

## Capital goods sector

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### Overview

Capital Goods industry is often called the ‘mother of all manufacturing industry’. By definition, any good (plant, machinery, equipment) that is used to manufacture other products (either directly or indirectly) is called a Capital Good. Therefore the performance of capital goods sector is inextricably linked to the overall manufacturing sector.

Manufacturing is a key contributor to the economic development of any nation. The Capital Goods sector is critical to the manufacturing sector as it provides the much needed machinery and equipment to various manufacturing sectors such as Engineering, Construction, Infrastructure, Consumer goods, amongst others.

The Capital Goods industry contributes about 12% to the total manufacturing activity in India which translates to about 2% of GDP. However, this is far lower compared with other countries such as China where the sector contributes 4.1% to its overall economy, 3.4% in Germany, and 2.8% in South Korea. Quite clearly India is less capital intensive than these nations and as the proportion increases will lead to exponential growth with improved Incremental Capital-Output Ratio (ICOR).

The capital goods market In India is fragmented with majority of operational units in the Small and Medium Enterprise (SME) sector, beyond few large players. These are involved in low-value added fabrication and assembly works and cater to small segments of a sub-sector, often serving domestic demand only. Due to their low scale of operation they are unable to compete effectively with large foreign competitors.

The growth of the Capital Goods sector in India has been led by increasing demand. However, the sector is less self-sufficient and depends upon imports to meet its domestic requirements to a large extent. The country meets almost 40% of its demand through imports.

In order to reduce dependence on imports and boost domestic manufacturing, the Government of India came up with various measures such as National Manufacturing Plan (2012), Make in India (2014) and National Capital Goods Policy (2016). The National Capital Goods Policy (2016) envisages increasing production of

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capital goods from Rs. 230,000 crore in 2014-15 to Rs. 750,000 crore in 2025. It envisages increasing exports from 27% in 2014-15 to 40% in 2025 of production while increasing share of domestic production in India's demand from 60% to 80%, thus making India a net exporter of capital goods.

### Policy environment in respect of capital goods & engineering sector

- No industrial license is required for the sector.
- FDI up to 100% permitted on automatic route (through RBI)
- Quantum of payment for technology transfer, design & drawing, royalty etc. to the foreign collaborator has no limit
- The maximum basic customs duty rate is generally 7.5-10%.
- India has entered many FTAs, in which the duty rates are even lower. Lower duty rates are also available under the Project Imports facility.
- Exports are promoted by allowing duty free imports of raw materials, consumables, components and sub-assemblies through various schemes of DGFT.

### Policies for Electrical Machinery sub-sector

- De-licensing – The Electrical Machinery industry has been de-licensed; 100% FDI is allowed in the sector. This has facilitated the entry of global majors into the electrical machinery industry in India
- Tariffs and customs duties – The Government has removed tariff protection on capital goods. It has also lowered customs duties on a range of equipment's. Relatively lower customs duties; 5.0% for power generation equipment and 7.5% for T&D
- FDI policy – 100% FDI has been allowed under the automatic route in the Electrical Machinery sector. The Total FDI Equity Inflows in the Electrical Equipment sector stood at USD 8.5 billion from April 2000 till December 2019.
- SEZ – The Government has approved 15 SEZs for the engineering sector across the country; electrical machinery is a part of the sector.

The above measures adopted by the government have failed to yield the desired results so far mainly because imports especially from the FTA countries have risen at a faster pace compared to exports. Besides, fragmented and unorganised nature of sector makes it difficult to compete at large scale, lack of technological capabilities as majority of units are in the SME sector, low investment in research and development as compared to other countries etc are some of the others factors that restricts growth of the domestic capital goods industry.

Nevertheless, the Capital Goods industry in India remains relatively underdeveloped, offering significant growth opportunities. The sector provides ~1.4 million direct and ~7 million indirect employment and the development of a strong domestic capital goods industry is crucial for the economic development of India for the following two important reasons:

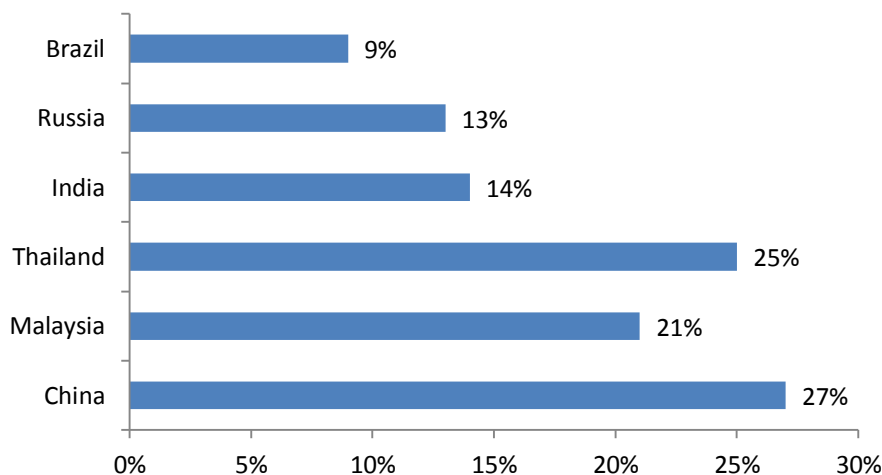
a) Capital Goods are considered as a strategic sector and essential for the development of domestic manufacturing capabilities from a national self-reliance and security perspective.

b) Capital Goods sector through a multiplier effect has a strong bearing on the growth of the user industries as it provides critical inputs, i.e. machinery and equipment for the entire manufacturing sector and other related sectors.

*In this study, we attempt to analyse the capital goods sector by looking at the past trends in detail, study performance of various sub-sectors of capital goods and provide outlook for FY21.*

**Current state of Capital goods sector:**

**Chart 1: Comparison of competing countries (Manufacturing GDP % of total GDP in 2019)**



Source: RBI

India’s GDP contribution of manufacturing is very low compared to other developing countries. This also indicates huge potential that exist for growth of manufacturing sector. Make In India aims to increase contribution of manufacturing to GDP to 25%. An integral part of this story is to make India more capital intensive and deploy more machinery which in turn can produce more goods in all other sectors.

