

# GS 3 – ECONOMICS

For UPSC CSE 2026

*By Khushboo P  
Economics Faculty*

# Economic Survey

- What to study for Prelims and Mains?
- Prelims – Data, Terms, Trends / Graphs , Schemes
- Mains – Suggestions esp. Intro and Conclusion from Economic Survey

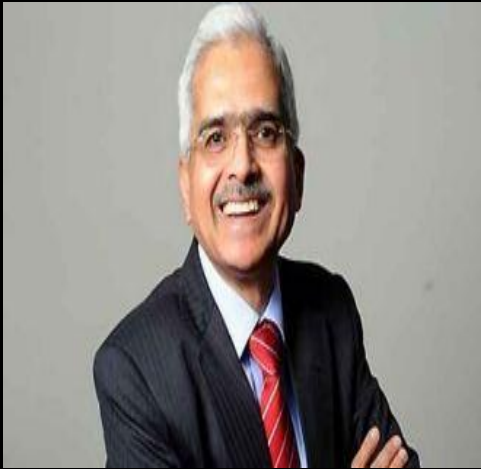
# Economic Survey

- Prepared by – DEA under **Ministry of Finance** under guidance of **Chief Economic Adviser**
- **Present CEA – Anantha Nageswaran**
- Presented on Jan 31, a day before Budget presentation

# CHAPTERS

- 1. State Of The Economy: Getting Back Into The Fast Lane
- 2. Monetary And Financial Sector Developments : The Cart And The Horse
- 3. External Sector: Getting FDI Right
- 4. Prices And Inflation : Understanding The Dynamics
- 5. Medium Term Outlook : Deregulation Drives Growth
- 6. Investment And Infrastructure : Keeping It
- 7. Industry: All About Business Reforms
- 8. Services: New Challenges For The Old War Horse
- 9. Agriculture And Food Management: Sector Of The Future
- 10. Climate And Environment: Adaptation Matters
- 11. Social Sector: Extending Reach And Driving Empowerment
- 12. Employment And Skill Development: Existential Priorities
- 13. Labour In The AI Era: Crisis Or Catalyst?

# 6 Pillars of Economy



## 1. Money, Banking and Finance

- Money
- Monetary policy
- Banking sector
- Capital market



## 2. Fiscal Policy

- Budget, Taxation
- Subsidies
- Fiscal deficit



## 3. International economics

- BoP, CAD
- IMF, WB, WTO etc
- Policies affecting India etc.

# 6 Pillars of Economy



## 4. Sectors of economy

- Agriculture
- Manufacturing
- Services



## 5. Infrastructure

- Transport
- Energy
- Communication etc.



## 6. Human Resource Development

- Health
- Education
- Skills training
- Employment etc.

# Global Political and Economic Landscape

- **Major Elections in 2024:** India, USA, Indonesia etc – lead to policy changes – decrease in global GDP
- **European Uncertainties:** **Germany** faced two consecutive years of economic contraction, with upcoming elections adding political uncertainty.
  - Europe struggles with competitiveness due to high energy costs linked to **renewable energy transitions.**
- **China's Economic Slowdown:** Post-COVID reopening did not trigger expected growth

# Challenges and Opportunities for India

- **Impact of DeGlobalization:** The global retreat from globalization affects India's export-driven sectors.
- **Demographic Advantage and Responsibility:** India's youthful population offers potential, unlike ageing Europe, but **requires job creation and skill development.**
- **Dependency on China in Critical Sectors:** India faces limitations in producing key components for sectors like **solar energy**, heavily relying on China



# CHAPTER 1

- State Of The Economy: Getting Back Into The Fast Lane

# Global Economic Scenario

- **Slowdown in global manufacturing**, especially in Europe (Germany & Austria) and parts of Asia, due to weak external demand & need for transitioning to renewable energy
- Weak demand –one reason is world over tight money policy to reduce inflation
- In contrast, the **services sector performed better.**

# Global Economic Scenario

- Ukraine War → ↑ in Energy & food price → inflation
- Israel war & Houthis → ↑ in transportation cost → inflation
- Inflation (due to after COVID boom & wars) reduced in most economies, **except for services inflation**. Rate rise for Inflation reduction led to Slowdown in GDP worldwide

# Global Economic Predictions

- Over next 5 years, yearly average Global GDP growth predicted at 3.2 %
- USA – well off
- Europe – **Manufacturing** dependent (Ger, Aus) will **suffer** while **Service** dependent countries like Britain, France, Spain **will be well off**
- China – growth a lil weakened – real estate sector issues
- Japan – as always – not growing that much

# Global Economic Scenario

- **Trade policy uncertainty** has increased sharply in recent months Due to **TRUMP**,
- **If uncertainty persists** and trade-restrictive measures continue to rise, they could increase costs and prices, deter investment, hinder innovation, and **ultimately reduce global economic growth.**

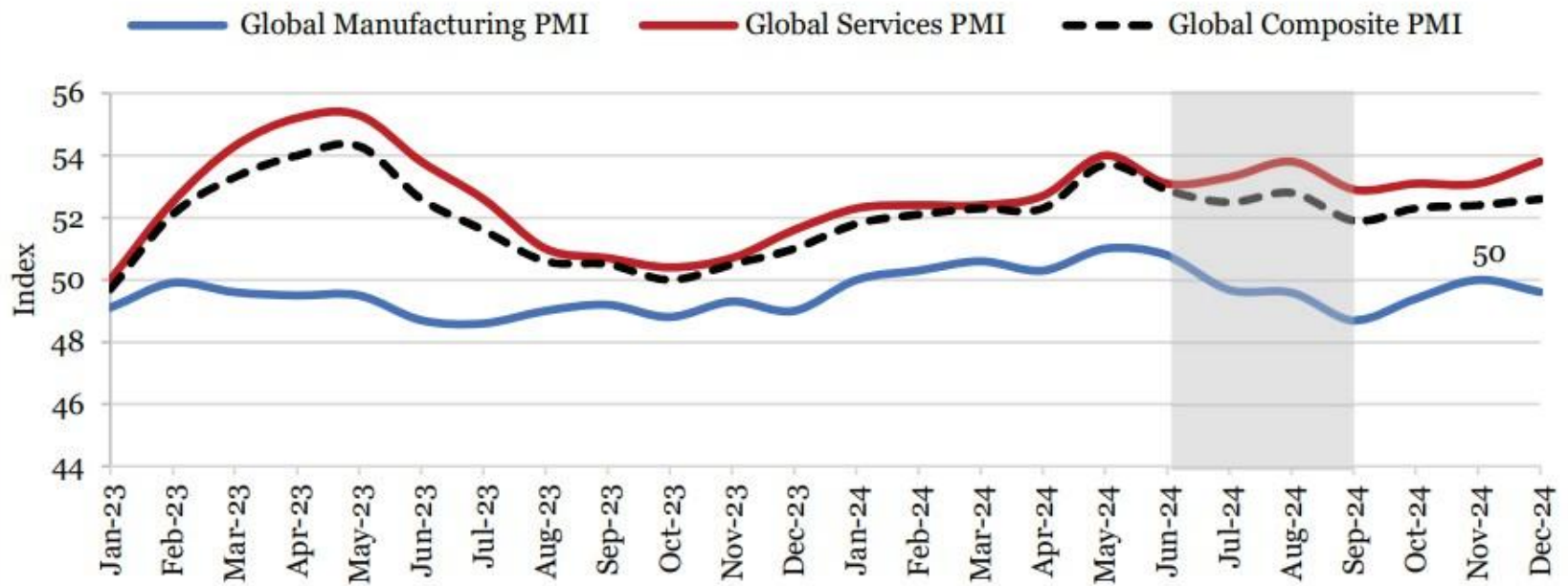
# Domestic Economy Scenario

- Domestic economy remains steady despite global uncertainties
- India's **real GDP** is estimated to grow by **6.4%** in FY25.
- On supply side, **real GVA** is also estimated to grow by **6.4%**.
- India's GDP at constant (2011-12) prices grew by 6.7% in Q1 and **5.4% in Q2 (election)**

# Domestic Economy Scenario

- Rural Demand > Urban demand → Good monsoon → bumper Kharif crop → 2, 3-wheeler & tractor sales
- Private sector investment remained less due to domestic election year, reduction in global demand & global uncertainties
- Headwinds to growth include **elevated geopolitical and trade uncertainties** and possible commodity price shocks.

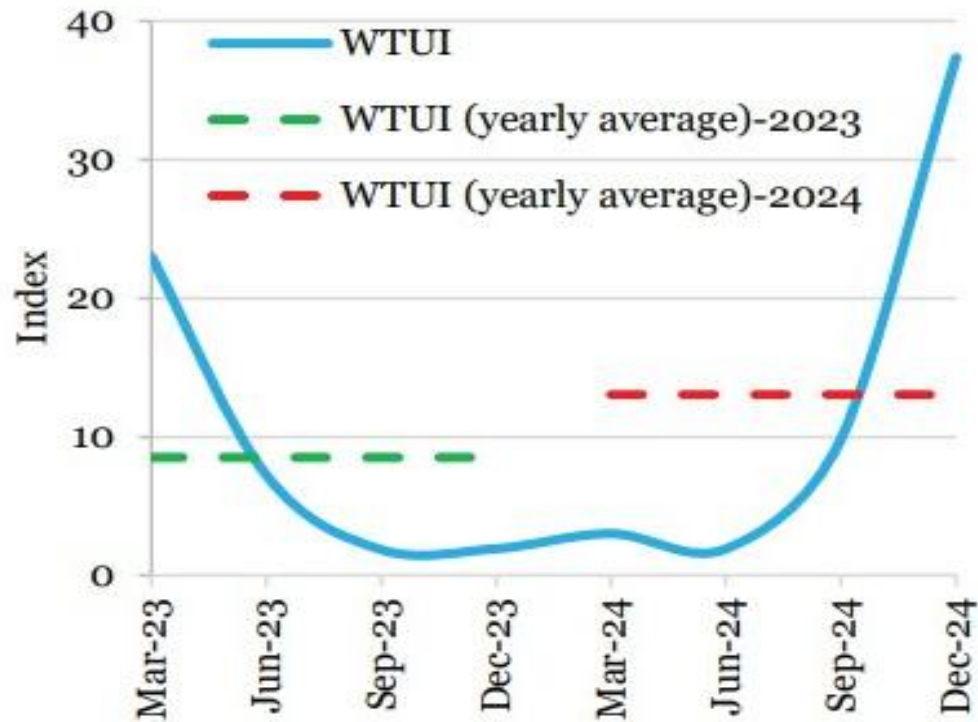
### Chart I.5: Global manufacturing stabilises in November 2024

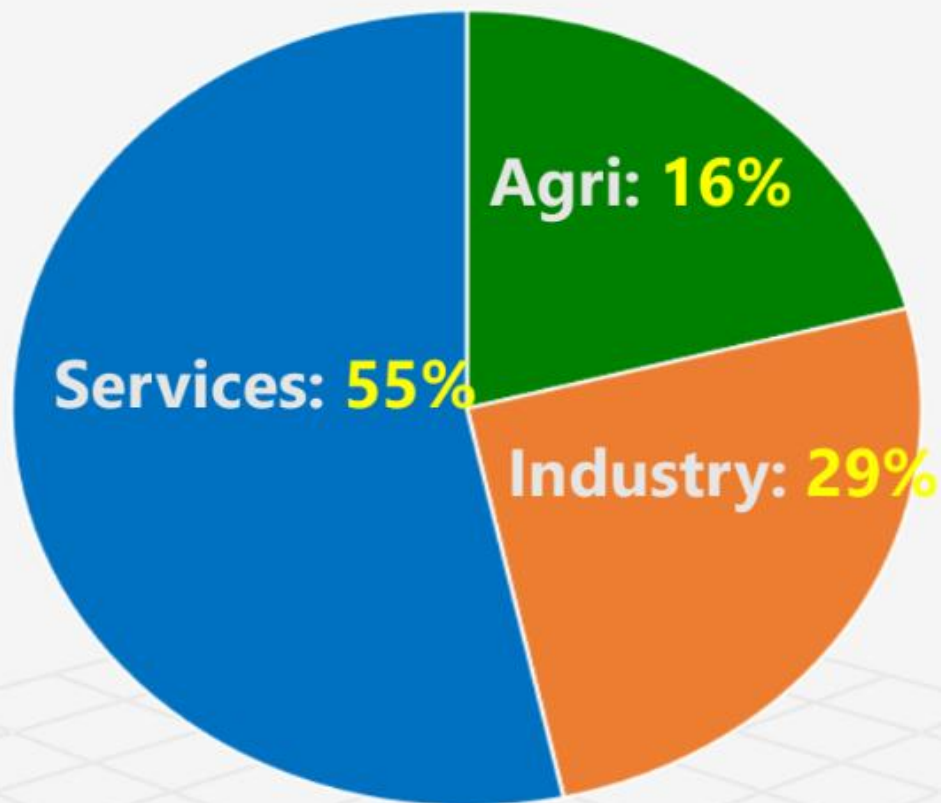


Source: Bloomberg



**Chart I.19: World Trade Uncertainty Index (WTUI) elevated in 2024**

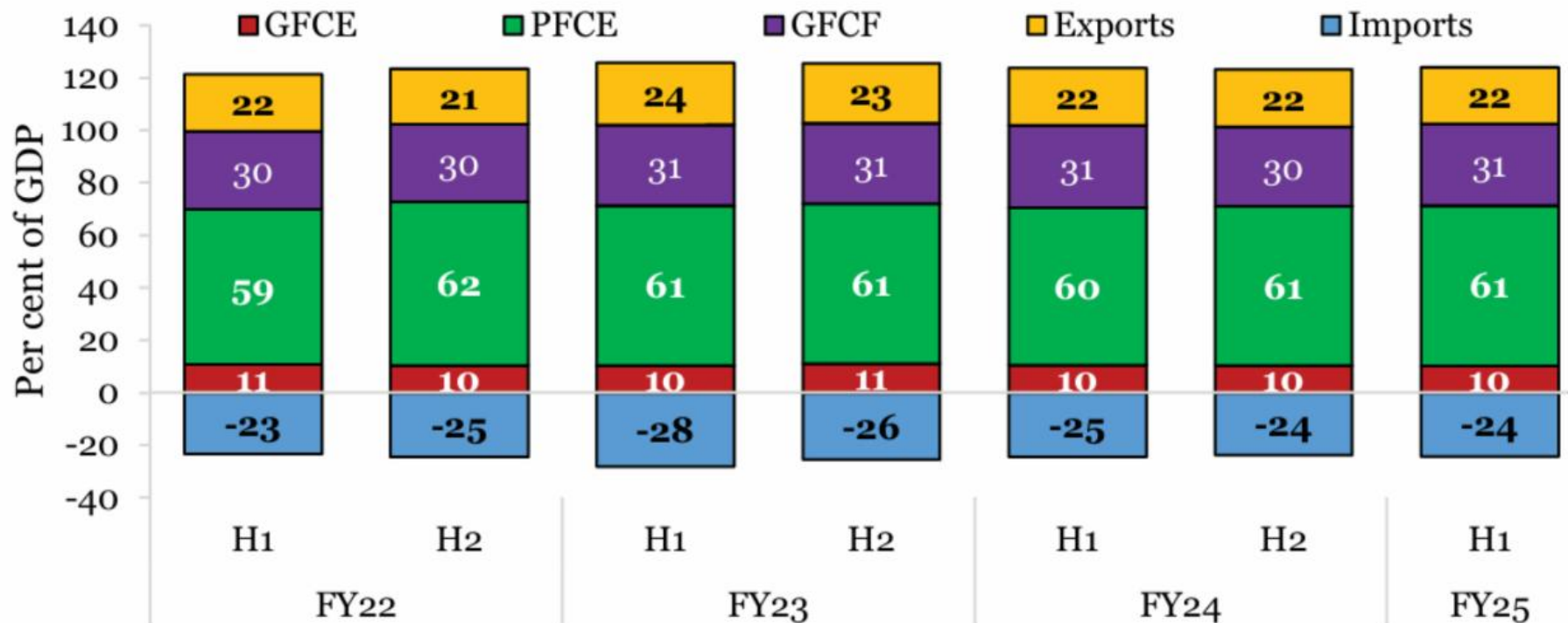




■ Agriculture and Allied Sectors ■ Industry ■ Services

$$C > I > G > (X-M)$$

**Chart I.31: Steady shares of investment and consumption in GDP  
(at current prices)**



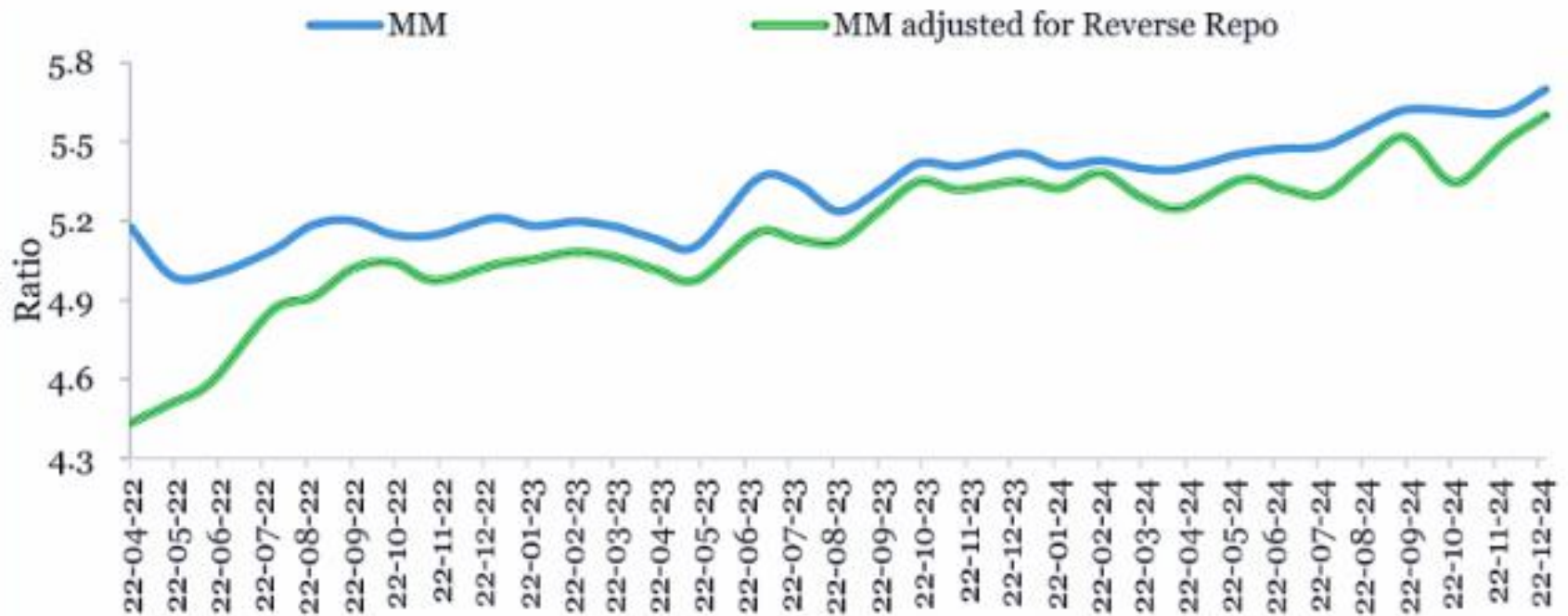
# CHAPTER 2

- Monetary And Financial Sector  
Developments : The Cart And The Horse

# Monetary Policy

- Current inflation = 3.8 %
- April – Accommodative stance
- Expected rate cut upto 5.5 by end of this year
- M0 YoY growth ↓ due to past high repo rates
- Money Multiplier - ↑ -
  1. ↓ in M0
  2. ↓ in CRR in Dec (leads to ↑ in M3)
  3. ↑ in Banking (digital India) – ↑ in M3

