KHAN GLOBAL STUDIES

MOST TRUSTED LEARNING PLATFORM

GIST OF ECONOMIC SURVEY 2022-23

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CHAPTER - 1

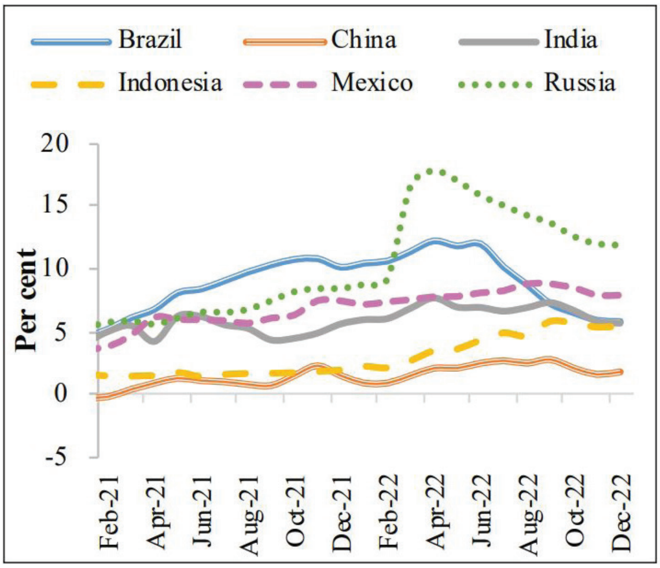
State of the Economy 2022-23: Recovery Complete

The Global Economy Battles Through a Unique Set of Challenges

The Survey narrates about **six challenges** faced by the Global Economy. The three challenges like **COVID-19** related disruptions in economies, **Russian-Ukraine conflict** and its adverse impact along with disruption in supply chain, mainly of food, fuel and fertilizer and the Central Banks across economies led by **Federal Reserve responding with synchronised policy rate hikes** to curb inflation, leading to appreciation of US Dollar and the widening of the Current Account Deficits (CAD) in net importing economies. The fourth challenge emerged as faced with the prospects of global stagflation, nations, feeling compelled to protect their respective economic space, thus slowing **cross-border trade** affecting overall growth. It adds that all along, the fifth challenge was festering as **China experienced a considerable slowdown** induced by its policies. The sixth medium-term challenge to growth was seen in the scarring from the pandemic brought in by the **loss of education and income-earning opportunities.**

- In the last century, several events had an adverse impact on the global economy such as **regional conflicts, intermittent oil shocks, trade tensions between super powers.**
- The previous millennium closed with the **East Asian crisis,** and the new millennium opened with the **technology bust,** followed by the **global financial crisis.**

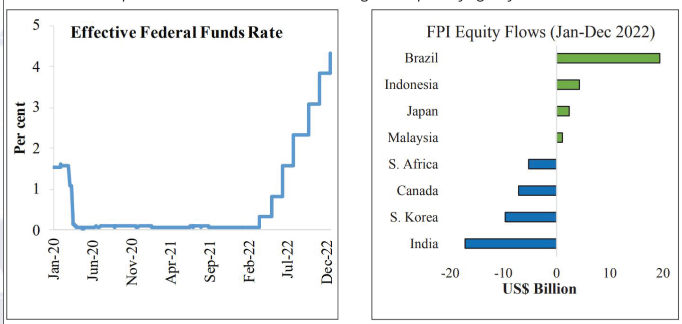
Inflation stays high, driven by high food and energy prices
Emerging Market Economies



Source: Bloomborg

- In the current decade, **series of factors have led to global slowdown** such as pandemic-induced lockdown, Russia-Ukraine war led disruption of supply chains among others.
- It has **inflationary impact on global economy** which caused the prices of critical commodities such as crude oil, natural gas, fertilisers, and wheat to soar. Inflation in advanced economies happened due to fiscal expansion whereas in emerging economies, it occurred due to rising commodity prices.

The Federal Funds Rate was raised by a cumulative
425 basis points since Jan 2022 leading to capital flight from EMEs and AEs



Source: Federal Reserve

Source: Bloomberg

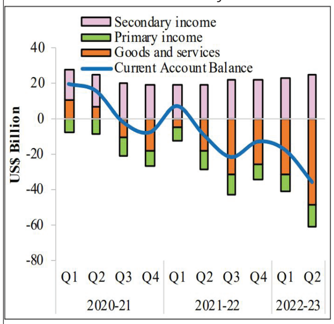
- Central banks led by the **US Federal Reserve responded with synchronised policy rate hikes** to curb inflation which led to monetary tightening.
- **Inflation and monetary tightening** led to a hardening of bond yields across economies and resulted in an outflow of equity capital from most of the economies around the world into the traditionally safe-haven market of the US. It led to strengthening of US Dollar against other global currencies, i.e., depreciating other currencies like rupee.
- **Rising inflation and monetary tightening** led to a slowdown in global output beginning in the second half of 2022, while the yearly growth rates of global trade, retail sales, and industrial production significantly declined in the second half of 2022. The consequent dampening of the global economic outlook was reflected in the World Economic Outlook (WEO) by IMF.
- Global economic slowdown was also caused by **China's zero covid policy**, contracting real estate sector and tepid fiscal expansion.
- Non-financial sector debt of most economies has

increased considerably due to slow economic growth and increase in borrowing cost. Increase in the general government debt burden in India has attracted much attention, even as systemic risks of a financial breakdown are concentrated in other parts of the world.

Macroeconomic and Growth Challenges in the Indian Economy

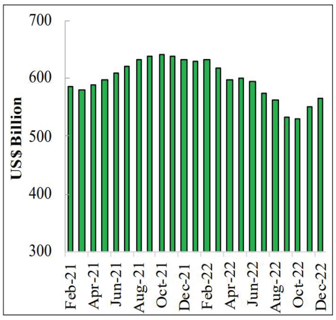
- **Rising international commodity prices and local weather conditions** like excessive heat and unseasonal rains, which kept food prices high, contributed to India's retail inflation.

Widened Current Account Deficit



Source: RBI

Adequate foreign exchange reserves to finance CAD



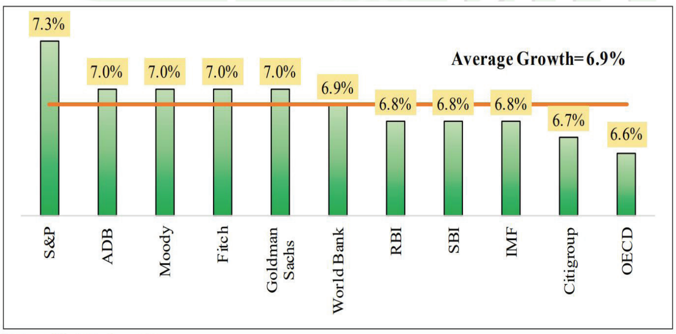
Source: RBI

- **Monetary tightening of the US dollar has led to moderate depreciation of Indian rupee** which added to the domestic inflationary pressures besides widening the current account deficit (CAD). But India has sufficient forex reserves to finance the CAD and intervene in the forex market to manage volatility in the Indian rupee.
- Due to **aggressive and synchronised monetary tightening,** global economic growth and world trade started to slow down which impacted many countries, including India, with the prospects of sluggish exports continuing into FY24.

India's Economic Resilience and Growth Drivers

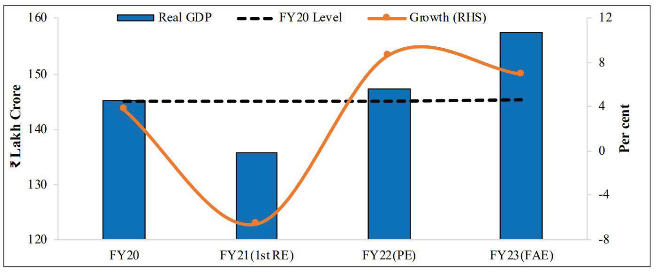
- Despite strong global headwinds and tighter domestic monetary policy, India is still expected to grow between 6.5 and 7.0 percent.

India growth projections by various agencies for FY23



Source: Various Agencies
Note: ADB stands for Asian Development Bank, IMF is International Monetary Fund

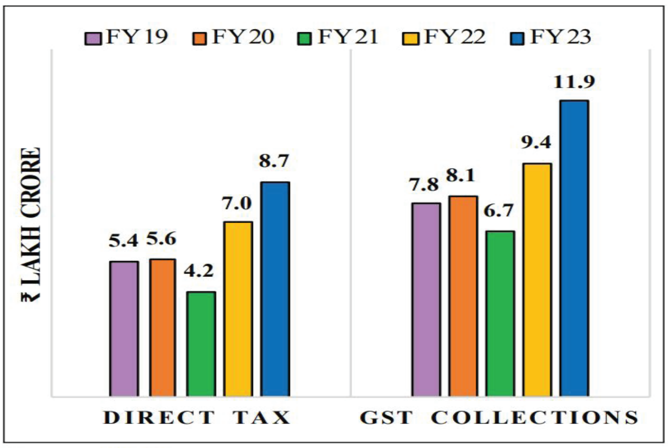
Economic growth remains resilient



Source: NSO, MoSPI
Note: AE stands for Advanced Estimates, PE stands for Provisional Estimates, RE stands for Revised Estimates

- Manufacturing and investment activities gained traction as seen by enhanced capacity utilization and business sentiments.
- Domestic **private consumption remained buoyant** in November 2022, as indicated by Motilal Oswal's Economic Activity Index. The index estimated that private consumption grew at a five-month high pace of 5.6 percent YoY, driven by auto sales and broad-based expansion of services.
- **Near-universal coverage of vaccination** in India that brought people out to the streets to re-experience the marketplace was rapidly populated with service providers returning to resume business.
- A **rise in the share of consumption** in disposable income.
- **Rise in government capital budget (capex)** due to significant increase in capex in FY23 and higher collection of direct tax and GST.
- The **credit growth to the MSME sector has been remarkably high,** over 30.5 per cent, on average, during Jan-Nov 2022, supported by the extended ECLGS of the Central government. The aggressive supply of credit by the banking sector has as much been triggered by their improved financial health as that of the corporates.

Buoyant tax collections (April-November)



Source: CGA

India's Inclusive Growth

- As per the **Periodic labour Force Survey (PLFS),** the urban unemployment rate decreased from

9.8% in September 2021 to 7.2% in September 2022, accompanied by an improvement in the labour force participation rate (LFPR).

- The **Emergency Credit Line Guarantee scheme** has succeeded in shielding MSMEs from financial distress, with 83 per cent of the borrowers that availed of the ECLGS being micro-enterprises.
- **MGNREGA**, besides generating daily wage employment, has also been creating assets for individual households to diversify their sources and lift their supplementary incomes. Schemes like **PM-KISAN**, which benefits households covering half the rural population, and PM Garib Kalyan Anna Yojana have significantly contributed to lessening impoverishment in the country.

Outlook: 2023-24

- **The private sector – financial and non-financial – was repairing balance sheets, which led to a slowdown in capital formation in the previous decade.**
- Aided by healthy financials, incipient signs of a new private sector capital formation cycle are visible. More importantly, compensating for the private sector's caution in capital expenditure, the government raised capital expenditure substantially.
- Structural reforms such as the introduction of the **Goods and Services Tax and the Insolvency and Bankruptcy Code** enhanced the efficiency and transparency of the economy and ensured financial discipline and better compliance.
- Strong domestic demand amidst high commodity prices will raise India's total import bill and contribute to unfavourable developments in the current account balance. These may be exacerbated by flattening export growth on account of slackening global demand.

CHAPTER - 2

India's Medium-term Growth Outlook: With Optimism and Hope

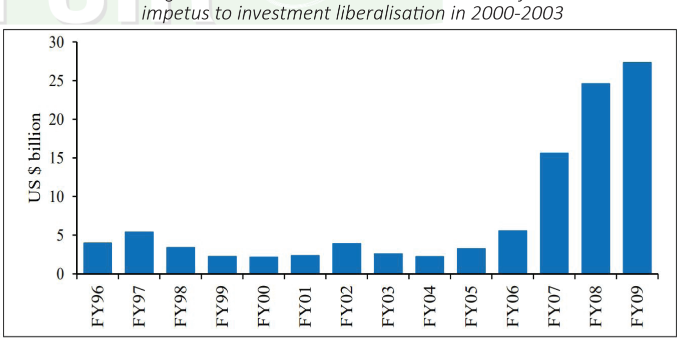
Introduction

- Indian economy has undergone New Age reforms in the last eight years, improving the economy's overall efficiency and lifting its potential growth. The reforms aimed at enhancing the ease of living and doing business.
- With the impetus of the persistent structural and governance reforms introduced in the country and strong macroeconomic stability, it is essential to get a handle on the medium-term growth outlook for India.

Product and Capital Market Reforms

- **Initiation of the reforms- 1991**
  - ✔ The macroeconomic imbalances of the late 1980s and early 1990s pushed the government towards introducing the structural reforms of 1991. The high combined deficit of the Central and state governments, elevated inflationary pressures, and large and unsustainable current account deficit (CAD) led to a balance of payments crisis in the Indian economy.
  - ✔ In response to the situation, trade and investments were liberalized in 1991. The new policy encouraged the entry of private sector firms in many sectors, automatic approval policy for FDI up to 51% and exchange rate was allowed to depreciate so as to maintain competitiveness.
  - ✔ The real growth went up from an average of 5.5 per cent during the 1980s to 6.3 per cent from FY93 to FY2000.
- **Continuity in reforms with a renewed impetus**
  - ✔ Investments were liberalized further to encourage Foreign Direct Investment as a main source of non-debt-creating capital inflows.
  - ✔ These reforms were a cornerstone for the IT sector boom in India and had widespread spillover benefits to other sectors of the economy.
  - ✔ The government set up a dedicated Ministry to pursue the policy of disinvestment and privatization. It sold equity stakes in some CPSEs and privatized companies such as Maruti Udyog, Hindustan Zinc, Bharat Aluminum, and Videsh Sanchar Nigam Limited.
  - ✔ This period also marked the launch of the project 'Golden Quadrilateral', which brought significant economic benefits to the country through enhanced connectivity, improved industrial activity, trade, and economic growth.
  - ✔ The Fiscal Responsibility and Budget Management (FRBM) Act was passed to address the combined Gross fiscal deficit whereas the SARFAESI Act allowed banks and financial institutions to recover their dues by proceeding against the secured assets of the borrower/guarantor without the intervention of the court/tribunals.
- **One-off shocks overshadowed the reforms of 1998-2002**
  - ✔ The period of these reforms also witnessed a series of domestic and global shocks The sanctions imposed by the US on India after India's nuclear test led to a sharp decline in capital flows to India. The period also witnessed two successive droughts in India and the 9/11 attacks.
- **India's participation in the global boom of 2003-2008**
  - ✔ While the global growth averaged 4.8 per cent during 2003-2008, the Indian economy grew at more than 8 per cent on average, supported by strong capital inflows, which indicated favourable domestic and external factors.

Foreign Direct Investment to India- Increased after the impetus to investment liberalisation in 2000-2003

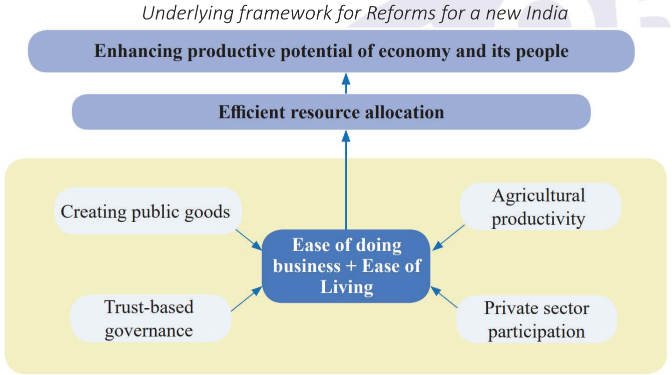


Source: RBI

Reforms for New India-Sabka Saath Sabka Vikaas

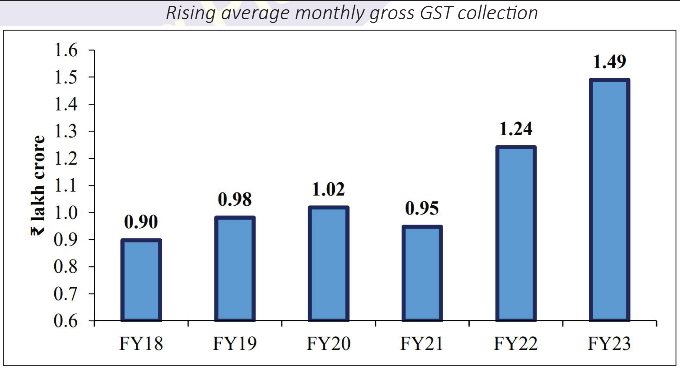
- Reforms after 2014 are growth-centric, with an underlying emphasis on enhancing the ease of living and doing business and improving economic efficiency. The broad principles behind the reforms were creating public goods, adopting trust-based governance, co-partnering with the private sector for development, and improving agricultural productivity.

Underlying framework for Reforms for a new India



- **Creating public goods to enhance opportunities, efficiencies and ease of living**
  - The dedicated programmes for road connectivity **(Bharatmala)**, port infrastructure **(Sagarmala)**, electrification, railways upgradation, and operationalising new airports/air routes **(UDAN)** have significantly improved the physical infrastructure in the last few years.
  - Infrastructure projects viz. the **National Infrastructure Pipeline (NIP**) in 2019 and the **National Monetization Pipeline** in 2021 are providing a multitude of opportunities for foreign investment and engagement. The NIP was launched with 6,835 infrastructure projects with a projected infrastructure investment of ₹111 lakh crore.
  - Besides the push to physical infrastructure, the government's emphasis on developing **public digital infrastructure** has been a game changer in enhancing the economic potential of individuals and businesses.
  - Based on the digital pillars, **JAM Trinity,** the country has witnessed significant progress in financial inclusion in recent years. The population covered with bank accounts increased from 53 per cent in 2015-16 to 78 per cent in 2019-21 (as per NFHS).
  - Numerous **digital public goods** such as digital verification (e-KYC), digital signature, digital repositories (Digi locker), and digital payments (UPI) have supported financial inclusion by improving access to formal financial services and reducing transaction costs. Some of the recently introduced digital initiatives, such as the **Open Network for Digital Commerce (ONDC) and Account Aggregator framework**, will open up further avenues for e-commerce market access and credit availability for smaller businesses and strengthen the expected economic growth in the medium term.
  - Unified digital interfaces like **National Single Window System** for business approvals, the JanSamarth **portal** for credit-linked Central Government scheme, and the **UMANG app** for access to Central and state government services are essential steps towards enhancing the ease of doing business.
- **Trust based governance**
  - Simplification of regulatory frameworks through reforms such as the Insolvency and Bankruptcy Code (IBC) and the Real Estate (Regulation and Development) Act (RERA) have enhanced the ease of doing business.
  - By introducing civil liabilities for dealing with simple defaults, the government has demonstrated its intent to promote ease of doing business for domestic and global investors.
  - Tax policy reforms such as adopting a unified GST, reducing corporate tax rates, exemption of sovereign wealth funds and pension funds from taxes, and removing the Dividend Distribution tax have reduced the tax burden on individuals and businesses.
  - GST has been 'a revenue success' since 2019; the average monthly gross GST collection has increased from ₹0.90 lakh crore in FY18 to ₹1.49 lakh crore in FY23.

Rising average monthly gross GST collection



Source: Department of Revenue

- **Promoting the private sector as a co-partner in the development**
  - The **New Public Sector Enterprise Policy for Aatmanirbhar Bharat** has been introduced to

realise higher efficiency gains by minimising the presence of the government in the PSEs to only a few strategic sectors.

- **Production Linked incentives (PLI)** have been introduced in the aftermath of the pandemic to incentivise domestic and foreign investments and to develop global Champions in the manufacturing industry. Production incentives under Aatmanirbhar Bharat also incentivise foreign investments for domestic production.
- The **National Logistics Policy (2022)** has been launched to reduce logistics cost and bringing it to par with other developed countries. This would boost economic growth, provide employment opportunities, and make Indian products more competitive in the global market.
- **Emergency Credit Line Guarantee Scheme (ECLGS)** and revision in the definition of MSMEs under the ambit of Aatmanirbhar Bharat helped them face the crisis shock. The ECLGS, in particular, has in the last two years benefited 1.14 crore MSMEs, which have availed collateral-free loans amounting to ₹2.38 lakh crore.

- **Enhancing productivity in agriculture**
  - The agriculture sector in India has grown at an **average annual growth rate of 4.6 per cent** during the last six years. Policies such as **Soil Health Cards,** the **Micro Irrigation Fund**, and **organic and natural farming** have helped the farmers optimise resource use and reduce the cultivation cost.
  - The promotion of **Farmer Producer Organisations (FPOs)** and the **National Agriculture Market (e-NAM)** extension Platform have empowered farmers, enhanced their resources, and enabled them to get good returns. Agri Infrastructure Fund (AIF) has supported the creation of various agriculture infrastructures.
  - **Cluster Development Programme (CDP)** has promoted integrated and market-led development for horticulture clusters. Support for creating a startup ecosystem in agriculture and allied sectors is also being provided to the farmers.

Returns to the Economic and Structural Reforms after 2014

- **Shocks that the economy faced during 2014-22**
  - As per data from the Bank for International Settlements, India's non-financial private sector **debt to GDP ratio went up from 72.9 per cent in March 2004 to 113.6 per cent by December 2010,** triggering a domestic credit and investment boom that eventually proved unsustainable, as the twin deficit – fiscal and external - crisis of 2013 revealed.
  - The government and the RBI took several policy initiatives to help the financial sector recoup the balance sheet stress during the 2010s, such as
    - the amendment to the SARFAESI Act 2002,
    - implementation of the Insolvency and Bankruptcy Code (IBC),
    - launch of 'Asset Quality Review' (AQR),
    - introduction of prompt corrective action (PCA) framework,
    - recapitalisation of Public Sector Banks (PSB), and
    - merger of PSBs
- **The Period 2014-2022 is analogous to the Period 1998-2002**

1998-2002	2014-2022
Shocks to the economy	
• Nuclear device testing 1998; sanctions followed • Banking and Corporate Sector deleveraging and repairing balance sheets • Two successive droughts • Technology bust; US recession and 09/11	• Period of Banking, Non-Banking and NonFinancial Corporate Sector Balance-sheet stress • Unprecedented pandemic shock followed by inflation global commodity price shock followed by tightening of financial conditions
Structural reforms in the economy	
• Interest rate deregulation • Privatisation • Asset Recovery for banks • Infrastructure (Golden quadrilateral) • FRBM Act	• Unique Identity • Financial Inclusion • GST leading to formalisation • Insolvency & Bankruptcy Code • Privatisation • Tax rates rationalisation and tax administration reforms • Decriminalisation of offences • Vaccines roll-out • Expenditure Management Reforms • AatmaNirbhar Bharat • Public Digital Infrastructure
Growth returns	
• One-off shocks delayed the growth returns	• Balance sheets strengthened in the financial sector; the corporate sector deleveraged by about 30 percentage points (Non-financial private sector debt to GDP ratio)
• Once shocks faded away, structural reforms paid growth dividends from 2003 onwards	• Emphasis on macro-economic stability while dealing with global shocks

Growth Magnets in this Decade (2023-2030)

- **India is prepared to grow at its potential once the one-off shocks recede**
  - As the health and economic shocks of the pandemic and the spike in commodity prices in 2022 wear off, the Indian economy is thus well placed to grow at its potential in the coming decade.
  - The **sound and healthy financial system** developed over the last few years will ensure efficient credit provisioning, contributing to higher growth in the coming years through higher investments and consumption.
  - The trends in the **credit-to-GDP ratio gap, bank balance sheets** and the **GDP growth** in India since 2012 show that better-capitalised banks result in higher credit growth, which further translates into higher GDP growth.
  - The IMF has highlighted that India's successful implementation of the wide-ranging reforms and dividends from digitalisation could increase India's medium-term growth potential.
  - The evolving **geo-political situation** also presents an opportunity for India to benefit from the diversification of global supply chains. With enabling policy frameworks, India presents itself as a credible destination for capital diversifying out of other countries.
  - The deregulation and simplification of compliances should continue to dismantle the licensing, inspection and compliance regime entirely.
  - If asset monetisation revenues are used to reduce public sector debt, the sovereign credit rating will improve, leading to a lower cost of capital. And that will be the biggest fiscal stimulus to the economy.
  - If the above-mentioned reforms explained are pursued in the coming years, India's potential GDP growth can rise to 7-8 per cent per annum in the medium term.

CHAPTER - 3

Fiscal Developments: Revenue Relish

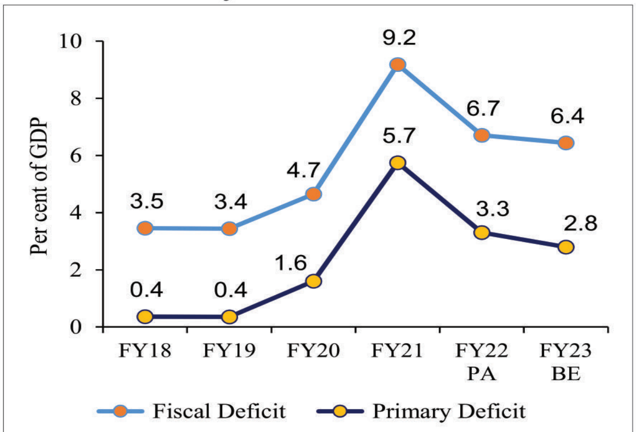
Brief Overview

- The Union Budget for FY23 was presented in an uncertain macroeconomic environment. Soon after its presentation, the geopolitical conflict aggravated global supply disruptions and adversely impacted the prices of fuel, food, and other essential commodities.
- The Government of India's fiscal policy response to the crisis comprised of a judicious mix of increasing food and fertilizer subsidies on the one hand and a reduction in taxes on fuel and certain imported products on the other.
- The Gross Tax Revenue registered a YoY growth of 15.5 per cent from April to November 2022, driven by robust growth in the direct taxes and Goods and Services Tax (GST).
- The Union Government is on track to achieve the budget estimate for the fiscal deficit in FY23.

Developments in Union Government finances

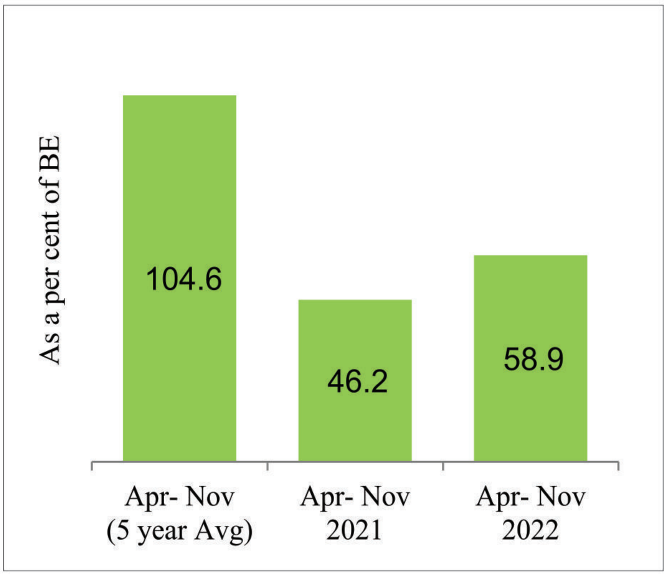
- The fiscal deficit of the Union Government, which **reached 9.2 per cent of GDP** during the pandemic year FY21, has moderated to 6.7 per cent of GDP in FY22 PA and is further budgeted to reach 6.4 per cent of GDP in FY23.

