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INSPIRING INNOVATION

ECONOMIC SURVEY 2019-20

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ECONOMIC SURVEY SUMMARY 2020 - VOLUME I & II

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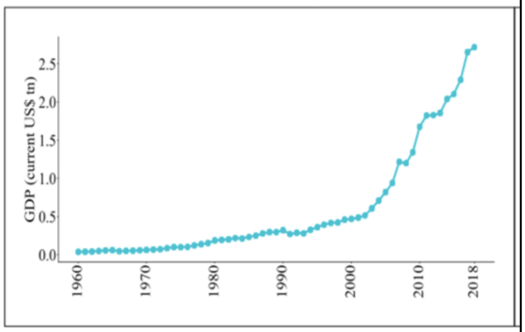
VOLUME - I

CHAPTER 1: WEALTH CREATION: THE INVISIBLE HAND SUPPORTED BY THE HAND OF TRUST

Theme

This chapter uses ideas from ancient literatures such as Arthashastra that supports the **importance of ethical wealth creation** for the growth and economic development of India. In doing so, the chapter highlighted the **role played by the market** in creating that ethical wealth and how the government can enable an **environment of trust** for those markets to thrive.

Figure 2a: India's GDP (current US$ tn) (1960-2018)



Importance of Wealth creation

- Survey notes that **our age-old traditions have always commended wealth creation** that made India a significant contributor to world's GDP for more than three-fourths of known economic history.
- The contemporary evidence to this ancient thinking is reflected by the **exponential rise in India's GDP and GDP per capita post economic liberalisation in 1991** and corresponding wealth generation in the stock market.
- The survey after collating data from top 100 wealthy entrepreneurs in the country as estimated by Forbes, showed how **wealth created by an ethical company correlates strongly with the benefits** that accrue to the employees of the company, suppliers of raw material to the company, government and to the common citizens of the country.

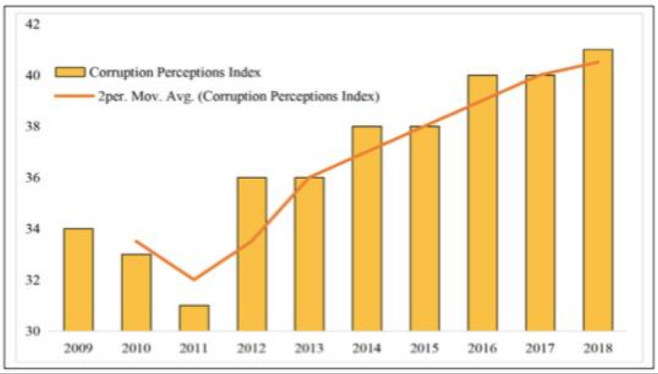
Wealth Creation through the invisible hand of markets

- The **market economy** is based on the principle that optimal allocation of resources occurs when citizens are able to exercise free choice in the products or services they want.
- The survey highlighted that **there still exists a scepticism about the benefits accruing from enabling the invisible hand of market** i.e. increasing economic openness of our country and that scepticism has to go for India to grow.
- To support this argument, survey has taken examples from different sectors such as banking, mutual funds, ports, etc. to show that **since 1991, sectors that were liberalized grew significantly faster than those that remain closed.**

The breakdown of trust in the early years of this millennium

- In a market economy too, there is **need for state to ensure a moral hand** to support the invisible hand as markets are liable to debase ethics in the pursuit of profits at all cost.

Corruption Perceptions Index for India (low score = higher perceive



- As in the case of the **Global Financial Crisis, the events of 2011-13** and the consequences that have followed have created a trust deficit in the economy which led India to its lowest point in Corruption Perception Index.
- The Survey introduces "**trust as a public good that gets enhanced with greater use**". If there is high trust, economic activity can flourish despite the increased potential for opportunism.
- To enhance this public good, survey suggests that

- Reducing information asymmetry through standardising enforcement systems and public databases thus empowering transparency.
- Enhancing quality of supervision through significant enhancement in the quantity and quality of manpower in our regulators (CCI, RBI, SEBI, IBBI) together with significant investments in technology and analytics needs to be made.

The instruments for Wealth Creation

- The survey through its various chapters, suggested in detail, the ways and means to enhance ethical wealth creation in India. These are:
  - **Equal opportunities for Entrepreneurs:** the chapter analyses how equal opportunity for new entrants in entrepreneurship enables efficient resource allocation and utilization, facilitates job growth, promotes trade growth and consumer surplus through greater product variety, and increases the overall boundaries of economic activity.
  - **Pro-business versus pro-crony:** This chapter presents evidences on how efficient the Indian economy has been in terms of opportunity for new entrants against established players for wealth creation.
  - **Government intervention:** Here the survey discusses how the command and control approach of government in some areas are limiting the efficient functioning of markets in those areas.
  - **Specialising exports:** Here the survey analyses how integrating "Assemble in India" into "Make in India" will lead to creation of jobs in labour intensive industries and thereby increasing exports.
  - **Ease of doing business:** In this chapter, the survey discussed how reforms taken during the last 5 years have led to improvement in India's EODB rankings.
  - **Banking Sector:** The survey in this chapter highlighted that India's banking sector is disproportionately under-developed given the size of its economy and suggests some solutions that can make PSBs more efficient.
  - **Fragility in NBFC sector:** The chapter constructs a diagnostic to track the health of the shadow banking sector and thereby monitor systemic risk in the financial sector.
  - **Privatisation:** The chapter uses the change in performance of Central Public Sector Enterprises (CPSEs) after privatization to show the significant efficiency gains that are obtained when the private sector runs businesses instead of the government.
  - **Role of GDP numbers:** The Survey in this chapter provides careful evidence that India's GDP growth estimates can be trusted and there is no evidence of mis-estimation of India's GDP growth.
  - **Thalinomics:** This chapter aims to relate economics to the common person using something that he or she encounters every day – a plate of food.

Conclusion

The wealth acquired capably without causing any harm yields righteousness and joy. Only when wealth is created will wealth be distributed. India's aspiration to become a $5 trillion economy depends critically on creation of wealth by strengthening the invisible hand of markets and supporting it with the hand of trust.

Trust Definition (as per the Survey)

- Trust: The Survey introduces the idea of "trust as a public good that gets enhanced with greater use". Trust can be conceptualized as a public good with the characteristics of-
  - Non-excludability: The citizens can enjoy its benefits at no explicit financial cost.
  - Non-rival consumption: The marginal cost of supplying this public good to an extra citizen is zero. It is also
  - Non-rejectable: Collective supply for all citizens means that it cannot be rejected.
- Historical reference for Economic Policy as a trust enabler:
  - Machiavelli's Approach: It views people as "knaves" (inherently dishonest) and thus advocates regulation through orders in penalties.
  - Aristotle's Approach: Aristotle holds that "good laws make good citizens," by inculcating habits and social virtue. Thus suggests that people be regulated by "ritual" rather than by orders and penalties.
  - Kautilya's Approach: Kautilya in Arthashastra highlights the idea of Anvikshiki (philosophical and ethical framework). It reinforces the idea of "invisible hand" but emphasizes equally the importance of "mutual sympathy" (i.e. trust).
  - From these examples it is evident that the idea of trust as a public good is not novel and has some historical backing.

CHAPTER 2: ENTREPRENEURSHIP AND WEALTH CREATION AT THE GRASSROOTS

Theme

This chapter examines the contribution of formal entrepreneurial activities to wealth generation and employment growth, drivers of such entrepreneurial activities and their spatial distribution at the bottom of the administrative pyramid i.e. across 500 districts in India. Using the learnings, the chapter suggests policy changes to foster entrepreneurship and thereby job and wealth creation in the country.

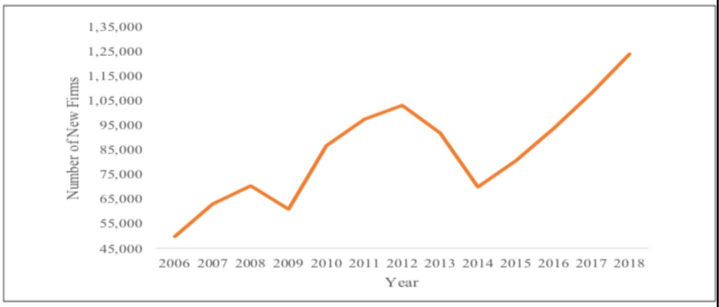
Entrepreneurship and GDP

- The survey suggests that entrepreneurial activity has a **significant positive impact on Gross Domestic District Product (GDDP)**.
    - With **10 per cent increase in registration of new firms per district-year, GDDP increases by 1.8 per cent.**
    - Impact of new firm entry on GDDP is **greatest in the Manufacturing and Services sectors**.
    - Thus, entrepreneurial activity in the formal sector at the grassroot level is **not driven by necessity or lack of alternate employment options**. Rather these activities are productive and growth-focused.

Trends

- **India has the 3rd largest entrepreneurship ecosystem** in the world ahead of the countries such as Brazil and South Korea.
- **New firm creation** has gone up dramatically in India since 2014. As a result, 1,24,000 new firms were created in 2018 up from 70,000 in 2014. This growth is **particularly pronounced for the services sector** reflecting India's new economic structure.

Figure 2a: Growth in new firms over time in India



- **Entrepreneurial intensity** (i.e. number of new firms registered per year per 1000 workers) in formal economy, is low in India compared to other developed economies as large number of India's enterprises operate in the informal economy.

- There exists a **spatial heterogeneity** in distribution of Entrepreneurial Activity in India i.e. varied level of entrepreneurial activity across the districts.
    - The survey finds that all **four regions except certain eastern states in India demonstrate strong growth in entrepreneurial activity over time.**
    - However, irrespective of the level of entrepreneurial activity, **all regions demonstrate a strong relationship between entrepreneurship and GDDP** signifying the pervasive benefits of entrepreneurship.
- According to the survey, **entrepreneurial activities across different sectors of economy** also varies across the districts.

Agriculture sector	Manufacturing sector	Services sector	Infrastructure sector
Highest in the regions of Manipur, Meghalaya, Madhya Pradesh, Assam, Tripura and Orissa.	Highest in the regions of Gujarat, Meghalaya, Puducherry, Punjab and Rajasthan.	Highest in the regions of Delhi, Mizoram, Uttar Pradesh, Kerala, Andaman and Nicobar, and Haryana.	Highest in the regions of Jharkhand, Arunachal Pradesh, Himachal Pradesh, Mizoram, Jammu and Kashmir and Bihar

- As compared to other sectors, there exists a **high negative spatial correlation** between entrepreneurial activity in manufacturing sectors and unemployment rate in the district which means that unemployment rate reduces significantly when new firms in the manufacturing sectors increase.

Determinants of Entrepreneurial activity

Apart from local population characteristics, district-level conditions, and agglomeration economies, the survey highlighted two key drivers of heterogeneity in district level Entrepreneurial activity:

- **Physical infrastructure**: that includes basic physical infrastructure such as roads, electricity, water etc. and proximity to large population centres. **Superior physical infrastructure will likely promote entrepreneurial activity** and allows the start-up to expand markets and scale operations.
    - However, the survey found that **there exists a threshold** beyond which increase in physical infrastructure gives diminishing returns, i.e. beyond a point, increased access to local markets may create hyper-competition and discourage entrepreneurship.
    - At the same time, increased levels of basic infrastructure development might also open up potential entrepreneurs to other opportunities and consequently, decrease the incentives to become entrepreneurs.
- **Social Infrastructure:** that includes education level in a district identified through proportion of the literate population and number of colleges. **Higher education levels in a district enable the development of better human capital** that relates to increased supply of ideas and entrepreneurs and the largest increases appear when literacy rises above 72 per cent.
    - The survey found **no such threshold** as in the case of physical infrastructure. Increasing literacy levels or the formation of new colleges appear to increase the number of new firms monotonically.

Figure 9a: Market Access and Entrepreneurship

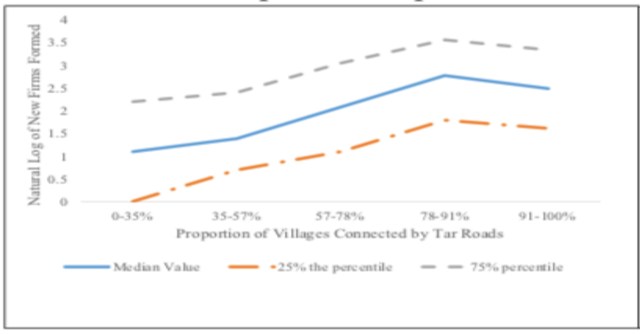


Figure 9b: Distance from large centres and Entrepreneurship

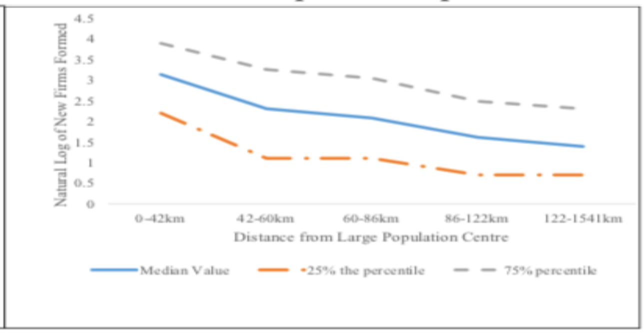


Figure 8a: Literacy and entrepreneurship

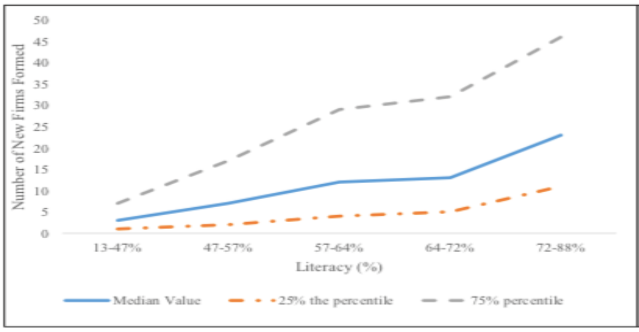
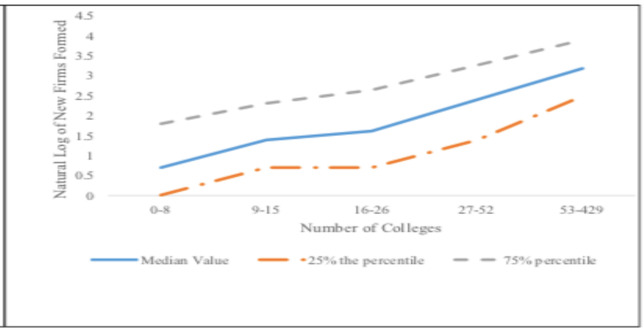


Figure 8b: Number of Colleges and entrepreneurship



Policy Measures for Fast-Tracking Entrepreneurship and Wealth Creation

- Given the relatively higher economic contribution of entrepreneurial activity in the manufacturing sector and its high employment generation potential, it is important for states to consider policy levers that **enable transition of labour and resources from less productive sectors and subsistence activity in the informal sector to these relatively more productive establishments.**
- **Increasing literacy rates** by setting up of more schools and colleges along with privatisation of school education to augment education capacity at all levels.
- **Investments in infrastructure** especially those undertaken to increase entrepreneurial activity should be weighed against how improved infrastructure creates other kinds of opportunities that might be consequential to a district's GDDP.

CHAPTER 3: PRO-BUSINESS VS PRO-CRONY

Theme

The chapter tries to highlight the connection between "pro-business" policy, competitive markets and wealth generation. Also, it tries to explain ills associated with "pro-crony" policies and how "pro-business" and "pro-crony" are antithetical to each other. Based on this analysis, the chapter states that "pro-business" policies are critical to Indian aspiration of a $ 5 trillion economy.

Introduction

- The Survey takes **liberalization** of the Indian Economy in 1991 as an example of **Pro-business policy** thus acting as an illustration of impact of Pro-business policy on wealth creation.
- The Survey argues that **liberalization has enabled creative destruction**. Here '**churning process**' of the stock market is taken as an identifier for creative destruction.
- Austrian economist **Joseph Schumpeter** coined and described the term **creative destruction** as a "process of industrial mutation that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one."

Pro-Business, Creative Destruction and Wealth Creation

- Liberalization enabled **creative destruction by empowering markets**. The accelerating growth (estimated by CAGR) of stock market (captured through S&P BSE Sensex) provides an evidence of this.
- The relationship between pro-business policy and creative destruction mirrors the **composition of Sensex**. Following data provides an evidence for it-
  - From **1986-96, firms that constituted the index barely changed**, representing the lack of dynamism in the Indian Economy then.
  - Since 1996 (1st Revision of Sensex post 1991), **every 5 years roughly one-third** of the firms in the index were replaced (Churned out). This is reflective of rapid emergence of new firms, new ideas, new technologies and new operating processes on continuous basis.
  - Estimates suggest that a firm that entered the market in 1986 could have **expected to stay for the next 60 years** (assuming liberalization did not occur). The corresponding figure **changed to 12 years due to liberalization.**
- The initial churning process of the Sensex represented creative destruction leading to increased diversity of firms and decreased sectoral concentration. This is illustrated by
  - **Entry of Sectors** like financials, telecommunications and information technology that were non-existent in the index then.
  - **Decreased dominance** of manufacturing sector that was dominated by the Materials and Consumer Discretionary sectors.
- Today's **Sensex is far more democratic** in terms of the size and concentration. This is illustrated by-
  - In 1991, the size of the largest firm was nearly 100 times the smallest firm which **got reduced to 12** in 2018.
  - Rising share of Service Sectors (like financials and IT) has been accomplished by a **rise in the number of companies** rather than the rise in the size of incumbents.
  - Analyzing **degree of competition** for financials and IT reveals an **overall decline in concentration** in both sectors.
- Encouraging creative destruction in turn enables wealth creation and welfare maximization in following ways-
  - Entry of new firms **increase competition** leading to lowered prices for consumers.
  - Brings **dynamism to the marketplace** and keeps incumbent firms on its toes.
  - **Sectors** as a whole always **outperform individual companies** within the sector.

It has only **one pre-requisite** – a pro-business policy stance that fosters competitive, unfettered markets. Therein lies the motivation for India to **pursue pro-business, rather than pro-crony**, growth.

Pro-Crony and Wealth Destruction

- Pro-crony policies erode wealth in the economy as **cronyism fosters inefficiencies** by inhibiting the process of creative destruction.

Survey uses 75 Indian firms (identified as "connected") as a proxy to firms that may benefit from pro-crony policies.

- The effect of pro-crony policies is evaluated by comparing growth of **"connected" vs. "unconnected" firms.**
- **CAG's audit report on 2G spectrum** allocation provides a watershed moment as it appears to have reversed the fortunes for "connected" firms. For instance, pre-2010, "connected" firms outperformed the Sensex but post-2010, "connected" firms significantly underperformed in contrast to the Sensex.
- The significant underperformance and **continuous widening of gap between Sensex and returns of "connected" firms** illustrates that such connected firms were likely to have been inefficient ones.
- Pro-crony policies create some indirect costs as well. Such as-
    - If opportunity of crony rent-seeking exists, **firms shift their focus** away from growth through competition and innovation **towards building political relationships.**
    - The rents sought by cronies are paid for by genuine businesses and citizens. Such a transfer of wealth **exacerbates income inequality.**
- Crony policies and processes collectively **extract** a larger share of **existing wealth instead of expanding available wealth.** Thus, creating a cycle of wealth destruction.

Political Connections lead to rent extraction (Global Evidence)

Ukraine: A World Bank study of cronyism in Ukraine found that the country would grow 1 to 2 per cent faster if all political connections were eliminated.

China: Political connections play a role in the allocation of bank loans to Chinese firms.

Discretionary Allocation of Natural Resources vis-à-vis allocation via auctions

- The Survey uses coal as an example of natural resource to draw comparison between allocation via auctions and discretionary allocations. Coal is chosen a s it is critical for India's energy needs.
- Prior to 1993, no specific criteria for allocation of captive mines existed. It was changed through Amendments in Coal Mines (Nationalization) Act, 1973 which allowed private players to carry out coal mining for captive use.
- Currently, the coal mines allocation is governed by Coal Mines (Special Provisions) Act, 2015. The act ensures that any future allocation of coal blocks would solely be through competitive auctions.
- **Comparison of Related Party Transactions (RPTs)** for allocation via committee and allocation via auctions are used to show the difference.
    - Related Party Transactions (RPTs): A related-party transaction is a deal or arrangement between two parties who are joined by a pre-existing business relationship or common interest.
    - RPTs used by the Survey- RPT for purchasing capital goods/equipment from related parties, RPT for operational expenses paid to related parties and RPTs from operational income from related parties.

Missing Roads

A study mentioned in the survey on **88,000 roads under PMGSY** has revealed following findings-

- After close election victories, **contractors affiliated to the winning** politician are **more likely to be awarded** road projects.
- Around **26% of the roads listed as completed in PMGSY** monitoring data are missing from 2011 Census Data. Suggesting they **were never actually built or completed.**
- **Preferential allocation of roads** increases the allocation of such **"missing" roads by as much as 86%.**

Allocation via Committee	Allocation via Auction
Unusual increases in coal block receipts of the firms.	No such increase.
Increase in one-time payments to directors like commissions, perquisites and consulting expenses.	No such increase.
The market share of these firms decreased despite gain from discretionary allocation.	The market share of these firms increased despite transparent competition.

- The Survey uses **coal as an example of natural resource** to draw comparison between allocation via auctions and discretionary allocations. Coal is chosen as it is critical for India's energy needs.
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- Currently, the coal mines allocation is governed by **Coal Mines (Special Provisions) Act, 2015.** The act ensures that any future allocation of coal blocks would solely be through competitive auctions.
- Comparison of **Related Party Transactions (RPTs)** are used assess the impact of form of coal block allocation. Survey has used 3 RPTs namely- RPT for purchasing **capital goods/equipment** from related parties, RPT for **operational expenses** paid to related parties and RPTs from **operational income** from related parties.
- These **three RPTs show an increase** in the three-year period following the receipt of a coal block through the **committee-based allocation** as compared to preceding 3 years. No such increase is seen in the case of auction based allotment. (Nearly identical observation has been made in case of RPTs with unlisted/foreign entities and tax havens.)
- **One-time payments to directors** like commissions, perquisites and consulting expenses increase following the discretionary allocation. No such increases are seen in case of auctions.
- **The market share of firms (that got committee-based allocation of coal) decreased** despite gain from discretionary allocation. This has been explained as a case of Dutch Disease.
    - **Dutch disease**: Firms that got the free resource diverted efforts towards the tunnelling of the windfall gain instead of towards productive business activity.

Riskless Returns: The Case of Wilful Default

- RBI defines a wilful defaulter as a firm that has **defaulted in meeting its repayment obligations** even though it **has the capacity** to honour these obligations.
- A firm could also be branded a wilful defaulter if it **uses the funds for purposes other than what is sanctioned** by the lender, siphons the money out to related parties or remove the assets used to secure the loan.
- The **aggregate outstanding amount** owed by wilful defaulters has been steadily increasing since 2010. As of 2018, it amounted to **Rs. 1.4 lakh crore**. (This amount is almost **equal budget allocation for health, education and social protection** or 2.5 times the allocation towards MGNREGA.)
- There seem to be three distinguishing characteristics of wilful defaulters in India-
    - Wilful defaulters tend to be **more opaque** than both non-defaulters and distress defaulters.
    - **Promoters** at the helm of a wilfully defaulting firm **pledge, on average almost 50% of their shareholding** to lenders. (Corresponding figures for distress defaulters and non-defaulters are 30% and 11% respectively.)
        - ✓ Rationale for pledging: In India, shares are pledged to finance firm's own projects. If a firm fails, value of its shares drops implying the dropping value of the collateral. But the promoters have **no personal liability beyond their pledged shares** which are compensated through extracted rents. Thus, **benefitting wilful defaulters.**
- **The cost** of this wilful default is **borne by the common man and genuine borrowers** in the form of refinancing of banks (through taxation and deposits) and increased borrowing cost.

Conclusion

- While pro-business policies increase competition, correct market failures and enforce business accountability, pro-crony policies hurt markets.
- Pro-business policies make it easy to do business in a jurisdiction furthering the goal of maximum social welfare. Pro-crony policies may end up giving preferential treatment to some firms at the expense of others. In the long-run, it decreases market efficiency and consequently social welfare.

CHAPTER 4: UNDERMINING MARKETS: WHEN GOVERNMENT INTERVENTION HURTS MORE THAN IT HELPS

Theme

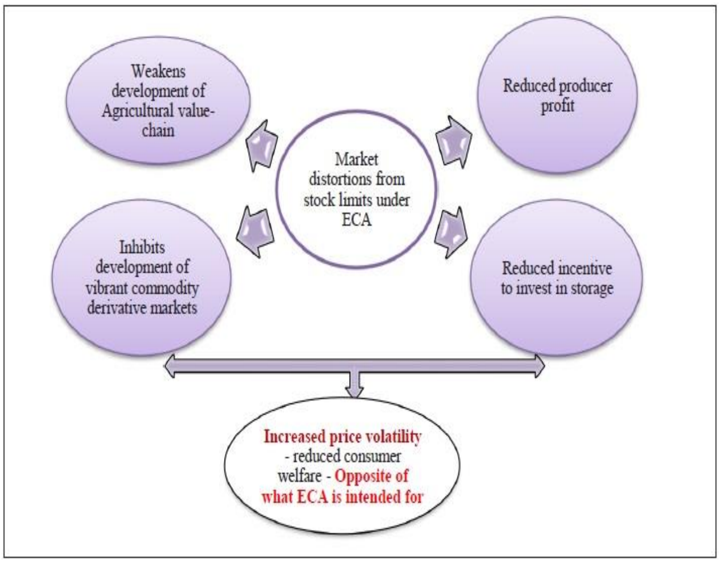
The chapter tries to state how anachronistic government interventions, though well intentioned tend to do more harm than good in the long-run. For this the survey uses the examples of Essential Commodities Act (ECA), Drug Price Control Order (DPCO), food subsidy and debt waivers. Thus, making the case for adopting need-based intervention.

Introduction

- India has made significant progress in enhancing economic freedom. But it still **counted as a shackled economy.** Following indices provide evidence for the same-
  - **Index of Economic Freedom** (given by **Heritage Foundation**) **ranks India 129th** among 186 countries. (Categorizing India as 'mostly unfree.')
  - **Index of Global Economic Freedom** (given by **Fraser Institute**) ranks India **79th** among 162 countries.
- The indices of economic freedom positively correlate with per capita GDP, registration of new business, the ease of doing business indicators, number of patents applied in a country, number of patents granted in a country and Index of Innovation. This suggests that **economic freedom affects several aspects of wealth creation** significantly.
- The Survey argues that direct participation of Government the market may affect the **supply and demand equilibrium** thus generating **deadweight losses**.
- The Survey highlights the impact of **anachronistic government interventions** with the examples of Essential Commodities Act (ECA), 1955, regulation of prices of drugs, government policies in foodgrain markets and debt waivers.

Essential Commodities Act (ECA), 1955

- The ECA, 1955 aims to ensure **affordability of the essential commodities** for the poor by restricting hoarding. To enable this, ECA controls the production, supply and distribution of, and trade and commerce in certain goods which are treated as essential commodities.
- The Act however affects the development of agricultural markets by **creating market distortions.**
- The **Act does not distinguish** between firms that genuinely need to hold stocks owing to nature of their operations and firms that might speculatively hold stocks.
- The impositions by the Act are **ineffective in controlling the price** volatility. This has been illustrated by the example of Pulses (in 2006-Q3 and 2009-Q1) and Onion (Sep 2019), where prices spiked despite the imposition of ECA.
- The **increasing wedge (difference) between wholesale and retail prices** of essential commodities further reinforces that ECA reduces welfare of consumers.