**Table 1: Growth Rate (in % of Index of Industrial production (IIP) with base 2011-12 prices)**

Year	IIP Wt=100	Primary goods Wt=34.1	Capital goods (Wt=8.2)	Intermediate goods (Wt=17.2)	Infrastructure/construction goods (Wt=12.3)	Consumer Durables (Wt=28.2)
FY15	111.0	106.7	95.5	116.6	117	114.7
FY16	114.7	112	98.4	118.4	120.3	118
FY17	120.0	117.5	101.5	122.3	125	124.7
FY18	125.3	121.8	105.6	125.1	132	132.5
FY19	130.1	126.1	108.4	126.2	141.7	138.6
FY20	129.1	127	93.4	137.7	136.5	133.4
<b>CAGR</b>	<b>3.1%</b>	<b>3.5%</b>	<b>-0.4%</b>	<b>3.4%</b>	<b>3.1%</b>	<b>3.1%</b>

Source: RBI

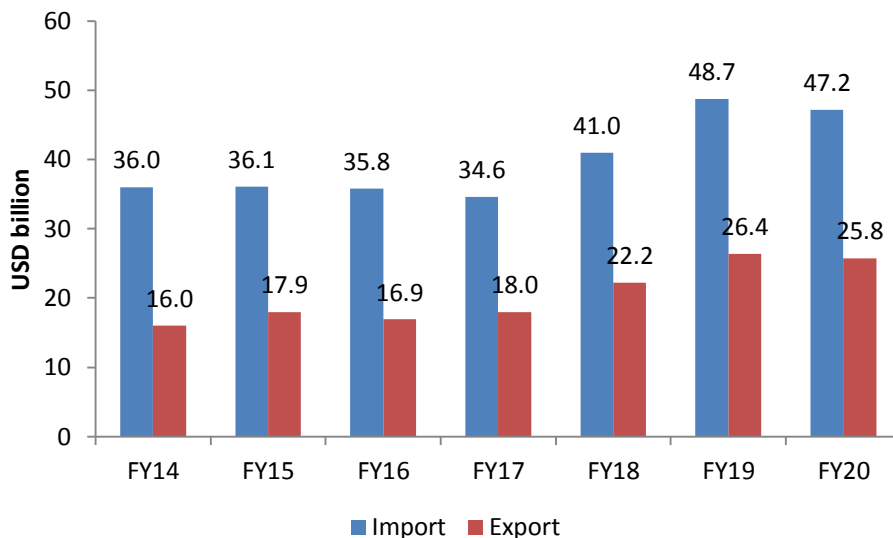
### Production growth lagging:

As per the Index of Industrial production (IIP), India's capital goods sector witnessed continuous growth during the period FY15 to FY19 and thereafter in FY20, the sector recorded sharp contraction of 13.8% over FY19. This was in line with contraction in overall manufacturing activity in the economy. The annual industrial output, IIP contracted by 0.7% in FY20 for the first time since the introduction of series in FY12. The output of manufacturing sector fell by 1.3% in FY20 as against growth of 3.8% in FY19.

Capital goods output has been registering contraction for nearly one and half year, and it reduced drastically by 35.6% in March 2020, the highest contraction seen in the past 8 years. This is mainly due to increase in share of imports. India is a net importer of capital goods.

### Trade balance:

**Chart 2: Trend in Import and Export of Machinery**



Note: Includes machine tools, machinery & instruments and project goods, Source: RBI

India's machinery imports are substantial at USD 47.2 billion in FY20. The share of Capital Goods (machinery, machine tools and project goods) in India's total merchandise imports stood at 10% in FY20, whereas the share of exports stood at 8.2%.

The share of imports in the Indian capital goods market has increased from 34% in FY14 to 40% at present. Imports have grown at a CAGR of 6% during FY14 to FY20. Though export of capital goods has grown at a much faster rate of 8% compared to imports India continues to remain a net importer of capital goods. India is a major importer of capital goods such as heavy electrical equipment, process plant equipment, earthmoving and mining equipment, textile machinery and other capital goods. India mainly imports capital goods from China. India's share in global export of capital goods is a meagre ~0.8% and is the 25th largest exporter.

Table 2: Top trading partners for India's capital goods

## Countries from which India Imports Capital Goods:

Electrical Machinery					
	China	USA	Germany	Singapore	Hong Kong
USD Million	3,445	2,741	1,191	725	717
% share	26.2	20.8	9.1	5.5	5.5
Non-Electrical Machinery					
	China	Germany	Japan	South Korea	USA
USD Million	7,731	2,602	2,076	1,669	1,548
% share	32.7	11.0	8.8	7.1	6.5

## Countries to which India exports Capital Goods:

	USA	Germany	UK	UAE	Bangladesh
FY20	5,172	1,482	1,136	937	901
% share	21.1	6.0	4.6	3.8	3.7

Source: RBI

China accounted for around 14% of India's total imports in FY19 and electrical machinery has been the biggest item imported from China since 2017.

China has been dumping cheap quality products often priced below market rates into India. Amid the border tension with China, Indian government has been taking series of measures to curb import of Chinese investments and products into India. On 23<sup>rd</sup> June, the government amended the General Financial Rules, 2017 to enable imposition of restrictions on public procurement from China and other countries with common border. The new provision will apply to all new tenders.

The consequence of such a move may result in increased cost in the short term as many intermediary goods are imported from China.