Trends in Union government deficits over the years- On the way to fiscal consolidation



Source: Union Budget documents, O/o CGA

Government on track to achieve the Fiscal deficit target for Fy23



Source: O/o CGA

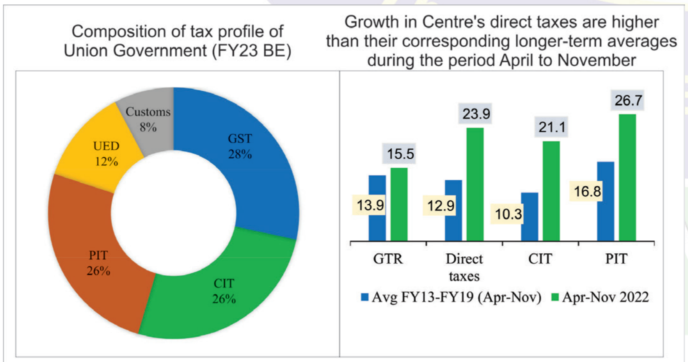
- This gradual decline in the Union **government's fiscal deficit as a per cent of GDP**, in line with the fiscal glide path envisioned by the government, is a result of careful fiscal management supported by buoyant revenue collection over the last two years.
- **Union Government on track to achieve the Fiscal deficit target for FY23**
  - ✔ As the **conflict in Europe** broke out early in the year, it aggravated **supply disruptions** and had an adverse impact on the prices of fuel, food, and other essential commodities.
  - ✔ The government's fiscal policy response **necessitated additional spending** on food and fertilizer subsidies, accompanied by specific duty cuts to control the pass-through of the high **imported prices** to the consumers/ users.
  - ✔ The fiscal deficit of the Union Government at the end of November 2022 stood at 58.9 per cent of the BE, lower than the five-year moving average of 104.6 per cent of BE.
- **Conservative budget assumptions provide a buffer during global uncertainties**
  - ✔ This resilience in the fiscal performance of

the Centre has resulted due to a recovery in economic activity, buoyancy in revenues observed during the year, and conservative assumptions of macroeconomic variables in the Budget.

- The prudent assumptions in Budget FY23 provided a buffer to the government during global uncertainties. As an illustration, the **Gross Tax Revenue (GTR) to the Centre was envisaged to grow at 9.6 per cent in FY23 BE** relative to FY22 RE. However, given the higher 'Provisional Actual' figures recorded for the GTR relative to the Revised estimates in FY22, **the growth in GTR of FY23 BE turns out to be a mere 1.8 per cent over FY22 PA.**

Performance of Union Government Non-Debt Receipts

- There is a **shortfall in the non-debt receipts** to meet the expenditure requirement which is met by borrowings of the government. It has seen a decline from 69.8% in 2021 to 64.1% in 2022.
- **Sustained revenue buoyancy over the last two years**
  - The Gross Tax Revenue registered a YoY growth of 15.5 per cent from April to November 2022, and the Net Tax Revenue to the Centre after the assignment to states grew by 7.9 per cent on a YoY basis.
- **Direct taxes propelling the growth in Gross tax revenue**
  - Direct taxes, which broadly constitute half of the Gross Tax Revenue, have registered a YoY growth of 26 per cent from April to November 2022, enabled by corporate and personal income tax growth.



Source: Union Budget FY23, O/o CGA
Note: GTR - Gross Tax Revenue, GST - Goods and Services Tax, CIT - Corporation Income Tax, PIT - Taxes on Income other than Corporation Income Tax.m UED - Union Excise Duties

- **Customs and Excise duties act as Flexi-fiscal policy tools**
  - When the collection of direct and indirect taxes was adversely impacted during the pandemic year FY21, and low global oil prices created some elbow room for raising taxes on petroleum, the government raised the excise duty on petrol and diesel to augment the revenue pool.
  - The budget estimate had factored in negative growth of 15 per cent on excise collections for FY23. In line with the expectation, the excise duty collection has declined by 20.9 per cent from April to November 2022 on a YoY basis.
- **Stabilising Goods and Services Tax yielding returns**
  - The Goods and Services Tax (GST) has evolved and stabilised as a vital revenue source for the Central and state governments. Their gross GST collections, taken together, were ₹13.40 lakh crore from April to December 2022.
- **Centre on track to meet Non-Tax Revenue targets**
  - The non-tax revenue to the Centre mainly includes interest receipts on loans to States and Union Territories, dividends and profits from Public Sector Enterprises and the Reserve Bank of India, and external grants and receipts for services the Union Government provides.
  - Budget **FY23 envisaged a lower collection of non-tax revenue** receipts during the current year relative to FY22 (around 22.5 per cent lower than FY22 PA) . Of the budgeted amount, 73.5 per cent has been collected up to November 2022.
- **Committed towards disinvestment but dependent on external factors**
  - The pandemic-induced uncertainty, the geopolitical conflict, and the associated risks have posed challenges before the plans and prospects of the government's disinvestment transactions over the last three years.
  - During FY15 to FY23 (as of 18 January 2022), an amount of about ₹4.07 lakh crore has been realised as proceeds from disinvestment through 154 transactions using various modes/instruments. This includes ₹3.02 lakh crore realised from minority stake sale and ₹69,412 crore realised from strategic disinvestment transactions (in 10 CPSEs - HPCL, REC, DCIL, HSCC, NPCC. NEEPCO, THDC, Kamrajar Port, Air India and NINL).

Performance of Union Government Expenditure

- **Pragmatic expenditure policy of re-prioritisation**
  - The total expenditure of the Union Government in FY21 rose to 17.7 per cent of GDP, higher than the previous 5-year average of 12.8 per cent of GDP .
  - Upon ensuring the basic safety nets for the vulnerable, the emphasis of the Government expenditure shifted to productive domestic capital expenditure.
  - In FY22, **total expenditure was brought down to 16% of GDP,** and a more significant proportion of this accrued to capital expenditure.
  - **The capital expenditure by the Centre steadily increased from 1.7% of GDP (FY09-FY20) to 2.5% in FY22 and is further budgeted to increase to 2.9% in FY23.** This highlights an improvement in the quality of Government expenditure over the years.
- **Capex-led growth to bring back animal spirits and manage debt levels**
  - The Government of India had budgeted an unprecedented **₹7.5 lakh crore of Capital Expenditure for FY23,** of which more than 59.6 per cent has been spent from April to November 2022. During this period, capital expenditure registered a YoY growth of over 60 per cent, much higher than the long-term average growth of 13.5 per cent recorded in the corresponding period from FY16 to FY20.
  - Capital expenditure has a long-term impact on growth and also strengthens aggregate demand and crowds-in private spending.
  - The Centre announced incentives to boost states' capital expenditure in the form of interest-free loans and capex-linked additional borrowing provisions.
- **Geopolitical developments stretched the Revenue Expenditure requirements**
  - The significant components of the Centre's revenue expenditure include **interest payments, major subsidies, salaries of Government employees, pensions, defence revenue expenditure, and transfers to States.**
  - The revenue expenditure has grown by over 10% from April to November 2022 due to the sudden outbreak of **geopolitical conflict resulting in higher international prices for food, fertilizer, and fuel.**
  - Interest payments have increased due to higher borrowings during the pandemic.

Major reforms in the Union budget over the last few years

- **Improved fiscal transparency and realistic revenue assumptions in the Budget**
- **Discontinuation of Plan-Non plan classification**
- **Merger of railway Budget with the Main Budget**
- **Shifting the date of the Budget to 1 February**

Overview of State Government Finances

- **Performance of State finances:**
  - The combined Gross Fiscal Deficit (GFD) of the States, which increased to 4.1 per cent of GDP in the pandemic-affected year, was brought down to 2.8 per cent in FY22 PA.
  - Given the geopolitical uncertainties, the consolidated GFD-GDP ratio for States has been budgeted 3.4 per cent in FY23.
  - However, the States' monthly fiscal accounts data released by CAG shows that from April-November 2022, the combined borrowings of the 27 major states have just reached 33.5 per cent of their total budgeted borrowings for the year.
  - The **States' Tax revenue and own non-Tax revenue** are anticipated to **grow** at 17.5% and 25.6%.
  - The capital outlay of states grew by 31.7% in FY22 PA due to strong **revenue buoyancy and support from the Centre in the form of advance releases, GST compensation payments, and interest-free loans.**
- **Cooperative fiscal federalism drives a well-targeted fiscal policy**
  - **Transfer from Centre to States:**
    - Transfer of funds to the States comprises the share of States in Union taxes devolved to the States, Finance Commission Grants, Centrally Sponsored Schemes (CSS), and other transfers. Total transfers to States have risen between FY19 and FY23 BE.
  - **Supporting the GST compensation payments during crisis**
    - Recognising the importance of a well-targeted fiscal policy by national and sub-national governments, the Union Government has taken consistent steps to support the state finances and incentivise

States to move forward on the reforms agenda.

- To meet the shortfall in GST compensation for States, the Government, in addition to the release of regular GST compensation from the Fund, borrowed ₹ 2.69 lakh crore during FY21 and FY22 and passed it on to States on a back-to-back basis.

✔ **Enhanced limit of borrowing for the States and incentives for reforms**

- Since the pandemic outbreak, the Centre has kept the net borrowing ceiling of the State Governments above the Fiscal Responsibility Legislation (FRL) threshold. It was fixed at 5 percent of GSDP in FY21, 4 per cent of GSDP in FY22 and 3.5 per cent of GSDP in FY23.

✔ **Centre's support towards States' capital expenditure**

- The Union government has provided 50-year interest-free loans to state governments under the 'Scheme for Special Assistance to States for Capital Investment' for the last three years.

Debt Profile of the Government

- IMF projects the global government debt at 91 per cent of GDP in 2022, about 7.5 percentage points above the pre-pandemic levels. While countries worldwide had started winding up the fiscal support provided during the pandemic, challenging global financial conditions amidst global uncertainties tightened budget constraints.
- India, also experienced a spike in debt resulting from the pandemic-induced higher Government borrowings to finance the additional expenditure needs. However, India's public debt profile is relatively stable and is characterised by low currency and interest rate risks.
- **Consolidating General government finances**

✔ The General Government finances give an overview of fiscal position of the Government sector as a whole. The General Government liabilities as a proportion of GDP increased steeply during FY21 on account of the additional borrowings made by the Centre and States on account of the pandemic. However, the ratio has come off its peak in FY22.

- **A positive growth-interest rate differential keeps the Government Debt sustainable**

✔ The General Government Debt to GDP ratio increased from 75.7 per cent of end-March 2020 to 89.6 per cent at the end of the pandemic year FY21. It is estimated to decline to 84.5 per cent of GDP by end-March 2022. The emphasis on capex- led growth will enable India to keep the growth-interest rate differential positive.

Conclusion

The Government of India has adopted a holistic policy towards fiscal stability in the last few years. Using the crisis as an opportunity to bring about reforms, the government undertook a series of policy measures in the previous few years. These policies range from

- bringing in budget transparency and using prudent assumptions in the Budget to transforming the tax ecosystem by implementing technology,
- rationalising GST, reducing tax rates, simplifying tax compliances, and ending the uncertainty around retrospective taxation.

All these measures have led to a greater formalisation of the economy, enhanced compliances and better reporting of the income by the public and imparted credibility to the government's commitment to fiscal management.

CHAPTER - 4

Monetary Management and Financial Intermediation: A Good Year

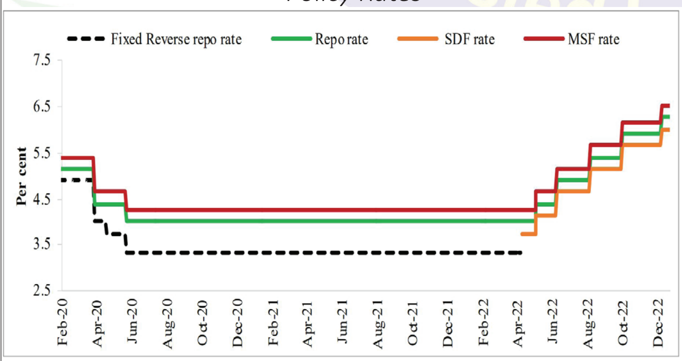
Brief Overview

- The year 2022 marked the return of high inflation, especially in advanced as well as emerging economies. Major central banks have implemented sharp increases in policy rates. The RBI initiated its monetary tightening cycle in April 2022 and has since implemented a policy repo rate hike of 225 bps.
- The global tightening cycle has contributed to a dampened global outlook, however the domestic appetite for credit has been on an upswing. Non-food credit off take by Scheduled Commercial Banks (SCBs) has been growing in double digits since April 2022.
- Credit disbursed by Non-Banking Financial Companies (NBFCs) has also been on the rise. The Gross Non-Performing Assets (GNPA) ratio of SCBs has fallen to a seven-year low of 5.0, while the Capital-to-Risk Weighted Assets Ratio (CRAR) remains healthy at 16.0 and well above the regulatory requirement of 11.5.

Monetary developments

- Inflationary pressures dominated the global economic landscape in FY23. The buildup of price pressures occurred due to economic recovery in FY22 from the pandemic and conflict that erupted in Europe in February 2022.
- Policy rates at a glance:

Policy Rates



Source: RBI

Liquidity Conditions

- Surplus liquidity conditions that prevailed post-Covid-19 in response to the Reserve Bank's conventional and unconventional monetary measures moderated during FY23. LAF corridor became symmetric around the policy repo rate - the corridor width was thus restored to 50 bps.

Monetary Policy Transmission

- Lending and deposit rates of banks increased during FY23 in consonance with the policy repo rate changes. An analysis of transmission across bank groups during FY23 indicates that sanctioning fresh loans was higher in the case of public sector banks.

Developments in the G-sec Market

- After remaining steady through 2020 and 2021, the yield on the 10-year government bond rose in 2022. The monthly average yield on the 10-year government bond stood at 7.3 per cent in December 2022 after having peaked at 7.5 per cent in June 2022.

Banking Sector

- **Resilient and well-capitalised Banking System**
  - RBI and the government have made dedicated efforts in terms of **calibrated policy measures** like
    - strengthening the regulatory and supervisory framework,
    - implementation of 4R's approach of Recognition, Resolution, Recapitalization and Reforms to clean and strengthen the balance sheet of the banking system.
    - continuous efforts over the years have culminated in the enhancement of risk absorption capacity and a healthier banking system balance sheet both in terms of asset quantity and quality over the years.
  - The **asset quality of SCBs has been improving** steadily over the years across all major sectors. The GNPA ratio has decreased from 8.2 per cent in March 2020 to a seven-year low of 5.0 per cent in September 2022.

Credit Growth Aided by a Sound Banking System and Deleveraged Corporate Sector

- The recovery in economic activity in FY22, along with the enhanced financial soundness of banks and corporates, has bolstered the expansion of non-food bank credit since June 2021. Credit growth has been broad-based across sectors, with retail credit driving the growth primarily owing to rising demand for home loans.
- An increase in demand for housing induces greater investment which, in turn, sets off a **virtuous cycle of growth and investment.** Credit to agriculture and allied activities gained momentum supported by the Government's concessional institutional credit and higher agricultural credit target.
- With moderation in overseas issuances and lower investments by Private Equity (PE)/Venture Capital (VC), the financing needs of the corporate sector are being met through domestic resources.
- A well-capitalized banking system with a low NPA ratio and more robust corporate sector fundamentals will continue to enhance the flow of bank credit into productive investment opportunities.

Non-Banking Financial Companies (NBFCs) Continue to Recover

- The continuous improvement in asset quality is seen in the **declining GNPA ratio of NBFCs** from the peak of 7.2 per cent recorded during the second wave of the pandemic to 5.9 per cent in September 2022, reaching close to the pre-pandemic level.
- NBFCs continued to deploy the **largest quantum of credit** from their balance sheets **to the industrial sector,** followed by retail, services, and agriculture. Loans to the services sector and personal loans registered a robust double-digit growth.

Progress made under the Insolvency and Bankruptcy Code:

- **Ease of doing business: Facilitating the process of 'exit'**
  - ✔ The Insolvency and Bankruptcy Code (IBC) has facilitated the exit of distressed firms, thereby allocating scarce economic resources towards more productive use.
  - ✔ Since the inception of the IBC in December 2016, 5,893 Corporate Insolvency Resolution Processes (CIRPs) had commenced by end-September 2022, of which 67 per cent have been closed.
  - ✔ Sectoral analysis reveals that 52 per cent of the ongoing CIRPs belong to industry, followed by 37 per cent in the services sector by September 2022.
- **Behavioural change: Recoding Business relationships**
  - ✔ One of the far-reaching spill-over effects of the Insolvency and Bankruptcy Code has been the behavioural change effectuated by it among debtors.
- **69 per cent of the distressed assets rescued** with realisation value around 178 per cent of the liquidation value.
- The Code has facilitated the **realization of 92 per cent of the value** through the liquidation of these companies.
- **NPAs: IBC recovers highest amount for Scheduled Commercial Banks**
  - ✔ As per the RBI data, in FY 22, the total amount recovered by Scheduled Commercial Banks under IBC has been the highest compared to other channels such as Lok Adalat's, SARFAESI Act and DRTs in this period.

Development in Capital Markets

Despite some influence of global macroeconomic and financial market developments on Indian capital markets, India's capital market had a good year, overall.

- **Primary Market**
  - ✔ **Equity: large number of SMEs coming out with the public offer**
    - Despite the turmoil, primary market saw buoyant performance specially during April to November 2022.
    - In May 2022, the Central Government diluted its stake in the Life Insurance Corporation (LIC) of India and listed it on the stock exchanges, thereby making LIC's IPO the largest IPO ever in India and the sixth biggest IPO globally of 2022.
  - ✔ **Debt: Underactivity in public debt issuances more than compensated by private debt placements**
    - In April-November 2022, the amount of resources mobilised by the issuance of debt securities in the primary market increased by 5 per cent, compared to the corresponding period last year.
- **Secondary Market**
  - ✔ **Stock Market Performance: Indian stock market witnessing a resilient performance**

- Global stock markets declined because of geopolitical uncertainty during April-December 2022. However, the Indian stock market saw a resilient performance and India outperformed its peers in April-December 2022.

✔ **Retail Participation in the Capital Market**

- The share of individual investors in the cash segment marginally declined during FY23 (April-November 2022) as compared to the same period during FY22. However, the number of demat accounts rose sharply.

✔ **Commodity Derivatives Market: sharp correction on account of monetary tightening by the Fed**

- The Russia-Ukraine conflict triggered disruptions to the supply of commodities, especially energy, base metals and food commodities which caused inflation and to reign it the US Federal Reserve started increasing interest rates in March 2022 which led to sharp correction in commodity prices.

✔ **Mutual Funds witnessed lower net inflows**

- Mutual Funds witnessed significantly lower net inflows than last year.
- Despite that, the mutual fund industry's assets under management (AuM) increased by 8.1 per cent at the end of November 2022 on YoY basis, thanks to the market performance

- **Foreign Portfolio Investments**

✔ **Strong macroeconomic fundamentals ensure India remains an attractive destination**

- Global economic factors, such as inflationary pressures, monetary tightening by central banks and recessionary fears in Advanced Economies, exerted pressure on FPIs to sell in Indian markets.
- However, strong macroeconomic fundamentals of the Indian economy and the improvement in market risk appetite, assets under custody (custodial holdings of FPIs) witnessed an increase.

- **Other Developments**

✔ **Necessity of a common approach to regulating the crypto ecosystem**

- recent collapse of the crypto exchange FTX and the ensuing sell-off in the crypto markets have placed a spotlight on the vulnerabilities in the crypto ecosystem.
- The geographically pervasive nature of the crypto ecosystem necessitates a common approach to the regulation of these volatile instruments. The global response to cryptos is still evolving.

Cross country analysis: Regulation of Cryptocurrency

- Crypto assets are new forms of digital assets implemented using cryptographic techniques. The crypto asset market has been unstable. The volatility of the crypto asset ecosystem has brought to the forefront their fragile backing and governance problems.
- Few countries and jurisdictions are attempting to regulate unbacked crypto assets, as discussed below-

✔ **European Union:** The European Union's digital finance strategy comprises regulating Markets in Crypto Assets (MiCA). Even as the focus is on stable coins, for other crypto assets and key entities delivering critical functions such as exchanges and wallet providers, MiCA proposes on shoring, notification and licensing regimes.

✔ **Japan:** The Japan Financial Services Agency introduced regulation of crypto asset service providers in April 2017, mandating clients' asset segregation, operational risk and cyber security management, Know-Your-Customer, internal audits, and minimum capital requirements.

✔ **Switzerland:** Three categories of tokens were introduced: payment tokens, utility tokens, and asset tokens

✔ **United Kingdom:** UK Treasury set out its roadmap for crypto asset regulation in April 2022, focusing on stable coins and a proposal for a sandbox regime for blockchain-based FMIs.

- **IFSC - GIFT City**

✔ **Emerging as a Preferred Jurisdiction for International Financial Services**

- International Financial Centre is a jurisdiction with a high **concentration of financial institutions** such as Banks, Stock Markets & related entities, Insurance firms, Fund Managers, FinTech firms, etc., which offer specialized financial services to non-residents and residents, in an environment that promotes financial innovation and facilitates cross border transactions.

- GIFT-IFSC is **housed in India's first fully operational Smart City** with world-class commercial, social and physical infrastructure.

- To bolster the development of IFSC, the Government took a major policy decision to establish the first of its kind, unified and agile financial sector regulator for IFSCs viz **International Financial Services Centres Authority (IFSCA)** through an Act of Parliament in 2019.

- IFSCA assumed the power of four domestic sector regulators, namely RBI, SEBI, IRDAI & PFRDAI, in so far as the development and regulation of IFSCs in India were concerned.

Developments in the Insurance Market

- **Insurance markets globally have demonstrated remarkable flexibility and resilience in overcoming the impact of the pandemic**
  - ✔ Internationally, the potential and performance of the insurance sector are generally assessed based on two parameters, viz.,
    - i. **'insurance penetration',** which refers to the ratio of total insurance premiums to Gross Domestic Product (GDP) in a year.
    - ii. **'insurance density',** which refers to the ratio of insurance premium to population, i.e. insurance premium per capita and is measured in US Dollar, as they reflect the level of development of the insurance sector in a country.
- **India poised to emerge as one of the fastest growing insurance markets in the coming decade**
  - ✔ The government's flagship initiative for crop insurance, **Pradhan Mantri Fasal Bima Yojana (PMFBY),** has led to significant growth in the premium income for crop insurance.
  - ✔ **Ayushman Bharat (Pradhan Mantri Jan Arogya Yojana) (AB PM-JAY)** aims at providing a health cover of ₹5 lakh per family per year for secondary and tertiary care hospitalization.
  - ✔ Few other government initiatives are **Pradhan Mantri Suraksha Bima Yojana, Pradhan Mantri Jeevan Jyoti Bima Yojana,** and **Pradhan Mantri Vaya Vandana Yojana.**
  - ✔ The insurance regulator IRDAI has also undertaken various initiatives towards boosting insurance penetration, such as
    - permitting insurers to conduct video based Know Your Customer (KYC),
    - launching standardised insurance products, and
    - allowing insurers to offer rewards for low risk behaviour.

Pension Sector

- India's Pension Sector demonstrated remarkable performance during the Covid-19
  - ✔ The Government of India announced various measures to provide pensions to families who have lost their earning members due to Covid.
  - ✔ It also took initiatives towards enhancing and liberalizing insurance compensation.
  - ✔ The benefit of the **Employees State Insurance Corporation (ESIC) pension scheme** was extended to even those who have lost earning members due to Covid-19.
  - ✔ The insurance benefits under the **Employees Deposit Linked Insurance (EDLI)** scheme were also enhanced and liberalised.
  - ✔ The Government of India is implementing various pension schemes such as the **Indira Gandhi National Old Age Pension Scheme (IGNOAPS), Indira Gandhi National Widow Pension Scheme (IGNWPS), Indira Gandhi National Disability Pension Scheme (IGNDPS)** under the **National Social Assistance Programme (NSAP).**

Outlook

- The resilience of the domestic financial system is reflected in
  - ✔ the healthy balance sheet of banks,
  - ✔ stronger capital levels of NBFCs and
  - ✔ robust growth in the AuM of domestic mutual funds.

Buoyant demand for bank credit and early signs of a revival in the investment cycle are benefiting from improving asset quality, a return to profitability and resilient capital and liquidity buffers. Further, IBC mechanism continues to support the 'Ease of Doing Business' in India by facilitating easy exit with time bound resolutions for firms.

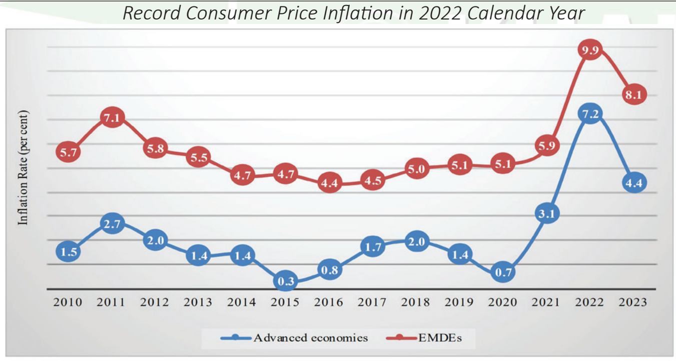
CHAPTER - 5

Prices and Inflation: Successful Tight-Rope Walking

Brief Overview

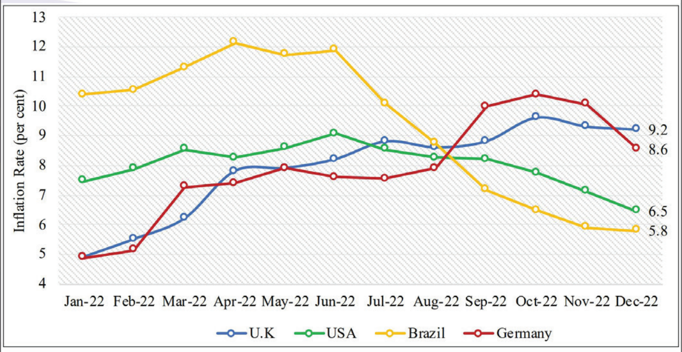
- The Consumer Price Inflation (CPI) in India went through three phases in 2022– a rising phase up to April, then a holding pattern up to August and then a decline by December. The rising phase was largely due to
  - the fallout of the Russia-Ukraine war, and
  - a shortfall in crop harvests due to excessive heat in some parts of the country.
- The divergence between a relatively high Wholesale Price Index (WPI) inflation and lower Consumer Price Index (CPI) inflation widened in mid-year 2022 primarily owing to a difference in relative weights of the two indices and the lagged effect of imported input costs on retail prices.
- The year 2022 was marked by a return of high inflation in the advanced world. In India, the government and the central bank took decisive measures to cap the rise in prices.
  - RBI's Monetary Policy Committee increased the policy repo rate under the liquidity adjustment facility (LAF) by 225 basis points from 4.0 per cent to 6.25 per cent between May and December 2022.
  - Central Government has also undertaken various fiscal measures to contain inflationary trends such as control over export of wheat, maintenance of buffer stock of pulses, reduction of fuel prices, among other measures.
- In general, India's retail inflation rate peaked at 7.8 per cent in April 2022. The overshoot of inflation above the upper end of the target range in India was one of the lowest in the world.

