

# Industry and Infrastructure

**“In the midst of every crisis, lies great opportunity.”**

**—Albert Einstein**

*The Indian economy encountered a “once in a century” crisis due to the COVID-19 pandemic that affected economic activities and consequently impacted the livelihood of billions of people. The industrial sector, not an exception to this shock, experienced a sharp decline during the period of the lockdown. The economic activity, however, started recovering as the unlocking process began. The various subcomponents of Index of Industrial Production (IIP) and eight-core index have experienced a V-shaped recovery with consistent movement being seen towards the pre-crisis levels. The broad-based quick revival of the industrial activity stemmed from remedial measures, reforms, and the sizable stimulus package announced by the Government of India (GoI) under the Atmanirbhar Bharat package. Based on the IIP, the industrial activity contracted by 1.9 per cent in November-2020 recovering from the nadir of -57.3 per cent in April-2020. Further improvement and firming up in industrial activities are foreseen with the Government enhancing capital expenditure as highlighted in the fiscal policy chapter, the vaccination drive and the resolute push forward on long pending reform measures. It is pertinent to point out that the reforms undertaken in the country are probably one of the most comprehensive among the major economies of the world.*

## INTRODUCTION

8.1 The financial year 2020-21 (FY21) began amidst a global pandemic, the management of which led to countries adopting unprecedented measures that brought the economy to a grinding halt. The lockdown and the corresponding restrictions on local and global movement of people and goods, except for essential goods and services, was an exogenous shock that posed considerable challenges to the economy, created uncertainty, was responsible for extensive loss of livelihoods and led to the displacement of people. The unlocking of the economy in a phased manner has helped the economy to get back on its feet. The rebuilding of the Indian economy is hinged on various reform measures aimed at addressing concerns of businesses and support to livelihoods. India implemented policies aimed at reducing transaction costs, supporting Micro Small and Medium Enterprises (MSMEs), enhancing competition, fostering employment creation and securing sustenance through the Atmanirbhar Bharat Abhiyan. The performance of the industrial sector is critical given its deep backward and forward linkages with the other sectors of the economy. A strong industrial sector is a sine quo non for an Atmanirbhar Bharat. Any initiative aimed at securing a rapid recovery needs to keep industry concerns at the core of its intervention.

8.2 A bouquet of measures equivalent to ₹ 29.87 lakh crores or 15 per cent of India's GDP were introduced as a measure of relief and support to the economy. These were subsequently backed by initiatives to further strengthen the economy. The details of the stimulus package pertaining to industry and infrastructure sector is in Box-1.

### Box-1: Atmanirbhar Bharat Abhiyan

Atmanirbhar Bharat is the vision of the GoI of making India a self-reliant nation. The announcements under the Atmanirbhar Bharat Abhiyan were made in three tranches. The key measures pertaining to industry and infrastructure are summarized below:

#### Atmanirbhar Bharat 1.0

##### I. Relief and credit support to MSMEs to fight against COVID-19.

1. **₹ 3 lakh crores Collateral-free Automatic Loans for Businesses, including MSMEs:** The Emergency Credit Line Guarantee Scheme (ECLGS) has been formulated as a relief measure to the MSMEs by providing them additional funding of up to ₹ 3 lakh crores in the form of a fully guaranteed emergency credit line. The borrowers with up to ₹ 25 crores outstanding and ₹ 100 crores turnover are eligible. This scheme provides 100 per cent credit guarantee cover to Banks and NBFCs on principal and interest. No guarantee fee, no fresh collateral is required.
2. **₹ 20,000 crores Subordinate Debt for Stressed MSMEs:** Provision made for ₹ 20,000 crores subordinate debt for the MSMEs which are NPAs or are stressed. Government to support them with ₹ 4,000 crores to Credit Guarantee Trust for Micro and Small enterprises (CGTMSE). Banks are expected to provide the subordinate-debt to promoters of such MSMEs equal to 15 per cent of the existing stake in the unit subject to a maximum of ₹ 75 lakhs.
3. **₹ 50,000 crores equity infusion through MSME Fund of Funds:** Government to set up a Fund of Funds with a corpus of ₹ 10,000 crores that will provide equity funding support for the MSMEs. The Fund of Funds shall be operated through a mother and a few daughter funds. It will provide equity funding for viable MSMEs. This scheme will help the MSMEs to expand its size and capacity and will also encourage them to get listed on stock exchanges.
4. **New definition of MSME:** Low threshold in the MSME definition have created a fear among the MSMEs of graduating out of the benefits. Hence, the government has revised the definition of MSME by raising the investment limit. An additional criteria of turnover has been introduced and distinction between manufacturing and service sector stands removed. Revised MSME classification is discussed in Table 9.
5. **Global tenders to be disallowed upto ₹ 200 crores:** General Financial Rules (GFR) of the Government amended to disallow global tender enquiries in government procurement of goods and services of value of less than ₹ 200 crores. This is a step in support of the Make in India initiative and will promote MSMEs to grow.
6. **Other Measures for MSMEs:** e-market linkage for MSMEs to act as a replacement for trade fairs and exhibitions. The MSME receivables from the Government and the CPSEs to be released in 45 days. This would help the MSMEs to solve the problems of marketing and liquidity.
7. **Income Tax Refund:** Income tax refunds to nearly 8.2 lakh small businesses worth ₹ 5,204 crores has been issued with the objective to help the MSMEs to carry on their business activities without pay cuts and layoffs in these challenging times.

8. **Relief of ₹ 1500 crores to MUDRA- Shishu loans:** GoI to provide interest subvention of 2 per cent to prompt payees for a period of 12 months. Small business under MUDRA to be benefited.
9. **Ease of doing business for business including MSMEs:** The Government announced further enhancement of ease of doing business through the Insolvency and Bankruptcy Code (IBC) related measures which include (a) raising of the minimum threshold to initiate insolvency proceedings to ₹ 1 crores from ₹ 1 lakhs (which largely insulates the MSMEs), (b) special insolvency resolution framework for the MSMEs under Section 240A of the Code, (c) suspension of fresh initiation of insolvency proceedings for up to one year depending upon the pandemic situation and (d) empowering the Central Government to exclude COVID 19 related debt from the definition of “default” under the Code for the purpose of triggering insolvency proceedings.

## II. Packages for Power Sector- ₹ 90,000 crores liquidity injection for DISCOMs

**III. Real Estate:** The extension of registration and completion date of real estate projects under Real Estate (Regulation and Development) Act (RERA). Ministry of Housing and Urban Affairs to advise States/UTs and their regulatory authorities to the following effect:

1. Treat COVID-19 as an event of ‘Force Majeure’ under RERA.
2. Extend the registration and completion date suo-moto by 6 months for all registered projects expiring on or after 25<sup>th</sup> March 2020 without need for individual applications.
3. Regulatory Authorities may extend this for another period of up to 3 months, if needed
4. Issue fresh ‘Project Registration Certificates’ automatically with revised timelines.
5. Extend timelines for various statutory compliances under RERA concurrently.

These measures will de-stress real estate developers and ensure completion of projects so that homebuyers are able to get delivery of their booked houses within new timelines.

## IV. Public Sector Enterprise Policy for a New, Self-reliant India

- Government to announce a new coherent policy—where all sectors are open to the private sector while public sector enterprises (PSEs) will play an important role in defined areas
- List of strategic sectors requiring presence of PSEs in public interest will be notified
- In strategic sectors, at least one enterprise will remain in the public sector but private sector will also be allowed
- In other sectors, PSEs will be privatized (timing to be based on feasibility etc.)
- To minimize wasteful administrative costs, number of enterprises in strategic sectors will ordinarily be only one to four; others will be privatized/merged/brought under holding companies.

**Atmanirbhar Bharat 2.0 (second tranche of measures)** provided ₹ 25,000 crores as additional capital expenditure to the Ministry of Road Transport and Ministry of Defence

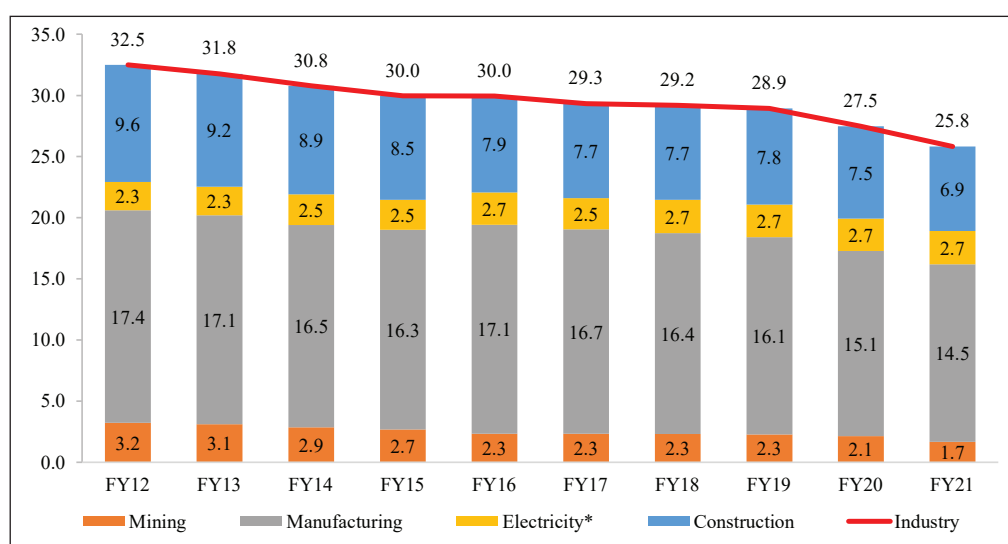
**Atmanirbhar Bharat 3.0 (third tranche of measures) initiatives that impact the industrial sector include:**

- ₹ 1.46 lakh crores boost for Atmanirbhar manufacturing production-linked incentives for 10 Champion Sectors (details in Box 4)

- ₹ 18,000 crores additional outlay for PM Awaas Yojana (PMAY) –Urban
- Support for construction & infrastructure – relaxation of Earnest Money Deposit (EMD) & performance security on Government tenders
- ₹ 1.10 lakh crores platform for infra debt financing – ₹ 6000 crores equity infusion in National Investment and Infrastructure Fund (NIIF) Debt Platform, ₹ 10,200 crores additional budget outlay will be provided towards capital and industrial expenditure for domestic defence equipment, industrial incentives, industrial infrastructure, and green energy

8.3 As per the latest estimates on Gross Value Added (GVA), the industrial sector is expected to record a growth of -9.6 per cent with an overall contribution in GVA of 25.8 per cent in 2020-21 (FY21). The contribution of the industrial sector has been constantly declining since 2011-12 (Figure 1). The fall in share is across the board except in case of ‘Electricity, gas, water supply & other utility services’ whose share in GVA has increased from 2.3 per cent in FY12 to 2.7 per cent in FY21. The performance of the various components of the industrial sector namely, manufacturing, mining and quarrying, electricity, and construction is presented in Table 1.

**Figure 1: Share of Industry and its Components in GVA (Current Prices, Per cent)**



\*Electricity, gas, water supply & other utility services.

Source: Survey calculations based on MoSPI data.

**Table 1: Rate of Growth of GVA in Industry and Its Components (Per cent)**

	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
Industry	3.3	3.8	7.0	9.6	7.7	6.3	4.9	0.9	-9.6
Mining	0.6	0.2	9.7	10.1	9.8	4.9	-5.8	3.1	-12.4
Manufacturing	5.5	5.0	7.9	13.1	7.9	6.6	5.7	0.0	-9.4
Electricity*	2.7	4.2	7.2	4.7	10.0	11.2	8.2	4.1	2.7
Construction	0.3	2.7	4.3	3.6	5.9	5.0	6.1	1.3	-12.6

\*Electricity, gas, water supply & other utility services

Source: Survey calculations based on MoSPI Data.

## TRENDS IN INDUSTRIAL SECTOR

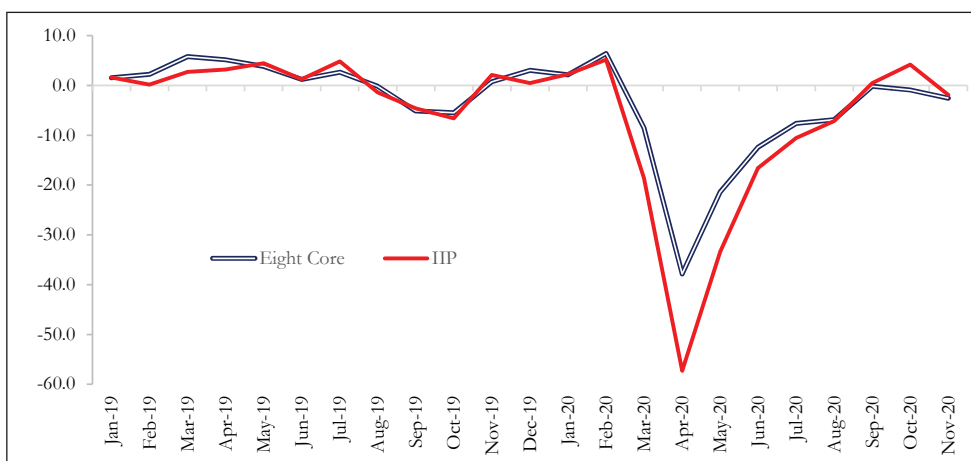
### Index of Eight-Core Industries and Index of Industrial Production (IIP)

8.4 On 24 March 2020, when the 21-day national lockdown was imposed to prevent the proliferation of COVID-19, it was expected that the economic activities would freeze except for some essential services. The IIP growth started contracting immediately after the lockdown reaching its historical low in April-2020. The calibrated and gradual unlocking process led to the resumption of economic activities translating into positive growth in IIP for the first time in September-2020 since the lockdown. The subsequent months have seen consistent improvement and the sub-components of the IIP have gradually inched towards their pre-COVID levels, a reflection of the beginning of the revival of the economy. The improvement has been broad-based in both the core and non-core components of the IIP with a few exceptions like the petroleum products in the core group that are still below the normal level.

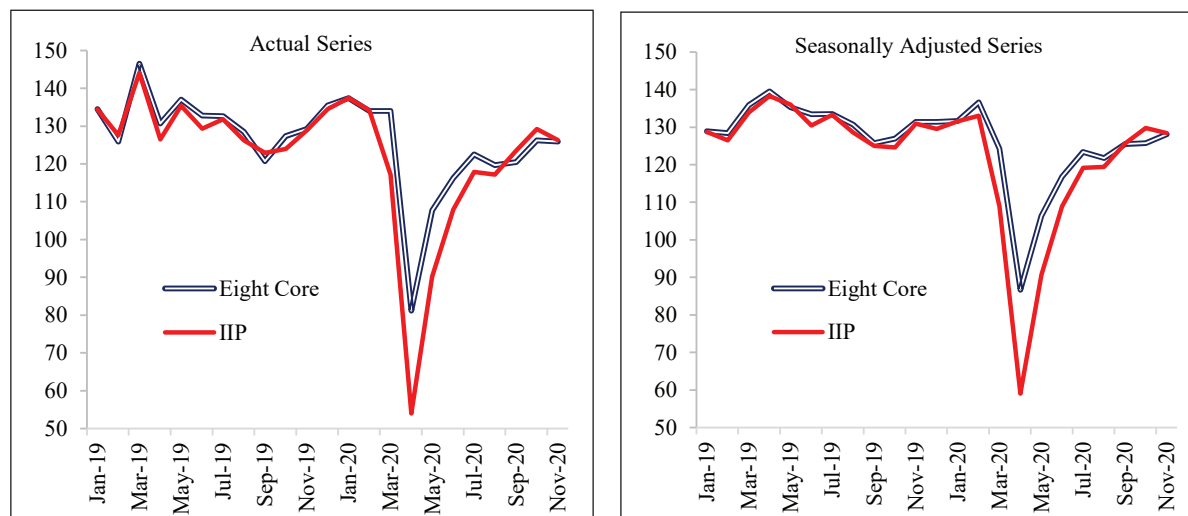
8.5 The eight-core industries that support infrastructure, such as coal, crude oil, natural gas, refinery products, fertilizers, steel, cement, and electricity have a total weight of nearly 40 percent in the IIP. The eight-core index recorded its all-time low growth of (-) 37.9 due to COVID-19 led nation-wide lockdown (April-2020). The fall in growth and index was expected as was the recovery of the index too. The eight-core industries registered (-) 2.6 per cent growth in November-2020 as compared to 0.7 per cent in November-2019 and (-) 0.9 per cent in October-2020 (Figure 2). The cumulative growth of core industries during April-November 2020 was (-) 11.4 per cent as compared to 0.3 per cent during April-November 2019.

8.6 Tracking the level of the index apart from the YoY growth enables us to understand the revival of economic activity better. The trajectory of the eight-core index has been improving since May-2020 and further recovery/expansion is expected in remaining months of FY21. The current level (November-2020) of the seasonally adjusted eight-core index is 6 per cent lower than the pre-lockdown levels in February-2020 (Figure 3). The highlights of the performance of eight-core industries in FY21 are presented in Table 2 and the trajectory of the respective index is in Figure 4. All the sub-components of the eight-core index are inching up to the pre-COVID levels (Figure 5).

**Figure 2: IIP and Eight Core growth from Jan-19 to Nov-20 (Per cent)**



Source: Survey calculations based on MoSPI and Office of Economic Adviser's data.

**Figure 3: IIP and Eight Core Index from Jan-19 to Nov-20**

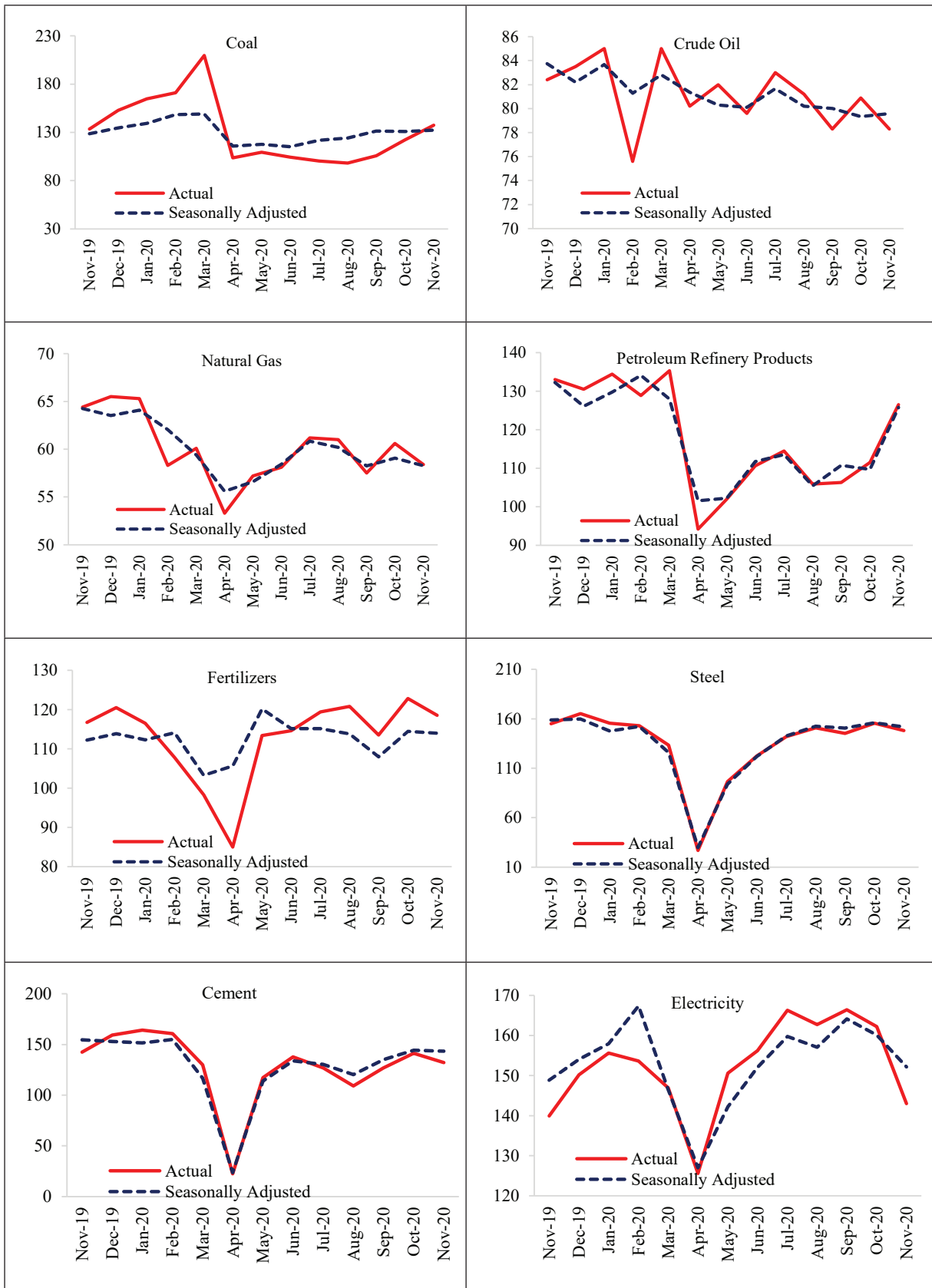
Source: Survey calculations based on MoSPI and Office of Economic Adviser's data.