**Capital Goods sub-sectors:**

Capital goods can be divided into ten broad sub-sectors as shown in Table 3 below. Heavy electrical equipment is the largest sub-sector followed by process plant equipment and earthmoving and mining machinery. The industry has a market size of USD 43 billion. The market size of each of the sub-sectors is as follows:

**Table 3: Sub-sectors of Capital goods industry and their market size as on FY18 (USD billion)**

Rank	Sub-sector	FY18	% share in total
1	Heavy electrical equipment	24.2	56%
2	Process plant equipment	3.7	9%
3	Earth-moving and mining machinery	3.3	8%
4	Printing machinery	3.0	7%
5	Food processing machinery	2.4	6%
6	Dies, moulds and press tools	2.3	5%
7	Textile machinery	1.8	4%
8	Machine tools	1.4	3%
9	Plastic machinery	0.5	1%
10	Metallurgical machinery	0.4	1%
	<b>Total</b>	<b>43</b>	<b>100%</b>

Source: CII

**Table 4: Trend in production of Capital goods in India (Rs crores)**

Sub sector	FY14	FY15	FY16	FY17	FY18	CAGR
Heavy Electrical Equipment	1,28,823	1,37,198	1,44,861	1,59,221	1,75,000	8.0%
Earthmoving and Mining Machinery	18,099	18,300	19,662	28,207	32,400	15.7%
Dies, Moulds and Press Tools	13,793	14,647	15,000	14,750	16,068	3.8%
Food Processing Machinery	14,703	10,995	13,206	15,246	15,600	1.5%
Printing Machinery	16,069	15,748	16,916	16,424	15,016	-1.7%
Machine Tools	3,481	4,230	4,727	5,803	7,294	20.3%
Textile Machinery	6,775	6,960	6,580	6,650	6,900	0.6%
Plastic Machinery	2,150	2,500	2,700	3,000	3,375	11.9%
Process Plant equipment	18,000	18,900	19,000	19,500	Na	3%
Metallurgical Machinery	1,200	1,260	1,386	1,525	Na	8%
<b>Total</b>	<b>2,07,024</b>	<b>2,30,738</b>	<b>2,44,038</b>	<b>2,70,326</b>		<b>9.3%</b>

Note: The base year for CAGR is FY14. na: data not available, Source: Department of Heavy Engineering, IIEEMA

As per the above table cumulative production of all sub-sectors grew at a CAGR of 9.3% during FY14 to FY17, trailing the overall average of 11% annual economic growth during the same period. This is also in stark contrast to the Planning Commission targeted growth rate of 16.8% per annum for production of capital goods during the 12<sup>th</sup> Five Year Plan period.

Heavy electrical equipment industry which was growing in the range of 5-7% during FY14 to FY16 recorded double-digit growth in FY17 and FY18. The production of electrical equipment industry witnessed growth of ~9.8-10% during FY17 and FY18 over the previous year. Power distribution and transmission equipment like transformers, conductors, meters, cables and switchgears registered growth on the back of government enhancing transmission capacity and pushing states to improve distribution network.

This can be attributed to Government's schemes like Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUJGY, 2016), Power to all, Integrated Power Development Scheme (IPDS) and Pradhan Mantri Sahaj Bijli Har Ghar Yojana (SAUBHAGYA, 2017) which aimed to provide last mile electricity connections to all households in urban and rural areas which benefitted companies involved in T&D EPC. During FY18, 40.5 lacs households were electrified and 23,119 CKM of transmission lines has been laid down and 86,139 MVA of transformation capacity has been commissioned.

After a period of lull during FY14-FY16, earth moving and mining equipment industry reported 43.5% growth in FY17 and 15% growth in FY18. The sector started to pick up from late 2016 onwards, owing to the increasing number of public-private partnerships and government initiatives such as smart city development projects. According to Indian Construction Equipment Manufacturers association, the demand for ICE grew by 32.6% in FY17 and 24% in FY18 after registering de-growth during FY12-16. The Indian ICE sector's sales crossed 90,000 units for the first time in FY18. Demand for ICE continued to grow mainly due to the increase in infrastructure spends on road construction by the government.

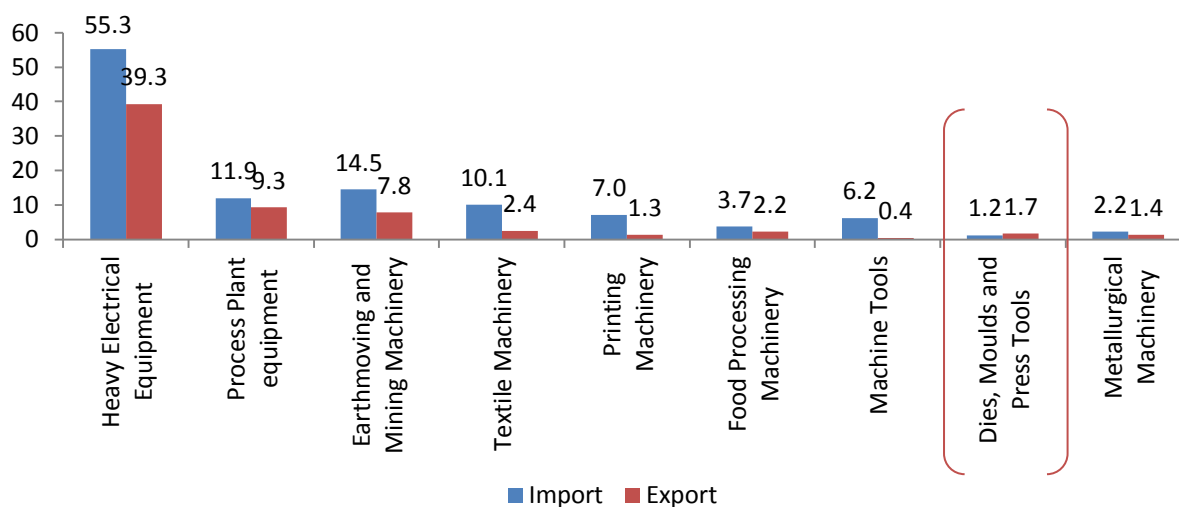
The industry grew despite the hiccups of emission and GST during April and July 2017, respectively. The revenue-neutral GST rate of 18% after the initial 28% bracket resulted in surge in demand and increased sales of new machineries. Demonetization also had a negligible effect on the industry growth.