Record Consumer Price Inflation in 2022 Calendar Year



Source: World Economic Outlook, October 2022, IMF
Note: *The figure are annual averages; figures for 2022 and 2023 are projections.
Advanced Economies include 40 economies and EMDEs include 156 economies as per IMF classification

High Consumer Price Inflation in Advanced Economies

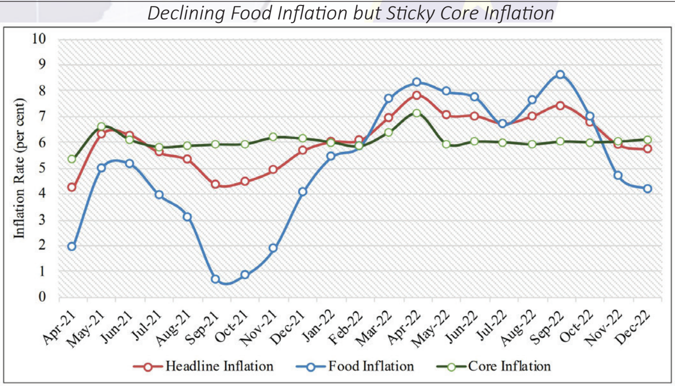


Source: OECD

Domestic Retail Inflation

- **Headline Inflation Declined from its Peak**
  - FY22 witnessed lower CPI-Combined (CPI-C) based retail inflation as compared to FY21.
  - During FY22, some sub-groups such as **'oils & fats', 'fuel & light' and 'transport & communication'** reported high inflation. This was mainly driven by supply disruptions caused by pandemic-induced lockdowns.

Declining Food Inflation but Sticky Core Inflation

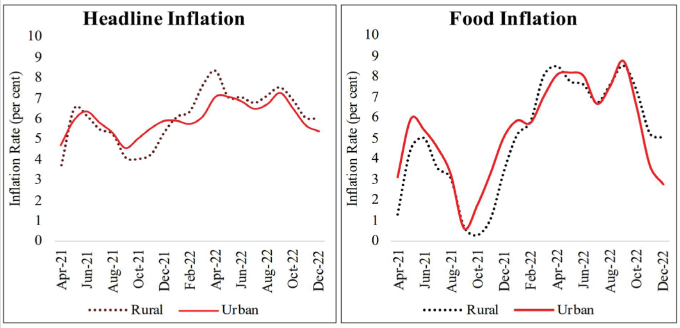


Source: MoSPI

  - The subsequent year (FY23) began with the Russia-Ukraine crisis that led to high headline inflation rate in April 2022.
  - In FY23, retail inflation was mainly driven by higher food inflation, while core inflation stayed at a moderate level.
- **Retail Inflation Driven by Food Commodities**
  - Retail price inflation mainly stems from the agriculture and allied sector, housing, textiles, and pharmaceutical sectors. During FY23, **'food & beverages', 'clothing & footwear', and 'fuel & light'** were the major contributors to **headline inflation.**

- **Food Inflation Caused by Vegetables and Cereals in FY23**
  - ✔ Food inflation based on Consumer Food Price Index (CFPI) climbed to 7.0 per cent in FY23 from 3.8 per cent in FY22. Though the increase in food inflation is broad-based, the major contributors are **vegetables, cereals, milk and spices.**
- To check the soaring prices of wheat and rice, the government has initiated following measures:
  - ✔ Prohibited the export of wheat products under HS Code 1101.
  - ✔ Imposed an export duty on rice.
- Further, to insulate vulnerable sections from the rise in prices, the Government has launched a new integrated food security scheme, **'Pradhan Mantri Garib Kalyan Ann Yojana'** on 1 January 2023, to provide free foodgrains to more than 80 crore beneficiaries.
- FY22 saw **edible oil inflation** on account of international price pressures. India meets **60 per cent** of its edible oils demand through imports, making it vulnerable to international movements in prices.
- **Measures to Contain Inflation in Essential Food Commodities:**
  - ✔ **Cereals:**
    - ■ Control over export of wheat flour.
    - ■ **Export duty of 20 per cent** on rice, brown rice, and semi-milled as well as wholly milled rice, except parboiled rice.
  - ✔ **Pulses:**
    - ■ **Buffer stock** of pulses has been maintained for price stabilization.
    - ■ **Import duty and Agriculture Infrastructure and Development Cess (AIDC)** on masur brought down to zero.
    - ■ Pulses distributed at discounted rate under various welfare schemes to States and UTS
  - ✔ **Edible Oils:**
    - ■ Exemption in customs duty and AIDC.
    - ■ Inclusion of certain items under the **Essential Commodities Act** to declare those items as an Essential Commodity.
    - ■ Measures like amendment in the **Removal of Licensing Requirements, Stock Limits and Movement Restrictions on Specified Foodstuffs Order,** 2016, to curtail any unfair practices like hoarding, black marketing etc. in the market and to control the prices of edible oils.
- **Rural-Urban Inflation Differential Has Declined:**
  - ✔ Rural inflation has remained above its urban counterpart throughout the current fiscal year, reversing the trend seen during the pandemic years.

Urban and Rural Inflation



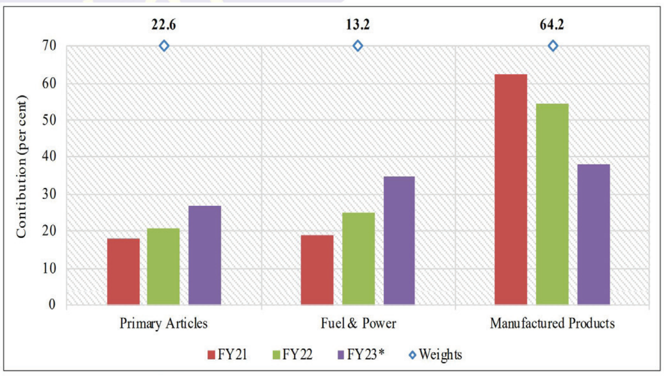
Source: MoSPI

  - ✔ Most of the States and UTs have witnessed higher rural inflation than urban inflation in the current year, mainly owing to marginally higher food inflation in rural areas.

Domestic Wholesale Price Inflation

- **Wholesale Price Inflation Caused by Global Supply Chain Disruption**
  - ✔ The Russia-Ukraine conflict worsened global supply chains along with the free movement of essential commodities which resulted in the wholesale inflation rate climbing to about 13.0 per cent in FY22.
  - ✔ Prices of items like petroleum products, basic metals, chemicals & chemical products, and edible oils, with maximum exposure to international pricing translated into a rise in the domestic WPI inflation.
  - ✔ Part of the double-digit inflation in WPI during FY23 could be attributed to food inflation owing to erratic climatic conditions, which stayed at 7.5 per cent against 6.8 per cent in FY22.

Drivers of Wholesale Inflation in FY23 – 'Primary Articles' & 'Fuel & Power'*



Source: Office of Economic Adviser, DPIIT
Note: *April-December

  - ✔ The high import dependence on edible oils has meant that the transitory effect of rising international prices of these products are also reflected in domestic prices.

- An RBI study indicates that 1% increase in prices across all the countries and sectors due to global inflation shock could increase inflation in India by around 63 basis points through second-round effects comprising domestic indirect effects (46 basis points) and global spill overs (17 basis points), in addition to the direct impact of 100 basis points.
- The impact of prices in world markets on WPI (manufactured products component) was clearly visible, especially in prices of oil and basic metals.

- **Measures to Control Inflation in Input Prices**

Fuel Price Inflation: Declining Global Crude Oil Prices

In FY22 and FY23, inflation in WPI 'fuel and power' was mostly driven by high international crude oil prices. The upward trend continued in FY22 and FY23, as demand picked up with the easing of Covid-19 restrictions in most regions of the world. Also, owing to supply disruption amid rising tensions in Eastern Europe and the Middle East in June 2022, the Indian basket of crude oil peaked at US$116/bbl.

- Convergence of WPI and CPI Inflation
  - While the pass-through of international prices to wholesale prices is relatively quick, it impacts retail prices with a lag. This creates a wedge between WPI and CPI inflation rates.
  - The wedge between CPI-C and WPI inflation continued to widen before reaching its peak at 10 per cent in November 2021. Thereafter, the gap began to narrow until April 2022.
  - The path to convergence, however, was short-lived as another inflationary pressure started building up in February 2022 as a consequence of **the Russia-Ukraine conflict.** The major brunt of commodity supply chain disruption and increased demand for essentials was reflected in WPI with a **short lag of 2 months.**
  - It was only after global commodity prices, including crude oil, softened and the effects of strong supporting domestic factors like favourable monsoon, vaccination-led economic resumption, etc., started to be felt that the wedge began to narrow, and it closed in November 2022, after 21 months. It also indicated the near completion of the pass-through of high input costs to the retail segment.
- **The convergence between the WPI and CPI indices was driven by two factors:**
  - **Firstly**, a cooling in inflation of commodities such as crude oil, iron, aluminum and cotton led to a lower WPI. These commodities occupy a larger weight in the WPI as compared to the CPI. Further, these commodities are highly vulnerable to fluctuations in international prices and are used intensively by industries producing wholesale goods. As the prices cooled for these commodities, the two measures of inflation began to converge.
  - **Secondly**, CPI inflation rose due to an increase in the prices of services. Services form a part of the core component of the CPI-C but are not included in the WPI basket.

Measures To Contain Inflation In Input Prices

- **Fuel Prices:** The Central Government has made interventions by calibrating the excise duties on petrol and diesel. The first phase of reduction in terms of ₹5 on petrol and ₹10 on diesel was made effective from 4 November 2021 and the second phase from 22 May 2022 (₹8 per litre on petrol and ₹6 per litre on diesel).
- **Plastic products:** The import duty on import of raw materials used in the plastic industry has been reduced to lower the cost of domestic manufacturing. The duties on naphtha, propylene oxide and polymers of vinyl chloride have been reduced from 2.5 per cent to 1 per cent, 5 per cent to 2.5 per cent and from 10 per cent to 7.5 per cent, respectively on 21 May 2022.
- **Steel:** On 21 May 2022, import duty on major inputs – ferronickel, cooking coal, PCI coal – has been cut from 2.5 per cent to zero, while the duty on coke and semi-coke has been slashed from 5 per cent to zero. Tax on export of iron ores and concentrates has increased from 30 per cent to 50 per cent, while that on iron pellets has been raised to 45 per cent.
- **Cotton:** The government waived customs duty on cotton imports w.e.f 14 April 2022, until 30 September 2022, to benefit the textile industry and lower prices for consumers. Earlier, cotton imports attracted 5 per cent Basic Customs Duty (BCD) and 5 per cent AIDC. The Central Board of Indirect Taxes and Customs (CBIC) notified the exemption from customs duty and AIDC for import of cotton.
- **Diamonds and gemstones:** In Budget 2022-2023, customs duty on cut and polished diamonds and gemstones was reduced to 5 per cent and duty on the simply sawn diamond was reduced to nil.
- **Chemical products:** Customs duty on certain critical chemicals namely methanol, acetic acid and heavy feedstocks for petroleum refining was reduced in the Budget 2022-23.

Falling Inflationary Expectations

- The RBI's anchoring of inflationary expectations through forward guidance and responsive monetary policy has helped guide the trajectory of inflation in the country.

Monetary Policy Measures for Price Stability

- The Reserve Bank of India's Monetary Policy Committee (MPC) increased the policy repo rate under the liquidity adjustment facility (LAF) by 2.25 per cent (225 basis points) from 4.0 per cent to 6.25 per cent between May and December 2022.

Housing Prices: Recovering Housing Sector After the Pandemic

- Housing prices provide helpful information on the state of the economy via booms and busts in asset markets, which give rise to economic imbalances. Monitoring housing prices is essential for achieving the objectives of price stability, financial stability, and growth. Movements in these prices affect consumption spending through its effects on household wealth and consumer confidence.
- The National Housing Bank (NHB) publishes two Housing Price Indices (HPI), with **FY18 as the base year, namely**
  - ✓ **'HPI assessment price'-** It is based on the valuation prices of residential units collected from primary lending institutions.
  - ✓ **'HPI market price quarterly'-** It is based on the market prices for unsold inventories collected from developers.
- **A composite index** is calculated for **50 cities** across India using the population of the cities as weights.

Keeping check on Pharmaceutical Prices

- The principles for the regulation of the prices of drugs are based on the **National Pharmaceuticals Pricing Policy, 2012,** administered by the Department of Pharmaceuticals.
- The key principles of the policy are the essentiality of drugs, control of formulation prices and market-based pricing.
- Ceiling prices for formulations of drugs/medicines across various therapeutic categories is fixed by **National Pharmaceuticals Pricing Authority,** under National List of Essential Medicines (NLEM), 2022.
- Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) was launched to make quality generic medicines available at affordable prices to all. Under this scheme:
  - ✓ Dedicated outlets known as Janaushadhi Kendras are opened to provide quality generic medicines at affordable prices to all and especially to the poor and the deprived.
  - ✓ It also provides self-employment with sustainable and regular earnings opportunities.

NHBs Support to the Housing Finance Sector (HFC)

The last three years were challenging for the housing sector. NHB has provided a significant impetus to obviate the liquidity issues faced by the Housing Finance Sector in the last 3 years.

- The Liquidity Infusion Facility Scheme was launched in 2019 to support HFCs in creating individual housing loan portfolios that fall under the priority sector, as defined by the RBI.
- During the COVID-19 pandemic, Special Refinance Facility (SRF) was launched for disbursing an amount of ₹10,000 crore provided by RBI under the Special Liquidity Facility and an amount of ₹5,000 crore allocated by RBI under an Additional Special Liquidity Facility.
- During 2020-21, SRF 2021 was launched with a corpus of ₹10,000 crore provided by RBI under SLF-2. NHB has provided refinance disbursement of ₹3.3 lakh crore since inception, of which ₹0.84 lakh crore were disbursed during last 3 financial years.
- Also, as a part of the Azadi Ka Amrit Mahotsav AKAM), NHB has extended concessions of 25/30 basis points under refinance for the various categories including women, rural areas, SC/ ST, aspirational districts, north-eastern region, loans to third gender/ differently abled/disabled, UTs of Jammu & Kashmir and Ladakh, and green housing.
- In view of the nation's commitment at COP26 to reach net-zero emission by 2070, NHB has extended 100 bps concession for loans under Green Housing.
- As part of AKAM and to increase the credit offtake in geographically underpenetrated areas which are a national priority, NHB has decided to extend 100 bps concession and refinance for loans in designated aspirational districts, north-eastern States, Jammu & Kashmir and Ladakh, until September 2023.

Conclusion

It is not wishful thinking that 2023 will show less macroeconomic volatility than its preceding financial year. Both CPI-C and WPI have fallen below 6 per cent (which is the RBI tolerance limit for the former). Overall, the inflation challenge in FY24 must be a lot less stiff than it has been this year

CHAPTER - 6

Social Infrastructure and Employment: Big Tent

Introduction

- In its Amrit Kaal for the next 25 years, India envisions rewarding itself with the dividends that can come from demographics. Quality employment opportunities and working conditions are the essential instruments to chisel this potential into long-term sustainable growth. In the Financial Year 2023, various dimensions of the social sector are recouping lost grounds and are “ on the path of reenergizing to meet the vision of “sabka sath, sabka vikas and sabka vishwas”.

Social Sector Expenditure Keeping Pace with Growing Importance of the Sector

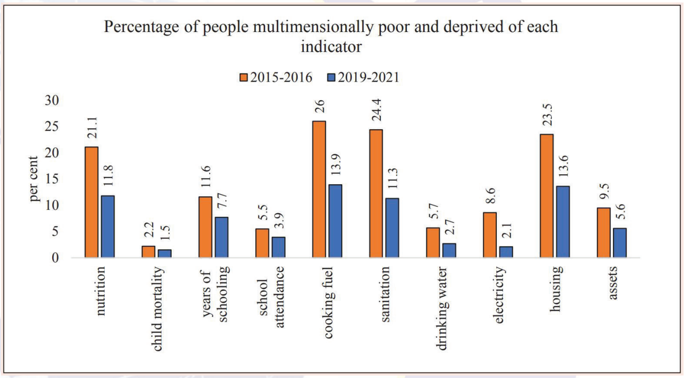
- The Government’s spending on social services has shown a rising trend since FY16 with a focus on many aspects of the social well-being of citizens of the country.
- Keeping with the objective of 15th Finance Commission to increase health expenditure to 2.5% of GDP by 2025, Central and State Governments’ budgeted expenditure on the health sector reached 2.1% of GDP in FY23 (BE) and 2.2% in FY22 (RE), against 1.6% in FY21.

Improving Human Development Parameters

- In the wake of recent developments such as COVID-19 Pandemic and Russia-Ukraine conflict, 90% of countries have registered a reduction in their Human Development Index (HDI) value in 2020 or 2021, indicating that human development across the world has stalled for the first time in 32 years.
  - ✔ India ranked **132 out of 191** countries and territories in the 2021/2022 HDI report.
  - ✔ India’s HDI value exceeds South Asia’s average human development.
  - ✔ India’s **Gender Inequality Index (GII)** value is 0.490 in 2021 and is ranked **122**, which is better than that of the South Asian region.

UNDP Multidimensional Poverty Index 2022

- **For India**
  - ✔ 16.4% of the population in India (228.9 million people in 2020) is multidimensionally poor while an additional 18.7% is classified as vulnerable to multidimensional poverty (260.9 million people in 2020).



  - ✔ The intensity of deprivation in India, which is the average deprivation score among people living in multidimensional poverty, is 42%.
  - ✔ Among the multidimensionally poor, deprivation prevalence declined across deprivation categories.

Transformation of Aspirational Districts Programme

- The Government of India launched the ‘Transformation of Aspirational Districts’ initiative **in January 2018** with a vision of a **“New India by 2022”.** 117 Aspirational Districts (ADs) across 28 States/UTs have been identified by NITI Aayog.
- **Objective** of this programmes is to raise living standards of its citizens and ensuring inclusive growth of all in the burgeoning economy.
- **The three broad contours of the programme are:**
  - ✔ **Convergence** (of Central & State Schemes)
  - ✔ **Collaboration** (of Central, State level Nodal Officers & District Collectors)
  - ✔ **Competition** among districts through monthly

delta ranking; all driven by a mass movement.

- The ranking is based on the incremental progress made across 49 Key Performance Indicators (KPIs) under 5 broad socio-economic themes –
  - Health & Nutrition (30%)
  - Education (30%)
  - Agriculture & Water Resources (20%)
  - Financial Inclusion & Skill Development (10%)
  - Infrastructure (10%)

- **Achievements of the Programme**
  - Many aspirational districts have surpassed the average state values in several indicators under the Health and Nutrition theme monitored under the programme. For instance, in 10 indicators of health, 73 Aspirational Districts (ADs) have surpassed the state averages.
  - All districts have made significant improvements across different indicators.
    - For instance, under Health and Nutrition, 46 districts have improved by up to 45%, and 23 districts have improved by up to 69 per cent in critical indicators related to pregnant women's health having bearing on the Maternal and Infant Mortality Rates.
  - While monitoring the outcome of financial inclusion, it was seen that aspirational district have performed better than non-aspirational districts.
  - Several ADs have reported saturation in the basic infrastructure indicators like percentage of households with electricity connection; percentage of habitations with access to all-weather roads under PMGSY, etc.
- **Template of Good Governance -** At present, two programmes have been conceptualised along the lines of ADP design, one is **'Mission Utkarsh'** and the other is **'Aspirational Blocks Programme'** (ABP).

Progressing Labour Reform Measures

- In 2019 and 2020, 29 Central Labour Laws were amalgamated, rationalised, and simplified into four Labour Codes, viz.,
  - Code on Wages, 2019
  - The Industrial Relations Code, 2020
  - The Code on Social Security, 2020,
  - Occupational Safety, Health & Working Conditions Code, 2020
- Efficient labour codes and use of technology, such as, web-based Inspection has been introduced in order to ensure transparency and accountability in enforcement. Decriminalisation of minor offences has also been provided in the Labour Codes.
- **e-Shram Portal:**
  - **Ministry of Labour and Employment** (MoLE) has developed e-Shram portal for creating a first ever National database of unorganised workers, which is verified with Aadhaar.
  - Currently, e-Shram portal has been linked to NCS portal and ASEEM portal for seamless facilitation of services.
  - As on 31 December 2022, total over 28.5 crore unorganised workers have been registered on e-Shram portal.
  - Bihar (10.0%), and West Bengal (9.0%) accounted for nearly half of total registrations. Agriculture sector workers contributed to 52.4% of the total registrations.

Aadhaar: The Many Achievements of the Unique Identity

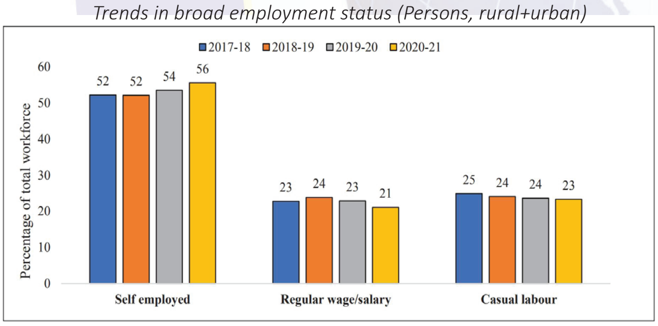
- The key usages of Aadhaar in the daily lives of citizens are:
  - **Aadhaar – Usage in DBT -** The number is sufficient to transfer any payment to an individual's bank account through Aadhaar Payment Bridge (APB).
  - **Aadhaar Enabled Payment Systems (AEPS) -** This has immensely facilitated providing door-step banking services and helped mitigate the hardships of the people due to the Covid-19 pandemic.
  - **JAM (Jan-Dhan, Aadhaar, and Mobile) trinity** - Combined with the power of DBT, it has brought the marginalised sections of society into the formal financial system.
  - **One Nation One Ration Card (ONORC) Scheme -** Aadhaar seeding of the PDS database has resulted in significant savings due to eliminating ghost and duplicate beneficiaries. Free distribution of food grains under 'Pradhan Mantri Garib Kalyan Yojana' (PMGKY) has greatly mitigated the Covid pandemic's impact.
  - **PM Kisan Samman Nidhi -** Aadhaar platform forms the backbone for the implementation of this scheme, right from registration through Aadhaar eKYC to DBT through the APB.
  - **Co-WIN -** Successful management of the Covid pandemic without the Co-WIN platform would not have been possible.
  - **Face Authentication -** The use of face as an additional modality of authentication is increasing. This has helped, especially the

elderly, to get 'Jeevan Praman' through their smartphones to avail of pension.

Improving Employment Trends

- Labour markets have recovered beyond pre-Covid levels, in both urban and rural areas, with unemployment rates falling from 5.8% in 2018-19 to 4.2% in 2020-21, and a noticeable rise in rural FLFPR from 19.7% in 2018-19 to 27.7% in 2020-21.
- Employment in the organised manufacturing sector has also been rising over the years, as per the ASI 2019-20 data.
- **Supply Side of Employment**
  - ✔ **Annual Periodic Labour Force Survey**
    - ■ As per usual status, the labour force participation rate (LFPR), worker population ratio (WPR) and unemployment rate (UR) in PLFS 2020-21 (July-June) have improved for both males and females in both rural and urban areas compared to PLFS 2019-20 and 2018-19.
    - ■ According to broad status in employment, the share of self-employed increased and that of regular wage/salaried workers declined in 2020-21 vis-à-vis 2019-20, driven by trend in both rural and urban areas. The share of casual labour declined slightly, driven by rural areas.

Trends in broad employment status (Persons, rural+urban)



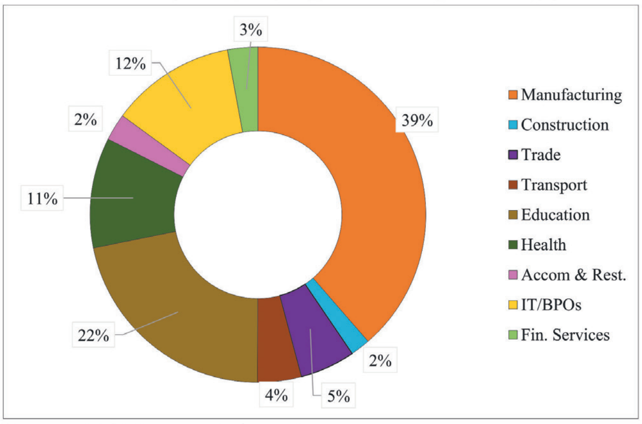
Source: Annual PLFS, MoSPI

Labour Force Participation Rate

- Labour force participation rate is defined as the section of working population in the **age group of 16-64** in the economy currently employed or seeking employment.
- People who are still **undergoing studies, housewives and persons above the age of 64 are not reckoned** in the labour force.

  - ✔ **Measurement Issues in Female Labour Force Participation Rate**
    - ■ **Use of overly broad categories clubbing productive work (collection of firewood, poultry farming, etc.)** with domestic duties can in one sweep shift a significant proportion of women in the labour force into the out-of-labour-force category.
    - ■ **No Recovery questions in the Periodic Labour Force Survey (PLFS) questionnaire:** The survey design relies mainly on a single question for measuring the labour force status of an individual, which eliminates the scope to rectify any error in self-reporting.
    - ■ **Measurement of 'Work' alongside 'Employment':-** There is a need to broaden the horizon of measuring work, which constitutes the whole universe of productive activities alongside employment. According to the latest ILO standards, limiting productive work to labour force participation is narrow and only measures work as a market product. It does not include the value of women's unpaid domestic work.
  - ✔ **Role of Self-Help Groups in Women's Empowerment**
    - ■ India has around 1.2 crore SHGs, 88% being all-women SHGs. Success stories include Kudumbashree in Kerala, Jeevika in Bihar, Mahila Arthik Vikas Mahila Mandal in Maharashtra and recently, Looms of Ladakh.
    - ■ **Impact of SHGs: Empowered Women, Empowered Hinterland-** Women's economic SHGs have a positive, statistically significant effect on women's economic, social, and political empowerment, with positive effects on empowerment achieved through various pathways.
  - ✔ **Way Forward for SHG**
    - ■ inter-regional disparity in the deepening of the SHG movement.
    - ■ Graduating SHG members into micro-entrepreneurs.
    - ■ Culturally contextualised skill development for moving up the value chain in products and services, including the least privileged under the SHG umbrella.
  - ✔ **Quarterly PLFS for urban areas**
    - ■ The labour participation rate increased to 47.9% in July- September 2022 from 46.9% a year ago, while the worker-population ratio strengthened from 42.3% to 44.5% in the same period.
- **Demand Side of Employment**
  - ✔ **Quarterly Employment Survey (QES)**
    - ■ It is conducted by the Labour Bureau.
    - ■ It covers establishments with ten or more workers in nine major sectors viz. manufacturing, construction, trade, transport, education, health, accommodation & restaurants, IT/BPOs, and financial services.
  - ✔ **Annual Survey of Industries (ASI)**
    - ■ It is conducted by MoSPI.

Sector-wise share of total employment according to QeS *(in Q4 FY22; in percentage)*



Source: QES Reports, Labour Bureau

- It is an important source of industrial statistics of the registered organised manufacturing sector of the economy.

✔ **Formal Employment**

- **Aatmanirbhar Bharat Rojgar Yojana (ABRY), launched in October 2020,** increased the employment generation in post Covid-19 recovery phase. As on 7 January 2023, total registration under the scheme is 75.1 lakh, and total benefits of Rs 8,210 crore have been given to 60.2 lakh beneficiaries through 1.5 lakh establishments till now.
- **Demand for work under MGNREGS:** The number of persons demanding work under MGNREGS was seen to be trending around pre-pandemic levels from July to November 2022.

✔ **National Career Service Project: -**

- It was launched in July 2015, as a one-stop solution providing an array of employment and career-related services.
- It works towards bridging the gap between candidates and employers; candidates seeking training and career guidance and agencies providing training and career counselling.
- 2.8 crore jobseekers and 6.8 lakh employers have registered in NCS portal.

Ensuring Quality Education for All

Quality Education, which is enlisted as Goal 4 under the UN SDGs (SDG4), aims to "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" by 2030.

