money market instruments in India:

Instrument	Description
Treasury Bills (T-bills)	Short-term debt instruments issued by the government of India with maturities ranging from 14 to 364 days. They are considered highly safe and liquid investments.
Commercial Paper (CP)	Short-term debt instruments issued by companies to raise funds for working capital requirements. CP typically has maturities up to one year.
Certificates of Deposit (CDs)	Time deposits offered by banks and financial institutions with fixed interest rates for specified periods. CDs provide a safe and secure option for parking funds.
Repurchase Agreements (Repos)	Agreements between two parties to buy and sell securities with the commitment to repurchase them at a predetermined price on a future date. Repos are used to manage liquidity and meet short-term funding needs.

Bankers' Acceptances (BAs)	Short-term debt instruments used to finance international trade transactions. BAs are created by banks and guaranteed by the issuing bank, making them relatively low-risk investments.
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### b) Capital market vs. money market in India

The capital market and the money market are two distinct segments of the financial system, each serving a specific purpose. While both markets facilitate the flow of funds, they differ in terms of the maturity and risk profile of the instruments traded.

Feature	Money Market	Capital Market
Maturity of instruments	Short-term (up to one year)	Long-term (over one year)
Risk profile	Relatively low risk	Higher risk compared to money market
Primary purpose	Manage liquidity and regulate interest rates	Raise funds for long-term investments and growth
Instruments traded	T-bills, CP, CDs, repos, BAs	Stocks, bonds, derivatives

### c) Key institutions in the Indian capital market

The Indian capital market is home to several prominent institutions that play a critical role in its functioning. These institutions include:

**Bombay Stock Exchange (BSE):** Established in 1875, the BSE is the oldest and largest stock exchange in India by market capitalization.

**National Stock Exchange (NSE):** Founded in 1994, the NSE is the leading stock exchange in India by daily turnover.

**Securities and Exchange Board of India (SEBI):** SEBI is the regulatory body responsible for overseeing the securities market in India, ensuring fair and transparent practices.

**S&P BSE Sensex:** The Sensex is the benchmark stock market index of the BSE, comprising 30 blue-chip companies across various sectors.

**Nifty 50:** The Nifty 50 is the benchmark stock market index of the NSE, consisting of 50 major companies representing diverse industries.

d) **Open market operations (OMOs)** by the Reserve Bank of India (RBI)

Open market operations (OMOs) are monetary policy tools employed by the RBI to influence liquidity and interest rates in the Indian economy. OMOs involve the buying or selling of government securities in the open market.

When the RBI purchases government securities, it injects liquidity into the system, leading to a decline in interest rates. Conversely, when the RBI sells government securities, it absorbs liquidity from the system, causing interest rates to rise.

The RBI utilizes OMOs to achieve its monetary policy objectives, which primarily encompass:

Controlling inflation: By adjusting liquidity levels, the RBI can influence inflation, aiming to maintain it within a targeted range.

Maintaining financial stability: OMOs help ensure stability in the financial system by managing liquidity and preventing excessive volatility in interest rates.

Promoting economic growth: By influencing interest rates, OMOs can stimulate or moderate economic activity as deemed necessary.

In summary, OMOs serve as crucial tools that the RBI employs to regulate liquidity, manage interest rates, and maintain financial stability in the Indian economy.

**Q4.** Unemployment is a worrying prospect faced by many young Indians, especially if it is a recessionary situation in the market.

- a) How is unemployment defined? How does it differ from under-employment?
- b) Elaborate upon the various types of unemployment: voluntary, involuntary, disguised, structural, frictional, seasonal.
- c) What is the relationship between Inflation and Unemployment?
- d) What are the various measures/indicators of unemployment reported in India? Mention the current rates of unemployment too.

## Answer

### a) Unemployment and Underemployment

**Unemployment:** Unemployment refers to the state of being without a job and actively seeking employment. It is typically measured as a percentage of the labor force, which is the total number of people who are either employed or unemployed.

**Underemployment:** Underemployment, on the other hand, refers to the situation where individuals are either working less than their full potential or are employed in jobs that do not fully utilize their skills and qualifications. Underemployment is often difficult to measure accurately, but it is considered to be a significant problem in many developing countries, including India.

### b) Types of Unemployment

**Voluntary unemployment:** Voluntary unemployment occurs when individuals choose to leave their jobs or not work for personal reasons, such as pursuing further education, taking a break, or caring for family members.

**Involuntary unemployment:** Involuntary unemployment occurs when individuals are unable to find jobs despite actively seeking employment. This type of unemployment can be caused by various factors, such as economic downturns, recessions, technological advancements, or structural changes in the economy.