**Table 2: Monthly Growth of Eight-core Index and its components (Per cent)**

	Natural Gas	Cement	Crude Oil	Refinery Products	Steel	Fertilizers	Electricity	Coal	Overall Index
<b>Weight</b>	6.9	5.4	9.0	28.0	17.9	2.6	19.9	10.3	100.0
<b>Nov-19</b>	-6.4	4.3	-6.0	3.1	7.0	13.6	-4.9	-3.5	0.7
<b>Dec-19</b>	-9.2	5.5	-7.4	3.0	8.7	10.2	0.0	6.1	3.1
<b>Jan-20</b>	-9.0	5.1	-5.3	1.9	1.6	-0.1	3.2	8.0	2.2
<b>Feb-20</b>	-9.6	7.8	-6.4	7.4	2.9	2.9	11.5	11.3	6.4
<b>Mar-20</b>	-15.1	-25.1	-5.5	-0.5	-21.9	-11.9	-8.2	4.0	-8.6
<b>Apr-20</b>	-19.9	-85.2	-6.4	-24.2	-82.8	-4.5	-22.9	-15.5	-37.9
<b>May-20</b>	-16.8	-21.4	-7.1	-21.3	-40.4	7.5	-14.8	-14.0	-21.4
<b>Jun-20</b>	-12.0	-6.8	-6.0	-8.9	-23.2	4.2	-10.0	-15.5	-12.4
<b>Jul-20</b>	-10.2	-13.5	-4.9	-13.9	-6.5	6.9	-2.4	-5.7	-7.6
<b>Aug-20</b>	-9.5	-14.5	-6.3	-19.1	0.5	7.3	-1.8	3.6	-6.9
<b>Sep-20</b>	-10.6	-3.5	-6.0	-9.5	2.8	-0.3	4.8	21.2	-0.1
<b>Oct-20</b>	-8.6	3.2	-6.2	-17.0	4.0	6.3	11.2	11.7	-0.9
<b>Nov-20</b>	-9.3	-7.1	-4.9	-4.8	-4.4	1.6	2.2	2.9	-2.6
<b>Year-wise performance April-November</b>									
<b>2019-20</b>	-3.1	0.01	-5.9	-1.1	6.7	4.0	0.8	-5.4	0.3
<b>2020-21</b>	-12.1	-19.5	-6.0	-14.9	-19.4	3.8	-4.7	-2.6	-11.4

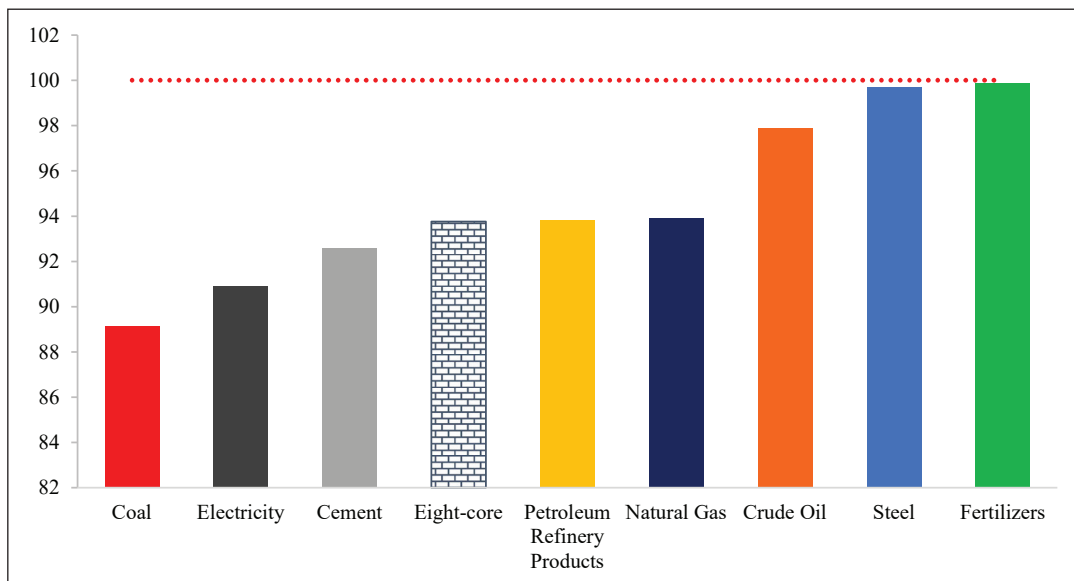
Source: Survey calculations based on Office of Economic Adviser's data.

**Figure 4: Movement of Index of Different Components of Eight-Core**



Source: Survey calculations based on Office of Economic Adviser's data.

**Figure 5: Value of seasonally adjusted index in month of November-2020 as percent of pre-lockdown level (February-2020)**



Source: Survey calculations based on Office of Economic Adviser's data.

8.7 The overall IIP broadly follows the eight-core index. The IIP attained a growth of (-) 1.9 per cent in November-2020 as compared to 2.1 per cent in November-2019 (Table 3 and Figure 2). The cumulative growth of IIP for the period April-November 2020 was (-) 15.5 per cent as compared to 0.3 per cent from April-November 2019. The improvement in the eight-core index and the IIP from their nadir is evident as both the indices stood at 94 per cent and 96.5 per cent of the pre-lockdown (February-2020) levels, respectively on a seasonally adjusted basis (Figure 3).

8.8 Based on the broad-sectoral classification, in November-2020, mining contracted by 7.3 per cent as against a contraction of 1.9 per cent in November-2019. The manufacturing sector recorded a growth of (-) 1.7 per cent in November-2020 as against a growth of 3.0 per cent in November-2019, and the electricity sector recorded a growth of 3.5 per cent in November-2020 as against a contraction of 5.0 per cent in November-2019 (Table 3).

8.9 Industrial activities recovered sharply except the mining sector, which is still at lower levels as compared to the pre-lockdown levels (Figure 6). A similar pattern has been observed in all the major indices captured under the Used Based Classification (Figure 7). However, performance of the primary goods sector, which has a weight of 34.05 per cent was sluggish as compared to its counterparts in the IIP.

8.10 In the following section, the IIP index is analysed at broad item levels. The IIP has 407 items/item groups (5-digit NIC classification), of which 171 had recorded growth in November-2020, which was significantly higher than 28 in April-2020 (Figure 8 and Table 4). In the past, the average number of commodities that recorded monthly growth in the pre-covid regime (from Apr-12 to Feb-20) were 217. More specifically, in November-2019 and November-2018 the number of items/item groups that recorded positive growth were 210 and 162, respectively.

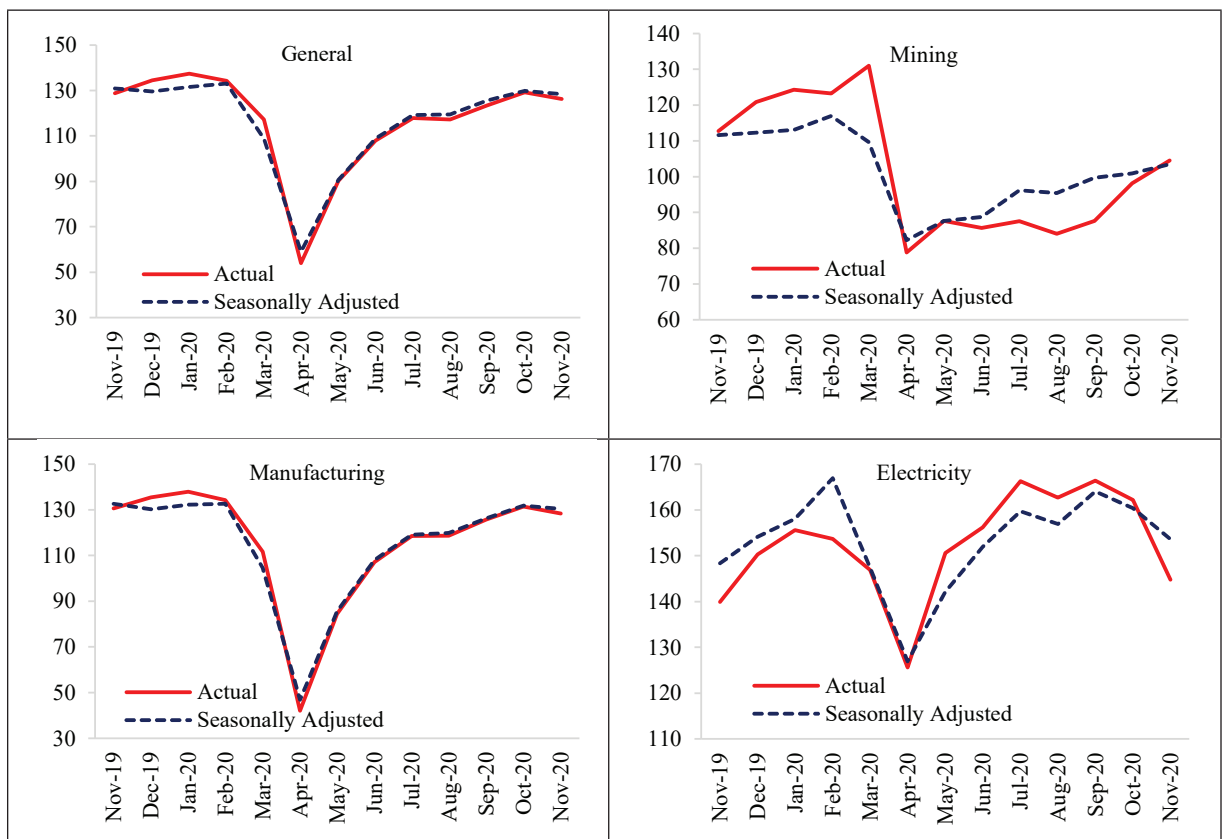


**Table 3: Growth of Different Components of IIP from Jan-20 to Nov-20 (Per cent)**

	Weight	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
<b>By Sector</b>												
Mining	14.4	4.4	9.6	-1.3	-26.9	-20.4	-19.5	-12.7	-8.7	1.4	-1.3	-7.3
Manufacturing	77.6	1.8	3.8	-22.8	-66.6	-37.8	-17.0	-11.4	-7.6	-0.2	4.1	-1.7
Electricity	8	3.1	11.5	-8.2	-22.9	-14.9	-10.0	-2.5	-1.8	4.9	11.2	3.5
General	100	2.2	5.2	-18.7	-57.3	-33.4	-16.6	-10.5	-7.1	0.5	4.2	-1.9
<b>By Use Based Classification</b>												
Primary goods	34	1.8	8.2	-4.0	-26.6	-19.6	-14.5	-10.8	-10.7	-1.5	-3.2	-2.6
Capital goods	8.2	-4.4	-9.6	-38.8	-92.7	-65.9	-37.4	-22.8	-14.4	-1.3	3.5	-7.1
Intermediate goods	17.2	15.6	23.0	-18.6	-63.9	-39.7	-20.7	-10.7	-4.8	-1.0	2.1	-3.0
Infrastructure/ construction	12.3	-0.3	2.8	-24.3	-85.0	-39.0	-18.3	-8.2	0.0	2.5	9.9	0.7
Consumer durables	12.8	-3.7	-6.2	-36.8	-95.7	-70.3	-34.8	-23.7	-10.2	3.4	18.0	-0.7
Consumer non-durables	15.3	-0.6	-0.3	-22.3	-48.1	-9.7	6.9	1.8	-3.0	2.4	7.1	-0.7
Consumer Goods (5+6)	28.2	-1.8	-2.7	-28.3	-68.6	-35.6	-10.7	-9.1	-6.0	2.8	11.6	-0.7
Investment Goods (2+4)	20.6	-1.7	-1.4	-29.2	-87.5	-47.7	-24.5	-12.6	-4.5	1.3	7.9	-1.7

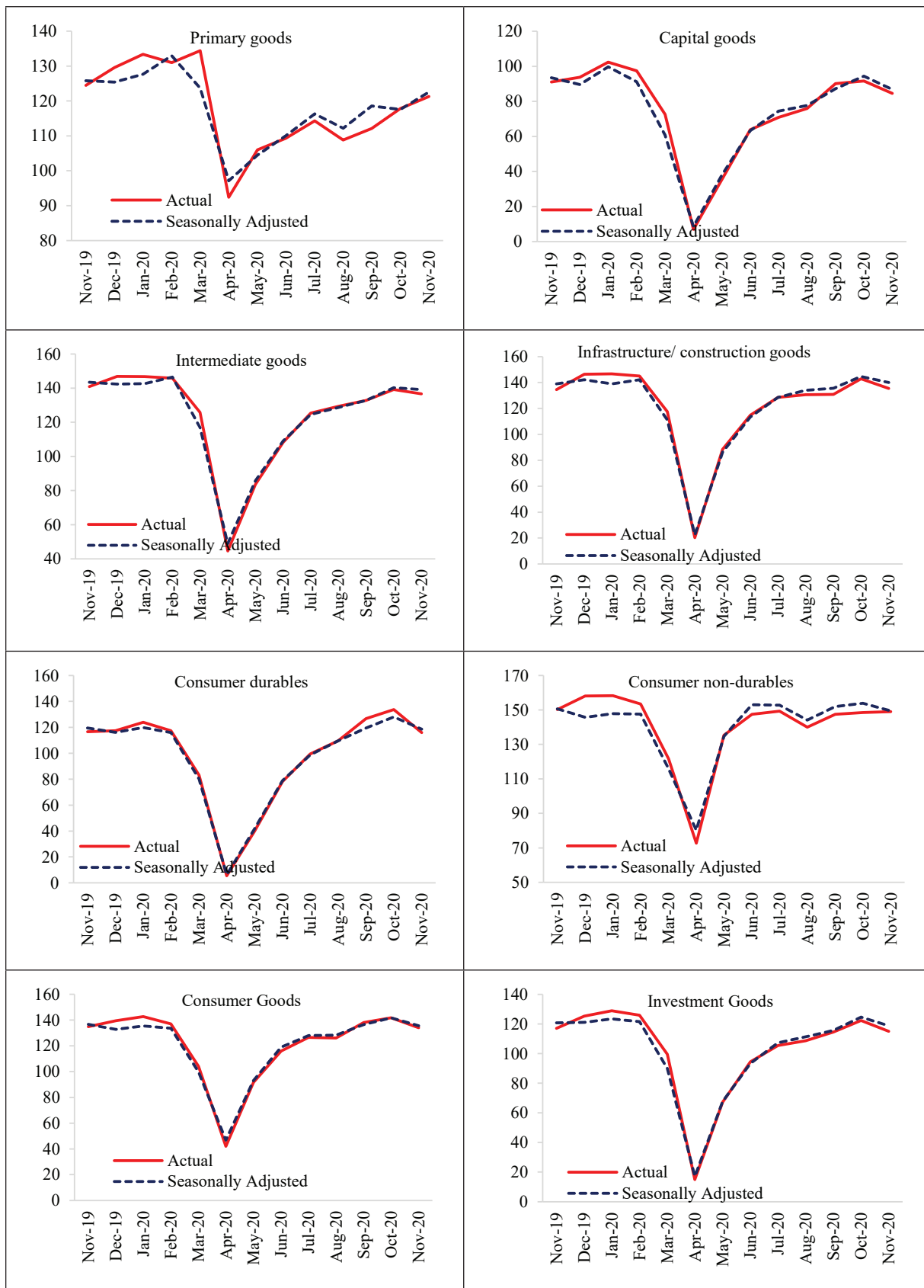
Note: The IIP growth is not strictly comparable, immediately after the lockdown with the pre-lockdown period.  
 Source: Survey calculations based on MoSPI data.

**Figure 6: IIP and Sectoral Components of IIP index from Nov-19 to Nov-20**



Source: Survey calculations based on MoSPI data.

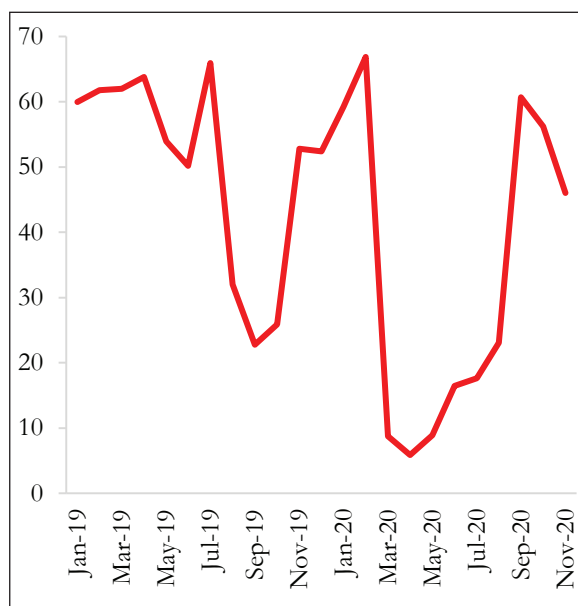
**Figure 7: Components of IIP by Used Based Classification from Nov19 to Nov-20**



Source: Survey calculations based on MoSPI data.

**Figure 8: Number of Items/item groups recorded a growth (Jan-19 to Nov-20)**

Source: Survey calculations based on MoSPI data.

**Figure 9: Weight of the items/item groups recorded a growth (Jan-19 to Nov-20, per cent)**

Source: Survey calculations based on MoSPI data.

**Table 4: Number of items/item groups that recorded a growth in 2020 by Used Based Classification**

Item Group	Weight	Total											
		Items	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Primary goods	34.05	15	6	11	3	1	3	5	3	4	7	6	7
Capital goods	8.22	67	27	23	4	1	4	9	14	16	30	38	26
Intermediate goods	17.22	110	55	64	9	9	9	24	29	34	58	72	56
Infrastructure/ construction	12.34	29	14	16	0	0	3	4	7	11	15	22	13
Consumer durables	12.84	86	39	42	2	0	2	14	21	24	43	52	39
Consumer non-durables	15.33	100	51	57	17	17	30	49	41	40	43	59	30
<b>Total</b>	<b>100.00</b>	<b>407</b>	<b>192</b>	<b>213</b>	<b>35</b>	<b>28</b>	<b>51</b>	<b>105</b>	<b>115</b>	<b>129</b>	<b>196</b>	<b>249</b>	<b>171</b>

Source: Survey calculations based on MoSPI data.