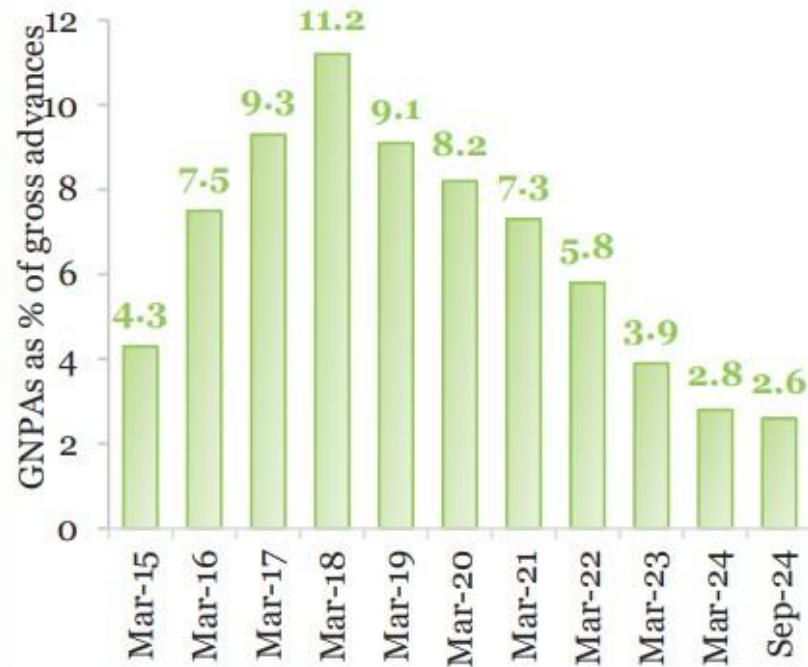
**Chart II.1: Higher Money Multiplier as of December 2024, indicating higher liquidity in the market**



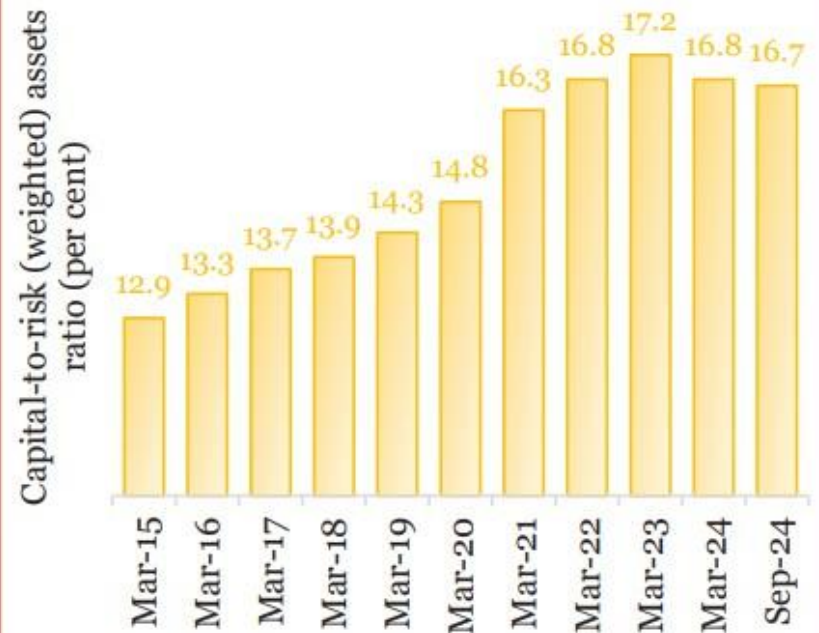
# Banking Sector

- **Gross NPA @ 12 year low** = 2.6 % (ideal = < 5 %)
- **CRAR = 16.7 %** (RBI norm = 9 %) – PC ratio ↑
- PC – Provisioning Coverage ratio = how much risk ready are we (similar to CRAR)
- **Slippages** (slip to pay back loan) ↓ - that means less new loans are becoming NPAs - Good
- Restructured Standard Advances (**RSA**) Ratio ↓ - Bad

**Chart II.3a: Decline in GNPA's of SCBs**



**Chart II.3b: CRAR well above the required norms**



Source: RBI Financial Stability report, various issues



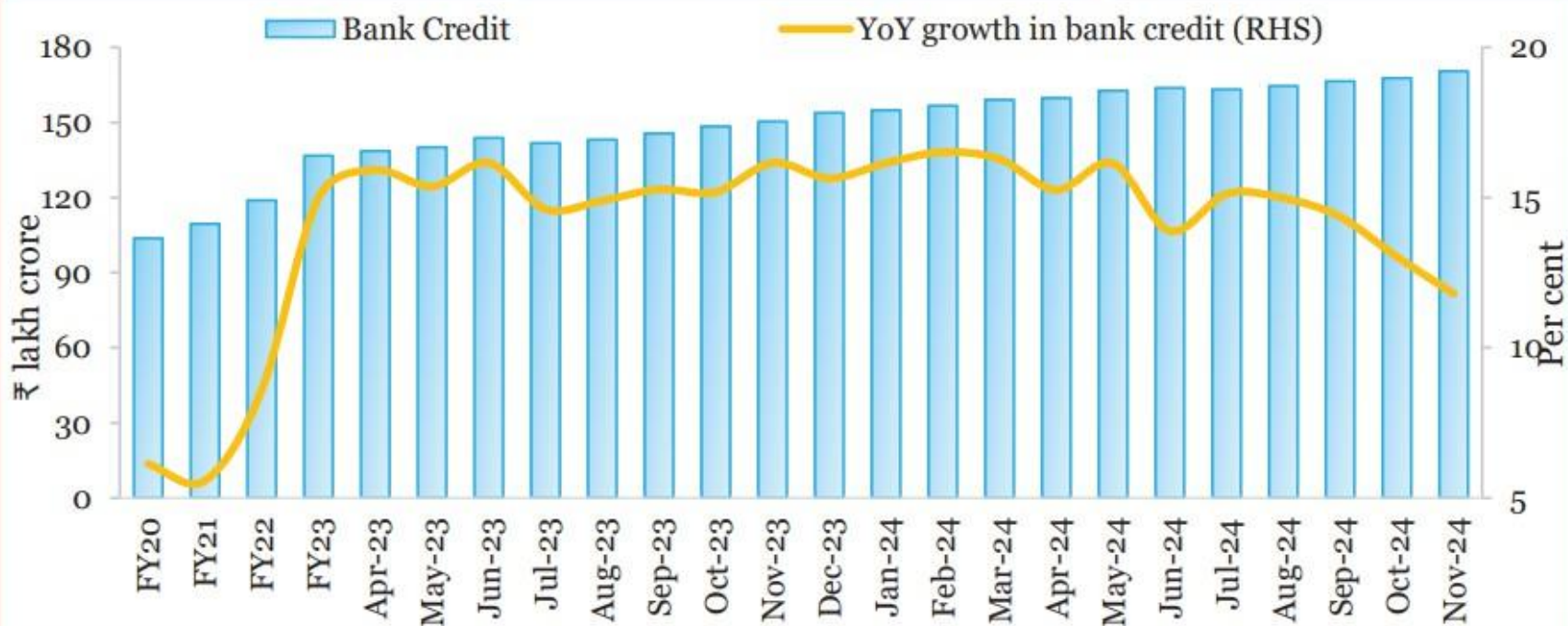
# Banking Sector

- **Bank Deposits – double digit growth** – due to digital India & Financial inclusion

Both DD & TD grew but **TD growth > DD growth**

- Bank Credit - ↑ but **YoY growth rate ↓** due to ↑ in repo & CRAR requirements for both banks & NBFCs

### Chart II.5: Trend in credit disbursement by SCBs

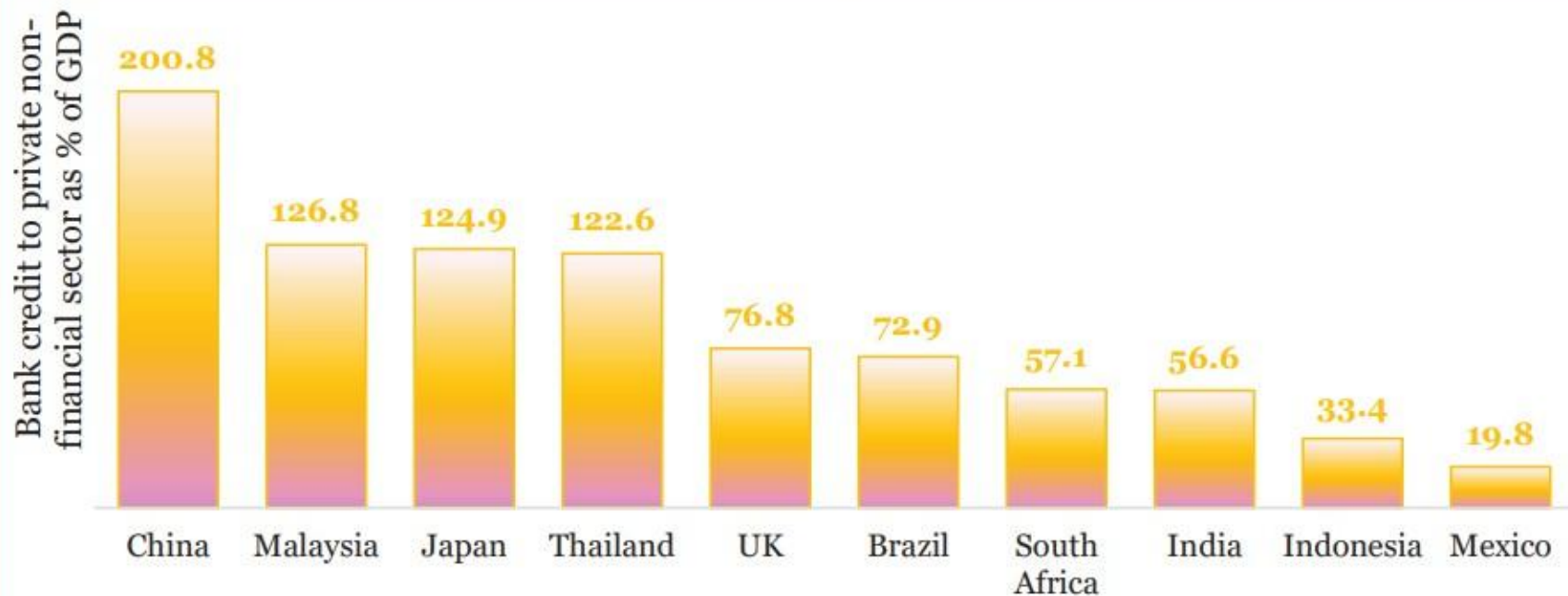


Source: RBI data on sectoral deployment of bank credit

# Banking Sector

- India – Bank credit to non financial sector businesses – only 56 % of GDP, 44 % goes to financial sector (banks, NBFCs etc)
- In China – almost 200 % of GDP goes to Non financial sector
- India – Debt market = weak
- Equity market = Strong (boom in last 5 years)
- This is opp to China

**Chart II.7: Cross-country comparison of bank credit to private non-financial sector as per cent of GDP<sup>11</sup>**



Source: Bank for International Settlements

# Financial Inclusion

- Financial Inclusion Index of RBI – We **improved** from 53.9 to **64.2%**
- RRBs have become **profitable** at present
- **Sustainable Viability Plan** – To revitalise RRBs

# AI in Banking

- Hiroshima AU Process & UK's Bletchely Declaration – responsible AI use
- **RBI 's FREE AI framework** for Financial sector–  
Framework for Responsible & Ethical  
Enablement of AI

# Outcomes of IBC code 2016

- Deadline to resolve a case is 180 + 150 grace days
- But **avg time taken is 582 days**
- IBC is for big corporates
- Similarly, MSMEs have **prepack arrangement** (arbitration possible even before going to court)

# Capital Market

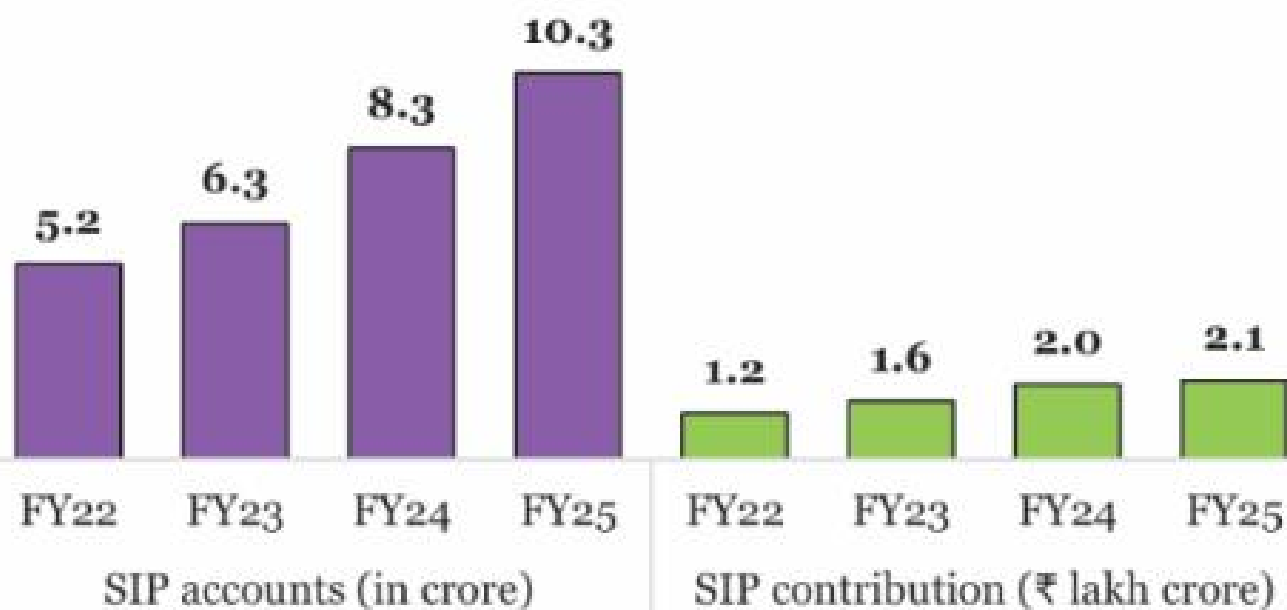
- India's share in global IPO listings surged to 30% in 2024
- **Debt market in India remains under capitalised.** As a percentage of GDP, the corporate bond market is only 18% in India but 80% in Korea, 36% in China



# Capital Market

- Indian stock market has achieved new highs, with intermittent corrections, in the midst of geopolitical uncertainties, currency depreciation
- **Deepening retail participation** in India led to decoupling of Indian market to FPI outflows / inflows

## II.8: Trends in SIP Investment



# Insurance sector

- Insurance penetration = Premium / GDP (% of GDP)
- Insurance Density = Premium / population (Rs. per person)
- Life insurance > Non life insurance due to LIC
- Insurance sector presents huge opportunities to expand by targeting tier 2 and 3 cities and rural areas where awareness and accessibility are limited,

# Pension sector

- World Economic Forum (WEF) said - for the first time in history, globally, the number of people aged 65 and over has surpassed the number of children aged five and younger
- The current young must save more and retire late to get same pensions as current pensioners
- Unified Pension Scheme (UPS) vs OPS vs NPS

# Chapter 3

- External Sector: Getting FDI Right

# Uncertainty in world

- The world is experiencing increasing political and economic uncertainty, increasing trends of geo - economic fragmentation, and recurrent climate events.
- RBI has developed a policy uncertainty index specifically for India, utilising various global indices.

# Uncertainty in world

- Disruptions in the Red Sea caused higher shipping costs and longer delivery times.
- Tensions in Hormuz strait – increases global petroleum crude costs
- Panama water level fallen due to drought
- De - Globalisation
- Friend shoring and near shoring increasing

# Unfair Tariff and NTM by US & EU

- US & EU – during their 200 years of industrial development – protected their own economy by tariffs – after developing, pushed for globalisation
- Now when we want to develop by protecting our industry – they are imposing counter tariffs & NTMs



# Non Tariff Measures (NTMs)

- Import-related NTMs are further classified as “technical” or “non-technical.”
  1. **Technical measures** comprise sanitary and phytosanitary measures (SPS), technical barriers to trade (TBT), and pre-shipment inspections.
  2. **Non-technical measures** encompass traditional trade policies like quotas, subsidies, and trade remedies, including those addressing unfair trade practices.