- **The NEP 2020** was laid down as the first education policy of the 21st century, aiming to address the many growing developmental imperatives of the country.
- **Samagra Shiksha was launched in 2018** as an overarching programme for the school education sector extending from pre-school to class XII with an aim to ensure inclusive and equitable quality education at all levels of school education.
- **School Enrolment:**
- The FY22 saw improvement in Gross Enrolment Ratios (GER) in schools and improvement in gender parity. GER in the primary-enrolment in class I to V as a percentage of the population in age 6 to 10 years - for girls as well as boys have improved in FY22.
- **School Drop-out**
- School dropout rates at all levels have witnessed a steady decline in recent years. The decline is for both girls and boys.
- **School Infrastructure**
- The education infrastructure in the form of schools, amenities, and digitalisation has been steadily promoted along with a focus on pedagogy. Further, the availability of teachers, measured by pupil-teacher ratio, an indicator which is inversely related to improvement in quality of education, has improved at all levels continuously from FY13 to FY22.
- **PM Schools for Rising India -** These schools will be equipped with modern infrastructure and showcase the implementation of the NEP and emerge as exemplary schools over a period of time, while offering leadership to other schools in the neighbourhood. Under the scheme, there is a provision for setting up more than 14,500 PM SHRI Schools, over the period FY23 to FY27 by strengthening the existing schools from those managed by Central Government/State/UT Government/local body.
- **The National Curriculum Framework (NCF) for Foundational Stage -** The NCF for Foundational Stage has been launched as the new 5+3+3+4 curricular structure which integrates early childhood care and education for all children of ages 3 to 8.
- **Pilot Project of Balvatika -** With a focus on developing cognitive, affective, and psychomotor abilities and also early literacy and numeracy for students in the age groups of 3+, 4+ and 5+ years, Project Balvatika, i.e.,'Preparatory Class', was launched in October 2022 in 49 Kendriya Vidyalayas.
- **Toy-based pedagogy -** A handbook for toy-based pedagogy has been designed to promote the integration of indigenous toys and their pedagogy into the curriculum of school education, early childhood care and education and teacher education.
- **Screening tools (Mobile App) for specific learning disabilities -** PRASHAST, a Disability Screening mobile app, has been launched, covering 21 disabilities, including the benchmark disabilities as per the Rights of Persons with Disabilities Act, 2016.
- **National Credit Framework (NCrF) -** Taking the vision of the new NEP, the NCrF is an umbrella framework for skilling, re-skilling, up-skilling, accreditation and evaluation, seamlessly

integrating the credits earned through school education, higher education, and vocational and skill education by encompassing the National Higher Education Qualification Framework (NHEQF), National Skills Qualification Framework (NSQF) and National School Education Qualification Framework (NSEQF).

- **Strengthening Teaching-Learning and Results for States (STARS) -** STARS Project is being implemented as a CSS in six states namely Himachal Pradesh, Madhya Pradesh, Rajasthan, Maharashtra, Odisha and Kerala over a period of 5 years.
- **Vidyanjali (A School Volunteer Initiative) -** With the aim of strengthening schools and improving the quality of school education through community, Corporate Social Responsibility (CSR) and private sector involvement across the country, the Government has initiated Vidyanjali.
- **Samagra Shiksha Scheme -** A CSS of Samagra Shiksha of the Department of School Education and Literacy is an overarching programme for the school education sector extending from pre-school to class XII.

Higher Education

- **Initiatives for higher education**
  - ✔ **Research & Development Cell (RDC) in Higher Education Institutions (HEI):-** The University Grants Commission (UGC) launched an initiative to establish an RDC in HEIs with the mandate for promoting quality research that contributes meaningfully towards the goal of a self-reliant India, aligned with the provisions of NEP 2020.
  - ✔ **Guidelines for pursuing two academic programmes simultaneously :-** The UGC, in April 2022, issued Guidelines to allow the students to pursue two academic programmes simultaneously keeping in view the objectives envisaged in NEP 2020.
  - ✔ **Akhil Bharatiya Shiksha Samagam -** A three-day Akhil Bharatiya Shiksha Samagam was organised at Varanasi on 7-9 July 2022 by the Ministry of Education in association with the UGC and Banaras Hindu University.

Equipping the Workforce with Employable Skills and Knowledge in Mission Mode

- Skill development is aimed at the removal of the disconnect between demand and supply of skilled manpower, building vocational and technical training framework, skill up-gradation and building of new skills, and innovative thinking not only for existing jobs but also jobs of the future.
- **Skill India Mission**
  - ✔ The Skill Indian Mission focuses on skilling, re-skilling and up-skilling through short-term and long-term training programmes.
- **Pradhan Mantri Kaushal Vikas Yojana (PMKVY)**
  - ✔ It was first launched in 2015. Presently, the third phase of PMKVY, i.e., PMKVY 3.0 is being implemented across the country since January 2021. PMKVY has two training components, viz., Short-Term Training (STT) and Recognition of Prior Learning (RPL).
  - ✔ Pradhan Mantri Kaushal Kendra set up at District level are envisaged as state-of-the-art, visible and aspirational model training Centres.
- **Jan Shikshan Sansthan Scheme**
  - ✔ It provides for a lump sum annual grant which is released to Jan Shikshan Sansthans (NGOs) for skill training to non-literate, neo-literates, persons with a rudimentary level of education and school dropouts up to class XII in the age group of 15-45 years.
  - ✔ The priority groups are women, SC, ST, and other backward sections of society.
- **Skill Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALP)**
  - ✔ It is a World Bank loan-assisted programme launched in 2018.
  - ✔ Its objective is to decentralise skilling initiatives and align skill development programmes with local demand and aspirations of the youth.

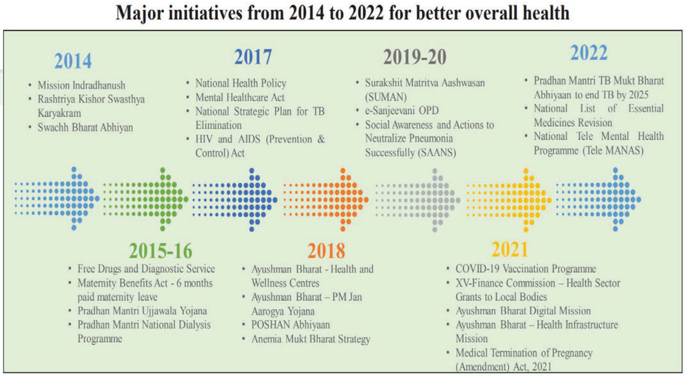
Quality and Affordable Health for All

The social security expenditure on health, which includes the social health insurance programme, government-financed health insurance schemes, and medical reimbursements made to government employees, has increased from 6% in FY14 to 9.6% in FY19.

Major initiatives from 2014 to 2022 for better overall health

- **Health Expenditure Estimates**

Major initiatives from 2014 to 2022 for better overall health



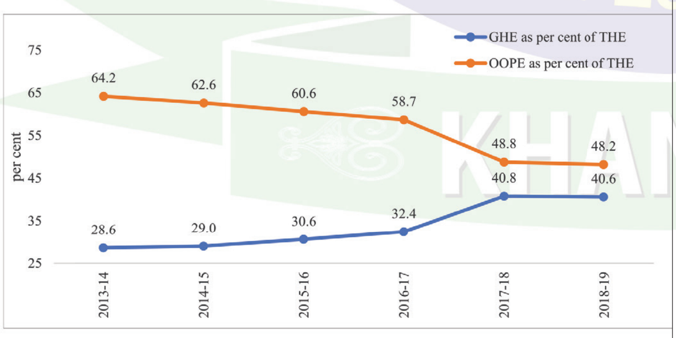
Improvement in health-related Indicators

	NFHS-4 (2015-16)	NFHS-5 (2019-21)
Households with any usual member covered under a health insurance/ financing scheme (per cent)	28.7	↑41.0
Total fertility rate (children per woman)	2.2	↓ 2.0
Current Use of Family Planning Method- Any Method (per cent)	53.5	↑66.7
Mothers who had at least 4 antenatal care visits (per cent)	51.2	↑58.1
Institutional births (per cent)	78.9	↑88.6
Neonatal mortality rate (per 1000 live births)	29.5	↓24.9
Infant mortality rate (per 1000 live births)	40.7	↓35.2
Under-five mortality rate (per 1000 live births)	49.7	↓41.9
Children age 12-23 months fully vaccinated based on information from either vaccination card or mother's recall (per cent)	62.0	↑76.4
Children under age 6 months exclusively breastfed (per cent)	54.9	↑63.7
Children under 5 years who are stunted (height-for-age) (per cent)	38.4	↓35.5
Children under 5 years who are wasted (weight-for-height) (per cent)	21.0	↓19.3
Children under 5 years who are underweight (weight-for-age) (per cent)	35.8	↓32.1
Children under 5 years who are overweight (weight-for-height) (per cent)	2.1	↑ 3.4
Women who are overweight or obese (BMI≥25.0 kg/m2) (per cent)	20.6	↑24.0
Men who are overweight or obese (BMI≥25.0 kg/m2) (per cent)	18.9	↑22.9
Women age 15-24 years who use hygienic methods of protection during their menstrual period (per cent)	57.6	↑77.3

Source: National Family Health Surveys (NFHS) 2015-16 and 2019-21, MoHFW

- National Health Account (NHA) estimates for FY19 show that there has been an increase in the share of Government Health Expenditure (GHE) in the total GDP from 1.2 per cent in FY14 to 1.3 per cent in FY19.
- Additionally, the share of GHE in Total Health Expenditure (THE) has also increased over time, standing at 40.6 per cent in FY19, substantially higher than 28.6 per cent in FY14.
- The Government is focusing on primary

government Health expenditure (gHe) and out of pocket expenditure (oope) as per cent of total Health expenditure (tHe)

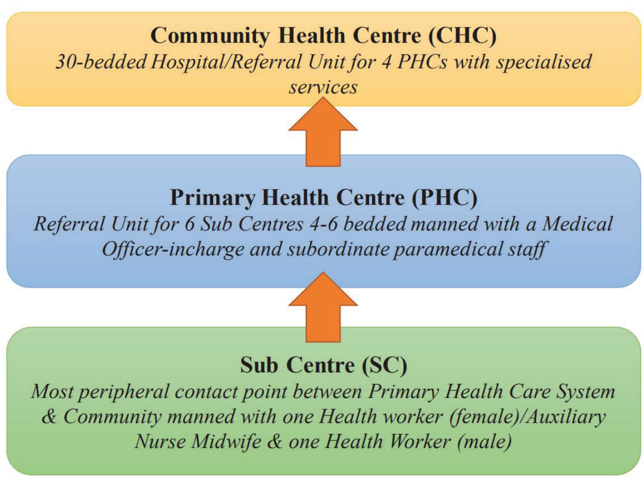


healthcare expenditure which has increased from 51.1 per cent in FY14 to 55.2 per cent in FY19. This not only ensures quality services at the grassroot level but also reduces the chances of ailments requiring secondary or tertiary healthcare services.

- The social security expenditure on health has increased from 6 per cent in FY14 to 9.6 per cent in FY19. Due to several such steps, out-of-Pocket Expenditure (OOPE) as a percentage of THE has declined substantially from 64.2 per cent in FY14 to 48.2 per cent in FY19.

- **Rural health care – strengthening of infrastructure and human resource**

Rural health care system in India



- Health infrastructure is an important indicator for understanding the healthcare delivery provisions and welfare mechanisms in a country.

- **Rural health care system in India**
- **Progress under Major Government Initiatives for Health**
  - **Immunisation**
    - Under Universal Immunisation Programme (UIP), immunisation is being provided free of cost against 12 vaccine-preventable diseases: Diphtheria, Pertussis, Tetanus, Polio, Measles, Rubella, a severe form of Childhood Tuberculosis, Rotavirus diarrhoea, Hepatitis B, etc.
    - In FY23, Intensified MI 4.0 was conducted in 416 districts (including 75 districts under Azadi Ka Amrit Mahotsav) across 32 states/UTs, to cover children and pregnant women who missed routine immunisation during the Covid-19 pandemic.
  - **eSanjeevani**
    - It is an innovative, indigenous, cost-effective, and integrated cloud-based telemedicine system application to enable patient-to-doctor teleconsultation to ensure a continuum of care and facilitate health services to all citizens in the confines of their homes, free of cost.
    - eSanjeevani – National Telemedicine Service of India has evolved into the world's largest outpatient services system.
  - Ayushman Bharat Pradhan Mantri – Jan Arogya Yojana (AB PM-JAY)
    - It is the world's largest health insurance scheme that intends to minimise the OOPE of the target beneficiaries arising due to expenditure on healthcare.
    - The scheme provides health cover of 5 lakh per family per year for secondary and tertiary care hospitalisation to bottom 40% of the Indian population identified based on the deprivation and occupational criteria of the Socio-Economic Caste Census 2011 (SECC 2011) and other State schemes.
  - **Ayushman Bharat Digital Mission (ABDM)**
    - The Mission aims at creating a secure online platform based on open, interoperable digital standards.
    - This will enable access and exchange of health records of citizens with their consent through Services such as the issuance of Health ID, Healthcare Professionals Registry, Health Facility Registry and Health Records.
  - **National Covid-19 Vaccination Programme**
    - India's National Covid-19 Vaccination Programme, which is the world's largest vaccination programme, began on 16 January 2021, initially with the aim of covering the adult population of the country in the shortest possible time.
    - 97% of eligible beneficiaries have already received at least one dose of Covid-19 vaccine and around 90% of eligible beneficiaries have received both the doses.

Health- a narrative on dedicated Covid infrastructure

Under the Aatmanirbhar Bharat Abhiyaan, the Union Government focused on scaling up expenditure on health infrastructure by

- Investing in grass root health institutions and ramping up HWCs in rural and urban areas
- Setting up critical care hospital blocks in all districts
- Strengthening the laboratory network and surveillance by integrated public health laboratories in all districts and blocks and public health units to manage pandemics
- **Co-WIN for mass vaccination**
- e-Sanjeevani for telemedicine to reach the last mile.

Initiatives for increasing/hiring/recruitment of Doctors & Staff

- To further augment the medical education facilities and improve the medical standards, the Government has envisaged various short and long-term measures, including: -
- A Central Sector Scheme for establishing new medical colleges by upgrading district/referral hospitals, under which 157 new medical colleges have been approved, out of which 94 are already functional.
- A Central Sector Scheme for strengthening/ upgradation of existing State Government/ Central Government Medical Colleges to increase

the number of MBBS and PG seats.

- Under the Upgradations of Government Medical Colleges by the construction of Super Specialty Blocks of Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) scheme, 75 projects have been approved.
- Under the Central Sector Scheme for setting up new AIIMS, 22 AIIMS have been approved. Undergraduate courses have started in 19 of these.
- Relaxation in the norms for setting up of Medical College in terms of the requirement for faculty, staff, bed strength, and other infrastructure.
- Diplomate of National Board qualification has been recognised for appointment as teaching faculty to take care of the faculty shortage.
- Enhancement of age limit for appointment/ extension/re-employment against posts of teachers/ dean/principal/director in medical colleges up to 70 years.

Co-WIN: A successful digital story of vaccination to tell

- Co-WIN has been developed as an extension of the eVIN (electronic Vaccine Intelligence Network) platform.
- It is a comprehensive cloud-based IT solution for planning, implementing, monitoring, and evaluating Covid-19 vaccination in India.
- The dual interface of the open platform made it scalable across citizen and administrator-centric services.
- The platform also provided real-time stock tracking at the national, state, and district levels (Government and Private).
- Multiple beneficiaries (up to six) were allowed onboarding using a single mobile number through the National Covid helpline.

Social Protection for the Rainy Day

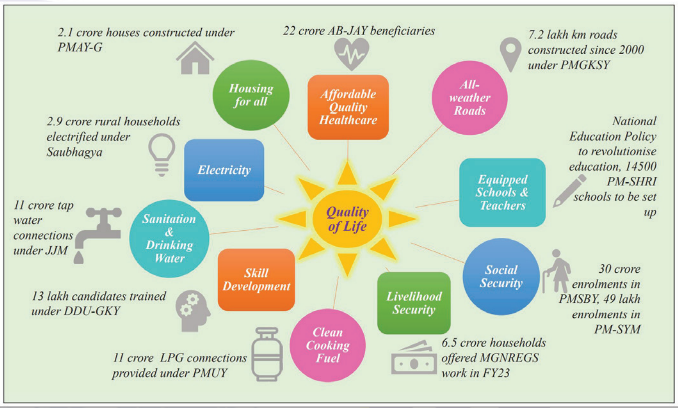
- for the stakeholders under this social protection initiative are as follows - Pradhan Mantri Vaya Vandana Yojana (PMVVY), Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJY), PM Street Vendor's Atmanirbhar Nidhi Scheme (PM SVANidhi) etc.

Development of India's Aspiring Rural Economy

- The percentage of the population living in India's rural areas presently stands at 65% for 2021. Further, 47% of the population is dependent on agriculture for livelihood. The aim of engagement of the government in the rural economy has been "transforming lives and livelihoods through proactive socio-economic inclusion, integration, and empowerment of rural India."

Multifaceted initiatives to improve the ecosystem of quality of life

Multifaceted initiatives to improve the ecosystem of quality of life



- **Enhancing Rural Incomes**
  - ✔ **Deendayal Antyodaya Yojana-National Rural Livelihood Mission (DAY-NRLM)**
    - **Objective** - To enable economically weak households to access gainful self-employment and skilled wage employment opportunities resulting in sustainable and diversified livelihood options for them.
    - The cornerstone of the Mission is its *'community-driven'* approach which has provided a huge platform in the form of community institutions for women empowerment. Rural women are at the core of the program which is extensively focused on their socio-economic empowerment
- **Mahatma Gandhi National Rural Employment Guarantee Scheme**

Some of the **Good Governance initiatives** under the Scheme are:

- ✔ The Job Cards (JC) need to be verified and updated from time to time to weed out the bogus JCs, duplicates, and for reasons like migration and death. The states/UTs have taken up this exercise to verify/ update the JCs.
- ✔ Reduction in number of registers in Gram panchayat to 7 only.
- ✔ Cases of violation of Guidelines and Schedules are being followed up regularly. The Interstate Standard Operating Procedures (SoP) for

visits were developed to improve the quality of the social audit process for all the states/ UTs.

- ✔ MGNREGA workers are being trained under recent initiatives like Bare Foot Technicians (BFT) to move them up the skilling ladder. So far, 8,394 BFTs have been trained in 20 States.
- ✔ **The project "UNNATI" -** To upgrade the skill base of the MGNREGS workers, and thereby improve their livelihoods so that they can move from their current partial employment to full employment.
- ✔ **Area Officer Monitoring App -** To facilitate the authorities to record their findings online. It will also help in recording time-stamped and geo-coordinate tagged photographs for all the schemes of the Department of Rural Development.
- ✔ **National Mobile Monitoring Software (NMMS) App -** It permits taking real-time attendance of workers at MGNREGA worksites along with a geo-tagged photograph. This app is a big step towards bringing transparency and proper monitoring of the schemes and will help in increasing citizen oversight of the programme.

- **Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY)**
  - ✔ DDU-GKY is a placement-linked skill development programme for rural poor youth under the NRLM. It is a market-led, placement-linked skill development programme for providing wage employment to rural poor youth.
- **Rural Housing**
- Pradhan Mantri Awaas Yojana –Gramin (PMAY-G) was launched in November 2016 with the aim of providing around 3 crore pucca houses with basic amenities to all eligible houseless households living in kutcha and dilapidated houses in rural areas by 2024.
- Through convergence with other Government Schemes, the PMAY-G also addresses basic needs such as the construction of the toilet, piped drinking water, electricity connection, LPG gas connection, and 90/95 person-days of unskilled labour from MGNREGS.
- Beneficiaries are identified using the SECC-2011 data which is verified by the Gram Sabhas.
- **Drinking Water and Sanitation**
  - ✔ **Jal Jeevan Mission**
    - ■ Since the launch of the Mission, of 19.4 crore rural households, 11.0 crore households are getting tap water supply in their homes. 1,515 Blocks, 82,071 Gram Panchayats, and more than 1.5 lakh villages have also become **'Har Ghar Jal Block', 'Har Ghar Jal Panchayat',** and **'Har Ghar Jal Gaon' respectively.**
  - ✔ **Jal Jeevan Mission as an instrument of public health**
    - ■ With the availability of safe and potable drinking water at the doorstep of every rural household, water-borne diseases have drastically reduced from 1.8 crore in 2019 to 59.0 lakh in 2021, as per data from Directorate General of Health Services, M/o Health and Family Welfare.
  - ✔ **Mission Amrit Sarovar**
    - ■ It was launched on National Panchayati Raj Day on 24 April 2022 with the objective to conserve water for the future. The Mission is aimed at developing and rejuvenating 75 water bodies in each district of the country during this Amrit Varsh, 75th Years of Independence.
  - ✔ **JALDOOT App**
    - ■ JALDOOT app was launched on 27 September 2022 for measuring the water level in a Gram Panchayat through 2-3 selected open wells twice a year (pre-monsoon and post monsoon).
  - ✔ **Swachh Bharat Mission (Grameen)**
    - ■ Phase-II of SBM (G) is now being implemented during FY21 to FY25, with the focus to sustain the Open Defecation Free (ODF) status of villages and covering all the villages with Solid and Liquid Waste Management.
    - ■ Andaman & Nicobar Islands has declared all its villages as ODF plus model, thus becoming the first Swachh, Sujal Pradesh
- **LPG connections (Pradhan Mantri Ujjwala Yojana 2.0, Swachh Indhan Behtar Jeevan)**
  - ✔ This scheme will offer deposit-free LPG connection, first refill and hot plate free of cost to beneficiaries, and a simplified enrolment procedure.
  - ✔ A special facility has been given to migrant families.

Rural connectivity

- **(Pradhan Mantri Gram Sadak Yojana (PMGSY)**

- The objective of PMGSY is to provide single all-weather road connectivity to all eligible unconnected habitations of the designated population size (500+ in plain areas, 250+ in North-Eastern and Himalayan States) in rural areas of the country.
- The scheme has helped immensely in providing access to basic services and lifting the income of rural masses.

Electricity

- **SAUBHAGYA- Pradhan Mantri Sahaj Bijli Har Ghar Yojana**
  - The scheme was launched in October 2017 with the objective to achieve universal household electrification by providing electricity connections to all **willing un-electrified households in rural areas and all willing poor households in urban areas** in the country by March 2019.
  - The connections were given free for economically poor households and for others Rs.500 was charged after the release of the connection in 10 instalments.
  - The Saubhagya scheme has been successfully completed and closed on 31 March 2022.
- **Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY)**
  - This scheme was launched in November 2014 with the objective to improve the quality and reliability of power supply in rural areas.
  - Last-mile connectivity and free electricity connections were also provided to BPL households only identified by the States as per their list.

Direct Benefit Transfer: A Game Changer

The JAM Number Trinity – Jan Dhan Yojana, Aadhaar and Mobile numbers has allowed the Government to offer the support to identified households in a targeted and less distortive way in the form of DBT.

- **Advantages of DBT**
  - Accurate identification & targeting of beneficiaries;
  - Greater inclusion and ease of availing services through online application;
  - Transparency in fund transfers to beneficiaries;
  - Curbing of leakages in the benefit delivery processes through the elimination of middlemen/agents;
  - Creation of greater accountability on behalf of the Government;
  - Facilitating reforms in Government processes through re-engineering;
  - Increase in efficiency in scheme delivery processes; and
  - Effectiveness of schemes through timely implementation.

Enhancing Rural Governance for Inclusive Growth

- **Rashtriya Gram Swaraj Abhiyan**
  - The major focus of the scheme was Capacity Building and Training (CB&T) to empower PRIs and to prepare convergent plans at the respective level of Panchayats with the primary aim of strengthening Panchayati Raj Institutions (PRIs) for achieving SDGs with the main thrust on convergence with Mission Antyodaya and emphasis on strengthening PRI's in the 117 Aspirational Districts.
- **SVAMITVA Scheme (Survey of Villages and Mapping with Improvised Technology in Village Areas)**

The scheme aims to provide the following benefits:

- Creation of accurate land records for rural planning and reducing property-related disputes.
- To bring financial stability to the citizens in rural India by enabling them to use their property as a financial asset for raising loans and other financial benefits.
- Determination of property tax, which would accrue to the Gram Panchayats directly in states where it is devolved or else, add to the state exchequer.
- Creation of survey infrastructure and GIS maps that can be leveraged by any department for their use.

Conclusion and Way Forward

With the vision of 'Minimum Government; Maximum Governance', further developments will hold the key to attaining more equitable economic growth. Evident ones include stepping up learning outcomes through digital and teaching interventions in schools, enhancing the role of community workers in healthcare, pushing SHGs through better product design and up scaling enterprises.

CHAPTER - 7

Climate Change and Environment: Preparing to Face the Future

Brief Overview

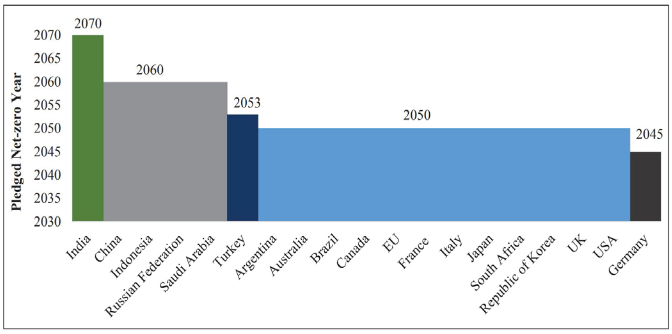
The global nature of the problem of Climate Change makes India one of the most vulnerable regions despite having contributed only about 4 per cent in the cumulative global emissions (for the period 1850-2019) and maintaining its per capita emission at far less than the world average.

While India is less responsible for the high stock of emissions, however, it has consistently engaged in demonstrating global leadership towards its commitment to the net-zero emissions goal by 2070.

Introduction

- Climate change is the long-term change in temperature and weather patterns that can occur due to natural reasons, but since the beginning of the industrial revolution in the 19th century, it has been predominantly due to anthropogenic activities.
- The share of developing countries in the stock of GHGs (usually measured as carbon dioxide equivalent) has been minimal compared to developed countries. This is corroborated by the Inter-Governmental Panel on Climate Change (IPCC).
- The IPCC's Sixth Assessment Report (AR6) notes that high human vulnerability global spots are found particularly in West, Central & East Africa, South Asia, Central, and South America, Small Island Developing States, and the Arctic.
- India is considered as one of the most vulnerable countries given its long coastline, monsoon dependent agriculture, and large agrarian economy, despite only 4 per cent contribution(until 2019) to the cumulative global emissions and per capita emission far less than the world's average.
- Action to reduce carbon emissions and adapt to the changing climatic conditions are required urgently as the world has already started to experience its consequences for example- it is estimated that by 2030, about 700 million people worldwide will be at risk of displacement by drought alone (U.N. SDG Portal).
- To reduce emissions of GHG, including carbon many nations have pledged to reduce their net emission to zero by 2050. Some wish to achieve it by 2060 and by 2070 (India).

Net Zero Pledges of countries (the Year pledged is on top of the bars)



Source: Emissions Gap Report 2022, UNEP

Progress on India's Climate Action

- In 2008, India launched the National Action Plan on Climate Change (NAPCC), which established eight National Missions.
- National Adaptation Fund for Climate Change (NAFCC)
  - ✔ It is a central sector scheme which was initiated to support adaptation activities in the States and UTs vulnerable to the adverse effects of climate change.

Progress on Eight National Missions of the NAPCC highlighting achievements across various domains

National Solar Mission	•Solar power capacity of 61.62 GW installed by October 2022
National Mission for Enhanced Energy Efficiency	•PAT Cycle–VII notified in October 2021 for energy saving target of 6.63 Million Tonnes of Oil Equivalent (MTOE)
National Mission on Sustainable Habitat	•721 km of metro rail network made operational by August 2022. •62.79 lakh individual household toilets and 6.21 lakh community and public toilets constructed by April 2022
National Mission for a Green India	•₹ 626.96 crore for afforestation targets over an area of 2.1 lakh ha
National Water Mission	•Jal Shakti Abhiyan: Catch The Rain 2022
National Mission on Strategic Knowledge for Climate Change	•Created and strengthened 12 Centres of Excellence for climate change (June 2021)
National Mission for Sustaining Himalayan Ecosystems	•Inter-University Consortium •8 Major R&D Programmes initiated
National Mission for Sustainable Agriculture	•Key targets for FY 2022-2023 covering 0.15 lakh ha under organic farming and 10 lakh ha under micro irrigation

  - ✔ It supports adaptation action in agriculture, water, forestry, livestock, and restoring ecosystems.