8.11 To provide another perspective on the revival of growth, the IIP was further analysed by the weight of items that have recorded growth. The weight of the items that recorded growth was 46.05 per cent in November-2020, which was significantly higher than 5.87 per cent in the month of April-2020 (Figure 9 and Table 5). In the past (from Apr-12 to Feb-20), the number of items that recorded a monthly growth in the pre-COVID-19 regime had an average weight of 61.6 per cent. The weight of the items recording positive growth in November-2019 and November-2018 were 56.22 per cent and 52.40 per cent, respectively. Table 6 and Table 7 present the number of items that fall under different growth categories and corresponding weights in those growth categories.

**Table 5: Weight of items/item groups recorded a growth in 2020 by Used Based Classification**

	Total Weight	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Primary goods	34.0	28.77	32.80	1.52	0.56	0.98	1.42	0.98	1.06	25.11	9.64	16.98
Capital goods	8.2	2.12	2.74	0.79	0.08	0.27	0.98	1.45	2.32	5.07	5.28	3.61
Intermediate goods	17.2	10.01	12.16	3.27	2.57	0.87	3.19	3.09	5.26	8.35	10.19	6.97
Infrastructure/ construction	12.3	6.91	6.93	0.00	0.00	0.48	1.05	3.10	5.42	6.06	11.37	5.82
Consumer durables	12.8	4.07	3.62	0.25	0.00	0.04	0.80	1.31	2.39	8.13	9.85	8.08
Consumer non-durables	15.3	7.32	8.63	2.94	2.65	6.25	9.03	7.69	6.63	8.00	9.89	4.59
ALL	100.0	59.20	66.88	8.77	5.87	8.88	16.48	17.62	23.07	60.71	56.22	46.05

Source: Survey calculations based on MoSPI data.

**Table 6: Number of Items/item groups in Different Growth Brackets**

Growth Range	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
>10%	107	112	18	22	34	68	66	77	122	173	102
5-10%	34	43	10	1	9	15	17	28	37	32	26
3-5%	22	30	2	3	0	7	7	4	12	18	16
0-3%	29	28	5	2	8	15	25	20	25	26	27
-3 to 0%	32	29	15	2	2	16	18	34	19	21	28
-5 to -3 %	20	15	8	3	7	7	10	13	16	14	24
-10 to -5%	41	37	25	10	9	33	42	38	36	17	33
<= -10%	122	112	323	364	336	244	220	191	138	103	150

Source: Survey calculations based on MoSPI data.

**Table 7: Weight of Items/item groups in Different Growth Brackets**

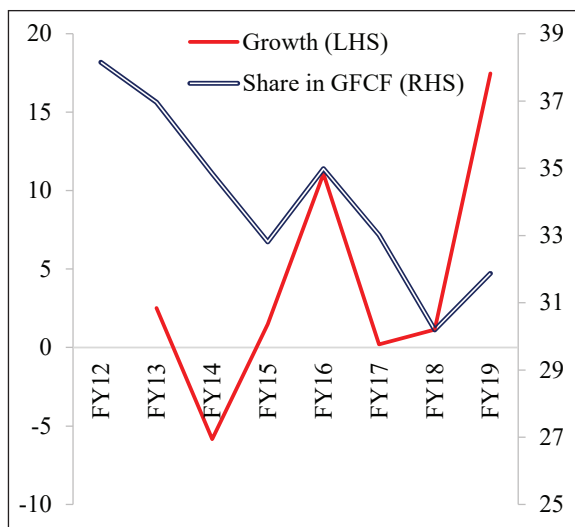
Growth Range	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
>10%	15.3	30.0	3.7	3.5	5.7	11.0	8.0	14.0	20.0	36.1	12.3
5-10%	5.9	20.7	2.2	1.2	1.8	2.9	2.5	4.6	7.4	8.8	5.4
3-5%	27.4	13.0	0.8	1.2	0.0	1.3	2.7	0.5	11.9	7.3	15.0
0-3%	10.6	3.2	2.1	0.1	1.4	1.3	4.5	4.0	21.3	4.1	13.3
-3 to 0%	9.0	5.2	22.9	1.4	0.1	3.5	12.3	15.1	5.1	16.9	4.9
-5 to -3 %	2.1	3.8	1.0	0.2	1.8	1.8	2.3	3.1	5.1	2.4	5.4
-10 to -5%	9.9	8.1	11.3	1.0	3.0	11.9	8.8	22.4	11.6	3.4	21.8
<= -10%	19.8	16.1	56.0	91.6	86.1	66.3	59.0	36.2	17.5	21.1	21.8

Source: Survey calculations based on MoSPI data.

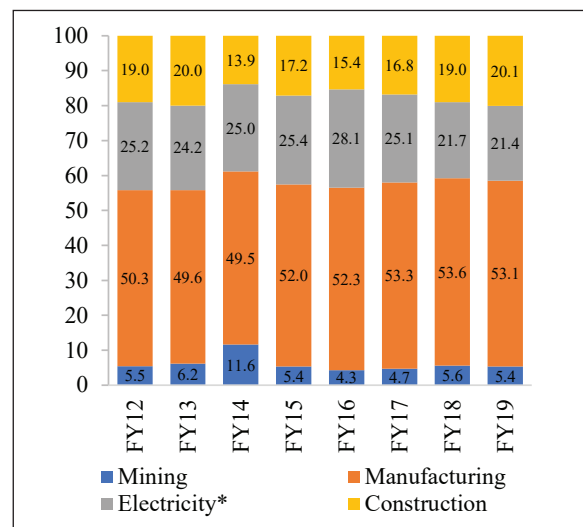
### Gross Capital Formation in the Industrial Sector

8.12 The rate of growth of Gross Capital Formation (GCF) in industry registered a sharp rise from 1.2 per cent in FY18 to 17.5 per cent in FY19, showing a substantive improvement in GCF in the sector. Mining & Quarrying, Manufacturing, 'Electricity, Gas, Water Supply & Other Utility Services' and Construction had registered a growth rate of 14.9 per cent, 15.9 per cent, 15.3 per cent, and 24.4 per cent respectively in FY19. However, the share of GCF of the industrial sector had declined from 38.2 per cent in FY12 to 30.2 per cent of GDP in FY18 before an uptick (31.9 per cent) was recorded in FY19 (Figure 10a and 10b).

**Figure 10a: Growth of GFCF in Industry and its share in total GFCF (Per cent)**



**Figure 10b: Share of Different Sectors in Total GFCF of Industry (Per cent)**



\*Electricity, gas, water supply & other utility services  
Source: Survey calculations based on MoSPI data.

### Credit to the Industrial Sector

8.13 Gross bank credit to the industrial sector, on a YoY basis, recorded (-) 1.7 growth in October-2020 as compared to 3.4 per cent growth in October-2019. Some of the industries recorded a nominal credit growth including the construction sectors. The laggards in the group are 'All Engineering', 'Cement & Cement Products', and 'Basic Metal & Metal Products' which recorded a YoY negative growth in October-2020 (Table 8). A long series of growth in the industrial sector credit by banks (both nominal and real growth) and share of industrial credit in non-food credit are presented in Figure 11a and 11b respectively.

### Performance of Central Public Sector Enterprises (CPSEs)

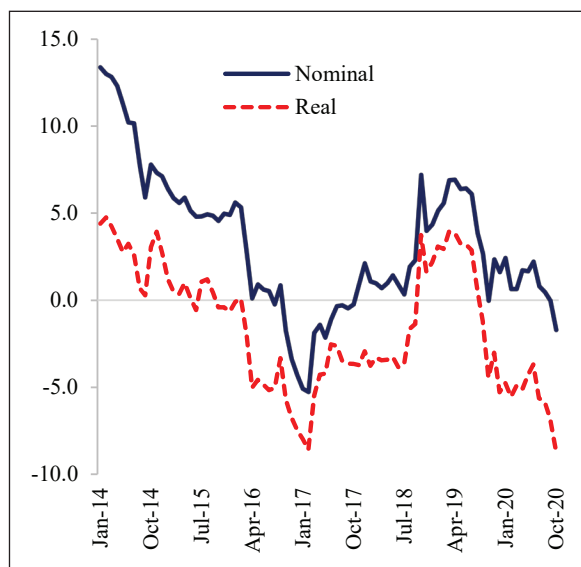
8.14 The public sector enterprise policy enunciated by the Government in November 2020, spells a complete change in paradigm as compared to its policy of import substitution and self-sufficiency which became the basis of the Mahalanobis Plan in 1956. However, the inherent inefficiencies leading to low productivity in the PSEs, high-cost structure and strained public finances led the GoI to privatize the PSUs after 1991. Thus, began the journey of privatisation/disinvestment in the country.

**Table 8: Industry-wise Deployment of Gross Bank Credit (YoY change, in Per cent)**

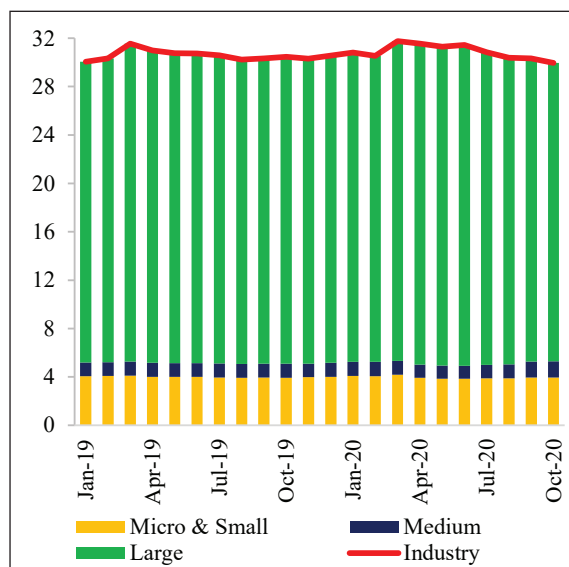
Industry	Mar-19	Oct-19	Mar-20	Oct-20
Mining & Quarrying (incl. Coal)	1.1	-4.1	5.2	4.3
Food Processing	1.1	0.1	-1.9	3.2
Beverage & Tobacco	-5.9	8.5	12.7	0.8
Textiles	-3.0	-4.6	-5.5	-1.0
Leather & Leather Products	-2.1	-1.8	0.2	2.9
Wood & Wood Products	10.2	6.2	2.2	6.6
Paper & Paper Products	-1.0	1.3	2.1	8.7
Petroleum, Coal Products & Nuclear Fuels	-3.1	4.0	20.1	16.6
Chemicals & Chemical Products	17.5	3.8	6.0	-2.6
Rubber, Plastic & their Products	8.1	7.6	10.1	1.4
Glass & Glassware	17.0	-15.3	-11.2	0.7
Cement & Cement Products	5.9	18.2	5.4	-4.6
Basic Metal & Metal Product	-10.7	-7.1	-5.7	-3.8
All Engineering	8.6	5.9	-6.7	-17.7
Vehicles, Vehicle Parts & Transport Equipment	1.4	6.3	3.4	7.1
Gems & Jewellery	-0.9	-9.4	-17.4	-8.6
Construction	10.4	8.0	4.8	5.1
Infrastructure	18.5	6.8	-0.2	-2.0
Other Industries	6.8	13.6	18.5	0.4
Industries	6.9	3.4	0.7	-1.7

Note: Data are provisional and relate to select banks which cover about 90 per cent of total non-food credit extended by all scheduled commercial banks.

Source: Survey calculations based on RBI data.

**Figure 11a: YoY Real and Nominal Growth of Credit to Industry (Per cent)**

Source: Survey calculations based on RBI data.

**Figure 11b: Share of Industry in total Non-food Credit (Per cent)**

Source: Survey calculations based on RBI data.

8.15 The Government has since then taken several measures to reduce its presence in commercial activities both through the stock market route and through strategic sale. This policy to withdraw has been a subject of discussion in several economic surveys (more specifically 2000-01, 2001-02, 2002-03) reflecting the deliberations in the Government on the matter.

8.16 Under the aegis of the Atmanirbhar Bharat Mission, the government has proposed to rationalise the participation of the CPSEs in commercial activities. It has been argued that the existence of the CPSEs should only be in the 'strategic sectors'. Accordingly, the number of PSEs in the strategic sector will ideally be limited to four—others would either be merged or privatized or brought under holding companies. Further, the CPSEs in the non-strategic sectors would be privatized as per guidelines issued. This initiative is expected to bring healthy competition in sectors and will also assist the Government to focus extensively on 'strategic sectors.'

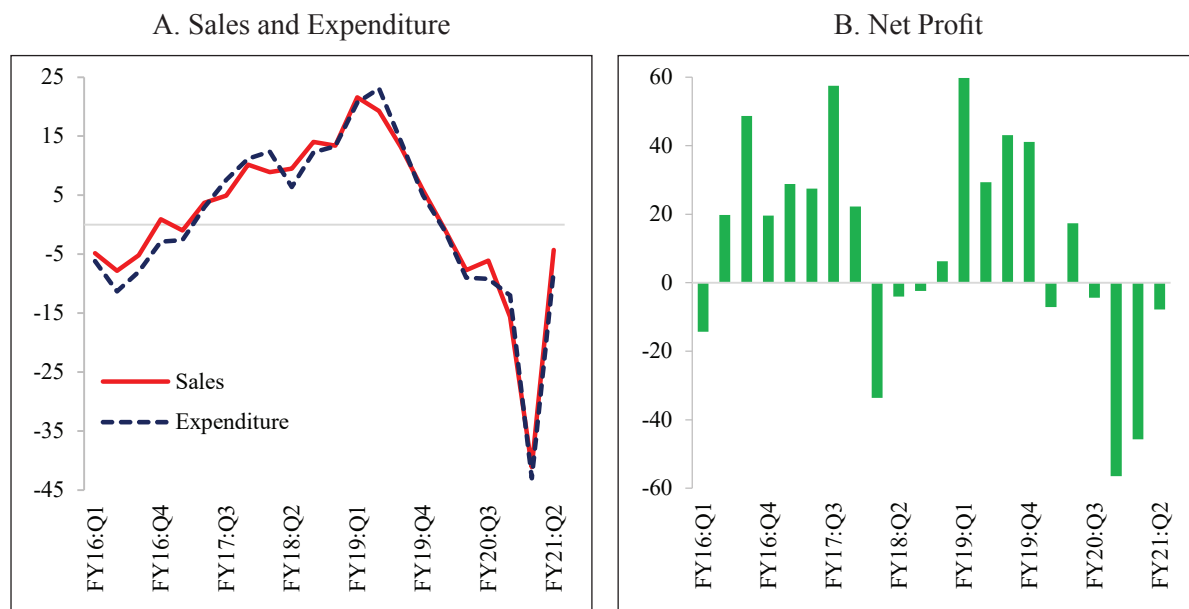
8.17 While disinvestment and rationalization of some the CPSEs is being planned, there is also a need to strengthen the ones that would be retained in their respective sectors so as to fully meet with the expectations of the government. An important step in this direction would be to completely revamp the Boards of the CPSEs to reorganize their structure, enhance their operational autonomy coupled with strong corporate governance norms including listing on stock exchanges for greater transparency. Department of Public Enterprises has separately initiated revamping of Performance Monitoring system of the CPSEs to make it more objective and forward-looking based on sectoral indices/benchmarks. Also, certain reforms in the direction of timely closure of sick and loss making the CPSEs and disposal of their assets have been initiated.

8.18 In view of COVID-19 outbreak, the Ministry of Corporate Affairs has extended the last date for conducting AGM in case of all the companies including CPSEs to 31<sup>st</sup> December 2020. Hence, there has been a delay in conducting annual audit and in preparing financial statements of the CPSEs. As of January 15, 2021, based on provisional information with Department of Public Enterprises, there are 366 CPSEs as of March 2020. Of these, 256 are in operation, but only 171 CPSEs booked profit during FY20. The total profit of profit-making CPSEs was ₹ 1.38 lakh crores in FY20, whereas the consolidated loss of loss-making enterprises was ₹ 44,816 crores. The overall net profit of the CPSEs declined by 34.6 per cent to reach ₹ 93,295 crore in FY20 from ₹ 1.43 lakh crore in FY19. CPSEs are operating in 4 sectors – Agriculture, Mining & Exploration, Manufacturing, and Services.

### **Corporate Sector Performance**

8.19 As per the RBI report on corporate performance, demand conditions in the manufacturing sector moved to the path of recovery with a softer contraction of 4.3 per cent (YoY) in nominal sales for Q2:2020-21 after a contraction of 41.1 per cent in the previous quarter due to pandemic led country-wide lockdown. The recovery was led by iron and steel, food products, cement, automobile, and pharmaceutical companies. The net profit for the manufacturing sector contracted by 7.8 per cent in Q2:2020-21 (Figure 12a and 12b).

**Figure 12: YoY growth in various indicators of listed Manufacturing Companies in the Private Corporate Sector (in per cent)**



Source: Survey calculations based on RBI data.

## Ease of Doing Business

8.20 The GoI is committed to facilitating a pro-business environment to enable the country to become the global hub of manufacturing and economic activities. Several measures have been taken resulting in the simplification and rationalization of many existing and age-old rules and regulations. The introduction of information technology and single window clearance to make governance more efficient and effective were some of the other concrete steps taken by the Government to improve the environment of doing business. As per the Doing Business Report (DBR), 2020, the rank of India in the Ease of Doing Business (EoDB) Index for 2019 has moved upwards to the 63rd position amongst 190 countries from a rank of 77 in 2018. India has improved its position in 7 out of 10 indicators, inching up to the international best practices. The DBR, 2020 acknowledges India as one of the top 10 improvers, the third time in a row, with an improvement of 67 ranks in three years. It is also the highest jump by any large country since 2011. India's progress in EoDB rankings since 2009 and the comparative position of India vis-à-vis its peer group in DBR 2020 are shown in the Figure 13(a & b) and Figure 14.

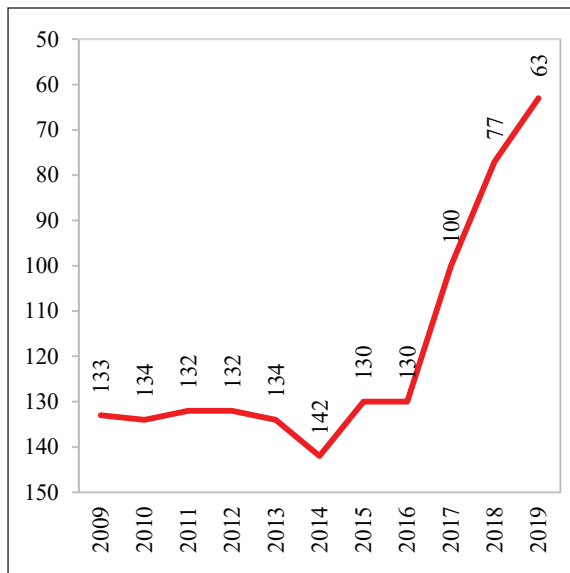
8.21 Further, the leads and laggards within the EoDB index of India is presented in Figure 15 (cross section analysis for 2019) and Figure 16 (intertemporal analysis 2015-2019). As per the DBR 2020 report, the lead subcomponents of EoDB were 'getting electricity', 'trading across borders' and others (Figure 15, bars shaded in green), whereas the main laggards were 'enforcing contracts', 'registering property', 'revoking insolvency', and 'pay taxes' (Figure 15, bars shaded in red).