**Table 5: Trend in import of Capital Goods in India (Rs crores)**

Sub sector	FY14	FY15	FY16	FY17	FY18	CAGR
Heavy Electrical Equipment	58,354	55,987	53,986	55,291	55,603	-1.2%
Earthmoving and Mining Machinery	12,679	12,050	12,855	14,508	16,068	6.1%
Textile Machinery	8,562	8,858	10,305	10,098	10,687	5.7%
Printing Machinery	6,082	6,381	7,051	7,035	8,322	8.2%
Machine Tools	4,672	5,318	5,945	6,173	7,759	13.5%
Food Processing Machinery	3,188	3,376	3,777	3,686	3,900	5.2%
Plastic Machinery	1,400	1,700	2,000	2,300	2,600	16.7%
Dies, Moulds and Press Tools	3,081	3,322	2,800	1,200	1,350	-18.6%
Process Plant equipment	9,820	12,933	13,360	11,925	Na	6.7%
Metallurgical Machinery	3,817	2,593	2,739	2,202	Na	-16.8%
<b>Total</b>	<b>1,12,471</b>	<b>1,13,254</b>	<b>1,22,717</b>	<b>123662</b>		<b>3.2%</b>

Note: The base year for CAGR is FY14. na: data not available, Source: Department of Heavy Engineering

Chart 3: Import-export by sub-sectors in FY17 (Rs '000 Crs)



### High imports, net importer across all but one sub-sector:

India is a net importer of capital goods across all but one sub-sector, i.e dies, moulds and press tools. However, export share of this sub-sector is among the lowest. India is a net importer in all other sub-sectors and Imports are gaining market share across sub-sectors, with almost 40% of domestic demand being met through imports. Indian export share globally remains small ranging from 0.1% to 0.6% across subsectors.

Around Rs 123,662 Cr worth of capital goods were imported in to India in FY17. Imports increased by a CAGR of 3% during FY14-FY17, signifying consistent demand in the market but from sources outside India. Machine tools and plastic machinery are the sectors that have recorded sharpest rise in imports ranging between 17-19% during this period. On the other hand, dies, moulds and press tools and metallurgical machinery sector has registered a fall in imports.

Table 6: Trend in export of Capital goods in India

Sub sector	FY14	FY15	FY16	FY17	FY18	CAGR
Heavy Electrical Equipment	29,227	35,418	38,580	39,280	41,792	9.4%
Earthmoving and Mining Machinery	6,465	7,380	7,632	7,778	9,380	9.8%
Textile Machinery	2,277	2,466	2,351	2,438	2,939	6.7%
Food Processing Machinery	2,262	2,199	2,201	2,178	2,560	3.1%
Dies, Moulds and Press Tools	2,694	2,869	2,300	1,700	1,600	-12.2%
Printing Machinery	1,421	1,255	1,366	1,332	1,235	-3.5%
Plastic Machinery	500	600	700	900	1,100	21.8%
Machine Tools	247	281	296	361	354	9.4%
Process Plant equipment	7,194	7,684	8,956	9,291	Na	8.9%
Metallurgical Machinery	1,137	1,104	1,056	1,358	Na	6.1%
<b>Total</b>	<b>53,855</b>	<b>73,378</b>	<b>71,926</b>	<b>73,583</b>		<b>11.0%</b>

Note: The base year for CAGR is FY14. na: data not available, Source: Department of Heavy Engineering



### ***Growing exports, but significantly sub-scale global share:***

The capital goods sector contributed Rs 73,583 Cr to exports in FY17, up from Rs. 53,855 Cr in FY14. After growing by a sharp 36% y-o-y in FY15, exports fell by 2% in FY16 and grew by just 2% in FY17. India's share in global exports of capital goods is significantly sub-scale at ~0.8%.

India majorly exports Heavy Electrical Equipment, Process Plant equipment and Earthmoving and Mining Machinery. Export of plastic machinery has risen at the fastest pace of 21% during FY14 to FY18.

### **Performance of sub-sectors of Capital goods:**

#### 1) Machine Tools

The machine tool industry is considered as the mother industry as it supplies machinery for the entire manufacturing sector. Types of machine tools currently manufactured are general/special purpose machines, standard Computer Numerical Control (CNC) machines, gear cutting, grinding, medium size machines, electrical discharge machining (EDM), presses, press brakes, pipe bending, rolling, bending machines, etc.

The Indian Machine tool Industry has around 1,000 units in the production of machine tools, accessories/attachments, subsystems, and parts. Of these, around 25 in the large scale sector account for about 70% of the turnover and the rest are in the MSME sector of the industry. While the large organized players cater to India's heavy and medium industries, the small-scale sector meets the demand of ancillary and other units.

India inched up to 9<sup>th</sup> rank in global production of machine tools from 12<sup>th</sup> rank in 2017. In consumption of machine tools India's rank improved to 7<sup>th</sup> from 8<sup>th</sup>, as per the latest Gardner Business Media survey.

The machine tools segment grew at the fastest pace among all sub-sectors during FY14-FY18. Production of machine tools grew at a CAGR of 20% during FY14-FY18. According to Machine Tools Association, the industry's production is estimated to have reached Rs 9,612 Cr in FY19, up 32% over FY18. Consumption of Machine Tools is estimated to have grown by around 45% to Rs 21,000 Cr in FY19. Imports constituted 52% of the total demand and only 4% of the total production was exported.

*The huge gap between domestic demand and production indicates need for adding capacities in this sector.*

#### 2) Dies, Moulds and Press tools:

The Indian tool room industry consists of commercial tool makers engaged in design, development and manufacturing of tooling in the country. In addition to commercial tool makers, several Government toolrooms – cum-training centers are also operating. The key tool room locations are Mumbai, Bengaluru, Chennai, Pune, Hyderabad and Delhi NCR.

The Indian tool room industry consists of more than 500 commercial tool makers. The sub-sector has recorded a positive growth, production stood at Rs 16,068 crores in FY18, has increased by 8.9% compared to the production during the year FY17. Imports constitute 8.5% of the total demand and 9.9% of the total production is exported.

### 3) Plastic Processing Machinery:

The plastic machines being manufactured in India are injection moulding machines, blow moulding machines and extrusion moulding machines etc. The global leading manufacturers/technologies have manufacturing presence in India through their wholly owned subsidiaries or through technology license arrangements.

There are 11 major manufacturers and about 200 small and medium manufacturers of plastic machinery. The sub-sector has recorded a positive growth, production stood at Rs 3,375 crores during the year FY18 and has recorded a growth of 12.5% as compared to the production during the year FY17. Imports constitute 53.3% of the total demand and 32.5% of the total production is exported.