India's updated Nationally Determined Contribution (NDC)

India submitted its first NDC to UNFCCC in October 2015. This was updated in August 2022. The 2015 NDC comprised eight goals, three of which were quantitative targets to be achieved up to 2030. The three targets included cumulative electric power installed capacity from non-fossil sources to reach 40 per cent, reduction in the emissions intensity of GDP by 33 to 35 per cent compared to 2005 levels, and creation of additional carbon sink of 2.5 to 3 billion tonnes of CO2 equivalent through additional forest and tree cover.

Article 4 of the Paris Agreement provides that each Party shall communicate or update its NDC every five years. Therefore, in accordance with the aforesaid provision of the Paris Agreement, India submitted the following updates to its first NDC of 2015.

1. To put forward and further propagate a healthy and sustainable way of living based on traditions and values of conservation and moderation, including through a mass movement for 'LIFE'– 'Lifestyle for Environment' as a key to combating climate change.
2. To adopt a climate-friendly and cleaner path than the one followed hitherto by others at the corresponding level of economic development.
3. To reduce the Emissions Intensity of its GDP by 45 per cent by 2030, from the 2005 level.
4. To achieve about 50 per cent cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030, with the help of the transfer of technology and low-cost international finance, including from the Green Climate Fund (GCF).
5. To create an additional carbon sink of 2.5 to 3 billion tonnes of CO2 equivalent through additional forest and tree cover by 2030.
6. To better adapt to climate change by enhancing investments in development programmes in sectors vulnerable to climate change, particularly agriculture, water resources, the Himalayan region, coastal regions, and health and disaster management.
7. To mobilise domestic and new & additional funds from developed countries to implement the above mitigation and adaptation actions in view of the resource required and the resource gap.
8. To build capacities and create a domestic framework and international architecture for quick diffusion of cutting-edge climate technology in India and for joint collaborative R&D for such future technologies.

- **Status of Forest and Tree Cover:**
  - ✔ One of the three quantifiable targets of India's NDC is to achieve an additional carbon sink of 2.5 billion to 3.0 billion tonnes through additional forest and tree cover by 2030. The forest and tree cover in India have shown a gradual and steady trend of increase in the last one and a half decade.
  - ✔ The country ranks third globally with respect to the net gain in average annual forest area between 2010 and 2020.
- **Carbon Stock in India's Forest and Tree Cover:**
  - ✔ The first assessment of the carbon stock in India's forest cover was done by the Forest Survey of India in 2004. It has been done biennially since 2011.
  - ✔ Among Indian States, the maximum carbon stock in forests is present in Arunachal Pradesh followed by Madhya Pradesh.
- **Preservation of Ecosystems: A Critical Adaptation Action:**
  - ✔ Ecosystems play an important role in carbon storage, protect the coastal areas, and enhance water quality besides other services.
  - ✔ Mangroves and coastal wetlands form the first line of defence for coastal communities against increased storm surges, flooding, and hurricanes. As per the ISFR 2021, the mangrove cover in the country has increased by 364 sq. km. in 2021 as compared to 2013.
- **River Conservation and Rejuvenation:**
  - ✔ The Government, with the efforts of both states and UTs, is working on mapping and converging the 5Ps' - People, Policy, Plan, Programme and Project. In addition, the government has recently released Detailed Project Reports (DPR) for the rejuvenation of 13 major rivers prepared.
- **Approach to Transition to Renewable Energy Sources:**
  - ✔ As per the Renewables 2022 Global Status Report, during the period 2014 -2021, total investment in renewables stood at US$ 78.1 billion in India. Investment in renewable energy has been close to or higher than US$ 10 billion per year since 2016, except for a dip in 2020 likely due to various Covid-19 restrictions.
- **Green Hydrogen - A critical source of alternate energy**
  - ✔ National Green Hydrogen Mission was launched in January 2023 with a vision to make India an energy-independent nation, and to decarbonise critical sectors.
  - ✔ A recent NITI Aayog Report ('Harnessing Green Hydrogen – Opportunities for Deep Decarbonisation in India', published in June

2022) highlights that renewable tariffs have fallen in recent years in India.

Salient Features of the National Green Hydrogen Mission

Likely Outcomes by 2030	• Green hydrogen production capacity of at least 5 MMT (Million Metric Tonne) per annum. • Cumulative reduction in fossil fuel imports over ₹1 lakh crore and creation of over 6 lakh jobs. • Renewable energy capacity addition of about 125 GW and abatement of nearly 50 MMT of annual GHG emissions.
Interventions	• Financial incentive targeting domestic manufacturing of electrolysers and production of Green Hydrogen. • Regions capable of supporting large scale production and/or utilisation of Hydrogen to be developed as Green Hydrogen Hubs.
Policy Framework	•Development of an enabling policy framework to support establishment of Green Hydrogen ecosystem. • Robust Standards and Regulations framework. • Public-private partnership framework for R&D. • Skill development programme

- **Long-Term Low Emissions Development Strategy (LT-LEDS):**
  - ✔ India submitted its LT-LEDS in November 2022 at COP 27 of UNFCCC. India's LT-LEDS is driven by the vision of LiFE, Lifestyle for the Environment. It calls for a shift from mindless and destructive consumption towards mindful and deliberate utilisation.
  - ✔ The salient features include rational utilisation of national resources with smooth transition to non-fossil fuel sources; increased use of green hydrogen, production of the electrolyser and nuclear energy; low carbon development of the transport sector; Climate-resilient urban development; industrial growth with vision of 'Aatmanirbhar Bharat' and 'Make in India'.
- **Critical Minerals – Key to Green Transition:**
  - ✔ These include **Cobalt, copper, lithium, nickel, and rare earth elements (REEs)** which are critical for producing electric vehicles and batteries and harnessing solar power and wind energy. The skewed distribution of the resource poses a supply risk in the face of its enhanced demand.
  - ✔ Ministry of Mines has created a Joint Venture company, namely Khanij Bidesh India Ltd (KABIL), with participating interests of NALCO, HCL and MECL. KABIL is mandated to identify and acquire overseas mineral assets of critical and strategic nature.

Finance for Sustainable Development

- **Green Bonds**
  - ✔ Green Bonds are financial instruments which generate proceeds for investment in environmentally sustainable and climate-suitable projects.
  - ✔ As per SEBI's data on green debt securities (2017 to 2022), 15 Indian corporates have issued green bonds of value ₹4,539 crore. Most of these are related to renewable energy generation.
  - ✔ Union Budget 2022-23 announced the issue of Sovereign Green Bonds that will enable the government to tap the requisite finance from potential investors for deployment in public sector projects aimed at reducing the carbon intensity of the economy.
- **Regulatory Framework for Issuance of Green Debt Securities:**
  - ✔ **Steps by RBI:** Bank lending to green industries and projects is incentivised. For example, Priority Sector Lending (PSL) includes renewable energy projects.
  - ✔ **Steps by SEBI:**
    - ■ SEBI has expanded the scope of the definition of green debt security by including new modes of sustainable finance like pollution control, eco-efficient products, etc.
    - ■ The concepts of blue bonds (related to water management and marine sector), yellow bonds (related to solar energy) and transition bonds as subcategories of green debt securities are also introduced.
    - ■ New sustainability reporting requirements are issued under the Business Responsibility and Sustainability Report (BRSR).

Major Decisions at COP 27

The COP 27 to the UNFCCC was **held from 6 to 20 November 2022 in Sharm el-Sheikh, Egypt**

- India aimed to mainstream LiFE (Lifestyle for Environment) movement and invited all countries to join. During COP 27, it was also recognised that the target of US$ 100 billion per year is yet to be achieved (LiFE is a pro-people and pro-planet effort seeking to shift the world from mindless and wasteful consumption to mindful and deliberate utilisation of natural resources).
- Setting up of Just Transition and Mitigation Work Program and agreement on Joint work on the implementation of climate action on agriculture and food security.
- The COP 21 decided that, prior to 2025, a New Collective Quantified Goal (NCQG) on climate finance of US$ 100 billion per year, shall be set. To further the agenda of setting the NCQG by 2024, COP 27 decided that Four Technical Expert Dialogues (TEDs) will be carried out prior to COP 28.

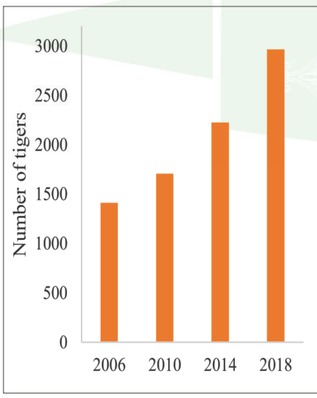
India's Initiatives at the International Stage

- **International Solar Alliance (ISA):**
  - ISA is a treaty-based inter-governmental organisation, covering 110 countries, working to create a global market system to tap the benefits of solar power and promote clean energy applications. ISA's mission is to unlock US$ 1 trillion of investments in solar by 2030. In its member countries, with a grant of US$ 50,000, ISA is assisting in setting up solar energy demonstration projects.
- **Coalition for Disaster Resilient Infrastructure:**
  - The CDRI was launched by the Hon'ble Prime Minister of India during the United Nations Climate Action Summit on 23 September 2019 in New York. It aims to promote the resilience of infrastructure systems to climate and disaster risks, thereby ensuring sustainable development.
- **Leadership Group for Industry Transition (LeadIT):**
  - The LeadIT gathers countries and companies that are committed to action to achieve the Paris Agreement. It was launched by the governments of Sweden and India at the UN Climate Action Summit in September 2019 and is supported by the World Economic Forum.

Initiatives Related to other Environmental Issues

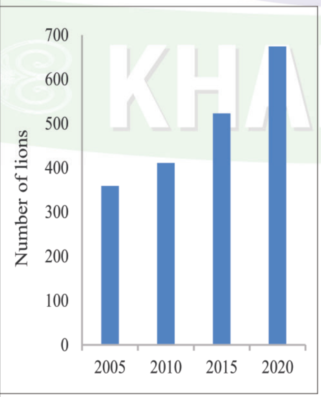
- **Ensuring the Conservation of Biodiversity**
  - India ranks 8th in the world and 4th in Asia in terms of biodiversity.
  - Under Project Cheetah, eight Namibian wild cheetahs (5 females, 3 male) were introduced in Kuno National Park, Madhya Pradesh in September 2022.
- **Wildlife - Its Preservation and Protection**

Success story of tiger conservation efforts reflected in increased tiger count



Source: National Tiger Conservation Authority

Rising lion count over the years, driven by various conservation efforts



Source: Press Information Bureau release

  - As of August 2022, India has 53 Tiger Reserves over 18 states with 75% of global wild tiger population. 17 Tiger Reserves have CA|TS international accreditation. Two Tiger Reserves have received the International Tx2 Award.
- **Plastic Waste Management and Elimination of Identified Single-Use Plastics**
  - As per a Report on Plastic Waste Management released by the Ministry of Housing and Urban Affairs (MoH&UA) per capita plastic consumption of India is 11 Kg (global average is 28 Kg).
  - On 1st July 2022, a ban was imposed on the manufacture, import, stocking, distribution, sale and use of identified single-use plastic (SUP) items, which have low utility and high littering potential, all across the country.
  - MoEF&CC notified the Guidelines on Extended Producers Responsibility (EPR) vide Plastic Waste Management Amendment Rules, 2022, in February 2022.
  - The Plastic Waste Management (Second Amendment) Rules, 2022, were notified in July 2022 with non-complying persons to pay compensation as per the "polluter pays" principle. It also provides a statutory framework for biodegradable plastics.
- **Battery Waste Management:**
  - The Battery Waste Management Rules, 2022 were published in August 2022. They function on the concept of EPR.
- **E-waste Management:**
  - E-Waste (Management) Rules, 2022, were notified in Nov 2022 replacing the 2016 rules. They will launch a new EPR regime for e-waste recycling.

Conclusion

In its commitment to fight climate change, India is already among the leading countries in clean energy transitions and has numerous policies intended to improve the ecosystem to deploy promising technological innovations. Obligations on climate should be matched with the on-time availability of climate finance, technology, and inputs like critical minerals, while not jeopardising the socio-economic development objectives and aspirations.

CHAPTER - 8

Agriculture and Food Management: From Food Security to Nutritional Security

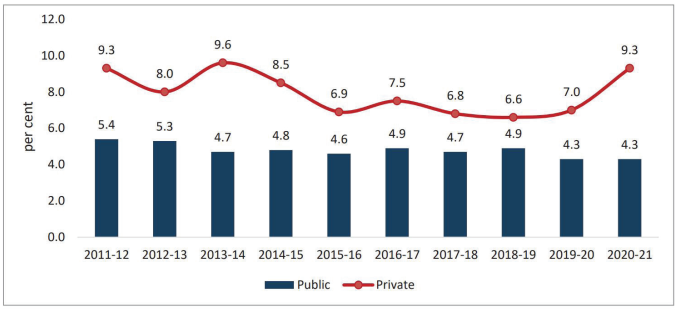
Brief Overview

- The government's actions to increase crop and livestock productivity, guarantee certainty of returns to farmers through price support, encourage crop diversification, improve market infrastructure by encouraging the formation of farmer-producer organisations, and encourage investment in infrastructure facilities have all contributed to the sector's strong performance over the past few years.

Introduction

- The Indian agriculture sector has been growing at an **average annual growth rate of 4.6 per cent during the last six years.** It grew by 3.0 per cent in 2021-22 compared to 3.3 per cent in 2020- 21. In recent years, India has also rapidly emerged as the net exporter of agricultural products. In 2020-21, exports of agriculture and allied products from India grew by 18 per cent over the previous year. During 2021-22, agricultural exports reached an all-time high of US$ 50.2 billion.

Crowding in of Private investment in agriculture



Source: Agricultural Statistics at a Glance 2021.

- Farmers' income sources have been diversified as a result of income support provided to them through the Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) and the promotion of related activities, increasing their resilience to weather shocks.
- A number of policy measures have been adopted, including
  - ✔ the Minimum Support Price (MSP), which secures the price at 1.5 times the weighted average cost of production for all of India,
  - ✔ boost agricultural output through mechanisation support,
  - ✔ schemes and price measures that concentrate on high-value crops like oilseeds,
  - ✔ incentives for crop diversification through price policy measures,
  - ✔ the establishment of the Agriculture Infrastructure Fund,
  - ✔ advancements in agricultural marketing, and
  - ✔ resource use efficiency improvements, etc.

Record Production of Foodgrains

- According to the fourth advance estimates for 2021-22, food grain and oil seed production has been rising year over year (YoY). Additionally, production of pulses has significantly outperformed the average of 23.8 million tonnes during the previous five years.
- An early heat wave during the wheat harvesting season in 2022 had a negative impact on the crop's productivity. Due to delayed monsoons and insufficient rainfall, the area sown for paddy cultivation also decreased during the Kharif season.

MSP to Ensure Returns Over the Cost of Production

- The Government has been increasing the MSP for all 22 Kharif, Rabi, and other commercial crops with a margin of at least 50% above the all-India weighted average cost of production since the agricultural year 2018-19. Given dietary changes, nutritional needs, and the need for self-sufficiency in the production of pulses and oilseeds, the government has set a relatively higher MSP for these crops.

Enhanced Access to Agricultural Credit

- The Kisan Credit Card Scheme (KCC), which enables farmers to make credit-based purchases of agricultural goods and services whenever they choose, was introduced in 1998. As of 30 December 2022, banks provided Kisan Credit Cards (KCC) to 3.89 crore eligible farmers with a KCC limit of 4,51,672 crore .
- The Modified Interest Subvention Scheme (MISS), formerly known as the Interest Subvention Scheme (ISS), was established by the Government

of India to offer farmers short-term credit at discounted interest rates. Farmers working in agriculture and other allied sectors, such as animal husbandry, dairying, poultry, and fishing, are eligible for a short-term agricultural loan up to 3 lakh at 7% per annum. Farmers who repay loans on time and in full receive an additional 3% subvention (Prompt Repayment Incentive).

Farm mechanisation- Key to Improving Productivity

- Farm mechanisation lowers the cost of cultivation and the labor-intensive nature of various farm operations while increasing productivity through the timely and effective use of other inputs and natural resources.
- State governments are given assistance as part of the Sub Mission on Agricultural Mechanization (SMAM) to set up Custom Hiring Centers, train and demonstrate agricultural machinery, and assist farmers in purchasing various farm tools and equipment (CHC).

Chemical-free India: Organic and Natural Farming

- Organic and natural farming improves soil health, provides **chemical fertilizers and pesticides-free** food grains and other crops, and lowers environmental pollution.
- **Sikkim** voluntarily decided to switch to organic farming, and the process of putting the state's 58,168 hectares of cultivable land under organic farming started in 2010. It became the first State in the world to become fully organic. Tripura and Uttarakhand are the two other states that have set similar goals.
- The government has been promoting organic farming since 2015 by implementing two dedicated schemes– Paramparagat Krishi Vikas Yojana (PKVY) and Mission Organic Value Chain Development for North Eastern Region (MOVCDNER)– through the formation of clusters and Farmer Producer Organizations (FPOs).
- Promotion of natural farming began in 2019-20, when Bhartiya Prakratik Krishi Paddhati (BPKP), a sub-scheme of PKVY, was launched to assist farmers in adopting traditional indigenous practices for encouraging all forms of ecological farming, including Zero-Budget Natural Farming (ZBNF).
  - ✔ The scheme focuses on capacity building, training, support, and on-field natural farming demonstrations by champion farmers.
  - ✔ Around 4.09 lakh ha of land have been converted to natural farming in 8 States (Andhra Pradesh, Chhattisgarh, Kerala, Himachal Pradesh, Jharkhand, Odisha, Madhya Pradesh and Tamil Nadu) under the BPKP.

Other Important Initiatives in Agriculture

- **PM KISAN Scheme:** Under the scheme, the financial **benefit of ₹6,000 per year is transferred** into the bank accounts of farmer families through DBT. It is one of the largest DBT schemes in the world.
- **Agriculture Infrastructure Fund (AIF):** Under this, a provision of Rs. 1 lakh crore for 2020-21 to 2025-26 has been made, and interest subvention and credit guarantee assistance will be given until 2032-33.
- **Pradhan Mantri Fasal Bima Yojana (PMFBY):** It is currently the largest crop insurance scheme in the world in terms of farmer enrolments.
  - ✔ The scheme promises minimal financial burden on the farmer, with farmers paying only **1.5 per cent and 2 per cent** of the total premium for the Rabi and Kharif seasons, respectively, with Centre and State Governments bearing most of the premium cost.
  - ✔ The scheme is implemented on an **'Area Approach'** basis.
  - ✔ Admissible claims are worked out and paid directly to the insured farmer's account by the insurance companies on the yield data based on the requisite number of CCEs per unit area furnished to the concerned insurance.
  - ✔ However, losses due to localised risks of hailstorms, landslides, inundation, etc., are calculated on an individual-insured farm basis.
  - ✔ These claims are assessed by a joint committee comprising representatives of the State Government and concerned insurance companies.
- To better resolve grievances within the scheme, **National Crop Insurance Portal** has been developed to handle all grievances from end to end.
- In the Revised Operational Guidelines of the Scheme, a provision of **Stratified Grievance Redressal Mechanism, namely District Level Grievance Redressal Committee (DGRC), State Level Grievance Redressal Committee (SGRC),** has been provided to settle such concerns.
- **Mission for Integrated Development of Horticulture (MIDH):** The scheme to promote horticulture covering fruits, vegetables, root and tuber crops, spices, flowers, plantation crops etc., was introduced in 2014-15. The scheme to promote horticulture covering fruits, vegetables, root and tuber crops, spices, flowers, plantation crops etc., was introduced in 2014-15.
- **Cluster Development Programme (CDP)**

is designed to leverage the geographical specialisation of horticulture clusters and promote integrated and market-led development of pre-production, production and post-harvest activities, including the entire supply chain.

- **National Agriculture Market (e-NAM) Scheme:** The National Agriculture Market (e-NAM) Scheme was introduced by the Indian government in 2016 to establish an online transparent and competitive bidding system to guarantee farmers receive fair prices for their products.
  - ✔ Under the e-NAM scheme, the Government provides free software and assistance of ₹75 lakh per APMC mandi for related hardware, including quality assaying equipment and the creation of infrastructure like cleaning, grading, sorting, packaging, compost unit, etc.
- **Climate-Smart Farming Practices:** This is slowly gaining acceptance with farmers using clean energy sources like solar for irrigation. The farmers have been incentivised to transfer electricity generated through solar to the local grid. Crop yield prediction models using artificial intelligence and drones for monitoring soil and crop health have been initiated. Smart farming also enables crop diversification, which will help farmers reduce their dependence on monsoons for water.

International Year of the Millets: Our traditional staple and a healthier alternative

- The United Nations General Assembly, in its 75th session during March 2021, declared 2023 the International Year of Millets (IYM). Millets are Smart Food with high nutritional value, are climate resilient, and align with several UN Sustainable Development Goals (SDGs). These are also important by virtue of their mammoth potential to generate livelihood, increase farmers' income and ensure food & nutritional security all over the world.
- Given the millets' nutritional value, the government notified millets as nutri-cereals in April 2018. **Millets have been introduced as part of the National Food Security Mission (NFSM)** to support nutrition. A sub-mission on Nutri-cereals is being implemented since 2018-19 in 212 districts of 14 States.

Allied Sectors: Animal Husbandry, Dairying and Fisheries Catching Up in Recent Years

- The allied sectors of Indian agriculture - livestock, forestry & logging and fishing & aquaculture are gradually becoming sectors of buoyant growth and a potential source of better farm incomes.
- In recognition of the expanding significance of allied sectors, the Committee on Doubling Farmers' Income (DFI, 2018) considers dairying, livestock, poultry, fisheries, and horticulture as high-growth engines and has recommended a focused policy with a concurrent support system for the allied sector.
- As a part of the Aatmanirbhar Bharat (ANB) stimulus package, the Animal Husbandry Infrastructure Development Fund (AHIDF) worth ₹15,000 crore was launched in 2020. Under this scheme, the Central Government offers a 3% interest subvention to the borrower and credit guarantees up to 25% of the total borrowing.
- National Livestock Mission (NLM) scheme has been restructured for 2021-22 to 2025-26. The scheme focuses on entrepreneurship development and breeds improvement in poultry, sheep, goat and piggery, including feed and fodder development.
- Also, the Livestock Health and Disease Control (LH&DC) Scheme is being implemented to supplement the State/UT governments' efforts towards preventing, controlling and containing animal diseases of economic and zoonotic importance by vaccination.
- The Government of India launched its flagship scheme **Pradhan Mantri Matsya Sampada Yojana (PMMSY),** with a total outlay of ₹20,050 crore. PMMSY marks the highest-ever investment in the fisheries sector in India, to be implemented over five years from FY21 to FY25 in all States/Union Territories to drive sustainable and responsible development of the fisheries sector while ensuring socio-economic development of the fishers, fish farmers and fish workers.
- A dedicated **Fisheries and Aquaculture Infrastructure Development Fund (FIDF)** was established for five years, from 2018-19 to 2022-23, with an investment of ₹7,522 crore.

Sahakar-Se-Samriddhi: From Cooperation to Prosperity

- To realise the vision of **"Sahakar-see-Samriddhi"**, a renewed impetus was given to the growth of the cooperative sector.
- The **Multi-State Cooperative Societies Act, 2002 (MSCS)** was enacted after repealing the Multi-State Cooperative Act 1984, to facilitate the democratic functioning and autonomous working of Multi-State Cooperative Societies in line with the established Cooperative Principles.
- Maharashtra leads with 661 cooperatives, followed by Delhi and Uttar Pradesh.

New National Cooperation Policy

With the view to strengthening the cooperative movement in the country, deepening its reach to the grassroots, and promoting cooperative-based economic development, a New National Cooperation Policy is being formulated involving the relevant stakeholders such as experts of the cooperative sector, representatives from National/ State/ District/ Primary level cooperative societies, Secretaries (Cooperation) and Resident Commissioners from States/UTs, officers from Central Ministries/ Departments. The objective is to have a policy that unlocks the true potential of the Cooperation sector.

In addition, the Government has also decided to introduce the Multi-State Co-operative Societies (Amendment) Bill, 2022. The Bill seeks to amend the Multi-State Co-operative Societies Act, 2002, to bring it in line with Part IXB of the Constitution and to strengthen the cooperative movement in the country by bringing in provisions relating to electoral reforms, strengthening governance and transparency, reforming the composition, meetings and membership of board; enabling the raising of funds by co-operative sector, strengthening monitoring mechanism, enhancing 'Ease of doing business', etc. The bill was introduced in the Lok Sabha on 7 December 2022 in the winter session of Parliament.

Food Processing Sector-The Sunrise Sector

- In order to effectively address a number of developmental issues, such as disguised rural unemployment in agriculture, rural poverty, food security, food inflation, improved nutrition, preventing food waste, etc., the food processing sector must grow to its full potential.
- The Ministry of Food Processing Industries, through the component schemes of Pradhan Mantri Kisan SAMPADA Yojana (PMKSY), provide financial assistance for the overall growth and development of the food processing sector.
- The **Prime Minister's Formalization of Micro Food Processing Enterprises (PMFME) Scheme** was also introduced as part of the **ANB (Atmanirbhar) Abhiyan** by the Ministry in 2020 to improve the competitiveness of individual micro-enterprises in the unorganised segment and promote the formalisation of this sector by offering financial, technical, and business support for upgradation/ setting up of 2 lakh micro units in the country.

Food Security- Social & Legal Commitment to the People of the Nation

- The Government is currently running the most extensive legislation-based food security programme in the world, covering about 80 crore of India's population under the **National Food Security Act (NFSA), 2013.**
  - ✔ Till December 2022, the NFSA provided, for coverage of up to 75 per cent of the rural and up to 50 per cent of the urban population highly subsidised food grains at ₹1/2/3 per kg for coarse grains/wheat/rice, respectively, at the rate of 35 kg per family per month to households covered under Antyodaya Anna Yojana (AAY) and at the rate of 5 kg per person per month to priority households.
  - ✔ In a recent decision, the government has decided to provide free foodgrains to about 81.35 crore beneficiaries under the NFSA for one year from January 1, 2023.
- To ease the hardships faced by the poor due to economic disruption caused by Covid-19, the Government initially launched **Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY)** for the period from April to June 2020. However, keeping in view the need for continuous support to the poor and the needy, the scheme has been extended and implemented in various phases.
  - ✔ Under the scheme, 5 kg of additional food grains per person per month has been/is being provided free of cost to NFSA beneficiaries in all the phases.
- To further ease the process of access to food, the Government launched a citizen-centric and technology-driven scheme in 2019 called the **One Nation One Ration Card (ONORC) scheme.**
  - ✔ The ONORC system enables intra-State and inter-State portability of ration cards.
  - ✔ It helps the migrant beneficiaries access their food security entitlements from any fair price shop (FPS) of their choice by using the same ration card after biometric/Aadhaar authentication on electronic Point of Sale (e-PoS) devices at the FPS.

Conclusion

- The performance of the agriculture sector remains critical to growth and employment in the country. Investment in the sector must be encouraged through an affordable, timely and inclusive approach to credit delivery.
- A greater focus on the development of the food processing sector can reduce wastage/ loss and increase the length of storage, ensuring better prices for the farmers.