# CBAM

- EU & UK - Extend environment rules for imported goods too
- A form of protectionism ↓
- ↑ FDI into EU
- ↓ FDI in emerging markets

# EU Deforestation Regulation

- It requires the operators and traders to ensure that the **products** placed in the **EU market** to be **deforestation-free**
- India's exports like **coffee, leather hide and skin preparations, oil cake, paper, paperboard, and wood furniture** could be highly impacted

# TOP IMPORT AND EXPORTS OF GOODS FOR INDIA

## Top Imports

1. Crude oil
2. Electronics
3. Gold

## Top Exports

1. Petroleum Refinery Products (e.g. paint, polish, asphalt)
2. Machine Tools
3. Electronics

# TOP IMPORT AND EXPORTS OF AGRICULTURAL GOODS

## Imports

1. Oil seeds
2. Pulses

## Exports

1. Cereals
2. Marine products
3. Spices

# India's trade partners

## India EXPORTS more to

1. USA – Top export destination for India
2. UAE
3. Netherland

## India IMPORTS More from

1. China
2. Russia
3. USA
4. UAE

# Trade Surplus / Deficit With Notable Countries

**Trade Deficit (i.e. India imports more but exports less to these nations)**

We've large Trade Deficit with

- **China** (cheap electronics, toys etc.)
- **Russia (new addition)**
- **Middle Eastern nations** (esp. Iraq)

**Trade Surplus (i.e. India imports LESS but exports MORE to these nations)**

We've Trade Surplus with

- **USA** (Chemicals, textile, services etc.)
- **Netherlands**
- **Bangladesh**

# India's share

- India's share in Goods export – 1.2 %
- India's share in Service export – 4.3 %
- India's share in service exports has **more than doubled**, reaching around 4.3% in 2023 from 1.9% in 2005
- Service Exporter – we are 7<sup>th</sup> largest but in IT , we are 2<sup>nd</sup> largest after USA
- In service sector, we are lagging in financial services & shipping services

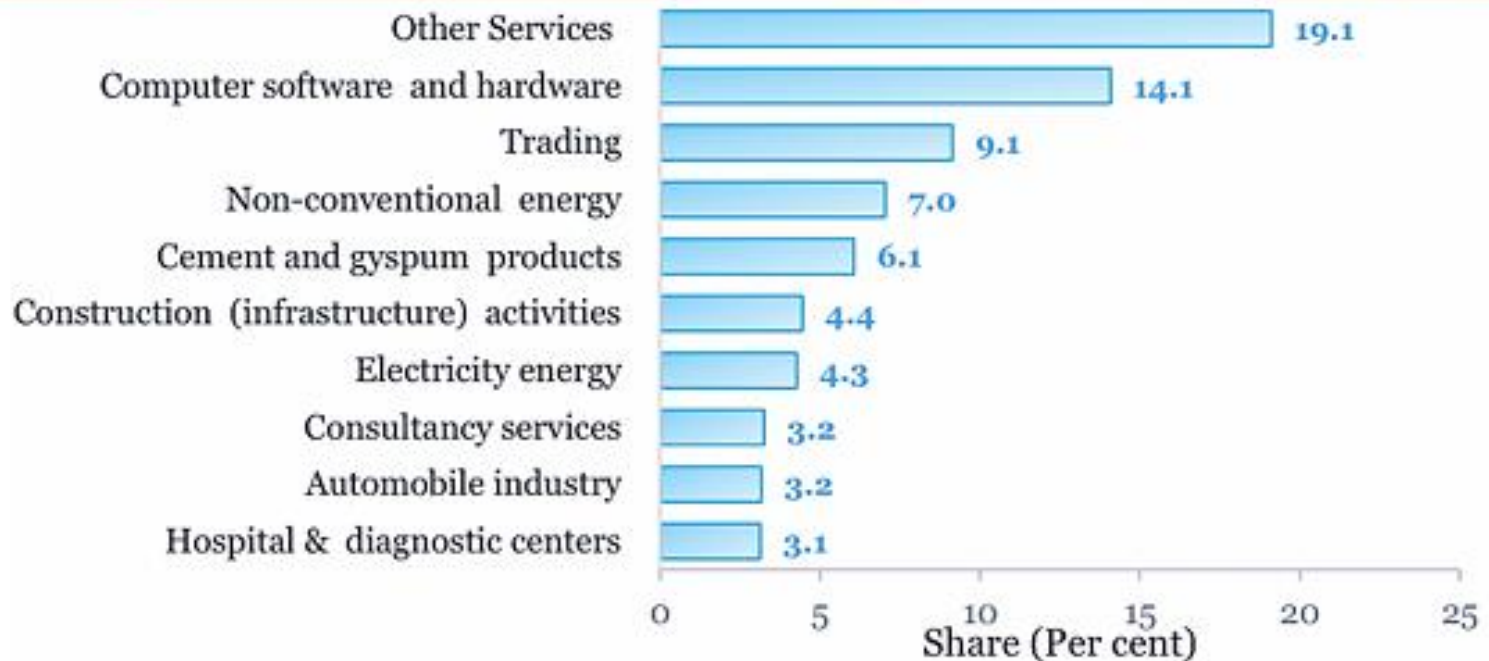


# India's position in Current Account

- Balance of Trade (Goods) = Deficit
- Balance in Invisibles = Surplus
  1. Trade in Services = Surplus
  2. Flows of Income = Deficit
  3. Transfer payments = Surplus (India is world No. 1 in Remittances)
- Overall **Current Account = Deficit** due to very high deficit in Balance of Trade (Goods)

# FDI

**Chart III.15: Sectoral trends in FDI (H1 of FY25)-share in total FDI equity inflows**



# FDI

- Gross FDI inflow  $\uparrow$  but growth in FDI inflow – low
- Repatriation (realised return on investment)  $\uparrow$   
- good news – attract future FDI

# FPI

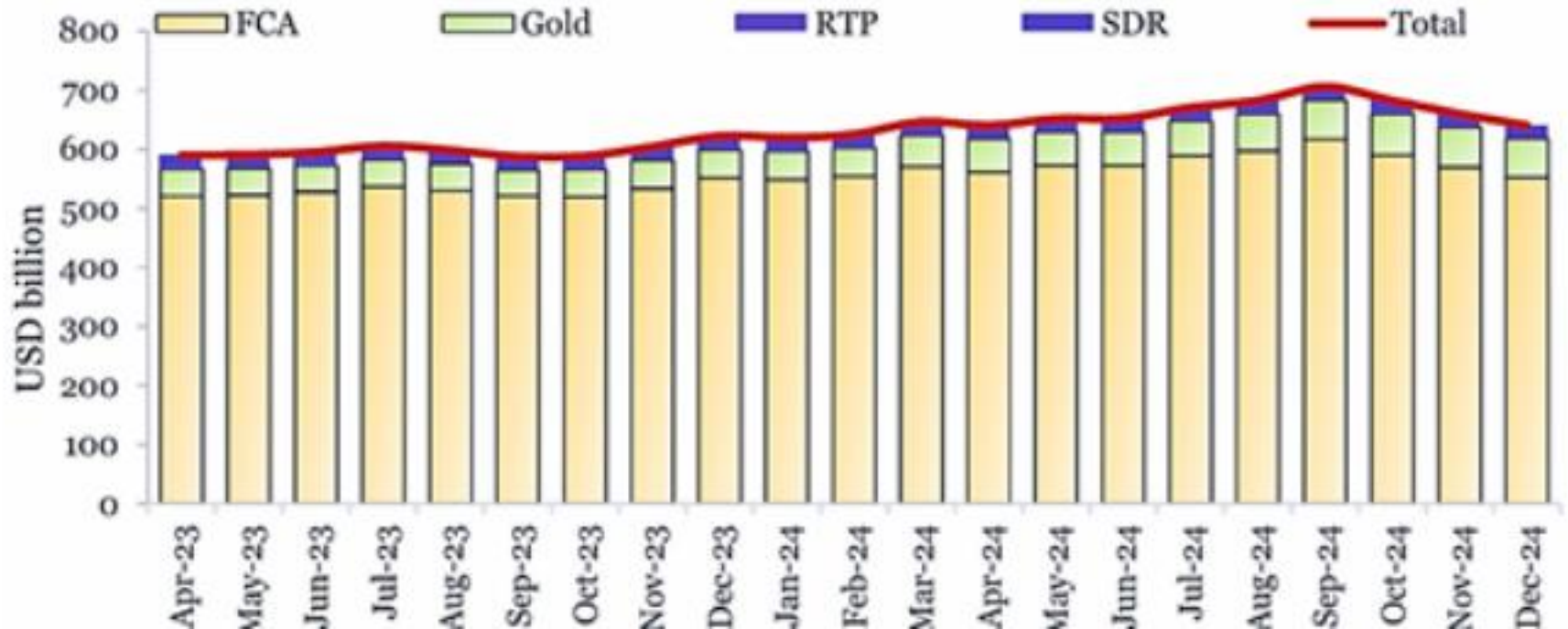
- Overall decrease – capital flight due to Trump
- But **FPI in Govt bonds** ↑ - coz of high rating by JP Morgan Emerging Bond Index
- In bond market,
  1. Govt bond market– good
  2. Corporate – not good – still relying on share market

# Forex Reserves

- 700 billion dollars to 640 billion dollars – **decreased** after Sept 2024 (FPI outflows)
- Enough for *import cover of 10.9 months* (ideal – 9 months)
- India has secured **4th** position in Forex, following China, Japan, and Switzerland

# Forex Reserves

Chart III.19: Movements in foreign exchange reserves



# Exchange Rate

- REER –  $\uparrow$  - Actual strength of currency after inflation adjustment
- NEER -  $\downarrow$  - due to Dollar strengthening not due to Rupee weakening
- External Debt – dominated in Dollar > Rupee > SDR

# CHAPTER 4

- Prices And Inflation : Understanding The Dynamics



# Global – inflation, policy rate & GDP growth

Chart IV.1a: Headline inflation eases across countries

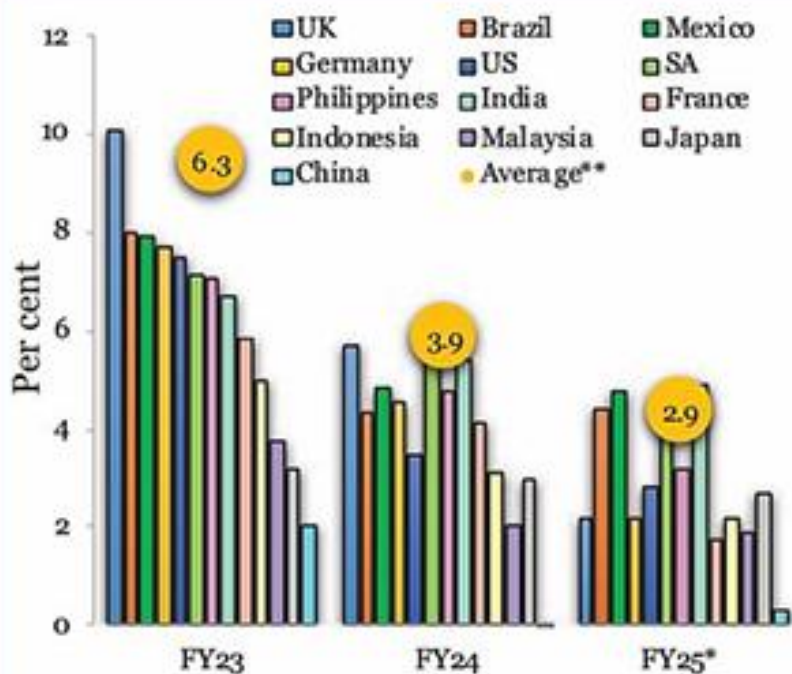
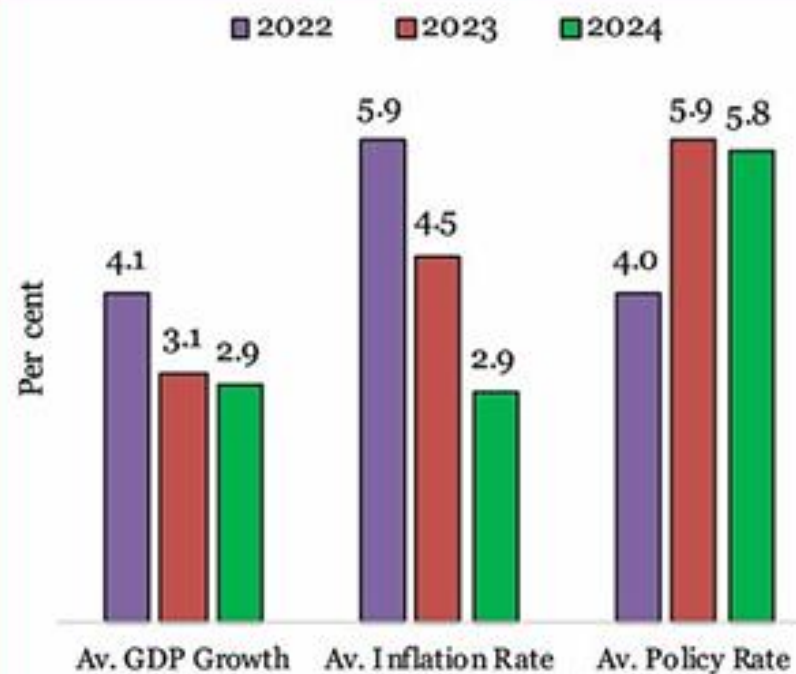
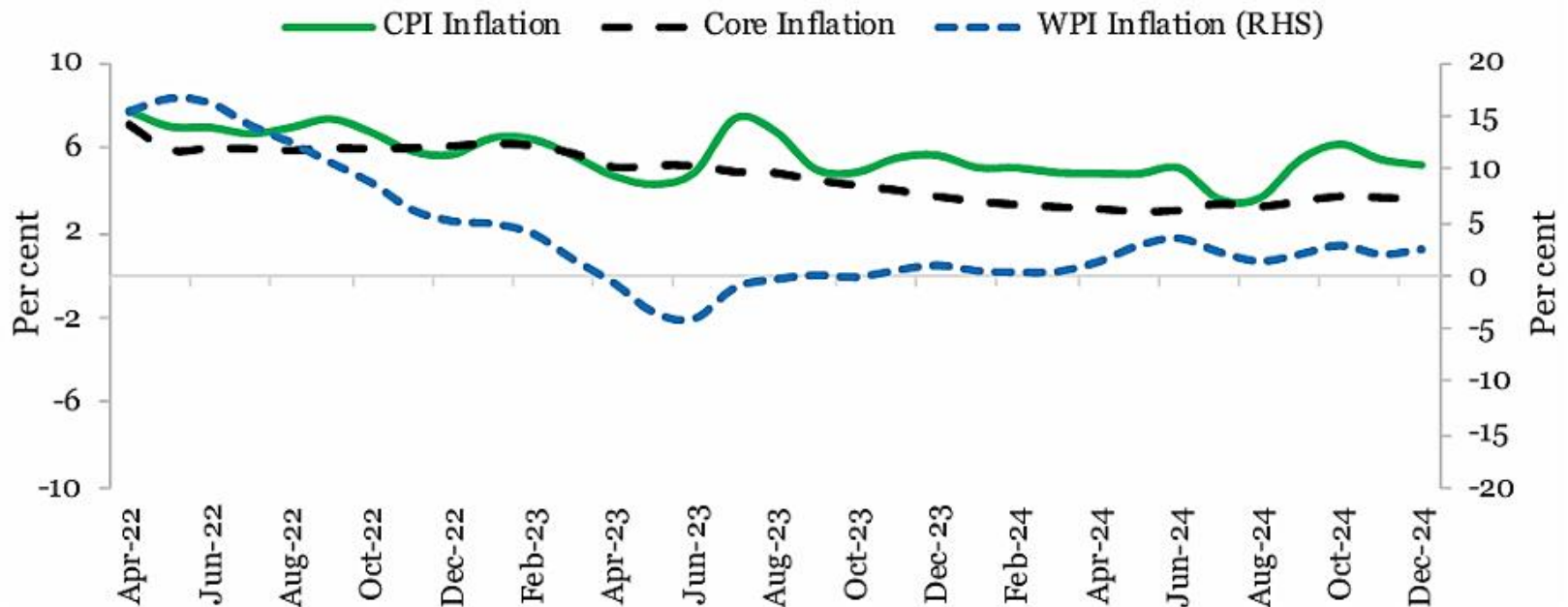