### 4) Earthmoving, Construction and Mining Machinery:

The Indian Earthmoving, Construction and Mining Machinery produces backhoe loaders, compactors, mobile cranes, pavers, batching plants, crawler crane, transit mixer, concrete pump, tower cranes, hydraulic excavators, dumpers, mining shovel, walking draglines, dozers, wheel loaders, graders, drilling equipment, tunneling machine, etc.

There are about 40 large and global manufacturers and nearly 200 small and medium manufacturers of earthmoving and mining machinery present in India. The sub-sector has recorded a positive growth, production stood at Rs 32,400 crores during the FY18 and has grown by 14.8% from the previous year FY17. Imports constitute 41.1% of the total demand and 28.9% of the total production is exported.

### 5) Textile Machinery:

A majority of the units engaged in the manufacture of textile machinery in the country are small and medium manufacturers. There are 1,446 units engaged in the manufacture of textile machinery in the country and 80% of them are small and medium manufacturers. Major textile machineries include weaving machines, spinning machines, winding machines, processing machines, synthetic fiber machines etc.

The sub-sector recorded a positive growth rate, production stood at Rs 6,900 crores during FY18 and has grown by 3.7% from the previous year FY17. Imports constitute 72.9% of the demand and 42.5% of the total production is exported.

### 6) Printing Machinery:

There are over 500 units engaged in the manufacturer of Printing machinery out of which 95% are small and medium manufacturers. Major printing machine manufactured locally are web offset printing machines, UV coating curing machine, flexographic printing machine, screen printing machines, wire stitching machine, lamination machine, etc.

Imports constitute 37.6% of the total demand and 8.2% of the total production is exported.

### 7) Food Processing Machinery:

There are over 2,500 units engaged in the manufacture of food processing machinery out of which 85% are small and medium manufacturers. Major food processing machinery manufactured in India are peelers, sorters, graders, pulpers, grinders, mixers, cookers, fryers, dryers, pulverizers, soya milk machines, food grain and coffee millers, bakery machinery, forming-filling- sealing machine, milking and dairy machines, juicing line, etc.

The sub-sector has recorded a positive, production stood at Rs 15,600 crores during FY18 and has grown by 2.3% as compared to the production during FY17. Imports constitute 23% of the total demand and 16.4% of the total production is exported. China, Germany and Italy are the top three countries from where India import its food processing equipment. Sector wise, bakery and cereal processing is the single largest segment in terms of import of machinery.

Medium and big players in food processing industry mostly import critical components required for their manufacturing processes. Smaller players generally go for local fabricated machines and equipment supporting local food processing equipment manufacturing industry. However, currently the equipment manufactured in the country lack the precision required for complex processes involved in food processing, due to dearth of advanced technology owing to limited research and development facilities available for local manufacturers.

### 8) Heavy Electrical machinery:

The Electrical machinery segment is the single largest contributor to the capital goods sector (with share of over 56%). Heavy Electrical equipment Industry mainly caters to the need of energy sector & other industrial sectors. The performance of this sub-sector is closely linked to the power capacity addition programme of the country.

Major equipment like steam generators, turbo generators, turbines, transformers switch gears and relays and related accessories are manufactured by this sector.

There is a strong manufacturing base for the manufacture of Heavy Electrical equipments in the country. Manufacturers of Heavy Electrical equipment have absorbed sub-critical technology up to a unit capacity of 660 MW and gearing up for adopting super-critical technology for unit size of 800 MW and above for thermal sets. Industry is also augmenting its installed capacity to meet future power capacity addition targets of the country. Gas turbines upto 260 MW Unit capacity and Transmission and Distribution equipment up to higher voltage class of 1200KV are also being manufactured by Indian Industry.

About 70% of Indian electrical equipment industry comprises small and medium-scale enterprises which provide jobs of over 5 million across the entire value chain. The industry is fragmented but few large players account for a sizable portion of sales.

*The Indian electrical equipment industry comprises of two broad segments:*

- a. Generation equipment (boilers, turbines, generators) and
- b. Transmission & Distribution (T&D) and allied equipment

The T&D equipment sector, dominates the Electrical Machinery sector making up for 85% of the industry whereas generation equipment sector accounts for the rest 15%. T&D and equipments includes - transformers, cables, transmission lines, switch gears, capacitors, energy meters, instrument transformers, surge arrestors, stamping and lamination, insulators, insulating material, industrial electronics, indicating instruments, winding wires, etc.

The major export markets for Indian electrical equipment are USA, Germany, UAE, Saudi Arabia, France, UK, Nigeria, China, Kenya and Brazil. The major export products are Rotating Machines (Motors, AC Generators, Generating Sets) & Parts, Switchgear and Control gear, Transformers & Parts, Cables, Industrial Electronics, Boilers & Parts, Transmission Line Towers etc.

**Table 7: Sub-sectors of electrical machinery industry and their market size as on FY19**

Sr. no	Sub-sectors	Market Size	Share
1	Wires & Cables	56,000	41%
8	LV Switchgear (LV Swgr)	19,170	14%
13	T&D Projects	11,550	8%
3	Conductor	10,700	8%
4	Distribution Transformers (DT)	9,889	7%
11	Rotating Machine (RM)	8,367	6%
10	Power Transformers (PT)	6,554	5%
9	MV & HV Switchgear	4,793	4%
14	Energy Meters (EM)	3,750	3%
5	Insulating materials	2,000	1%
6	Insulators	1,690	1%
7	Instrument Transformers (Transmission equipment)	1,244	1%
2	Capacitors	713	1%
12	Surge Arrester	300	0.2%