8.22 Merely comparing the subcomponents of the EoDB at a point in time may not give an appropriate picture of overall leads and laggards in the index because it doesn't capture the policy initiatives and reforms taken in the recent past. Therefore, it would be more concrete to have an inter-temporal analysis of subcomponents. Figure 16A shows the trend in scores of

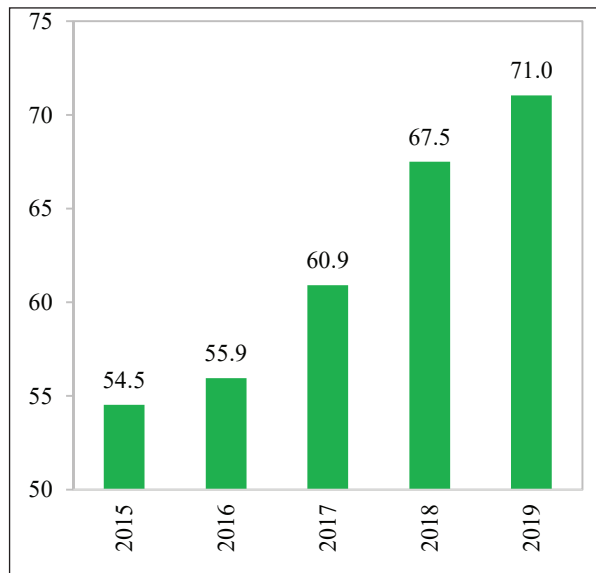


different subcomponents of the EoDB index. It is evident from the Figure 16a that the indicators that seem to be laggard in the EoDB-2019 like, ‘paying tax’ and ‘resolving insolvency’ have actually striven towards the frontier but still need additional efforts and policy support to be at the frontier. Contrary to this, the indicators like ‘protecting the minority investor’ and ‘getting electricity’ may seem like laggard in intertemporal analysis but in reality they are very close to the frontier (Figure 16B). The major causes of worry are the subcomponents that are laggards in both cross-section and an inter-temporal analysis like ‘registering the property’ and ‘enforcing the contracts’.

**Figure 13a: India’s Rank in Ease of Doing Business**

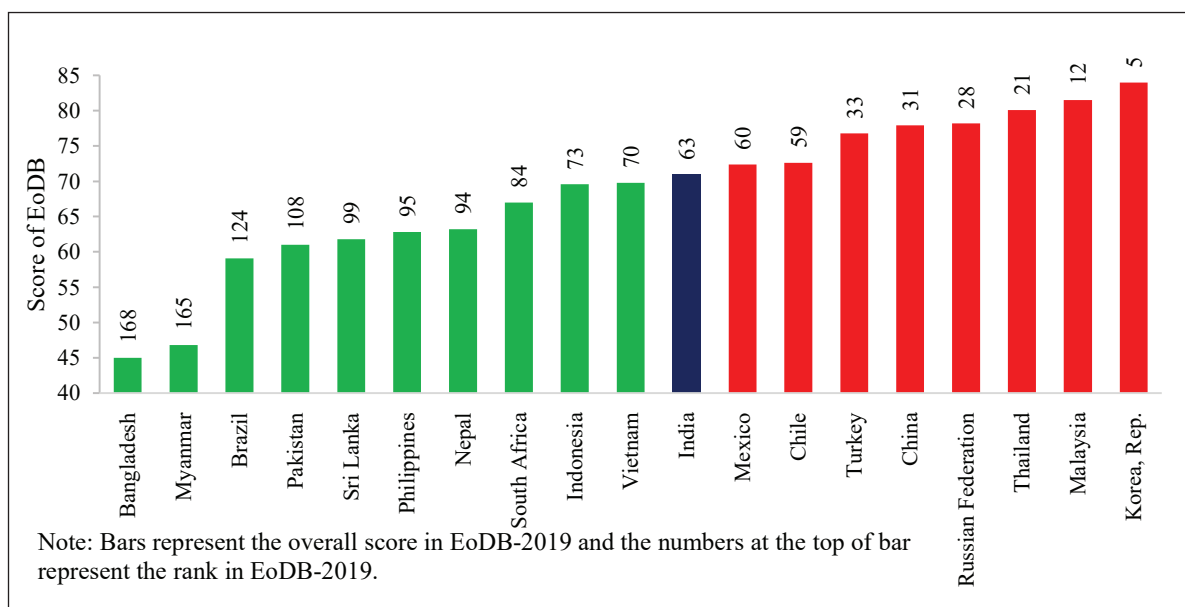


**Figure 13b: India’s Score in Ease of Doing Business (DB17-20 methodology)**



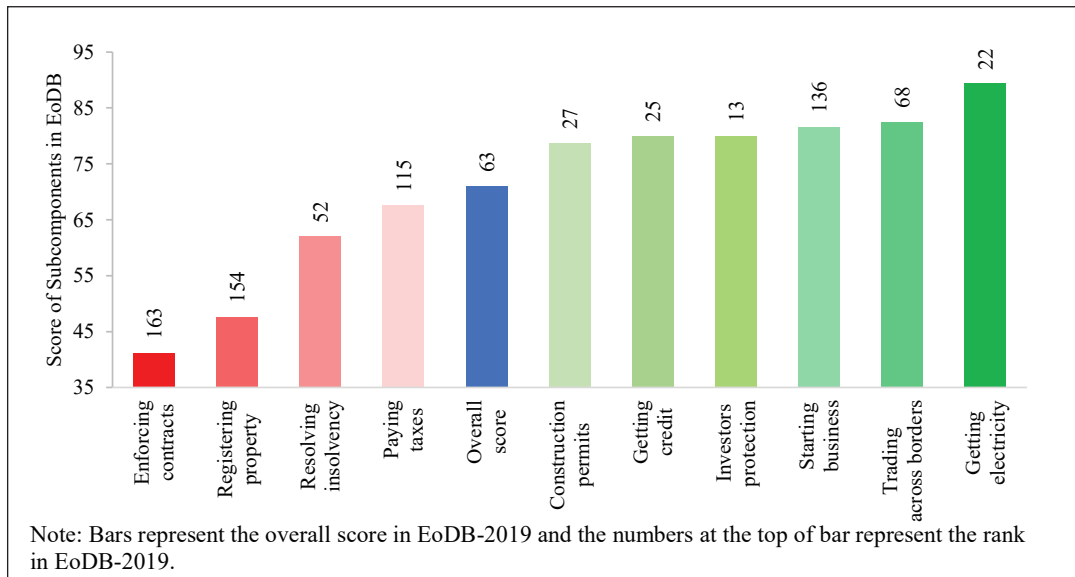
Source: Survey calculations based on EoDB data.

**Figure 14: India’s Overall Score and Rank in Ease of Doing Business vis-à-vis peers**



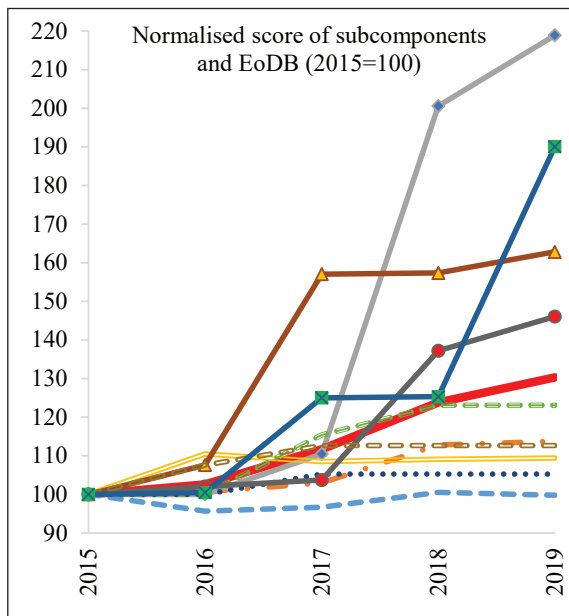
Source: Survey calculations based on EoDB data.

**Figure 15: Leads and Laggards in Ease of Doing Business in overall ranking and score (EoDB 2019)**

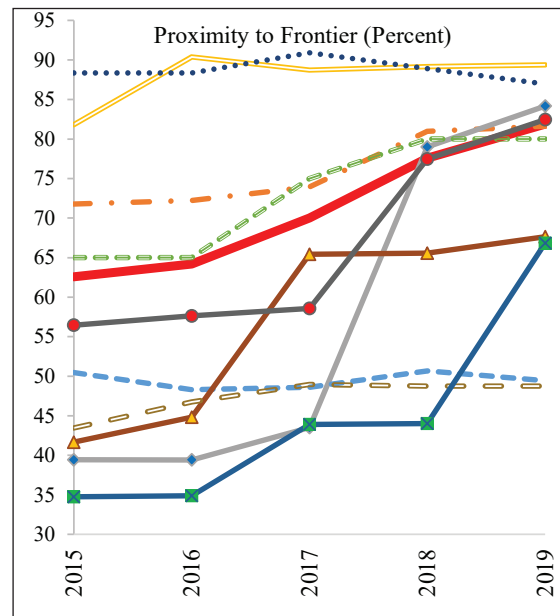


Source: Survey calculations based on EoDB data.

**Figure 16A: Leads and Laggards in EoDB Index and its Subcomponents (Inter-Temporal)**



**Figure 16B: Proximity of EoDB Index and its Subcomponents with frontier (Inter-Temporal)**



Note: Proximity is defined as ratio of India's score to highest score in the respective group multiplied by 100. Higher the score better the position of India.

- EoDB
- Getting electricity
- Protecting minority investors
- Enforcing contracts
- .-●-.- Starting a business
- .-●-.- Registering property
- Paying taxes
- Resolving insolvency
- Construction permits
- .-●-.- Getting credit
- Trading across borders

Source: Survey calculations based on EoDB data.

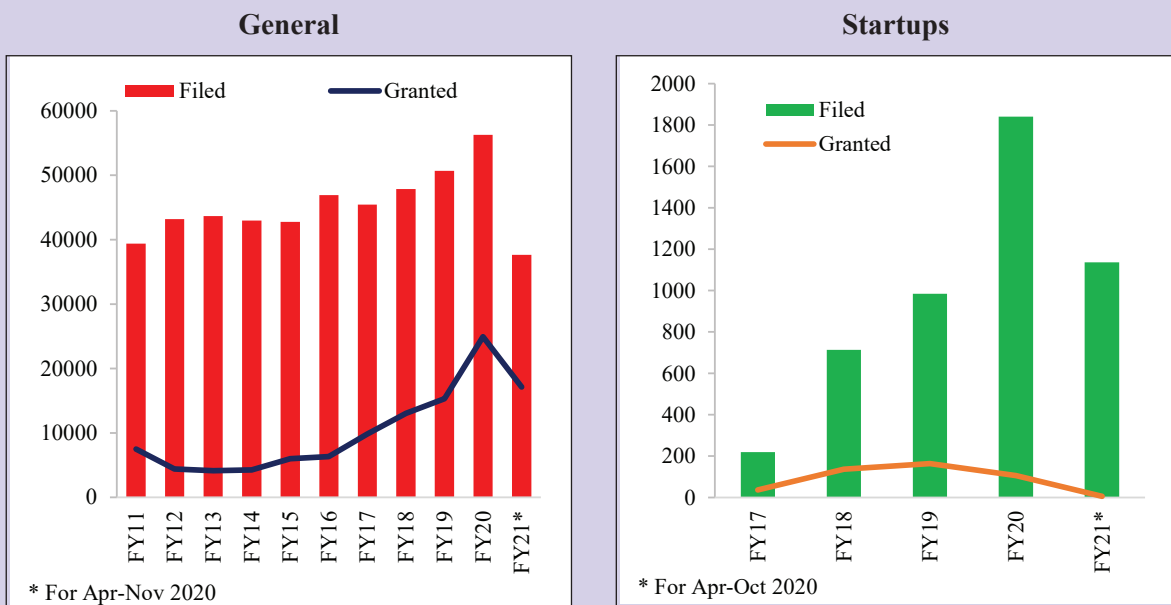
## Start-up India

8.23 Startups are the platform for entrepreneurs who have the ability to think out of the box and innovate to conceive products that can create a niche for themselves in a dynamically changing world. Startups have the potential to be the engine of growth in the medium to long run. To facilitate the growth of startups, GoI had announced the “Startup India, Stand-up India” initiative. The action plan is based on the three pillars “Simplification and Handholding”, “Funding Support and Incentives”, and “Industry-Academia Partnership and Incubation”. As on December 23, 2020, GoI has recognized a total of 41061 startups and 4,70,000 jobs have been reported by more than 39,000 startups. The Government has taken several initiatives to promote the startups (Box 2).

### Box 2: Initiative Taken by GoI to Support Startups in India

1. Startups Intellectual Property Protection (SIPP) scheme enables a start-up to seek assistance from any empanelled facilitator to file and prosecute their application. The facilitator can claim payment for the services given to the start up from the Office of the Controller General of Patents, Designs and Trademarks (O/o CGPDTM) on submission of certificate in prescribed format. As of June-2020, 510 patent facilitators and 392 trademark facilitators have been empanelled to provide free-of-charge services to Startups. The figures in the box provide information on filing of patent applications and grant of patent (Figure 2.1), and filing of trademark application and its registration (Figure 2.2), in general and particularly for startups.

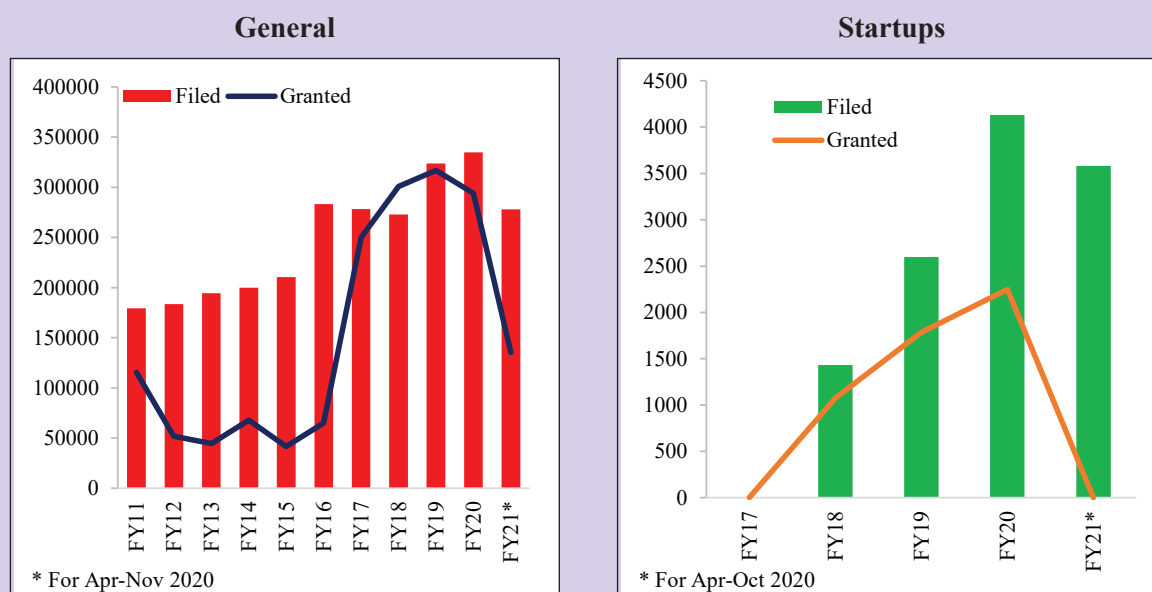
**Box Figure 2.1: Patent Application filed and granted**



2. The Fund of Funds for Startups (FFS) with a total corpus of Rs. 10,000 crores was established with contribution spread over the 14<sup>th</sup> and 15<sup>th</sup> Finance Commission cycle based on the progress of implementation. As of 1<sup>st</sup> December 2020, SIDBI has committed ₹ 4326.95 crores to 60 SEBI registered Alternative Investment Funds (AIFs). These funds have raised a corpus fund of ₹. 31,598 crores. ₹ 1270.46 crores have been drawn from the FFS and ₹ 4509.16 crores have been invested into 384 startups.

3. So far 319 startups have been granted income tax exemptions till November-2020.
4. Startup Yatra (an initiative that travels to Tier 2 and Tier 3 cities of India to search for entrepreneurial talent by conducting day long bootcamps) has been conducted across 23 States in 207 districts impacting 78346 aspiring entrepreneurs. A total of 1,424 incubation offers have been given to the startups as a result of this initiative.
5. Further to boost innovation in the sector and encourage the youths to secure their rights on technology and the product developed by them, startup have been provided 80 per cent rebate in patent filing fees and 50 per cent rebate on trademark filing fees. Additionally, facility of expedited examination of patent applications to reduce the time taken in granting patents is also available to the startups. As of June-2020, 3618 patent applications were granted 80 per cent rebate on the filing fee and 6832 trademark applications were granted a 50 per cent rebate on filing fee.

**Box Figure 2.2: Trademark Applications filed and granted**

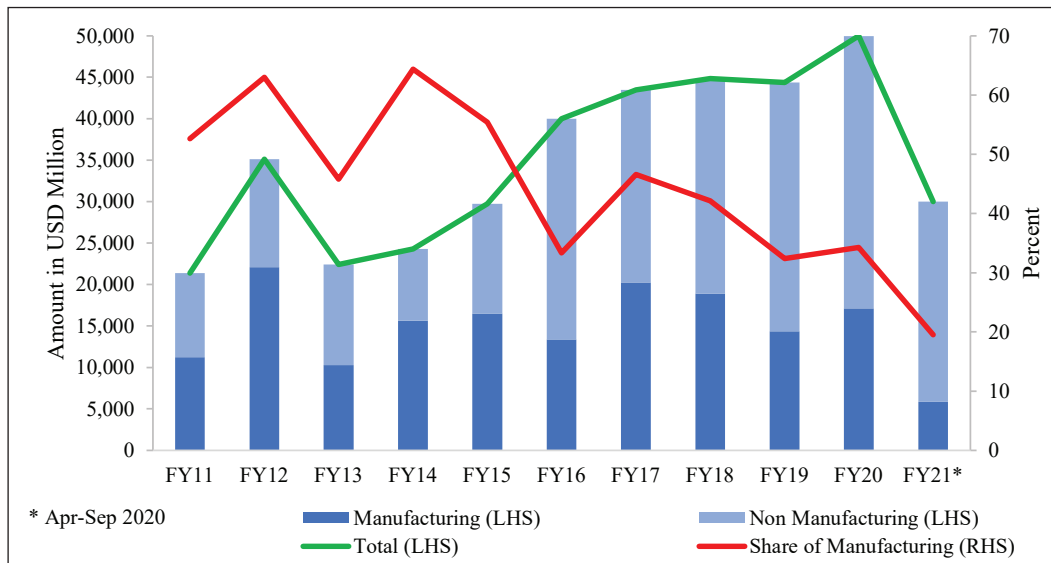


Survey calculations based on DPIIT data.

## Foreign Direct Investment (FDI)

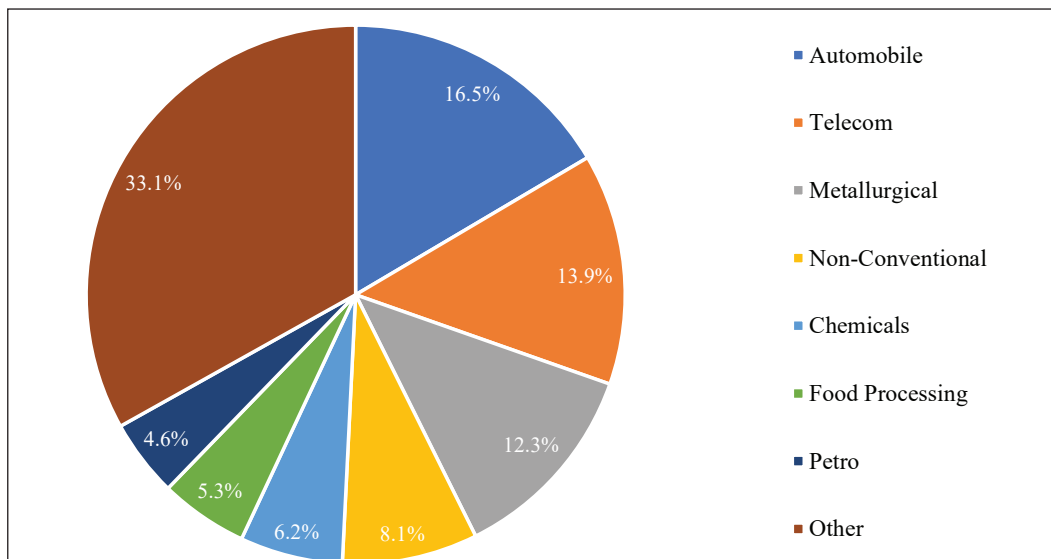
8.24 FDI is a one of the major sources of investment and investment financing that drives the economic growth in the country. The FDI flows are also associated with the enhancement of productivity, skills and technology development in the country. The proactive policy measures and improvement in the ease of doing business in the country resulted in massive improvement in FDI inflows. The FDI equity flows have been on the upswing since FY13. During FY20, total FDI equity inflows were US\$49.98 billion as compared to US\$44.37 billion during FY19. The similar number for FY21 (up to September-2020) was US\$30.0 billion. The bulk of FDI equity flow is in the non-manufacturing sector leading to a reduction in the share of manufacturing in the FDI flows (Figure 17). Within the manufacturing sector, industries like automobile, telecommunication, metallurgical, non-conventional energy, chemical (other than fertilizers), food processing, and petroleum & natural gas get the bulk of FDI equity flows. These industries together accounted for about 67 per cent of FDI equity flows into the manufacturing sector in FY20 (Figure 18).