CHAPTER - 9

Industry: Steady Recovery

Introduction

- Industry holds a prominent position in the Indian economy, **accounting for 31 per cent of GDP, and employing over 12.1 crore people.** Industrial sector has various direct and indirect linkages with other sectors, contributing to economic growth and employment like,
  - ✔ it ensures that domestic production meet domestic demand and reduces the reliance on imports, thereby reducing current account deficit and improve trade.
  - ✔ industrial growth has multiplier effects, which translates into employment growth in industries like textile, construction etc.
  - ✔ industrial growth spurs growth in services sectors such as banking, insurance, logistics, etc.
- Industrial production is a **means to increase industrial income in the country. Manufacturing GVA,** which contributes more than 50 per cent of industrial GVA, has grown at higher rate when compared to overall GVA.

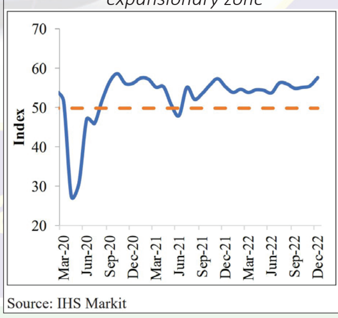
Demand Stimulus to Industrial Growth

- Industry, throughout the year, faced high input costs imported into the country. Fearing demand impact, the industry has been gradually passing on the higher production costs, which has led to **sticky but non-rising core retail inflation.** Non-core retail inflation, comprising food and energy components, has been declining as local weather extremities have eased and interventions by the government to restrict price rises have proven effective. The consequent **decrease in overall retail inflation has thus sustained the pent-up consumer demand** in the post-pandemic Indian economy, inducing an industrial recovery despite the global headwinds.
- Strong external demand also served the Indian industry well in FY22, when manufactured exports soared, responding to a rebound in global growth. The export stimulus for the Indian economy persisted in the first half of FY23. However, the export impulse has been waning in the first half itself **due to persistently high inflation and rising interest rates in the advanced economies**.
- But **the strong domestic consumption growth** and investment revival is expected to keep industrial production humming.
- **An increase in investment demand has emerged as another powerful stimulus** to industrial growth, triggered by a jump in the Capex of the Central government in the current and the previous year as compared to the pre-pandemic years. The leap also has crowded-in private investment, already upbeat on the pent-up consumption demand, export stimulus, and strengthening of the corporate balance sheets.

Supply Response of Industry

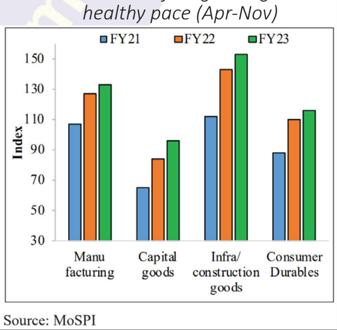
- The supply response of the industry to the demand stimulus has been robust, as seen in high-frequency indicators. **The PMI-Manufacturing has remained in the expansionary zone for 18 months since July 2021.**
- In December 2022, the sub-indices of the PMI-Manufacturing indicated **an easing pace of input cost pressures, improving supplier delivery times, robust export orders, and future output.** The moderation in input cost inflation has also led to an easing in the momentum of output prices. However, the pace of expansion in new export orders decreased, reflecting a subdued global demand.

PMI Manufacturing remains in expansionary zone



Source: IHS Markit

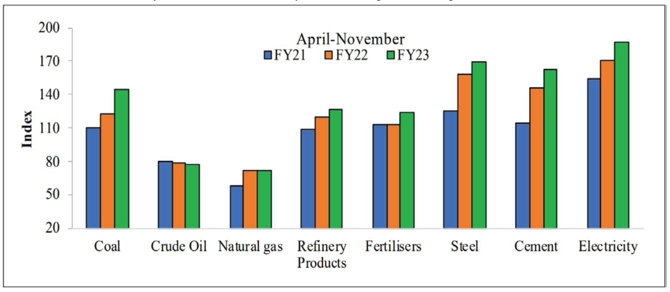
Sub-indices of IIP growing at a healthy pace (Apr-Nov)



Source: MoSPI

- The sustained growth of manufacturing output is also seen within the **overall IIP producing consumer durables in sync with the "pent-up" consumption demand.**
- The **eight core industries** of coal, fertilizers, cement, steel, electricity, refinery products, crude oil, and natural gas are critical in meeting the demand for inputs across industries. The growth in these industries has held **steady, reflecting a broad momentum in industrial activity.**

Steady Growth in Components of Index of Core Industries



Source: Department for Promotion of Industry and Internal Trade (DPIIT)

- Manufacturing output appears to have been constrained by a large build-up in inventory. For five consecutive quarters ending in Q2 of FY23, an increase in stocks had accumulated to more than 1.3 per cent of the annual GDP.
- The manufacturing landscape shows **uneven growth** across various categories. For example, the motor vehicles manufacturing segment's performance continues to improve, induced by robust demand and an easing of chip shortage. The manufacturing of 'computer, electronic and optical products' has also been rising. Production of coke and refined petroleum has also increased, fetching high returns in a global market where crude oil prices were higher than in FY22.
- At the same time, a few product categories, including textiles, apparel, leather, and pharmaceutical have been showing tepid growth.

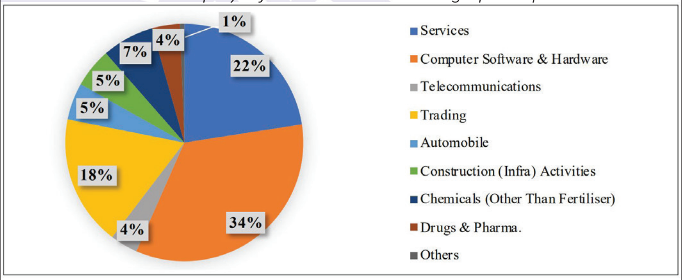
Robust Growth in Bank Credit to Industry

- Growth in bank credit has kept pace with industrial growth, with a sequential surge evident since January 2022. While a large share of bank credit continues to be assigned to large industries, credit to MSMEs has also seen a significant increase in part assisted by the introduction of the ECLGS, which supports around 1.2 crore businesses of which 95 per cent are MSMEs.
- The share of MSMEs in gross credit offtake to the industry rose from 17.7 per cent in January 2020 to 23.7 per cent in November 2022. Robust growth in credit demand combined with rising capacity utilisation and investment in manufacturing underscores businesses' optimism regarding future demand.

Resilient FDI inflow in Manufacturing Sector

- Annual FDI equity inflows in the manufacturing sector have been steadily increasing over the last few years. It **jumped from US$ 12.1 billion in FY21 to US$ 21.3 billion in FY22** as the pandemic-driven expansionary policies of advanced economies led to a surge in liquidity.
- With the rise in global uncertainty in the wake of Russia-Ukraine conflict, FDI equity inflow in manufacturing in the first half of FY23 fell below its corresponding level in the first half of FY22. The monetary tightening at the global level has further restricted the FDI equity inflows. In spite of an overall drop in FDI in the first half of FY23, inflows have stayed above the pre-pandemic levels, driven by structural reforms and measures improving the ease of doing business, making India one of the most attractive FDI destinations in the world. The government has implemented an investor-friendly FDI policy under which FDI up to 100 per cent is permitted through automatic route in most sectors.

Sector-wise FDI Equity Inflows in 2022-23 during April-September 2022



Source: DPIIT data

FDI Policy Reforms to Bolster Investment

- To make India a more attractive investment destination, the Government has implemented several transformative FDI reforms across sectors, such as
  - ✔ In FY20, 100 per cent FDI under automatic route was permitted for the sale of coal, and coal mining activities, including associated processing infrastructure, subject to provisions of relevant acts.
  - ✔ 26 per cent FDI under the government route has been permitted for uploading/streaming of News & Current Affairs through Digital Media.
  - ✔ 100 per cent FDI has been permitted in Intermediaries or Insurance Intermediaries, including insurance brokers, reinsurance brokers, insurance consultants, corporate agent, among others.
- To curb opportunistic takeovers/acquisitions of Indian companies, the government amended the FDI policy, according to which
  - ✔ an entity of a country which shares a land border with India or where the beneficial owner of investment into India is situated in or is a citizen of any such country, can invest only under the Government route.
- To simplify the approval process of foreign Investment, the erstwhile Foreign Investment Promotion Board (FIPB) was abolished and a new regime has been put in place, wherein the work relating to the processing of applications for FDI has been delegated to the concerned Ministries/Departments, and DPIIT is the nodal department for facilitating the process.

- A revamped portal, **"Foreign Investment Facilitation Portal (FIF Portal)",** has been launched as the online single-point interface of the Government of India for investors to facilitate Foreign Direct Investment. The FIF Portal has been integrated with the National Single Window System (NSWS).

Industry Groups and their Challenges

Micro, Small and Medium Enterprises (MSMEs) post smart recovery from pandemic

- While the contribution of the MSME sector **to overall GVA rose from 29.3 per cent in FY18 to 30.5 per cent in FY20,** the economic impact of the pandemic caused the sector's share to fall to 26.8 per cent in FY21. MSME contribution to the manufacturing sector's GVA **also marginally fell to 36.0 per cent in FY21.**
- Through the **Aatmanirbhar Bharat Package,** the government has taken multiple steps to cushion the economic impact of the pandemic on MSMEs viz. **the modification of the definition of MSMEs; the provision of ₹20,000 crore subordinate debt for stressed MSMEs, ₹50,000 crore equity infusion through Self Reliant India fund; the waiving of the global tender requirement for procurement of up to ₹200 crore; launching of the Udyam portal for MSME registration, a paperless, zero-cost registration portal that is based on self-declaration and only requires Aadhaar.**
- The government's initiative of the Samadhaan Portal, set up under the Micro, Small and Medium Enterprises Development (MSMED) Act to monitor the outstanding dues to the MSME sector, is helping MSMEs in resolving their cashflow difficulties.
- The government has also initiated **the 'Raising and Accelerating MSME Performance' scheme (RAMP) in FY23.**
  - ✔ **The World Bank-supported scheme aims at strengthening institutions and governance** at the Centre and State, improving Centre-State linkages and partnerships and improving access of MSMEs to market and credit, technology upgradation and addressing issues of delayed payments and greening of MSMEs.
  - ✔ The RAMP programme will be **implemented over a period of five years.** The total outlay for the scheme is ₹6,062.4 crore, out of which ₹3750 crore would be a loan from the World Bank, and the Government of India would fund the remaining ₹2312.4 crore.

Electronics industry to be a key driver of manufacturing output and exports

- The electronics industry continues to ascend in importance as its applications become pervasive, particularly in the socio-economic development of a country. The domestic electronics industry, as of FY20, is valued at US$118 billion. **India aims to reach US$300 billion worth of electronics manufacturing and US$ 120 billion in exports by FY26, supported by the vision of a US$ 1 trillion digital economy by 2025**.
- The major drivers of growth in this industry **are mobile phones, consumer electronics, and industrial electronics.** In the mobile phone segment, **India has become the second-largest mobile phone manufacturer globally.**
- **Major global** and domestic players in electronic manufacturing services have already embraced the PLI scheme. PLI scheme will help many more domestic players to attain economies of scale in production through localising. Hence, this will further **enhance export competitiveness and increase India's participation in the global value chain.**
- The industrial electronics sector is also seeing growth due to improved digitisation and robotics applications in Industry 4.0. Additionally, the impetus on Smart Cities and the Internet of Things (IoT) will streamline the demand for smart and automated electronics.
- Some of the initiatives and incentives provided by the government to nurture and enhance the electronics manufacturing base include the PLI scheme for Large Scale Electronics Manufacturing, the PLI scheme for IT hardware, the **Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors (SPECS).** Additionally, under the Programme for Development of Semiconductors and Display Manufacturing Ecosystem in India, the Cabinet approved the comprehensive development of a sustainable semiconductor and display ecosystem in the country with an outlay of ₹76,000 crore.

Various incentives under Semiconductor Scheme

Scheme for	Financial Support	R&D Support
Setting up of Semiconductor Fabs in India	**50 per cent** of firm's Capex	Up to **2.5 per cent** of the scheme outlay
Setting up Display Fabs	**50 per cent** of firm's Capex	Up to **2.5 per cent** of the scheme outlay
Setting up of Compound Semiconductors / Silicon Photonics / Sensors Fab and Semiconductor ATMP /OSAT facilities	**50 per cent** of firm's Capex	Up to **2.5 per cent** of the scheme outlay

Source: MEITY
Note: ATMP stands for assembly, testing, marking, and packaging. OSAT stands for Outsourced Semiconductor Assembly and Test

Design Linked-Incentive (DLI) scheme

- The scheme aims to bridge the gap in share in the intellectual property (IP) despite India possessing 20 per cent of the world's semiconductor design engineers
- The objectives of the scheme include the nurturing and facilitation of domestic companies of semiconductor design, achieving significant indigenisation of semiconductor products and IPs deployed across the country, and strengthening the infrastructure for design.

- The scheme will provide financial support of 50 per cent of eligible expenditure on the design, subject to a ceiling of ₹15 crore per applicant and a deployment-linked incentive of 4 per cent to 6 per cent of net sales achieved over five years, subject to a ceiling of ₹30 crore per applicant.

Coal Industry: Key in maintaining energy self-reliance during uncertain times

- Coal availability became a challenge for India's largely thermal-based power generation plants because of a resurgence in economic activity and the emergence of intense heat waves from early March to mid-May of 2022, increasing the demand for power in the country. In addition, in the wake of rising international coal prices, the power sector curtailed coal import drastically **from 69 MT in FY20 to 45 MT in FY21 and further to 27 MT in FY22.**
- The government of India undertook several steps on a priority basis through April and May of 2022 to address the supply constraints of coal–
  - ✔ Allowed import of coal upto 10% against 4% earlier,
  - ✔ Section 11 of the Electricity Act,2003 invoked to allow imported coal-based power plant to run at full capacity.
  - ✔ Allowed states to transfer their allotted coal to private generators near the mines instead of transporting it too far away from state generators.
  - ✔ Rural Electrification Corporation (REC)/ Power Finance Corporation (PFC) and commercial banks were advised to facilitate the availability of additional working capital to power generating plants.
- Different measures have been initiated towards achieving self-reliance in coal production, including private participation in coal production, FDI under the automatic route, auctioning of coal blocks for commercial production, expansion of existing mines and opening of new mines, greater use of mass production technology in mining, mechanisation of loading, development of evacuation infrastructure etc.

Re-invigorated infrastructure sector & construction activity to drive steel industry

- Steel Sector plays a pivotal role in crucial sectors such as construction, infrastructure, automobile, engineering and defence. India is now the 2nd largest crude steel producer in the world.
- 67 applications from 30 companies have been selected under the PLI Scheme for speciality steel. This will attract a committed investment of ₹42,500 crore, with an increase in capacity by almost 26 million tons and an employment generation potential of nearly 70,000 people.

Government support to help textile Industry weather current challenges

- The textile industry is one of the country's most significant sources of employment generation, with an estimated 4.5 crore people directly engaged in this sector, including a large number of women and the rural population.
- To develop integrated large-scale and modern industrial infrastructure facilities for the entire value chain of the textile industry, the government approved the setting up of seven PM Mega Integrated Textile Region and Apparel (PM MITRA) Parks. The parks will not only reduce logistics costs and improve the competitiveness of Indian textiles but also boost employment generation, attract domestic investment and FDI, and position India firmly in the global textile market.
- To boost the production capacity, the government launched the Textile PLI Scheme with an approved outlay of ₹10,683 crore to promote investments and increase the production of Man-Made Fibre (MMF) Apparel, MMF Fabrics and Products of Technical Textiles.

Growth momentum in pharmaceuticals industry sustains after the pandemic

- The Indian pharmaceuticals industry plays a prominent role in the global pharmaceuticals industry. India's domestic pharmaceutical market is estimated at US$ 41 billion in 2021 and is likely to grow to US$ 65 billion by 2024 and is further expected to reach US$ 130 billion by 2030.
- India is ranked 3rd worldwide in the production of pharma products by volume and 14th by value. The nation is the largest provider of generic medicines globally, occupying a 20 per cent share in global supply by volume, and is the leading vaccine manufacturer globally with a market share of 60 per cent.

India becomes the world's 3rd largest automobile market

- The automobile sector is a key driver of India's economic growth. In December 2022, India became the 3rd largest automobile market, surpassing Japan and Germany in terms of sales.
- The sector contributed 7.1 per cent to the overall GDP and 49 per cent to the manufacturing GDP while generating direct and indirect employment of 3.7 crore at the end of 2021.
- The automotive industry is expected to play a critical role in the transition towards green energy. The domestic electric vehicles (EV) market is expected to grow at a compound annual growth rate (CAGR) of 49 per cent between 2022 and 2030 and is expected to hit one crore units annual sales by 2030.
- Despite the upbeat outlook, the automotive industry faces certain challenges. Higher borrowing costs and tempering global demand are expected to be near-term hurdles.

India's Prospects as a Key Player in the Global Value Chain

- The risk of supply chain shocks has never been more palpable than today, following compounding crises from the US-China trade war, the Covid-19 pandemic, and the war in Ukraine.
- In this fast-evolving context, as global companies adapt their manufacturing and supply chain strategies to build resilience, India has a unique opportunity to become a global manufacturing hub this decade.
- The three primary assets to capitalise on this unique opportunity are:
  - ✔ potential for significant domestic demand,
  - ✔ Government's drive to encourage manufacturing,
  - ✔ distinct demographic edge, including a considerable proportion of the young workforce.

Make in India 2.0 and the PLI schemes

- To further enhance India's integration in the global value chain, 'Make in India 2.0' is now focusing on 27 sectors, which include 15 manufacturing sectors and 12 service sectors.

Fostering Innovation

- The government's efforts towards fostering innovation include incubation, handholding, funding, industry-academia partnership and mentorship. The government also strengthened its IPR regime by modernising the IP office, reducing legal compliances and facilitating IP filing for start-ups, women entrepreneurs, small industries and others. It resulted in a 46 per cent growth in the domestic filing of patents over 2016-2021, signalling India's transition towards a knowledge-based economy.
- As per the GII 2022 report, India entered the top 40 innovating countries for the first time in 2022 since the inception of the GII in 2007.

'Flipping and Reverse Flipping: the recent developments in Start-ups'

- India ranks amongst the largest startup ecosystems in the world. An impressive 9 lakh+ direct jobs have been created by the DPIIT recognised startups, with a notable 64 per cent increase in 2022 over the average number of new jobs created in the last three years.
- **'Flipping' is the process of transferring the entire ownership of an Indian company to an overseas entity,** accompanied by a transfer of all IP and all data hitherto owned by the Indian company.
- Structural reforms have enhanced the Ease of Doing Business
- The reform measures include amendments to laws and liberalisation of guidelines and regulations to reduce compliance burdens, bring down costs and enhance the ease of doing business in India.
- Burdensome compliances with rules and regulations have been reduced through simplification, rationalisation, decriminalisation, and digitisation. Steps to promote manufacturing and investments include reduction in corporate taxes, public procurement and Phased Manufacturing Programme.

India and Industry 4.0

- With the advent of the fourth industrial revolution or industry 4.0, new technologies such as cloud computing, IoT, machine learning, and artificial intelligence (AI) into manufacturing processes are being integrated, leading to efficiencies across the value chain.
- The SAMARTH (Smart Advanced Manufacturing and Rapid Transformation Hubs) Udyog Bharat 4.0 aims to encourage technological solutions to Indian manufacturing units through awareness programmes and demonstrations.

Conclusion and Outlook

- Despite global headwinds, industrial production expanded during FY23, backed by sustained demand conditions. On the positive side, easing input cost pressures owing to a fall in international commodity prices augurs well for company margins. Capacity utilisation in the manufacturing sector has been rising. It bodes well for new investment activity in creating additional capacity.
- The PLI schemes are set to unlock manufacturing capacity, boost exports, reduce import dependence and lead to job creation for both skilled and unskilled labour.
- On the downside, exports are slowing down and are likely to moderate along with the probable global economic slowdown. Volatile international commodity prices and supply disruptions in raw materials can weigh on industrial growth in the wake of new disruptions at the global level.
- Notwithstanding such open questions, industrial output in India should continue to grow steadily based on resilient domestic demand.

CHAPTER - 10

Services: Source of Strength

Brief Overview

- India's services sector witnessed a swift rebound in FY22 driven by growth in the contact-intensive services sub-sector, which bore the maximum burden of the pandemic.
- This sub-sector completely recovered from the pre-pandemic level in Q2 of FY23, driven by the release of pent-up demand, ease of mobility restriction, and near-universal vaccination coverage.
- Going forward, strong momentum growth and an uptick in the High-Frequency Indicators (HFIs) for the contact-intensive services sector reflect a strong growth opportunity in the next fiscal.
- PMI services, indicative of service sector activity, has also witnessed a strong rebound in recent months with the retreating of the price pressures of inputs and raw materials.

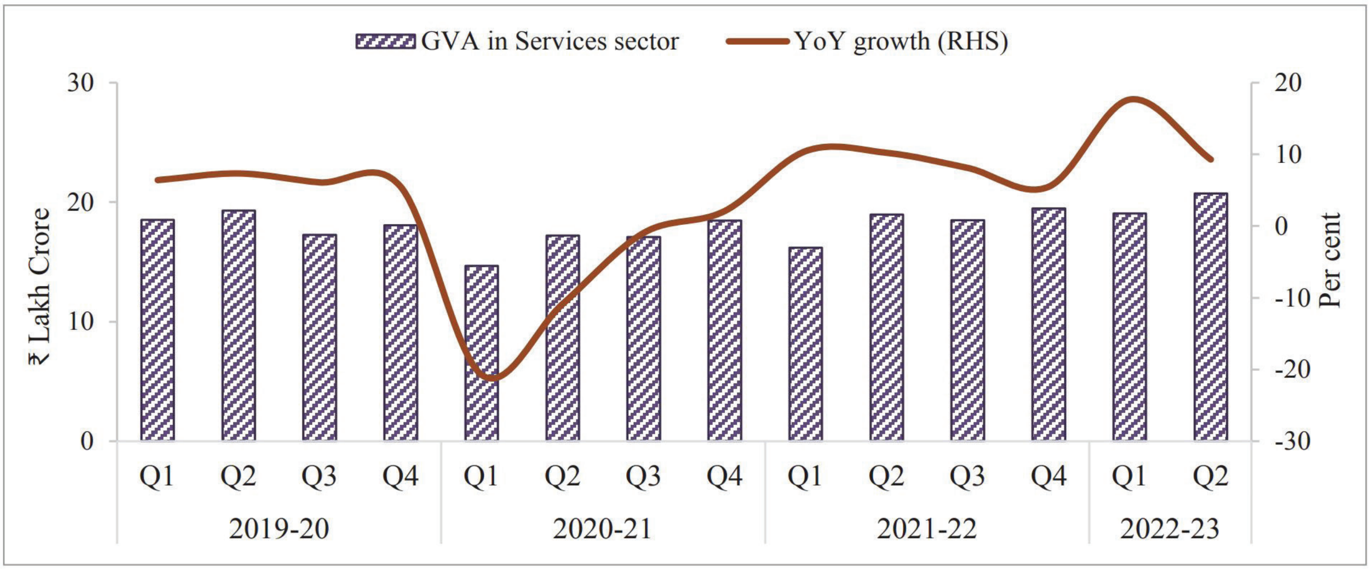
Introduction

- The Covid-19 pandemic hurt most sectors of the economy, with the effect particularly profound for contact-intensive services sectors like tourism, retail trade, hotel, entertainment, and recreation.
- Non-contact services such as information, communication, financial, professional, and business services remained resilient.
- The services sector in FY22, grew at 8.4 per cent Year-on-Year (YoY) as compared to a contraction of 7.8 per cent in the previous financial year.
- As per the First Advance Estimates, Gross Value Added (GVA) in the services sector is estimated to grow at 9.1% in FY23, driven by 13.7% growth in contact-intensive services sector.

Trends in High-Frequency Indicators

- **Services PMI**
  - ✓ India's services sector, which was in contraction due to first by Covid-19, then by Omicron variant, and later Russia-Ukraine conflict, moderated from May to September 2022 as economic uncertainty resulted in weaker sales growth and inflationary pressures restricting the upturn in business activity. Further, price pressures and unfavorable weather also dampened domestic demand.
  - ✓ However, following an overall easing of inflation, PMI services witnessed an uptick and expanded in December **2022**.
- **Bank Credit**
  - ✓ Bank credit has been witnessing significant growth since October 2021 due to vaccination coverage and services sector recovery. Credit to NBFCs grew as NBFCs shifted to bank borrowings because of high bond yields.

Broad-based growth in the Services sector



Source: NSO, MOSPI

- But uncertain growth prospects in the global markets and uneven credit allocation to the transport sector led to a decline in credit to the shipping and aviation sector in November 2022.

- **Services Trade**
  - World services trade volume surpassed its pre-pandemic peak in the second quarter of 2022 and was expected to remain strong in the third quarter, buoyed by spending on travel, Information and Communication Technology (ICT) services, and financial services.
  - However, **WTO's Services Trade Barometer Index** reading fell for October 2022, well below the previous reading in June 2022 indicating that YoY growth in real commercial services began moderating in the third quarter of 2022.
  - It may slow further in the fourth as well as into the first quarter of 2023 due to declining growth prospects in major service industry economies.
  - However, **Financial and ICT Services** have been so far most resilient to the slowing global economy, whereas, construction services and container shipping fell into contraction territory.
  - As far as India is concerned, some headwinds may be observed in the coming months due to the slowing growth in some of India's major trading partners. On the contrary, India's services exports may improve as runaway inflation in advanced economies drives up wages.
  - **Software exports** have remained relatively resilient during the Covid-19 pandemic as well as amid current geopolitical uncertainties, driven by higher demand for digital support, cloud services, and infrastructure modernization catering to new challenges.
  - Transport and travel exports have been the most impacted sub-components of the services exports in FY21 and FY22, which contracted due to the imposition of restrictions on international travel and tourism during the Covid-19 pandemic.

- **Foreign Direct Investment (FDI) in Services**
  - The World Investment Report 2022 of UNCTAD places India as the seventh largest recipient of FDI in the top 20 host countries in 2021.
  - In FY22, India received the highest-ever FDI inflows of US$ 84.8 billion including US$ 7.1 billion FDI equity inflows in the services sector.
  - To facilitate investment, various measures have been undertaken by the Government, such as the launch of the National Single-Window system, a one-stop solution for approvals and clearances needed by investors, entrepreneurs, and businesses.
  - To ensure the liberalization of investment in various industries, the Government has permitted 100 percent foreign participation in telecommunication services, including all services and infrastructure providers, through the automatic route.
  - The FDI ceiling in insurance companies was also raised from 49 to 74 percent, under automatic route. Further, Government has allowed 20 percent foreign investment in Life Insurance Corporation (LIC) under the automatic route.

Major Services: Sub-Sector-Wise Performance

- **Tourism and Hotel Industry**
  - As per the World Tourism Barometer of the United Nations WTO (November 2022), international tourism showed robust performance, with international tourist arrivals reaching the pre-pandemic level, boosted by e strong pent-up demand, improved confidence levels and the lifting of restrictions.
  - **Hotel occupancy** began a strong recovery in the third quarter of 2021, driven by domestic leisure travel growth, partial resumption of business travel in the country, as well as wedding and social events.
  - **Small-to-medium-sized domestic MICE** (Meetings, Incentives, Conference, Exhibitions) events also made a comeback, fueling demand for hotels. The sector ended the year with an average occupancy of 42-45 per cent, up 10-13 percentage points over the previous year. The occupancy rate in November 2022 stood at around 68-70 per cent, completely recovering the average pre-pandemic level of 2019-20.
  - **Tourism industry** was another sector that was adversely impacted by the pandemic. Tourism being a contact-intensive sector, employment in the sector was impacted due to the lockdown, and it was a global phenomenon. However, with the waning of the pandemic, India's tourism sector is also showing signs of revival.
  - India is ranked **10th out of the top 46** countries in the World in the **Medical Tourism Index FY21** released by Medical Tourism Association. The way India has handled the Covid situation, trust in India's medical infrastructure has improved. This will give a big push to Medical Value Tourism (MVT).