Source: IEEEMA

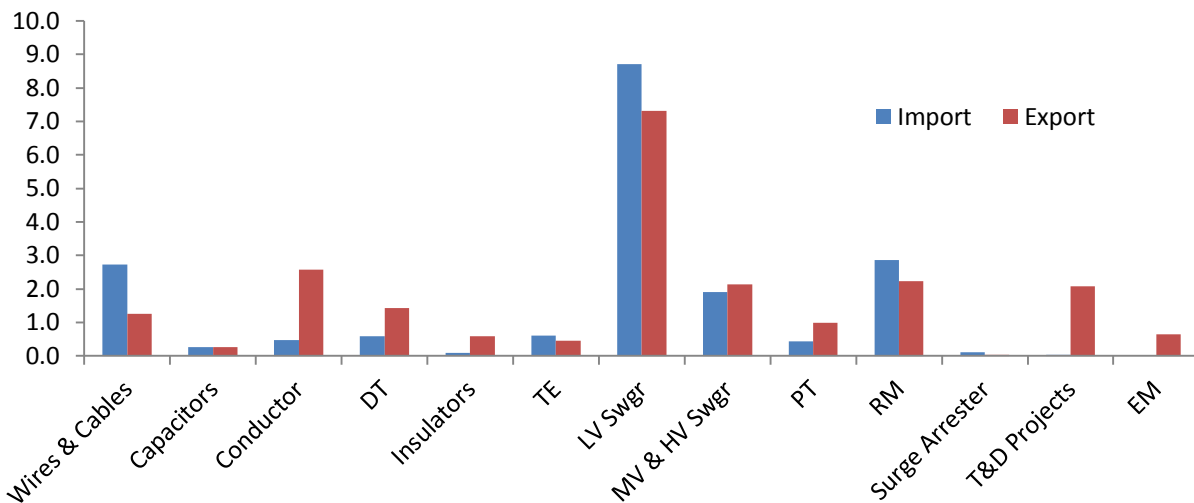
**Table 8: Production of electrical equipment (Rs Cr.)**

FY14	FY15	FY16	FY17	FY18*
1,28,823	1,37,198	1,44,861	1,59,221	1,75,000
	6.5%	5.6%	9.9%	9.9%

Source: Ministry of Heavy Industries and Public Enterprises annual report FY18, \* Estimated values

The industry contributes 8.1% of the manufacturing sector in terms of value and 1.4% of India's GDP, providing a direct employment to 5 lakh persons and indirect employment to 10 lakh people and over 50 lakhs across the entire value chain. The "Indian Electrical Equipment Industry Mission Plan 2012-2022" plans to increase power generation capacity from 200 GW in 2012 to about 400 GW by 2022 with commensurate enhancement of T&D capacity and the growth of the Indian power sector will entail exponential demand for electrical equipment.

Chart 4: Trade balance of sub-sectors of electric machinery industry



Source: IEEMA

India is a net exporter of electrical products such as Capacitors, Conductors, Distribution Transformers (DT), Power Transformers (PT), T&D Projects.

India is a net importer of Wires & Cables, Instrument Transformers (Transmission equipment), LV Switchgear (LV Swgr), Rotating Machine (RM), Surge Arrester and Energy Meters (EM)

In FY19, China accounted for nearly 30% of total imports in the electrical equipment segment that amounted to Rs 71,570 crore. The imports have increased at a CAGR of 13.5% during FY06 to FY19. The domestic industry also exported Rs 52,910 crore worth of electrical equipment in FY19.

#### **Challenges for electrical equipment sub-sector:**

**The industry faces challenges both domestically and internationally.** Low capacity utilisations, especially in the transmission & distribution (T&D) segment, and the growing threat of low cost imports are some of the key challenges.

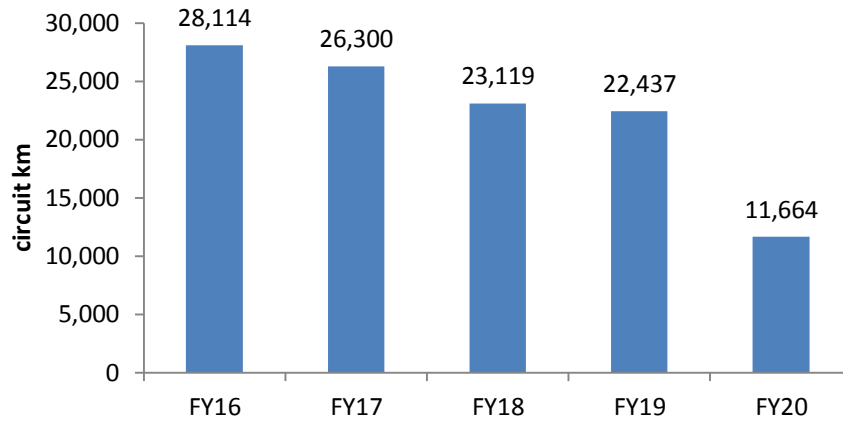
#### **Demand Drivers:**

Manufacturing sector is the key end-user sector of Capital Goods and drives the performance of the latter. Investment undertaken in the economy such as infrastructure development, power distribution projects etc also drive demand for capital goods.

#### **Performance of power transmission & Distribution sector:**

There has been a consistent fall in addition of transmission lines during FY16 to FY20. The pace of adding new electricity lines has hit a six-year low in FY20. A total of 11,664 circuit kilometre (ckm) of transmission lines have been added in the fiscal, 48% lower than in FY19.

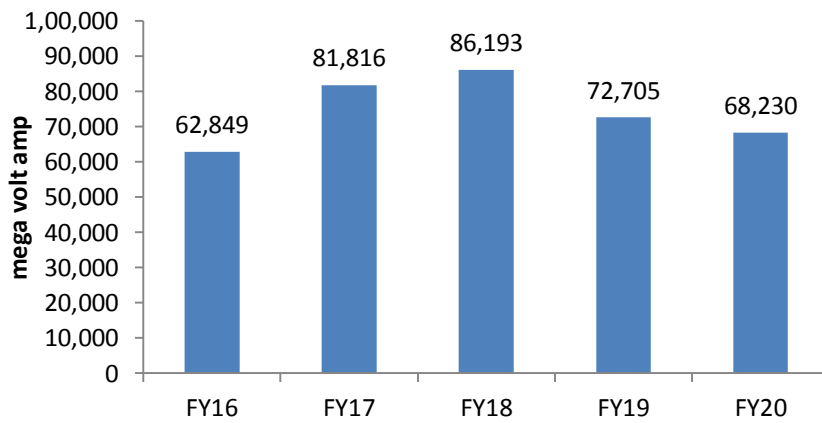
Chart 5: Transmission line addition in last 5 years



Source: CEA

Similarly, the addition of 68,230 mega volt amp (MVA) of sub-stations commissioned in FY20 is about 6.2% lower than that in the previous fiscal, and the slowest pace recorded since FY16.