Chart IV.1b: Monetary targeting lowered inflation and stabilised output globally

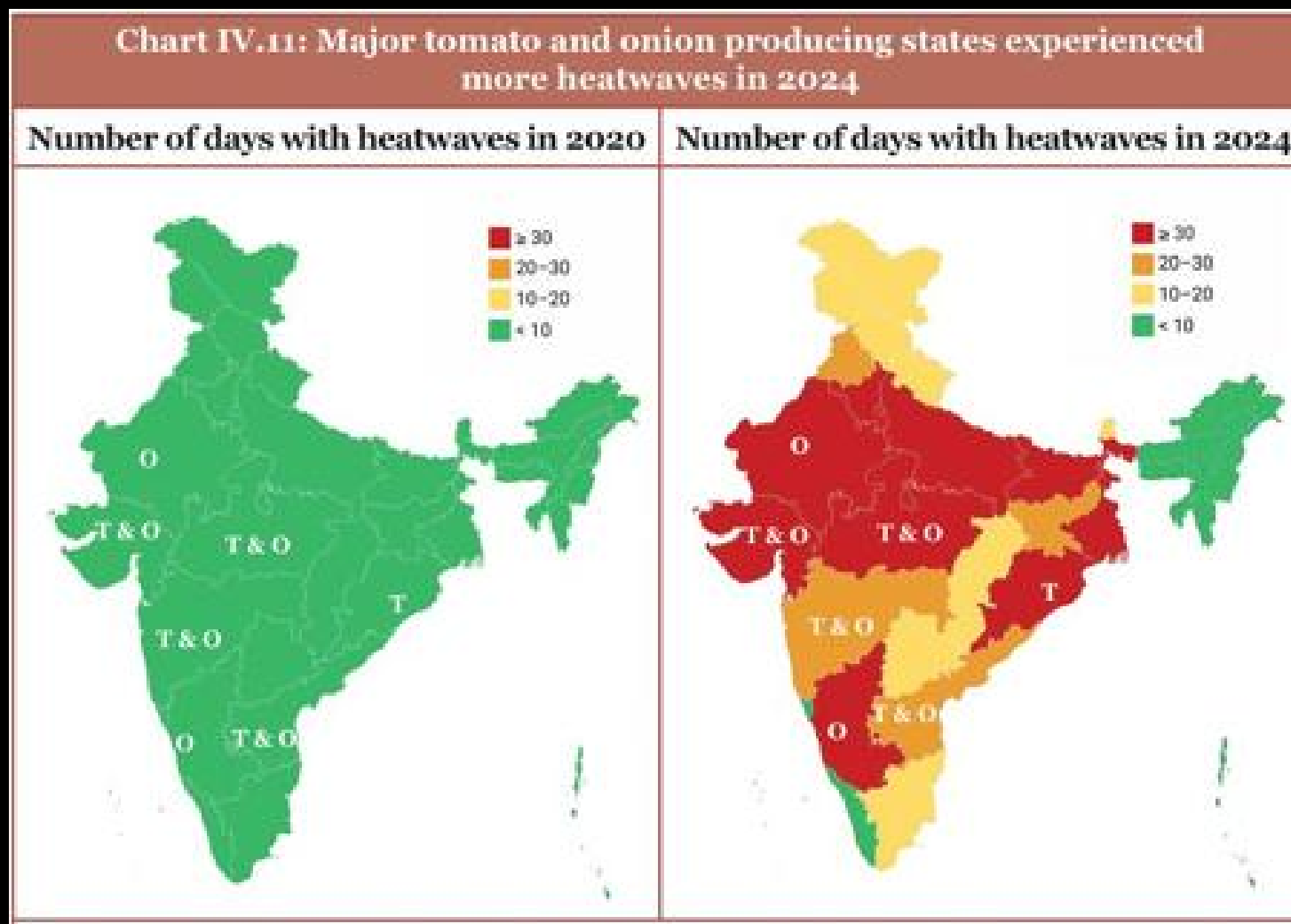


# India – Inflation under control

Chart IV.4: Headline and core inflation under control

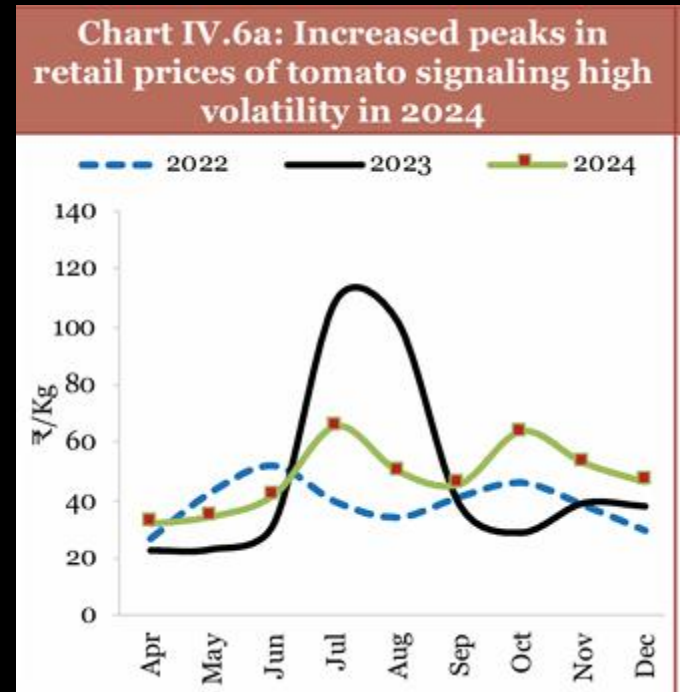


# Food inflation – driver of CPI in India esp Onion, Tomato & Pulses



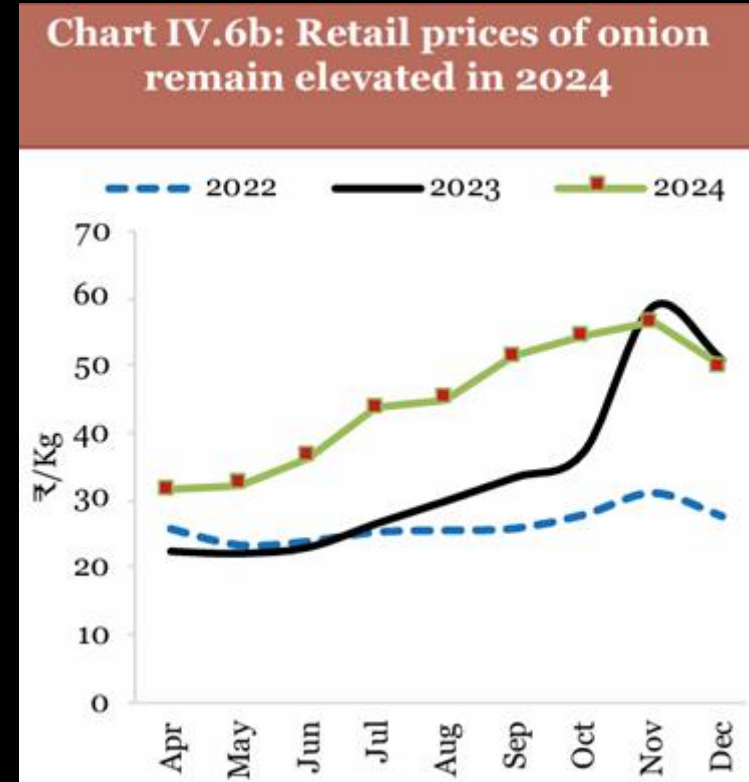
# TOMATO

- Tomatoes - highly perishable
- Production – well spread in all regions with south domination
- Fresh tomatoes - shelf life of only about **1-2 weeks**
- more than 65% - grown in the Rabi season
- tomato prices typically rise from July to September
- 50% of global production happen in India & China – so low options to import



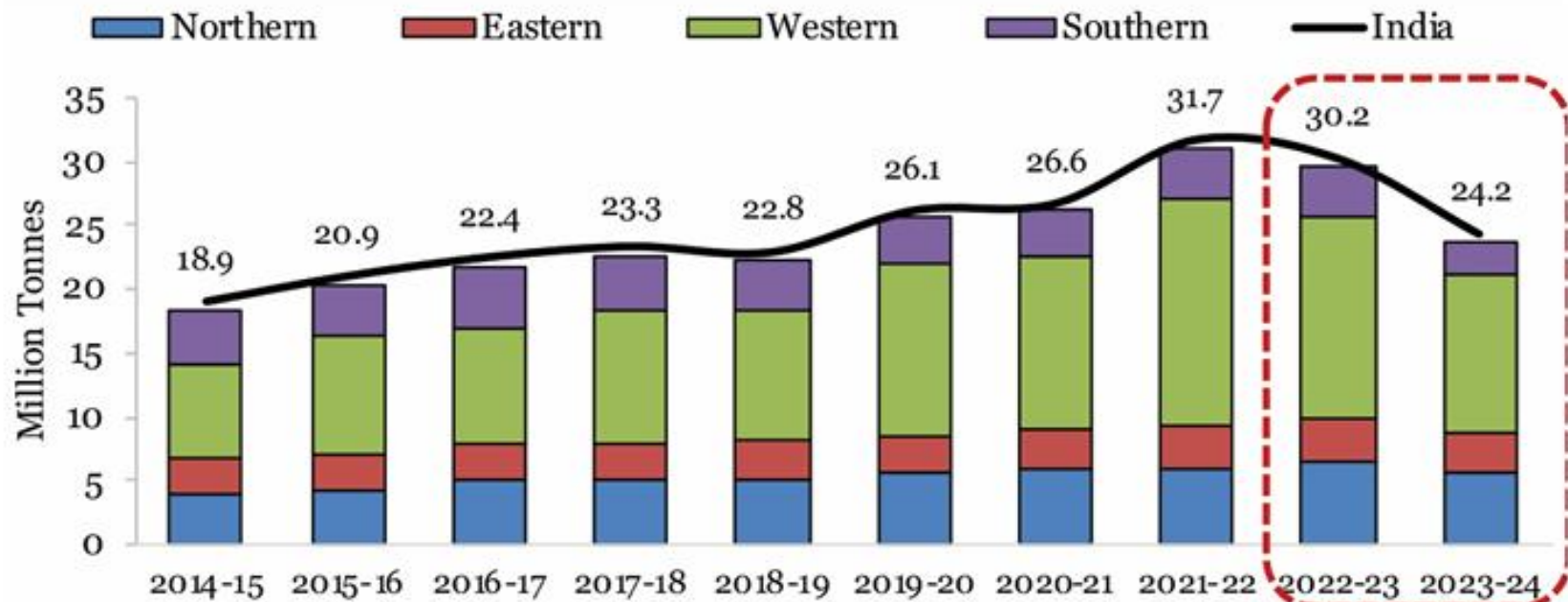
# ONION

- Onions are grown in both the Kharif and Rabi seasons,
- 70% of production - Rabi season.
- Fresh onions generally last about 2-3 months when with their shelf life further extendable if stored properly
- Onion prices tend to increase from October to December



# ONION

Chart IV.12: Trends in onion production across regions



# TUR DAL

- Tur dal – kharif crop – harvested in Nov – Jan
- 1-year lagged production, indicating that lower production in one year typically results in higher inflation in the following year.
- To ensure that the produced quantity reaches the market and to **prevent stockpiling**, the government is taking proactive measures by periodically **imposing stock limits for tur**, and
- Further, to meet the demand for tur, the country **imported tur** mainly from Mozambique, Tanzania, Malawi, and Myanmar

# CHAPTER 9

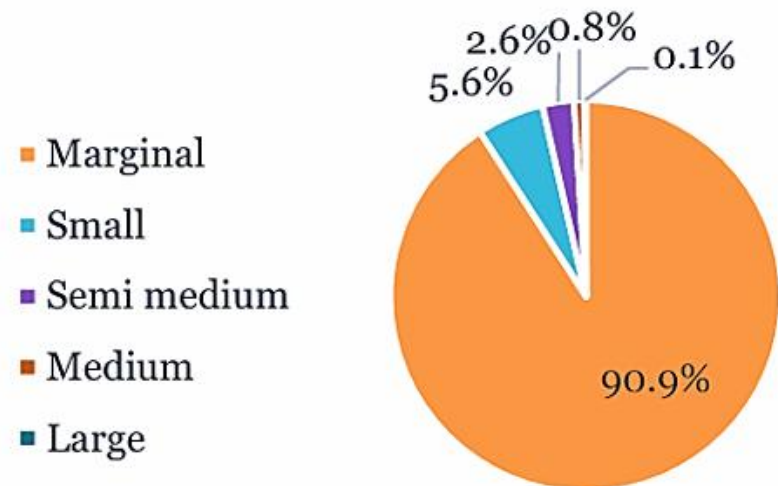
- Agriculture And Food Management: Sector Of The Future



# Almost more than 96 % - small & medium farmers

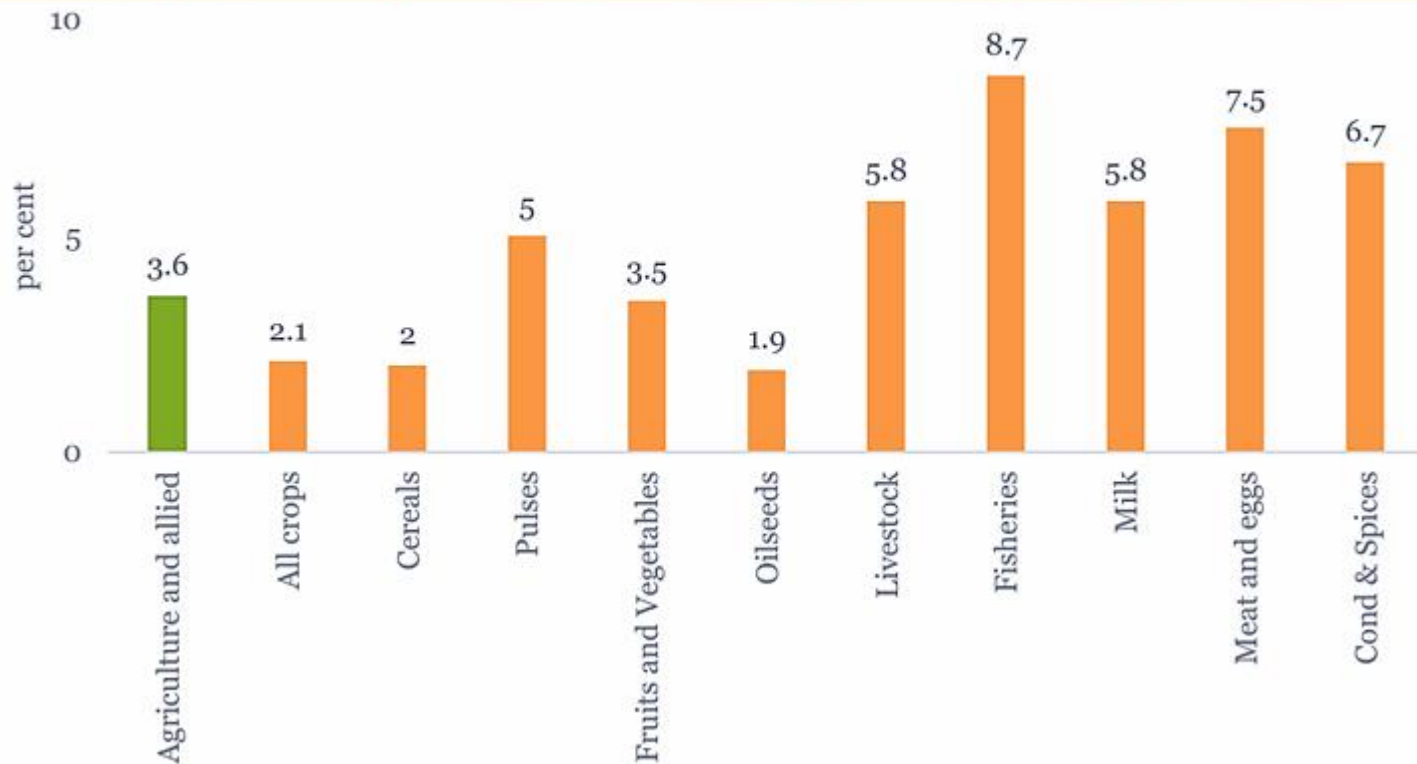
- 16% of the country's GDP
- 46.1% of the population.
- crop yields - lower compared to leading producers

Chart: IX.3 Distribution of operational landholdings under floriculture



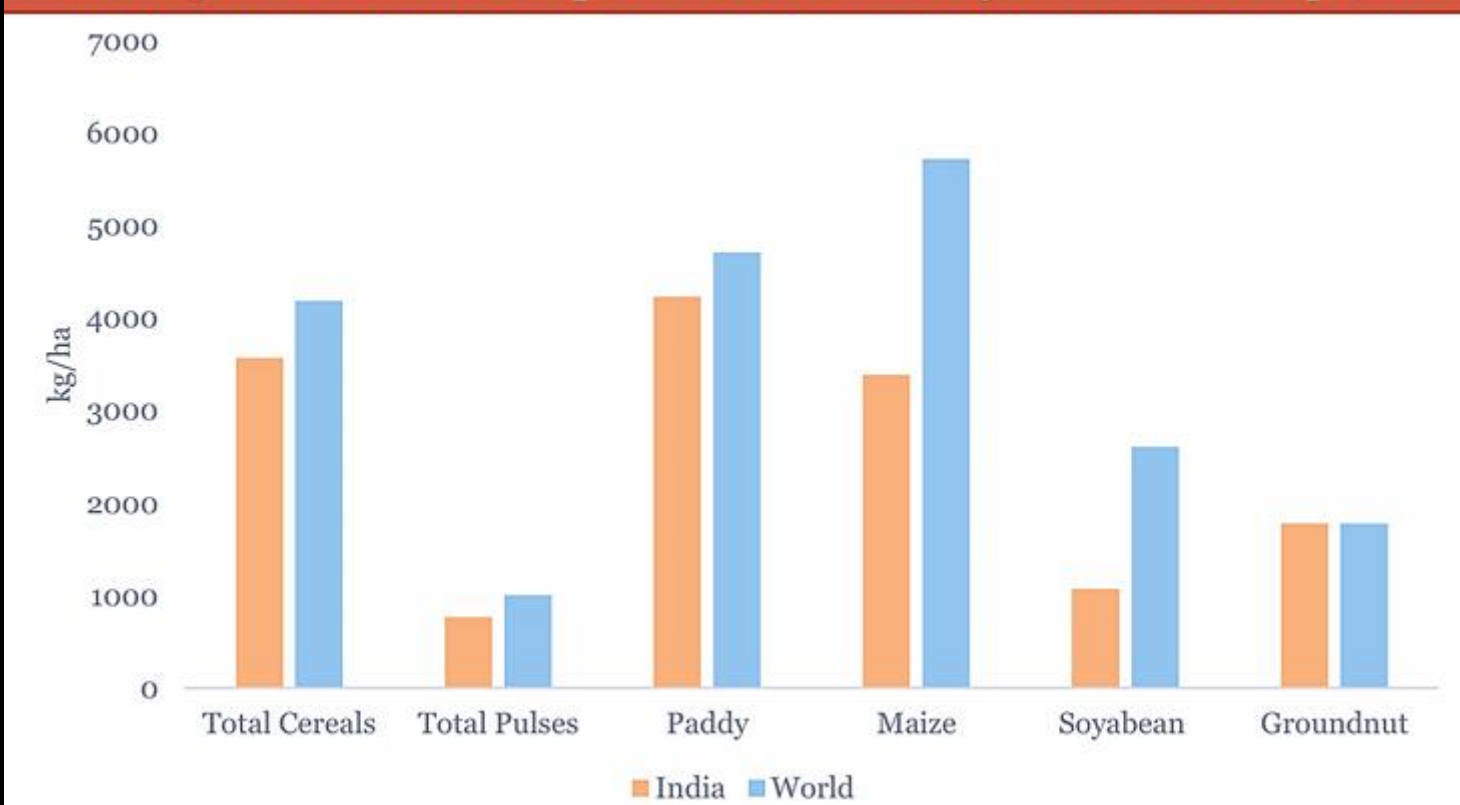
# CAGR

**Chart IX.2: Compound Annual Growth Rate (CAGR) in Value of Output from Agriculture and Allied Sectors: 2011-12 to 2021-22**