- Various factors, such as the presence of world-class hospitals and skilled medical professionals, superior quality healthcare, low treatment costs compared with other countries, credibility in alternative systems of medicine, and increased global demand for wellness services like Yoga and meditation, make India a popular medical tourism destination.

Making India an attractive tourist destination

The Ministry of Tourism has undertaken various measures to boost the Tourism sector, which include: -

NIDHI: The Ministry of Tourism, with the help of State Governments and Union Territory Administrations, is making efforts to register accommodation units in the country in the Ministry's portal National Integrated Database of Hospitality Industry (NIDHI). The comprehensive national database will help in creating policies and strategies for the promotion and development of tourism at various destinations.

SAATHI: System for Assessment, Awareness, and Training for Hospitality Industry (SAATHI) was launched in association with the Quality Council of India to restrict any further transmission of the virus while providing accommodation and other services post-lockdown. The objective of the scheme is to sensitise the industry on the Covid-19 regulations of the government and instil confidence amongst the staff and guests that the hospitality unit has exhibited intent towards ensuring safety and hygiene at the workplace.

RCS UDAN3: Better connectivity is the critical component for flourishing tourism in any region. With this objective, the Regional Connectivity Scheme (RCS-UDAN) was launched by the Ministry of Civil Aviation to facilitate/stimulate regional air connectivity by making it affordable. The total number of Tourism RCS air routes has increased to 59, out of which 51 are presently operational. An amount of ₹104.19 core has already been reimbursed to the Airport Authority of India in the form of Viability Gap Funding (VGF) during FY21 and FY22.

LGSCATSS: Under the Loan Guarantee Scheme for Covid Affected Tourism Service Sector (LGSCATSS) administered through the National Credit Guarantee Trustee Company (NCGTC), working capital/personal loans are provided to households that were impacted due to the Covid-19 pandemic to discharge liabilities and restart businesses. The scheme was launched to cover 10,700 Regional Level Tourist Guides (recognised by the Ministry of Tourism), Tourist Guides (recognised by the State Governments/ UT Administration), and about 1,000 Travel and Tourism Stakeholders (TTS) (recognised by the Ministry of Tourism).

To boost the tourism sector, the first 5 lakh Tourists Visa were announced by the Government for tourists of foreign nationals visiting India. The scheme was applicable until 31st March 2022 or until 5 lakh free visas were issued, whichever is earlier. The benefit was available only once per tourist.

- **Real Estate**
  - The Covid-19 pandemic caused a slowdown in the real estate sector as well. Project delays, deferment of big-ticket purchases, stagnation of property prices, and scarce funding for developers induced slackening of

Measures taken by the Government to boost the Housing sector

The various policy intervention by the government, including 'Housing for All', Aatmanirbhar Bharat, etc., provided an impetus to the Housing Finance sector. The permission by RBI to lending institutions to grant a total moratorium of 6 (3+3) months in case of payment failure due between 1st March 2020 to 31st August 2020, infusion of ₹75,000 crore for Non-Banking Financial Corporations (NBFCs), Housing Finance Companies (HFCs) and Micro Finance Institutions (MFIs), among others, have also contributed to the revival of the real estate sector.

The interest subvention under Pradhan Mantri Awas Yojana-Credit Linked Subsidy Scheme Urban) (PMAY-CLSS (U)) has been the demand-side driver in the residential housing space. This, along with streamlined policies to increase the credit flow, has helped in the creation of a consumer-friendly ecosystem for housing finance. Since its inception, the government has released a subsidy amounting to ₹ 53,548 crore benefitting approximately 22.87 lakh households. Further, the Affordable Housing Fund (AHF) created sufficient liquidity in the sector for viable growth. Under the Affordable Housing Fund, National Housing Bank has disbursed ₹ 34,588 crore for 3.9 lakh dwelling units since its inception. Under the Special Liquidity Facility of RBI, National Housing Bank (NHB) disbursed ₹13,917 crore and ₹8,112 crore during the 1st and 2nd waves of the pandemic, respectively, to ensure seamless business as usual in the sector. Including the above, National Housing bank has provided Liquidity support of ₹ 88,400 crore through various refinance schemes since the onset of the Pandemic.

The concessional liquidity provided the sector with the much-needed liquidity influx for keeping the sector resilient. The Co-lending model has been put forward with the aim to leverage the liquidity base of the banks and reach of HFCs to deliver formal housing credit to the bottom of the pyramid. The Smart City Project, with a plan to build 100 smart cities across India, was aimed at improving the overall opportunity for the real estate sector and encouraging investments. The overall affordability in the residential real estate sector was high during the post-pandemic period, as reflected by a decline in the weighted average annual interest rate on home loans from 8.6 per cent during January-March 2020 to 7.3 per cent during January-March 2022 for Scheduled Commercial Banks. Also, with a consistent thrust on affordable housing and a series of measures taken by the Government and the Regulators, the sector bounced back, registering a more robust growth with consistent improvement in sales as well as new launches.

demand. Migration of workforces involved in the sector to their natives also aggravated the situation.

- However, the pandemic brought about a change in individual home buyers' sentiment in favor of owning a house. The **hybrid work mode encouraged first-time home buyers** to move away from the conventional metros, and this brought about a pent-up demand in Tier II and III cities.
- The government's measures such as lower interest rates, reduction in circle rates, and the extension of the **RERA** also played a significant role in post-pandemic rebound of real estate sector.
- The geopolitical tensions between Russia and Ukraine have again raised concerns regarding disruption in the global supply chain, thereby impacting real estate sector resulting in price escalation of steel, cement, etc., causing a rise in housing prices.
- In spite of several challenges, such as rising interest rates and increase in property prices, the sector has witnessed resilient growth in the current year. Housing sales and the launch of new houses in Q2 of FY23 have surpassed the pre-pandemic level of Q2 of FY20.
- The unsold inventory has declined to 8.5 lakh at the end of 2022 and the sustained sales momentum is helping the sector recover from the impact of the pandemic.

- **IT-BPM Industry**
  - India's IT-BPM industry has been exceptionally resilient during the pandemic, driven by increased technology spending, accelerated technology adoption, and digital transformation.
  - **Customer-centricity, domain-specific solutions, a digital-first talent pool, and a laser-sharp focus** on creating future-ready solutions have been the key pillars that enabled technology firms to respond proactively to emerging customer demand throughout the pandemic.
  - IT-BPM industry in India saw YoY revenue growth of 15.5% in FY22 compared to 2.1% growth in FY21, with all sub-sectors showing double-digit growth. IT services make up the majority of the IT-BPM sector (more than 51%).
  - Exports, including hardware, saw a growth of 17.2% in FY22 due to increased reliance on technology, cost-reducing deals, and use of core operations.
  - The industry's major markets remain the USA, Europe (excluding UK), and the UK, with increased focus on new markets such as the Middle East and Latin America.
  - The industry recorded nearly 10 per cent estimated growth in direct employee pool in FY22 with a highest-ever net addition to its employee base. The domestic technology industry is estimated to grow at 10 per cent on account of enterprise digital acceleration and transformation.

- **e-Commerce**
  - The e-commerce sector too saw growth during the pandemic due to lockdowns, mobility restrictions, and an increased push to digital economy.
  - The growth was further accelerated by factors such as government's push to boost the digital economy, growing internet penetration, rise in smartphone adoption, innovation in mobile tech, and increased adoption of digital payments.
  - India's e-commerce market is projected to grow at 18% annually till 2025, according to the **Global Payments Report** by Worldpay FIS.
  - The growth of e-commerce in India is being driven by the expansion into new segments, like grocery and general merchandise, which has attracted a wider customer base. **A report by Bain & Company** predicts that these emerging categories will make up two-thirds of the Indian e-commerce market by 2027.
  - MSMEs are also adopting digital solutions, such as e-commerce and e-procurement, realising the prospects of increased revenue and margins, better market reach, access to new markets, and customer acquisition.
  - Post-Covid-19 years have been the most successful years for Indian e-commerce start-ups. As per the Retail and E-commerce Trends report released by Unicommerce and Wazir Advisors, overall e-commerce order volume witnessed a growth of 69.4 per cent YoY in FY22, driven mainly by consumers from tier-II and tier-III cities in the last two years.
  - So is the case with the Government E-Marketplace (GeM), which is now catching up with e-commerce giants like Amazon and Flipkart thanks to the steps taken by it to onboard products of Self-Help Groups (SHGs), tribal communities, artisans, weavers, and MSMEs.
  - Programmes like Digital India program, Unified Payment Interface (UPI), GeM, etc. have been major contributory factors to the growth of e-commerce in recent years.
  - On the other hand, key initiatives like **One District – One Product,** have benefited small retailers, manufacturers, and Self-Help Groups.

- **Digital Financial Services**
  - The foundation of digital financial services in India has been established with the **JAM trinity, UPI** and other regulations, and the pandemic has driven even greater adoption of these services to be utilized by banks, NBFCs, insurers as well as fintech.
  - **Fintech companies** have taken advantage of the situation to serve underserved communities and provide low-cost financial services. India has a higher fintech adoption rate of 87% compared to the global average of 64%.
  - The growth of netbanking platforms and investment in the sector has risen in recent years spurred by the need for on-demand and easier-to-access financial solutions by a young and increasingly digitally savvy demographic. It has eased availability and provided access to financial services to MSMEs and underbanked customers and areas.
  - The government has also supported digital banking with the launch of 75 Digital Banking Units across 75 districts to increase access to banking solutions.
  - The introduction of Central Bank Digital Currency (CBDC) will also significantly boost digital financial services and it offers several benefits
    - reduction in operational costs involved in physical cash management,
    - fostering financial inclusion,
    - bringing resilience, efficiency, and innovation in the payments system,
    - boosting innovation in cross-border payments space, and
    - providing public with uses that any private virtual currencies can provide, without the associated risks.
  - RBI has also launched pilots of CBDC in both the Wholesale and Retail segments. For full operationalisation of CBDC, RBI is gradually expanding the pilots' scope to include more banks, users, and locations based on feedback received during the pilots.

Dematerialisation of Document: The next wave of digitisation

- National e-Governance Services Limited (NeSL), an Information Utility registered with and regulated by the Insolvency and Bankruptcy Board of India under the IBC 2016, introduced the Digital Document Execution (DDE) platform in 2020.
- The core principle of the NeSL-DDE platform is to digitise all the steps of the document/agreement execution journey. These include:
  - Submission of information and document/ agreement to be executed on the platform,
  - Flexibility to accommodate any agreement/ document format,
  - Consent-based process,
  - Digital payment of stamp duty and affixing of digital e-stamp certificate,
  - Verification of the identity of the executants and digital execution using an electronic signature,
  - Secure storage transmission and retrieval of the digitally executed document generated using the platform.
- The platform eliminates the need for physical presence and manual execution, providing benefits such as lower execution time and cost, security, fraud prevention, and evidentiary value.
- The Department of Financial Services (DFS) has been encouraging banks to consider adopting DDE for their agreements.
- One use case of the NeSL-DDE platform is the **electronic bank guarantee (e-BG),** which takes away all the issues and challenges associated with the issuance, transfer, and management of physical bank guarantees and brings inefficiencies of time and cost savings.
- As the adoption of e-BG picks up, the NeSL platform can also function as a central repository of bank guarantees.
- Recently, the Department of Expenditure has amended the General Financial Rules, 2017, to permit the acceptance of e-BG in the government procurement process.
- The platform will also enable the digital execution of other agreements, improving the ease of doing business.

Outlook

- Broad-based recovery has been observed in recent months, with pick up in almost all sub-sectors especially contact-intensive services sector, which bore the maximum brunt of the pandemic.
- The prospects look bright with improved performance of various sub-sectors like Tourism, Hotel, Real estate, IT-BPM, E-commerce etc.
- The downside risk, however, lies in the external exogenous factors and bleak economic outlook in Advanced Economies impacting growth prospects of the services sector through trade and other linkages.

CHAPTER - 11

External Sector: Watchful and Hopeful

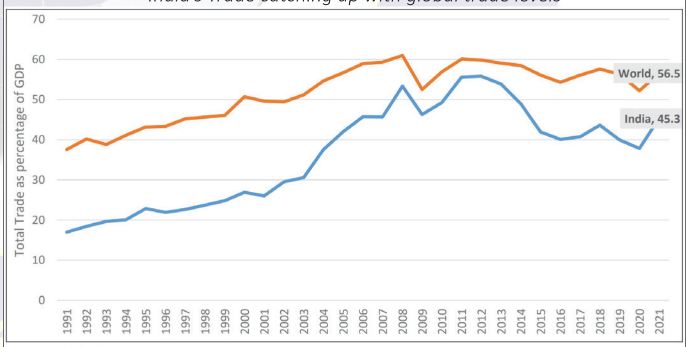
Brief Overview

- India's external sector has been buffeted by shocks and uncertainty manifested in terms of elevated, though now easing global commodity prices; tightening international financial conditions; heightening financial market volatility; reversal of capital flows; currency depreciation, and looming global growth and trade slowdown.
- During FY23, India's exports have displayed resilience on the back of record levels of exports in FY22. Petroleum products, gems & jewellery, organic & inorganic chemicals, drugs & pharmaceuticals were among the leading export items.
- However, the slowdown in Indian exports is inevitable in a slowing global economy characterised by:
  - ✔ slowing global trade
  - ✔ pressure encountered by Balance of Payments (BoP)
  - ✔ widened Current Account Deficit (CAD)

Trade Helping India Reap the Benefits of Globalised World

- Over time, the trade openness of countries across the globe has been increasing as measured by trade as a proportion of GDP.
- For the world as a whole, the share of trade as a percentage of world GDP has been in the range of 50-60 percent since 2003 and stood at 52 percent in 2020, according to the World Bank database.
- For India as well, the share of trade as a percentage of GDP has been steadily increasing, being above 40 percent since 2005 (except 2020 being the pandemic year). The ratio stands at 46 percent in 2021 and 50 percent for H1 of 2022.
- **Global Scenario:**
  - ✔ Post Covid-19-induced disruptions, global trade prospects have improved in FY22.
  - ✔ Global trade exhibited resilience in the first half (H1) of 2022, notwithstanding the headwinds from the Russia-Ukraine conflict.
  - ✔ Factors contributing to the trend were the appreciation of the dollar in the case of the United States, the relative dynamism of intra-regional trade in Europe, and favourable terms-of-trade effects in some large emerging economies due to elevated energy prices.
  - ✔ However, the global trade outlook turned grimmer in the second half (H2) of 2022 on the back of a confluence of adverse factors, including
    - the increasing likelihood of a recession in the major economies and the tapering demand for consumer durables;
    - aggressive monetary policy tightening by several central banks;
    - disorderly financial conditions;
    - continued supply-chain disruptions and
    - elevated freight charges.
- **India's Growing and Diversifying Trade**
  - ✔ International trade has been an important pillar of the resilience of India's external sector. Trade as a percentage of GDP for India was in the range of 12-15 percent in the 1980s, 16-25 percent in the 1990s and 25-50 percent in the 2000s.

India's Trade catching up with global trade levels



Source: World Bank database

- **Trends in Merchandise Trade**
  - ✔ India achieved an all-time high annual merchandise export of US$ 422.0 billion in FY22.
  - ✔ However, the global economy has started facing formidable headwinds and the ripple effect of the global trade slowdown has started reflecting in India's merchandise export growth, wherein moderation in pace is observed in 2022.
  - ✔ Owing to the rise in global crude oil prices, petroleum products continued to be the **most exported commodity in FY22** and

April-December, 2022, followed by gems and jewellery, organic & inorganic chemicals, and drugs & pharmaceuticals.

- **Bright Spots in India's Trade Performance**
  - Significant strides in exports were registered in drugs and pharmaceutical, electronic goods, engineering goods and organic and inorganic chemicals sectors in FY22.
  - India's **pharma exports** grew despite Covid impacted disruptions in supply chain increasing significantly from US$ 15.4 billion in FY15 to US$ 24.6 billion in FY22 and stood at US$ 18.8 billion during April-December 2022, registering a positive growth of 3.6 percent over April-December 2021.
  - As the pandemic ebbed, petroleum crude & products imports increased by 45.6 percent to US$ 163.9 billion in April-December 2022 as compared to US$ 112.6 billion in April-December 2021 and continue to be the highest imported commodity.
  - Energy demand may be pushing India's imports for fuel including coal and petroleum, oil & lubricants (POL), whose share rose to 37.1 percent in total imports in April-December 2022 against 30.4 percent in the corresponding period last year.
  - Other principal imports included electronic goods; coal, coke & briquettes; machinery electrical & non-electrical, and organic & inorganic chemicals.
  - The **USA remained the top export destination** in April-November, 2022 followed by **UAE** and the **Netherlands**. The Netherlands has displaced China from the 3rd spot as India's exporting partner.
  - As regards imports, **China, UAE, USA, Russia**, and **Saudi Arabia** have a joint share of 40 percent of the total imports of India.
  - However, the **share of China declined** to 13.8 percent during April-November 2022 from 15.5 percent a year ago. Similarly, the **share of the USA declined** to 6.9 percent in April-November 2022 from 7.2 percent a year ago.
- **Trade in Services**
  - Despite pandemic induced global restrictions and weak tourism revenues, India's services exports stood at US$ 254.5 billion in FY22, recording a growth of 23.5 percent over FY21 and registered a growth of 32.7 percent in April-September 2022 over the same period of FY22.
  - **Software** and **business services** together constitute more than 60 percent of India's total services exports and exhibited strong growth during Q2FY23.
  - While strong revenues in major information technology (IT) companies from various segments boosted the growth in business services exports during the quarter.
  - The increase in services imports is mainly on account of payments for transport services, travel and other business services.
  - Following the resumption of global activity, shortages of shipping vessels and high transportation costs resulted in a spike in transport payments. Travel imports saw a growth following the easing up of travel restrictions.
- **Foreign Trade Policy**
  - India's Foreign Trade Policy (FTP) has, conventionally, been formulated **for five years** at a time. The focus of the FTP has been to provide a framework of rules and procedures for exports and imports and a set of incentives for promoting exports.
  - To provide policy stability during the pandemic period, the five-year FTP 2015-20 was extended from 2020 to 2022. The policy has been further extended till March 2023 on account of volatile global economic and geopolitical situations and currency fluctuations.
  - The Government is actively working on facilitating trade agreements and launching schemes in consultation with various stakeholders. In the year 2022, India signed Free Trade Agreements **(FTAs) with UAE and with Australia.**
  - The **Export Preparedness Index** has also been introduced to evaluate States' potentials and capacities. It will guide all stakeholders towards strengthening the export ecosystem at both the national and sub-national levels.
- **International Trade Settlement in Indian Rupees**
  - In July 2022, the RBI issued a circular permitting an additional arrangement for invoicing, payment, and settlement of exports/imports in Indian Rupees (INR) to promote the growth of global trade with emphasis on exports from India and to support the increasing interest in the global trading community in INR as an international currency.
  - **Under this arrangement for settlement:**
    - Indian importers undertaking imports through this mechanism shall make

payment in INR which shall be credited into the **Special Vostro account** of the correspondent bank of the partner country, against the invoices for the supply of goods or services from the overseas seller/supplier,

- Indian exporters, undertaking exports of goods and services through this mechanism, shall be paid the export proceeds in INR from the balances in the designated **Special Vostro account** of the correspondent bank of the partner country.

- This framework for international settlement in INR acquires significance against the
  - backdrop of the US Fed aggressively hiking the policy rates and its hawkish stand,
  - the consequent rallying of the US dollar to multi-decade high levels, and
  - concomitant weakening of currencies of various EMEs including the INR.
- The framework could largely reduce the net demand for foreign exchange, the US dollar in particular for the settlement of current account related trade flows.
  - Further, the use of INR in cross-border trade is expected to mitigate currency risk for Indian businesses which not only reduces the cost of doing business but also enables better business growth, improving the chances for Indian businesses to grow globally. It also reduces the need for holding foreign exchange reserves and dependence on foreign currency, making Indian economy less vulnerable to external shocks.
  - Further, it could assist Indian exporters in getting advance payments in INR from overseas clients and in the longer term promote INR as an international currency once the rupee settlement mechanism gains traction.

- **Initiatives to Enhance Trade**
  - The commendable performance of India's exports, standing at US$ 422.0 billion in FY22, exceeding the target of US$ 400 billion, has been the culmination of efforts from all quarters and across stakeholders.
  - Some of the specific schemes of the Government which have and are facilitating and encouraging exports are as follows:
    - **Focus on Agricultural Products:** India's agricultural exports achieved the highest ever export in FY22 reaching US$ 37.8 billion and it continued to perform well in FY23 with exports of US$ 26.8 billion during April-November 2022 backed by an effective agriculture export policy.
    - **Interest Equalisation Scheme:** This scheme was formulated to give benefit in the interest rates being charged by the banks to the exporters on their pre- and post-shipment rupee export credits.
    - **Remission of Duties and Taxes on Exported Products (RoDTEP) Scheme:** The scheme seeks remission of Central, State and Local duties/taxes/levies at different stages at the Central, State, and local level, which are incurred in the process of manufacturing and distribution of exported products, but are currently not being refunded under any other duty remission scheme.
    - **Export Credit Guarantee:** The Export Credit Guarantee Corporation (ECGC) supports Indian exporters and banks by providing export credit insurance services.
    - **Krishi Udan Scheme:** The Krishi Udan Scheme was launched in August 2020 on international and national routes to assist farmers in transporting agricultural products so that it improves their value realisation.
    - **Trade Infrastructure for Export Scheme:** The Government has been implementing the scheme since FY18 to assist Central and State Government agencies in the creation of appropriate infrastructure for the growth of exports from the States.
    - **Districts as Export Hubs – One District One Product Initiative:** It is aimed at targeting export promotion, manufacturing, and employment generation at the grassroots level, making the states and districts meaningful stakeholders and active participants in making India an export powerhouse thereby contributing to the **Aatmanirbhar mission** and achieving the vision of **Make in India** for the world and being **Vocal for Local.**

- **India's Global Trade Engagements**
  - Governments have been pursuing international trade cooperation largely driven by diverse external and internal political economy considerations such as promoting peace and stability, increasing market size and most importantly, insuring themselves against unfavourable trade policies of other countries.

- India considers **Regional Trading Arrangements** (RTAs) as 'building blocks' towards the overall objective of trade liberalisation and as complementing the multilateral trading system.
- India has engaged with its trading partners/ blocs with the intention of expanding its export market, in some cases moving towards **Comprehensive Economic Cooperation Agreements** (CECA) which covers FTA in goods, services, investment and identifies areas of economic cooperation.
- The economic rationale for FTAs was
  - the diversification and expansion of India's exports to its trading partners,
  - providing a level playing field vis-à-vis the competing countries having preferential access in our trading partners, and
  - gain easier access to raw materials and intermediate products, at lower costs, for stimulating value-added domestic manufacturing.
- India has so far concluded 13 FTAs and 6 Preferential Trade Agreements (PTAs). The most recent in the list are the **India-UAE Comprehensive Economic Partnership Agreement** (CEPA) which was signed on 18 February 2022 and officially entered into force on 1 May 2022 and the **India-Australia Economic Cooperation and Trade Agreement** (Ind-Aus ECTA), which was signed on 2 April 2022.

Free Trade Agreements

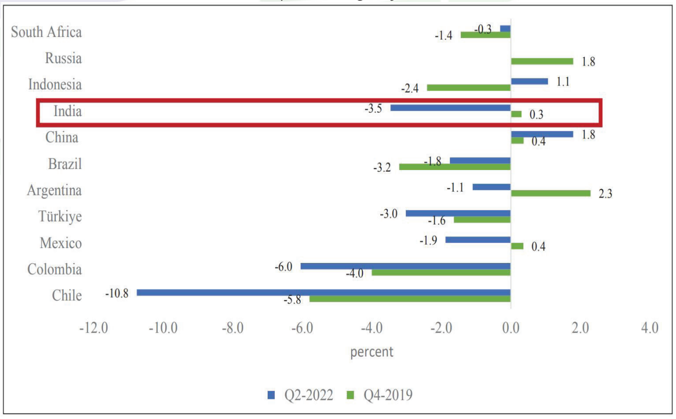
- FTAs or RTAs in terms of the WTO rules are economic instruments available to a country for leveraging its competencies in trade and investment. As of June 2016, all WTO members now have at least one RTA in force. There has been a substantial rise in the number of trade agreements with 355 notifications of RTAs having been made to the WTO (As of 1 December 2022.)
- Many WTO members continue to be involved in negotiations to create new RTAs, which are mostly bilateral. However, a recent development has been negotiations and new agreements among more than two WTO members.
- The limited progress in the multilateral trade negotiations at the WTO is one of the reasons responsible for the increase in FTAs. FTAs are viewed favourably by trading countries in comparison to multilateral negotiation at the WTO forum as they are easy to negotiate and provide flexibility to factor in geopolitical considerations.
- The purpose of RTAs is to lower tariffs on goods and services and increase cooperation between trading partners with the aim of increasing trade, lower prices for consumers, and provide enhanced export opportunities for producers. RTAs can also have a larger impact on the economy. For instance,
  - FTAs are positively correlated with direct domestic value-added exports, as well as forward and backward participation in global value chains.

- India is presently engaged in FTA **negotiations** with some of its trading partners, such as India-UK FTA, India-Canada CEPA/Early Progress Trade Agreement (EPTA), and India-EU FTA.
- India has also initiated action to **review some of the existing FTAs,** namely, India-Singapore CECA, India-South Korea CEPA, and India-ASEAN Trade in Goods Agreement and initiated discussions on scoping for the CECA with Australia.

Balance of Payments in Challenging Times

- **Current Account Balance**
  - India's external sector has been facing considerable global headwinds reflecting the geopolitical developments. India's **current account balance (CAB) recorded a deficit** of US$ 36.4 billion **(4.4 percent of GDP)** in Q2FY23 in contrast to a deficit of US$ 9.7 billion (1.3 percent of GDP) during the corresponding period of the previous year.
  - The widening of the current account deficit (CAD) in the second quarter of FY23 was mainly on account of a higher merchandise trade deficit of US$ 83.5 billion and an increase in net investment income outgo.
  - For the period April- September 2022 (H1FY23), India recorded a CAD of 3.3 percent of GDP on the back of an increase in the merchandise trade deficit, as compared with 0.2 percent in H1FY22.
  - However, a comparison with the position of the CAB for selected countries shows that India's CAD is modest and within manageable limits.

Current account balance as percentage of GDP: India vs Select Countries



Source: OECD Economic Outlook 112 Database

- **Invisibles**
  - Net services receipts increased from US$ 51.4 billion in H1FY22 to US$ 65.5 billion in H1FY23, primarily on account of robust computer and business services receipts.
  - Similarly, the net private transfer receipts, mainly representing remittances by Indians employed overseas, was US$ 48.0 billion in H1 FY23 against their level of US$ 38.4 billion during the same period a year ago.
  - A sharp rise in crude oil prices and the deprecation of the INR seem to have boosted remittance flows into India.
  - Net services exports and remittances contributed to the surplus on the invisible account, which cushioned the merchandise trade deficit.
  - Remittances are the second largest major source of external financing after service export, which contribute to narrowing the CAD and has always been a stable constituent of the BoP.
- **Capital Account Balance**
  - Foreign investment, consisting of Foreign Direct Investment (FDI) and foreign portfolio investment (FPI), is the largest component of the capital account.
  - On a BoP basis, the net capital inflows declined to US$ 29.0 billion in H1FY23 from US$ 65.0 billion in H1FY22 primarily driven by the FPI outflow of US$ 14.6 billion in Q1FY23.
  - Net FDI inflows at US$ 20.0 billion in H1FY23 were comparable with US$ 20.3 billion in H1FY22.
  - Repercussions of the Russia-Ukraine conflict and aggressive monetary policy tightening by the US Fed escalated global financial market volatility leading to net outflow by FPIs in Q1FY23. However, FPI flows turned positive in Q2FY23.
- **Balance of Payments and Foreign Exchange Reserves**
  - Overall, the adverse global economic situation placed India's BoP under pressure in 2022.
  - While the impact of a sharp rise in oil prices was discernible in the widening of the CAD, policy tightening by the US Fed and the strengthening of the US dollar led to FPI outflows.
  - As a result, as the net financial inflows fell short of the CAD, there was a depletion of foreign exchange reserves on a BoP basis to the tune of US$ 25.8 billion in H1FY23 in contrast to an accretion of US$ 63.1 billion in H1FY22. But huge valuation losses (US$ 48.9 billion) contributed to the net depletion of US$ 74.6 billion of reserves in nominal terms during the period.
  - India's foreign exchange reserves stood at US$ 532.7 billion as of end-September 2022, covering 8.8 months of imports. The reserves augmented to US$ 562.7 billion as of end-December 2022 covering 9.3 months of imports.
  - As of end-November 2022, **India was the sixth largest foreign exchange reserves holder** in the world, according to a data compiled by the IMF.