**Figure 17: FDI Equity Flow to Manufacturing and Non-Manufacturing Sector**



Source: Survey calculations based on DPIIT data.

**Figure 18: Share of specific manufacturing industries in total manufacturing FDI Equity Flows in FY20**



Source: Survey calculations based on DPIIT data.

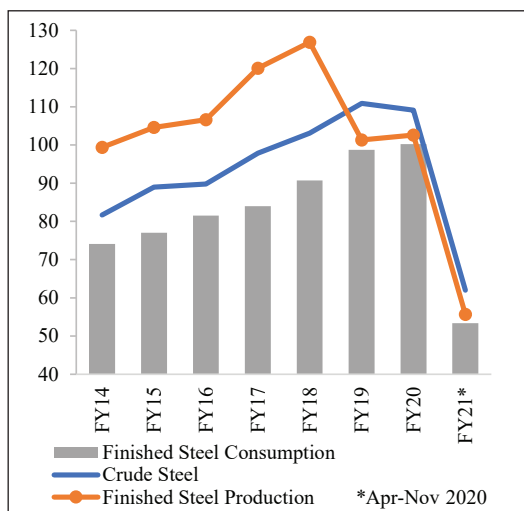
## SECTOR WISE ISSUES AND INITIATIVES

### Steel

8.25 Steel is one of the critical inputs to industries, urban development and infrastructure development. Taking cognizance of the requirement of this critical input in these crucial pillars of economic growth, the National Steel Policy, 2017 (NSP-17) envisioned significant expansion in production capacity while being globally competitive. The NSP-17 aims at achieving a crude steel capacity of 300 million tonnes (MT) and a finished steel capacity of 230 MT with a per capita consumption of 158 kg by 2030-31 (Figure 19).

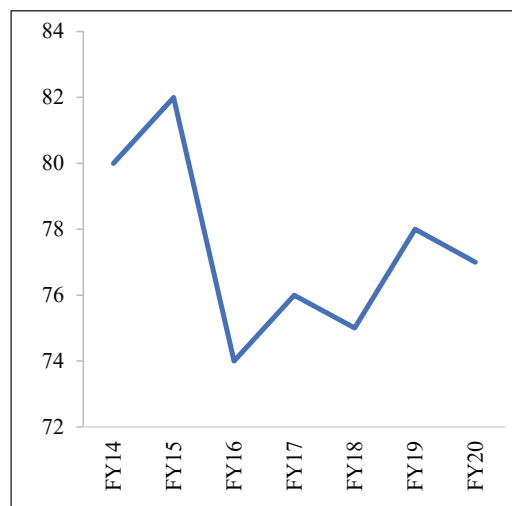
8.26 India is the second-largest producer of crude steel only after China. India is also the second-largest consumer of steel. However, its per capita total finished steel consumption was around 74.7 kg during FY20 as against the global average of 229 kg. Further, the capacity utilisation in crude steel plants continues to be low (Figure 20).

**Figure 19: Production & Consumption of finished steel (Million Tonnes)**



Source: Survey calculations based on Ministry of Steel's data.

**Figure 20: Capacity Utilisation Steel Plants**



Source: Survey calculations based on Ministry of Steel's data.

8.27 Recently, the GoI has taken various initiatives under the Atmanirbhar Abhiyan to enhance the domestic production of steel such as inclusion of 'Speciality Steel' incorporating four different product categories for incentives under the Production Linked Incentive (PLI) scheme; offering steel to MSMEs that are members of Engineering Export Promotion Council at export parity price under the Duty Draw Back scheme of DGFT; measures to provide preference to domestically produced iron and steel in government procurement, where aggregates estimate of iron and steel products exceeds ₹ 25 crores; protecting the industry from unfair trade through appropriate remedial measures including imposition of anti-dumping duty and countervailing duty on the products in which unfair trade practices were adopted by other countries.

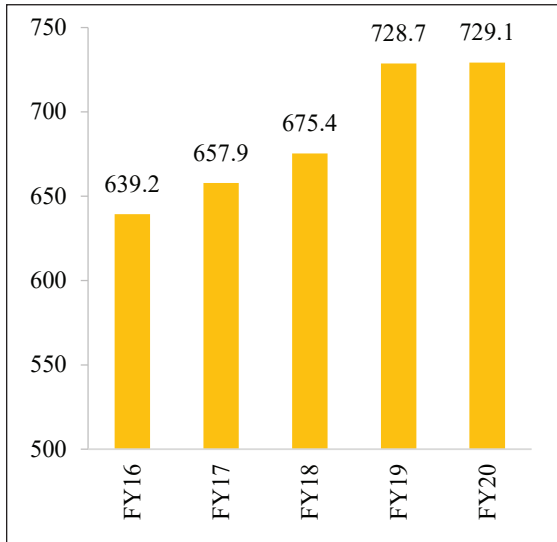
## Coal

8.28 Coal is the one of the most important and abundant fossil fuel in India. It accounts for 55 per cent of the country's energy needs. Coal is not only the primary source of energy in the country but is also used as an intermediary by many industries such as steel, sponge iron, cement, paper, brick-kilns, etc.

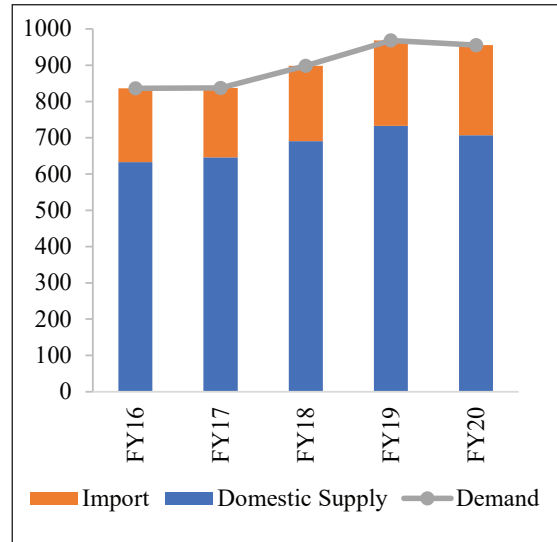
8.29 In the FY20, the production of raw coal in India was 729.1 million tonnes (MnT) with a minuscule growth of 0.05 per cent over the previous year (Figure 21a and 21b). In FY21 (April-October), all India coal production was 337.52 MnT, thus declining by 3.3 per cent YoY. The contraction in production is attributable to COVID-19. India is also an importer of coal

importing 248.54 MT of coal in FY20, a growth of 5.7 per cent over FY19. The energy supply in India is heavily coal-dependent. Nevertheless, the GoI has taken many measures to strike a balance between energy needs and environment friendliness (Box 3).

**Figure 21a: Coal Production in India (MnT)**



**Figure 21b: Demand and Supply of Coal (MnT)**



Source: Survey calculations based on Ministry of Coal’s data.

**Box 3: Measures Taken by GoI in the Coal Sector**

**A. Clean Coal**

- Creating carbon sink: About 54500 ha land has been brought under green cover by planting 132 million trees - estimated carbon sink of 2.7 lakh tonnes of CO2 equivalent/year. Plan to cover 20000 ha of additional area by plantation of around 50 million trees by 2030.
- Two Coal Bed Methane (CBM) Projects with considerable potential for carbon footprint reduction are in the pipeline
- Surface coal gasification projects (100 million tonnes (MT) coal by 2030) with relatively lesser carbon footprint.
- First mile connectivity projects: transportation of coal from pitheads to dispatch points.

**B. Amendment in Act & Rules and other measures**

- Several amendments were brought into the Coal Mines (Special Provisions) Act, 2015 through the Mineral Laws (Amendment) Act, 2020 enacted on 13.03.2020.
- A total of 11 coal blocks are allocated under Mines and Minerals (Regulation and Development) (MMDR) Act. Further, directions had been issued to Nominated Authority for allocation of 25 coal blocks by auction for sale of coal
- Of the auction of 38 coal mines for commercial mining in June-2020, 19 were successfully auctioned (a success rate of 50 per cent as compared to 30 per cent in the past).

## Micro, Small & Medium Enterprises (MSME)

8.30 The GoI has undertaken numerous initiatives to empower the MSMEs to tide over the present crisis and become drivers of growth for the Indian economy. With more than 6 crores MSMEs, the sector has been the backbone of the economy and plays a crucial role in employment generation and in contribution to GDP. The sector employs more than 11 crores people, contributes roughly 30 per cent to the GDP, and contributes half of the country's exports helping in building a stronger and a self-reliant India.

8.31 The MSME sector was one of the worst hit sectors during the nation-wide lockdown. Several corrective and supportive measures have been taken to bring the sector on track. The first among those is the revision of the investment criteria in the MSME definition (Table 9 and Box 4). The need for a change that provides small firms the incentives to grow and thereby reap economies of scale was argued for in the Economic Survey 2018-19 Volume I (Chapter-3 Nourishing Dwarfs to become Giants: Reorienting policies for MSME Growth). This upward revision in investment criteria is expected to make them globally competitive and facilitate robust expansion of the MSMEs in the country. It will help in unleashing the economies of scale in production without the fear of forgoing the benefits of an MSME unit. Some of the important measures taken by the GoI as part of the Atmanirbhar Bharat package is highlighted in Box 1. In addition, several other interventions have also been taken like the Champions Portal (Box 5) and launch of Udyam registration portal on July 1, 2020, which aims at reducing transaction time and cost for entrepreneurs and promote ease of doing business.

**Table 9: Definition of MSME Sector**

<b>Earlier MSME Classification</b>			
<b>Criteria: Investment in Plant &amp; Machinery or Equipment</b>			
<b>Classification</b>	<b>Micro</b>	<b>Small</b>	<b>Medium</b>
Manufacturing	Investment less than ₹ 25 lakhs	Investment greater than ₹ 25 lakhs & less than ₹ 5 crores	Investment greater than ₹ 5 crores & less than ₹ 10 crores
Service	Investment less than ₹ 10 lakhs	Investment greater than ₹ 10 lakhs & less than ₹ 2 crores	Investment greater than ₹ 2 crores & less than ₹ 5 crores
<b>Revised MSME Classification</b>			
<b>Composite Criteria: Investment And Annual Turnover</b>			
<b>Classification</b>	<b>Micro</b>	<b>Small</b>	<b>Medium</b>
Manufacturing & Services	Investment less than ₹ 1 crores and Turnover less than ₹ 5 crores	Investment greater than ₹ 1 crores & less than ₹ 10 crores and Turnover greater than ₹ 5 crores & less than ₹ 50 crores	Investment greater than ₹ 10 crores & less than ₹ 20 crores and Turnover greater than ₹ 50 crores & less than ₹ 100 crores

Source: Ministry of MSME.



#### Box 4: Rationale for the revision in the definition of MSMEs: Details of the deliberations on issues affecting MSMEs

The Micro, Small and Medium Enterprises Development (MSMED) Act, 2006 had defined MSMEs on the basis of investment in plant and machinery or equipment. Such investment was to be calculated at the original price thereof. This had disadvantaged the sector as it disincentivized investment and prevented the MSMEs to reap the benefits of economies of scale and contribute more significantly to employment generation. In June-2020, GoI revised the investment limits upwards and also included annual turnover of the enterprise as the additional criteria for the classification of MSMEs. The calculation of such investment would now be linked to the Income Tax Return as filed under the IT Act, thus allowing for annual depreciation.

The need for the revision in the MSME definition was carefully evaluated and announced after stakeholders' consultation and due diligence in accordance with the provision of MSMED Act, 2006.

The Economic Survey (2012-13 and 2018-19) highlighted the concerns and issues in the MSME sector and the need for revamping the ecosystem for the MSMEs. The GoI had also attempted to amend the MSME Act in 2015 and 2018 to boost the MSME sector. The 2015 Bill proposed an upward revision in investment ceiling limits whereas the 2018 Bill attempted to replace investment criteria with turnover criteria and remove the distinction between manufacturing and services.

The Department-Related Parliamentary Standing Committee (DRPSC) on Industry (2015) adopted the 268<sup>th</sup> report which contains the recommendations regarding adoption of the Bill, without any change. The Committee had in its 245<sup>th</sup> Report extensively examined the implementation of the MSMED Act, 2006 and had given recommendations pertaining to Chapters IV and V of the parent Act. The Committee had generally agreed to enhance the investment limits for the classification of MSME sector in view of inflation. It had observed: "Considering the inflation and dynamic market situation, the Committee feels that definition of MSMEs as provided in the Act may be revised every five years."

Committee of Secretaries in its meeting held on 11.11.2016 recommended addition of "turnover" and/or "employment" as criteria for defining MSMEs. After the deliberation, the 2015 Bill was withdrawn and the 2018 Bill was introduced on 23.07.2018.

The DRPSC on Industry (2018), carefully evaluated the 2018 Bill and had mentioned in the report that the "classification based on investment in plant and machinery has a number of disadvantages as it prevents MSMEs to become competitive in the market, inhibits investment to modernize, upscale, improve productivity and technology upgradation due to rigor of investment thresholds."

The DRPSC report (2018) further mentions: '...the extent of financial limits fixed in 2006 for MSMEs are no longer relevant, given the impact of inflation. Most of the Industry Associations and stakeholders have, therefore express the need for changing the present criteria of investment in plant and machinery to annual turnover as criterion for classification of MSMEs.'

The DRPSC report (2018) also says: '...the problem with employment criteria in the Indian context is the non-availability of reliable/verifiable sectoral data and the seasonal variance in labour engagement. The employment system, if taken into consideration, will increase the need for inspection, which will involve huge transaction cost and could place a question mark on the veracity of the figures given by the enterprises in different Sectors. Moreover, it will also lead to large number of litigations.' The 2018 Bill lapsed on dissolution of the Sixteenth Lok Sabha on 25.05.2019.

Apart from the Government, the RBI also constituted an Expert Committee on Micro, Small and Medium Enterprises (2019) which also recommended using the annual turnover as the criteria instead of investment. The Committee debated the merits of an employment-based definition and recognized that while this was an additional feature preferred in some countries, this definition would pose challenges in implementation.

On the basis of the latest observations of the DRPSC and consultations with stakeholders, the criteria were changed and the notification dated 26<sup>th</sup> June, 2020 was issued thereof.

### Box 5: CHAMPIONS online platform for MSME

- In a major initiative, on 9<sup>th</sup> May, 2020, the GoI launched CHAMPIONS online platform to help and handhold the MSMEs. ‘**CHAMPIONS**’ stands for **C**reation and **H**armonious **A**pplication of **M**odern **P**rocesses for **I**ncreasing the **O**utput and **N**ational **S**trength. It is an ICT based technology system aimed at making the smaller units big by solving their grievances, encouraging, supporting, helping and handholding them throughout the business lifecycle. The platform facilitates a single window solution for all the needs of the MSMEs.
- It is a technology backed control room-cum-management information system. In addition to ICT tools including telephone, internet and video conference, the system is enabled by Artificial Intelligence, Data Analytics and Machine Learning. It is also fully integrated on real time basis with GoI’s main grievances portal CPGRAMS and MSME Ministry’s other web based mechanisms.
- As part of the system, a network of 70 control rooms have been created in a Hub & Spoke Model. The Hub is situated in New Delhi in Secretary MSME’s office. The spokes are in the States in various offices and institutions of the Ministry.
- The GoI has also onboarded public sector banks to provide extended support for finance facilitation/ resolving through CHAMPIONS platform.

## Textile and Apparels

8.32 The textile and apparel industry plays an important role in the overall social and economic development of the country. The textile and apparel industry contributed 2 per cent in the overall GDP and 11 per cent of total manufacturing GVA in FY20 and provided total direct and indirect employment of about 10.5 crore people. The sector is the second-largest employment generator in the country, next only to agriculture. Most important with a major part of this workforce being women, it plays a vital role in women empowerment and in the overall social development of the country. The GoI is implementing several schemes cutting across sectors such as the Amended Technology Upgradation Fund Scheme (ATUFS), Scheme for Integrated textiles park (SITP) and a scheme called Samarth. ATUFS, is a revised version of TUFS and has the objective to modernize and upgrade the technology of the Indian textile industry. SITP is for providing world class infrastructure facilities. Of the 56 textile parks which were sanctioned under SITP, 23 have been completed so far. Samarth focusses on capacity building in the textile sector. In addition, other schemes specific to silk, jute, wool, handloom and handicraft sectors are also being implemented.

8.33 India is the sixth-largest exporter of textile and apparel products after China, Germany, Bangladesh, Vietnam, and Italy. India is well known in the global market for many products including cotton yarn, fashion garments, hand-made carpets, etc. The designing capability of this industry is respected worldwide, which has helped the country to build its image as an industrial powerhouse. The sector is, however, vulnerable to several internal and external economic challenges that affect its overall performance.

### Box 6: Production Linked Incentive Scheme

The Atmanirbhar Bharat has brought manufacturing at centre stage and emphasized its significance in driving India's growth and creating jobs. A strong, vigorous and dynamic manufacturing sector will be a driver of growth. Countries across the world, which have transitioned from low to high per capita income, have heavily relied on manufacturing and export led growth. This points to the need for a well-planned strategy to attract investment, ensure efficiency and economies of scale, and make Indian manufacturing companies globally competitive.

With the objective of enhancing India's manufacturing capabilities and exports, the GoI has introduced the Production-Linked Incentive (PLI) Scheme in the 10 key sectors under the aegis of Atmanirbhar Bharat (Table below). The scheme will be implemented by the concerned ministries with an overall expenditure estimated at ₹ 1.46 lakh crores and with sector specific financial limits.

The scheme will make Indian manufacturers globally competitive, attract investment in the areas of core competency and cutting-edge technology; ensure efficiencies, create economies of scale, enhance exports, provide conducive manufacturing ecosystem, and make India an integral part of the global supply chain especially for the 10 sectors identified under the scheme. Further the scheme will also establish backward linkages with the MSME sector in the country which in turn will lead to more inclusive growth and create huge employment opportunities.