# India – lower productivity

Chart IX.5: International Comparison of Productivity for Selected Crops, 2022



# MSP

- The government has raised the MSP for **nutri cereals (Shree Anna), pulses, and oilseeds**
- MSP for arhar and bajra has been increased by 59% and 77% over the weighted average cost of production
- MSP for Masoor has risen by 89%, while rapeseed increase of 98%

# Seed quality & Fertilizer

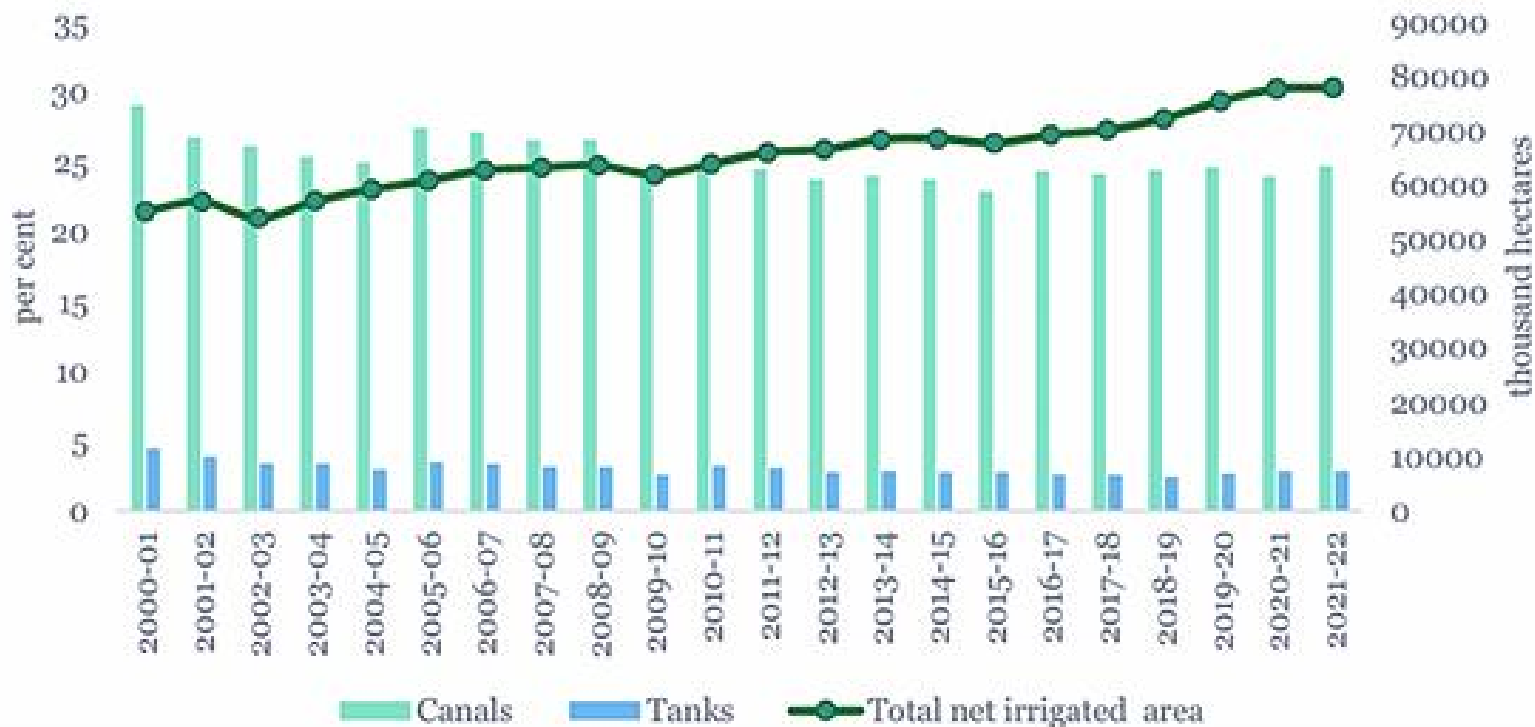
- Climate resilient seeds produced
- Urea Gold
- Nano Urea
- Nano DAP
- Drone didi for fertigation
- PM PRANAM

# Irrigation

- **55%** of the net sown area receiving irrigation
- 45 % - Rainfed
- Two thirds of India's agricultural land - threat of drought
- Punjab(98%), Haryana (94%), Uttar Pradesh (84%), and Telangana (86%) exhibit high irrigation coverage
- Jharkhand and Assam irrigation coverage - below 20%,

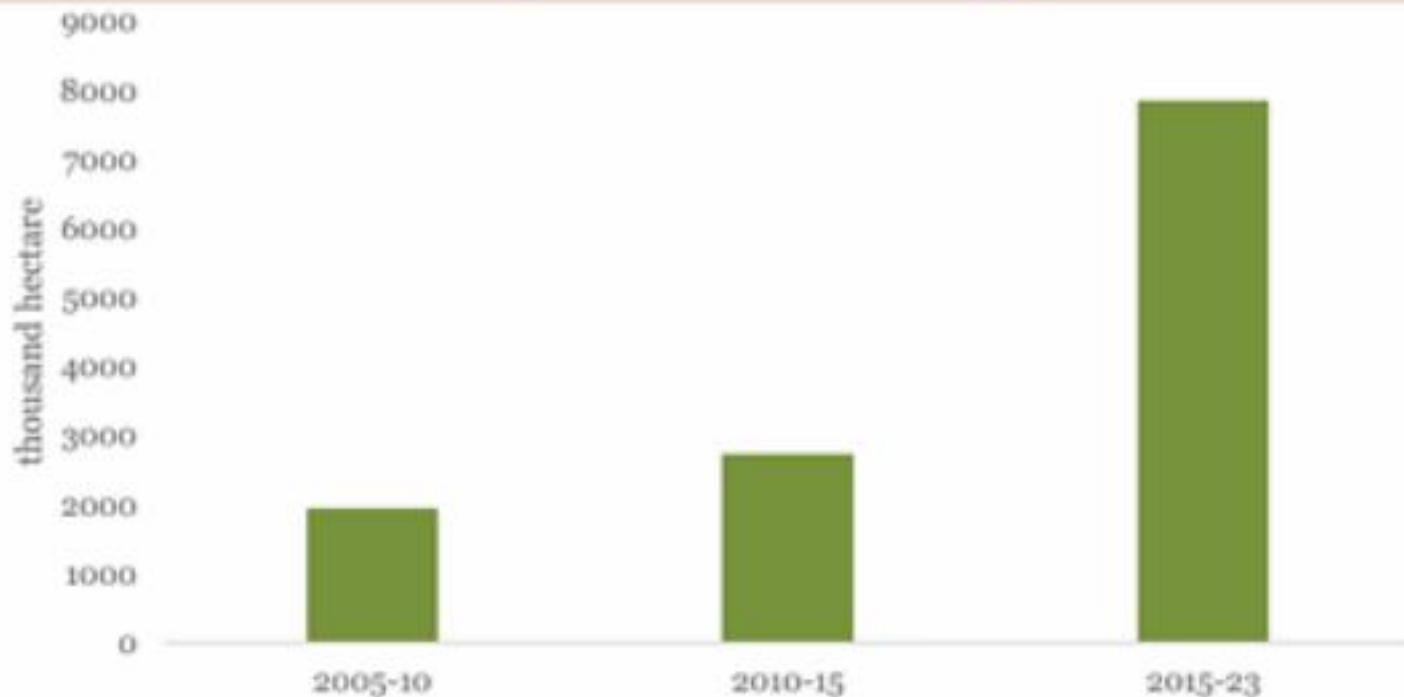
# Canal irrigation leads the way

Chart IX.8: Sources of irrigation



# Micro irrigation (Krishi Sinchayi Yojana)

Chart IX.13: Area Under Micro-irrigation





# Agricultural Credit

- Kisan Credit Card (KCC) – collateral free loans to farmers to meet their short-term working
- Modified Interest Subvention Scheme (MISS)- (7% → 3%)
- For faster processing of MISS – Kisan Rinn portal
- Crop Insurance - PMFBY

# Other schemes

- E – NAM
- National Mission on Sustainable Agriculture
- **Paramparagat Krishi Vikas Yojana (PKVY)** and the Mission Organic Value Chain Development for North Eastern Region (MOVCDNER) – for organic farming
- **Bhartiya Prakratik Krishi Paddhati (BPKP)** – natural farming

# Allied Sector

- Animal husbandry
- Fishery
- Forestry

# Animal husbandry

- **Rashtriya Gokul Mission** for the development and conservation of indigenous bovine breeds, promotion of IVF technology and sex-sorted semen production, increase the productivity of female cows and encourage the formation of FPOs and SHGs
- **Multipurpose AI Technicians in Rural India (MAITRIs)** – like ASHAs – for artificial insemination

# Fisheries

- Pradhan Mantri Matsya Sampada Yojana (PMMSY) - to boost aquaculture productivity and improve fisheries management

# Cooperatives

- **Computerisation** of PACS to enhance efficiency and transparency.
- Agri storage warehouse attached to PACs
- New multipurpose PACS - dedicated to dairy and fishery cooperatives,
- PACS into Common Service Centres (CSCs),

# Food Security

- National Food Security Act (NFSA) 2013 and the Pradhan Mantri Garib Kalyan Anna Yojana
- Aadhaar biometrics at any Fair Price Shop (FPS)
- **Credit Guarantee** Scheme for electronic-negotiable warehouse receipt (e-NWR)

# Chapter 7

- Industry: All About Business Reforms



# Industry

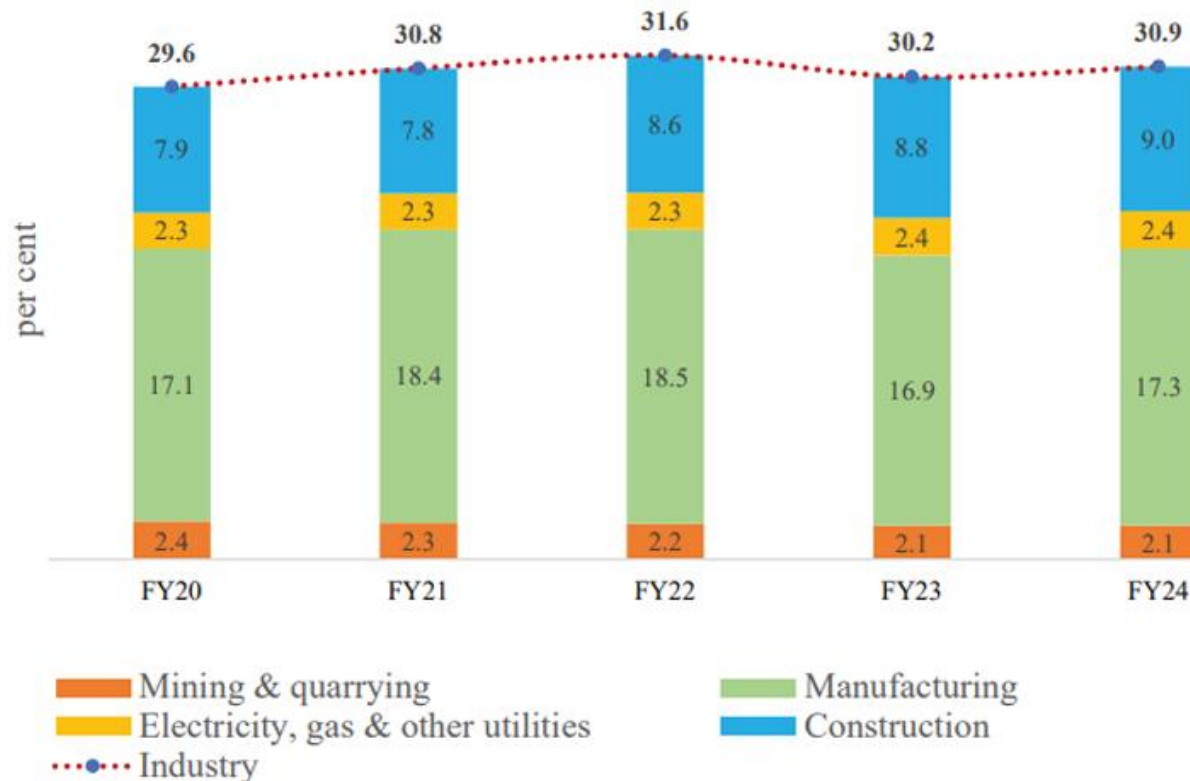
- Global share of India in Manufacturing = 2.8%
- China = 28.8%

## Challenges in Manufacturing sector

- Global consumption shift is happening from manufactured goods to services
- political instability
- move towards renewables,
- increased logistics costs and
- regional conflicts.

# Manufacturing – highest share in Industry

**Chart X.1: Share of industry and its Components in total GVA (in constant prices)**



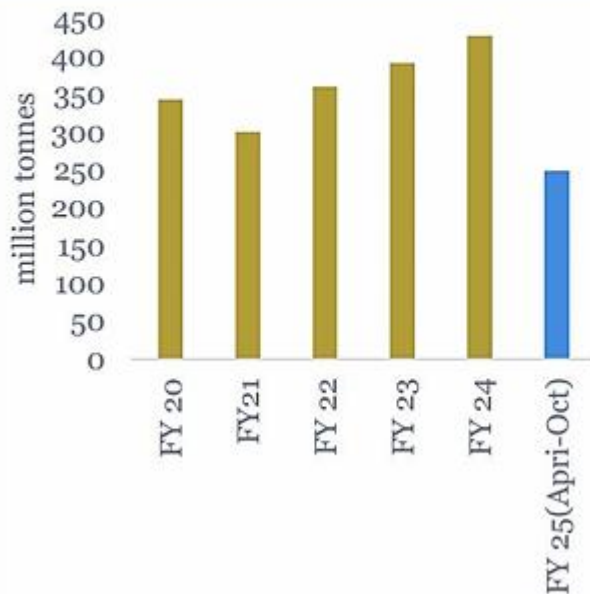
# Cement

- India is the **second largest cement producer** in the world after China.
- **Rajasthan – largest producer**
- **Region wise – South India**
- Domestic cement consumption = **290 kg per capita**
- Per capita global consumption = **540 kilograms per capita.**
- Polluting industry
- Construction industry – 2 pillars = Cement & Steel

# Cement

Chart VII.4 (a & b) : Near self-reliance in cement production

## Production of cement

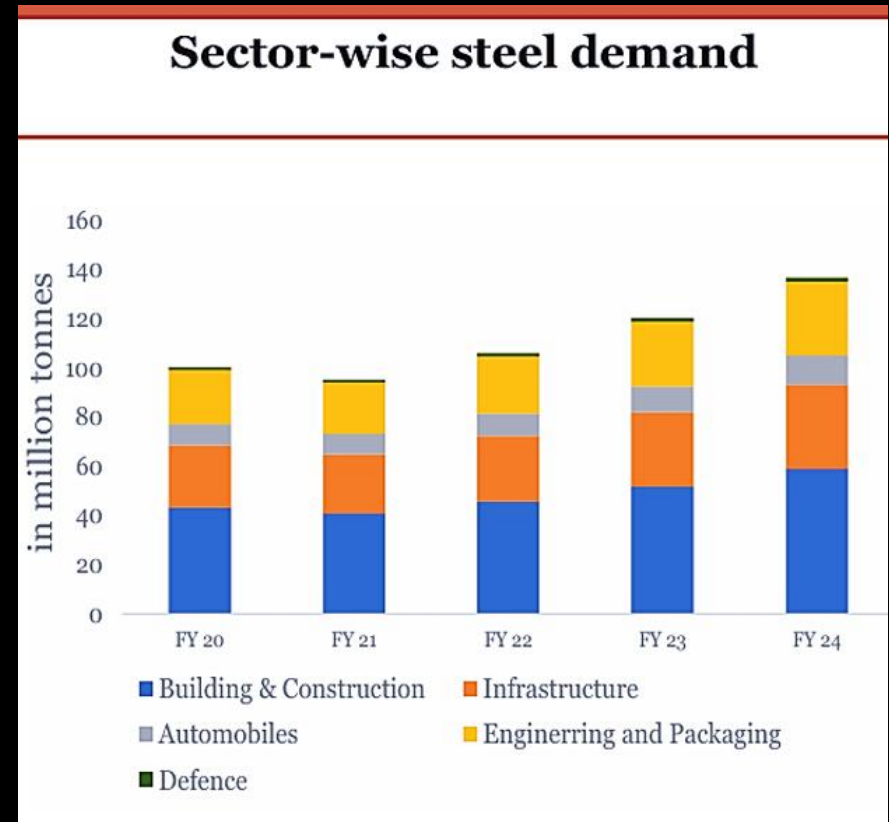


## Installed capacity in each of the geographic regions<sup>8</sup>



# Steel

- 2<sup>nd</sup> largest producer after China
- Still **NET IMPORTER**
- Emphasis on Green steel which includes scrap steel & renewable steel
- Steel Scrap Recycling Policy



# Coal

- 55% of India's primary commercial energy
- 70% of the total power generation.
- **Pvt sector participation – increased production**
- **Importer of coke & anthracite**

# Chemical & Petrochemical

- NET Importer

# Capital goods

- India – import dependent
- **SAMARTH** Udyog centres - (Smart Advanced Manufacturing and Rapid Transformation Hub)– handholding for MSMEs – **to adopt to 4<sup>th</sup> Industrial Revolution** (AI, robotics, IoT, 3D printing etc)



# Automobile

- Sale of Passenger vehicles (cars) quickly recovered after COVID
- Recovery period for two-wheelers, three-wheelers, and commercial vehicles is taking longer
- **FAME scheme** – Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India
- FAME 1 – for 2 wheelers
- FAME 2 – all others