- In the long term, the Act **disincentivizes development of storage infrastructure** thereby leading to increased volatility in prices following production/consumption shocks- the opposite of what was intended.

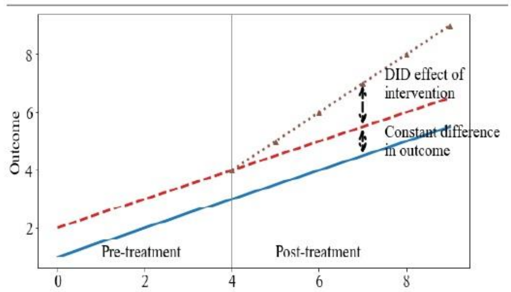
- The **conviction rate under the Act is at 2-4%,** indicating that raids under the ECA maybe only leading to harassment of traders. The Act while penalizing speculative hoarding also ends up penalizing consumption smoothening that storage provides.
- The Survey suggests following alternatives to ECA for stabilization of prices-
  - Strengthening of the **Price Stabilization Fund (PSF)** that was created in 2014-15.
  - Development of **effective forecasting mechanisms**, **stable trade policies** and **increasing integration of agricultural markets.**

Drug Price Controls under ECA

- Drug Price Controls have a mandate to ensure **access to essential life saving drugs** and to make drugs affordable. To enable this, the Government regulates drugs through **National Pharmaceutical Pricing Authority (NPPA) and DPCO**. They are aided and guided by **National List of Essential Medicines (NLEM)** prepared by Ministry of Health and Family Welfare.
- To examine its impact, the Survey has taken similar drugs (Glycomet and Glimiprex-MF), one of which came under DPCO, 2013 and other didn't.
- The examination has generated following findings -
  - Counter-intuitively, the **price of the regulated drug increased more in comparison to the unregulated drug.** But there was **no perceptible impact of DPCO on the quantities** consumed of both the drugs. (Using Difference-in-difference methodology.)
  - Post DPCO 2013, prices of cheaper formulations increased by 21%. However, the prices of costly formulations increased 2.4 times. (Opposite of what was intended.)
- The Survey advocates **repealing ECA** and replacing it with market friendly interventions like **DBT, incentives to innovation, increasing market integration** etc.

Difference-in-differences

The technique compares the **changes in outcomes over time between** a population that is affected by a specific intervention (the **treatment group**) and a population that is not (the **control group**).



Government Intervention in Grain Markets

- The Government intervention in grain market is aimed at **achieving food security** while ensuring remunerative prices to producers and affordable supplies to consumers.
- Current Status of Food Procurement System in India-
  - The **Food Corporation in India (FCI)** has the primary duty to purchase, store, transport, distribute and sell foodgrains.
  - Government is obligated under **National Food Security Act (NFSA), 2013** to provide foodgrains to **75% of rural population and 50% of the urban population.**
  - Government procures around **40-50% of the total market surplus** of rice and wheat, making the government virtually a monopsonist in domestic grain market. This has led to Government becoming the single largest hoarder of rice and wheat. (**Central pool stocks were 74.3 million tonnes** on July 1 2019 as **against the norm of 41.1 million tonnes**.)
  - This disincentivizes the private sector to undertake long-term investments in procurement, storage and processing.
- Costs associated with maintaining the current system-
  - The procurement costs, distribution costs and carrying costs of the FCI are **largely covered by the food subsidy.**
  - The Survey argues that the current mix of policies of assured procurement, storage and distribution under TPDS have contributed to building up of a **high cost food-grain economy**.
  - **Inefficiency of FCI increases with increasing levels of stock** it has to store.
- Growth in public **investments in agriculture is negatively correlated to increase in food subsidy** outlay. Thus, inferring that focus on subsidies is harming the growth of agricultural sector in the long run.
- Government intervention has **created a disconnect between demand and supply** of foodgrains. It has put forth following arguments for the same-

- There is an evident **decline in the demand for cereals**. (Reflected in decrease in share of cereals in Monthly Per Capita Expenditure (MPCE) by 33% and 28% for rural and urban areas respectively).
- Contrary to the demand, the **production** of foodgrain has **increased** consistently since 2005.
- This suggests that **farmers** are **deriving their signals**, not from the demand patterns but from the **Government policy on procurement and distribution.**

- In the light of aforementioned issues, the Survey suggests some alternative measures-
    - Farmers should be empowered through **direct investment subsidies** that are **crop neutral.**
    - Coverage of **NFSA** needs to **be restricted to the bottom 20%** of the economic ladder.
    - Moving towards **conditional cash transfers (CCTs),** which can be used to nudge people towards improved health and education levels.
    - At the macro level, the agricultural marketing, trade (both domestic and foreign) and distribution policies need to be aligned so that farmers receive the correct signals for diversification into remunerative and sustainable production.

Debt Waivers

- In recent times, there have **been several cases of debt waivers** both at national and state level. For example, by Government of India in 2008, UP Government in 2017, Karnataka Government in 2018 etc.
- Arguments put forth by proponents of debt waiver-
    - Borrowers suffer from a **problem of "debt overhang"**. This refers to a situation where all current income of the borrower gets used up in repaying the accumulated debt, leaving little incentives to invest either in physical or human capital.
    - **Debt waiver can clean-up the borrowers' balance sheet** and is likely to lead to new investments as well as fresh fund-raising as borrowers' repayment capacity increases even if there is no change in income.
- The Survey has examined these claims and has given following observations-
    - Waiver had **negligible impact on agricultural productivity, investment or consumption** levels of farmers receiving full relief. (Examining 2008 waiver by Government of India by comparing farmers getting full and partial relief.)
    - Full waiver beneficiaries **consume less, save less, invest less and are less productive** after the waiver when compared to partial beneficiaries.
    - **Share of formal credit decreases** for full beneficiaries when compared to partial beneficiaries.
    - **Waiver helps only when the beneficiaries are genuinely distressed** but fuels even greater default when relief is not made conditional to genuine distress.
- The Survey argues that the debt **waivers impact credit market negatively**. It highlights following evidences for the same-
    - An anticipated waiver may lead to **moral hazard** and **destroy the credit culture**. (E.g.-Loan performance deteriorated the most in areas that were headed for election.)
    - With regard to 2008 waiver by GOI, waiver led to increased loan defaults on future loans and no improvement in wages, productivity or consumption.

Laws where changes have been made

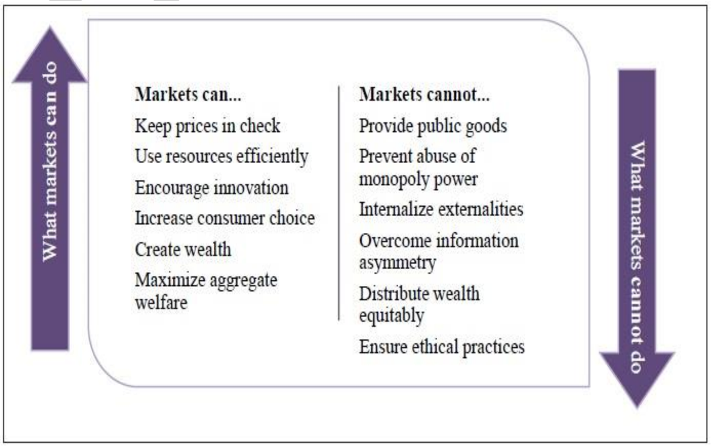
Act	Market Distortion created	Transformation towards Developing a Market Economy
Capital Issues (Control) Act, 1947	Excessive control over the amount as well as pricing of shares led to ineffective valuation of capital.	Repealed and replaced by The Securities and Exchange Board of India (SEBI) Act, 1992.
Monopolies and Restrictive Trade Practices (MRTP) Act, 1969	The Act restricted companies to grow and achieve a global scale and this led to proliferation of small companies.	Repealed to give way to the Competition Act in 2002. Since then, the focus has shifted from 'prevention of dominance' to 'regulating abuse of dominance'.
Foreign Exchange Regulation Act, 1973	The Act restricted access to foreign capital and technology.	Repealed and replaced by Foreign Exchange Management Act (FEMA). Under FEMA, everything was permitted unless specifically restricted or regulated to enable development of forex market.

Urban Land Ceiling and Regulation Act, 1976	This led to distortion of land markets in urban areas, rise in slums, creation of artificial land scarcity and skyrocketing land prices.	Repealed in 1999**.**

Legislative Changes Required to Reduce Government Intervention

Act	Market Distortion created	Need for repeal/amendment
Factories Act, 1948	Raises cost of health and safety entitlements and may nudge capital away from labour.	It is proposed to be subsumed by the Occupational Safety, Health and Working Conditions Code, 2019.
Sick Textile Undertakings (Nationalisation) Act, 1974	The nationalisation of these mills failed to achieve the desired objectives of rehabilitating or reorganising them and failed to deliver yarn, cloth, fair prices or jobs.	This Act needs to be repealed and National Textile Corporation (NTC) should be divested.
Recovery of Debts due to Banks and Financial Institutions Act, 1993	There are huge delays due to insufficient number of presiding officers, recoveries taking two years instead of the recommended statutory six months, lack of sufficient judicial experience by recovery officers, and inconsistency of the decision-making process between tribunals	With the IBC now firmly in place to fix the problem of non-performing assets, the DRTs can be phased out or integrated with the IBC.
The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013	Regulates land acquisition with 80 percent of the land to be acquired through negotiations, with the government stepping in only for the balance 20 percent; for PPP projects, it is 70 percent.	This tilts the balance in favour of land owners who need to be made an equal partner in development of land and share the benefits and costs with the developer/acquirer.

Conclusion



- While the ideal of a completely efficient market is rare, the costs of Government intervention may outweigh the benefits when "market failures" are not severe.
- Interventions that were apt in a different economic setting, possibly because the "market failures" were severe then, may have lost their relevance in a transformed economy where the "market failures" are not severe.
- The chapter does not argue that there should be no Government intervention but eliminating instances of **needless Government intervention** will enable competitive markets and thereby spur investments and economic growth.

CHAPTER 5: CREATING JOBS AND GROWTH BY SPECIALIZING TO EXPORTS IN NETWORK PRODUCTS

Theme

As job creation is a prerequisite to wealth creation and India's growth, this chapter articulates a clear-headed strategy for India to take a leap in the current environment for international trade. India has an unprecedented opportunity to chart a China-like, labour-intensive, export trajectory and thereby create unparalleled job opportunities for our burgeoning youth.

Introduction

- The survey highlights that in just the five year period 2001- 2006, **labour-intensive exports enabled China to create 70 million jobs for workers with just primary education.**
- Now as The US–China trade war is causing major adjustments in Global Value Chains (GVCs), firms are looking for alternative locations for their operations. Also, China's image as a low-cost location for final assembly of industrial products was rapidly changing due to labour shortages and increases in wages. These **developments present India an unprecedented opportunity to chart a similar export trajectory.**
- Survey suggests that by **integrating "Assemble in India for the world" into Make in India**, India can raise its export market share to about 3.5 per cent by 2025 and 6 per cent by 2030. In the process, India would create about 4 crore well-paid jobs by 2025 and about 8 crore by 2030.

India's export under-performance vis-à-vis China

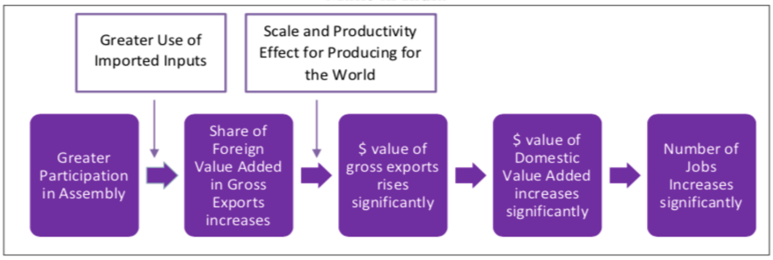
India's world market share of 1.7% by 2018 is paltry compared to 12.8 per cent for China. The survey examines the reasons for India's under-performance in exports vis-à-vis China.

INDIA	CHINA
Low level of participation in Global Value Chains	High level of participation in Global Value Chains
Diversification of products	Specialization of products
Small scale of operations	Large scale of operation
Export growth is driven mainly by capital and skill intensive products	Export growth is driven mainly by traditional labour- intensive and involving in labour-intensive stages of production processes within capital- intensive industries.
Low market penetration in high income countries	Equal penetration both in high income and low & middle income countries.

Reaping gains from participation in Global Value Chains

- The survey suggested that a 10 per cent increase in foreign value added share of gross exports leads to 17.9 per cent increase in the dollar value of gross exports, which in turn, causes domestic value added (from exports) to increase by 7.7 per cent. Finally, 7.7 per cent increase in domestic value-added increases employment by 13.2 per cent.
- With this calculation, in a country like India, it is possible to create 10 million additional export related jobs during the next five years and over 20 million jobs during the next ten years.

Figure 8: The Conceptual Framework for Gains from "Assembling in India" as part of "Make in India"



Industries in which India can specialize in for job creation

According to the survey, there are two groups of industries that hold the greatest potential for export growth and job creation.

- **Traditional unskilled labour-intensive industries such as textiles, clothing, footwear and toys** -Here the GVCs involved are controlled by "buyer driven" networks wherein the lead firms based in developed countries concentrate in higher value added activities such as design, branding and

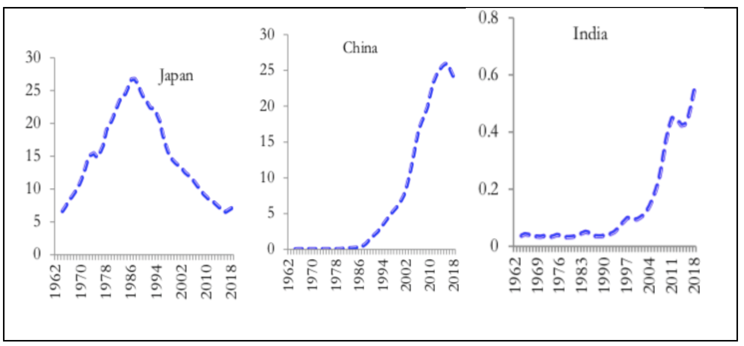
SUMMARY OF ECONOMIC SURVEY

marketing and outsource the physical production of the products to firms in developing countries. Ex include- Wal-mart, Nike, Adidas etc.

- **Network products (NPs):** Here the GVCs involved such as Apple, Samsung, Sony etc. are controlled by "producer driven" networks wherein products are not produced from start to finish within a given country; instead, countries specialize in particular tasks or stages of the good's production sequence depending on its comparative advantage. For ex. China with huge low skilled labour force specialized in assembly of products.
  - Examples of NPs include computers, electronic and electrical equipment, telecommunication equipment, road vehicles etc.
  - **NPs accounted for nearly 30 per cent of world exports in 2018** and total trade in NPs can be classified into its two main sub-categories - parts & components (P&C) and assembled end products (AEP). AEP is highly labour intensive, which can provide jobs for the masses, while domestic production of parts & components (P&C) can create high skill jobs.

Network Products: Case in India

- The survey highlighted that **in 2018, NP exports accounts for 10% in India's export basket**, while these products account for about 50% of the total national exports of China, Japan and Korea. Also, among the major Asian countries, India is the only one with trade deficit in NP.
- The **main category of NP exported by India is Road vehicles** with a share of 4.9 per cent in its total exports in 2018.



Pattern of entry in case of NPs

- The pattern of entry, rise, survival, and relative decline of countries in the export market for NPs **follows the "wild- geese flying model" i.e. an "inverted V" pattern .**
- While Japan is in declining stage, most countries including China have reached the inflection point. But in India, the take-off process in NP exports may be just beginning, thus providing us sufficient opportunity to grab.

Potential gains in employment and GDP with focus on Network products export

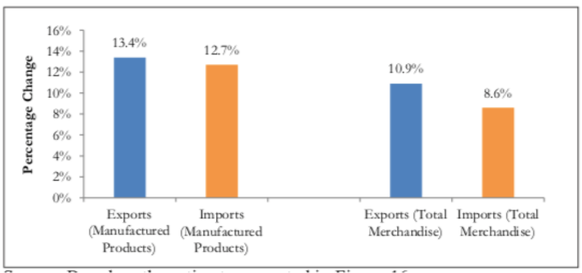
- The survey suggests that with increasing India's share in world exports of NP, between 2019 and 2025, the incremental domestic value added is US$485.5 billion, which is **one-quarter of the increase in GDP (in basic prices) required for making India a $5 trillion economy by 2025.**

	# of Jobs (Millions)	Value added (US$ Billion)
2020	30.1	168
2025	97.3	586.9
2030	173.5	1134.3

Free Trade Agreements

- India has signed 14 FTAs with various countries between 1993 and 2018. Highlighting the efficacy of these FTAs, the survey posits that from the perspective of trade balance, **India has clearly "gained"** in terms of 0.7 per cent increase in trade surplus per year for manufactured products and of 2.3 per cent increase in trade surplus per year for total merchandise.

Figure 17: Overall Impact of Trade Agreements on Exports and Imports



Way forward

Given our vast manpower with relatively low skill, India's current strength lies primarily in assembly of NPs. While the **short to medium term objective is the large scale expansion of assembly activities** by making use of imported parts & components, **long term objective should be giving a boost to domestic production of parts & components** (i.e. upgrading within GVCs).

Policy measures for the same should focus on:

- **creating an ecosystem** that will result in realignment of India's specialization patterns towards labour-intensive processes and product lines.
- **reducing import tariffs** for intermediate inputs.
- **implementation of key factor market reforms** to provide greater flexibility in the labour market.
- **providing an enabling environment** for the entry of lead firms into the country with a pro-active FDI policy
- **a low level of service link costs** i.e. the costs related to transportation, communication, and other tasks involved in coordinating the activity in a given country.

Success Stories

Automobiles

- **The country has emerged as a major assembly centre for compact cars.** India's exports of completely built units (CBUs) increased from about US$225 million in 2001 to US$8.8 billion in 2017, while exports of parts and accessories increased from US$408 million to US$5.5 billion between these two years.
- On the other hand, imports of parts and accessories grew significantly faster than imports of assembled vehicles during the same period.
- The key learning from the successful case study of the Indian Automobiles sector is that **domestic firms graduate up the production value chain by first starting with low-technology operations such as assembly and then moving to manufacturing of components. In the process, imports of components increase in the short run.**

Mobile handsets

- **India toppled Vietnam to become the second largest manufacturer of mobile phones globally following China in 2018** with a world share of 11 per cent.
- India could manufacture around 1.25 billion handsets across various segments by 2025, firing up an industry worth around $230 billion.
- Between 2013 and 2017, while India's import of telecom handsets declined from US$4.47 billion to US$3.31 billion that of telecom parts increased steadily from US$1.34 billion to US$9.41 billion.
- At the same time exports of telecom handset increased significantly during the last three years. This pattern is consistent with the emergence of India as an assembly centre for telecom handsets.

CHAPTER 6: TARGETING EASE OF DOING BUSINESS IN INDIA

Theme

The key to entrepreneurship, innovation and wealth creation is Ease of doing business in any country. This chapter analysis India's performance in certain parameters in which India is lagging and compares it to its peers (such as China, Brazil & Indonesia) as well as to the best performer country, thus providing a measure of the scope for improvement.

Introduction

- India has made substantial gains in the World Bank's *Doing Business* rankings from 142 in 2014 to 63 in 2019. However, it continues to trail in parameters such as **Ease of Starting Business** (rank 136), **Registering Property** (rank 154), **Paying Taxes** (rank 115), and **Enforcing Contracts** (rank 163).

Global Comparisons

Parameter	India	Peers	New Zealand (Rank 1 in EODB)
No. of procedures and days to start a business	10 procedures and 18 days	China takes 4 procedures and 9 days. Other countries like Indonesia, Brazil, Pakistan and Sri Lanka also have a less cumbersome process to start a business than India.	1 procedure and half a day
Registering Property	9 procedures, at least 49 days, and 7.4-8.1 per cent of the property value to register	In China - 4 procedures, 9 days, and 4.6 per cent of the property value to register one's property	2 procedures and a minimal cost of 0.1 per cent of the property value.
Paying Taxes	250-254 hours per year to pay taxes	China- 138 hours per year	140 hours per year.
Enforcing Contracts	1,445 days to resolve an average dispute i.e. approx. 4 years.	China – 496 days, Brazil – 801 days, Indonesia- 403 days	216 days

Density of Legislation and Statutory Compliance Requirements in different sectors

The survey highlights that **a major challenge most companies face is the complex architecture of the Indian governance framework** including the large number of legislations and statutory compliance requirements.

- For instance:
  - **Manufacturing:** There are **51 applicable acts and 6,796 Sections / Rules of such acts** that are required to be complied with by manufacturing units in India.
  - **Services**: This sector too faces many regulatory hurdles even for routine businesses such as opening a restaurant.
    - ✓ The survey showed that the **number of licenses required to open a restaurant** in India is 12-16 in comparison to only 4 licences that are required in countries such as China and Singapore.
    - ✓ Moreover, Delhi and Kolkata also require a '**Police Eating House License'**. The **number of documents needed to obtain this license from Delhi Police is 45** – far more than the number of documents required for a license to procure new arms and major fireworks, 19 and 12 respectively.
    - ✓ The survey also highlighted the **difference in approach** in terms of opening a restaurant – **government control versus partnership**. For instance in India, only the list of licenses and permissions can be obtained from a government website whereas, in New Zealand, the privately operated website provides all detailed guides and stepwise procedures about permissions, fees and timeline to open a restaurant along with ready-to-use business plan templates.

Achieving scale across a business

- According to the survey, **scale is another issues that gets in the way of business efficiency** in India. Most of the manufacturing units in India have small capacities and consequently low manufacturing efficiencies which are a disadvantage in the global supply chain.
- Compared to Bangladesh, China, and Vietnam, which have more than 80 per cent of market value of exports by large enterprises, **India has 80 per cent by small enterprises.**

Trading across borders

- The Trading Across Borders indicator records the time and cost associated with the logistical process of exporting and importing goods.
- While **India takes 60-68 and 88-82 hours** in border and documentary compliance for exports and imports respectively, **Italy takes only one hour** for each. Moreover, the **cost of compliance is zero in Italy** which is US$ 260-281 and US$ 360-373 for exports and imports respectively in India.
- **70 per cent of the delays** (both in exports and imports) occur on account of port or border handling processes which essentially pertain to procedural complexities (number and multiplicity of procedures required for trade), multiple documentations and involvement of multiple agencies for approvals and clearances.
- **The survey suggested that** while the government has already reduced procedural and documentation requirements considerably through schemes like **Authorized Economic Operators**, increasing digitalization and seamlessly integrating multiple agencies onto a single digital platform can further reduce these procedural inefficiencies significantly and improve user experience substantially.

Authorised Economic Operator (AEO)

- It is a **programme under the aegis of the World Customs Organization (WCO)** SAFE Framework of Standards to secure and facilitate Global Trade.
- It is a **voluntary programme and aims to enhance international supply chain security** and facilitate movement of goods.
- Under this programme, an entity engaged in international trade is approved by Customs as compliant with supply chain security standards and granted **AEO status.** That entity is then considered a 'secure' trader and a reliable trading partner.
- It **enables Indian Customs to enhance and streamline cargo security through close cooperation with the principle stakeholders of the international supply chain** viz. importers, exporters, logistics providers, custodians or terminal operators, custom brokers and warehouse operators, who benefit from preferential treatment from customs authorities.
- **Benefits** include expedited clearance times, fewer examinations, improved security and communication between supply chain partners, and more.

India's Performance in logistics in specific segments

The survey through a series of case studies and industry surveys analysed the time taken at each stage of the supply chain for specific merchandise items to travel from factory gate to the warehouse of the foreign customer.

- Case studies of segments such as exporting apparels and carpets from India, and importing carpets to India through ports leads to the following conclusions:
  - There exists **inordinate delays in loading and customs processes** in Indian sea-ports.
  - The **processes for imports, ironically, are better than those for exports.**
  - The **large variance in process time** means that exporters have to pad up the time spent waiting which adds to the **clogging of port space**.

Case Study of Exporting Carpets

- A consignment of carpet manufacturer, in Mirzapur, Uttar Pradesh who is an **AEO, takes 40 days** to reach its destination in New Jersey in the U.S. Breakup of the time is as follows:
  - Shipment reaching Inland Container Depot (ICD) in Piyala, Haryana – 2 days
  - Customs clearing at ICD- 1 day
  - Stuffing containers- 3 days
  - Transportation to Mundra sea port: 3-4 days
  - Waiting time in the queue to enter the port: 6-7 hours
  - Loading and departing – 3
  - Time on sea- 23 days

- Consignment clearing and transportation in US – 4-5 days
- Although, being an AEO significantly reduces the number of days a shipment takes to depart from India (compared to the previous case), it still takes an inordinate amount of time within the country.

Case Study of Importing Carpets

- A consignment of carpets from Milan, Italy takes nearly **31 days** to reach a warehouse in Beawar, Rajasthan . Breakup of the time is as follows:
  - Transporting shipment to Naples – 10 hours.
  - Customs clearance and loading into ship – 3 hours
  - Time on sea- 23 days
  - Customs clearance along with waiting time at Mundra port – 6 days
  - Transportation to Beawer by road – 2 days

- **In contrast,** however, the imports and exports of electronics through Bengaluru airport was found to be world class. It also provides some insight into the impact of implementation of AEO policy in changing business environment. The case study of the same suggests the following conclusions:
  - the **processes in Indian airports is vastly superior to those at sea ports** for both imports and exports;
  - **AEO did significantly improve the process** but it is reasonably smooth even for non-AEO operators importing/ exporting electronics
  - **Indian processes can beat international standards.**
  - **The processes of Indian airports should be adapted and replicated in sea-ports**

Case Study of export and import of Electronics

The breakup of the time taken for exporting electronics from Bengaluru to Hong Kong, with and without AEO registration is as follows:

- Transportation of shipment from factory to Kempegowda Airport – 3 hours
- Entry to exports terminal at airport- 1 hour
- Customs and examination process- 2 hours for AEO and 6 hours for Non-AEO
- After AEO implementation, the **total time spent in India (six hours) is less than that spent in Hong Kong (seven hours).**
- On the other hand **time taken in importing electronics from China to Bengaluru, with and without AEO requires 14 and 11 hours respectively in India and 7 hours and 2 days in China.**

Conclusion

A holistic assessment and a sustained effort to ease business regulations and provide an environment for businesses to flourish would be a key structural reform that would enable India to grow at a sustained rate of 8-10 per cent per annum and leapfrogging towards a five trillion-dollar economy by 2024-25.

CHAPTER 7: GOLDEN JUBLEE OF BANK NATIONALIZATION: TAKING STOCK

Theme

In this chapter, the Survey highlights status and issues of the Banking Sector in India and its comparisons with the peers. It suggests use of Financial Technology and employee stock ownership for enhancement of efficiency. It also illustrates the use of Artificial Intelligence and Machine Learning in banking sector in future through the idea of Public Sector Bank Network (PSBN).