Chart 6: Trend in sub-station addition



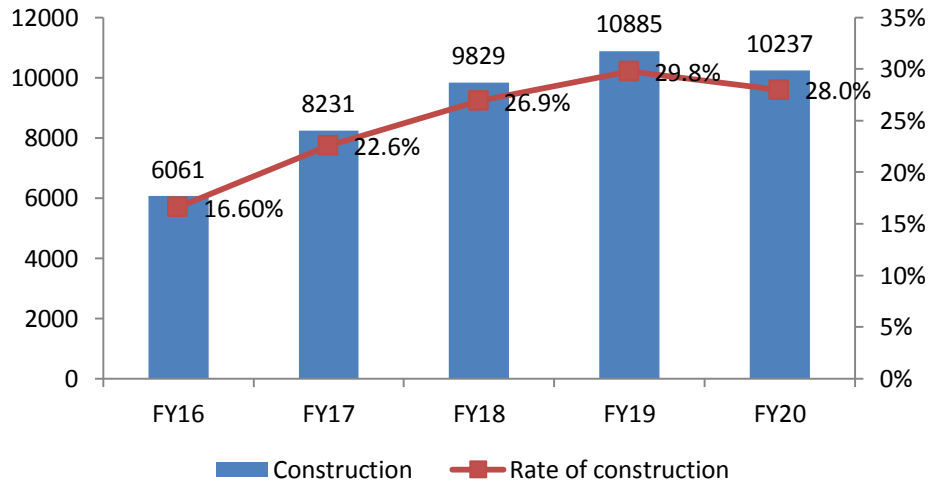
Source: CEA

Additional capacity addition project work undertaken has been slowpaced due to current pandemic issues.

**Infrastructure:**

- **Roads:**

**Chart 7: Length of National Highways constructed and awarded (Unit: km) and Pace achieved (Unit: km/day)**

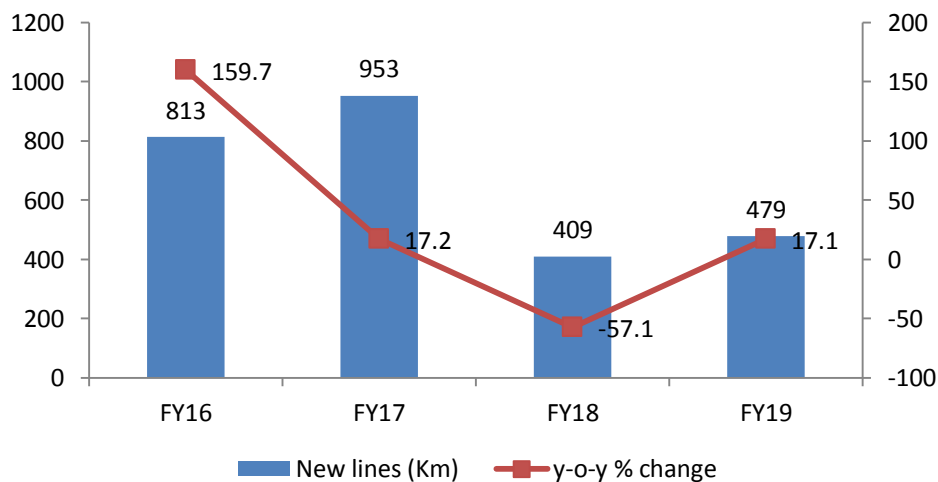


Source: Ministry of Roads and Highways, CARE Ratings

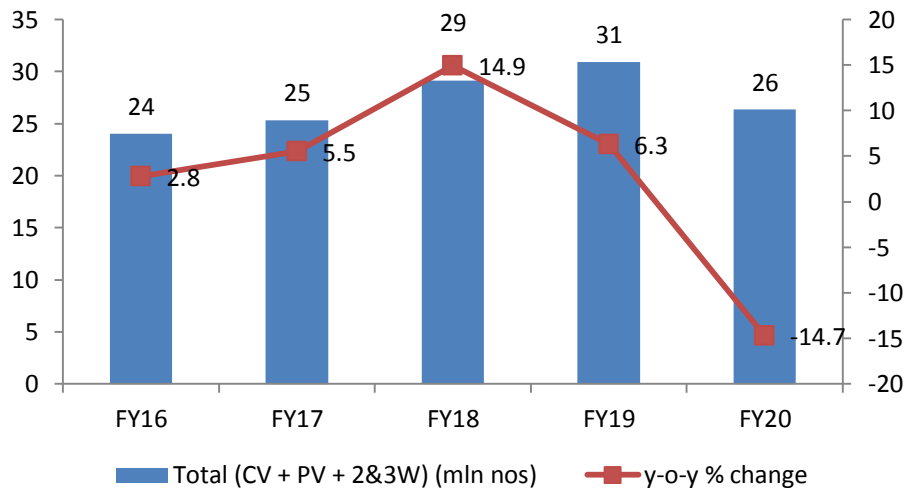
Length of national highways construction has increased at a CAGR of 14% during FY16-20. Pace of construction per day too has increased from it being 16.6km/day during FY16 to 28km/day during FY20, but on the other hand y-o-y pace it has declined (for the first time in the last 5 years) by 6.2% during FY20 as compared with the 29.8km/day pace achieved during FY19.

- **Railways:**

**Chart 8: Annual Rail tracks built**



Source: CMIE

**Automobiles:****Chart 9: Trend in automobiles production**

The above charts show that there has been a consistent slowdown in performance of key end-user industries which has impacted demand for capital goods.

**Impact of Covid-19 on Capital Goods sector:**

In view of the preventive measures and announcement of nation-wide lockdown by the Government to contain spread of COVID-19 pandemic, majority of the industrial sector establishments were not operating from the end of March, 2020 onwards. This has had an impact on the performance of end-user industries viz: auto, power, coal, Infrastructure & construction that witnessed substantial loss of production during the period of lockdown and the subsequent periods of conditional relaxations in restrictions.

India's capital goods sector was already struggling due to the trade tensions between US-China and the resultant sluggishness in the global economy. The Covid-19 pandemic-related lockdown further worsened the demand-supply situation of the sector already facing headwinds.