# Electronics

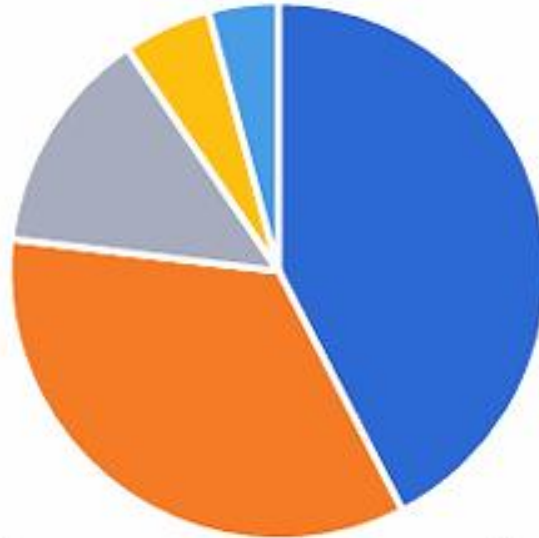
- Surpassed gold in imports
- China dependent
- 99 % smart phones assembled in India
- Chips – PLI , DLI

# Textiles

- **major employment generator** and it accounts for about 11% of India's manufacturing GVA.
- Traditionally focused on readymade garments & cotton textiles
- Major issue – Supply chain is fragmented
- **PM MITRA – to create textile parks – all at one place**
- Need to focus on manmade fibre (MMF) & technical textiles
- **India's technical textile industry is rapidly growing, ranking fifth globally.**
- **5F framework**

# Textiles

## Share of components in India's textile exports in FY24



- Readymade garments
- Cotton textiles
- Man-Made Textiles
- Handicrafts
- Carpets

# Pharmaceuticals

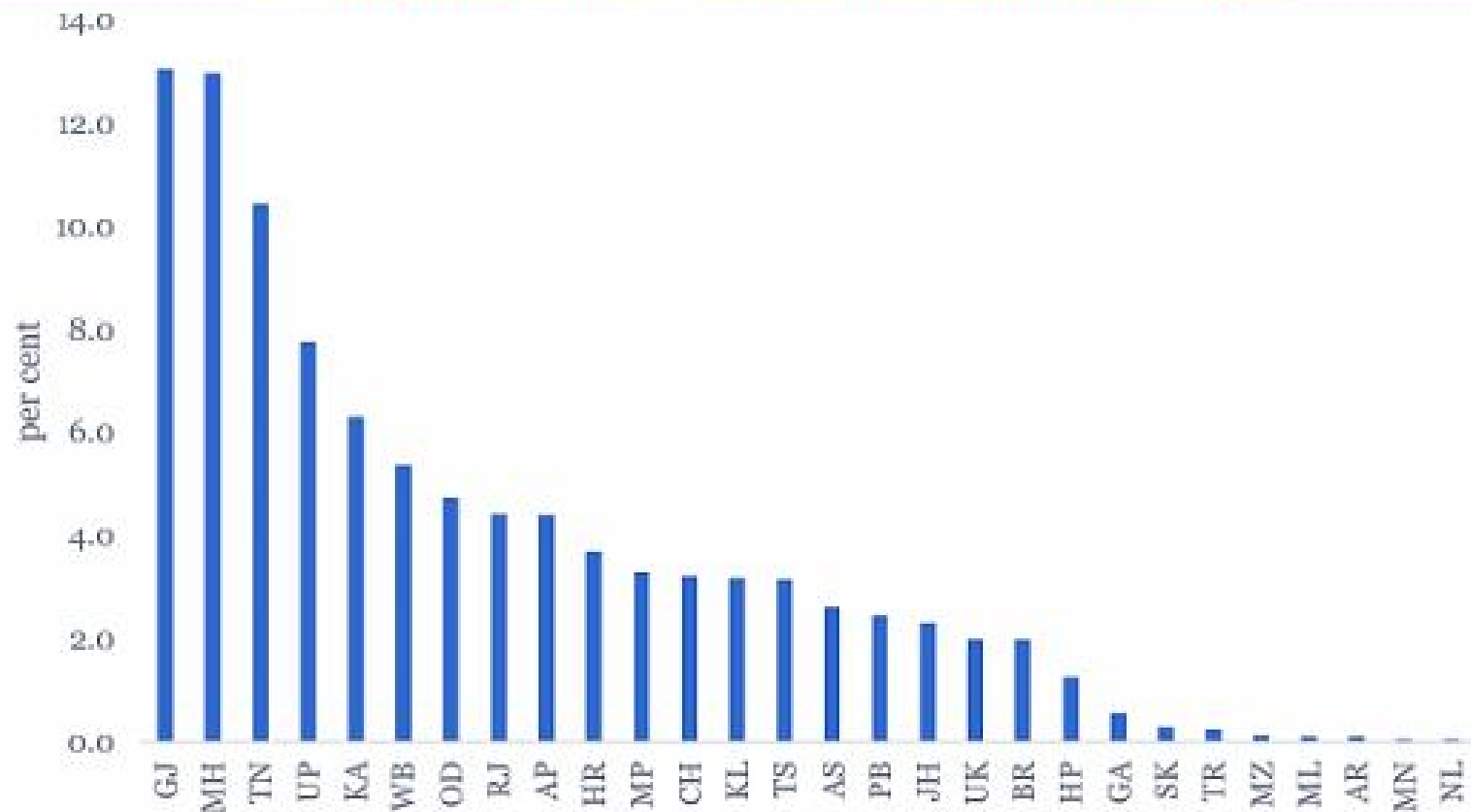
- 3<sup>rd</sup> largest by volume
- 14<sup>th</sup> largest by value
- Heavily China dependent for API
- Ethylene glycol & Diethylene glycol for storage
  - global deaths – Questions on Quality arise

# MSME

- UDYAM registration portal
- **Credit Guarantee** for MSME loans
- Samadhan & CHAMPIONS portal – Dispute resolution
- **TReDS (Trade Receivables e – Discount System)** – can take loan against trade receivables (similar to e- NWR for farmers)
- TReDS – regulated by RBI

# State wise patterns in Industrial Production

Chart VII.16 : State share in total industrial GSDP



# State wise patterns in Industrial Production

- Four states— Gujarat and Maharashtra, Karnataka and Tamil Nadu - account for about 43% of the total industrial GVA
- Six states of the Northeast (excluding Sikkim and Assam) - only 0.7% of the industrial GVA
- TN – rank 1 in number of factories per person, second Gujarat



# State's EoDB / BRAP

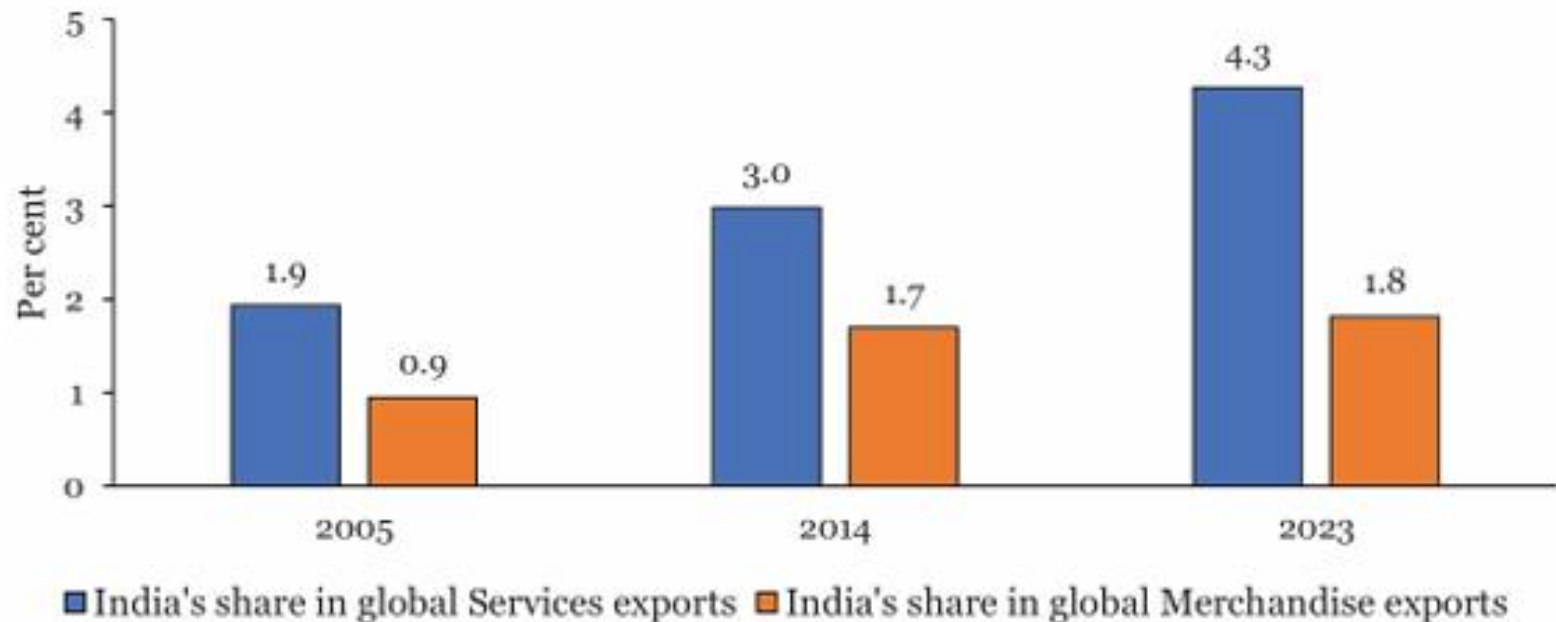
- **Business Reform Action Plan (BRAP)** by **Min of Commerce & Industry** aims to assess the ease of doing business across states.
- states are ranked into 4 groups i.e., **top achievers, achievers, aspirers and emerging** business eco-systems.
- It shows a **positive correlation** between business reforms and the improvement in EoDB, suggesting the **need for deregulation and enterprise-friendly reforms**
- **Country wise EoDB – World Bank**

# CHAPTER 8

- Services: New Challenges For The Old War Horse

# India – leads in service sector

Chart VIII.2: India's share in global services and merchandise exports



# Service sector

- Service sector inflation – remained high due to increase in wages after Covid
- India – 7<sup>th</sup> largest Service exporter, USA – 1<sup>st</sup>
- 55 % to GDP contribution
- But only 30 % employment – Jobless growth of India

# Railway transport

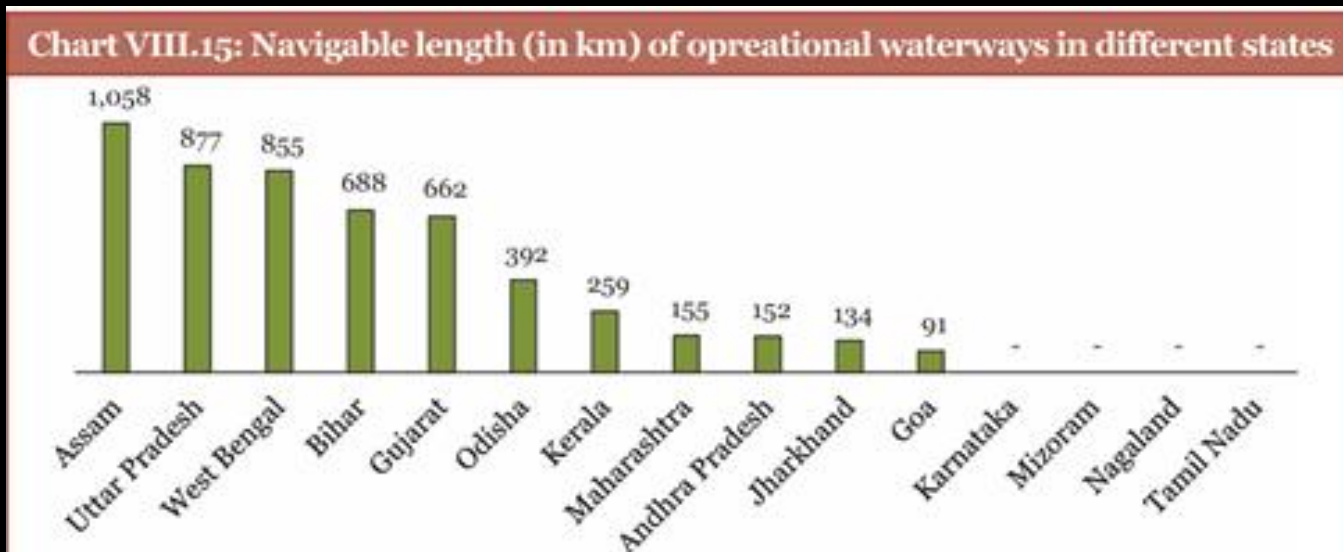
- E-ticketing - 86% in the reserved sector, Unreserved sector 33%, digital refund in 24hrs
- Dynamic QR code-based payment across all the booking counters.
- Bharat Gaurav trains - theme-based tourist circuit trains

# Road transport

- FASTag → reduced the average waiting time at toll plazas from **734 seconds to 47 seconds**
- A **cashless treatment scheme for road accident victims** has been initiated.
- **Institute of driving training and research** at the state/ district level have been setup

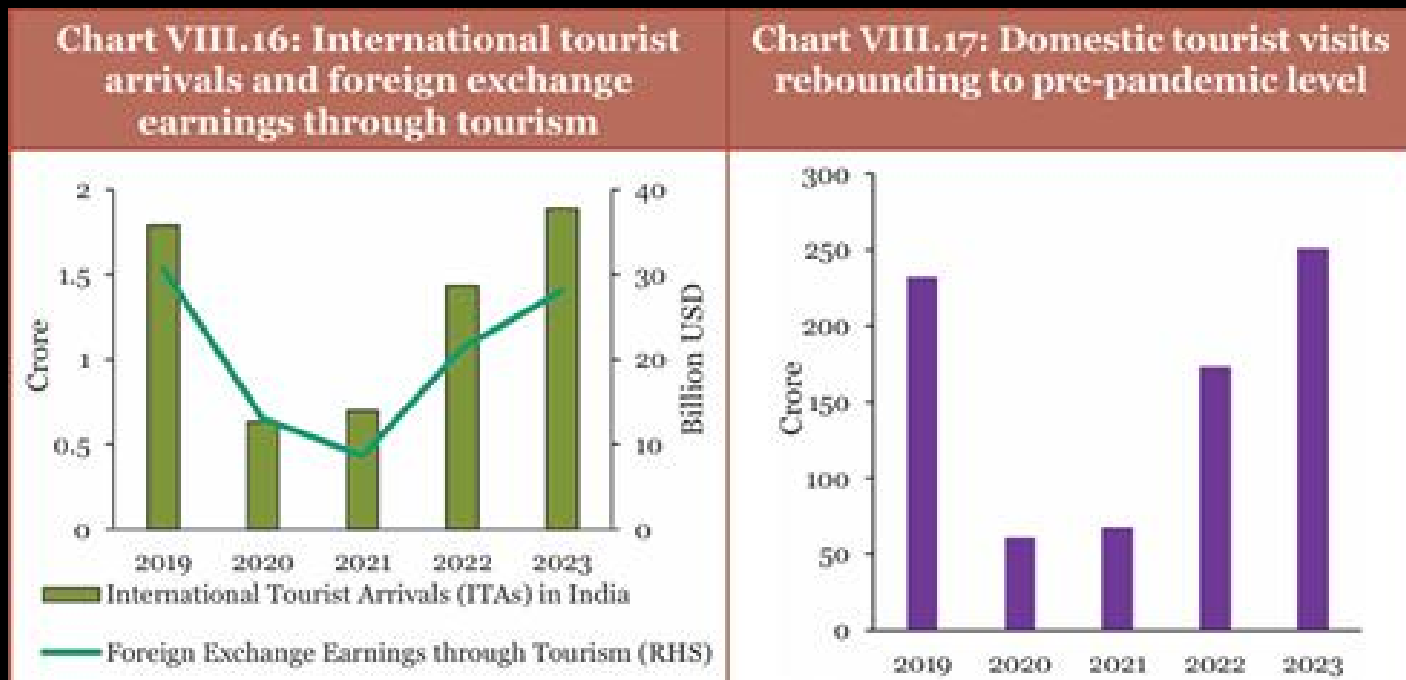
# Waterway transport

- Maritime India Vision 2030 and Maritime Amritkaal Vision 2047
- Aim – make Indian shipbuilding and ship repair among the top five globally by 2047



# Tourism sector

- India's share – only 1.45 % in International tourist arrivals (ITA) in World





# Trend

- Among all these sectors, **only railways passenger traffic yet to rebound to pre – pandemic levels**
- All other traffics – roadways , waterways traffic, airways & tourism - rebounded to pre – pandemic levels

# Real Estate

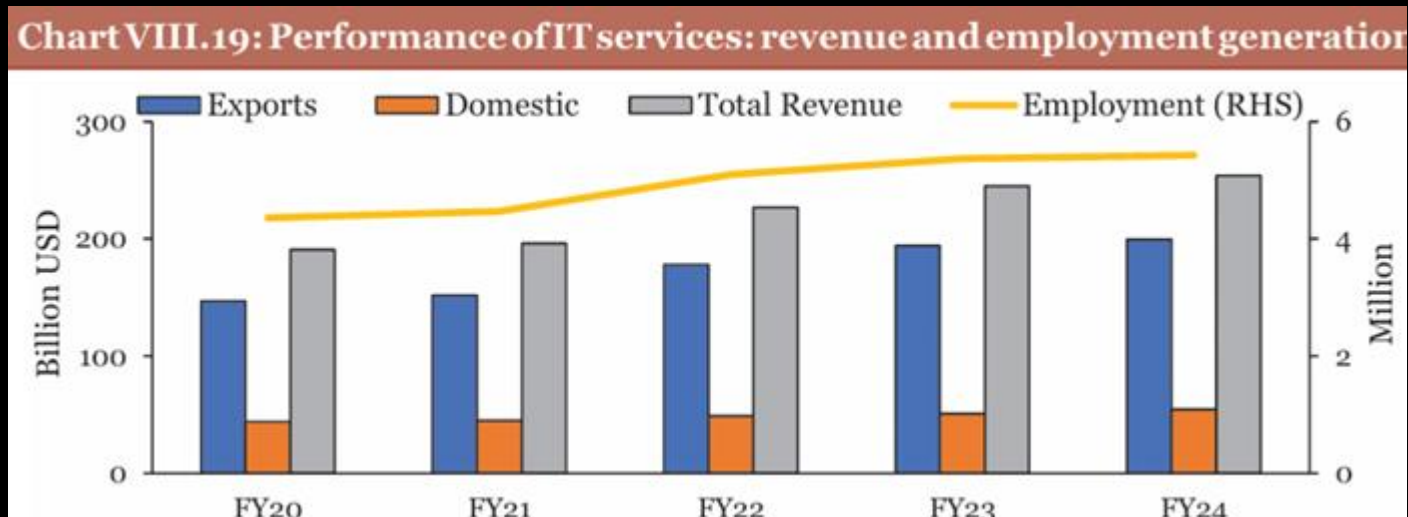
- Growth - 11 year high
- 11 % YoY growth in top 8 cities