Sector in PLI	Estimated Expenditure (₹ Crores)
Advance Cell Chemistry Battery	18,100
Electronic/Technology Products	5,000
Automobiles & Auto Components	57,042
Pharmaceuticals Drugs	15,000
Telecom & Networking Products	12,195
Textile Products	10,683
Food Products	10,900
High Efficiency Solar PV Modules	4,500
White Goods (ACs & LED)	6,238
Specialty Steel	6,322
Total	1,45,980

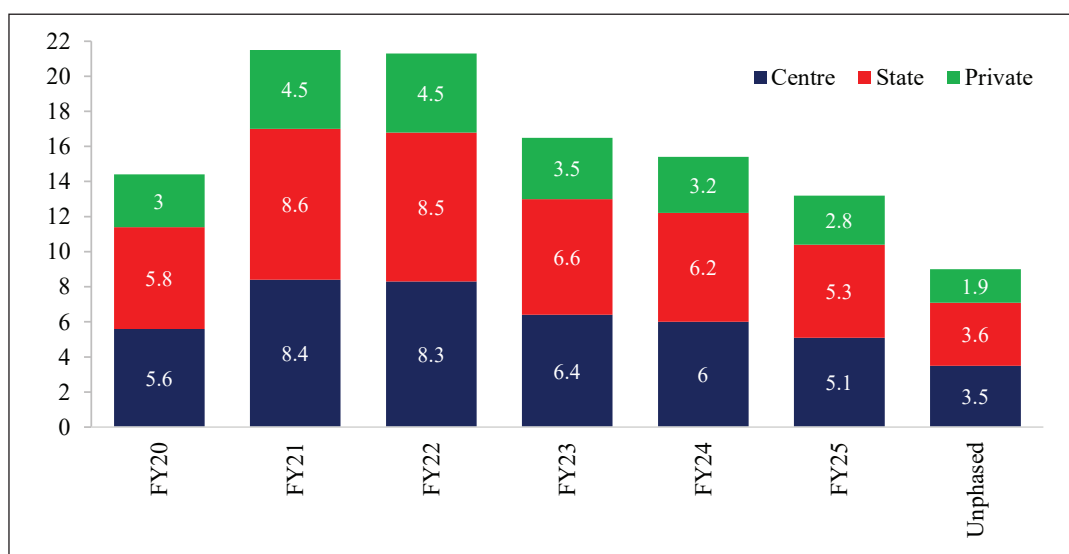
## INFRASTRUCTURE

8.34 Basic infrastructure facilities in the country provide the foundation of growth. In the absence of adequate infrastructure, the economy operates at a suboptimal level and remains

distant from its potential and frontier growth trajectory. The strong backward-forward linkages of the infrastructure sector are well established. Therefore, investment in infrastructure is quintessential for more rapid and inclusive economic growth.

8.35 GoI launched the National Infrastructure Pipeline (NIP) for the FY 2020-2025 to facilitated world class infrastructure projects to be implemented. This first of its kind initiative will boost the economy, generate better employment opportunities, and drive the competitiveness of the Indian economy. It is jointly funded by the Central Government, State Government, and the private sector (Figure 22 and 24). The NIP was launched with the projected infrastructure investment of ₹ 111 lakh crore (\$1.5 trillion) during the period 2020-2025 (Figure 22). The sectors like energy, roads, urban infrastructure, railways have a major share in the NIP (Figure 23).

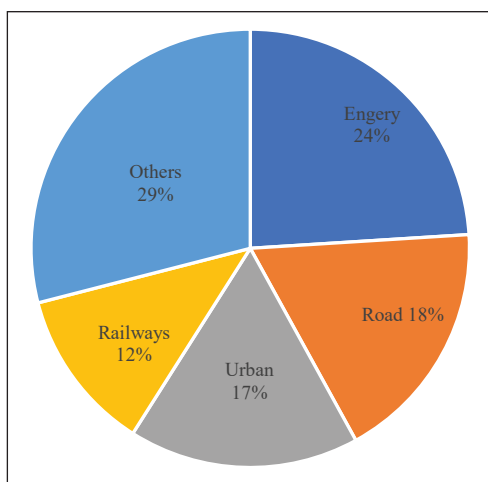
**Figure 22: Annual investments and share of funding (In lakh crores)**



\*Unphased: This means its spilling over beyond 2025. Since NIP is up to 2025, this part has been clubbed together and is not projected year wise.

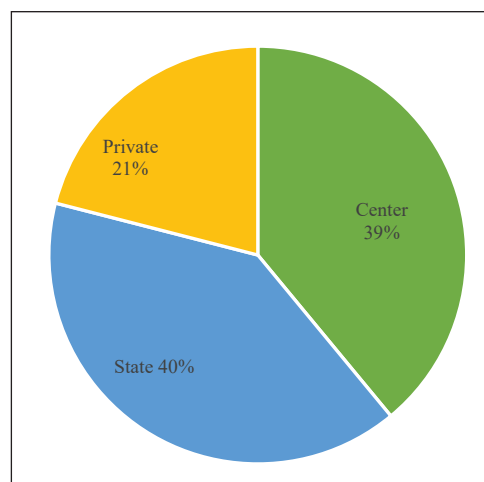
Source: Survey calculations based on NIP data.

**Figure 23: NIP project by sectors**



Source: Survey calculations based on NIP data.

**Figure 24: Funding under NIP**



Source: Survey calculations based on NIP data.

8.36 In India, private investment in infrastructure has come mainly in the form of Public-Private Partnerships (PPPs). PPPs help in addressing the infrastructure gap as well as improve efficiency in infrastructure service delivery.

8.37 The GoI set up the Public Private Partnership Appraisal Committee (PPPAC) responsible for the appraisal of PPP projects in the Central sector. During FY20, PPPAC recommended 5 projects with total project cost of ₹ 4,321 crore. Out of these 5 projects, 4 are railway sector projects (passenger train projects) and 1 is port sector project. In FY21, PPPAC recommended 7 projects with total project cost of ₹ 66,600.59 crore. Out of these 7 projects, 1 is a telecom sector project, 3 are railway sector projects (2 station redevelopment projects & 1 passenger train project), 2 are MHA sector projects (Eco-tourism projects) and 1 is port sector project.

8.38 In FY21, the GoI approved the continuation of the revamped Infrastructure Viability Gap Funding (VGF) scheme till 2024-25. Revamping of the proposed VGF scheme will attract more PPP projects and facilitate the private investment in the social sectors (Health, Education, Waste Water, Solid Waste Management, Water Supply etc.). The revamped Scheme is mainly related to introduction of the two sub-schemes for mainstreaming private participation in social infrastructure (Box 7).

#### Box 7: Scheme in Viability Gap Funding (VGF)

**Sub scheme -1** to cater to social sectors such as Waste Water Treatment, Water Supply, Solid Waste Management, Health & Education sectors etc. The projects eligible under this category should have at least 100 per cent operational cost recovery. The Central Government will provide maximum of 30 per cent of total project cost (TPC) of the project as VGF and State Government/Sponsoring Central Ministry/Statutory Entity may provide additional support up to 30 per cent of TPC.

**Sub scheme -2** to support demonstration/pilot social sectors projects. The projects may be from health & education sectors where there is at least 50 per cent operational cost recovery. In such projects, the Central Government and State Governments together will provide up to 80 per cent of capital expenditure and upto 50 per cent of operation & maintenance costs for the first five years. The Central Government will provide a maximum of 40 per cent of the TPC of the project. In addition, it may provide a maximum of 25 per cent of operational costs of the project in first five years of commercial operations.

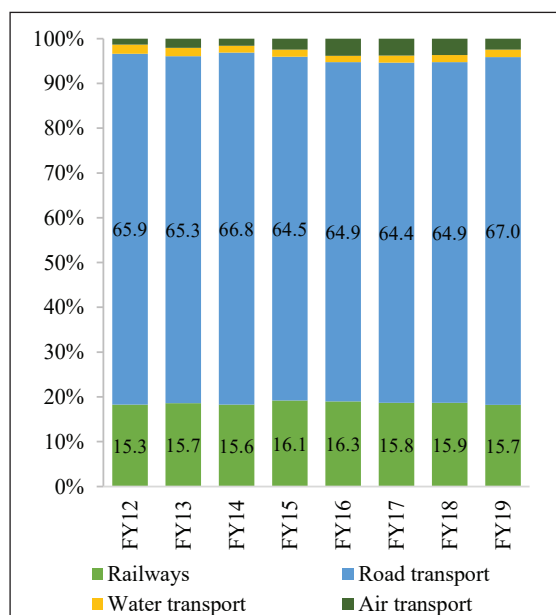
### Road Sector

8.39 India runs on the road, be it the passenger or goods movement, road transport is the dominant mode of transportation in the country. The share of the transport sector in the GVA for FY19 was about 4.6 per cent of which the share of road transport contributed roughly 67 per cent (Figure 25).

8.40 The road network is the backbone of the transport system in India and it is very well integrated with the multi-modal system of transportation, which provides crucial links with airports, railway stations, ports, and other logistical hubs. With 63.86 lakh kms of rural-urban roads and national-state highways, India is next only to the United States of America that has a road network of 66.45 lakh km. With the proactive policy initiatives in the sector, the road network has continuously been expanding in the country (Figure 26 and Figure 27).

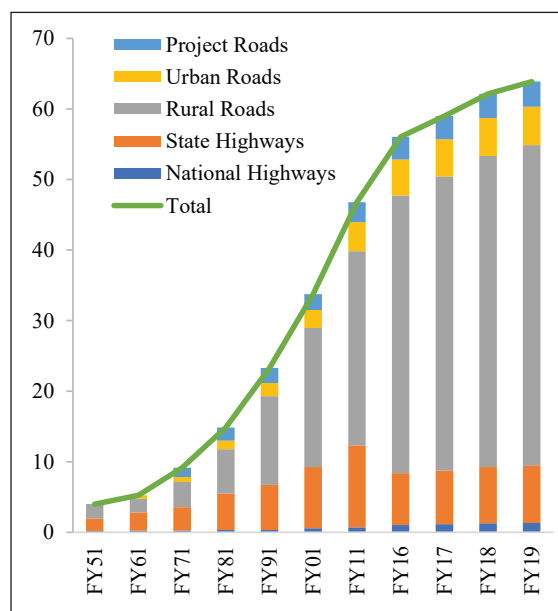
8.41 During the decade ending in FY19, the national highways recorded a CAGR of 7.25 per cent followed by rural roads (6.25 per cent) and urban roads (4.27 per cent). The pace at which roads have been constructed has grown significantly from 12 kms per day in 2014-15 to 30 kms per day in FY19 before it moderated in FY20. The decline in the construction of road per day in FY21 is mostly on account of the COVID-19 shock (Figure 28). With the unlocking of the economy, construction of roads is expected to return back to the high pace attained before COVID-19.

**Figure 25: Share of Road Transport in total Transport GVA**



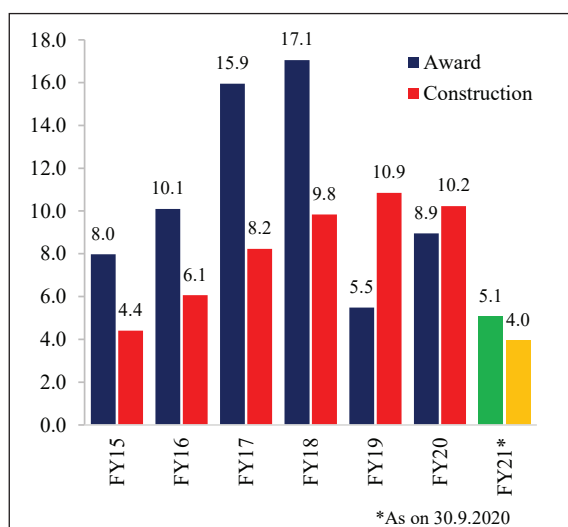
Source: Survey calculations based on MoRTH data.

**Figure 26: Road Network in India (Lakh Km)**



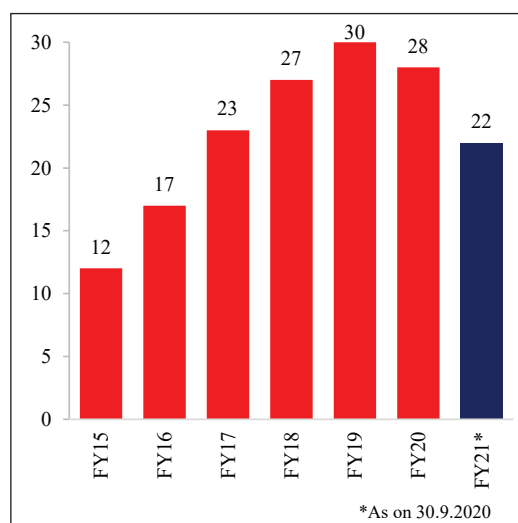
Source: Survey calculations based on MoRTH data.

**Figure 27: Award and Construction of NHs/ Road projects ('000 km)**



Source: Survey calculations based on MoRTH data.

**Figure 28: Road Construction Per Day in km**



Source: Survey calculations based on MoRTH data.

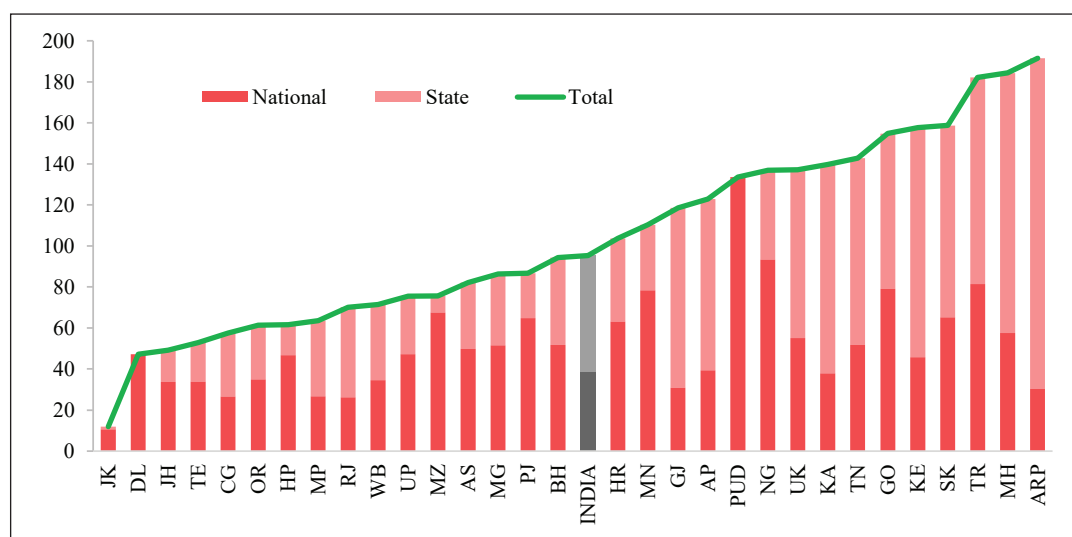
8.42 Total investment in the Roads and Highway sector has gone up more than three times in the six years period from FY15 to FY20 (Table 10), which also led to increased road density across the states (Figure 29).

**Table 10: Details of total investment on road construction in India (₹ crores)**

Heads	FY15	FY16	FY17	FY18	FY19	FY20	FY21*
Total Budgetary Support	29359	45949	49172	59636	76137	75853	45508
IEBR	3343	23281	33118	50533	61217	74988	17128
Private Sector investment	19232	29770	16029	16501	21605	21926	6029
Total Investment	51935	99000	98319	126670	158959	172767	68665

\* Upto September 2020.  
Source: MoRTH.

**Figure 29: Road Density per thousand square kilometre by States (as on March-2018)**



Source: Survey calculations based on MoRTH data.

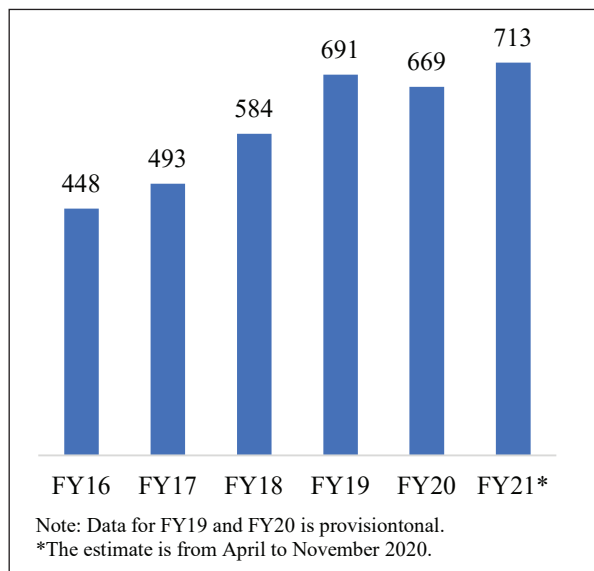
## Civil Aviation

8.43 The aviation market of India is one of the fastest growing in the world. India's domestic traffic has more than doubled from around 61 million in FY14 to around 137 million in FY20, a growth of over 14 per cent per annum. From the third largest domestic aviation market, it is expected to become the third largest overall (including domestic and international traffic) by the year FY25. The performance indicators of civil aviation sector is presented in Figure 30A to 30D.

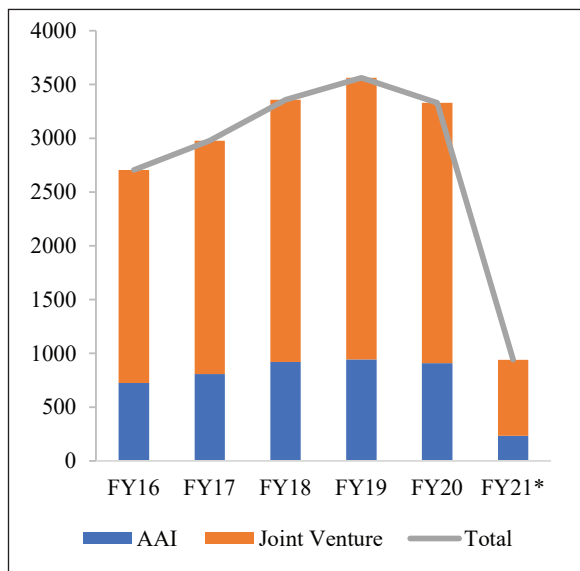
8.44 Despite the severe challenges posed by Covid-19, the Indian aviation industry has persevered through the crisis and demonstrated long-term resilience and full commitment to serve. The Vande Bharat Mission was launched on 7<sup>th</sup> May 2020 to evacuate stranded Indians across the world. It has thus reported over 30 lakhs passenger arrivals by 13 December 2020, with over 27 lakhs facilitated through chartered flights and Air India Group, making it the largest evacuation mission in human history (Figure 31a). The air cargos took the lead in transporting

life-critical supplies to the remotest corners of India under the Lifeline Udan initiative and also in seamlessly handling the imports of essential medical supplies. Figure 31b indicates that the air cargo started recovering and tending towards normal levels as the economic activities picked up.

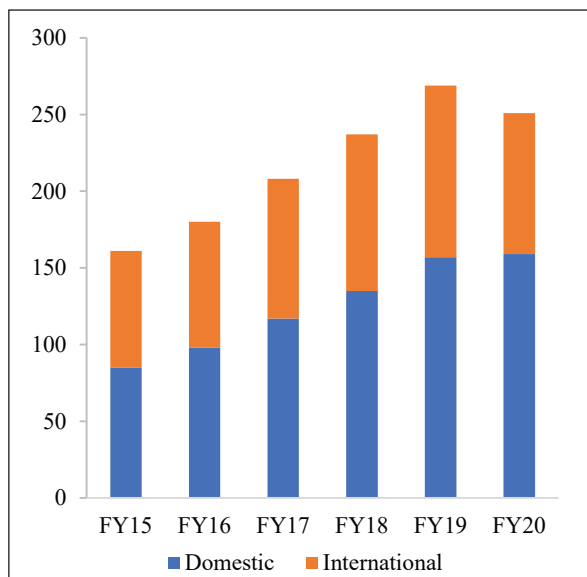
**Figure 30A: India's total fleet strength (in numbers)**



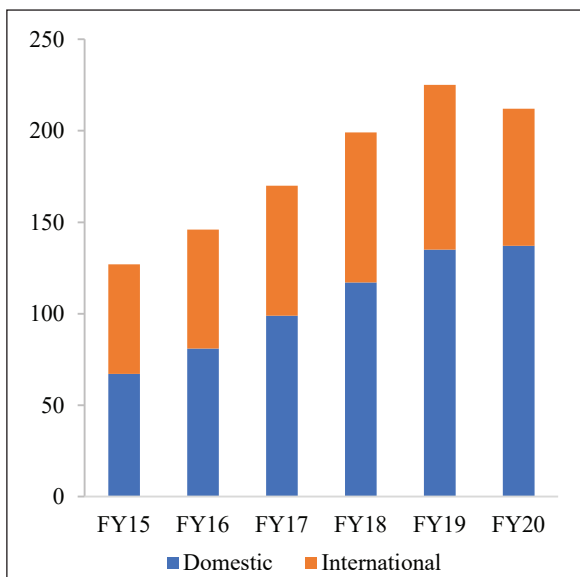
**Figure 30B: Cargo handled by Indian Airports (in thousand tonnes)**



**Figure 30C: ASK of scheduled services (in billion)**



**Figure 30D: Passenger kms performed by scheduled services (in billion)**

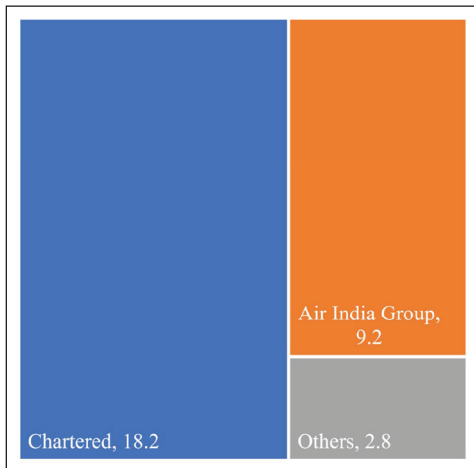


\*ASK: Available seat kilometres.