Introduction

- The Survey observes that India's banks are disproportionately small when compared to: size of the economy (GDP), development of the economy (GDP per capita) and population.
- The Survey observes that **credit growth among PSBs has declined significantly since 2013** even as New Private Banks (NPBs) had considerable credit growth. (Between 15% and 29%)
- Using international examples, the survey estimates that in relation to the size of the Indian economy, we should have at least six banks in the global top 100.That will increase to eight, if India aspires to become a $ 5 trillion economy.
- The primary difference between PSBs and NPBs stems from the **difference in efficiencies** thus making a case for improving the efficiencies within PSBs.

Merging Social goals and Financial Returns: Case for Microfinance

Post-2000, MFIs moved from purely pursuing social goals to the **double bottom-line approach of achieving social and financial returns.**

UN's declaration of Microfinance year in 2005 also highlighted the **role of MFIs in poverty alleviation.**

As of 2016, **97 per cent of the MFI borrowers were women with SC/ST and minorities accounting for around 30 per cent and 29 per cent** of the borrowers. Thus making an impact to the bottom of the pyramid.

Banking Structure: Nationalization to Today

- After the **1980 nationalization**, PSBs had a **91% share** in the national banking market which **has reduced to 70%** in recent times. Reduced stake has been absorbed by New Private Banks (NPBs) which came up in early 1990s after liberalization.
- The Government exercises significant control over all aspects of PSB operations. As a result there is an implicit promise of bailout of bank liabilities. Also, the PSB officers are subject to scrutiny by CVC and CAG making them wary of taking risks.

Benefits of Nationalization

- The allocations of banking resources to rural areas, agriculture, and priority sectors increased. For example in the period from 1969-1980-
    - Number of **rural Bank branches** increased **ten-fold**.
    - **Credit to rural areas** increased **twenty-fold**.
    - **Credit to agriculture** expanded **forty-fold**, reaching 13% of GDP from a starting point of 2% of GDP.
- Survey discusses whether these benefits were entirely caused by Nationalization as the period saw various other events like green revolution, anti-poverty programmes (like Integrated Rural Development Programme) and policies of RBI (such as RBI's 4:1 formula).

The Weakening of Public Sector Banks

- In 2019 public sector banks reported **gross and net NPAs of Rs. 7.4 lakh crore and Rs. 4.4 lakh crore respectively**, amounting to about 80 per cent of the NPAs of India's banking system. (The gross NPAs of PSBs amount to **11.59 per cent of their gross advances**)
- PSBs account for **92.9% of the cases of fraud,** a large majority (90.2%) were related to advances, suggesting poor quality of screening and monitoring processes for corporate lending adopted by PSBs.
- Every rupee of taxpayer money invested in PSBs fetches a market value of 71 paise. Whereas, every rupee invested in NPBs fetches a market value of Rs. 3.70 i.e., more than five times as much value as that of a rupee invested in PSBs.

- PSBs **perform poorly on Return-on-Assets (RoA), Return-on-Equity (RoE) and indicators like Total capital adequacy ratio** when compared with NPBs.
- Survey suggests- A plausible explanation for the NPA problems of PSBs is that in the Indian economy's growth phase between **2004 and 2011**, PSBs grew their loan portfolios but this **credit growth was of suspect quality.**

Enhancing Efficiency of PSBs: The Way Forward

- Survey advocates leveraging India's critical position in her growth trajectory with factors like **positive demographic dividend**, a **modern digital infrastructure** (driven by JAM trinity, Aadhaar and mobile network penetration) and a **de novo GST structure**.
- Apart from the suggestions given in various committees such as Narasimhan Committee (1991, 1997), Rajan Committee (2007) and PJ Nayak Committee (2014), the Survey has explored two solutions to decrease inefficiencies-
    - Use of **FinTech (Financial Technology)** across all banking functions.
    - **Employee Stock Ownership** across all levels.

Use of Financial Technology in PSBs

- The Survey showcases the availability of important ingredients with PSBs for adopting FinTech such as **local market insights, long operating histories, vast geographical footprint** and availability of **large structured and unstructured data.**
- To utilize these resources, following capabilities need to be developed-
    - Leveraging the prevalent structured and unstructured data requires **new data, analytics and modelling skills.**
    - The system will require complementary investments such as **specialist human capital with and orientation towards analytics.**
- Using Credit Analytics can have several advantages like **prevention of large of proportion of NPAs** (as was seen in identification of wilful defaulters in Chapter-3), enhanced growth in retail lending (as was seen post usage of consumer credit data) etc.
- The Survey argues for creating a PSB Network on lines of GSTN. Following could be its possible benefits-
    - Machine Learning (ML), Artificial Intelligence (AI) as well as Big Data and matching provide banks the **ability to recognize patterns quickly** by analysing vast datasets.
    - It could **address current issues like high operating costs, disjointed process flows from manual operations and subjective decision making.**
    - The AI-ML models can not only be employed when screening the corporate for a fresh loan but also for **constantly monitoring the corporate borrower**.
    - PSBN could help PSBs **take advantage of data** with all the PSBs from **past 50 years**.
- It has proposed following structure for the same-

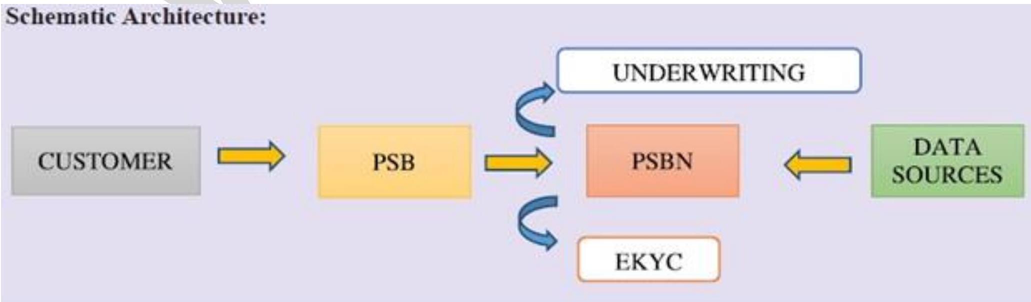
Using Data to Protect Creditor's Collateral

Wilful defaulters have a natural incentive to misrepresent the value of collateral or dispose assets without lender's knowledge.

Data can be used to deter this in following ways-

1. **Geo-tagging** of collateralized assets.
2. Fixing of **GPS devices** on mobile assets.
3. **Creating Integrated Data** on collateral across all lenders.

But strong and clear policy guidelines are needed on what data may be collected, how, by whom and for how long to avoid privacy breaches.



Mechanism for PSBN: Customer approaches the PSB and indicates their loan requirement and PSB transfers this information to PSBN. PSBN completes the KYC process and generates a credit profile of the customer. Further, based on this profile the PSB takes the decision on the amount and rate of loan to be given.

Employees Stakes in PSBs

- The Survey argues that the current salary-based compensation mechanism encourages employees to **prefer safety and conservatism over risk-taking and innovation.**
- As a solution to this Survey suggests that a portion of the government stakes can be transferred to employees exhibiting good performance across all levels of the organization through **Employee Stock Option Plans (ESOPs).**
- This may encourage risk-taking and possible **change of mindset** from that of an employee to that of an owner.
- The Survey also recommends that PSBs need to **enable cutting-edge recruitment practices** that allow lateral entry of professionals and recruitment of professionally trained talent at the entry level.

Conclusion

- The Survey states that all the above recommendations need to be seriously considered and a definite, time-bound plan of action drawn up.
- With the cleaning up of the banking system and the necessary legal framework such as the IBC, the banking system must focus on scaling up efficiently to support the economy.

CHAPTER 8: FINANCIAL FRAGILITY IN THE NBFC SECTOR

Theme

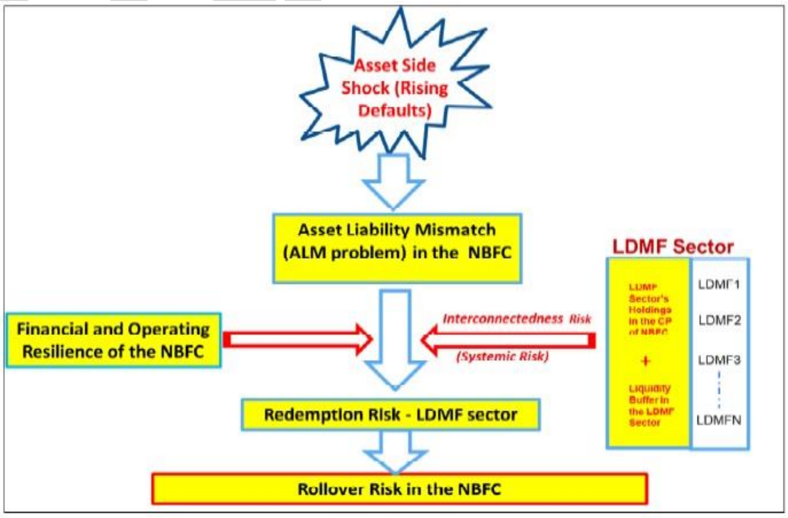
In the light of defaults by subsidiaries of Infrastructure Leasing and Financing Service (IL&FS) and Dewan Housing Finance Limited (DHFL), the chapter aims to deconstruct the risks faced by NBFC sector while differentiating Housing Finance Companies (HFCs) and Retail-NBFCs. The chapter also creates a Health Score which could act as a policy tool for better financial regulation of NBFCs.

What happened?

- Two subsidiaries of **IL&FS defaulted on their payments** in the period from June to September 2018, while **DHFL did so** in the period from June to August 2019.
- The defaulted amount was **approximately Rs. 1500-1700 crore.**
- The associated debt mutual funds started writing off their investments in stressed NBFCs and the assets of these NBFCs were selling at fire sale prices.
- This consequently led to **decline in equity prices of stressed NBFCs** which decreased the capacity of NBFCs to raise funds. This resulted in d**ecreased overall credit growth and a simultaneous decline in GDP growth.**

Rollover Risk

- The NBFCs raise capital in short-term market but the assets of NBFCs are of longer duration. Thus, there arises a **need for refinancing the debt** at short frequencies. The frequent **repricing exposes NBFCs to the risk** of facing higher financing costs. Such refinancing risks are referred as **Rollover Risk.**
- The rollover risk is a combination of risks associated with **asset-liability management**, **Interconnectedness with Liquid Debt Mutual Fund (LDMF)** Sector and **Financial and Operating Resilience.**



  - **Risks from Asset-Liability Mismatch**
    - ✓ This risk arises in most financial institutions due to a **mismatch in the duration of assets and liabilities.** Generally liabilities are of much shorter duration than assets which tend to be of longer duration.
  - **Risks from Interconnectedness**
    - ✓ This risk arises when the liability structure of NBFCs is **over-dependent on short term wholesale funds.** The **LDMF sector is a primary source** of wholesale short-term funding. This interconnectedness is a **channel for the transmission of systemic risk** from the NBFC sector to the LDMF sector and vice versa.
    - ✓ How it happens? If and when the LDMF sector is faced with **redemption pressures**, it is reluctant to roll over loans to the NBFC sector (Rollover Risk), causing a liquidity crunch in the NBFC sector. Redemption Pressure can be described as repayment pressure of any security at or before the asset's maturity date.
  - **Financial and Operating Resilience** (indicating balance sheet strength and associated risk of NBFCs)
    - ✓ Measures of **financial resilience** of NBFCs are **commercial paper (CP) as a percentage of borrowings**, **Capital Adequacy Ratio (CAR)** and **provisioning policy.**
    - ✓ While measures of **operating resilience** are **cash as a percentage of borrowings**, **loan quality** and **operating expense ratio (Opex Ratio).**
- With regard to rollover risk, HFCs and Retail- NBFCs have some differences in their profile-

	HFCs	Retail-NBFCs
Differences	HFCs hold **significantly longer duration assets** like Housing loans etc. (15 to 20 year horizon) HFCs **are less exposed to short-term wholesale funding.** (Average dependence on Commercial Paper from 2014-19 being 4.68%).	Comparatively Retail-NBFCs hold **medium term assets** like gold loans, auto loans etc. Retail NBFCs are **more exposed to short-term wholesale funding.** (Average dependence on Commercial Paper in this case is 13.13%).
Effect on Risk Profile	**ALM risk dominates** owing to longer duration assets.	**Interconnectedness risk dominates** owing to short-term debt exposure.
Commonality	Financial and Operating Resilience is a dominant factor.	Financial and Operating Resilience is a dominant factor.

Health Score

- The Survey has created a **dynamic health index** i.e. Health Score which it argues can be effectively used as an early warning system.
- The index **ranges between -100 to +100** with higher scores indicating higher financial stability of the firm/sector.
- The Survey has observed that improvement in health score strongly correlates with increase in the returns generated by NBFCs.
- The survey also has used the Health index to show how it would have been able to identify stress in the NBFC sector earlier.

Some important metrics used in Health Score

- **Short-Term Volatile Capital** – This is measured by CP as a percentage of borrowings of the NBFC.
- **Asset Quality** - This is measured by the ratio of retail loans to the overall loan portfolio of the NBFC.
- **Short-term Liquidity –** This is measured by the percentage of cash to the total borrowings of the NBFC.
- **Provisioning Policy –** This is measured by the difference between provision for bad loans made in any financial year and the gross NPA in the subsequent financial year.
- **Capital Adequacy Ratio –** This is the sum of Tier-I and Tier-II capital held by the NBFC as a percentage of Risk-Weighted Assets (RWA).
- **Operating Expense Ratio** – This is measured by the operating expenses in a financial year divided by the average of the loans outstanding in the current financial year end and previous financial year end.

Policy Implications

- Survey suggests that Health Score can be used to trigger **greater monitoring of an NBFC.** Also, an analysis of the trends in the **components of the Health Score can shed light** on the appropriate **corrective measures** that can be taken.
- Health Score can be used as a **basis for optimally directing capital infusions** to deserving NBFCs to ensure efficient allocation of scarce capital.
- The above analysis can also be used **to set prudential thresholds on the extent of wholesale funding** that can be permitted for firms in the shadow banking system.

CHAPTER 9: PRIVATIZATION AND WEALTH CREATION

Theme

This chapter analyses the performance of Central Public Sector Enterprises (CPSEs) before and after they have been privatised by the government. Realising the efficiency gains from privatisation, the survey bolsters the case for strategic disinvestment of CPSEs in order for the government to generate more wealth from the same resources.

Introduction

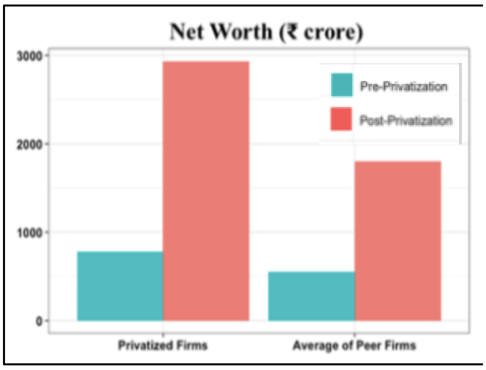
- **Strategic disinvestment** is guided by the basic economic principle that **Government should discontinue its engagement in manufacturing/ producing goods and services in sectors where competitive markets have come of age.**
- Such entities would most likely perform better in the private hands due to various factors e.g. technology up-gradation and efficient management practices; and would thus create wealth and add to the economic growth of the country.

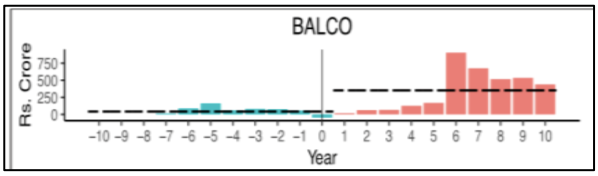
Impact of Privatisation: A firm level analysis

- The survey highlighted that the **recent approval of strategic disinvestment in Bharat Petroleum Corporation Limited (BPCL)** led to an increase in value of shareholders' equity of BPCL by Rs 33,000 crore when compared to its peer Hindustan Petroleum Corporation Limited (HPCL).
- **There are about 264 CPSEs under 38 different Ministries/Departments**. Since the government of India adopted strategic sale as a policy measure in 1999-2000, 11 CPSEs had undergone strategic disinvestment from 1999-2000 to 2003-04. Examples include BALCO, Maruti, Hindustan Zinc etc.
- The survey after analysing the before-after performance of these CPSEs came to the following results:
    - **Comparison with peer firms:** Post privatisation, these **privatized CPSEs, on an average, perform better than their peers** in terms of their net worth, net profit, return on assets (ROA), return on equity (RoE), gross revenue, net profit margin, sales growth and gross profit per employee.
    - For example, on an average, the **net worth** of privatized firms increased from 700 crore before privatization to 2992 crore after privatization.

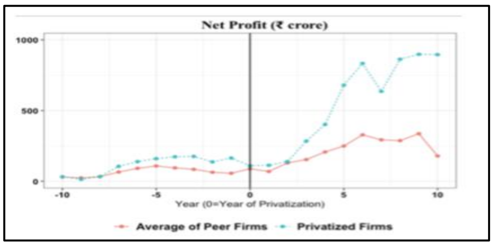
Various modes of disinvestment policy followed by the Government:

- **Disinvestment through minority stake sale** in listed CPSEs to achieve minimum public shareholding norms of 25 per cent. While pursuing disinvestment of CPSEs, the Government will retain majority shareholding, i.e., at least 51 per cent and management control of the Public Sector Undertakings;
- **Listing of CPSEs** to facilitate people's ownership and improve the efficiency of companies through accountability to its stake holders - As many as 57 PSUs are now listed with total market capitalisation of over Rs 13 lakh crore.
- **Strategic Disinvestment** involves sale of substantial portion of Government shareholding in identified Central PSEs (CPSEs) up to 50 per cent or more, along with transfer of management control.
    - **NITI Aayog identifies PSUs for strategic disinvestment.** For this purpose, NITI Aayog has classified PSUs into "high priority" and "low priority", based on (a) National Security (b) Sovereign functions at arm's length, and (c) Market Imperfections and Public Purpose. The PSUs falling under "low priority" are covered for strategic disinvestment.
- **Buy-back** of shares by large PSUs having huge surplus;
- **Merger and acquisitions** among PSUs in the same sector;
- **Launch of exchange traded funds (ETFs)** - an equity instrument that tracks a particular index. The CPSE ETF is made up of equity investments in India's major public sector companies like ONGC, REC, Coal India, Container Corp, Oil India, Power Finance, GAIL, BEL, EIL, Indian Oil and NTPC; and
- **Monetization** of select assets of CPSEs to improve their balance sheet/reduce their debts and to meet part of their capital expenditure requirements.





- **Individual performance: Each privatized CPSE witnessed improvement** in net worth, net profit, gross revenue, net profit margin, sales growth in the post privatization period compared to pre privatization period.



- **Dynamic aspects of performance in comparision to peers:** the performance of the privatized CPSE and its peers is quite similar during the period of 10 years before privatisation. However, post privatization, the performance of the privatized entity improves significantly over a period of 10 years when compared to the change in the peers' performance over the same time period.

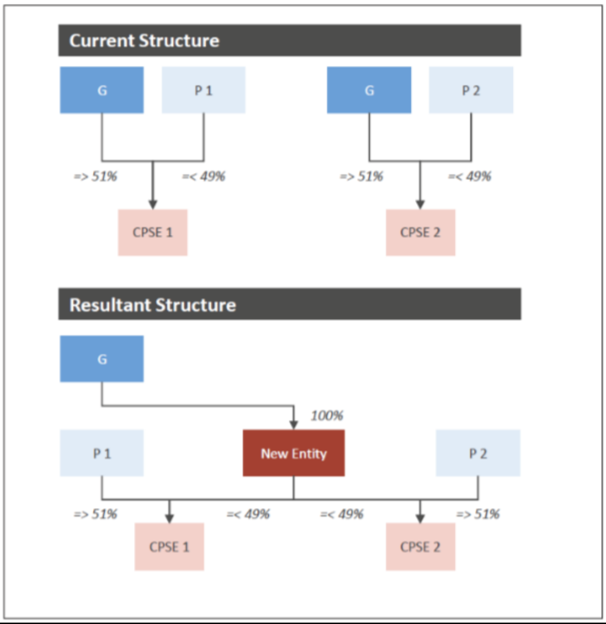
Understanding different financial indicators

- **Net worth:** The net worth of a company is what it owes its equity shareholders. This consists of equity capital put in by shareholders, profits generated and retained as reserves by the company. An incease in net worth signals significant improvement in financial health and increased wealth creation for the shareholders.
- **Net Profit:** This is the net profit of the company after tax. An increase in net profit indicates greater realizations from the company after incurring all the operational expenses.
- **Gross Revenue**: It indicates the income of the company from sales of goods and other non- financial activities.
- **Return on assets (ROA)**: It captures the ratio of profits after taxes (PAT) to the total average assets of the company, expressed in percentage terms. An increase in ROA indicates that privatized firms have been able to use their resources more productively.
- **Return on equity (ROE):** It is profit after tax (PAT) as percentage of average net worth. An increase in ROE reflects increase in firm's efficiency at generating profits from every unit of shareholders' equity.
- **Net profit margin:** Net profit margin of a company is PAT as percentage of total income. An increase in Net profit margin reflects that out of a rupee that is generated as income, the share of after-tax profit in the income increases.

Way forward

- The survey suggested that **aggressive disinvestment, through the route of strategic sale**, should be utilized to bring in higher profitability, promote efficiency, increase competitiveness and to promote professionalism in management in CPSEs. **This would, in turn, unlock capital** for use elsewhere, especially in public infrastructure like roads, power transmission lines, sewage systems, irrigation systems, railways and urban infrastructure.

Figure 12: Proposed Structure for Corporatization of Disinvestment



- Many of the **CPSEs are profitable but they have generally underperformed** the market. The aim of any privatization or disinvestment programme should, therefore, be the **maximisation of the Government's equity stake value.** For this the survey proposed a structure for **Corporatisation of Disinvestment.**
  - Under it the **Government can transfer its stake in the listed CPSEs to a separate corporate entity** managed by an independent board. This entity would be mandated to divest the Government stake in these CPSEs over a period of time.
  - This **will lend professionalism and autonomy to the disinvestment programme**.

CHAPTER 10: IS INDIA'S GDP GROWTH OVERSTATED? NO!

Theme

In the recent past, there have been debates and discussions among scholars and citizens alike on correctness of India's GDP estimation (post-2015 changes in methodology). This chapter aims to examine this argument of mis-estimation and estimate the inaccuracy, if any.

Need to check the mis-estimation of GDP

- GDP estimate plays an important role in highlighting growth prospects of an economy which have a direct effect on **investor sentiment.**
- **If the evidence** of a mis-estimation is **credible and robust**, a **radical upheaval** of the estimation methodology should follow.

Observations made by the Survey

- The models that **incorrectly over-estimate GDP** growth by over 2.77 per cent for India post-2011 also mis-estimate GDP growth over the same time period for 51 other countries.
- The variables that are used (export, import, real credit to industry etc.) have unstable **correlations with the GDP estimate.** (i.e. the correlation between them varies from positive to negative)
- The standard methodology makes a fundamental assumption of "parallel-trend" and also does not account for the statistical risks. (Like omitted variable bias)
- To overcome the issues generated by standard model, the Survey has adopted a generalized model which also includes the country fixed effects (effects specific to each country).
- The generalized model decreases the value of 'mis-estimation of GDP' to negligible levels and also highlights that the generated value is not very reliable.

Conclusion

- The Survey states that the **exact pattern of India's GDP** and how it evolves over time is **far from clear**. Much more study is required in this regard.
- The Survey suggests the **macro-variables like GDP** should be **synergistically** viewed with **micro-level evidence**. (As highlighted in Volume-1 Chapter 2 of the Survey). For example-
    - The granular evidence shows that a 10 per cent increase in new firm creation increases district-level GDP growth by 1.8 per cent. This district level GDP growth must be viewed in consonance with country-level GDP growth.
    - New firm creation in the Service sector is far greater than that in manufacturing, infrastructure or agriculture. This is consistent with the macro fact on the relative importance of the Services sector in the Indian economy.
- Emphasizing on the importance of India's statistical infrastructure, the Survey has lauded setting-up of 28-member **Standing Committee on Economic Statistics (SCES).**

CHAPTER 11: THALINOMICS: THE ECONOMICS OF A PLATE OF FOOD IN INDIA

Theme

This chapter tries to highlight how economics affects the life of common people in tangible ways. To make economics relate to the common person, the Survey has chosen Thalinomics. Thalinomics refers to the economics of a plate of food in India. The chapter tries to understand the affordability of a Thali across time, region and in relation to its ingredients.

Background: Data used for the analysis

- Two types of Thalis are analyzed: **vegetarian and non-vegetarian.**
- Thali prices are constructed for 25 States/UTs taking into account the prices for **cereals** (rice or wheat), **sabzi** (vegetables plus other ingredients), **dal** (pulses with other ingredients) as well as the **cost of fue**l that goes into making a meal.
- The **quantities of constituents** required for preparation of a Thali were based on the **dietary guidelines** prescribed for Indians by **National Institute of Nutrition**.
- The Survey considers **2015-16 as the year which marks the shift in dynamics of Thali prices.** The survey estimates that this could be due to various reform measures taken in the year such as PM-AASHA, PMKSY, PMFBY, Soil Health Card, e-NAM, NFSM and NFSA.
- To estimate the affordability of the Thali, **daily wages have been compared with the price of the Thali.** (ASI data has been used for calculating daily wages.)

Observations made by the Survey

- The **absolute prices of a vegetarian Thali have decreased** since 2015-16 though it increased during 2019. This is true both across the country and regions i.e. North, South, East and West.
- **Affordability of vegetarian Thalis has improved** over the time period from 2006-07 to 2019-20 by 29% and that for non-vegetarian Thalis by 18%.
    - The average yearly gain to the household of 5 individuals would be around Rs. 10,887 and Rs. 11,787 for vegetarian and non-vegetarian Thali respectively. (This has been observed across regions with some expectations.)
- At the all-India level, **prices of almost all the components** used have been **mostly lower** compared to the projected prices since 2015-16.
- **Thali inflation** (year-on-year growth in Thali prices) has cyclical nature but has shown **secular decrease from 2006-07 to 2015-06.**
- There is **no specific trend in variability of Thali prices** at the All-India level. This is true across regions and states and also over time.
- Affordability of Thalis vis-à-vis a day’s pay of a worker has improved over time indicating improved welfare of the common person.

Conclusion

The Survey concludes by explaining how food is not just an end in itself but also an essential ingredient in the growth of human capital and therefore important for national wealth creation.

VOLUME - II

CHAPTER 1: STATE OF THE ECONOMY

Global Economy in 2019-20

- The global output growth has been estimated to decline to 2.9 per cent in 2019 (from 3.6 per cent in 2018 and 3.8 per cent in 2017). (The World Economic Outlook (WEO) Update of January 2020, IMF)
- This is the **slowest global output growth since the global financial crisis of 2009,** arising from a geographically broadbased **decline in manufacturing activity, trade and demand**, whose major reasons are-
    - Uncertainty due to **trade tensions between China and the USA**, **rising USA-Iran geo-political tensions** and increasing trade barriers.
    - Muted inflation in advanced and emerging economies reflecting a slack in consumer demand.
    - Sharp fall in global production in automobile industry due to a decline in demand, which was caused by changes in technology and emission standards in many countries.
    - Drop in growth of manufacturing exports from major economies.
- India also experienced a downturn in the auto industry and manufacturing exports.