According to the IIP use-based classification, capital goods recorded a notable and sharp contraction of more than 60% y-o-y in May 2020. This is reflective of subdued investment climate and weakness in consumer demand in the economy. However, the extent of negative growth has been lower in May than April.

India's cumulative imports and exports of capital goods witnessed huge fall during April-June 2020 on weak global demand due to Covid-19.

During April-June 2020, Imports of machinery- electrical & non-electrical fell by 38% to Rs 40,855.7 Cr. However, this was the third largest product category in India's overall imports, after Crude oil and electronics. Imports of machine tools also declined 46.3% to Rs 4,397.7 Cr compared to the corresponding period in FY20.



Export of engineering goods too fell by 25.9% to Rs 106,692.3 Cr during April-June FY21 vs the comparable period in FY21.

**Table 8: Industry's Sales and margins**

	Net Sales	Net Sales	Net Sales	PAT	PAT	PAT
	Q4 FY18	Q4 FY19	Q4 FY20	Q4 FY18	Q4 FY19	Q4 FY20
	47,807.7	50,710.3	38,544.4	3,857.6	-3,029.1	89.8
% growth		6%	-24%			

Note: Based on financial results of 137 companies that have so far declared their results. Source: CARE Ratings, Ace Equity

### Outlook:

Capital goods industry serves a broad range of sectors like Oil & Gas, Auto, Aviation, Electricity, Infrastructure & Construction among others. The capital goods sector is expected to witness fall in order inflows due to contraction in economic activities and reduced capital expenditures (Capex) by key end markets.

The Covid-19 pandemic brought order conclusions for fresh capacity creation at a standstill in the overall capital goods sector. Also, the orders that were concluded prior to the outbreak of novel Coronavirus, were reported to be stuck, as clients hold back advances to be paid towards order confirmation.

Dismal economic scenario globally implies weak export demand too. The fall in oil prices will have negative impact on companies with high exposure to the sector.

Care Ratings expects India's GDP to contract 6.4% in FY21 with a sharp 9.5% fall in Secondary (manufacturing, mining, electricity) sector. CARE has also ruled out possibility of any additional spending by the government during FY21 due to low fiscal space. Over the last few years, the sector received orders from government however given the strain on government finances the sector may see an impact to that extent

However, the industrial activity is expected to recover in coming months. The economic activity is gradually returning to normalcy and the supply chain is repairing. Many workers are also returning back to work which is normalising the manufacturing activities.

Though we expect gradual pick-up in manufacturing activities with relaxations in lockdown measures, new Capex investments are unlikely to take place in sectors like infrastructure & construction, aviation, oil & gas. Government's Investment in infrastructure and Capex is unlikely to take place in times such as the global financial crisis.

Overall, performance of capital goods sector is expected to remain subdued over the medium term. Larger players may be able to gain market share.

While overall economic environment is likely to remain subdued which will impact demand for Capital goods, those companies with higher exposure to weaker end markets such as autos, aviation, construction, real estate,

seaport, hospitality and thermal power generation which may take longer to recover will be more vulnerable given the dramatic decline in demand from these sectors.

Construction:

Care expects the roads and highway construction to fall by 24-26% and pace of construction is to be around 20-21km/ per day during FY21 from 28 km/per day during FY20.

Auto:

For FY21, overall domestic CV sales are expected to decline by 30%-35% with more severe hit in M&HCV segment than LCV segment. Contraction in LCV segment is expected to be limited as the demand from rural and semi-urban markets is expected to recover faster on account of higher agriculture output on the back of good monsoons during the current year.

**The recovery path of various sectors estimated by CARE**

**Chart 10: Road to Recovery for sectors**

### Low impact with Recovery in 3 months

- Renewables
- Power Transmission

### Moderate impact with Recovery in 3 – 12 months

- Roads
- Auto
- Thermal Power Generation
- Power Distribution
- Textiles
- Steel & Iron products
- Cement
- Banks

### Severe impact with Recovery in over 12 months

- Real estate
- Airport
- Seaport
- Hospitality
- NBFCs

The Indian Capital Goods sector is still operating well below its potential at 0.6% of India's GDP, compared to 4.1% for China, 3.4% for Germany and 2.8% for South Korea. Despite exports having grown significantly over the years, India isn't able to meet its domestic demand for capital goods across sectors. According to EEPC, some of the sectors in which import substitution can happen are Machine Tools, Pumps, Textile Machinery, Construction & Earthmoving machinery, Valves, LV Switchgear, Printing Machinery, Motor & Generator where import dependence ranges between 30-80%.

A number of factors hamper growth of Capital Goods sector. Indian players invest around 0.5% of their turnover in R&D. In comparison, companies in Germany invest around 6% of their turnovers.

India's excessive raw material protectionism, which often result in inverted duties which discourage domestic value addition and manufacturing, and, in turn, export of value-added products. On the other hand, it induces imports of high-value merchandise. For E.g: There exist nil customs duty on import of Cable Terminals and Connectors whereas the basic customs duty on raw materials for Cable Terminals and Connectors such as brass strips, CR steel coils, copper strips and coil and other raw material ranges between 5-10%. Here importing Cable Terminals becomes more attractive. Majority of the companies producing cable terminals and connectors in India are small and medium enterprises which are not in a position to compete and sustain the cheaper imports of such goods from low cost countries. Similarly, inverted duty structure exists for finished products, such as Conductors and Cables made out of aluminium. Therefore, there is need to withdraw zero duty imports for finished goods to protect the domestic manufacturers.

Industry body IEEMA has been urging government to bring electricity under the ambit of GST. Currently, electricity is kept outside the ambit of GST and the States continue to levy electricity duty on sale of electricity. Credit of GST paid by power companies on purchases of generation, transmission & distribution equipment is not available, which forms a part of their cost. Also the credit of GST paid by the Power Companies to the EPC contractors for Works Contract is not available, which is an additional cost to the Power companies and to the ultimate consumers of electricity.

The union government's Atmanirbhar Bharat is providing a good platform for industries to become self-reliant and develop products indigenously. Government of India has earmarked key sectors such as electronics, pharmaceuticals, aerospace, automobiles, and many more for manufacturing growth. This bodes well for domestic manufacturing sector as the country shifts focus to increasing domestic manufacturing and reducing imports.

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