## Reasons for good performance

- After Real Estate Regulatory Authority (RERA) came into force, India ranked 31st out of 89 countries in the Global Real Estate Transparency Index in 2024
- GST – simplified taxation in real estate
- REITs – provided funds for real estate investment

# IT services

- India – 2<sup>nd</sup> largest exporter after USA
- Export > Domestic consumption



# GCC (Global Capability Centres)

- GCC – MNCs outsourcing even high end services from India through their GCCs
- Services – IT, Management, Finance, Data analytics & even R&D
- Example – Amazon GCC
- We are transitioning from World's back office to World's Strategic business office
- Indian workforce - 28% of the global STEM workforce and 23% of the global software engineers

# Telecom sector

- India – 2<sup>nd</sup> largest telecom market after China, with overall teledensity of 84%
- **World's most affordable data rates**
- **c - DOT (centre for development of Telematics) – R & D in 4G, 5G technology etc**

# ONDC (Open Network Digital Commerce)

- UPI like **revolutionary platform** for e – commerce
- Promote **interoperability in e – commerce**
- Can **compare products** of different e-commerce websites like Amazon, Flipkart etc on a single unified platform
- **Interoperability even in placing order**

# STATE WISE ANALYSIS OF SERVICE SECTOR PERFORMANCE

- For FY23, **MH > KTK > TN > UP > GJ** - together share more than 50% of the total service sector GSVA
- Untapped sectors – insurance, pension, telecom



# CHAPTER 6

- Investment And Infrastructure : Keeping It



# Infrastructure

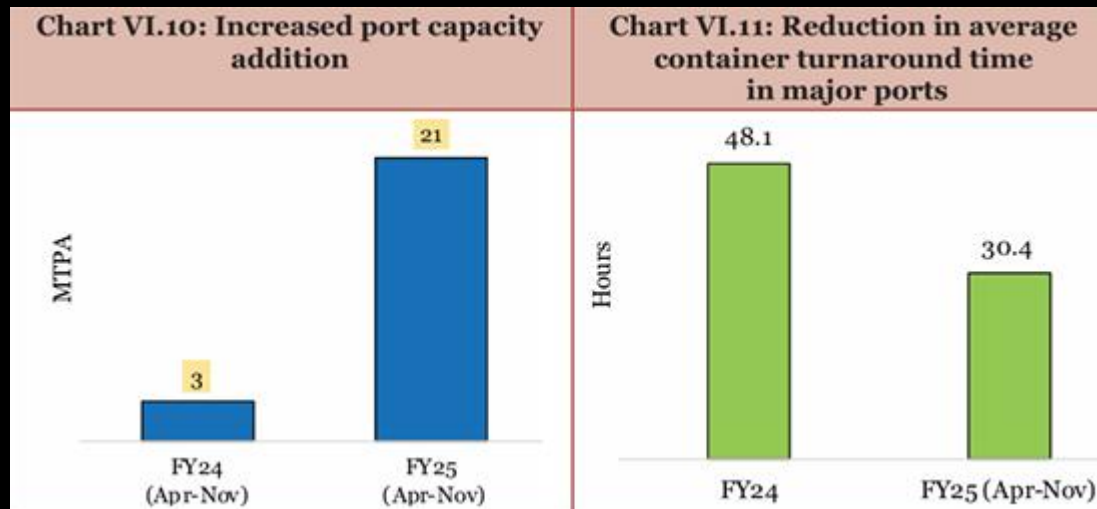
- NIP – 111 lakh crore in last 5 years – govt + pvt
- Highest capex in last 5 years – 38 % YoY growth
- NMP – National monetisation Pipeline – AMP

# Railways

- Amrit Bharat Station Scheme
- One Station One Product
- Kavach – automated anti – collision initiative
- Western DFC development

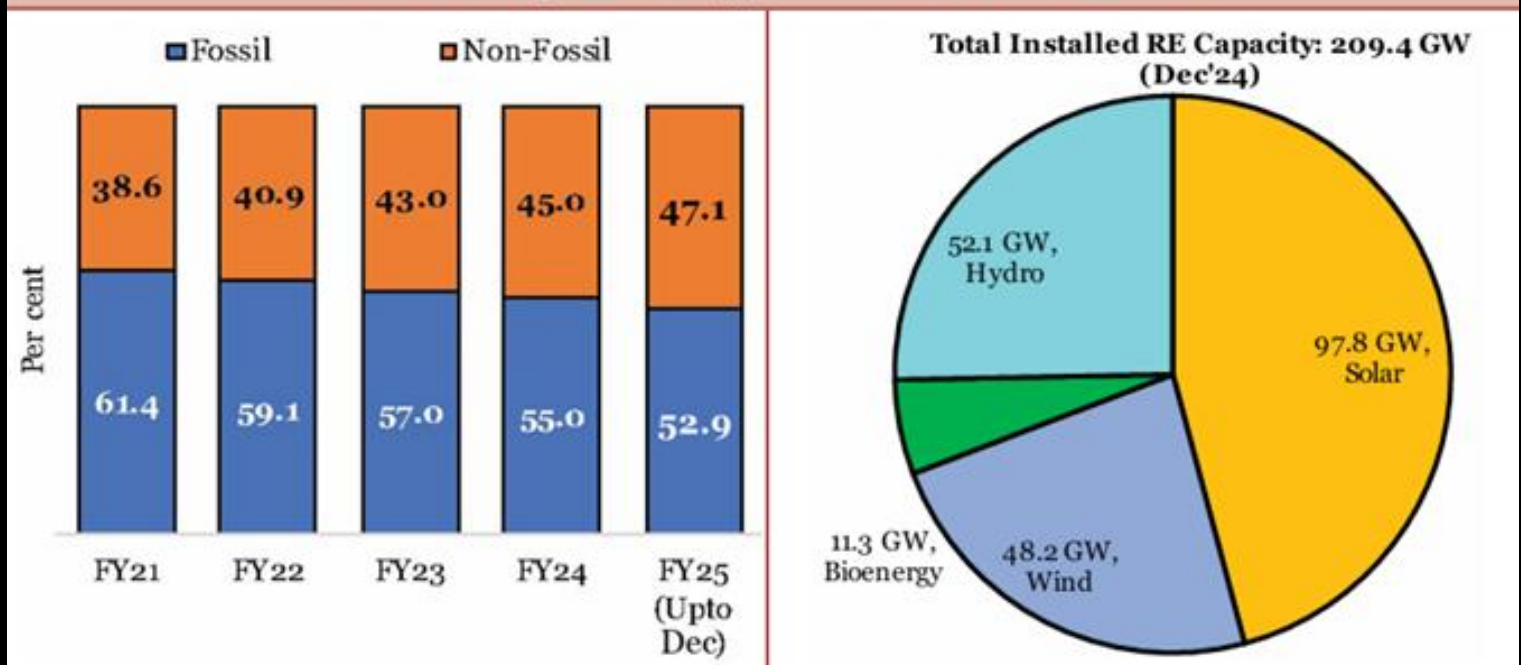
# Others

- Roadways – Bharatmala, Char Dham Mahamarg, National High Speed Corridors
- Airways – UDAN
- Waterways – Sagarmala, National Maritime Heritage Complex in Lothal



# Power

Chart VI.14: Growing reliance on renewables



# Power

- Renewable energy now constitutes about 47% of India's total installed capacity
- SAUBHAGYA – Rural Electrification scheme

# Digital Connectivity

- 5G services - available in 779 out of 783 districts
- GoI Cloud initiative – [MeghRaj](#) - delivering ICT services via cloud computing to Central and State/ UT Dept

# Rural & Urban Infra

- Rural – SBM, JJM
- Urban – SBM, AMRUT (Atal Mission for Rejuvenation and Urban Transformation ), Smart Cities

# TOURISM

- Pilgrimage Rejuvenation and Spiritual Augmentation Drive (PRASHAD) – to develop tourism infrastructure at identified pilgrimage destinations and heritage cities
- Swadesh Darshan – promote theme-based tourism



# Space Infra

- Gaganyaan
- Bhartiya Antariksh Station
- Chandrayaan-4 Lunar Sample Return Mission
- Venus Orbiter Mission
- Pvt sector participation

# Chapter 11

- Social Sector: Extending Reach And Driving Empowerment

# Social sector

- Social Sector Expenditure as a percentage of total expenditure (TE) has increased from 23.3% in FY21 to 26.2% in FY25 (BE)
- Health – **1.9 % of GDP** (target – 4 %)
- Education – **2.7 % of GDP** (target – 6%)

# Household Consumption Expenditure Survey (HCES) 2023 24

- **narrowing urban-rural gap** in consumption expenditure.
- The average monthly per capita expenditure (MPCE) in rural and urban India in 2023-24 is estimated at ₹4,122 and ₹6,996, respectively
- **largest growth occurred in bottom 5 - 10%** of the population in both rural and urban areas

# Education

- Government schools – **69%** with 50% students & 51% teachers
- NEP 2020 aims for a **100% Gross Enrolment Ratio (GER) by 2030 for primary & secondary levels**
- GER is near-universal at the primary (93%) , but low in secondary (77.4%), higher secondary level (56.2%) & higher education (28.4)

# Education

- ECCE – Nachetana for pre KG
- ECCE – Adarshila – for LKG, UKG
- Both – learning through age specific activities
- NIPUN Bharat - “National Initiative for Proficiency in Reading with Understanding and Numeracy 2021 - **every child in the country must attain FLN by the end of Grade 3, by 2026**”
- SARTHAQ guidelines – for peer tutoring
- Social & Emotional Learning – for EQ development of children

# Education

- Atal Innovation Mission (AIM) - Frontier Technology Labs (FTLs)
- FTL - AI, AR/VR, blockchain, cybersecurity, robotics, 3D printing and IoT
- Tamil Nadu's Illam Thedi Kalvi (Education at Doorstep) - volunteers – door to door education
- PRASHAT Disability screening @ school level

# Digital Literacy

- Rural- Urban divide: 63% of males and 55% of females in rural areas
- DIKSHA portal online learning portal for school children
- Study Webs of Active Learning for Young Aspiring Minds (SWAYAM) portal
- e -VIDYA & e-Vidya DTH (Kalvi TV)
- e-content for Divyang (deaf people)
- Teacher App

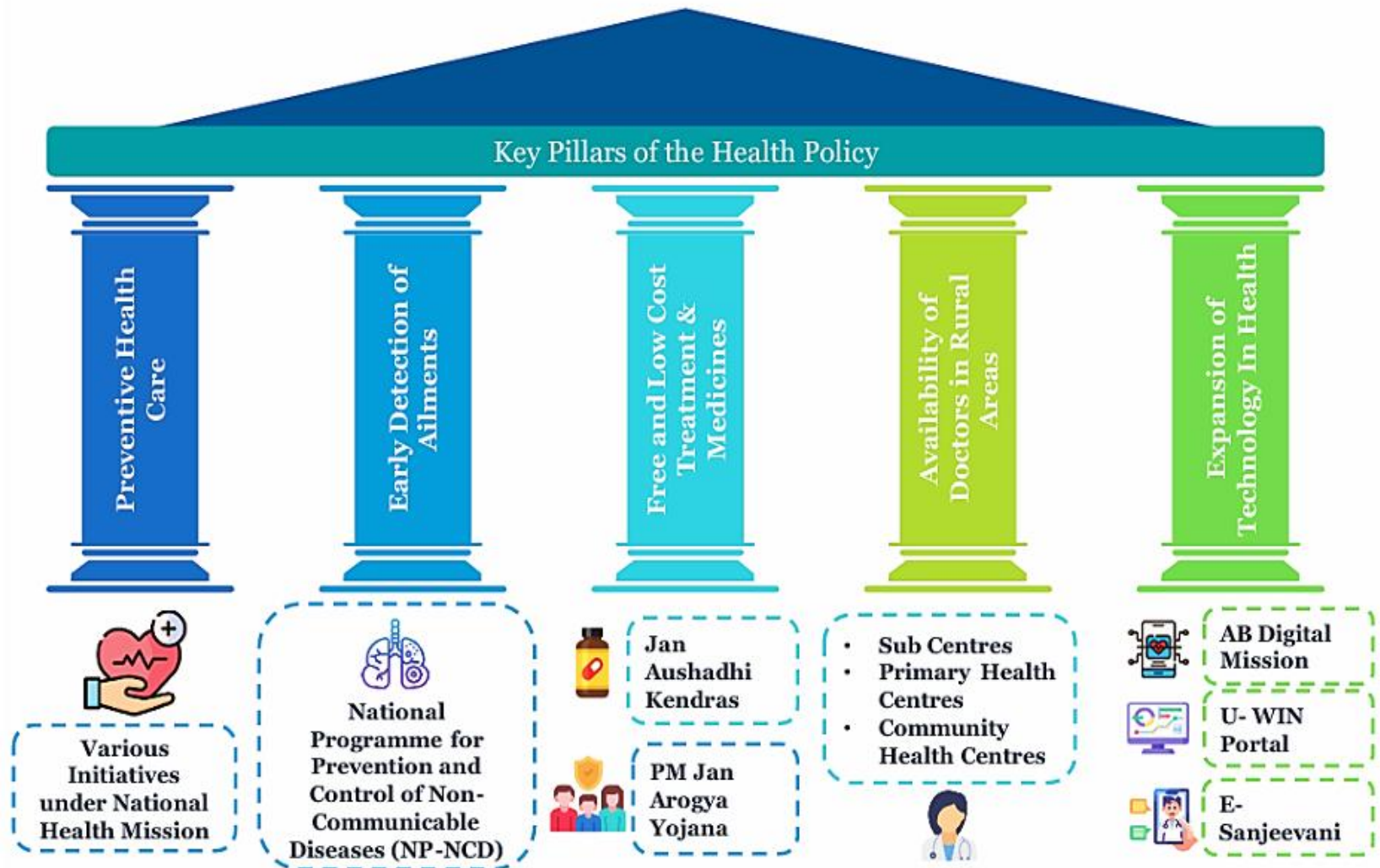


# Higher Education

- NEP aims to achieve GER to 50 per cent by 2035
- Multiple Entry and Exit in Academic Programmes
- Common Universities Entrance Test (CUET)
- Pursuing two Academic Programmes simultaneously
- Increase in medical seats

# HEALTH

Chart XI.5 Key pillars of health policy<sup>92</sup>



# HEALTH

- PMJAY - senior citizens aged 70 and above, irrespective of their socio-economic status – **Vaya Vandana Card**
- PHCs upgraded to **Ayushman Arogya Mandirs (AAM)** (formerly Health & Wellness Centres)
- **PM-ABHIM:PM-Ayushman Bharat Health Infrastructure Mission** – Health related infrastructure
- **Jan Aushadhi scheme**






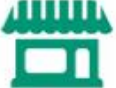





# HEALTH

- Universal Immunisation Programme (UIP) – 11 vaccines & 12 diseases
- U-WIN: digitising vaccination
- E-Sanjeevani - the National Telemedicine Service - world's largest telemedicine implementation in primary healthcare
- I – DRONE – MoHFW – Using drones to deliver vaccines & medical supplies to remote areas
- eSwasthya Dham portal

# Impact of lifestyle choices on health:

- Diet, sleep, device use, and exercise
- NCD - increased from 37.9% in 1990 to 61.8% in 2016
- National Programme for Prevention and Control of NCD (NP-NCD) - for 4 major NCDs - cardiovascular diseases (CVDs), cancers, chronic respiratory diseases (CRDs), and diabetes
- Ultra processed foods – HFSS foods – cause NCDs, anxiety etc

# Rural Economy

 <p>Roads</p>	<p>Pradhan Mantri Gram Sadak Yojana (PMGSY) (as of 9 January 2025)<sup>171</sup></p> <ul style="list-style-type: none"> <li>• 8,34,695 km of road length sanctioned.</li> <li>• 7,70,983 km of road length completed.</li> <li>• 99.6 per cent of the targeted habitations provided connectivity.</li> </ul>		
 <p>Housing</p>	<p><b>2.69 crore houses</b> completed since 2016 under <b>Pradhan Mantri Awaas Yojana-Gramin (PMAY-G)</b>.<sup>172</sup></p>		
 <p>Water bodies</p>	<p><b>68,843 Amrit Sarovars</b> (ponds) constructed under Mission Amrit Sarovar.<sup>173</sup></p>		
 <p>Health Infrastructure National Health Mission<sup>174</sup> (Figures in '000s.)</p>	 <p>165.6 Sub-centres (SCs)</p>	 <p>25.4 Primary Health Centres (PHCs)</p>	 <p>5.5 Community Health Centres (CHCs)</p>
	 <p>32.9 Doctors at PHCs</p>	 <p>4.4 Total Specialists at CHCs</p>	 <p>79.3 Nursing Staff at PHCs &amp; CHCs</p>
 <p>Drinking Water</p>	<p><b>12.2 crore households</b> provided with tap water connections under Jal Jeevan Mission (as of 27 January 2025).<sup>175</sup></p>		

# Rural Economy

- DAY-NRLM - poverty alleviation programme - aim to reduce poverty by gainful self employment and skilled wage employment
- National Legal Services Authority (NALSA) – tele law
- National Social Assistance Programme (NSAP) – for old age, widows, and disabled persons, death of bread winner
- MNREGA , UNNATI