Indian Economy in 2019-20

Size of the economy

- The WEO of October 2019 has estimated **India's economy to become the fifth largest** in the world, as measured using GDP at current US$ prices, moving past United Kingdom and France.
- The size of the economy is estimated at US$ 2.9 trillion in 2019.
- Given India's record of growth with macroeconomic stability over the last five years (annual average growth rate of 7.5 per cent and annual average inflation of 4.5 per cent), the economy is poised for a rebound towards the US$ 5 trillion goal by 2024-25.

GVA and GDP growth in 2019-2020

- India's GDP is estimated to have grown at 4.8 per cent in the first half (H1) (April September) of 2019-20, lower than 6.2 per cent recorded in the second half (H2) (October-March) of 2018-19.
- On the **supply side**, the deceleration in GDP growth has been contributed generally by all sectors save 'Agriculture and allied activities' and 'Public administration, defence, and other services'.
- On the **demand side**, the deceleration in GDP growth was caused by a decline in the growth of real fixed investment induced in part by a sluggish growth of real consumption.

First Advance Estimates: 2019-20

As per First Advance Estimates, growth in real GDP during 2019-20 is estimated at 5.0 per cent, as compared to the growth rate of 6.8 per cent in 2018-19.

The growth in nominal GDP is estimated at 7.5 per cent over the provisional estimates of GDP for 2018-19.

Estimated trends in 2019-20 vis-à-vis 2018-19

- The contribution of total consumption and net exports in GDP at current prices are estimated to increase.
- Fixed investment as percentage of GDP at current prices and growth of real GVA at basic prices is estimated to decrease.
- Deceleration in GVA growth is estimated across all subsectors except 'Public administration, defence and other services'.

The virtuous cycle of growth

It is a cycle wherein increase in the rate of fixed investment accelerates the growth of GDP that in turn induces a higher growth in consumption. Higher growth of consumption improves the investment outlook, which results in still higher growth of fixed investment that further accelerates the growth of GDP, inducing a still higher growth of consumption.

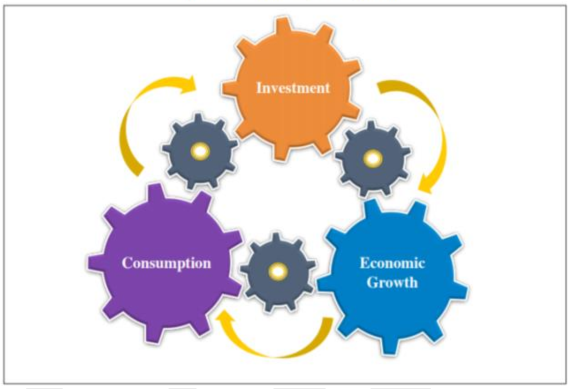
This virtuous cycle of higher fixed investment-higher GDP growth-higher consumption growth generates economic development in the country.

The Recent Growth Deceleration: Drag of the Financial Sector on the Real Sector

The Slowing Cycle of growth

- When the virtuous cycle of growth rotates slowly, declining rate of fixed investment decelerates GDP growth with a lag, which eventually causes a deceleration in the growth of consumption as well.
- In case of India, the **lag between rate of fixed investment and its impact on GDP growth is seen to be of three to four years** and **the impact of GDP growth on consumption growth gets reflected in one to two years.**
- The fixed investment rate has started declining sharply since 2011- 12 and subsequently plateaued from 2016- 17 onwards which led to the deceleration in growth since 2017-18.

Figure 23: Virtuous cycle of growth



Decline in fixed investment rate

- The fixed investment by households dropped from 14.3 per cent to 10.5 per cent 2009-14 to 2014-19.
- Fixed investment in the public sector marginally decreased from 7.2 per cent of GDP to 7.1 per cent during the two periods.
- However, the stagnation in private corporate investment at approximately 11.5 per cent of GDP between 2011-12 and 2017- 18 has a critical role to play in explaining the slowing cycle of growth and, in particular, the recent deceleration of GDP and consumption.

Drag of financial sector on private corporate investment

Deleveraging is the process or practice of reducing the level of one's debt by rapidly selling one's assets.

- A sudden credit expansion, which is purely supply led, results in short lived expansion of output and employment but causes significant contraction in the long run.
- In most of the cases, the credit channel works through household debt where households increase demand using debt in the short run and reduce demand later during the deleveraging phase, thereby, resulting in recessions. In the Indian context, the credit channel has worked through corporate investment.
- The bust following the enormous lending boom of the mid and late 2000s was characterized by deleveraging and low investment rate in the corporate sector, eventually causing the recent deceleration of GDP growth.
- It can be seen through correlation that firms that excessively borrowed between 2007- 08 to 2011-12 actually ended up investing significantly less during 2012-13 to 2016-2017.

Decline in household investment: The household sector includes family households as well as 'quasi-corporates'. It supplies investment for direct retail consumption, to incorporated enterprises from the back end of the value chain and to real estate sector.

Quasi-Corporates are unincorporated enterprises belonging to households, which have complete sets of accounts.

- The sector witnessed investment stagnation in 'Machinery and equipment' and investment decline in 'Dwellings, other buildings and Structures' which together account for more than two-thirds of total household sector investment. This can be attributed to leveling of private corporate investment.

Delayed decline in private consumption

- Private consumption increased as a proportion of GDP from 2009-16, thereafter it declined in 2017-18 and rose again in 2018- 19, before declining sharply in H1 of 2019-20.
- Since the effect of GDP growth on consumption manifests after a lag of 1-2 years, the declining trend in consumption from 2017-18 reflects partly the effect of decline in GDP growth on consumption.

OUTLOOK: The IMF in its January 2020 update of World Economic Outlook has projected India's real GDP to grow at 5.8 per cent in 2020-21. World Bank in its January 2020 issue of Global Economic Prospects also sees India's real GDP growing at 5.8 per cent in 2020-21.

But there are both the downside and upside risks to an expected acceleration in GDP growth which are discussed below:

Downside Risks

- Continued global trade tensions could delay the recovery in the growth of global output, which may constrain the export performance of the country.
- Escalation in US-Iran geo-political tensions may increase the price of crude oil, depreciate the rupee and weaken net FPI inflows.
- If short-term interest rates are raised by the central banks in advanced countries to contain inflation, it may result in capital flight from emerging and developing market economies (EMEs) including India.
- If the implementation of IBC Code does not speed up, the risk aversion of banks to lend further may not reduce which will affect monetary policy transmission.
- National Infrastructure Pipeline (NIP) can lead to high fiscal deficit possibly crowding out private investment. If instead private investment seeks external funding, CAD would widen and depreciate the rupee, bringing in its wake the adverse impact on consumption, investment and growth.
- Productivity gains and non-rising gross domestic savings rate are a challenge

Upside Risks

- WEO has projected the declining growth of global output to rebound in 2020 with a modest uptick to 3.3 per cent which may positively impact India's exports.
- Government’s thrust on affordable housing can lead to higher investment in housing by households which may increase the fixed investment in the economy.
- The announcement of NIP may further increase FDI inflows into the country in both brown-field and green-field infrastructure projects.
- India has been making steady progress in improving its rank in the Ease of Doing Business.
- Reduction in the base corporate tax rate to 15 per cent for new manufacturing companies may increase the rate of return on investment.
- **Projection of GDP growth in 2020-21:** On a net assessment of both the downside/upside risks, India’s GDP growth is expected to grow in the range of 6.0 to 6.5 per cent in 2020-21.

CHAPTER 2: FISCAL DEVELOPMENTS

Introduction

- In 2019-20, Centre's fiscal deficit was **3.3 per cent of GDP** down from 3.4 per cent of GDP in 2018-19.
- The year 2019-20 has been challenging for the Indian economy owing to the decelerating growth rate experienced in the first half of the year.
- Considering the urgent priority of the Government to revive growth in the economy, the fiscal deficit target may have to be relaxed for the current year.
- Amidst the global setting of subdued growth and intensified trade tensions, Government reaffirmed its commitment to growth with macroeconomic stability.
- The Mediu Term Fiscal Policy (MTFP) Statement presented with the Budget 2019-20, pegged the **fiscal deficit target for 2019-20 at 3.3 per cent of GDP** and 3 per cent of GDP in 2020-21, continuing at the same level in 2021-22.
- It was further projected that Central **Government liabilities will come down to 48.0 per cent of GDP in 2019-20**, 46.2 per cent of GDP in 2020-21 and 44.4 per cent of GDP in2021-22.

Central Government Receipts
It can broadly be divided into non-debt and debt receipts.
- The non-debt receipts comprise of tax revenue, non-tax revenue, recovery of loans, and disinvestment receipts.
- The debt receipts mostly consist of market borrowings and other liabilities, which the government is obliged to repay in the future.

Central Government Finances

Trends in Receipts

The Budget 2019-20 targeted a high growth in Non-debt receipts of the Central Government, which was driven by high expected growth in Net Tax revenue and Non-Tax revenue.

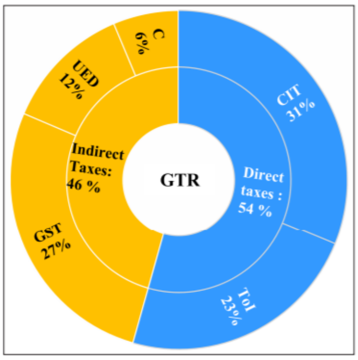
Major measures taken for Direct taxes during 2019-20
- Mandatory furnishing of ITR for persons entering into high value transactions.
- Interchangeability of PAN and Aadhaar.
- Incentives to International Financial Services Centre (IFSC), start-ups, resolution of distressed companies and National Pension System (NPS) subscribers.

Major measures taken for Indirect taxes during 2019-20
- **Sabka Vishwas (Legacy Dispute Settlement) Scheme 2019**: It is a one-time measure for liquidation of past disputes of Central Excise, Service Tax and 26 other indirect tax enactments.
- **Quick Response (QR) Code** has been proposed to implement the system of invoice with dynamic QR code for all B2C invoices for certain taxpayers.
- Generation and quoting of **Document Identification Number** for all communications sent by its offices to taxpayers and other concerned persons.

Tax Revenue

- The direct taxes, comprising mainly of corporate and personal income tax, constitute around **54 per cent of GTR.**
- Receipts from corporate and personal income tax have improved over the last few years.
- Better tax administration, widening of TDS carried over the years, anti-tax evasion measures and increase in effective tax payers base have contributed to direct tax buoyancy.
- **Widening of tax base** due to increase in the number of indirect tax filers in the GST regime has also led to improved tax buoyancy.
- Several initiatives by GSTN have been taken to create an environment of voluntary compliance based on **taxpayers behavior parameters** through deterrence, developing social and personal norms, reducing complexity, and enhancing fairness and trust-
  - E-way bill
  - Return filing status of a GSTIN visible in public domain on the GST Portal
  - SMSs for reminders of due date of monthly return
  - Free accounting & billing software provided to small taxpayers
  - Compliance rating score of the taxpayers available in the public domain
  - Acknowledging contribution of compliant taxpayers.

Figure 3: Composition of taxes in Gross Tax Revenue in 2019-20 BE



Non-Tax Revenue

> **Non-Tax revenue** comprises mainly of interest receipts on loans to States and Union Territories, dividends and profits from Public Sector Enterprises including surplus of Reserve Bank of India (RBI) transferred to Government of India, receipts from services provided by the Central Government and external grants.

- The Budget 2019-20 aimed to raise Non-Tax revenue to 1.5 per cent of the GDP.
- Roughly, two third of this increase in the BE is envisaged from dividends and profits especially surplus transferred by RBI.

Non-debt Capital receipts: These mainly consist of recovery of loans and advances, and disinvestment receipts.

- Over the last few years, the contribution of Non-debt Capital receipts has improved in the total pool of Non-debt receipts.
- The receipts from recovery of loans and advances have been declining over the years.
- The major component of Non-debt Capital receipts is disinvestment Receipts that accrue to the government on sale of public sector enterprises owned by the government (including sale of strategic assets). Government aimed at mobilising 1.05 lakh crore on account of disinvestment proceeds asper 2019-20 BE.
- Given the significant pipeline of deals that are in process, realizations are likely to accelerate.

Trends in Expenditure

- Central Government budgetary expenditure is envisaged to increase by one percentage point of GDP in 2019-20. The entire increase is on revenue account with capital spending remaining unchanged as per cent of GDP.
- Expenditure on defence services, salaries, pensions, interest payments and major subsidies account for more than sixty per cent of total expenditure.
- Budgetary expenditure on subsidies has seen significant moderation through improved targeting and considerable **restructuring and reclassification of Central sector and Centrally Sponsored Schemes** in the recent years.
- Apart from budgetary spending, **Extra Budgetary Resources** (EBR) have also been mobilized to finance infrastructure investment since 2016-17.

> **EBRs** are those financial liabilities that are raised by public sector undertakings for which repayment of entire principal and interest is done from the Central Government Budget.
>
> These EBRs are not taken into account while calculating the Fiscal Deficit. However, they are considered in the calculations of Government Debt.

Transfer to States

- Transfer of funds to States comprises essentially of three components: share of States in Central taxes devolved to the States, Finance Commission Grants, and Centrally Sponsored Schemes (CSS), and other transfers.
- Both in absolute terms and as a percentage of GDP, total transfers to States have risen between 2014-15 and 2018-19 RE.
- The Budget 2019-20 envisages an increase in expected grants and loan to States relative to 2018-19 RE, on account of higher requirements under compensation to States for revenue losses on roll out of GST, grants to rural and urban bodies and releases under Samagra Shiksha.

Fiscal outcome in 2019-20 (upto November 2019) vis-à-vis 2019-20 BE

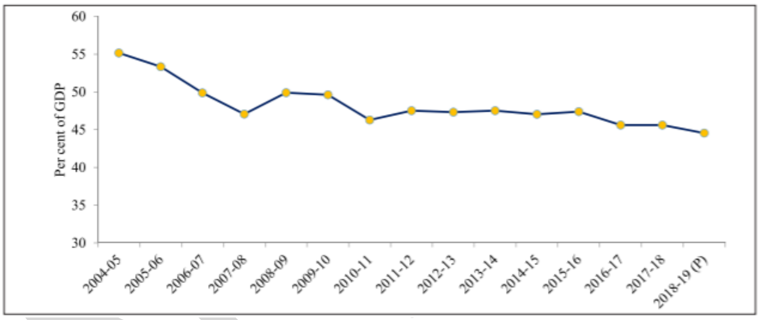
- Revenue receipts have grown at a much higher pace during 2019-20 (April to November 2019) over the corresponding period last year.
- Considerable growth in Non-Tax revenue, especially dividends and profits, offset the low growth in Net Tax revenue, underlie it. Dividends and profits led by transfer from RBI grew at roughly three times in April-November 2019 over the same period last year.
- Within direct taxes, personal income tax has grown at 7 per cent while **corporate tax has registered a negative growth during the first eight months** of the current financial year.
- The **gross GST monthly collections** have crossed the mark of one lakh crore, for a total of five times, during 2019-20.

Recently Government has undertaken major changes in the corporate tax rate:

- The Government announced a major cut in the **corporate income tax (CIT)** rate applicable to the domestic companies by the '**Taxation Laws (Amendment) Act, 2019,** which introduced two new sections viz. 115BAA and 115BAB in the Income Tax Act.
- The existing companies have been given an option to forego certain deductions and exemptions availed under the Act and choose a new CIT rate structure with a maximum marginal rate (MMR), inclusive of surcharge and cess, of 25.17 per cent as against the existing MMR of 34.61 per cent.
- In order to give boost to the manufacturing sector, the new manufacturing companies registered on or after 1.10.2019 have been given an option to choose a CIT rate with MMR of 17.16 per cent.
- However the CIT rate applicable to the foreign companies remained unchanged.

- On the expenditure side, the **capital expenditure** during April to November 2019-20 has grown at roughly three times vis-à-vis the same period in 2018-19.
- Also revenue expenditure has grown at a higher rate during these eight months of 2019-20, compared to the same period previous year.

Figure 9: Trend in Centre's Debt-GDP ratio

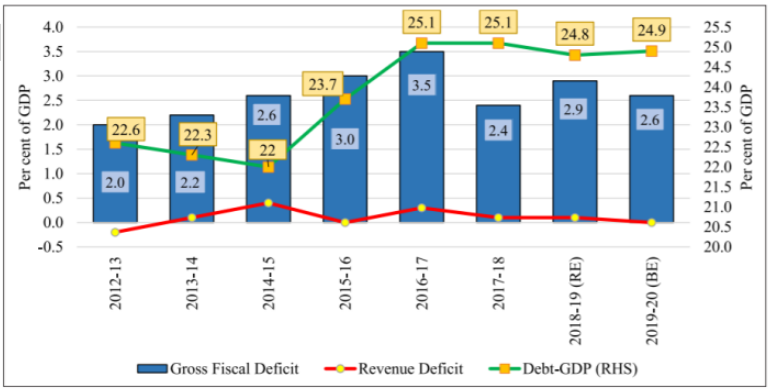


Central Government Debt: Total liabilities of the Central Government, as a ratio of GDP, have been consistently declining, particularly after the enactment of the FRBM Act, 2003. This is an outcome of both fiscal consolidation efforts as well as relatively high GDP growth.

- Central Government debt is characterised by low currency and interest rate risks. This is owing to low share of external debt in the debt portfolio and almost entire external borrowings being from official sources.
- The proportion of dated securities maturing in less than five years has seen consistent decline in recent years. The weighted average maturity of outstanding stock of dated securities of the Government of India has increased from 9.7 years at end March 2010 to 10.4 years at end March2019. This lends certainty and stability to budget in terms of interest payments.

State Finances: The States have continued on the path of fiscal consolidation and contained the fiscal deficit within the targets set out by the FRBM Act.

Figure 13: Major deficit and debt indicators of States



- The fiscal consolidation of the States in the last four to five years can be attributed to the steep decline in expenditure, mainly capital.
- The financing pattern of Gross Fiscal Deficit for States has changed over the years. Financing via market borrowings has increased from 61.6 per cent in 2015-16 to 73.7 per cent in 2018- 19 RE.
- The debt to GDP ratio for States has risen since 2014-15 owing to the issuance of UDAY bonds in 2015-16 and 2016-17, farm loan waivers, and the implementation of Pay Commission awards.

General Government (Centre plus States) - will continue on the path of fiscal consolidation.

- The fiscal deficit of General Government is expected to decline from 6.2 per cent of GDP in 2018-19 RE to 5.9 per cent of GDP in 2019-20 BE.
- However the combined liabilities of Centre and States have increased to 69.8 per cent of GDP as on and-March 2019 (RE) from 68.5 per cent of GDP as on end-March 2016.

Outlook

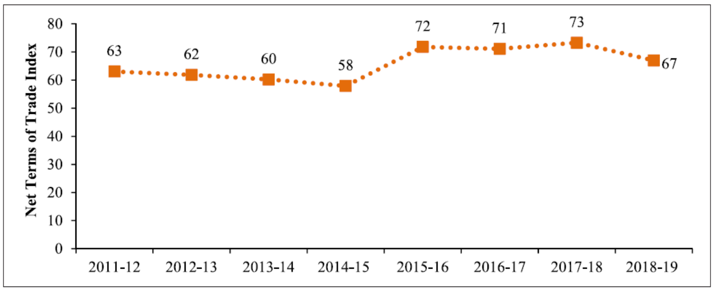
2020-21 is expected to pose several challenges on the fiscal front-

- Expected weak global growth (with escalated trade tensions adding to the risk) and the pace of recovery of growth will have implications for revenue collections.
- In order to boost the sluggish demand and consumer sentiments, counter-cyclical fiscal policy may have to be adopted to create additional fiscal headroom.
- During the first eight months of 2019-20, the indirect tax collections have been muted. Therefore, revenue buoyancy of GST would be key to the resource position of both Central and State Governments.
- On the expenditure side, rationalisation of subsidies especially food subsidy could be an important tool for expanding the headroom for fiscal manoeuvre.
- The Fifteenth Finance Commission has also submitted its Interim Report and its recommendations especially on tax devolution would have implications for Central Government finances
- Finally, the geopolitical situation unfolding in West Asia is likely to have implications for oil prices and thereby on the petroleum subsidy, apart from having implications for current account balance.

CHAPTER 3: EXTERNAL SECTOR

Introduction

Figure 4: Terms of Trade (Base Year 1999-2000)

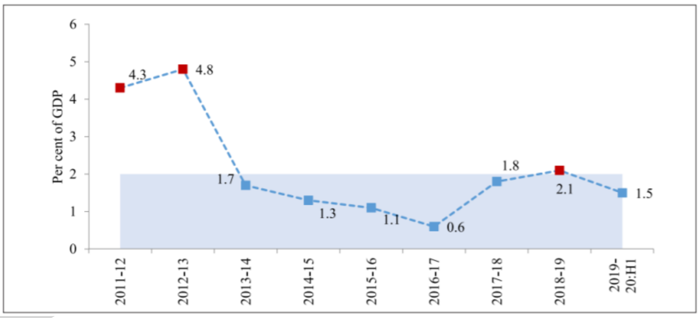


- India's external sector gained further stability in the first half of 2019-20, witnessing improvement in Balance of Payments (BoP) position which was anchored by narrowing of current account deficit (CAD) which has emanated from easing of crude prices.
- Export growth remains subdued with external demand weakened by slowdown in global investment, output and heightened trade tensions, notwithstanding resilient service exports.
- India's Net International Investment Position (NIIP) to GDP ratio has also improved.
- India's external liabilities (debt and equity) to GDP has increased at the end of June, 2019 primarily driven by increase in FDI, portfolio flows and external commercial borrowings (ECBs).

Overview: India's Balance Of Payments

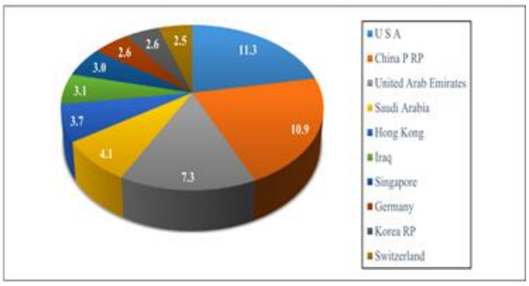
- The BoP position of India improved from accumulated foreign reserves of US$ 304.2 billion at end of 2013-14 to US$ 412.9 billion at end of 2018-19.
- Despite GDP growth decelerating in 2019-20 the global sentiment has remained positive.
- Yet the improvement has an undercurrent of vulnerability since the improvement in BoP has emanated from a lower growth of imports following a sharp deceleration in GDP growth and some easing of crude prices besides continued acceleration in FDI inflows. The weakening of the GDP growth poses a challenge to both net FDI and net FPI inflows.

Figure 1: Current Account Deficit (CAD) as per cent of GDP



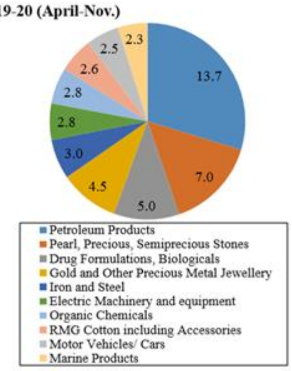
Current Account Deficit (CAD): An increase in CAD as a ratio to GDP worsens the BoP by drawing down on forex reserves or building the potential to worsen it by increasing the external debt burden.

Figure 5: Top 10 Trading Partners of India in 2019-20 (April-November)(in Per cent)



- CAD to GDP ratio has been significantly improving from 2009-14 to 2014-19 and remained lower (1.5 per cent of GDP) in the first half of 2019-20 as compared to 2018-19.
- CAD/forex ratio increased from 10.6 per cent in 2013-14 to 13.9 per cent in 2018-19 and caused the rupee to depreciate.
- Nominal Exchange Rate (NER) has more or less stayed stable.

2019-20 (April-Nov.)

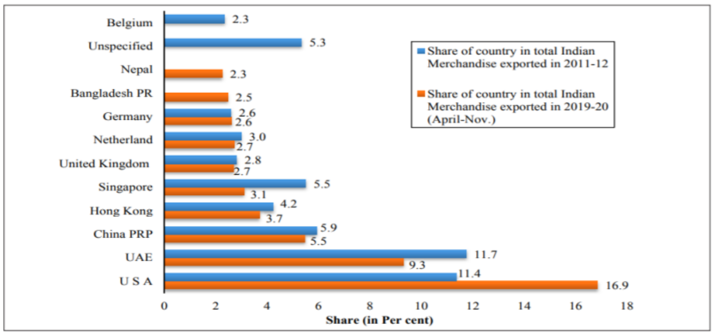


Merchandise Trade Deficit: It is the largest component of India's current account deficit.

- On average, India's merchandise trade balance has improved from 2009-14 to 2014- 19 on account of **more than fifty per cent decline in crude prices** in 2016-17.
- Since 2017-18 the adverse movement in Net terms of trade (NTT) has started which has contributed to the improvement in trade balance.
- India's top 10 trading partners during 2019-20 (April-November) jointly account for more than 50 per cent of India's total merchandise trade.

- With two top trading countries i.e. **USA and United Arab Emirates, India has consistently run trade surplus since 2014-15.**
- India has trade deficit continuously since 2014-15 with respect to other major trading partners i.e. China PRP, Saudi Arabia, Iraq, Germany, Korea RP, Indonesia and Switzerland.
- India had trade surplus with Hong Kong and Singapore till 2017-18, before it changed to trade deficit in 2018-19.

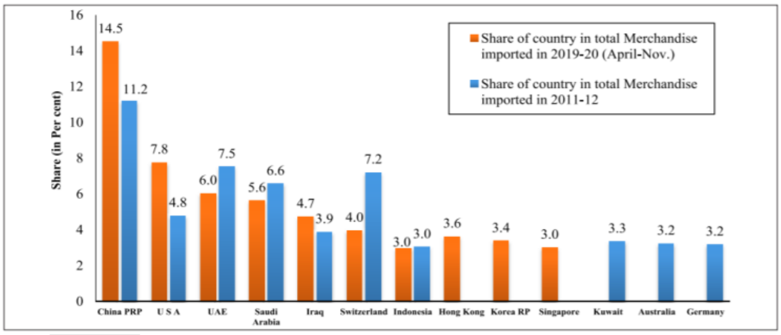
Figure 10: Top 10 Export Destinations in 2011-12 and 2019-20 (April-November)



Merchandise Exports: An increase in merchandise exports to GDP ratio has a net positive impact on BOP position.

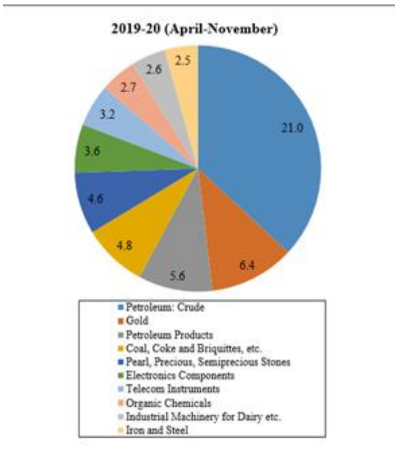
- Over the years, the merchandise exports to GDP ratio has been declining.
- Slowdown of world output (due to escalation of global trade tensions) and appreciation in the real exchange rate have contributed to the declining exports to GDP ratio in recent times.
- Petroleum, Oil and Lubricants (POL) exports have a dominant share in India's export basket. **Growth in Non-POL exports dropped significantly** from 2009-14 to 2014-19.
- In 2019-20 (April-November), **in terms of value petroleum products** is the largest exported commodity while in **terms of growth, it was drug formulations, biologicals**.