Exchange Rates Moving in Tandem with Global Developments

- The exchange rate of the Indian Rupee is market-determined as the RBI's intervention in the foreign exchange market is mainly to contain instances of excessive volatility.
- On a financial year basis, i.e., from April to December 2022, the INR has depreciated against US$ by 8.3 percent. Over the same period, the US dollar has appreciated by 4.4 per cent in terms of the US dollar index. This holds even on a calendar year basis, i.e., from January to December 2022, the INR has depreciated by 10.8 percent whereas the US dollar has appreciated by 6.4 percent.
- The Nominal Effective Exchange Rate (NEER) of the US dollar (27 economies) appreciated by 7.8 percent in the calendar year 2022, up to December, while the NEER of India (64 economies) depreciated by 4.8 percent.
- In other words, it is not that the INR has weakened, but it is the US dollar that has strengthened.
- Several other currencies depreciated even more value against the US dollar than the INR. Thus, the external value of INR vis-à-vis the US dollar has seen very orderly movements during the year since the onset of the current geopolitical crisis.

International Investment Position: A Reflection of India's Financial Soundness

- The international investment position (IIP) is a statistical statement that shows at a point in time the value and composition of

  a) financial assets of residents of an economy that are claims on non-residents and gold bullion held as reserve assets, and

b) liabilities of residents of an economy to non-residents.

- The Net IIP position determines whether a country is a net creditor or debtor nation by measuring the difference in its external assets and liabilities. These statistics serve as an indicator of a country's financial condition and soundness.

- India's international financial assets covered 68.5 per cent of international financial liabilities as of end September 2022.

Safe and Sound External Debt Situation

- India's external debt stood at US$ 610.5 billion as of end-September 2022 which grew by 1.3 percent (US$ 7.6 billion) over US$ 602.9 billion as of end-September 2021. However, external debt as a ratio to GDP fell to 19.2 percent as of end-September 2022 from 20.3 percent a year ago.

- India has the potential growth positive space as far as the external debt level is concerned. While a major part of **India's external debt is denominated** in the US dollar (55.5 percent as at-September 2002), the Indian rupee-denominated component (30.2 percent) occupies the second largest position, insulating the external debt from foreign currency risk, thereby augmenting stability friendly characteristics of the external debt.

- Comparing various debt vulnerability indicators of India with peer countries for 2021 informs that the country is in a better position in terms of relatively low levels of total debt as a percentage of Gross National Income (GNI) and short-term debt as a percentage of total debt. The current stock of external debt is well shielded by the comfortable level of foreign exchange reserves.

Outlook for the External Sector: Cautious Amidst Global Headwinds

- Slowing global demand is weighing on India's merchandise exports. Global growth is forecast to slow down in 2022 and 2023 as per IMF estimates. This is the weakest growth profile since 2001 except for the global financial crisis and the acute phase of the Covid-19 pandemic.

- Thus, the export outlook may remain flat in the coming year if global growth does not pick up in 2023. In such cases, product basket and destination diversification which India is taking through FTAs would be useful to enhance trade opportunities.

- From a cross-country perspective too, India's external sector has fared relatively better and hence positioned relatively stronger to face the evolving adverse global scenario as evidenced by the Indian rupee outperforming most EME currencies, comfortable import cover and moderate CAD.

- India's external debt vulnerability indicators are benign by international standards. To sum up, while India's external sector faces challenges, it is performing relatively better as compared to many of its peers as it has inbuilt shock absorbers to weather them.

CHAPTER - 12

Physical and Digital Infrastructure: Lifting Potential Growth

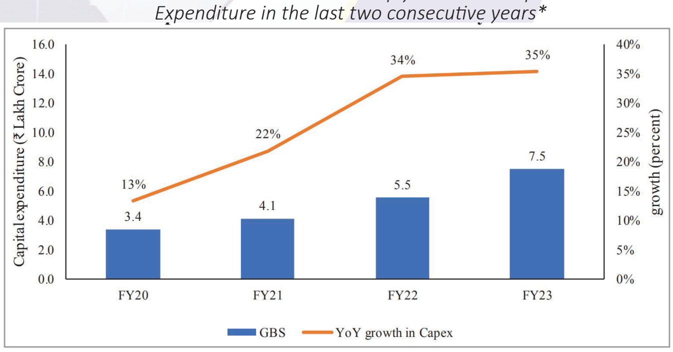
Introduction

- The critical role played by infrastructure in economic growth cannot be overemphasised. Investing in high-quality infrastructure is crucial for accelerating economic growth and sustaining it in the long run.
- Even during the times of pandemic and geo-political crisis, the government kept its focus on reforms in areas of physical, digital and regulatory infrastructure.
- In order to increase the private sector participation in creation of new infrastructure and development of existing ones, the government took initiatives like Public-Private Partnership **(PPP)**, National Infrastructure Pipeline **(NIP)** and National Monetisation Pipeline **(NMP)**.
- **Gati Shakti** and **the National Logistics Policy (NLP)** were also introduced as part of the structural reforms with the aim of enhancing efficiency and cost competitiveness.
- The government has also kept its focus towards developing the traditional infrastructure like roads, railways, airports, ports, mass transport and waterways.
- The mechanisms like multi-modal transport system have also been put in place. It will facilitate the last mile connectivity and also reduce travel time for people.
- Today, tele density has reached up to 93 per cent, over a billion people have a digital ID document, more than 80 per cent have bank accounts, and as of 2022, over 600 crore of digital payment transactions are completed per month.
- With regard to its advancements in digital infrastructure, India can provide several best practices that can be emulated globally. **One-stop Co-WIN site, DigiLocker, Open Network for Digital Commerce (ONDC), Open Credit Enablement Network (OCEN), and Goods and Services Tax (GST) Sahay** are just a few examples of the numerous successful initiatives.
- The National Payments Corporation of India International (NPCIL) led UPI is another such innovation which transformed the payment landscape. The value and number of UPI-based transactions increased, opening the door for its global adoption.
- Start-ups are being envisioned as the spine of new India, as they encourage the youth to become job creators rather than job seekers. With the highest FinTech adoption rate of 87 per cent among the public compared to the global average of 64 per cent, **India has gained the 3rd place in digital payments only after US and China.**
- the government's policy initiative, a world-class FinTech Hub at Gujarat International Finance Tec-City (GIFT) International Financial Services Centre (IFSC) has been developed.

Government's Vision and Approaches to Infrastructure Development in India

- Through an increase in capital spending, the government has recently given infrastructure investment and development a stronger push. This drive has taken place during a period of economic crisis when private sector capital spending has been restrained.

*Central Government has sharply increased Capital Expenditure in the last two consecutive years**



* All figures are representative of Budgeted Estimates for the respective Financial Year
Source: Union Budget of India

- The government's vision for infrastructure does not stop here. As India has already submitted its **Long-Term Low Emission Development Strategy at COP27,** the next leap would be towards advanced infrastructure, which is more energy efficient, incorporates the idea of a circular economy and transitions towards low carbon development.

Public-Private Partnerships (PPPs)

- PPPs are vital instruments for governments in channeling the strength of private sector in critical areas of infrastructure. It helps to address infrastructure gap and improve efficiency in infrastructure service delivery.

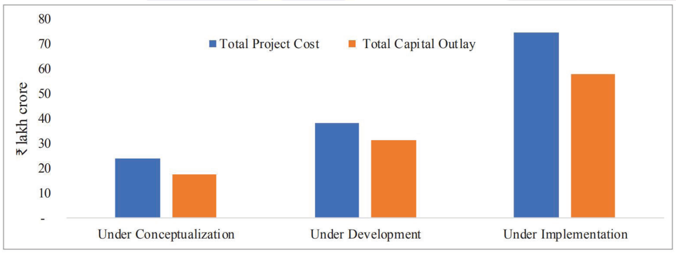
- Private participation in infrastructure programmes supports several PPP models, including management contracts **like Build-Operate-Transfer (BOT), Design-Build-Finance-Operate-Transfer (DBFOT), Rehabilitate-Operate-Transfer (ROT), Hybrid Annuity Model (HAM), and Toll-Operate-Transfer (TOT) model.** Under the BOT model, there are two variants – BOT (Toll) and BOT (Annuity) depending on who bears the traffic risk

- A scheme for financial support for project development expenses of PPP Projects – the **'India Infrastructure Project Development Fund Scheme' (IIPDF)** – was notified by the government on 3 November 2022.
  - ✓ The aim of the scheme is to develop quality PPP projects by providing necessary funding support to the project-sponsoring authorities, both in the Central and State Governments, for creating a shelf of bankable, viable PPP projects by on-boarding transaction advisers

National Infrastructure Pipeline (NIP)

- The government launched the National Infrastructure Pipeline (NIP) with a forward-looking approach and with a projected infrastructure investment of around ₹111 lakh crore during FY20-25 to provide high quality infrastructure across the country. It also envisages improving project preparation and attracting domestic and foreign investment in infrastructure.

Status of Projects under NIP



Source: Department of Economic Affairs.
Note: Data as of 13 January 2023

- The **Invest India Grid (IIG) portal**, where NIP is located, gives States/UTs and Ministries the chance to compile all key infrastructure projects in one place. Thus, IIG serves as a centralised gateway to monitor and assess project development across all sub-sectors of social and economic infrastructure.

National Monetisation Pipeline – Creation through monetization

- Despite the financial strains caused by the Covid-19 outbreak, there was a need to scale up infrastructure construction, which necessitated the release of funds. Thus, on August 23, 2021, the **National Monetisation Pipeline (NMP)** was announced.

- It uses private sector investment for the construction of new infrastructure and is based on the idea of "asset creation through monetisation."

- The process of monetisation entails a limited period license/ lease of an asset, owned by the government or a public authority, to a private sector entity for upfront or periodic consideration. Funds so received by the public authority are reinvested in new infrastructure or deployed for other public purposes.

National Logistics Policy: Reducing the cost of logistics

- In India, **logistics expenses have been in the range of 14–18% of GDP** compared to the worldwide norm of 8%. The following issues must be addressed in order to
  - ✓ improve logistics for trade: ensuring the effectiveness of the clearance process by border control agencies, including customs;
  - ✓ enhancing the infrastructure for trade and transportation (such as ports, railroads, roads, and information technology);
  - ✓ making it easier to arrange shipments at competitive prices; and improving the competency and quality of logistics services (such as transit time estimation);
  - ✓ A Logistics Performance Index created by the World Bank captures certain factors (LPI)

- Few infrastructure initiatives have also been taken by the Govt like **Ude Desh ka Aam Nagrik (UDAN), Bharatmala, Sagarmala, Parvatamala, National Rail Plan**, and through 'process reforms' **GST, e-Sanchit, Single Window Interface for Trade (SWIFT), Indian Customs Electronic Data Interchange Gateway (ICEGATE), Turant Customs,** and others.

- The goal of the policy is to expand employment possibilities, boost economic growth, and promote the competitiveness of Indian commodities.

- It aims to standardise warehousing, integrate multimodal digitally, make logistics services more accessible, and improve human resources and skill sets.

- The **targets for achieving the vision of the NLP** are to
  - ✓ reduce the cost of logistics in India to be comparable to global benchmarks by 2030;

- the Logistics Performance Index ranking - endeavour is to be among the top 25 countries by 2030, and
- create a data driven decision support mechanism for an efficient logistics ecosystem

Logistics Ease Across Different States (LEADS)

- The LEADS 2022 survey report was released on 13 October 2022, which considered the PM GatiShakti NMP and current developments in the logistics sector in the wake of the COVID-19 pandemic.
- **LEADS 2022** has adopted a classification-based grading, and States have been now classified under four categories viz., coastal States, hinterland/ landlocked States, North-Eastern States, and UTs for the assessment of how well a State or UT has performed in comparison to the top State/UT within the specific cluster. This time, they have been allotted three performance categories, namely, Achievers: States/UTs achieving a percentage score of 90 per cent or more, Fast Movers: States/UTs achieving percentage scores between 80 to 90 per cent, and Aspirers: States/ UTs achieving percentage scores below 80 percent

Achievers	Fast Movers	Aspirers
Uttar Pradesh	Kerala	Goa
Tamil Nadu	Sikkim	Bihar
Uttarakhand	Madhya Pradesh	Chhattisgarh
Telangana	Tripura	A&N Islands
Punjab	Puducherry	Mizoram
Odisha	Rajasthan	J&K
Karnataka		Arunachal Pradhesh
Himachal Pradesh		Ladakh
Assam		Lakshadweep
Delhi		Nagaland
Chandigarh		
Haryana		

PM GatiShakti: A master plan for integrated project planning

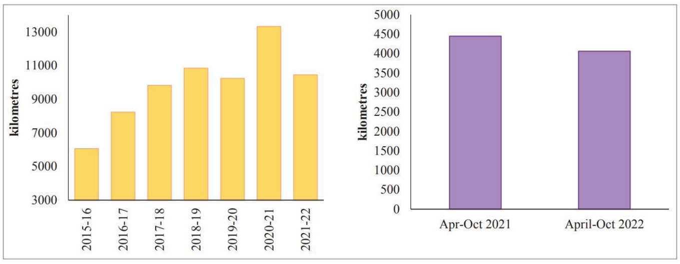
- The PM GatiShakti National Master Plan calls for the development of a unified platform under which all infrastructure projects related to various ministries and departments will be integrated into a vast database for effective planning and real-time implementation.
- The NIP's seven engine-related projects (roads, rail, ports, mass transit, waterways, and logistic infrastructure) will be in line with the PM GatiShakti framework.
- The Master Plan's cornerstones will be top-notch contemporary infrastructure, logistics coordination between various means of transportation for both people and products, and the positioning of developments. As a result, productivity will increase, and economic growth and development will quicken.

Developments in Physical Infrastructure Sectors

Road Transport: Increased budgetary support by the government augment road connectivity:

- Road infrastructure in the form of a network of national highways, state highways, district roads, rural roads, and urban roads acts as a major mode of transportation and connectivity for the country's diverse population of consumers and businesses.

National Highways/Road construction has increased since 2015-16, hitting unprecedented levels in 2020-21



Source: Ministry of Road Transport and Highways

- The **National Highways Authority of India (NHAI)** introduced its **InvIT (Infrastructure Investment Trust)** in FY22 to enable the monetisation of roads as well as to attract domestic and international institutional investors to invest in the roads sector, in keeping with the objective of the monetisation of public sector assets.
  - More than $10,200 crore has been raised by NHAI InvIT thus far from reputable foreign and Indian institutional investors (up to December 2022).

Railways: Expansion and modernisation, a continuous process

- The fast pace of infrastructure augmentation by IR (Indian Railways) has been a result of substantial increase in allocation of funds and various steps being taken by the government. This includes
  - Delegation of powers at the field level which has helped in commissioning of doubling projects,
  - close monitoring of the progress of projects at various levels,
  - regular follow-up with State Governments and relevant authorities for expeditious land

acquisition, forestry and wildlife clearances and resolving other issues pertaining to the projects.

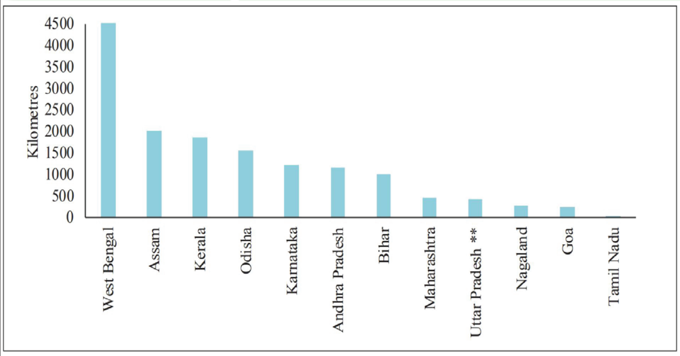
- **Major initiatives of the Indian Railways** are Mumbai-Ahmedabad High Speed Rail (MAHSR) Project, Dedicated Freight Corridor (DFC) Project, GatiShakti Multi-Modal Cargo Terminal (GCT), Induction of semi-high-speed Vande Bharat Trainsets, Electrical/ Electronic Interlocking System, Development of Hyperloop technology, Kisan Rail trains.

- **Civil Aviation: Revival backed by domestic demand:**
  - Due to rising middle class demand, population and tourism growth, increased disposable incomes, favourable demographics, and wider penetration of aviation infrastructure, India's civil aviation industry has a lot of promise. Government programmes like UDAN, which have significantly improved regional connectivity by opening airports in India's interior, further encourage this.

- **Ports: Handling higher capacity with governance reforms:**
  - The government has given the increase of port capacity top priority through the implementation of well-planned infrastructure development projects in order to meet the constantly growing trade requirements. The government is concentrating on enhancing port governance, addressing low capacity utilisation, modernising ports with technologically advanced loading/unloading equipment, and developing new channels for port communication in order to further increase their efficiency.

- **Inland Water Transport: Tapping the potential of navigable waterways:**
  - Inland water transport holds great untapped potential as a means for the transportation of goods and passengers. India has a large endowment of rivers, canals, and other waterways.

Navigable Length of Waterways in Different States



Source: Statistics of Inland Water Transport 2020-21, Ministry of Port, Shipping and Waterways
Note: Data pertains to 2020-21. **Data for Uttar Pradesh pertains to 2016-17

  - **Inland Vessels Act 2021:** State governments may declare by notification any inland water area as a "Zone" depending on the maximum significant wave height criteria as prescribed in the Act. Any mechanically propelled vessel would have to obtain a certificate, which would indicate the zone in which the vessel is to be operated.
  - A central database of inland vessels would be maintained by the government.
  - The standards for qualification, training, training institutes, examination, and grant of certificate of competency would be prescribed by the Central Government.
  - Constitution of a Development Fund by the State Government to be utilised for meeting emergency preparedness, containment of pollution, removal of unidentified wrecks or obstruction, boosting development works of inland water navigation, etc.

- **Electricity: Installed capacity growth driven by renewables:**
  - The government of India has been spearheading a dynamic renewable energy initiative with the goal of ensuring energy access and security while lowering the nation's carbon impact.
  - The **Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM)** programme aims to provide energy and water security for the agricultural sector, de-dieselize it, and increase farmer income by generating solar electricity.
  - Additionally, the government has launched the **Solar Park Scheme** to provide all statutory permissions as well as the essential infrastructure, such as land, power evacuation facilities, road connectivity, water facilities, etc.
  - Indian Railways, which is a major user of electricity in the country, has announced its intention to achieve net zero carbon emission by 2030

Developments in Digital Infrastructure:

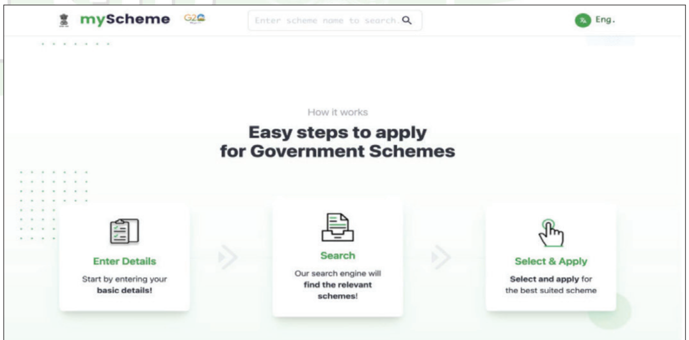
- Digital infrastructure is envisioned as a fundamental service for every citizen under the government's **Digital India programme,** which aspires to convert India into a society and knowledge economy that is empowered by technology. The focus areas include
  - the availability of high-speed internet as a

fundamental utility for providing services to citizens,

- the creation of a unique digital identity,
- enabling citizen participation in digital and financial space,
- the creation of shareable private space on a public cloud (citizens can digitally store their official documents, certificates, and other proof of identification and share them with public agencies or others without having to physically submit them), and
- the creation of a safe and secure cyberspace.

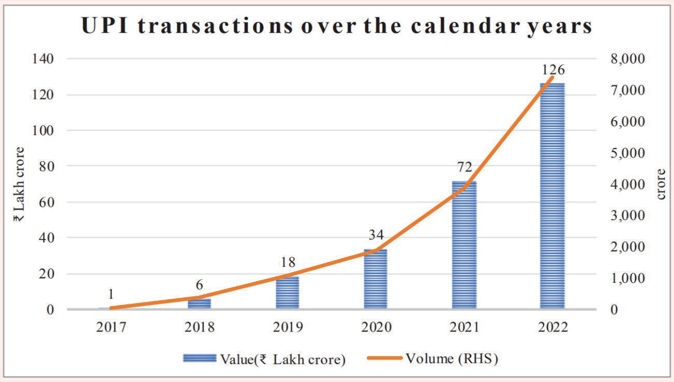
- **Telecommunications: Accelerating provision of affordable services**
  - The significant growth in rural India was the major shock absorber during the COVID-19 pandemic when both businesses and consumer demand were impacted.
    - When majority of the workforce reverse-migrated to rural areas in search of livelihoods, agriculture (3.4 per cent growth in FY20-21) as well as the world's largest employment scheme MNREGA supported the domestic economy.
    - The digital infrastructure created over the years in rural areas ensured transparent and timely payments to the beneficiaries directly into their account thus limiting their exposure to the virus.
    - affordability and accessibility to private education restricted, the digital support system in government schools absorbed the then much-needed enrolment to counter the learning gap.
    - As schooling went online for a considerable period even post pandemic, the increase in internet subscriptions in rural areas helped mitigate learning loss significantly. This even facilitated the successful rollout of mass vaccination in rural areas.
  - A project for the saturation of **4G mobile services in untapped villages** around the nation has been approved in order to boost digital linkages at the grassroots level and improve the consumer experience similar to that in urban centres.
  - On August 18, 2021, the **Universal Service Obligation Fund (USOF) and Bharat Sanchar Nigam Limited (BSNL)** signed an agreement for the hiring of 10 Gigabits per second (Gbps) international bandwidth for internet connectivity to Agartala from Bangladesh Submarine Cable Company Limited (BSCCL), Bangladesh, in order to provide high-quality and high-speed internet access to the North-Eastern Region.
  - The introduction of **5G services** was a significant development in India's telecoms industry. Through faster data transmission rates and decreased latency, 5G might directly affect customers. Due to telecom changes and a clear direction for policy, the 2022 spectrum auction attracted the biggest bids ever.
  - The **National Frequency Allocation Plan 2022 (NFAP)** establishes a comprehensive regulatory framework and specifies which frequency bands are accessible for radio navigation for ships and aero planes, Wi-Fi, sound and television transmission, and other wireless communications.
  - Users of the spectrum will receive advice from NFAP on how to design their networks in compliance with the pertinent frequency and parameters specified therein. Since spectrum is a limited resource, NFAP is helpful in efficiently matching spectrum utilisation with needs from emerging technologies.
  - The **GatiShakti Sanchar portal** was launched on 14 May 2022. This portal will streamline the process of Right of Way (RoW) applications and permissions across the country. The portal has been developed keeping in view the vision areas of the **National Broadband Mission** at the core, which are providing broadband infrastructure as a core utility to every citizen, governance and services on demand and in particular, digital empowerment of the citizens of our country.

- **Growth story of Digital Public Infrastructure (DPI)**
  - The emergence of **Digital Public Infrastructure (DPI),** aimed at improving financial literacy, innovation, entrepreneurship, employment generation, and empowering beneficiaries.
  - The **three growth drivers** that acted as catalysts for DPI growth were favourable demographics, vast expansion of the middle-class, and digital behaviour patterns.



Source: https://www.myscheme.gov.in/, accessed on 3rd January 2023.

- **'MyScheme'** is an e-Marketplace for schemes where users can look for suitable schemes based on their eligibility. It helps reduce users' time and effort by doing away with the requirement of searching multiple websites of government departments and studying multiple scheme guidelines to check their eligibility.
- **Unified Mobile Application for New-Age Governance (UMANG),** which allows citizens to access e-Government services offered by the Central and State Government in various sectors such as agriculture, education, health, housing, employees', pensioners', and students' welfare, the Public Distribution System, and others, was introduced by the government to lower the cost of searching for the average person.
- Another important domain that the government has emphasised is the availability of open resources on Artificial Intelligence (AI). The **National AI portal** has been developed with a view to strengthening the AI ecosystem in the country by pooling together and highlighting the latest developments happening in Central and State Governments, industry, academia, NGOs, and civil societies.
- AI has great potential as a tool for overcoming the language barrier. **'Bhashini', the National Language Translation Mission,** aiming at nurturing Indian language technologies and solutions as a public good, was launched in July 2022.
- The **Digital India Bhashini portal** is a public digital platform on which 260 open-source API-based AI models are available for speech-to-text conversion, machine translation, and text-to-speech conversion in 11 Indian languages and English for various purposes. Bhashini has great potential to bring access to the internet and other digital resources to millions of Indians in their own languages
- Low-cost accessibility (Aadhaar), the success of citizen-centric services like Unified Payments Interface (UPI), large-scale adoption and reach **(DigiLocker, MyGov)**, and the vaccine journey through Co-Win are important and successful milestones in India's public digital infrastructure journey.



Source: NPCI

- The success of UPI has not been restricted to India alone; NPCI, through its international arm NPCIL is pushing for acceptance of RuPay/UPI powered apps, cross-border remittance and UPI-Like deployment in international markets such as Singapore, UAE, France, the Netherlands among others
- Tech companies are increasingly leveraging the power of UPI to expand the digital ecosystem, which has led to a significant acceleration in the pace of financial inclusion. UPI has opened up many opportunities for start-ups and e-Commerce players to develop innovative solutions that elevate the customer experience. The open systems have enabled global players like Google, WhatsApp, Walmart, True Caller, Amazon, Uber etc., to provide UPI services.
- India is also geared to strengthen the up-and-coming drone industry. Under **Mission 'Drone Shakti',** the drone start-ups and **Drone-as-a-Service (DrAAS)** are being promoted. Almost 90 per cent of the airspace has now been opened up as a green zone for flying drones up to 400 feet.
- A **Production-Linked Incentive (PLI) scheme** for drones and drone import policy have been notified

Conclusion/Outlook

- Today, the global economy is still recuperating from the pandemic-related setback, while geopolitical tensions continue. This is the new normal.
- Due to its committed support for infrastructure building through higher expenditure and solid macroeconomic fundamentals, India was able to successfully navigate the scenario. This supported economic growth during a time when the private sector refrained from investing due to balance sheet issues and an uncertain demand outlook brought on by global shocks. The targeted increase in investment is seen across all infrastructure sectors.
- While the digital revolution began with Aadhaar as a tool for door-to-door service delivery, UPI reinforced the system for online payments. India has a distinctive and compelling digital tale to tell, with other efforts like **Co-WIN, e-RUPI, TReDS, Account Aggregators, ONDC,** etc. in various phases of implementation. The journey is still underway, and India's digital public infrastructure sector has a lot of unrealized promise.