# Chapter 12

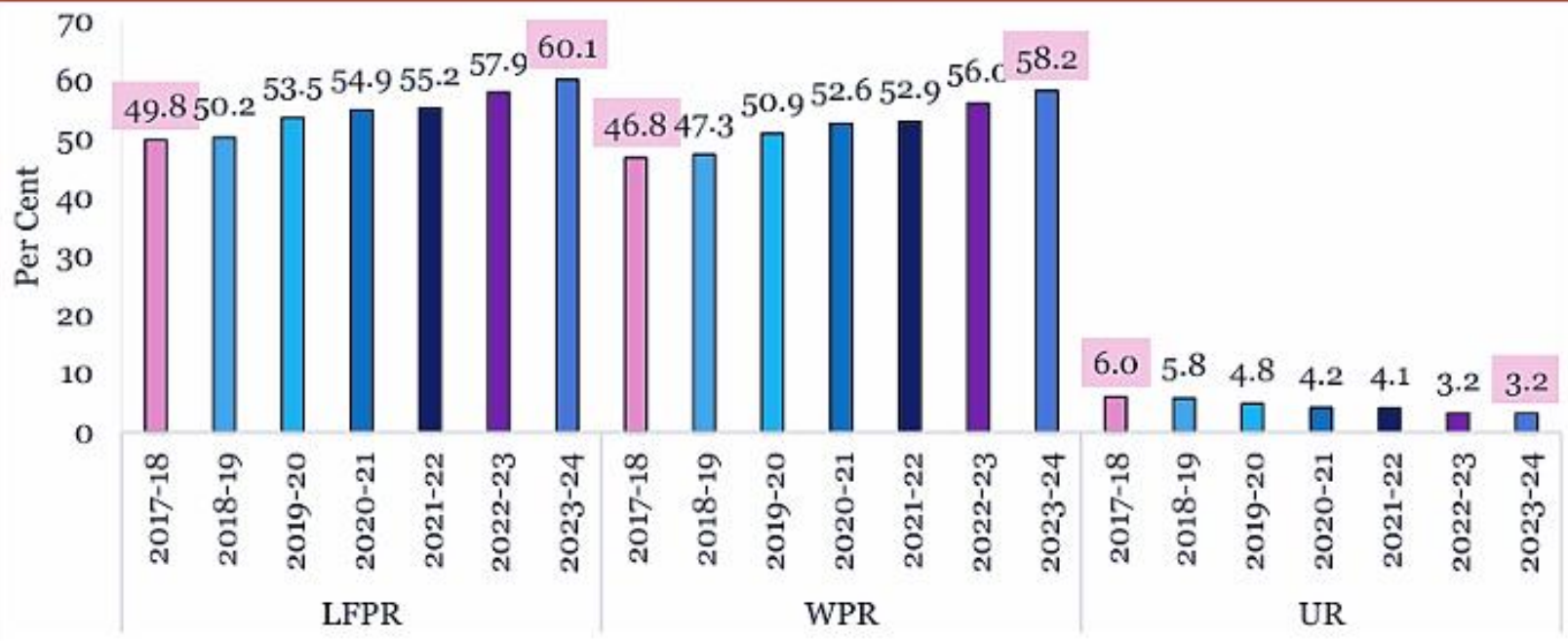
- Employment And Skill Development:  
Existential Priorities



# EMPLOYMENT

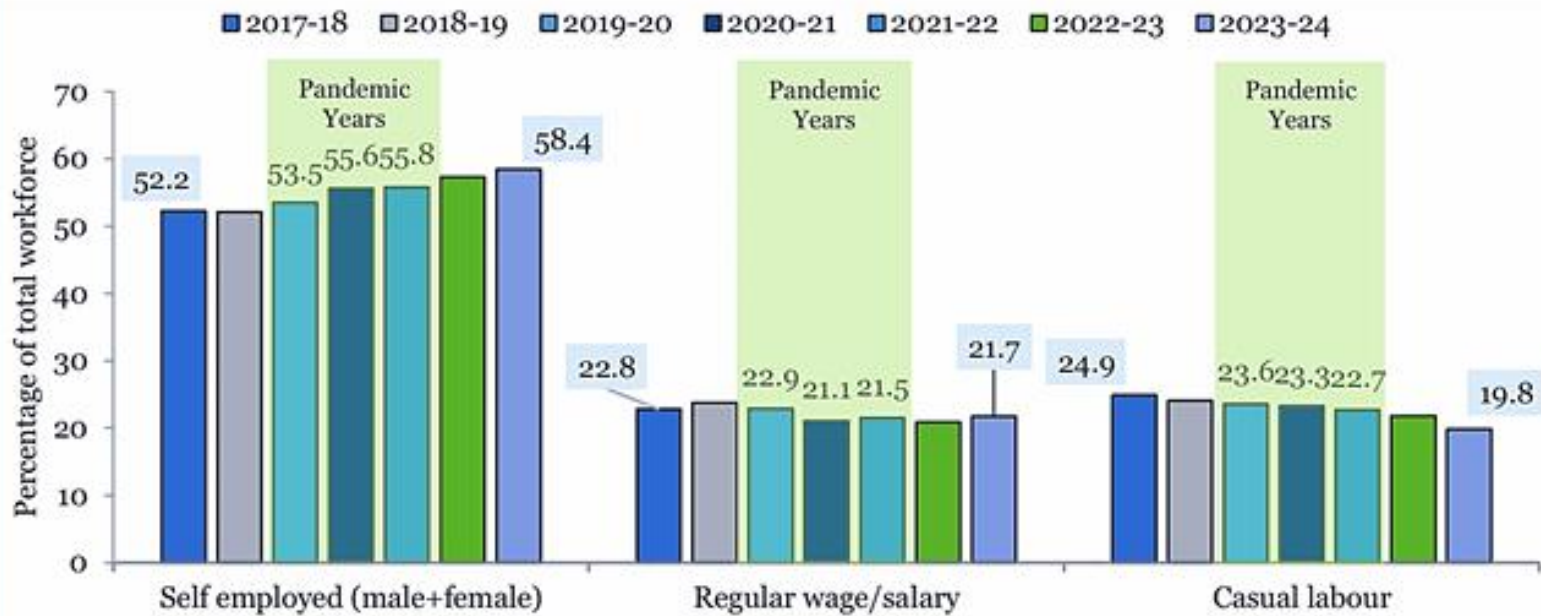
Chart XII. 4. Improvement in annual labour market indicators

(a) Usual status, aged 15 years and above (July – June Period)



# Share of workers in Self employment – increased – due to Mudra Yojana, Skill India, Start-Up India, and Stand-Up India

Chart XII. 7 (a) The trend in broad category-wise employment status



# Employment

- **Agriculture > Services > Industry**
- Female labour force participation rate (FLFPR) has been rising from **23.3 per cent in 2017-18 to 41.7 per cent in 2023-24**
- **Rural FLFPR largely drives the increase in FLFPR**
- **45 % startups have at least one woman director (not women lead)**
- **E-Shram portal** - to recognize, register and support unorganised workers by providing them with a **Universal Account Number (UAN)**

# Wages

- While the average monthly earnings for regular wage/salaried workers and self-employed workers grew at a CAGR of **5 per cent** during the period 2018-19 to 2023-24, the daily wage of casual workers increased at a CAGR of **9 per cent** during the same period
- Corporate profits = 4x in last 15 years but wage growth – plateaued (very little growth)

# SKILLING

- **4.2 per cent of the workforce**, equipped with advanced education and specialised skills, earns between ₹4 lakh and ₹8 lakh annually
- About **46 per cent earn less than ₹1 lakh**, predominantly comprising low to semi-skilled workers
- Over 53 per cent of graduates and 36 per cent of postgraduates being **underemployed** in roles below their educational qualifications

# Skilling in AI

- To re-skill and up-skill IT professionals to be adept with emerging technologies like AI, the IT-ITeS Sector Skill Council + MeitY, has launched the **FutureSkills Prime platform**

# PM Internship Scheme

- Internship in 500 top companies to one crore youth over a period of five years spanning 24 sectors
- 12-month paid internship to those aged 21-24 years Indian nationals who are not employed full-time
- monthly stipend of ₹5000
- Companies can also use their corporate social responsibility (CSR) funds for expenditure
- Voluntary , not an obligation on companies
- The scheme is being implemented by the Ministry of Corporate Affairs.

# International mobility for Skilled Workers

- Migration and Mobility Partnership Agreements (MMPA), Labour Mobility Agreements (LMA), and Labour Welfare Agreements signed with many countries – to promote safe & regulated migration
- Skill India International Centres
- E – Migrate platform



# CHAPTER 5

- Medium Term Outlook : Deregulation Drives Growth

# Medium Term Outlook

- India needs a growth rate of 8% at constant prices on average for a decade or two in order to realise its economic aspirations of becoming **Viksit Bharat by 2047**.
- World Economic Outlook of IMF projects India to become a **USD 5 trillion economy by FY28** and **USD 6.307 trillion by FY30**.

# Challenges for India's growth

1. Geo-economic fragmentation
2. China's manufacturing prowess and
3. Dependency on China for energy transition

# Geo-Economic Fragmentation (GEF)

- It is policy-driven reversal of global economic integration
- This process encompasses different channels including trade, capital, and migration flows
- GEF is replacing globalization

# Implications of GEF

- **Increased trade and investment restrictions:** Between 2020 and 2024, over 24000 new restrictions related to trade and investments have come into place globally.
- **Concentrated FDI flows:** Global FDI flows are increasingly concentrated among geopolitically aligned countries, **increasing vulnerability of emerging markets.**

# Increase in Global trade restrictions due to geo fragmentation



# China's manufacturing prowess

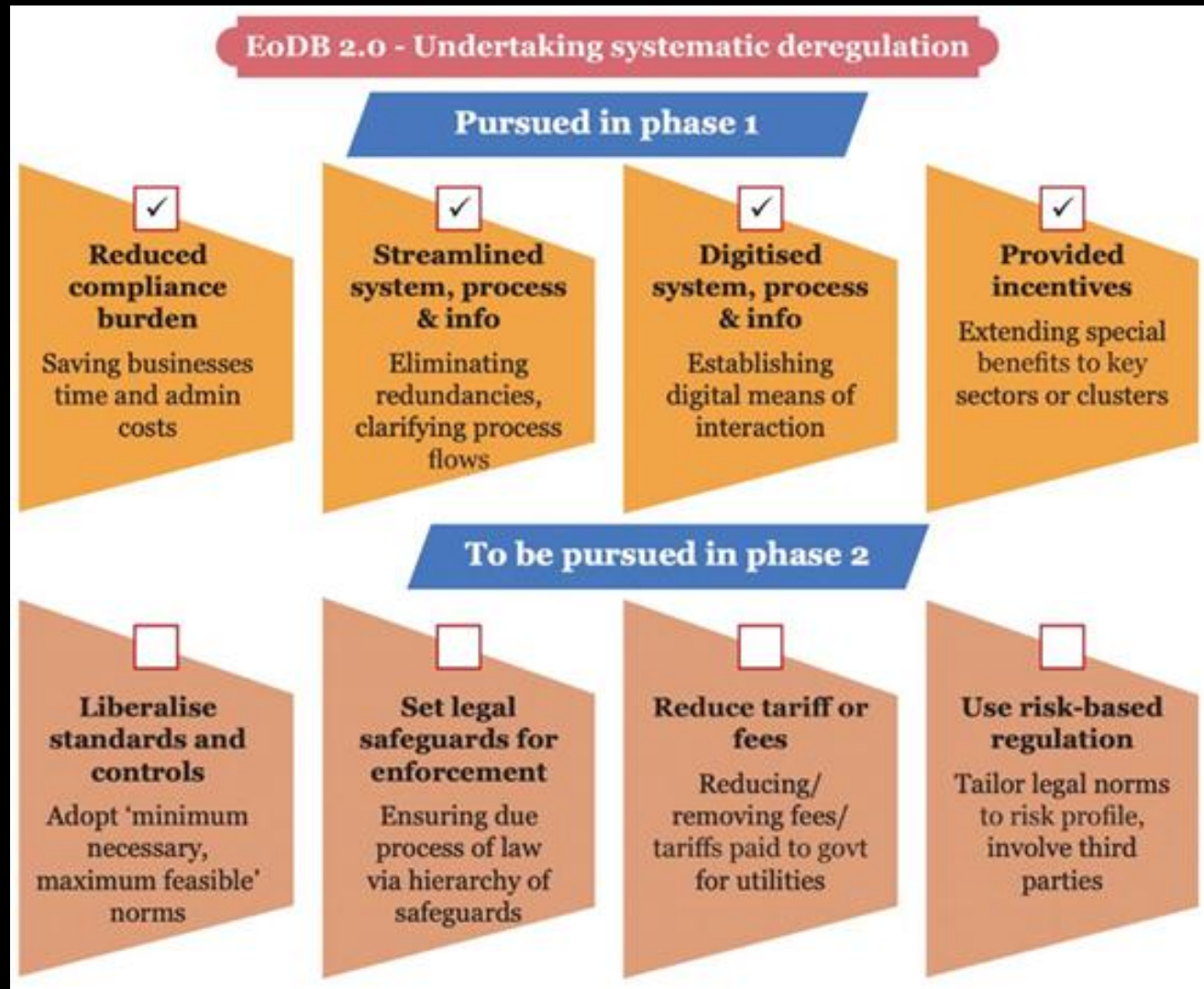
- UNIDO projected that China will account for 45% of all global manufacturing, outmatching the US and its allies by 2030.

# Dependency on China for energy transition

- **China dominates** energy transition technologies with nearly **80% share of solar panels** (polysilicon, ingots, wafers, cells, and modules), and **world's battery manufacturing capacity**.



# Deregulation – A catalyst for economic growth



# CHAPTER 10

- Climate And Environment: Adaptation Matters

- Ambition of India - achieve net zero emissions by 2070
- India's per capita carbon emissions are 1/3rd of global average, even as it stands among the world's fastest-growing economies.

# COP 29 of UNFCCC held in Baku, Azerbaijan

- It was designated as the '**Finance COP**'.
- The focus was to establish the New Collective Quantified Goal (NCQG) on climate finance
- NCQG target of **USD 300 billion was set annually by 2035** is **only a fraction of the estimated requirement of USD 5.1 - 6.8 trillion by 2030.**
- The decision demonstrates a **significant misalignment with the Paris Agreement**

# Adaptation

- India's adaptation spending rose from 3.7% of GDP in FY16 to **5.6%** in FY22
- However, **international climate funding remains insufficient** and focused more on mitigation than adaptation.
- **The Ministry of Environment, Forest and Climate Change (MoEFCC) is developing the National Adaptation Plan (NAP)**
- 'Mangrove Initiative for Shoreline Habitats & Tangible Incomes (**MISHTI**) – adaptation in coastal areas

# Adaptation

- Climate resilient seeds
- AMRUT & Smart Cities mission
- Jal Shakti Abhiyan – for water conservation
- Bhu-Neer portal - regulating groundwater resources
- The FloodWatch India app – forecast floods

# Energy transition Initiatives

- Non-fossil fuel sources accounts for 46.8% of the total energy capacity
- PM - Surya Ghar Muft Bijli Yojana
- The National Bioenergy Programme
- PMKUSUM – solar pumps for farmers
- National Green Hydrogen Mission - 5 million metric tonnes per annum of Green Hydrogen by 2030
- Sovereign Green Bonds

# LiFE

- Lifestyle for Environment (LiFE) Mission at COP26 in 2021 to promote eco-friendly, nature aligned lifestyles

Chart X.7: Harnessing the Power of Collective Action for Environment

## Power of Collective Action

Lifestyle change by 13% of global population can reduce carbon emission by 20 per cent.

Finishing the food on plate can avoid 90 kgs of annual food waste per person.

Carpool can reduce 780,000 rides per day save 380 million litres of fuel in India.

Recycling 1 ton of newspaper can avoid 25,000 litres of water wastage.



# Pollution

- Extended producer responsibility (EPR) framework for plastic recycling
- National Clean Air Programme (NCAP)
- Graded Response Action Plan,
- 'Promotion of Agricultural Mechanization for In-Situ Management of Crop Residue in the States of Punjab, Haryana, Uttar Pradesh & NCT of Delhi – Happy seeder

# Chapter 13

- Labour In The AI Era: Crisis Or Catalyst?

# AI

- Artificial Intelligence (AI) will disrupt labour markets because of developments in the field over last four years.
- This economic displacement adds to a **fear about AI**
- ILO estimates that nearly **75 million jobs globally are at complete risk** of automation due to AI.
- NASSCOM estimates that the **Indian AI market will grow at 25 to 35% CAGR by 2027**

# AI for human – centric automation

- Deployment of AI presents **both opportunities and challenges for a labour rich India.**
- **A coordinated effort between the government, private sector, and academia is required for a future of work where AI is ‘Labour Augmenting’ rather than ‘Labour Replacing’.**

# AI for human – centric automation

- The **future of work revolves around 'Augmented Intelligence'**, where the workforce integrates both human and machine capabilities
- The **corporate sector have to act responsibly**, handling the introduction of AI with sensitivity to India's needs
- Institutions should be **enabling** (equipping the workforce with the necessary skills) , **insuring** (compensating salary loss due to AI) and **stewarding** (ethical) during AI automation

# Challenges to scaling AI

## Challenges to scaling AI



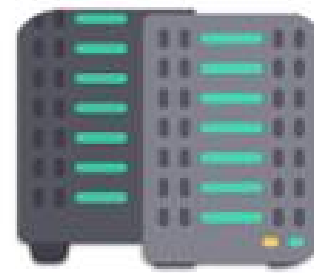
### Practicality

Translating breakthroughs into practical, widely adopted applications remains challenging, as AI currently shows experimental and uneven utility



### Reliability

Ensuring AI reliability is critical for real-world applications, as failures in key industries like autonomous vehicles or healthcare can prove problematic



### Infrastructure

AI at scale requires substantial investments in infrastructure, including data centres, clean data pipelines, and computational resources



### Resources

Large Models are resource intensive, requiring high energy consumption, dependency on scarce minerals for hardware, and finance, making sustainable innovation essential

Thank  
you