Figure 16: Top 10 Import Origins of India in 2011-12 and 2019-20 (April-November) (By Share in Per cent)



Merchandise Imports: An increase in the merchandise imports to GDP ratio has a net negative impact on the BoP position.

- Over the years the merchandise imports to GDP ratio has been declining for India and may be a reflection of a deceleration in GDP growth.
- In the import basket of 2019-20 (April-November), crude petroleum had the largest share followed by gold and petroleum products.



- Between 2011-12 and 2019-20, imports of Electronics grew the fastest from a negligible share to 3.6 per cent.
- The share of Gold imports remained the same between 2018-19 and the first half of 2019-20, despite an increase in gold prices, possibly due to increase in import duty.
- Non-pol-non-gold imports fell as a proportion to GDP from 2009-14 to 2014-19 because of consumption driven growth and decline in the investment rate.
    - Continuous decline in investment rate decelerated GDP growth, weakened consumption and dampened the investment outlook which caused these imports to fall.

Net Services: India's net services surplus has been steadily declining in relation to GDP since it reached its peak to about two-thirds of merchandise deficit in 2016-17.

Service Exports: An increase in service exports to GDP ratio has a net positive impact on the BoP position.

- India's service exports have consistently hovered between 7.4 to 7.7 per cent of GDP.
- Software services constitute around 40-45 per cent, followed by business services at about 18-20 per cent, travel at 11-14 per cent and transportation at 9-11 per cent of service exports.

Service Imports : An increase in service imports to GDP ratio has a net negative impact on the BoP position.

- Over the years, service imports in relation to GDP has been steadily rising given arising level of FDI and a gradual upscaling of the Make in India program.
- Business services constitute about a third of service imports and the component of travel services has been steadily increasing reflecting the growing attractiveness of global destinations to the domestic tourists in the country.

Policy Environment

India and WTO

- India hosted a WTO Ministerial Meeting of Trade Ministers in May 2019 in New Delhi.
- The meeting culminated in an outcome document, which lays out priorities for developing countries in various areas and envisages addressing the challenges being faced by the Dispute Settlement system of the WTO.
- India has made submissions regarding:
  - **Spelling out the priorities** that are required to be taken into consideration while undertaking reforms in the WTO with emphasis on **special and differential treatment provisions** that are essential for better integration of the developing countries in the global trading system.
  - **Transparency and notification requirements** which outlines that Developing countries including the least developed countries, who are already resource/ capacity constrained should not be penalized in the name of improving transparency.
- Other issues raised by India at the WTO include:
  - the need of a permanent solution in public stockholding for food security programmes.
  - fisheries subsidies negotiations.
  - safeguarding the interests of poor, small and artisanal farmers as a priority in the negotiations.

Free Trade Agreements (FTAs) of India
- India - Sri Lanka FTA
- Agreement on SAFTA
- India Nepal Treaty of Trade
- India - ASEAN- CECA - Trade in Goods, Services and Investment Agreement
- India - Japan CEPA

Preferential Trade Agreements (PTAs)
- Asia Pacific Trade Agreement (APTA)
- Global System of Trade Preferences (GSTP)
- India - Afghanistan
- SAARC Preferential Trading Agreement (SAPTA)
- India – MERCOSUR

On-going Trade Negotiations
- India - EU BTIA
- India - Sri Lanka Economic and Technical Cooperation Agreements (ETCA)
- India - Thailand CECA
- India - New Zealand FTA/CECA
- India - Gulf Cooperation Council (GCC) Framework Agreement
- India-Iran PTA

Trade Facilitation

- India ratified the WTO **Agreement on Trade Facilitation (TFA)** in April 2016 and subsequently constituted a **National Committee on Trade Facilitation (NCTF).**
- National Trade Facilitation Action Plan (NTFAP 2017-20) containing specific activities to further ease out the bottlenecks to trade was also released.
- As a result of consistent trade facilitation efforts, India has improved its ranking from 143 in 2016 to 68 in 2019 under the indicator, "Trading across Borders", in **World Bank's Ease of Doing Business Report**.
- In a recently released **UN global survey on digital and sustainable trade facilitation 2019**, India has improved its overall trade facilitation score from 69 per cent to 80 per cent outperforming other countries in the Asia-pacific and South and South-west Asia region.

Key initiatives for trade facilitation
- Self e-sealing through RFID tag by trusted exporters,
- Introduction of 'E-Sanchit' for lodging supporting documents online,
- Tracking of imported cargo clearance time through Indian Customs Ease of Doing Business Dashboard (ICEDASH),
- Launch of Atithi mobile App for international passengers.
- National level **Time Release Study (TRS)** across multiple locations covering seaports, Inland Container Depots (ICDs), air cargo complex etc. to achieve cargo release time targets.

Trade related Logistics

- According to **World Bank's Logistics Performance Index**, India ranks **44th in 2018** globally, up from 54th rank in 2014.

- According to estimates, Indian logistics sector is expected to grow at **8-10 per cent** over the medium term and touch US$ 215 billion by 2020.
- Investments into the warehousing sector account for around 26 per cent of the total private equity investments into real estate during January 2014 - January 2018.
- Around **350 startups** registered in Logistics in areas like Agri-logistcs, Solar powered micro cold stores, fuel efficient and environment friendly vehicles etc.
- To improve trade logistics, Government has taken several steps:
    - Building infrastructure through projects like the Bharatmala, Sagarmala and the Dedicated Freight Corridors.
    - As a part of the **infrastructure project pipeline** worth 102 lakh crore proposed in December, 2019 various infrastructure projects like Multimodal logistic parks, Inland waterways etc will be created over the next five years.
    - The Government is working on a **National Logistics Policy and a National Logistics Action Plan**.
    - **Fast-tags** have been made mandatory to cut delays at toll plazas.
    - Qualification packs have been created to improve skilling in the sector.
    - Apprentice programmes are being promoted through industry participation.
- Driving logistics cost down from estimated current levels of 13-14 per cent of GDP to 10 per cent in line with best-in class global standards is essential for India to become globally competitive.

Anti-dumping and Safeguard Measures

- India conducts **anti-dumping investigations** on the basis of applications filed by the domestic industry with prima facie evidence of dumping of goods in the country, injury to the domestic industry and causal link between dumping and injury to the domestic industry.
- The countries involved in these investigations are China PR, Hong Kong, Korea, Germany, EU, USA, Malaysia, South Africa, Thailand, Brazil, among others.
- Directorate General of Trade Remedies (DGTR) has introduced online portal named **ARTIS** (Application for Remedies in Trade for Indian industry and other Stakeholders) to submit online petitions for different trade remedies like anti-dumping duty, safeguard duty and countervailing duty.
- DGTR also conducted seminar and interactive sessions on Trade Remedy Mechanism for delegations from GCC and Zimbabwe and established a Help Desk & Facilitation Centre.

Net Remittances: An increase in net remittances improves the BoP position.

- Net remittances from Indians employed overseas has increased with the amount received in the first half of 2019-20 being more than 50 per cent of the total receivables in 2018-19.
- The Migration Report 2019 released by the United Nations has placed India as the leading country of origin of international migrants in 2019 with a diaspora strength of 17.5 million.
- Further, as per the October 2019 report of World Bank, **India remained the top remittance recipient country in 2018 followed by China.**

Foreign Direct Investment (FDI): An increase in net FDI improves the BoP position.

- Net FDI inflows have continued to be buoyant in 2019- 20 attracting in the first half itself an amount more than 50 per cent of the previous year level, which can be attributed to continuous liberalization of FDI guidelines.

Foreign Portfolio Investment (FPI): An increase in net FPI flows improves the BoP position.

- In relation to net FDI, dependence on net FPI to finance the CAD was less in 2014-19 at 17.1 per cent as compared to 45.6 per cent in 2009- 14.
- Portfolio flows in H1 of 2019-20 have turned positive, after a net portfolio outflow in 2018-19, which could be attributed to the dovish monetary policy stance of the US, enhanced liquidity in global markets and reinforced growth prospects for India post budget announcements and reform measures.
- A report on assessment of India's BoP in 2018-19 published by RBI stated that the highest FPI outflow in the debt segment took place from the **sovereign sector** (i.e., G-Secs).
- In recent quarters until Q1 of 2019-20, a change in the composition of FPI flows towards more non debt creating equity and investment funds is visible.

- A lower debt component reduces the debt servicing burden and improves the BoP position. However, on the flip side increase in investment in debt instruments is important to deepen the debt market in the country.

External Commercial Borrowings (ECBs): An increase in net ECBs improves the BoP position.

- ECBs turned negative during 2014-19, from a healthy positive level in 2009-14.
- In 2018-19 there was a surge in net ECB inflows which may be attributed to low global interest rates and improved liquidity overseas in addition to a host of measures introduced recently by the government towards liberalization of ECBs.

External Debt: An increase in external debt to GDP ratio increases debt servicing and draws down on forex reserves worsening BoP position.

- External debt remains low at 20 per cent of GDP.
- India's external debt to GDP ratio slightly increased by 0.3 per cent at the end of first half of 2020 over its level at end-March 2019, primarily on account of an increase in commercial borrowings, non-resident deposits and short-term trade credit. This makes the BoP position more vulnerable because of relatively higher rates of interest on such borrowings.
- The share of short term debt (with original maturity of up to one year) has been falling in total external debt since 2012-13.
- India's external debt remains low as compared to the average external debt to GDP ratio of all developing countries (25.6 per cent) according to World Bank's International Debt Statistics, 2020.

External liabilities (Debt + Equity): A rise in External liabilities (Debt + Equity)/ GDP ratio draws down to a greater extent the forex reserves and worsens the BoP position. India's external liabilities to GDP ratio has witnessed significant decline during 2014-19 as against 2009-14.

Net International Investment Position (NIIP): It measures the gap between a nation's stock of foreign assets and foreigner's stock of that nation's assets at a specific point in time.

- Changes in NIIP/GDP ratio nets out the impact of investment made by the country abroad from the external liabilities borne by the country thereby measuring the net changes in the debt and equity servicing burden in relation to GDP.
- The surge in net FDI inflows has worsened the absolute NIIP level from 2009-14 to 2014-19.
- However, in relation to GDP the burden has reduced and so has the debt and equity servicing obligations.

Outlook

- In recent times India's tariff regime have come under pressure from trade partners who seek a cut in the country's basic custom duties.
- While India has defended its tariff regime stating that it is necessary for protecting the vulnerable businesses in India, some reduction in tariff rates may have to be done in respect of intermediate inputs and raw material to correct the presently **inverted duty structure**.
- A corrected duty structure will reduce the cost of intermediate inputs imported for manufacturing of exports thereby making the country's **exports more competitive**.
- For this an analysis of the relation between exports of finished goods and imports of raw materials and intermediate goods for India is being undertaken.
    - It shows that rise in India's imports of intermediate inputs have every time led to rise in exports of associated consumption goods with an elasticity of greater than 1.
    - Accordingly, a reduction in basic custom duty on intermediate inputs will not only correct the inverted duty structure creating the right incentives for boosting manufacturing but will also increase the growth of exports of consumption goods that significantly use imported intermediate goods.

CHAPTER 4: MONETARY MANAGEMENT AND FINANCIAL INTERMEDIATION

Monetary Developments during 2019-20 Monetary Policy

- Initially, the Monetary Policy Committee (MPC) cut the policy repo rate by 110 basis points (bps) four times consecutively **changing the stance of monetary policy from neutral to accommodative**.
  - MPC's decision was guided by low inflation and the need to strengthen domestic growth by spurring private investment in the economy.
- Later on, MPC decided to keep the repo rate unchanged due to reasons like:
  - The rising consumer price inflation.
  - MPC's intention to wait until effective monetary policy transmission happens.
- The real GDP projections were revised downwards to 5 per cent for 2019-20 due to:
  - Various high frequency indicators along with surveys conducted by the Reserve Bank indicated weakening of both domestic and external demand conditions.

> - **Reserve Money (M0**) = Currency in circulation + Bankers' deposits with the RBI + 'Other' deposits with the RBI
> - **Broad Money (M3)** = Currency with the public + Demand deposits with the banking system + 'Other' deposits with the RBI + Time deposits with the banking system

Monetary aggregates:

- **Growth rate of monetary aggregates** witnessed reversion to their long-term trend during 2018-19 after experiencing unusual behaviour in 2016-17 due to demonetisation and again in 2017-18 due to the process of remonetisation.
- **Reserve Money** expanded, however it has been at a lower magnitude vis-à-vis last year.
- **Broad money (M3**) growth has been on declining trend since 2009. However, since 2018-19 it has picked up marginally.
- Growth in both, **time deposits and demand deposits** picked up in 2019-20.
- The **money multiplier (M3/M0)** has been declining since 2017-18 and it continued to decline in 2019-20 as well.

Liquidity Conditions and its Management

- **Current Status**: Systemic liquidity in 2019-20 has been largely in surplus since June 2019 due to-
  - The increased spending by the government, net forex purchases by the RBI, reduction in Statutory Liquidity Ratio (SLR) and return of currency to the banking system combined with the Open Market Operations (OMO) purchase auctions.
  - Other factors creating surplus liquidity are moderation in currency demand after two years of high demand following demonetisation.

Developments in the G-Sec Market

- Initially yield on G-Sec hardened marginally on account of rise in crude oil prices.
- Thereafter, it largely followed a downward trend which may be attributed to various reasons:
  - Change in monetary policy stance of the U.S. Fed (on global growth concerns and ongoing trade tensions).
  - Easing of liquidity condition of the banking system.
  - Consecutive policy rate cuts by the RBI along with change of stance from neutral to accommodative.
  - Benign crude oil prices aided the sentiment.
  - Transfer of RBI surplus to the Government.
  - Significant and sustained surplus liquidity.
  - "**Special Open Market Operation**" (purchase of long term securities and simultaneous sale of short term securities) by Reserve Bank of India also helped bring down the yield slightly on 10 year G-Secs.

Banking Sector

- **Scheduled Commercial Banks**
  - **Gross Non Performing Advances (GNPA)** ratio (i.e. GNPAs as a percentage of Gross Advances) of remained flat at 9.3.
  - **Restructured Standard Advances (RSA) ratio** and **Stressed Advances (SA)** ratio both remained unchanged during this period.
  - **Capital to risk-weighted asset ratio (CRAR)** of SCBs increased largely due to improvement in CRAR of PSBs.
  - SCBs' **Return on Assets (RoA)** and **Return on Equity (RoE**) has increased.
- Public Sector Banks (PSBs)
  - Their GNPA ratio was unchanged at 12.3 per cent while stressed advances ratios increased slightly.
  - Many PSBs have continued to record negative profitability ratios since March 2016, mainly on account of provisioning requirements.

Monetary Transmission: Transmission of monetary transmission has been weak in 2019 on all three accounts: Rate Structure, Quantity of Credit, and Term Structure.

- **Rate Structure**:
  - The Weighted Average Lending Rate (WALR) of SCBs has not declined at all in 2019 despite reduction of repo rate by 135 bps since January 2019.
  - While there is no transmission of the cut in repo rate on outstanding loans of SCBs,the monetary transmission has been slightly better for fresh loans.
  - The credit spread (difference between repo rate and WALR) is at the highest level in this decade.
  - There has been only a slight reduction in the saving deposit rate.
  - Reduction in the term deposit rate has been limited due to comparatively high rates of small savings scheme like Public Provident Fund (PPF).
- Term structure:
  - The yields on short term government securities (364 days T-bill) have declined much faster than that of long term Government securities (10-year G-sec) due to RBI's monetary easing and LAF liquidity.
- Credit Growth
  - The moderation in credit growth was witnessed across all the major segments of non-food credit except personal loans which continued to grow steadily.
  - The moderation was led by a sharp deceleration in credit growth to the services sector and a negative growth of credit to Micro, Small and Medium Enterprises and Textile.

Major Policy Changes related to Banking Regulations

- **One-time Restructuring of Existing Loans to MSMEs** Classified as 'Standard' without a Downgrade in the Asset Classification was permitted.
- It was decided to permit banks to lend to Infrastructure Investment Trusts (InvITs).
- Guidelines were issued to banks to link all new floating rate personal or retail loans and floating rate loans to MSE to an external benchmark as:
  - **Benchmarks:** The banks are free to choose one of the several benchmarks from Repo Rate, 3 Months or 6 Months Treasury Bill yield and any other benchmark market interest rate published by the Financial Benchmark India Private Ltd (FBIL).
  - **Spread:** Banks are free to decide the spread over the external benchmark.
  - **Reset of interest rates:** under external benchmark to be done at least once in three months.
- A new **Prudential Framework for Resolution of Stressed Assets** was released by Reserve Bank with following fundamental principles:
  - Early recognition and reporting of default in respect of large borrowers by banks, FIs and NBFCs.
  - Complete discretion to lenders with regard to design and implementation of resolution plans.
  - Harmonised framework for resolution of stressed assets.
  - A system of disincentives for delay in implementation of resolution plan.
  - Withdrawal of asset classification dispensations on restructuring.
    The definition of 'financial difficulty' to be aligned with the guidelines issued by the Basel Committee on Banking Supervision for the purpose of restructuring.
  - Signing of inter-creditor agreement (ICA) by all lenders to be mandatory.
- **Revised guidelines on compensation** of Whole Time Directors/Chief Executive Officers/Material Risk Takers and Control Function Staff for all Private Sector Banks.

- **Non-Banking Financial Sector (NBFC)**

Current Status:

- The growth of loans from NBFCs declined but the balance sheet of the NBFC sector grew significantly.
- The sector also witnessed liquidity stress.
- **Sources of funding of NBFCs:** Bank borrowings and market borrowings increased while deployment of credit by mutual funds to NBFCs has been contracting. Among the instruments of market borrowing, the share of Commercial Papers decreased while the share of Non Convertible Debentures (NCDs) increased.
- The Capital to risk weighted assets ratio (CRAR) of NBFC sector remained at **19.5 per cent** as against the regulatory requirement of **15 per cent**.
- Both the gross NPAs ratio and net NPAs ratio of NBFC sector increased.
- The Return on Assets (RoA) and the Return on Equity (RoE) has declined in the previous year.

Major Policy Changes related to Non-banking Financial Regulation /Supervision

- Amendment to the RBI Act, 1934 to strengthen the Regulation and Supervision of the NBFC Sector vesting additional powers with the Reserve Bank.
- The Reserve Bank allowed non-deposit taking systemically important NBFC-ICCs to obtain Authorize Dealer-Category II license to increase accessibility and efficiency of the services provided by them.
- A new liquidity risk framework for NBFCS was provided by Reserve Bank.
- The household income limits for borrowers of NBFC-MFIs have been raised.
- The regulation of Housing Finance Companies (HFCs) has been transferred by Government of India from National Housing Bank (NHB) to the RBI.

Developments in Capital Markets

Primary Market

- **Public Issue:** The total money raised by public and rights issue increased.
  - **Equity**: The resource mobilisation through public issue (equity) decreased while through rights issues (equity) increased sharply in last year.
  - **Debt**: Resource mobilization through issuance of debt securities to public declined significantly.
- **Private Placement:** During 2019-20 Indian corporates preferred private placement route to gear up the capital.
- Mutual Fund Activities and Investment by Foreign Portfolio Investors (FPIs): There were **net inflows** in both during April-December 2019.
- **Movement of Indian Benchmark Indices: Nifty50** and **S&P BSE Sensex**, reached record highs during 2019-20.

Insurance Sector: The potential and performance of the insurance sector are generally assessed on the basis of two parameters, viz., **insurance penetration** and **insurance density**.

The measure of insurance penetration and density reflects the level of development of insurance sector in a country.

- **Insurance penetration** is measured as the percentage of insurance premium to GDP.
- **Insurance density** is calculated as the ratio of premium to population

- The **insurance density** in India which was US$ 11.5 in 2001 has **increased** to US$ 74 in 2018 (Life- US$ 55 and Non-Life -US$ 19).
- **Penetration** for Life insurance has declined from 2011, whereas for the non-life insurance it has increased consistently. It is 2.74 per cent for Life Insurance and 0.97 per cent for Non-Life insurance in 2018.
- **Globally insurance penetration and density** were 3.31 per cent and US$ 370 for the life segment and 2.78 per cent and US$ 312 for the non-life segment respectively in 2018.

Bilateral Netting for Financial Contracts

A **bilateral netting agreement** enables two counterparties in a financial contract to offset claims against each other to determine a single net payment obligation due from one counterparty to the other.

Similarly, a **multilateral netting agreement** allows counterparties to offset claims against each other through a Central Counterparty (CCP) in a clearing house.

At present, there are legal provisions for multilateral close-out netting for financial transactions intermediated through a CCP, such as the **Clearing Corporation of India Limited (CCIL)**, under the **Payment and Settlement Systems (Amendment) Act (2015)**.

However, **bilateral netting for financial contracts is not permitted in India.**

Global regulatory bodies such as the **Financial Stability Board (FSB)** and **the Basel Committee on Banking Supervision** have supported the use of close-out netting due to its positive impact on financial stability.

Establishing a legal framework for bilateral close-out netting in India would help:

- reduce credit risk and regulatory capital burden for banks, freeing up capital for other productive uses.
- reduce hedging costs and liquidity needs for banks, primary dealers and other market-makers, thereby encouraging participation in the Over-the-counter (OTC) derivatives market to hedge against risk. Increased market participation in the Credit default swap market would also provide an impetus for corporate bond market development;
- establish an efficient recovery mechanism for financial contracts under instances of default by a counterparty;
- adhere to India's G20 and FSB commitment to implement global regulatory reforms in the OTC derivatives market.

Insolvency and Bankruptcy Code: Important Developments

- Three years into about 743 out of 2,542 corporates who have initiated corporate insolvency resolution process have completed the process.
- 41.2 per cent of the cases admitted by NCLT for CIRP are in manufacturing sector followed by 19 per cent in Real Estate, Renting and Business Activities sector.
- The resolution under IBC has been much higher as compared to other processes.

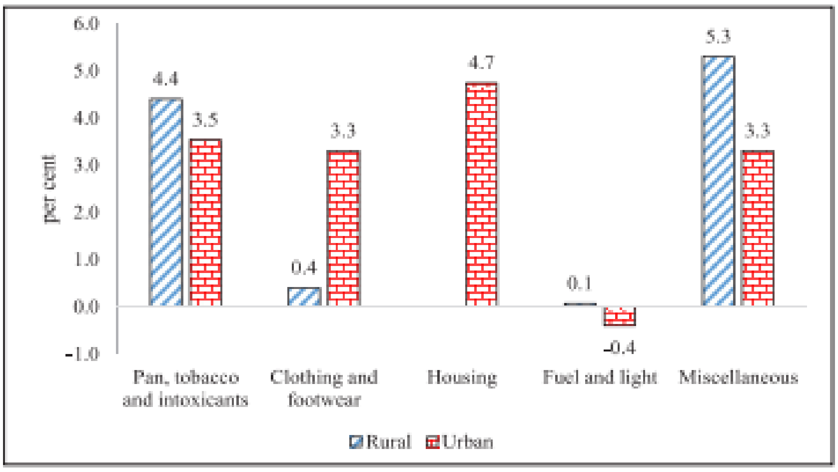
CHAPTER 5: PRICES AND INFLATION

Introduction

- The global economy has been witnessing a **steep decline** in inflation over the past five decades
- Emerging market economies have also experienced a remarkable decline in inflation over the same period
- There can be many reasons that could have contributed to the steep decline in inflation in the emerging market economies like:
    - The **adoption of more resilient monetary and fiscal policy frameworks.**
    - **Structural reforms** of labour and product markets that strengthen competition.
    - **Adoption of monetary policy framework** for inflation targeting.
- In India, inflation has been witnessing moderation since 2014. However, recently inflation has shown an uptick with Headline Consumer Price Index-Combined (CPI-C) inflation increasing to 4.1 per cent in 2019-20 (April to December, 2019) as compared to 3.7 per cent in 2018-19.

Current trends in Inflation

- Headline inflation based on **Consumer Price Index-Combined (CPI-C)** has been **sliding on a downward** path since 2014.
    - This has been led by a **drastic fall in food inflation**, which has fallen from 6.4 per cent in 2014-15 to 0.1 per cent in 2018-19.
- In 2019-20, there has been **slight uptick in the headline and food inflation number**.
    - **CPI-food inflation increased to 14.1 per** cent mainly driven by the rise in vegetable prices.
- During 2019-20, WPI based inflation has been on a continuous fall declining from 3.2 per cent in April 2019 to 0.6 per cent in November 2019, but increased to 2.6 per cent in December 2019.
- Since July 2018, CPI-Urban inflation has been consistently above CPI-Rural inflation.
    - This is in contrast to earlier experience where rural inflation has been mostly higher than urban inflation.
    - The divergence has been mainly on account of the differential rates of food inflation between rural and urban areas witnessed during this period.
- In **2019-20,** there has been sudden change in the trend.
    - Urban areas have registered much higher food inflation when compared to rural areas.
    - The slide in rural inflation could be because of fall in the growth of real rural wages.



- The divergence in rural-urban inflation is not just observed in the food component but in other components also-
    - In clothing and footwear, inflation in urban areas is higher than that observed in rural areas.
    - For Pan, tobacco and intoxicants, Fuel and light and miscellaneous groups, inflation observed in rural areas was higher than that in the urban areas.

Inflation in States

- CPI-C inflation has continued to be highly variable across States.
- However, the overall inflation rate has been quite low in almost all the States.
- Though in most of the states the overall inflation rate in rural areas is lower than the overall inflation rate in urban areas.

Drivers of Inflation

- During 2019-20, **food and beverages emerged as the main contributor** to CPI-C inflation.
- Miscellaneous group was the second largest contributor to inflation during this period.

Crude Oil and Fuel Inflation

- World crude oil prices **declined** owing to weak global demand.
- As oil has a major share in the country's import basket, it impacts considerably domestic prices of petroleum products.
- The mineral oils group in **WPI saw an inflation of 5.8 per cent** in mid 2019, thereafter saw continuous decline.

Food Inflation

- Some commodities such as onion, tomato and pulses have shown **high inflation** since August 2019
- Untimely rains have caused lower production as well as constricted the movement of **onion** and **tomato** to the markets
- In the case of **pulses**, the progress in sowing has been at much lower levels than in the previous year. Some pulses also experienced **Cobweb Phenomena** which is the idea that price fluctuations can lead to fluctuations in supply which cause a cycle of rising and falling prices. The farmers are caught in the cobweb phenomenon when they base their sowing decisions on prices witnessed in the previous marketing period.
    - **To prevent the occurrence of the cobweb phenomenon**, it is essential that apart from existing measures in place to safeguard pulses farmers from crop failure/price shocks like market intervention under Price Stabilization Fund (PSF), coverage under Pradhan Mantri Fasal Bima Yojana, PM-AASHA, providing warehouses, improving transportation, price discovery through e-NAM etc., free export of pulses also needs to be encouraged for India to become self-sufficient in pulses production.

Drug Pricing

- Out of the total out of pocket expenditure of individuals on health, the major portion is that of medicines this makes the provision of affordable drugs an imperative.
- Indian pharmaceutical sector is an important sector not only because of the welfare implications it has, but also because of its economic importance as a sector with a proven record of technical capability and global standing.
- The sector has grown considerably in the recent years and has potential for further development in the coming years.
- The **fixation of ceiling prices**/Maximum Retail Price (MRP) has resulted in a large saving of 12,447 crores to the public after implementation of DPCO, 2013.