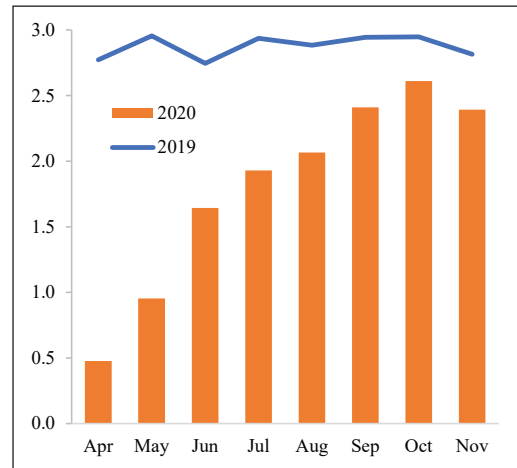
Source: Survey calculations based on DCCA data.



**Figure 31a: Vande Bharat Mission- Arrivals in lakhs (As on December 13, 2020)**



**Figure 31b: All-India Air Cargo (lakh tonnages)**



Source: Survey calculations based on DCCA data.

8.45 Air passenger travel and aircraft movements are predicted to reach pre-COVID level in early 2021 as a result of swift and decisive interventions and effective measures put in place by the Government (Box 8). Government has also entered into air-links or air transport bubble arrangements with 23 countries to facilitate the movement of passengers between the respective countries and India.

**Box 8: Initiatives to ensure smooth and efficient handling of Cargo during Lockdown COVID**

- Ensured 24 x 7 operations of the cargo terminal facilities, with suitable health safety measures.
- Incentivised early clearance of air cargo warehouses at airports to leave clear passage for essential shipments.
- Large increase in freighters aircraft from 6 to 20 dedicated air freighters
- Air freight capacity added with over 150 passenger aircraft deployed as cargo-on-seat flights
- Created dedicated facilities of 3,800 sqm in record 6 days for storage and distribution of import cargo medical supplies at Delhi airport.
- Created temporary warehousing facility at other airports
- Project Reach – a dedicated team to reach out to customers on a continuous basis for deliveries and to support them to clear their cargo
- E-Delivery Order and E-Gate Pass introduced at airports in July 2020 for electronic submission of documents.
- Real-time solutions of varied nature (customs, regulatory, and logistics) provided to remove impediments faced by Indian medical and health services (hospitals, laboratories, NGOs carrying out relief operations) and the manufacturing sector due to disruption of global and domestic supply chains and production lines.
- International Medical and PPE essentials were made available: 121 freighters-cum-P2C moved 158,000 packages with 2,817 MT from Singapore/China to India.

- Innovative use of Elevating Transfer Vehicles (ETV) for imports cargo storage at cargo terminals, tie-ups with Customs and CISF to hold import cargo on selected locations.
- Facilitated growing demand of air freighter operations to compensate shrinkage in belly-hold cargo capacity
- Dedicated team to ensure fast-connect for all temperature-controlled cargo.

## Port and Shipping

8.46 The ports and shipping sector is the backbone of international shipment of goods and services. It not only facilitates international trade but also reduces the cost of international shipping and waiting period at the ports. In India, around 95 per cent (68 per cent) of total volume (value) of international trade is transported by sea.

8.47 India is endowed with a rich coastline of ~7500 km and has a strategic location on key international maritime trade routes. To harness and unleash the potential benefit of navigable waterways, the GoI has embarked on the ambitious Sagarmala Programme to promote port-led development in the country and reduce logistics costs for trade.

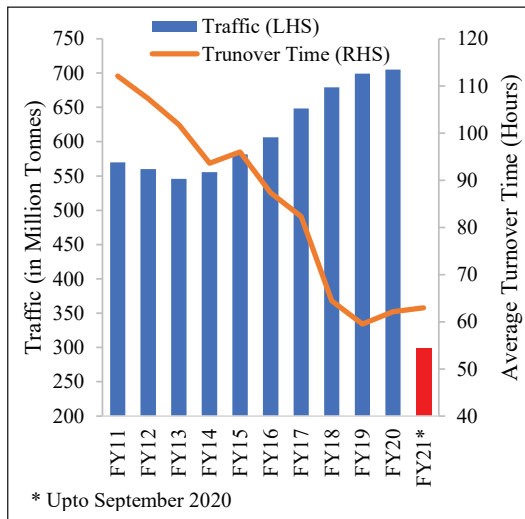
8.48 The Sagarmala program has identified 500+ projects under four pillars— 211 port modernization projects, 200 port connectivity projects, 32 port-led industrialization projects, and 62 coastal community development projects which can unlock the opportunities for port-led development and are expected to mobilize more than ₹ 3.59 lakh crores of infrastructure investment. Between July 2019 to October 2020, 37 Sagarmala projects worth ₹ 8,461 crores have been completed which comprise 17 projects of port modernization worth ₹ 2,721 crores, 14 port connectivity projects worth ₹ 5,372 crores and 6 coastal community development projects worth ₹ 368 crores.

8.49 The installed capacity of major ports in India has increased to 1534.91 MTPA in March-2020 as compared to 871.52 MTPA in March-2014. The major ports handled traffic of 704.82 MT during FY20. GoI has also been striving to improve operational efficiencies of major ports through mechanization, digitization, and process simplification. The average turnaround time in FY20 improved to 61.75 hours as against 126.96 hours in FY11 and 96 hours in FY15 (Figure 32). The average output per ship berth day has increased from 12,458 tonnes in FY15 to 16,433 tonnes in FY20. Unlike the preconceived notion that the port which contributes more in total traffic has a higher turnover time, the evidence suggests that the average turnover time is not significantly associated with the volume of traffic handled by the port (Figure 33). Irrespective of total traffic there are some major ports that are efficient on turnaround time and vice-versa.

## Railways

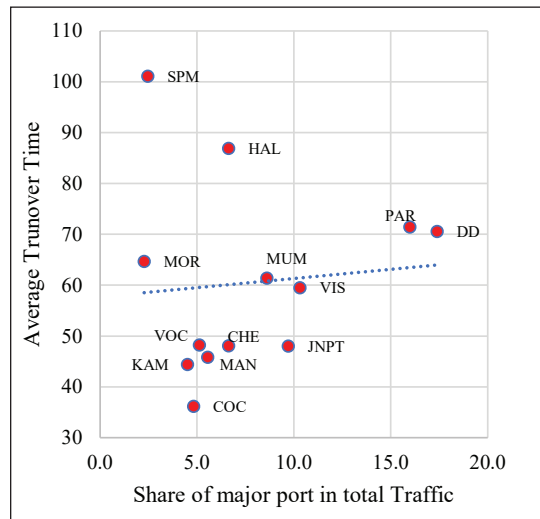
8.50 Indian Railways (IR) with over 67,580 route kms, is the third-largest network in the world under single management. During the FY20, IR carried 1.2 billion tonnes of freight and 8.1 billion passengers – making it the world’s largest passenger carrier and fourth-largest freight carrier. IR endeavours to provide safe, efficient, and competitive means of transport by adopting technological changes including through development of specific indigenous systems in signalling to avert train collision and to enable real time management of trains, in keeping with the Atamnirbhar Bharat Mission and by maintaining cleanliness standards under Swachh Bharat Abhiyan.

**Figure 32: Traffic and Turnover Time of major ports in India**



Source: Survey calculations based on Ministry of Shipping’s data.

**Figure 33: Relationship between the Traffic volume and Turnover Time**

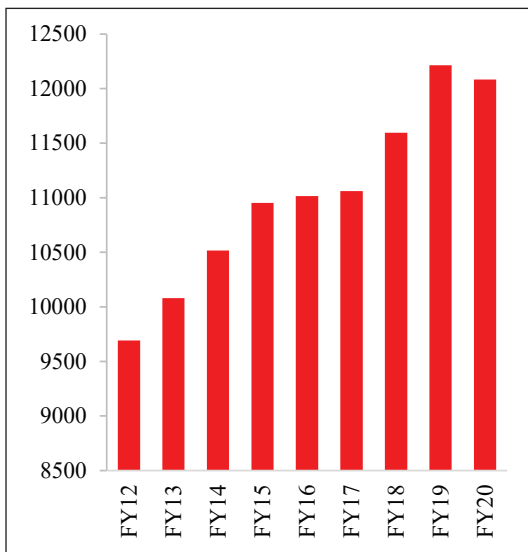


Source: Survey calculations based on Ministry of Shipping’s data.

8.51 Revenue earning freight loading (excluding loading by Konkan Railway) by IR in FY20 was 12,084 lakh tonnes, registering a decrease of 1.1 per cent over FY19. The passenger traffic was 80,857 lakhs in FY20 registering a growth of (-) 4.2 per cent over FY19 (Figure 34 and 35).

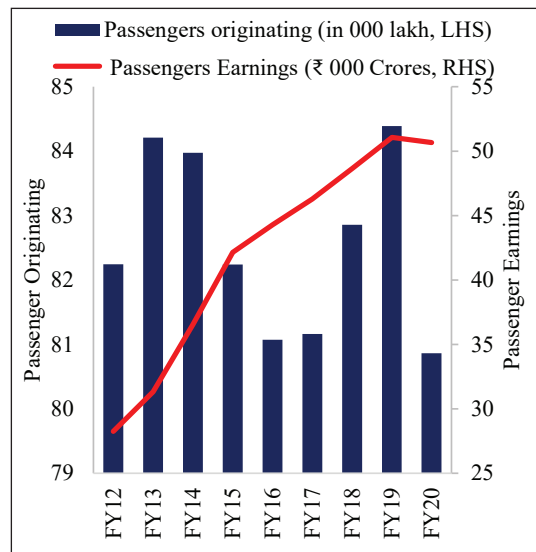
8.52 The IR accorded the highest priority to safety and took various measures on a continuous basis to prevent accidents and to enhance safety. As a result, the number of train accidents has come down from 104 in FY17 to 55 in FY20 despite a substantial increase in the traffic volume carried by the Indian Railways during the same period (Table 11).

**Figure 34: Revenue Earning Freight loading Originating traffic (lakh tonnes) (excluding loading by Konkan Railways)**



Source: Survey calculation based on Ministry of Railways data.

**Figure 35: Passengers originating (in lakhs) and Passengers Earnings (₹ crores) (includes Metro Railway/ Kolkata)**



8.53 The IR launched a special cleanliness campaign under Swachh Bharat Abhiyan on 2nd October 2014. Under the cleanliness campaign, the IR has installed the bio-toilets in all passenger coaches. Progress made under Swachh Rail, Swachh Bharat is presented in Table 12.

**Table 11: Rate of occurrence of rail accidents**

	FY17	FY18	FY19	FY20	FY21*
Collisions	5	3	0	5	1
Derailments	78	54	46	40	7
Manned Level Crossing	0	3	3	1	1
Unmanned Level Crossing	20	10	3	0	0
Fire	1	3	6	8	1
Miscellaneous	0	0	1	1	0
<b>Total</b>	<b>104</b>	<b>73</b>	<b>59</b>	<b>55</b>	<b>10</b>

\* Up to November 24, 2020

Source: Ministry of Railways.

**Table 12: Progress of Swachh Rail, Swachh Bharat**

Activity	Progress As on		
	Mar-15	Mar-20	Oct-20
Bio-toilets in passenger coaches (number)	19746	245400	ALL
Mechanized cleaning contracts (at stations)	584	953	950
Plastic bottle crushing machines (number)	Nil	315	503
Plastic bottle crushing machines (at stations)	Nil	229	370
CCTV monitoring (at stations)	250	585	630
On board housekeeping service (pairs of trains)	525	1060	1100
Environment Management System (ISO: 14001) certification to Railway Stations	Nil	250	590
Funds allocated for station sanitation (₹ crores)	294	778	424

Source: Ministry of Railways.

8.54 The GoI has allowed the private players to operate in the Railways sector through the PPP mode under the "New India New Railway" initiative. The initiative is expected to garner an investment of about ₹ 30,000 crores from the private sector. Ministry of Railways has identified over 150 pairs of train services for the introduction of 151 modern train sets or rakes through private participation. The private entity shall be responsible for financing, procuring, operating, and maintenance of the trains and shall have the freedom to decide on the fare to be charged from its passengers. The private entities that would undertake the project is being selected through a two-stage competitive bidding process. The bidding process is expected to be completed by May 2021 and the private trains are likely to be introduced in 2023-24.

8.55 The Union Budget 2020-21 made an announcement to run the Kisan Rail services to provide better market opportunity by transporting perishables and agri-product, including milk, meat, and fish. Railways had actively pursued with various stakeholders – including the

Ministry of Agriculture, state governments, and local bodies – to rollout the Kisan Rail services. The Railways has so far operated Kisan Rail services on thirteen routes. Till 8<sup>th</sup> January 2021, a total of 120 trips of Kisan Rail have been operated, transporting more than 34,000 tonnes of consignments.

8.56 During the lock-down on account of COVID-19 pandemic, the operations of all passenger-carrying trains was stopped, which shut-down the movement of essential commodities that had been moving by parcel services. To ensure that the supply of essential commodities throughout the country is not disrupted, Indian Railways introduced parcel special train services, including time-tabled parcel special trains. The first time-tabled parcel special train was run by the Indian Railways on 31<sup>st</sup> March 2020.

8.57 These time-tabled parcel special train services were continued even when passenger-carrying train services got restored. Till 25<sup>th</sup> December 2020, the Indian Railways have operated 7,267 parcel special trains, out of which 7,014 had been time-tabled services. Approximately 6.6 lakh tonnes of consignments was transported through these services.

8.58 To develop capacity- both infrastructure and rolling stock- ahead of demand, the Ministry of Railways has developed a National Rail Plan (NRP). It aims at developing adequate rail infrastructure by 2030 to cater to the projected traffic requirements up to 2050. NRP has attempted to map the entire transport infrastructure of the country on a common platform. It has also assessed the existing passenger and freight traffic carried on all modes and forecast the growth for the period 2030 to 2050 and then strategize a significant modal shift to rail. The objective is to increase the modal share of rail in freight from the current level of 27 per cent to 45 per cent. Innovative financing has been devised to fund these priority projects. Indian Railway Finance Corporation (IRFC) is mobilizing resources with sufficient moratorium period and projects are being targeted to be completed well before the expiry of the moratorium period. These priority projects are being planned in such a way that they will provide enough return to service the debt.

## **Telecom Sector**

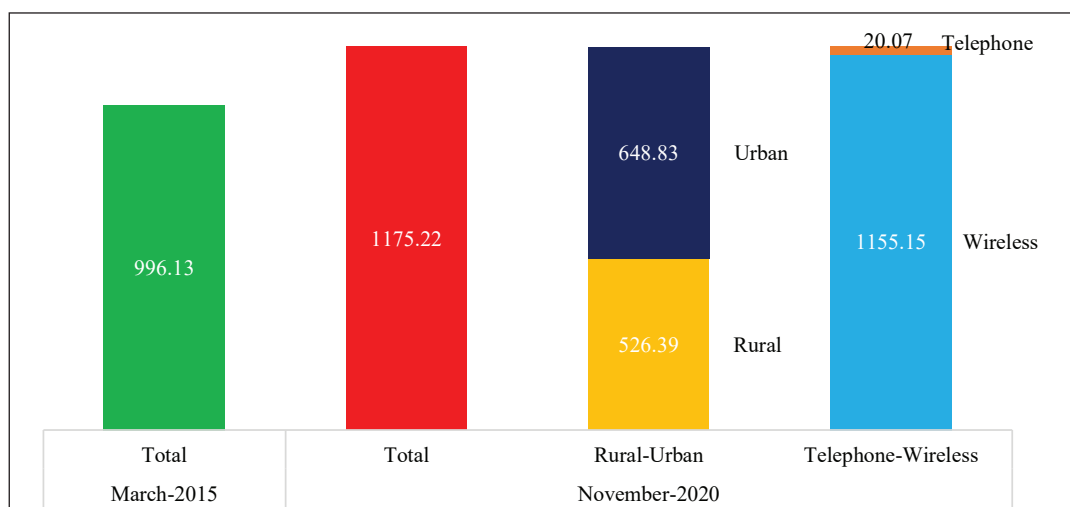
8.59 The telecom sector plays an important role in implementation of JAM-trinity (Jandhan Aadhar Mobile) based social sector schemes and other pro-development initiative of the GoI. The sector has been recognized all over the world as a powerful tool for development and poverty reduction. The GoI has laid considerable emphasis on broadband for all as a part of its Digital India Campaign. Efforts are being made to address the digital divide by extending inclusive internet access to every Indian citizen. The details on users and its break-up are summarised in the Figure 36. The wireless telephony constitutes 98.3 per cent of all subscriptions whereas the share of landline telephones now stands at only 1.7 per cent. The overall teledensity in India stands at 86.6 per cent at the end of November-2020, whereas teledensity in rural and urban areas are 59.1 per cent and 139.0 per cent respectively.

8.60 Internet and broadband penetrated both in urban and rural area at a rapid pace. The number of internet subscribers (both broadband and narrowband put together) stood at 776.45 million at the end of September-2020 as compared to 636.73 million in March-2019. The wireless data usage grew at exponential rate during the calendar year 2019 and was at 76.47 Exa bytes. During

January-September 2020, it had already reached 75.21 Exa bytes (Figure 37). Average wireless data consumption per subscriber per month increased from 9.1 GB in March-2019 to 12.2 GB in June-2020 (Figure 38). The reduced cost of data could enable affordable internet access at a rapid pace. As on June-2020, the cost of wireless data stood at ₹10.55 per GB.

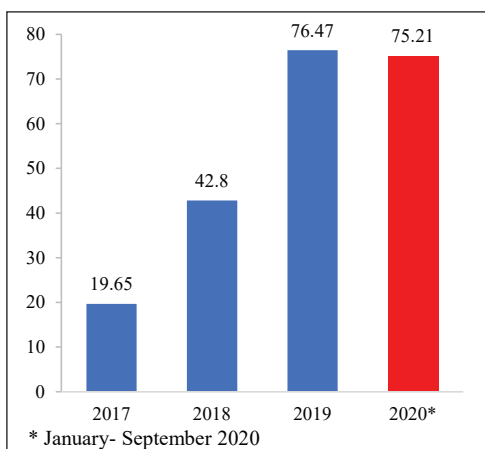
8.61 The GoI has taken various initiatives including BharatNet for achieving the goal of Digital India programme. Under the project, network infrastructure is being established for Broadband Highways, accessible on a non-discriminatory basis to provide affordable broadband services to citizens and institutions in rural areas, in partnership with States and the private sector. As on 15.01.2021 about 4.87 lakh kms of optical fiber cable has been laid to cover 1.63 lakh Gram Panchayats (GPs) and nearly 1.51 lakh GPs have become service ready.