**Disguised unemployment:** Disguised unemployment is a phenomenon prevalent in rural areas, particularly in agriculture, where individuals appear to be employed but their

productivity is extremely low. This type of unemployment is often overlooked in official statistics.

**Structural unemployment:** Structural unemployment arises from a mismatch between the skills and qualifications of the workforce and the demands of the job market. This can be caused by technological advancements, changes in consumer preferences, or shifts in industrial production.

**Frictional unemployment:** Frictional unemployment is a temporary form of unemployment that occurs as individuals transition between jobs or enter or re-enter the labor force. This type of unemployment is considered to be a natural part of a dynamic labor market.

**Seasonal unemployment:** Seasonal unemployment is a recurring pattern of joblessness associated with specific seasons or periods of the year. For instance, industries like agriculture, tourism, and construction often experience seasonal fluctuations in employment.

### c) Relationship between Inflation and Unemployment

The relationship between inflation and unemployment is a complex one, and economists have long debated the exact nature of this relationship. One of the most well-known theories is the Phillips curve, which suggests that there is an inverse relationship between inflation and unemployment. In other words, as inflation rises, unemployment tends to fall, and vice versa.

However, the Phillips curve has been subject to criticism and challenges, and the exact relationship between inflation and unemployment is not always clear-cut. Other factors, such as government policies, technological advancements, and global economic conditions, can also influence both inflation and unemployment.

#### d) Measures of Unemployment in India

India uses two main measures to track unemployment:

**Labor Force Participation Rate (LFPR):** The LFPR is the percentage of the working-age population that is either employed or actively seeking employment. It provides an indication of the overall level of participation in the labor market.

**Unemployment Rate (UR):** The UR is the percentage of the labor force that is unemployed. It specifically measures the proportion of individuals who are actively seeking employment but are unable to find jobs.

As of October 2023, India's LFPR was around 37%, while the UR was around 7%. These figures indicate that a significant portion of the working-age population is either unemployed or not actively participating in the labor market.

Addressing unemployment remains a critical challenge for India's policymakers. Economic growth, skills development, and labor market reforms are crucial to creating more employment opportunities and improving the overall employment scenario in the country.

**Q5.** What do you know about the following?

- a) Balance of Payments (BOP)
- b) Balance of Trade (BOT)
- c) The top ten countries from which India imports, and the top ten countries to which India exports.
- d) The list of main commodities that India exports and imports.

**Answer**

- a) Balance of Payments (BOP)

The balance of payments (BOP) is a record of all economic transactions between a country and the rest of the world over a specified period of time, typically a year. It summarizes the nation's inflows and outflows of money and other financial assets, including goods, services, investments, and capital transfers.

The BOP is divided into two main accounts:

**Current account:** The current account records transactions involving the production, consumption, and transfer of goods and services. It includes exports and imports of goods and services, net income from investments abroad, and net current transfers, such as remittances and foreign aid.

**Capital and financial account:** The capital and financial account records transactions involving changes in ownership of assets and liabilities between residents of a country and the rest of the world. It includes foreign direct investment (FDI),



portfolio investments, other capital flows, and changes in official reserves.

The overall balance of payments is the sum of the current account and the capital and financial account. A surplus in the BOP indicates that a country has received more money than it has spent, while a deficit indicates the opposite.

b) Balance of Trade (BOT)

The balance of trade (BOT) is a subcomponent of the current account that specifically measures the difference between a country's exports and imports of goods and services. A positive BOT indicates a trade surplus, meaning that a country exports more goods and services than it imports. Conversely, a negative BOT indicates a trade deficit, meaning that a country imports more goods and services than it exports.

c) Top ten countries from which India imports

India's top ten import partners in 2022 were:

1. China
2. United States
3. United Arab Emirates
4. Saudi Arabia
5. Switzerland
6. Iraq
7. Singapore
8. Hong Kong
9. Germany
10. South Korea

d) Top ten countries to which India exports

India's top ten export destinations in 2022 were:

1. United States
2. United Arab Emirates
3. China
4. Germany
5. Singapore
6. United Kingdom
7. Bangladesh
8. Nepal
9. Sri Lanka
10. Oman

e) Main commodities that India exports and imports

Exports: Petroleum products, precious stones, textiles, pharmaceuticals, rice, engineering goods, chemicals, tea, coffee, and spices.

Imports: Crude oil, petroleum products, electronic goods, machinery, gold, fertilizers, organic chemicals, iron and steel, and coal.