> **National Pharmaceutical Pricing Policy, 2012**
> **Objectives:**
> - To put in place a regulatory framework for pricing of drugs so as to ensure availability of required medicines – "essential medicines" – at reasonable prices.
> - To provide sufficient opportunity for innovation and competition to support the growth of industry.

- It has been observed that there is 26 per cent increase in the sales of the cardiac stents in the Indian market in the post price capping period (2017).
- It has also been observed that indigenous manufacturers have benefited from the price capping as their **share in the production has increased** by 10 per cent in post price capping period.

Volatility in Essential Commodity Prices

- It has been seen that overall price volatility was highest for vegetables and lowest for rice, wheat and palm oil.
- Prices of rice and wheat remained **stable** since 2014 due to:
    - Adequate supply arising out of sufficient domestic production
    - Also due to maintenance of adequate buffer stock of rice and wheat for meeting the food security requirements.
- There was a significant rise in volatility for pulses, sugar and tomatoes during 2014 - 2019.

Causes affecting Price Volatility

- The extent to which given production and consumption shocks translate into price volatility depends on supply and demand **elasticities.**
- **Stockholding and speculation** can have major impact on price variability, either stabilising or destabilizing.
- **Perishability** of the commodities also adds to price volatility.
- Presence of marketing channels, storage facilities, and effective MSP system can help limit price volatility.

Divergence in retail and wholesale prices for essential agricultural commodities

- A divergence between the retail and wholesale price of various essential commodities was observed in the four metropolitan cities of the country over the period 2014 to 2019.
- vertical spreads in prices is maximum for vegetables that are perishable, then for pulses and the least for edible oils
- The reasons for such a high spread between the wholesale and retail prices could be due to several reasons such as:
  - High transaction costs, weak infrastructure and information systems, poor marketing facilities, huge margins of middleman etc.
  - Different market structure is across States leads to different transaction costs.
  - Asymmetry in the transmission of price signals from wholesale to retail prices and vice versa due to action of intermediaries.
- To reduce the wedge it is important that market barriers and structural rigidities in the system that lead to higher transaction costs are removed.

Has there been a shift in Inflation Dynamics?

- There is evidence of strong reversion of headline inflation to core inflation.
- This may have implications for the response of monetary policy to food and fuel price shocks
  - Monetary policy need not become tighter in face of short-term, transitory price shocks in non-core components.
- Two major factors could have contributed to the changing dynamics of inflation in India
  - First, it was observed that food inflation has seen a declining trend
  - Second, inflation expectations have been declining because of the success of inflation targeting approach of monetary policy adopted by RBI in anchoring inflation expectations.

Trends in Global Commodity Prices

- As per the commodity prices published by the World Bank, energy commodity prices have shown a decreasing trend in 2019-20.
- In terms of food prices, the deflationary trend has continued.
- The metals and minerals index also showed a deflationary trend.

Measures taken by government to contain price rise of Essential Commodities

- Utilizing trade and fiscal policy instruments like import duty, Minimum Export Price, export restrictions, imposition of stock limits and advising States for effective action against hoarders & black marketers etc.
- Government also **incentivizes farmers** by announcing **Minimum Support Prices** for increasing production
- It is implementing Schemes which, inter alia, include **Mission for Integrated Development of Horticulture (MIDH), National Food Security Mission (NFSM)** etc. for increasing production and productivity through appropriate interventions.
- Government is also implementing Price **Stabilization Fund** (PSF) to help moderate the volatility in prices of agri-horticultural commodities.
- The benefit to exporters of onions under **Merchandise Exports from India Scheme** (MEIS) was withdrawn.
- **Minimum Export Price** (MEP) was imposed on onion in September 2019, and subsequently its export was banned by Government.
- It has imposed **stock limits** on traders across the country.
- It also **facilitated private imports** of onions by relaxing its fumigation norms and exempting importers from stock limits.
- Government imported onions from countries like **Egypt and Turkey.**
- It also directed **NAFED** to procure surplus Kharif onion from producing States like Rajasthan, Maharashtra and undertake distribution in deficit States.

CHAPTER 6: SUSTAINABLE DEVELOPMENT AND CLIMATE CHANGE

Introduction

- The year 2019 marked the fourth anniversary of adoption of 2030 Agenda for Sustainable Development and the Paris Agreement and India is moving forward on the path of Sustainable Development Goals (SDGs) implementation.
- This chapter analyses India's performance in moving towards economic growth, keeping in mind the imperatives of sustainable development. It also highlights scope for improvement as well as constraints in achieving targets.

India and SDG

- India's score in the composite SDG India Index 2019 has **improved from 57 in 2018 to 60 in 2019** largely driven by **commendable country wide performance in five SDG goals** – 6 (Clean Water and Sanitation), 7 (Affordable and Clean Energy), 9 (Industry, Innovation and Infrastructure), 15 (Life on Land) and 16 (Peace, Justice and Social Institutions) - where India has scored between 65 and 99.

SDG India Index 2019

- It is more comprehensive than SDG India Index 2018 and highlights the progress being made by the States/UTs on a wider set of **100 indicators spread across 16 goals.**
- The **SDG score varies from 0 to 100**. A score of 100 implies that the States/UTs have achieved the targets set for 2030; a score of 0 implies that the particular State/UT is at the bottom of the table.
- States with scores equal to/greater than 65 are considered as **Front-Runners**; in the range of 50-64 as **Performers** and as **Aspirants** if the score is less than 50.

- The **goals that demand special attention** are – 2 (Zero Hunger) and 5 (Gender Equality) – where the overall country score is below 50.
- As per the Index, Kerala, Himachal Pradesh, Tamil Nadu, Andhra Pradesh, Telangana, Karnataka, Goa, Sikkim, Chandigarh and Puducherry are the front runners while **none of the States/ UTs fall in the Aspirant category.**

SDG Nexus: A New Paradigm Approach

- The 'nexus' approach employs the principles of integrating management and governance across sectors
- Under this approach, the SDG goals are used as a medium which allows for interlinkages of different sectors and thematic areas. Since, a few SDGs have overlapping objectives with one another, the policies developed and aligned to achieve the goals must consider and identify these linkages and in-turn identify the potential trade-offs that might limit the physical achievement of the target under a goal.
- For example: **Under Education and Electricity Nexus,** it was observed that with electricity, the schools' access to modern methods and techniques of teaching helps holistic development of students and increase their attraction towards learning thus increasing the net enrolment ratio. It is observed that **States with lower literacy rates have low electricity rates at the schools and vice-versa.**
- **Under health and electricity nexus**, a **positive relationship is witnessed between the electricity consumption and fall in the Infant Mortality Rate (IMR)** in the country as many of the health improvement schemes- providing pediatric care, new- born emergency services, and successful vaccination rely heavily on the availability of electricity at the health centers.

Climate Change

- Through various initiatives and schemes that are aligned with its Nationally Determined Contributions (NDC) under the Paris Agreement, India has strived to ensure that it follows a growth path that delivers sustainable development and protects the environment. These are:

In its NDC, India promised

- **to reduce its emission intensity** of GDP by 33 to 35 per cent below 2005 levels by the year 2030;
- that **40 per cent of cumulative electric power** installed capacity would be **from non-fossil fuel** sources by 2030
- **to increase its forest cover and additional carbon sink** equivalent to 2.5 to 3 billion tons of carbon dioxide by 2030.

- **Swachh Bharat Mission (Urban)**: In a span of five years, all urban areas of **35 States/ UTs have become ODF** and the percentage of **waste processing rose from around 18 per cent in 2014 to 60 per cent.**
- **Renewable energy targets:** India had announced 175 Gigawatt (GW) targets for renewables by 2022 and has already achieved 83 GW. India also aims to increase the target till 450 GW.
- **Emission intensity**: As per the Second Biennial Update Report (BUR) submitted as a Party to the UNFCCC, the emission intensity of India's GDP has **reduced by 21 per cent over the period of 2005-2014.**
- **Energy Conservation Building Code (ECBC):** Under it, the minimum energy performance standards under resulted in energy saving of 84.34 million kWh, reduction in GHG emission of 69,154 tons of CO_2 per year.
- **UJALA scheme for LED bulb distribution:** has **crossed 360 million** whereas under street light national program, **10 million conventional streetlights have been replaced by LED** street lights thus cumulatively saving 43 million tons of CO_2 emission.
- **National Electric Mobility Mission Plan (NEMMP) 2020**: Under its Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India (FAME India) scheme to promote manufacturing and sustainable growth of electric and hybrid vehicle technology a total of **280,994 vehicles have been sold till 2019.**
- **The National Bio-fuels Policy 2018**: targets 20 per cent blending of ethanol in petrol and 5 per cent blending of biodiesel in diesel by 2030.
- **National Adaptation Fund on Climate Change (2015):** supports concrete adaptation activities for the States/UTs that are particularly vulnerable to the adverse effects of climate change and are not covered under on-going schemes.
- **National Action Plan on Climate Change (NAPCC, 2008):** India has decided to revise the NAPCC in line with the NDCs to make it more comprehensive in terms of priority areas. The progress under its eight missions is given in the box.

- **National Mission for Enhanced Energy Efficiency (NMEEE):** Under it, **The Perform, Achieve and Trade (PAT)** scheme was designed on the concept of reduction in Specific Energy Consumption. In PAT cycle –V (April 2019), the total energy consumption of the 110 Designated Customers (DCs) comes out to be 15.244 Million Tons of Oil Equivalent (Mtoe) and it is expected to get a total energy savings of 0.5130 Mtoe.
- **National Solar Mission** aims to increase the share of solar energy in the total energy mix. Under the total target of 100 GW, 32.5 GW of solar electric generation capacity has been installed.
- **National Water Mission** focuses on monitoring of ground water, aquifer mapping, capacity building, water quality monitoring and other baseline studies. While granting 'No Objection Certificate' for drawing ground water, Central Ground Water Authority (CGWA) insists for mandatory rain water harvesting as per the guidelines issued.
- **National Mission for a Green India** emphasises the landscape approach to treat large contiguous areas of both forest and non-forest, public and private lands with a key role of the local communities in planning, implementation and monitoring. A sum of Rs 343.08 crore has so far been released under the mission for undertaking afforestation activities over an area of 126916.32 ha in 13 states.
- **National Mission on Sustainable Habitat** is being implemented through three programmes: Atal Mission on Rejuvenation and Urban Transformation, Swachh Bharat Mission, and Smart Cities Mission. Energy Conservation Building Rules 2018 for commercial buildings has been made mandatory. Under Mass Rapid Transit System, 585 km of metro rail is in operation; 620 km is under construction. Under the Bus Rapid Transit System (BRT), 223 kms of BRT corridors operational in 8 cities and 505 kilometers of BRT corridors are under construction in 14 cities.
- **National Mission for Sustainable Agriculture** aims at enhancing food security and protection of resources. Key targets include covering 3.5 lakh hectare of area under organic farming, 3.70 under precision irrigation, 4.0 lakh hectare under System of Rice Intensification, 3.41 lakh hectare under diversification to less water consuming crop, 3.09 lakh hectare additional area under plantation in arable land and 7 bypass protein feed making. The mission has resulted in the formation of National Innovations on Climate Resilient Agriculture, a network project.
- **National Mission for Sustaining the Himalayan Ecosystem** aims to evolve suitable management and policy measures for sustaining and safeguarding the Himalayan Ecosystem. The key achievements include setting up of: - Centre of Glaciology at Wadia Institute of Himalayan Geology, thematic task forces in 6 lead institutions, State Climate Change Centers in 11 out of 12 Himalayan States, 40 Training Programmes under State Climate Change Centres organized with 5500 people trained, formation of Inter-University Consortium of 4 universities on Himalayan Cryosphere and Climate Change.

- **National Mission on Strategic Knowledge for Climate Change** seeks to build a knowledge system that would inform and support national action for ecologically sustainable development. Key achievements include setting up of 11 Centres of Excellence and 10 State Climate Change Centres. 116 Training programmes have been launched and 14000 people have been trained; a total of 23 major R&D programmes have been spread over the country.

Aligning Financial System with Sustainable development

- In 2007, **RBI had sensitized banks in India** to the various international initiatives and was asked to keep abreast of the developments in the field of sustainability and modify their lending strategies/plans in the light of such developments.
- In 2011, **Indian Institute of Corporate Affairs developed a concept of National Voluntary Guidelines (NVGs)** on Social, Environmental and Economic Responsibilities for adoption by the corporate sector.
- **SEBI mandated adoption of NVGs by the listed Indian companies including banks**. In 2014-15, a Working Group was set up by Indian Banks' Association (IBA) to generate the concept of responsible financing underlying NVGs which would enable Financial Institutions to integrate the environmental, social and governance (ESG) principles in their business decision making, structure and processes.
- **India has the second largest Emerging green bond market after China**. Green bonds are debt securities issued by financial, non-financial or public entities where the proceeds are used to finance 100 percent green projects and assets.
- India joined the **International Platform on Sustainable Finance (IPSF) in 2019** that acknowledges the global nature of financial markets which has the potential to help finance the transition to a green, low carbon and climate resilient economy by linking financing needs to the global sources of funding.

Green Climate Fund

- In 2009, developed countries committed to a goal of mobilizing jointly US$ 100 billion a year by 2020 to address the needs of developing countries and decided that a significant portion of such funding should flow through the GCF. In contrast, the total to the GCF are a meagre US$ 10.3 billion. GCF's first replenishment (2020- 2023) process so far witnessed 28 countries pledging resources to replenish the Fund for an amount of US$ 9.7 billion, which is even quantitatively lower than the Initial Resource Mobilization period.
- In the 25th session of the Conference of the Parties (COP 25) to the UNFCCC held at Madrid, Spain, India reiterated its commitment to implement the Paris Agreement in its letter and spirit and to act collectively to address climate change including consideration of principles of equity and common but differentiated responsibilities and respective capabilities.

India's initiatives at the International stage

- **International Solar Alliance (ISA):** aims to pave the way for future solar generation, storage and technologies for Member countries' needs by mobilizing over US$ 1000 billion by 2030.
    - In 2019, ISA has taken up the role of
        - ✓ **'enabler'** by institutionalizing 30 Fellowships from the Member countries with a premier institution (IIT Delhi) in the host country, and training 200 Master Trainers from ISA Member countries;
        - ✓ '**facilitator**' by getting the lines of credit worth US$ 2 Billion from EXIM Bank of India and US$ 1.5 Billion from France
        - ✓ '**incubator**' by nurturing initiatives like the Solar Risk Mitigation Initiative and
        - ✓ '**accelerator**' by developing tools to aggregate demand for more than 1000 MW solar rooftop, 10,000 MW of Solar Mini-Grid and 270,000 solar water pumping systems.
- **Coalition for Disaster Resilient Infrastructure:** launched on the side lines of UN Secretary General's Climate Action Summit in 2019 promotes the resilience of new and existing infrastructure systems to climate and disaster risks, thereby ensuring sustainable development.
    - CDRI envisions enabling measurable reduction in infrastructure losses from disasters, including extreme climate events. CDRI aims to enable the achievement of objectives of expanding universal access to basic services and enabling prosperity as enshrined in the SDGs, while also working at the intersection of the Sendai Framework for Disaster Risk Reduction and the Paris Climate Agreement.

India and the UNCCD

- As a party to the UNCCD, **India has voluntarily committed to raise its ambition** of the total area that would be restored from its land degradation status, from 21 million to 26 million hectares between now and 2030.
- **India also hosted 14th session of the Conference of Parties (COP 14)** to the United Nations Convention to Combat Desertification (UNCCD) as its President and announced to set up a centre for excellence in India at the Indian Council of Forestry Research and Education; and has offered its resources in space and remote sensing technology to member countries who wish to manage their land degradation programmes through cutting-edge technology.
- COP 14 adopted the New Delhi Declaration: Investing in Land and Unlocking Opportunities. Through the Declaration, it expressed support for new initiatives or coalitions aiming to improve human health and well-being, the health of ecosystems, and to advance peace and security.

India and its forests

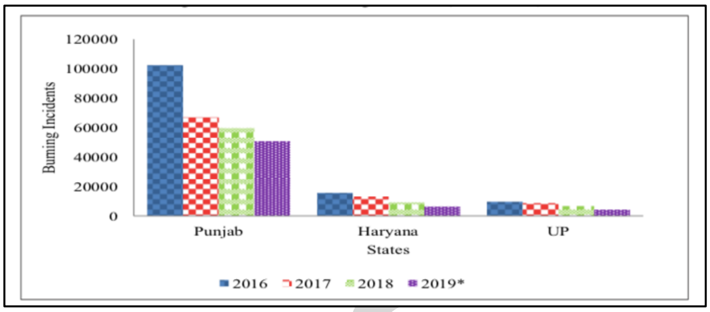
- According to FAO, India accounts for 2 percent of total global forest area in 2015. India is among a few countries in the world where, despite ongoing developmental efforts, forest and tree cover are increasing considerably.
- The forest and tree cover have reached 80.73 million hectare which is 24.56 per cent of the geographical area of the country.
  - There has been an increase of 3,976 sq. km (0.56 per cent) of forest cover, 1,212 sq. km (1.29 per cent) of tree cover and 5,188 sq. km (0.65 per cent) of forest and tree cover put together, at the national level as compared to the previous assessment 2017.
- In the Forest Report, 2019, there is an increase of 42.6 million tons in the carbon stock of the country as compared to the last assessment 2017.
  - Net change in carbon stock is highest in soil organic carbon followed by Above Ground Biomass (AGB) and Dead wood. Litter carbon registered negative growth rate as compared to 2017 assessment.
- India is one of the 17 mega diverse countries in the world as per the Shannon-Weiner Index used in India State of the Forest Report 2019. The index is used for measuring species richness and abundance among various habitats. The Index shows that
  - Tropical Evergreen forest is high in Karnataka followed by Kerala.
  - Semi-evergreen forest are high in Karnataka.
  - Tropical moist deciduous forests cover is high in Arunachal Pradesh, Karnataka and Maharashtra.
  - Tropical dry deciduous forest is high in Arunachal Pradesh
  - Tropical Littoral and swamp forests are high in UP and
  - Tropical thorn forests are high in Andhra Pradesh.

Agriculture Residue Burning – A major concern

- Being the second largest agro-based economy India, generates a large amount of agricultural waste, including crop residues and about 178 million tonnes of surplus crop residues are available in the country.
- Varieties of surplus crop residues are burnt especially in northern States of Punjab, Haryana, UP, and Rajasthan depending on the agro-climatic region; however, about 50 per cent of all crop residue burnt in the country are residues of rice crop.
- Because huge volumes of residues are burnt in a very short duration (of few weeks), it leads to significant contributions in pollutant levels like PM2.5 and PM10 and deterioration of air quality.
- **Initiatives taken by the government** include:
  - **National Policy for Management of Crop Residue**, under which NGT, directed and prohibited agricultural residue burning in any part of Delhi, Rajasthan, Punjab, Uttar Pradesh and Haryana. Burning crop residue is a crime under Section 188 of the IPC and under the Air and Pollution Control Act of 1981.
  - **Promotion of Agricultural Mechanization for In-Situ Management of Crop Residue**: Under scheme, the agricultural machines and equipment for in-situ crop residue management such as

Super Straw Management System for Combine Harvesters, Happy Seeders, Hydraulically Reversible MB Plough, Paddy Straw Chopper, Mulcher, Rotary Slasher, Zero Till Seed Drill and Rotavators are provided with 50 per cent subsidy to the individual farmers and 80 per cent subsidy for establishment of **Custom Hiring Centres**.

- With various efforts, **the total number of burning events have reduced significantly over the years**. However, continuation of this practice by farmers is reported every year starting winter and the serious concerns about its impact on air quality are raised.



- Various studies suggest ways to address this issue, which include:
    - **Promote the practice of conservation of agriculture** with low lignocellulosic crop residues like rice, wheat, maize etc. With this, seeds of the next crop can be sown without any problem associated with residues of the previous crops and also without affecting the crop productivity.
    - **Create markets for crop residue-based briquettes** and mandate nearby thermal power plants to undertake co-firing of crop residues with coal.
    - **Create special credit line** for financing farm equipment and working capital for private sector participation
    - **Promote use of crop residue-based biochar** briquettes in local industries, brick kiln and hotel/dhaba as an alternate fuel.

Construction and Demolition (C&D) Waste

- **Annual consumption of construction materials (sand, soil & stone) in India is estimated to be 3,100 million tonnes.** Unscientific disposal of C&D waste is one of the key contributors to the air and water pollution.
- **Circular Economy approach in Delhi for C&D waste management** : In 2009, the Municipal Corporation of Delhi and IL&FS Environmental Infrastructure and Services Ltd. (IEISL) pioneered setting up a project to recycle 500 Tonnes Per Day (TPD) of C&D waste at Burari, Delhi (first of its kind facility in the country) to address the waste generated during Commonwealth Games preparations.
  Since then, the Burari facility along with two other C&D recycling facilities (under East Delhi Municipal Corporation and Delhi Metro Rail Corporation respectively) in Delhi are together recycling over 2,650 TPD C&D waste. All three Delhi plants have together processed over 5 million tonnes C&D waste.
  The pioneering facility of Burari also helped in paving the way forward in formulating the C&D Waste Management Rules, 2016.
- Application of recycled C&D products includes usage in other civil works and also in road construction.

Way forward

- SDGs can be achieved through high standards of governance, monitoring and implementation at all levels. In the spirit of cooperative federalism, the States and Central Government are walking together to bring a change that India needs.
- Despite the continuous and definitive efforts of stakeholders, scarce financial resources continue to be the biggest constraint.
- Developed countries should honour their financial obligations and promises under the multilateral environmental agreements. Hence, adequate provision of finance, technology transfer, and capacity building to developing countries to facilitate the effective implementation of the SDGs and Paris Agreement on climate change are critical.
- India has and will continue to do its fair share of responsibilities while strongly calling for developed countries to take the lead.

CHAPTER 7: AGRICULTURE AND FOOD MANAGEMENT

Introduction

This sector plays a significant role in rural livelihood, employment and national food security. Almost 70 percent of India's rural households still depend primarily on agriculture for their livelihood. In the light of this, Government is rightly aiming at doubling farmer's income by 2022.

Overview of Agricultural Sector

- **Share in Goss Value Added (GVA):** Share of agriculture and allied sectors in GVA has declined from 18.2 percent in 2014-15 to 16.5 percent in 2019-20.
- **Growth has fluctuating trend:** Agriculture, Forestry and Fishing sector is estimated to grow by 2.8 percent in 2019-20 as compared to growth of 2.9 percent in 2018-19.
- **Gross Capital Formation (GCF) also has fluctuating trend:** GCF (as a percentage of GVA) has been showing a fluctuating trend from 16.5 percent in 2012-13 to 15.2 percent in 2017-18.

Improving farm productivity and ensuring economic security

- **Minimum Support Price (MSP):** To encourage higher investment and production, government announces MSPs for twenty-two mandated crops; and Fair and Remunerative Price for Sugarcane.
    - Government had increased MSPs for all mandated kharif, rabi and other commercial crops with a return of 1.5 times over cost of production.
    - **Direct Support:** In addition to this, several direct income/investment support schemes have been announced.

> **Income/Investment Support Schemes**
>
> **Pradhan Mantri Kisan Samman Nidhi (PM-KISAN)**
> Under the Scheme an income support of Rs. 6000 per year is provided to all farmer families across the country.
>
> Similar Schemes have been created by several state governments. For example-
>
> - Krushak Assistance for Livelihood and Income Augmentation (KALIA) Scheme of Odisha.
> - Mukhya Mantri Krishi Ashirwad Yojana of Jharkhand.
> - Rythu Bandhu of Telangana.

- **Mechanization in Agriculture:** With the shrinking land and water resources and labour force, the onus of increasing productivity rests on mechanization of production and post harvesting operations.
    - **Farm power availability:** Government has decided to enhance farm power availability from 2.02 kW per ha (2016-17) to 4.0 kW per ha by the end of 2030.
    - **Growing farm mechanization market:** Farm mechanization market in India has been growing at a CAGR of 7.53 per cent during 2016-2018. This is in conjunction with India being the largest tractor industry in the world.
    - **Sub-mission on Agricultural Mechanization:** Under the scheme, assistance is provided to State governments to impart training and demonstration of agricultural machinery, provide assistance to farmers for procurement of various agricultural machineries and equipment and for setting up of Custom Hiring Centre.
    - **In-situ crop residue management:** Special scheme was created for in-situ management of residue in the states of Punjab, Haryana, UP and NCT of Delhi. Special scheme was created for in-situ management of residue in the states of Punjab, Haryana, UP and NCT of Delhi machines and equipment for in-situ crop residue management are provided with 50 per cent subsidy to the individual farmers and 80 per cent subsidy for establishment of Custom Hiring Centres.
    - **Low Overall Mechanization:** Farm mechanization in India has been 40-45 per cent compared to other countries such as USA (95 per cent), Brazil (75 per cent) and China (57 per cent). Major reasons being economies of operation due to small holdings, access to power, credit cost and procedures, uninsured markets and low awareness.
    - **Regional Disparities:** Northern India has higher levels of mechanization compared to other regions. (Rice and Wheat crops having the largest extent of mechanization)

- **Micro-Irrigation:** Micro-irrigation includes drip irrigation and sprinkler irrigation which has gained immense popularity amongst the farmers.
  - **PMKSY:** Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) was launched to enable mirco-irrigation through its Per Drop More Crop (PDMC) component.
  - Farmers have had following **benefits from this technology**-
    - ✓ Saving of **irrigation water** from **20 to 48 per cent.**
    - ✓ **Energy saving** from **10 to 17 per cent.**
    - ✓ Saving of **labour cost** from **30 to 40 per cent.**
    - ✓ Saving of **fertilizers** from **11 to 19 per cent**.
    - ✓ Increase in **crop production** from **20 to 38 per cent**.
  - **Micro-Irrigation Fund (MIF):** A dedicated Micro Irrigation Fund (MIF) created with NABARD for facilitating the States in mobilizing the resources for expanding coverage of Micro Irrigation.
- **Agricultural Credit:** The agricultural credit flow target for 2019-20 has been fixed at Rs 13.5 lakh crore.
  - **Skewed Regional Distribution:** It is observed that credit is low in North Eastern, Hilly and Eastern States. Whereas it is highest in the Southern states. (Kerala, Andhra Pradesh and TN)
- **Crop Insurance:** Pradhan Mantri Fasal Bima Yojana (PMFBY) provides comprehensive coverage of risks from pre-sowing to post harvest against natural non-preventable risks.
  - **Increasing Coverage:** PMFBY envisages increase in coverage from the existing 23 per cent to 50 per cent of Gross Cropped Area (GCA) in the country.
  - **National Crop Insurance Portal (NCIP):** NCIP is a web-based integrated IT platform that provides interface among all stakeholders to access/enter data relating to insured farmers under PMFBY and Restructured Weather Based Crop Insurance Scheme (RWBCIS).
    - ✓ The aim of this Portal is to avoid delay in credit of claim amount to farmers account and for proper monitoring of PMFBY.
  - **Revision of Operational Guidelines:** On the basis of the experience of implementation of PMFBY, government has comprehensively revised the operational guidelines of the scheme.
    - ✓ The scheme now includes interest penalties on delays, detailed standard operating procedures and inclusion of perennial crops and damage by wild animals on pilot basis.