**Figure 36: Number of Telephone (Wireline + Wireless) subscriptions and its Break-up (in Million)**



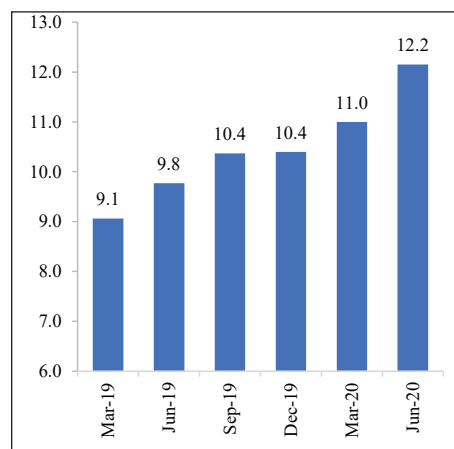
Source: Survey calculations based on DoT data.

**Figure 37: Wireless Data Usage (In Exa Byte)**



Source: Survey calculations based on TRAI data.

**Figure 38: Average Wireless Data usage Per Subscriber per Month (in GBs)**



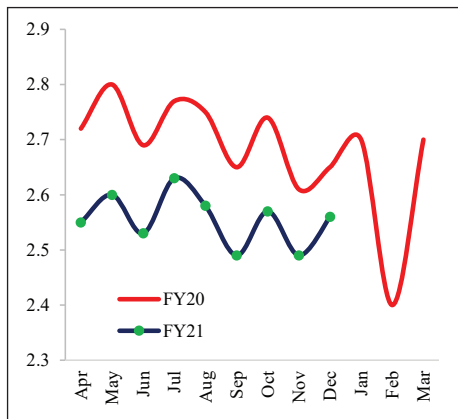
Source: Survey calculations based on TRAI data.

### Petroleum and Natural Gas

8.62 India is the third-largest energy consumer in the world after USA and China. With a share of 5.8 per cent of the world’s primary energy consumption, the Indian energy consumption basket is primarily dominated by Coal and Crude Oil. India’s indigenous crude oil production declined to 32.17 Million Metric Tonnes (MMT) in FY20 as against 34.20 MMT in FY19. Of the total crude oil & condensate production, 64.1 per cent was from ONGC, 9.7 per cent from OIL, and 26.2 per cent from the Production Share Contract (PSC) regime. During FY21 (Apr-Dec), oil production registered a decline of 5.7 per cent as compared to the corresponding period in FY20 (Figure 39). The decline in production is mainly on account of the spread of COVID-19. Therefore, production is expected to return to normalcy given the economic recovery.

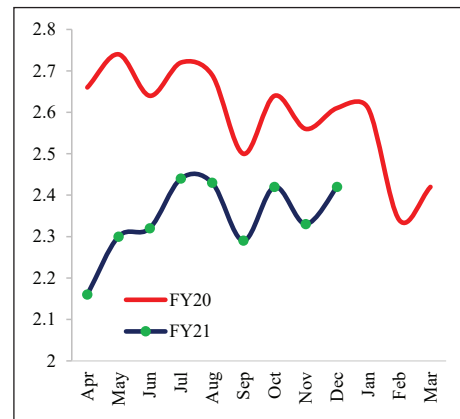
8.63 Natural Gas production during FY20 was 31.18 Billion Cubic Meters (BCM) as against 32.87 BCM in FY19 (Figure 40). Of the total production of natural gas, 76.1 per cent was from ONGC, 8.6 per cent from OIL, and 15.3 per cent from the PSC regime. During April-December 2020, gas production was 21.13 BCM which was 11.3 per cent lower than the production during the same period in FY20.

**Figure 39: Monthly Production of Crude Oil (MMT)**



Source: Survey calculations based on MoPNG data.

**Figure 40: Monthly Production of Natural Gas (BCM)**



Source: Survey calculations based on MoPNG data.

8.64 Processed Crude Oil for the year FY20 was 254.39 MMT as against 257.20 MMT in FY19, showing a decrease of about 1.1 per cent. During FY20, most refineries had planned shutdowns for the implementation of quality upgradation projects. Crude processed during April-December 2020 was 160.36 MMT which is 15.8 per cent lower than crude processed during April-December 2019. Despite this, the Government provided much needed support to poor households by distributing over 14 crore free LPG cylinders, and continued uninterrupted fuel supplies across the country throughout COVID-19 lockdown.

### Power

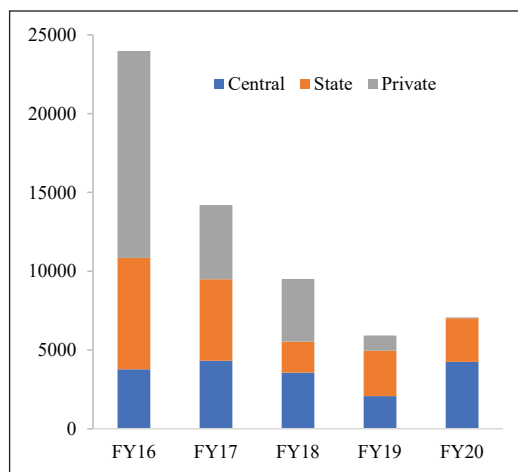
8.65 Electricity is essential for powering economic activity and is also required in leisure time. The power sector has witnessed substantial transformation from both the demand (universal electrification) and supply-side (the advent of green energy). Commendable progress has been made in the generation and transmission of electricity in India. The total installed capacity has increased from 3,56,100 MW in March-2019 to 3,70,106 MW in March 2020. Further, the generation capacity increased to 3,73,436 MW in October-2020 and comprised of 2,31,321 MW

of thermal, 45,699 MW of hydro, 6,780 MW of nuclear, and 89,636 MW of renewables and others. The capacity addition in the power sector was mainly driven by the Government in the year FY20 (Figure 41).

8.66 The decline in energy deficit may be partially attributed to enhanced energy efficiency and improved energy intensity in India. Energy intensity is defined as the quantity of energy required to produce a unit of output. Therefore, lower the energy intensity better it is. The energy intensity of India (at 2011-12 prices) decreased from 65.6 toes per crore rupees in FY12 to 55.43 toe per crore rupees in FY19 (Figure 42). At the same time, the per capita consumption increased from 0.47 toe in FY12 to 0.58 toe in FY19.

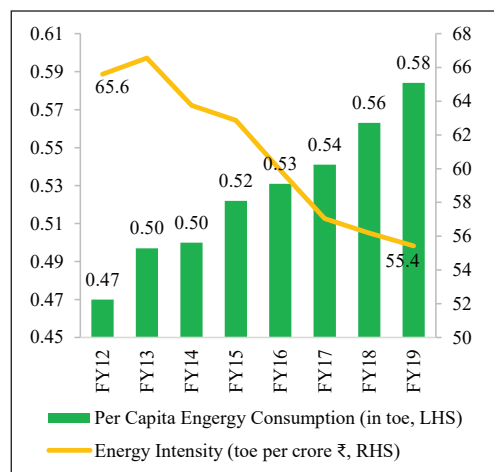
8.67 In 2014, GoI approved the Integrated Power Development Scheme (IPDS) to facilitate state utilities to ensure quality and reliable 24x7 power supply in the urban areas with a total outlay of ₹ 32,612 crores. So far, projects worth ₹ 30,991 crores have been sanctioned to the States and the distribution strengthening has been completed in 442 of the 546 circles till the end of September-2020. Further, the country has already accomplished two major landmarks in rural electrification arena: (i) 100 per cent village electrification under Deen Dayal Upadhyaya Gram Jyoti Yojana, and (ii) universal household electrification under ‘Pradhan Mantri Sahaj Bijli Har Ghar Yojana’ (Saubhaagya).

**Figure 41: Capacity Addition in Power (in MW)**



Source: Survey calculations based on Ministry of Power data.

**Figure 42: Energy intensity and Per capita Consumption trend (2011-2019)**



Source: Survey calculations based on Ministry of Power data.

8.68 T&D losses have been declining since 2001-02 but are still substantial (Figure 44). As compared to the T&D losses of the peer countries, India's T&D are very high (Figure 43).

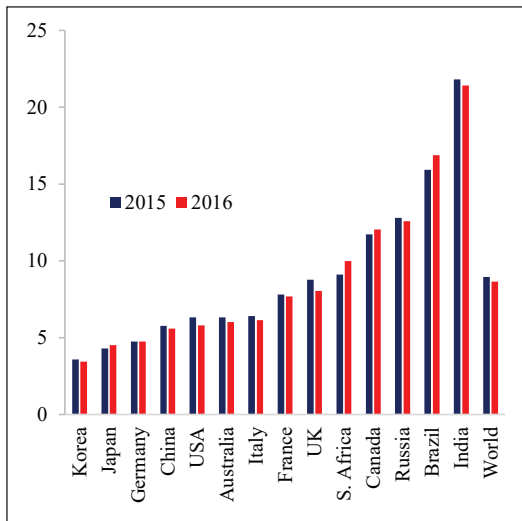
## Mining Sector

8.69 Minerals are valuable natural resources that are finite and play a key role in the overall economic development. The mining sector is one of the core sectors of the economy. India produces as many as 95 minerals which include 4 hydrocarbon energy minerals (coal, lignite, petroleum & natural gas), 5 atomic minerals (ilmenite, rutile, zircon, uranium, and monazite), 10 metallic, 21 non-metallic, and 55 minor minerals. The Gross Value Added (GVA) of the



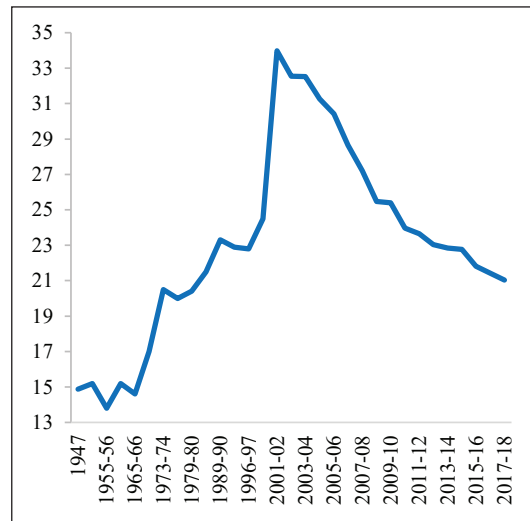
mining and quarrying sector in FY20 was ₹ 3,93,102 crores (at current price), accounting for about 2.1 per cent of the overall GVA during FY20. The production value of the major minerals increased by 2.3 per cent in FY20 as compared to 22.4 per cent growth in FY19. The mining sector has undergone significant reforms in recent years, that has resulted in better exploration and utilization of natural resources (Box 9).

**Figure 43: T&D Loss of India vis-à-vis other countries**



Source: Survey calculations based on CEA report.

**Figure 44: T&D Loss of India Since Independence**



Source: Survey calculations based on CEA report.

### Box 9: Policy Initiatives in Mineral Sector

Amendments in the Mines and Mineral (Development and Regulation) Act, 1957 (MMDR Act) in 2015 heralded major reforms in this sector. The move towards grant of mineral concessions through auction as against the earlier method of ‘first-come-first-served’ brought in transparency and removed discretion in the grant of mineral concessions. Establishment of the National Mineral Exploration Trust (NMET) for providing impetus to exploration; uniform lease period of 50 years; dispensing of the requirement of previous approval of the Central Government for grant of mineral concession other than for atomic minerals, coal and lignite; establishing district mineral foundation for benefit of people and areas affected by mining.

Recently, the GoI has taken following legislative and policy reform measures:

- The MMDR Act was amended in January-2020 to provide for, *inter-alia*, transfer of all valid statutory clearances vested with the old lessee to the new successful bidder up to a period of two years for all brownfield mines, so that there is no disruption in production and supply of raw material in the industry.
- At present after auction of mines, the successful bidder applies for clearances and after obtaining clearances production starts. Generally, getting clearances takes longer times, anywhere around 3 to 4 years and consequently production is delayed. For immediate start of production after auction, approach adopted in the amended Act is that States need to obtain the clearances before auction. As a result, production will start without any delay because clearances are already available. To implement this concept, Ministry of Mines has issued guidelines for pre-embedded

statutory clearances on 03.06.2020 in consultations with MoEFCC and the States. As per guidelines, the States will setup Project Monitoring Units (PMUs), which will in turn obtain clearances before auction of mines and these clearances then will be transferred to successful bidders after auction.

- Under Atmanirbhar Bharat Abhiyan, the GoI announced major initiative on 16.05.2020, which inter alia include: (1) introduction of a seamless composite exploration-cum-mining-cum-production regime; (2) 500 mining blocks to be offered through an open and transparent auction process; (3) joint auction of bauxite and coal mineral blocks; (4) removal of distinction between captive and non-captive mines; (5) Mineral index for different mineral; and (6) rationalization of stamp duty. These structural reforms are aimed to boost growth, employment and to bring state of art technology in the mining sector in general and in exploration in particular.
- The GoI is in the process of setting up “Aluminium Import Monitoring System” (AIMS) & Copper Import Monitoring System (CIMS) to monitor the import of aluminium & copper in the country. The purpose of AIMS & CIMS is to have adequate information about import of aluminium and copper so that an appropriate policy intervention could be devised well in time for creation of capacities within the country under Atmanirbhar Bharat Abhiyan.
- For the first time, the GoI has approved Schedule of Charges (SoC) applicable for exploration projects funded from NMET which is effective from 01.04.2020.

## Housing and Urban Infrastructure

8.70 India is witnessing rapid urbanisation. According to Census 2011, India’s urban population was 37.7 crores, which is projected to grow to about 60 crores by 2030. Urbanization in India has become an important and irreversible process, and it is an important determinant of national economic growth and poverty reduction. Though the cities are engines of growth, a rapid pace of urbanization poses significant challenges to basic infrastructure services such as water supply, sanitation, solid waste and wastewater management.

8.71 The GoI has been implementing the Deendayal Antyodaya Yojana - National Urban Livelihoods Mission in all the statutory towns to address the social & occupational vulnerabilities of the urban poor. Under the mission, urban poor are imparted skill training for self and wage employment and assisted in setting up self-employment ventures by providing credit at subsidized rates of interest. The Mission also provides for shelters for urban homeless and infrastructure for street vendors. As on 31<sup>st</sup> October 2020, ₹ 3,378 crores have been released to States/UTs and 9.9 lakh beneficiaries have been skill-trained and certified to enhance their employability. Of this, 5.3 lakh skill-trained have been given self and wage-based employment.

8.72 PM Street Vendor’s Atmanirbhar Nidhi (PM SVANidhi) was launched as part of the Atmanirbhar Bharat Abhiyan for providing micro-credit facility to the street vendors to restart their businesses post COVID-19 lockdowns. This scheme targets to benefit over 50 lakhs street vendors who had been vending on or before March 24, 2020, in urban areas including those from surrounding peri-urban/ rural areas. Under the Scheme, the vendors can avail a working capital loan of up to ₹ 10,000, which is repayable in monthly instalments in the tenure of one year. On timely/ early repayment of the loan, an interest subsidy @ 7 per cent per annum will

be credited to the bank accounts of beneficiaries through Direct Benefit Transfer on quarterly basis. The Scheme was launched on June 01, 2020 and started its operations from July 2, 2020. As on November 9, 2020, of the 26.48 lakh loan applications received, over 13.70 lakh were sanctioned and over 6.70 lakh were disbursed. Work is on to prepare a socio-economic profile of the street vendors and their families and assess their potential eligibility for various central welfare schemes, to further facilitate the linkages to these schemes.

8.73 Pradhan Mantri Awas Yojan-Urban (PMAY-U) has been rapidly moving towards achieving the vision for providing a pucca house to every household by 2022. It has so far approved more than 109 lakh houses of which over 70 lakh houses have been grounded for construction. More than 41 lakh houses have been completed and delivered. The GoI has made additional outlay of ₹ 18,000 crore for the year FY21 through budgetary allocation and extra budgetary resources for the scheme under Atmanirbhar Bharat 3.0. Further, a sub scheme Affordable Rental Housing Complexes (ARHCs) under PMAY-U has been initiated to address the needs of the migrant workers for decent rental housing at affordable rate near their work places.

8.74 To provide impetus to innovative technology for housing construction, the Hon'ble Prime Minister laid foundation stones of Light House Projects (LHPs) on 1st January, 2021. The six LHPs for construction of 6,368 houses involving project cost of ₹ 790.57 crores are being implemented at six places – Lucknow, Indore, Rajkot, Chennai, Ranchi and Agartala using innovative technologies identified through Global Housing Technology Challenge– India. These LHPs will act as live laboratories for all stakeholders leading to mainstreaming of these global technologies in Indian context.

## WAY FORWARD

8.75 The COVID-19 led economic crisis adversely affected the global and domestic economy. The economic activities across the sectors were suddenly suspended that forced billions of people to restrict their movement. The crisis management strategy had to encompass all the stakeholders, especially the weaker and the vulnerable sections. The nature and scale of the unprecedented shock triggered several interventions from the Government –short term as well as those aimed at ushering in structural reforms through the Atmanirbhar Bharat package. A rapid recovery of the industrial sector following a sudden fall in the high frequency growth indicators could only be witnessed because of timely, meaningful, and appropriate policy measures.

8.76 The year after the crisis (FY22) will require sustained and calibrated measures to facilitate the process of economic recovery and to enable the economy to get back to its long-term growth trajectory. The revival of the industrial and infrastructure sector will be key to overall economic growth and macroeconomic stability.

8.77 The FY21 can be summarized in the lines of Saint Francis of Assisi “*Start by doing what's necessary, then do what's possible, and suddenly you are doing the impossible*” because as Albert Einstein said, “*In the midst of every crisis, lies great opportunity.*”

## CHAPTER AT GLANCE

- A strong V-shaped recovery of economic activity further confirmed in the IIP data. The IIP & eight-core index further inched up to pre-COVID levels.
- The broad-based recovery in the IIP resulted in a growth of (-) 1.9 per cent in Nov-20 as compared to a growth of 2.1 per cent in Nov-19 and nadir of (-) 57.3 per cent in Apr-20.
- Further improvement and firming up in industrial activities are foreseen with the Government enhancing capital expenditure as highlighted in the fiscal policy chapter, the vaccination drive and the resolute push forward on long pending reform measures. It is pertinent to point out that the reforms undertaken in the country are probably one of the most comprehensive among the major economies of the world.
- The GoI announced a remedial and reform package (Atmanirbhar Bharat Abhiyan) comprising of stimulus of package amounting to 15 per cent of India's GDP
- As per the Doing Business Report (DBR), 2020, the rank of India in the Ease of Doing Business (EoDB) Index for 2019 has moved upwards to the 63<sup>rd</sup> position amongst 190 countries from a rank of 77<sup>th</sup> in 2018. India has improved its position in 7 out of 10 indicators, inching up to the international best practices. The DBR, 2020 acknowledges India as one of the top 10 improvers, the third time in a row, with an improvement of 67 ranks in three years. It is also the highest jump by any large country since 2011.
- During FY20, total FDI equity inflows were US\$49.98 billion as compared to US\$44.37 billion during FY19. The similar number for FY21 (up to September-2020) was US\$30.0 billion. The bulk of FDI equity flow is in the non-manufacturing sector leading to a reduction in the share of manufacturing in the FDI flows. Within the manufacturing sector, industries like automobile, telecommunication, metallurgical, non-conventional energy, chemical (other than fertilizers), food processing, and petroleum & natural gas get the bulk of FDI equity flows.
- With the objective of enhancing India's manufacturing capabilities and exports, the GoI has introduced the Production-Linked Incentive (PLI) Scheme in the 10 key sectors under the aegis of Atmanirbhar Bharat. The scheme will be implemented by the concerned ministries with an overall expenditure estimated at Rs.1.46 lakh crores and with sector specific financial limits.