Agricultural Services and allied sectors

- **Agricultural Trade:** India occupies a leading position in global trade of agricultural products. However, its total agricultural export basket accounts for a little over 2.15 percent of the world agricultural trade.
  - **Major export destinations:** USA, Saudi Arabia, Iran, Nepal and Bangladesh.
  - **Major Products:** Rice (both Basmati and non-basmati), spices and cotton.
  - Several **Trade Policy Measures** were undertaken by the Government-
    - ✓ **Protective measures** like increasing Import duty on some products like peas, quantitative restrictions on Imports and providing a Minimum Import Price (MIP) for products like pepper.
    - ✓ **Restriction on export** of pulses and edible oils has been majorly **lifted.**
    - ✓ Creation of **Agriculture Export Policy** aimed at **doubling the agricultural exports** and integrating Indian farmers and agricultural products with the global value chains.
    - ✓ Creation of 'Agri. Cells' in many Indian embassies abroad to take care of agricultural trade related issues.
- **Agricultural Research and Education:** ICAR is the premier research organisation for co-ordinating, guiding and managing research and education in agriculture, including horticulture, fisheries and animal sciences.
  - **High Yielding Varieties and Breeder Seeds:** A total of 220 new varieties/hybrids of field crops, 93 horticultural crops and 18 biofortified varieties of crops were notified / released during 2019-20.

Cyber-Agro Physical Systems (CAPS)

This system envisages integrating the use of sensors with computers, satellite imagery and supercomputing in agricultural operations along with artificial intelligence enabled farmers' advisories.

Initiatives by Department of Agricultural Research & Education (DARE)

- Agricultural Education Portal **EKTA (Ekikrit Krishi Shiksha Takniki Ayaam)** for integrated online management information system.
- It developed 9 mobile apps such as mango cultivation, **e-kalpa** etc.
- It developed 02 mobile Apps for farming community (**Kisan Suvidha and Pusa Krishi**)

- **Protection of Indigenous Breeds:** About 184 indigenous breeds were registered in 2019. This will provide legal support for IPRs of the registered breed/new varieties released and conservation of threatened breed and indigenous breeds.
- **Disease Protection of Livestock:** For livestock protection, the diagnostic kits against Japanese Encephalitis (JE) and Bluetongue (BT) diseases and Subviral Particle based Infectious Bursal Disease Vaccine were developed.
- **Transferring Technologies from Lab to Farmer's Field:** 716 Kisan Vikas Kendras (KVKs**)** of the country have been linked with 3.37 lakh common service centers to enhance their reach amongst the farmers and provide the demand driven services and information. KVKs conducted 42361 on-farm trials and 2.71 lakh Frontline Demonstrations.

Allied Sectors:

- **Animal Husbandry, Dairying and Fisheries:** Livestock sector has grown at a compound annual growth rate of 7.9 per cent during last five years. Livestock income has become an important secondary source of income for rural families and has assumed an important role in achieving the goal of doubling farmers' income.
  - **National Animal Disease Control Programme (NADCP) for FMD:** This scheme envisages complete control of Foot and Mouth Disease (FMD) by 2025 with vaccination and its eventual eradication by 2030.
  - **Largest Milk Producer:** India is the largest producer of milk in the world. Milk production in the country was 188 million tonnes in 2018-19 with a yearly growth rate of 6.5 percent resulting in increased per capita availability to 394 grams per day.
  - **Employment:** According to NSSO's 68th Round Survey on Employment and Unemployment, **16.44 million workers** were engaged in the activities of farming of animals, mixed farming, fishing and aquaculture.
- **Fisheries Sector:** The sector provides livelihood to about 16 million fishers and fish farmers at the primary level and almost twice the number along the value chain.
  - **Independent Department:** Recognising the importance of the sector, an independent Department of Fisheries has been created in 2019**.**
  - **Share in Agricultural GDP and export:** The sector accounts for 6.58 percent of GDP from agriculture, forestry and fishing. Also, the sector is one of the major contributors of foreign exchange earnings with India being one of the leading seafood exporting nations in the world.
  - **Fish Production:** The total fish production in the country was 13.42 million metric tonnes (MMT) during 2018-19. (Marine fisheries- 3.71 MMT and Inland fisheries- 9.71 MMT)
  - **Fisheries and Aquaculture Infrastructure Development Fund (FIDF):** FIDF provides concessional finance/ loan to the Eligible Entities (EEs), including State Governments/UTs and State entities for development of identified fisheries infrastructure facilities.
    - ✓ Concessional finance will be provided by the Nodal Loaning Entities (NLEs) namely (i) NABARD, (ii) National Cooperatives Development Corporation (NCDC) and (iii) All scheduled Banks.
- **Food Processing Sector:** During the last 6 years ending 2017-18, Food Processing Industries sector has been growing at an average annual growth rate of around 5.06 per cent.
  - **Employment:** According to the Annual Survey of Industries for 2016-17, the total number of persons engaged in registered food processing sector was 18.54 lakhs. (whereas unregistered FPOs supports 51.11 lakh workers)
  - **Pradhan Mantri Kisan Sampada Yojana (PMKSY):** PMKSY provides subsidy-based support to create robust modern infrastructure for agriculture and agro-based industries along the entire value/supply chain.
    - ✓ The scheme has various components like Mega Food Parks, Integrated Cold Chain and Value Addition Infrastructure, etc.
    - ✓ The scheme is estimated to benefit about 46.37 lakh farmers and generate about 5.6 lakh direct/ indirect employment.
- **Fertilizers:** The New Urea Policy-2015 (NUP- 2015) had objectives of maximizing indigenous urea production; promoting energy efficiency in urea production; and rationalizing subsidy burden on the government**.**

- **DBT System in Fertilizers:** Under the fertilizer DBT system, 100 percent subsidy on various fertilizer grades is released to the fertilizer companies on the basis of actual sales made by the retailers to the beneficiaries.
  - ✓ Sale of all subsidized fertilizers to farmers/buyers is being made through Point of Sale (PoS) devices and the beneficiaries will be identified through Aadhaar Card, KCC etc.

Food Management

The main objectives of food management are **procurement of foodgrains from farmers at remunerative prices**, distribution of **foodgrains to consumers at affordable prices** and maintenance of **food buffers for food security and price stability.**

- FCI undertakes storage and procurement of foodgrains. Whereas foodgrains are distributed in accordance with **National Food Security Act (NFSA), 2013.**
  - **Coverage:** NFSA provides for coverage of upto 75 percent of the rural population and upto 50 percent of the urban population for receiving foodgrains under Targeted Public Distribution System (TPDS). (Covering about 80 crore persons.)
  - To ensure adequate availability of wheat and rice in central pool, Central Government has taken several steps like encouraging Decentralized Procurement of wheat and rice, creating strategic reserves, undertaking Open Market Sale Scheme (OMSS) and PDS reforms.
  - **PDS reforms** includes One Nation - One Ration Card, Aadhaar authenticated distribution through e-POS machines etc.

> **One Nation- One Ration Card**
>
> The Department of Food & Public Distribution is implementing a Scheme namely **Integrated Management of Public Distribution System (IM-PDS)**.
>
> The main objective of the scheme is to introduce nation-wide portability of ration card holders under NFSA through 'One Nation One Ration Card' System, to lift their entitled foodgrains from any Fair Price Shop (FPS) in the country without the need to obtain a new ration card
>
> This system would largely benefit numerous migratory beneficiaries who frequently change their place of dwelling in search of work/employment or for other reasons across the country and eventually get deprived of their quota of subsidised foodgrains under NFSA due to migration from their native place.

- **Foodgrain Stocking Norms:** Government has revised the Buffer Norms in January, 2015 and the nomenclature of Buffer Norms has been changed to **Foodgrain Stocking Norms** to meet the prescribed minimum stocking norms for food security, to ensure monthly releases of foodgrains for supply through the TPDS/ Other Welfare Schemes, to meet emergency situations arising out of unexpected crop failure, natural disasters etc. and to use the foodgrain stock in the Central Pool for market intervention to augment supply so as to help moderate the open market prices.
- **Allocation of foodgrians under NFSA/TDPS:** NFSA has been implemented in all States/UTs.
  - **Allocation:** Collectively, about 604 lakh tonnes of foodgrains were allocated to States/UTs.
  - **Procurement Percentage:** Procurement as a percentage of production was highest in the last five years at about 45 percent.
- **Economic Cost of foodgrains to FCI:** Economic Cost of foodgrains consists of three components- pooled cost of grains, procurement incidentals and the cost of distribution.
  - **Pooled Cost:** The pooled cost of food grains is the weighted MSP of the stock of foodgrains available with FCI. It increased due to rise in the MSP of both rice and wheat.
  - **Real economic cost:** Increase of one unit in real MSP leads to 0.48 unit increase in real economic cost procurement and the impact is significant.
- **Food Subsidy:** The difference between the per quintal economic cost and the per quintal Central Issue Price (CIP) gives the quantum of food subsidy.
  - **Composition of Subsidy:** Food subsidy comprises of subsidy provided to FCI for procurement and distribution of wheat and rice and for maintaining the strategic reserve of foodgrains and subsidy provided to States for undertaking decentralized procurement.
  - **Increasing Subsidy:** Food subsidy incurred by the Government has risen substantially over the years. (From about 0.6 lakh crore in 2009-10 to about 1.7 lakh crore in 2018-19.)
  - **Reasons for increasing subsidy:** There are several reasons like-
    - ✓ The NFSA provides a wider coverage than the erstwhile TPDS.

- NFSA has made the Antyodaya CIPs uniformly applicable to all NFSA beneficiaries.
- APL/BPL categorization was done away with under NFSA.
- Build up of the foodgrain stocks much higher than their norms.
- Decline in average Central Issue Price (CIP) for APL households.

- **Storage Capacity:** Capacity available with FCI is part of warehousing capacity available with the Central Warehousing Corporation (CWC) and State Warehousing Corporations (SWCs) and capacity hired from private sector (This is around 750.00 LMT comprising covered godowns of 617.60 LMT and Cover and Plinth (CAP) facilities of 132.40 LMT).
    - **Steps taken:** To augment the capacity, government has taken several steps such as-
        - Private Entrepreneurs Guarantee Scheme (PEG): Construction of godowns has been undertaken in PPP mode in 22 States.
        - Central Sector Scheme (erstwhile Plan Scheme): This scheme is implemented in the North Eastern States along with few other states.
        - Construction of Steel Silos: Creation of 100 LMT capacity in PPP mode for modernizing storage infrastructure and improving shelf life of stored foodgrains.
        - Online Depot Management System (ODMS): It aims to automate the entire process of depot operations.

Way Forward

The realisation of the objective of doubling farmers' income necessitates addressing of some of the basic but persistent challenges of agriculture and allied sector. Improvement in farm productivity through mechanization and micro-irrigation needs a balance with financial security of farmers through MSP, agricultural credit and crop insurance.

In the longer-term, agricultural modernization can be effectuated only through agricultural research and education coupled with agricultural trade. To improve the robustness of agricultural supply chain, forward and backward linkages in the form of food processing and fertilizer sector need simultaneous reform.

Since, agricultural growth affects and is affected by food security via policy channels like procurement policy. Thus, policy reforms and infrastructure development accompanied by rationalization of subsidies provide a framework for sustainable agricultural growth.

SUMMARY OF ECONOMIC SURVEY

CHAPTER 8: INDUSTRY AND INFRASTRUCTURE

Introduction

Industrial sector performance is critical to achieving the ambitious goal of making India a five-trillion economy. Directly, the sector contributes close to 30 per cent of total gross value added (GVA) and indirectly it supports the other two sectors through forward and backward linkages.

Overview of Industrial Sector

- **Decreased Growth:** The estimated growth for 2019-20 is 2.5 percent as compared to 6.9 percent last year. (Reason being the 0.2 percent negative growth of manufacturing sector.)
- **Index of Industrial Production (IIP):** The IIP is a measure of industrial performance. It assigns a weight of 77.6 percent to manufacturing followed by 14.4 percent to mining and 8.0 percent to electricity.
    - **IIP growth moderated:** Overall, IIP growth moved to 3.8 percent in 2018-19 compared to 4.4 percent in 2017-18. Reasons being slower credit flow to MSMEs reduced lending by NBFCs, tapering of domestic demand for key sectors etc.
- **Index of Eight Core Industries:** It measures the performance of eight core industries i.e. Coal, Crude Oil, Natural Gas, Refinery Products, Fertilizers, Steel, Cement and Electricity. These Eight Core Industries comprise 40.27 percent weight in the IIP.
    - Overall, the Index lays flat during 2019-20 (April- November) compared to corresponding figure of 5.1 percent last year.
- **Correlation:** The Survey observes that IIP, Eight Core Industries and Manufacturing sector from 2017-18 to 2019-20 move in tandem with some occasional deviation.
- **Performance of Central Public Sector Enterprises (CPSEs):**
    - **Profits:** The overall net profit of the 249 operating CPSEs went up by 15.52 per cent.
    - **Investment:** The increase in investment in all the CPSEs was 14.65 per cent in 2018-19 over 2017-18, and capital employed went up by 11.71 per cent over the same period.
- **Corporate Sector Performance:**
    - **Sectoral slowdown:** Petroleum products, iron and steel, motor vehicles and other transport equipment companies were the major contributors to slowdown.
    - **Stable Capacity Utilization:** The capacity utilisation of India's manufacturing sector remains stable at 73.6 percent.
- **Rising Gross Capital Formation (GCF):** Rate of growth of GCF in industry has registered a sharp rise from - 0.7 percent in 2016-17 to 7.6 percent in 2017-18.
- **Increased Credit Flow:** Growth in gross bank credit flow to the industrial sector rose to 2.7 percent in September 2019 as compared to 2.3 percent in September 2018.
- **Ease of doing business (EODB):** India has improved to 63rd position (from 77th last year) among the 190 countries in the World Bank's Doing Business 2020 Report. India has improved its rank in 7 out of 10 indicators which span the life-cycle of a business.
- **Start-up India:** As last estimated, 27,084 start-ups were recognized across 551 districts, 55 percent of which are from Tier I cities, 45 percent from Tier II and Tier III cities.
    - Several steps have been taken to encourage start-ups:
        - ✓ **Exemptions from Income tax** on investments raised by start-ups.
        - ✓ Implementation of **32 regulatory reforms** to improve Ease of Doing Business for start-ups.
        - ✓ **Self-certification regime** for six labour laws and three environmental laws.
        - ✓ **Start-up India Hub** as 'One Stop Shop' for the start-up ecosystem.
    - **Top 3 State performers:** Maharashtra, Karnataka and Delhi.
    - **Major Sectors**: IT Services (13.9 percent), Healthcare and Life Sciences (8.3 per cent) and education (7.0 percent).
- **Foreign Direct Investment (FDI):** Total FDI Equity inflows were US$26.10 billion as compared to US$22.66 billion during 2018-19**.**
    - **Major Destinations:** Nearly 80 percent of all the FDI inflows have come from Singapore, Mauritius, Netherlands, USA and Japan.

Sector-wise issues and initiatives

- **Steel:** India stood at second position in the production of crude steel. (with 6 percent share in global production)
  - **Third largest consumer:** It is also the third largest consumer of the finished steel after China and USA.
  - **Growth and Utilization:** Crude steel production displayed a growth of 1.5 percent with utilisation capacity of 77.4 per cent.
- **Coal:** Overall production of raw coal in India during the year 2018-19 was 730.4 million tonnes (MT) growing at 8.1 percent.
  - **Large imports:** 126.20 MT of coal was imported during April 2019 to September 2019.
- **Micro, Small and Medium Enterprises (MSMEs):** Prime Minister announced 12 key announcements for the sector-
  - In-principle approval for loans up to Rs. 1 crore within 59 minutes through online portal.
  - Interest subvention of 2 per cent for all GST registered MSMEs on incremental credit up to Rs. 1 crore.
  - All companies with a turnover of more than Rs. 500 crore to be mandatorily on TReDS platform.
  - All CPSUs to compulsorily procure at least 25 per cent from MSEs instead of 20 per cent of their total purchases.
  - Out of the 25 per cent procurement mandated from MSEs, 3 per cent reserved for women entrepreneurs.
  - All CPSUs to compulsorily procure through GeM portal.
  - 20 Technology Centres (TCs) and 100 Extension Centres (ECs) to be established at the cost of Rs. 6,000 crore.
  - Government of India to bear 70 per cent of the cost for establishing Pharma clusters.
  - Returns under 8 labour laws and 10 Union regulations to be filed once in a year.
  - Establishments to be visited by an Inspector will be decided through a computerized random allotment.
  - Single consent under air and water pollution laws.
  - For minor violations under the Companies Act, entrepreneurs no longer have to approach court but can correct them through simple procedures.
- **Textile and Apparels:** Textiles contributed 18.0 per cent of manufacturing and 2.0 per cent of GDP in 2017-18.
  - **Exports:** The share of textiles and clothing in India's exports was 12 per cent in 2018- 19. Also, exports registered of growth of 3 percent in 2018-19 over 2017-18.
  - **Employment:** The sector is the biggest employer after agriculture and it employs 4.5 crore people directly and 6 crore people in allied sectors.
  - **Production:** Estimated man-made fibre and filament yarn production increased but cloth production decreased during April-August 2019.

Infrastructure

Since provision of adequate infrastructure is essential for growth and for making growth inclusive. Government has launched National Infrastructure Pipeline (NIP).

- **National Infrastructure Pipeline:** The objective of NIP is to create bouquet of well-prepared projects would attract investment from Central and State Governments, Urban Local Bodies, Banks and Financial Institution, PE funds, and private investors, both local and foreign.
  - The NIP has projected total infrastructure investment of Rs. 102 lakh crore during the period FY 2020 to 2025 in India.
  - NIP is expected to enable well-prepared infrastructure projects which will create jobs, improve ease of living, and provide equitable access to infrastructure for all.
- **Other steps:** NIP needs to be accompanied with other steps like developing a robust bond market for infrastructure companies, speedy resolution of infrastructure disputes, optimal risk sharing through better and balanced PPP contracts, and sanctity and enforceability of contracts.

Sectoral Developments

- **Roads Sector:** The share of transport sector in the GVA for 2017-18 was 4.77 per cent of which the share of road transport is the largest at 3.06 per cent, followed by the share of the Railways (0.75 per cent), air transport (0.15 per cent) and water transport (0.06 per cent).
    - **Traffic:** As per the National Transport Development Policy Committee Report, road transport is estimated to handle 69 percent and 90 percent of the countrywide freight and passenger traffic, respectively.
    - **Road Network:** India has a road network of about 59.64 lakh km. The total length of National Highways was 1.32 lakh km.
    - **Pace of construction:** Grew significantly from 17 kms per day in 2015-16 to 29.7 kms per day in 2018-19.
    - **Investment:** Total investment in the Roads and Highway sector has gone up more than three times in five year period of 2014-15 to 2018-19.
- **Railways**: Indian Railways (IR) with over 68,000 route kms is the third largest network in the world under single management.
    - **Traffic:** Indian Railways carried 120 crore tonnes of freight and 840 crore passengers making it the world's largest passenger carrier and 4th largest freight carrier. (Revenue Earning Freight and Passenger Traffic grew at 5.34 percent and 1.85 percent respectively.)
    - **Decrease in accidents:** During 2018-19, consequential train accidents decreased from 73 to 59 in comparison to the corresponding period of the previous year.
    - **Swachh Rail, Swachh Bharat:** Number of bio-toilets has increased from about 20,000 in 2015 to 2.25 lakh in 2019. Also, there has been substantial increase in mechanized cleaning contracts and plastic bottle crushing machines.
    - **Modernization of stations:** 1,253 stations have been identified for development under Adarsh Station Scheme and a dedicated SPV, Indian Railway Station Development Corporation (IRSDC) Limited has been set up for the purpose.
- **Civil Aviation:** India is the third largest domestic market for civil aviation in the world.
    - **Increase in aircraft seat capacity:** Airlines in India have scaled up their aircraft seat capacity from an estimated 0.07 annual seats per capita in 2013 to 0.12 in 2018.
    - **Traffic:** The total passenger traffic (domestic and international) and air cargo handled at airports from 2014-15 to 2018-19 to 3447 lakh and 3,562,000 tonnes respectively.
    - **Udaan Scheme:** A total of 43 airports have been operationalized since Udaan scheme was taken-up.
    - **Capacity Expansion:** To ease the strain on existing airport capacities, 100 more airports are to be made operational by FY 2023-24.
    - **Reforms:** To boost the sector, government has envisaged reforms like-
        - ✓ Easing leasing and financing from Indian shores in conformance with the provisions of the Cape Town Convention and Protocol on Aircraft Equipment.
        - ✓ Encouraging domestic and international passenger and goods transfers.
        - ✓ Efficient use of air traffic rights and rationalizing the tax regime.
- **Shipping:** Around 95 percent of India's trade by volume and 68 percent in terms of value is transported by sea.
    - **Low Shipping Tonnage:** India's share in total world dead weight tonnage (DWT) is only 0.9 percent. (Despite having a large fleet strength of 1,419 ships.)
    - **Aging Fleet:** Average age of Indian fleet has increased from 15 years in 1999 to 19.71 years in 2019.
    - The **Major Ports** in the country have an **installed capacity of 1,514.09 MTPA** as in March, 2019 and handled traffic of 699.09 MT during 2018-19. While increasing the capacity of major ports, Ministry of Shipping has been striving to improve the operational efficiencies through mechanization, digitization and process simplification.
- **Telecom Sector:** Total telephone connections in India grew by 18.8 per cent from 9,961 lakh in 2014-2015 to 11,834 lakh in 2018-19.
    - **Connection Composition**: The wireless telephony now constitutes 98.27 percent of all subscriptions whereas share of landline telephones now stands at only 1.73 percent.

- Tele-density: placeholder

- **Housing and Urban Infrastructure:** There were about 37.7 crore people residing in the urban habitats of India (Census 2011), comprising about 31 per cent of the total population which is expected to reach 60.6 crore by 2030 (2015: UN).
    - **Construction Sector:** The construction sector accounts for 8.2 per cent of GDP which includes housing and employs about 12 per cent of the workforce.
    - **PMAY (U):** It aims to achieve the goal of 'Housing for all' by 2022.
        - ✓ **Performance:** Out of 1.03 crore houses approved, 60 lakhs have been grounded for construction, of which 32 lakh houses have been completed and delivered.
        - ✓ **High Participation:** The function of beneficiary identification based on eligibility criteria has also been entrusted to States/UTs. Such flexibility has resulted in greater participation of the States/UTs and the citizens.
        - ✓ **Funding:** A separate fund has been created namely National Urban Housing Funds (NUHF) along with funding mechanisms NHB and refinancing of HFCs.
        - ✓ **Verticals:** PMAY is being implemented in multiple verticals.

Verticals	In Situ Slum Redevelopment (ISSR)	Credit Linked Subsidy Scheme (CLSS)	Affordable Housing in Partnership (AHP)	Beneficiary Led House Construction/ enhancement (BLC)
Features	- "In-situ" using land as a resource with private participation - extra FSI/TDR/FAR if required -GoI grant Rs.1 lakh per house	- Subsidy for EWS and LIG for new house or incremental housing (EWS: Annual Household Income Up to Rs. 3 lakh and house sizes upto 30 sq.m, LIG: Annual Household Income Between Rs. 3-6 lakhs and house sizes upto 60 sq.m) - Upfront subsidy @6.5% for EWS and LIG for loans upto Rs.6 lakh, calculated at NPV basis	- with private sector or public sector including Parastatal agencies - Central Assistance of Rs1.5 lakh per EWS house in projects where 35% of constructed houses are for EWS category	- for individuals of EWS category for new house or enhancement - Cities to prepare a separate integrated project for such beneficiaries - Central assistance of Rs. 1.5 lak per beneficary

- ✓ **Smart Cities Mission (SCM):** All 100 cities under Smart City Mission have incorporated Special Purpose Vehicles (SPVs), City Level Advisory Forums (CLAFs) and appointed Project Management Consultants (PMCs).

Way Forward

To achieve the GDP of $5 trillion by 2024-25, India needs to spend about $1.4 trillion on infrastructure. The National Infrastructure Pipeline (NIP) captures the infrastructure vision and creates a base for sustainable industrial growth. This needs to be blended with adoption of Industry 4.0 for faster, smoother and more inclusive growth

CHAPTER 9: SERVICES SECTOR

Overview of the Services Sector

- **Share in India's Gross Value Added (GVA)**: Services sector contributes around 55 percent to total GVA as well as to total GVA growth.
  - **Moderation in growth:** services sector growth (Year on Year) continued to moderate during 2019-20, reaching 6.9 percent from 7.5 percent in 2018-19**.**
  - **Sector-wise growth:** Growth of financial services, real estate, professional services, trade, hotels, transport and communication & broadcasting services decelerated whereas public administration, defence & other services witnessed acceleration.
  - **Decelerating Bank Credit:** Growth in bank credit to the services sector has continued to decelerate from 28.1 percent as on November 2018 to 4.8 percent on November 2019.
- **Contribution in GSVA:** Services sector accounts for more than 50 per cent of the Gross State Value Added (GSVA) in 15 out of the 33 states and UTs. Chandigarh and Delhi stand out with a particularly high share of services in GSVA of more than 80 percent while Sikkim's share remains the lowest at 26.8 percent.
- **Gross FDI inflows increased:** Gross FDI equity inflows jumped by 33 per cent Year on Year during April-September 2019 to reach US$ 17.58 billion, accounting for about two-thirds of the total gross FDI equity inflows into India during this period.

India in World Commercial Services Export

Increase in global share of services: While merchandise exports were growing faster than commercial services exports during 2005-11, commercial services exports have outperformed goods exports during 2012-18.

Capitalization by India

Consequently, **India's share** in world's commercial services exports has **risen steadily over the past decade to reach 3.5 percent** in 2018, twice the share in world's merchandise exports at 1.7 per cent.

India now **ranks 8th** among the world's largest commercial services exporters

- **Trade in Services: Export**
  - **Maintained Services Exports Growth:** Services exports maintained their growth at 6.4 percent. (Almost equal to 6.6 percent last year (2018-19)).
  - **Growth Composition:** The jump in export growth of travel, software, business and financial services offset the contraction in export growth of insurance and other services.
  - **Software exports dominate:** India's services exports remain concentrated in software services accounting for almost 40 percent of total exports.
  - **Issues faced by Software Sector:** Software sector faces problems like changes in exchange rate, changes in global IT spending, stringent USA visa norms, and rising cost pressures due to increased local hiring in export destinations.
- **Trade in Services: Import**
  - **Increased Services Imports Growth:** Services import growth was 7.9 per cent (as compared to 7.3% last year (2018-19)).
  - **Growth Composition:** An increase in import growth for transport, software, communication and business services offset the contraction in imports of financial and insurance services and the slowdown in imports of travel services.
  - **High Education imports:** India persistently runs a trade deficit in education services with education imports, reaching about US$ 3 billion in 2018-19.
- **Net Exports and Way Forward**
  - **Net exports increased:** Net exports of services increased from US$ 38.9 billion during April-September 2018 to US$ 40.5 billion during April- September 2019, up 4.1 percent.
  - **Possible recovery in 2020:** World trade volume for goods and services are projected to recover in 2020 following a deceleration in 2019.
  - **Challenges ahead:** Global uncertainty, protectionism and stricter migration rules would be key factors in shaping India's services trade ahead.

Developing the Offshore Fund Management Industry to Boost Financial Services Exports

Current Situation: Majority of India related financial services for incoming foreign capital are being rendered from global financial centres. Consequently, the share of financial services exports in overall services exports has decreased to 2.3 per cent in 2018-19.

Asset management activity of offshore funds: Asset management can be potentially brought on-shore. These offshore funds located in tax and regulatory friendly jurisdictions, such as Singapore, Luxembourg etc. pool investments from offshore investors and invest in India via the Foreign Portfolio Investment (FPI), Private Equity (PE) or Foreign Venture Capital Investment (FVCI) route.

Advantages of bringing it on-shore:

1. Nearly US$ 217 billion in total assets could be potentially managed on-shore in India by 2020, according to Asset Managers Roundtable of India (AMRI) estimates.

2. It could generate employment for high-skilled finance professionals.

3. The management fee received by fund managers for managing the offshore funds would constitute as financial services exports.

Prevalent Challenge: At present, the fund management activity of these offshore funds is located in offshore jurisdictions since their presence in India would create tax implications for the offshore fund's profits.

Safe Harbour (Section 9A of IT Act): To overcome the above challenge, government introduced 'safe harbour' provisions under which, on satisfying a set of eligibility conditions, the offshore fund would not be considered a 'resident' for tax purposes. But most offshore funds were unable to utilize it due to stringent eligibility conditions.

Way Forward: Commerce Ministry's High-Level Advisory Group (HLAG) Report recommended simplifying the tax framework and removing tax residency risk for offshore funds wanting to on-shore their fund management activity given that they are compliant with SEBI regulations.

Sub-sector wise performance and recent polices

Most of the sub-sectors of the services sector witnessed a moderation in growth during 2019-20 including sectors like tourism, ports sector etc.

- **Tourism sector**: The sector witnessed a strong performance from 2015 to 2017, with high growth in foreign tourist arrivals. However, foreign tourist arrivals growth (Year on Year) has decelerated since then.
  - **Slow global growth:** Growth in international tourist arrivals globally also slowed from 7.1 per cent in 2017 to 5.4 per cent in 2018.
  - **India's Share in International Tourist Arrivals (ITAs):** India ranked 22nd in the world in terms of ITAs in 2018, improving from the 26th position in 2017. India now accounts for 1.24 per cent of world's international tourist arrivals and 5 per cent of Asia & Pacific's international tourist arrivals.
  - **Country profile of tourists:** Foreign tourists from the top 10 countries visiting India - Bangladesh, USA, UK, Sri Lanka, Canada, Australia, Malaysia, China, Germany and Russia - accounted for 65 percent of the total foreign tourist arrival in India. Majority of them (62.4%) visited India for leisure, holiday and recreation.
  - **Preferred Destinations:** Top five states attracting foreign tourists are Tamil Nadu, Maharashtra, Uttar Pradesh, Delhi and Rajasthan, accounting for about 67 percent of the total foreign tourist visits.
  - **E-Visa scheme to encourage foreign tourists:** The e-Visa scheme is now available for 169 countries with valid entry through 28 designated airports and 5 designated seaports. With this, foreign tourist arrivals to India on e-visas have increased from 4.45 lakh in 2015 to 23.69 lakh in 2018.
- **IT-BPM Services:** The sector contributes significantly to the economy via employment growth and value addition. It constitutes the sectors IT Services, Business Process Management (BPM), Hardware and Software Products and Engineering Services.
  - **IT Services dominant:** IT services constituted 51 percent share of the IT-BPM sector in 2018-19. Out of the IT services, digital revenues grew (Year on Year) more than 30 percent.

- **Export driven:** A significant part (about 83 per cent) of the IT-BPM industry (excluding hardware) continues to be export driven.
- **Decreased revenue growth:** During 2018-19, the revenue growth for IT-BPM sector (excluding hardware) softened to 6.8 per cent from 8.2 per cent in 2017-18.
- **IT-BPM export composition:** USA accounts for the bulk of exports which is 62 per cent of total IT-BPM exports (excluding hardware) in 2018- 19. This is followed by UK with 17 percent of the total exports.
- **Policy initiatives in the sector:** A number of policy initiatives have been undertaken to drive innovation and technology adoption in the IT-BPM sector, including Start-up India, National Software Product Policy, and removal of issues related to Angel Tax.

- **Port and Shipping Services:** India has 13 major ports and about 200 minor ports. Growth in overall port traffic witnessed an acceleration between 2013-14 and 2016- 17, but has decelerated since 2017-18
    - **Port Capacity:** The total cargo capacity of Indian ports stood at 1,452 Million Tonnes Per Annum (MTPA) at the end of FY18.
    - **Share in world's fleet:** India has a 0.9 per cent share in world fleet as on January 2019.
    - **Most important ports:** Ports such as Paradip, Chennai, Vishakhapatnam, Deendayal (Kandla) and JNPT had the highest cargo capacities
    - **Halving of turnaround time:** The turnaround time of ships, which is a key indicator of efficiency of the ports sector, has been on a continuous decline, almost halving between 2010-11 and 2018-19 to 2.48 days. (But there is scope of improvement as median ship turnaround time globally is 0.97 days)
- **Space Sector:** India's space programme has grown exponentially since its modest beginnings**.** It includes launch vehicle development, satellite technologies, telecommunication, navigation etc.
    - **Low spending vis-à-vis global players:** India spent about US$ 1.5 billion on space programmes in 2018. But it still lags behind that of the major players such as USA and China, which spent about 13 times and 7 times more than India respectively.
    - **High success rate**: India has launched around 5-7 satellites per year in the recent years with no failures, barring one in 2017.
    - **Key areas of focus**-
        - ✓ **Satellite Communication:** INSAT/GSAT satellite system acts as the backbone to address the needs for telecommunication, broadcasting and satellite-based broadband infrastructure**.**
        - ✓ **Earth Observation:** It is done through space-based information for weather forecasting, disaster management, national resource mapping and governance.
        - ✓ **Satellite-aided Navigation:** It includes both GAGAN and NavIC. GAGAN augments GPS coverage of the region to improve accuracy and integrity for civil aviation. Whereas, NavIC is a regional navigation system for Position, Navigation and Timing (PNT) Services.
    - **Attracting Private Investment:** In the light of the growing number of satellite and launch vehicle missions and application programmes, several areas have been identified for participation of private sector. Such as production of PSLV, satellite integration and assembly, production of composite materials and propellants and creating testing and evaluation systems for avionics.

CHAPTER 10: SOCIAL INFRASTRUCTURE, EMPLOYMENT AND HUMAN DEVELOPMENT

Introduction

- Investment in social infrastructure is a pre-requisite for inclusive growth, employment and sustainable development.
- This chapter highlights the important developments in the social sector, takes stock of the outcomes and highlights issues relevant for the policy in the sector.

Trends in the social sector expenditure

- The expenditure on social services (education, health and others) by Centre and States as a proportion of Gross Domestic Product (GDP**) increased by 1.5 percentage points** from 6.2% in 2014-15 to 7.7 per cent in 2019-20.
- An **increase was witnessed across all social sectors** during this period viz Education (2.8% to 3.1%) and Health (1.2% to 1.6%).

Human Developments

- India's **rank in the Human Development Index (HDI) improved to 129 in 2018** from 130 in 2017.
- With **1.34 per cent average annual HDI growth**, India is among the fastest improving countries, and ahead of China (0.95), South Africa (0.78), Russian Federation (0.69) and Brazil (0.59).

Education for all

- As per **Unified District Information System for Education (U-DISE, 2017-18)**, which collects data on various indicators on school education, among Government elementary schools, 98.38 % have girls' toilet, 96.23 % have boys' toilet, 97.13 % have provision of drinking water facility, 38.62 % have ramps, 58.88 % have boundary wall, 56.72 % have playground facility, 79.23 % have library and 61.75 % are having electricity connection.
- **As per National Sample Survey (NSS) Report** ,2017-18,
    - **Drop-out rate** was 10 per cent at primary level, 17.5 per cent at upper primary/middle and 19.8 per cent at secondary level.
    - **13.6 per cent persons of age 3 to 35 years have never enrolled citing reasons as** 'not interested in education' and 'financial constraints.'
- Among various components of expenditure on education, **expenditure on course fees is the highest** which is 50.8 per cent at all India level (including tuition, examination, developmental fees and other compulsory payments) followed by books, stationary and uniform; transport; Private coaching; and other expenses.
- **Due to absence of competition** in government schools/institutions, quality of education in government schools/institutions is low. As a result, more and more students prefer to enrol themselves in private institutions where they spend significantly higher as compared to government institutions across rural-urban India.

Initiatives taken to provide the quality education in government schools and institutions

- **Samagra Shiksha** w.e.f. 2018-19, which subsumes three erstwhile Centrally Sponsored Schemes of Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Teacher Education (TE) envisages school education as a continuum from pre-school to senior secondary level and aims to ensure inclusive and equitable quality education.
- **To improve quality of education- Central RTE Rules** have been amended to include reference on class-wise and subject-wise Learning Outcomes in order and the **RTE Act, 2009** was amended in 2017 to ensure that all teachers acquire the minimum qualifications prescribed under the Act.
- **The Navodaya Vidyalaya Scheme** provides for opening of one Jawahar Navodaya Vidyalaya (JNV) in each district of the country to bring out the best of rural talent, and provide them quality education comparable to the best in a residential school system.
- **NISHTHA – National Initiative for School Heads' and Teachers' Holistic Advancement** under the Centrally Sponsored Scheme of Samagra Shiksha to build the capacities of around 42 lakh teachers and head of schools,

faculty members of SCERTs, DIETs, Block Resource Coordinators, and Cluster Resource Coordinators by training them to encourage and foster critical thinking in students, handle diverse situations and act as first level counsellors.

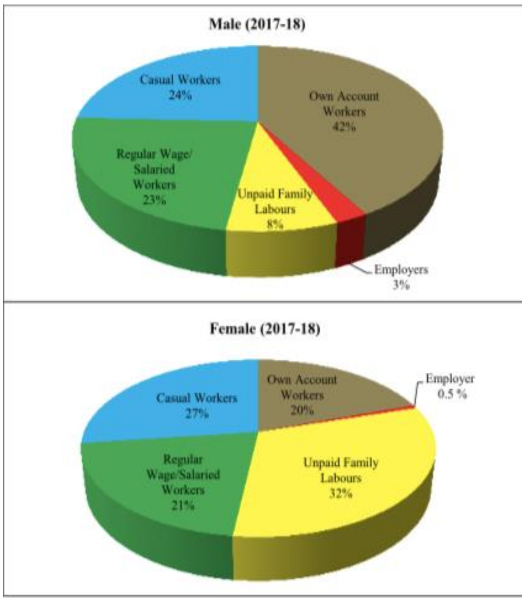
- **The National Curriculum Framework** that promotes joyful learning through cultural activities including art, music, dance and theatre is playing a very critical role in a student's life and school activities.
- **Pradhan Mantri Innovative Learning Program (DHRUV)** was launched to identify and encourage talented students to enrich their skills and knowledge.
- **(DIKSHA) platform** to broadbase technology aided teaching and learning. Other e-content sites like e-pathsala, National Repository of Open Educational Resources (NROER) are also being integrated with DIKSHA to ensure easy access.
- **New Education Policy** to meet the changing dynamics of the requirements of the population with regard to quality education, innovation and research, aiming to make India a knowledge superpower by equipping its students with the necessary skills and knowledge and to eliminate the shortage of manpower in science, technology, academics and industry.

Initiatives taken for improving the quality of learning and teaching in higher education

- **Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT)** which aims at building a strong professional cadre of teachers by setting performance standards and creating top class institutional.
- **Higher Education Financing Agency (HEFA)** to provide sustainable financial model for higher education institutions, Kendriya Vidyalayas, Navodaya Vidyalayas, AIIMS and other educational institutions of the Ministry of Health. Under it, projects worth 37,001.21 crore have been approved and the 75 educational institutions have availed funding through the agency.
- **National Educational Alliance for Technology (NEAT)** scheme promoting use of Artificial Intelligence to make learning more personalised and customised as per the requirements of the learner.
- **Education Quality Upgradation and Inclusion Programme (EQUIP),** a five year vision plan aiming at ushering transformation in India's higher education system by implementing strategic interventions in the sector over the next five years (2019-2024).
- **SWAYAM 2.0** to offer online degree programmes with enhanced features and facilities by top ranking universities.
- **Deeksharambh' and 'PARAMARSH' scheme** by Dept of Higher Education to mentor institutions seeking National Assessment and Accreditation Council accreditation.

Skill Development

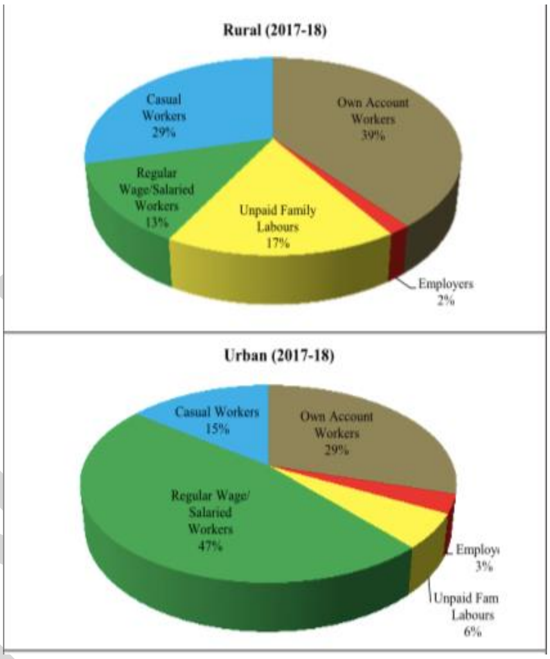
- General education improves knowledge of the people while skill training enhances their employability and equip them to tackle requirements of labour market.
- According to the **Periodic Labour Force Survey (PLFS) 2017-18** only **13.53 per cent of the workforce in the productive age- group of 15-59 years has received training** that includes **2.26 per cent formally trained** and 11.27 per cent informally trained.
  - Formal training is highest in the states such as Tamil Nadu, Maharashtra and West Bengal and lowest in Bihar, Jharkhand and Assam. Informally trained is highest in Chattisgarh, Uttar Pradesh and West Bengal and about 55.9 per cent received it either through self-learning or hereditary.



- **Initiatives taken for skill development:**
  - Under the **Skill India Mission**, the Government implements the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) which enables large number of prospective youth to take up Short Term Training (STT) and Recognition of Prior Learning (RPL) through empanelled training centers. Under it, **69.03 lakh candidates have been trained** throughout the country and **30.21 lakh candidates under STT were certified.**
  - A wide range of **reforms has been introduced to the Apprenticeship Rules, 1992** for expansion and outreach of apprenticeship policy.

Status of Employment in India

- As per **PLFS estimates**, between 2011-12 and 2017-18,
  - The **share of regular wage/salaried employees has increased by 5 %** points in rural and urban areas. Under it, the **proportion of women workers have increased by 8 % points**.
  - In absolute terms, there was a significant jump of around **2.62 crore new jobs in the above category** with 1.21 crore in rural areas and 1.39 crore in urban areas with addition of **0.71 crore new jobs for female workers.**
  - Among the self-employed category (consists of employers, own account workers and unpaid family labour), while the **proportion of own account workers and employers increased**, the **proportion of unpaid family labour (helper) has declined**, especially for females. The proportion of **total self-employed workers however remained unchanged at 52 per cent.**
  - The distribution of **workers in casual labour category decreased by 5% in rural areas.**
- **Various steps are being taken for generating employment** in the country like encouraging private sector of economy, fast-tracking various projects involving substantial investment and increasing public expenditure on schemes such as Prime Minister's Employment Generation Programme (PMEGP), Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Pt. Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY) and Deendayal Antodaya Yojana-National Urban Livelihoods Mission (DAY-NULM).



Formalisation of Jobs

- It was observed that the **proportion of workers in organized sector increased** from 17.3 per cent in 2011-12 to 19.2 per cent in 2017-18 with total 9.05 crore workers in the organized sector.
- **Total formal employment in the economy also increased** from 8 per cent in 2011- 12 to 9.98 per cent in 2017-18 with total 4.7 crore workers in formal employment in 2017-18.
- As per NSO-EUS and PLFS 2017-18 data, the of **share of workers in informal sector** in non-agricultures and AGEGC (Agricultural sector excluding only growing of crops, market gardening, horticulture and growing of crops combined with farming of animals) also **show a decline** from 77.5 per cent in 2004-05 to 68.4 per cent in 2017-18, with the decline being more pronounced among females.

Steps Taken Towards Formalisation of the Labour Market

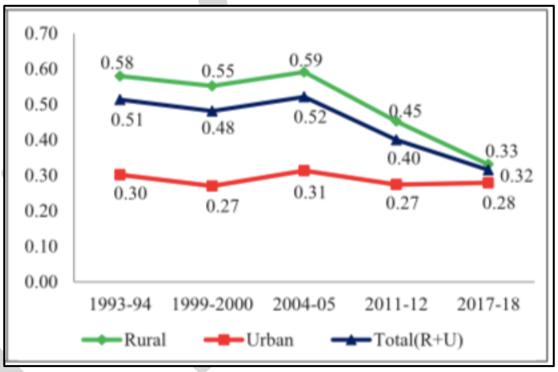
- **EPFO launched a "Universal Account Number" service** for portability of Provident Fund accounts,
- **Under Pradhan Mantri Rozgar Protsahan Yojana (PMRPY),** Government is paying 12 per cent of employer contribution to EPFO in respect of the new employees drawing salary up to Rs 15,000 per month for the first three years of their employment.
- **The Code on Wages Act, 2019** to ensure minimum wages to all and timely payment of wages to all employees irrespective of the sector of employment without any wage ceiling, except MGNREGA.
- **MUDRA and STAND-UP India** for creating formal credit to businesses.
- **Mandatory wage ceiling** of subscription to EPS increased from Rs 6,500 to Rs 15,000 per month and **Rate of ESI contribution** reduced from 6.5 per cent to 4 per cent.
- **National Career Service (NCS) Project** launched in 2015, provides a host of career-related services such as dynamic job matching, career counselling, job notifications and information on skill development courses and rich career content on a digital platform.

Gender Dimension of Employment

- Gender equality in labour market is considered to be smart economics to achieve faster economic growth and wealth creation. In an era of globalization, no country can develop and achieve its full potential if half of its population is locked in non-remunerative, less productive and non-economic activities.

- **Female Participation in Labour Market**
  - According to NSO-EUS and PLFS estimates, **female labour force participation rate (LFPR) for productive age-group (15- 59 years) declined** by 7.8 % from 33.1 % in 2011-12 to 25.3 % in 2017-18 and **rate of decline is sharper in rural areas as compared to urban areas.** As a result of this, gender disparity in India's labour market has increased.
  - As per PLFS, **Female Worker Population Ratio (WPR) also declined** to 23.8 % (25.5 % in rural areas and 19.8 % in urban areas) in 2017-18 as compared to 32.3 % in 2011-12. As a result of this, ratio of female to male work participation rate has also shown consistent declining trend in India except for urban females.
  - The **trend indicates that** in rural areas those female workers who had stable jobs continued while those who were not full time workers are dropping out of the labour market.

- **Labour force** refers to those who are either engaged in any economic activities or are willing to pursue an economic activity in a reference period. It includes both (i) those who are in workforce; and (ii) unemployed. Of these, workforce refers to the population who are actively engaged in any economic activities and producing goods and services in a reference period while unemployed refers to all those who are seeking and available for work but had not worked in a reference year due to lack of work.
- **Labour force participation rate (LFPR)** can be defined as the proportion of population in the labour force to the total population.
- **Worker population ratio (WPR)** can be defined as the proportion of employed persons to the total population.



- **Factors Influencing Female Labour Force Participation**
  - The arguments advanced in support of the declining and low female LFPR are from both supply and demand side.
  - **On the supply side,**
    - ✓ more women in rural areas are now pursuing higher education has delayed their entry into the labour market
    - ✓ the household incomes have risen in rural areas on account of higher wage levels.
    - ✓ cultural factors, social constraints and patriarchal norms restricting mobility and freedom of women.
    - ✓ relatively higher responsibilities of unpaid work and unpaid care work . About **60 per cent of working age females are attending to domestic duties only** and this proportion has increased over the last two decades.

Table 9: Distribution of female attending domestic duties (ps+ss) by Age Group and Level of Education in India, 2017-18 (per cent)

Level of Education	Age Groups		
	15-29	30-59	15-59
Illiterate	8.0	26.1	18.5
Up to Middle Level	23.9	24.7	24.4
Secondary	14.3	9.8	11.7
Graduate and above	6.0	4.7	5.3
Total	**52.3**	**65.4**	**59.9**

  - **On the demand side,**
    - ✓ absence of job opportunities and quality jobs and significant gender wage gap
    - ✓ lack of attainment of appropriate education level/skill set.
    - ✓ a fall in international demand for products of labour-intensive industries in urban areas.
    - ✓ Low female wages in agriculture sector
    - ✓ The fall in employment in agriculture has not shown concomitant increase in opportunities for women in the manufacturing sector where most women with middle to secondary levels of education and from middle income groups are likely to look for employment
    - ✓ structural shift away from agricultural employment, and increased mechanization of agriculture along with decline in animal husbandry in rural areas
    - ✓ Withdrawal of men from agriculture and shift to the construction sector in urban areas, led to loss of jobs for rural women who were engaged as unpaid labour along with the men.

Initiatives to Improve Female Work Participation
- **Safety of Women at Workplace:** The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 covers all women, irrespective of their age or employment status and protects them against

- sexual harassment at all workplaces both in public and private sector, whether organized or unorganized.
- **Mahila Shakti Kendra Scheme** to empower rural women through community participation.
- **Provision of safe and affordable accommodation:** To provide safe and affordable accommodation to working women, Working Women Hostels have been established
- **Women Helpline Scheme (WHL)**: to provide 24 hours emergency and non-emergency response to women affected by violence through referral and information about women related government schemes/programmes across the country through a single uniform number (181).
- **One Stop Centre (OSC)**: facilitates access to an integrated range of services including police, medical, legal, psychological support and temporary shelter to women affected by violence.
- **Female Entrepreneurship**: To promote female entrepreneurship, the Government has initiated schemes like: MUDRA, Stand Up India and Mahila e-Haat.
- **Pradhan Mantri Mudra Yojana** (PMMY) provides access to institutional finance to micro/small business units upto Rs 10 lakh.
- **Rashtriya Mahila Kosh** provides micro-credit at concessional terms to poor women for various livelihood and income generating activities.
- **Prime Minister's Employment Generation Programme (PMEGP):** Under the scheme, women entrepreneurs are provided 25 per cent and 35 per cent subsidies for the project set up in urban and rural areas respectively.
- Deendayal Antyodaya Yojana- National Rural Livelihoods Mission (DAY-NRLM) - seeks to reach out to 8-9 crore rural poor households and organize one-woman member from each household into affinity-based women SHGs and federations at village and at higher levels.

Health for all

- The **focus of healthcare is on four important pillars** - preventive healthcare, providing affordable healthcare, building medical infrastructure and mission mode interventions.
- **Preventive Health Care**
  - Under **Mission Indradhanush**, 3.39 crore children and 87.18 lakh pregnant women in 680 districts across the country have been vaccinated.
  - Adoption of a **multi-sectoral approach** and increasing synergy with other Mission Mode initiatives of the Government such as Eat Right & Eat Safe, Fit India, Anaemia Mukt Bharat, Poshan Abhiyan and Swacch Bharat Abhiyaan etc.
  - **Government recently banned all commercial operations in e-cigarettes** recognising the threat of nicotine addiction among youth and children.
- **Health Care Affordability**
  - As per the National Health Accounts (NHA) 2016-17, the **out of pocket expenditure (OoPE) as a percentage of total health expenditure has declined** from 64.2 % in 2013-14 to 58.7 % in 2016-17.
  - The **National Health Policy, 2017** recommended to spend at least two third of Government's health expenditure on primary healthcare (which accounts for 52.1 % of India's current public expenditure on health)
  - **Initiatives** like Ayushman Bharat- Pradhan Mantri Jan Arogya Yojana (PM-JAY), Free Drugs Service, Free Diagnostics Service , Pradhan Mantri Bharatiya Jan Aushadi Pariyojana (PMBJP) and Pradhan Mantri National Dialysis Programme (PMNDP) addresses the issue of high OoPE on account of drugs and hospital care.
- **Medical Infrastructure**
  - The **doctor-population ratio in India is 1:1456 against the WHO recommendation of 1:1000.** To address the shortage of doctors, the government has embarked on an ambitious programme for upgradation of district hospitals into medical colleges.
  - In last 5 years, government has sanctioned **141 new medical colleges and the number of MBBS and PG seats have increased** by 27,235 and 15,000 respectively.
  - The **Pradhan Mantri Swasthya Suraksha Yojana (PMSSY**) was launched to augment the tertiary healthcare capacity in clinical care, medical education and research in underserved areas of the country, under which AIIMS like institutions are built and Government Medical Colleges are upgraded by setting-up Super Speciality Blocks.
  - **National Medical Commission Act, 2019** was promulgated to enable constitution of National Medical Commission along with introduction of a common entrance test NEET-UG for admission to all MBBS courses including AIIMS and JIPMER.

- o **Multi-skilling of doctors** at strategically located facilities identified by the States where there is shortage of specialists e.g. MBBS doctors are trained in Emergency Obstetric Care, Life Saving Anesthesia Skills and Laparoscopic Surgery.
- o **Capacity building of nursing staff and ANMs** and co-location of AYUSH services in health facilities such as PHCs, CHCs and DHs.

- **Mission Mode Interventions**
  - o **Ayushman Bharat targets universa**l health coverage by focusing on preventive, promotive and palliative care apart from ambulatory care; and by providing protection against catastrophic health expenditure for secondary and tertiary hospital care. It recognizes and addresses the emerging challenges of NCDs due to changing epidemiology and also targets to sustain the efforts for RMNCH+A and communicable diseases through initiatives such as as Surakshit Matritva Aashwasan (SUMAN), Social Awareness and Action to Neutralise Pneumonia Successfully (SAANS) and TB Harega Desh Jeetega.
  - o Several states have also initiated the **use of digital platforms such as ECHO** for continuous capacity building of the primary health team.

Housing for all

- As per recent NSO survey in 2018, about **76.7% of the households in the rural and about 96.0 % in the urban areas had the house of pucca structure.**
- **Pradhan Mantri Awaas Yojana-Gramin (PMAY-G) and Pradhan Mantri Awaas Yojana-Urban (PMAY-U)** are two important schemes for achieving the target of housing for all by 2022.

Drinking water and Sanitation

- Since the launch of the SBM-G in 2014, **over 10 crore toilets have been built in rural areas; over 5.9 lakh villages, 699 districts, and 35 States/UTs have declared themselves Open Defecation Free (ODF).**
- **Jal Shakti Abhiyan** was launched to accelerate progress on water conservation activities in the most water stressed blocks and districts of India. It has delivered over **3.5 lakh water conservation measures in 256 districts** out of which, 1.54 lakh are of water conservation and rain water harvesting measures, 20,000 relate to the rejuvenation of traditional water bodies, over 65,000 are reuse and recharge structures and 1.23 lakh are watershed development projects.

Conclusion

Considering India's demographic advantage of a large young population in the productive age group, improvements in the social sectors like education, health care, water supply and sanitation leaves a profound impact on the quality of life of the people as well as productivity of the economy. India's march towards achieving SDGs is firmly anchored in investing in human capital and inclusive growth.