EXECUTIVE SUMMARY

- Total crude steel production in India increased at a CAGR of 6.40 per cent during FY08–19P, with country’s output reaching 106.40 million tonnes per annum (MTPA) in FY19P.

- India surpassed Japan to become the world’s second largest steel producer in 2019, with crude steel production of 111.2 million tonnes.

- Moreover, capacity has increased to 142.24 million tonnes (MT) in FY19, while in the coming ten years, the figure is anticipated to rise to 300 MT of steel.

- Government is working on various fronts to make steel sector globally efficient and competitive.

- National Mineral Development Corporation is expected to invest US$ 1 billion on infrastructure in next three years to boost iron production and increase the iron ore production 75 MTPA until 2021 indicating new opportunities in the sector.

- As per Indian Steel Association (ISA), steel demand will grow over 7.2 per cent in FY20 and FY21.

- Investment from domestic players in expanding and upgrading manufacturing facilities is expected to reduce reliance on import. In addition, the entry of international players would provide benefits in terms of capital resources, technical know how and more competitive industry dynamics.

Note: MTPA – Million Tonnes Per Annum, MT- million tonnes
Source: World Steel Association, Ministry of Steel
ADVANTAGE INDIA
ADVANTAGE INDIA

- Infrastructure, oil and gas and automotive will drive the growth of the industry.
- India’s finished steel consumption is anticipated to increase to 230 MT by 2030-31 from 90.68 MT in 2017-18.
- To achieve steel capacity build-up of 300 MTPA by 2030, India would need to invest US$ 156.08 billion by 2030-31.
- The industry is witnessing consolidation of players, which has led to investment by entities from other sectors. The ongoing consolidation also presents an opportunity to global players to enter the Indian market.
- As of 2019, India is the world’s second largest producer of crude steel (up from eighth spot in 2003) with 111.2 MT.
- Easy availability of low-cost manpower and presence of abundant iron ore reserves make India competitive in the global set up.
- India is home to fifth highest reserves of iron ore in the world.#
- National Steel Policy (NSP) 2017 was implemented to encourage the industry to reach global benchmarks.
- Government introduced Steel Scrap Recycling Policy to reduce import.
- Export duty of 30 per cent has been levied on iron ore* (lumps and fines) to ensure supply to domestic steel industry.
- The Government of India raised import duty on most steel items twice, each time by 2.5 per cent, and imposed measures including anti-dumping and safeguard duties on iron and steel items.

Source: Metallurgical and Materials Engineering Division Board
MARKET OVERVIEW
EVOLUTION OF THE INDIAN STEEL SECTOR

- Production of steel started in India (TISCO was setup in 1907)
- IISC was set up in 1918 to compete with TISCO

1907-18
- Mysore Iron and Steel Company was set up in 1923
- According to the new Industrial Policy Statement (1948), new ventures were only undertaken by the central Government

1923-48
- SAIL was created in 1973 as a holding company to oversee most of India's iron and steel production
- In 1989, SAIL acquired Vivesvata Iron and Steel Ltd
- In 1993, the Government set plans in motion to partially privatise SAIL

1954-64
- Hindustan Steel Ltd and Bokaro Steel Ltd were setup in 1954 and 1964, respectively
- In the early 1990s, the public sector dominated steel production
- Private players were in downstream production mainly producing finished steel using crude steel products

1973-92
- Foreign players began entering the Indian steel market
- No license requirement for capacity creation
- Imposition of export duty on iron ore, to focus more on catering growing domestic demand
- Decontrol of domestic steel prices
- Launch of Scheme for promotion of Research and Development in Iron and Steel sector

1993-2014
- In 1993, the Government set plans in motion to partially privatise SAIL
- In 2019, India ranked as the second largest crude steel producer in the world
- In FY20, 8.23 MT of steel was exported from India

2015-20

Notes: (1) TISCO - Tata Iron and Steel Company; IISC - Indian Iron and Steel Company; SAIL - Steel Authority of India Ltd; MT - million tonnes
STRUCTURE OF THE STEEL SECTOR

Source: Report on Indian steel industry by Competition Commission of India
India’s steel production capacity has expanded rapidly over the past few years, growing at a CAGR of 5.26 per cent from 122 MT in FY16 to 142 MT in FY19.

The National Steel Policy 2017 has envisaged achieving up to 300 MT of production capacity by 2030-31.

BF-BOF route is expected to contribute 65 per cent of the capacity, while the remaining 35 per cent is expected to come from EAF & IF routes.

Expansion of production capacity to 300 MT will translate into additional investment of Rs 10 lakh crore (US$ 156.08 billion) by 2030-31.

**Note:** P – Projection, ^CAGR is up to FY19, BF-BOF – Blast Furnace-Blast Oxygen Furnace, EAF – Electric Arc Furnace, IF – Induction Furnace, MT- million tonnes

**Source:** Joint Plant Committee, Ministry of Steel
STEEL PRODUCTION IN INDIA HAS BEEN GROWING AT A FAST PACE

- The steel sector contributes over 2 per cent to India’s GDP. Also, it employs 500,000 people directly and 2.50 million indirectly.
- In FY20, crude steel production and finished steel production in stood at 108.50 MT and 101.03 MT, respectively.
- Steel manufacturing output of India is expected to increase to 128.6 MT by 2021, accelerating the country’s share of global steel production from 5.9 per cent in 2018 to 7.7 per cent by 2021.

**Notes:** FY - Indian Financial Year (April – March), MT - Million Tonnes, CAGR - Compound Annual Growth Rate; P – Provisional, *- till April 2020

**Source:** Joint Plant Committee, News Articles, Ministry of Steel, World Steel Association

For updated information, please visit www.ibef.org
DEMAND HAS OUTPACED SUPPLY OVER THE LAST FIVE YEARS

- India’s finished steel consumption grew at a CAGR of 5.2 per cent during FY16-FY20 to reach 100 MT.
- It is expected that consumption per capita would increase, supported by rapid growth in the industrial sector and rising infra expenditure projects in railways, roads and highways, etc.
- India’s per capita consumption of steel grew at a CAGR of 4.12 per cent from almost 64 kgs in FY16 to nearly 74 kgs in FY19. The National Steel Policy aims to increase per capita steel consumption to 160 kgs by 2030-31.

Note: MT - Million Tonnes, #CAGR is up to FY19, **As per the World Steel Association, kg – kilograms, P –Provisional
Source: JPC India Steel, Ministry of Steel, World Steel Association
In FY20, India exported 8.24 MT of finished steel.

During the same period, the country’s finished steel import reached 6.69 MT.

Note: FY - Indian Financial Year (April - March), P – Provisional, MT- million tonnes, * Till April 2020
Source: Joint Plant Committee
### KEY PLAYERS OF THE INDUSTRY

<table>
<thead>
<tr>
<th>Company</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tata Steel Ltd</td>
<td>Finished steel (non-alloy steel)</td>
</tr>
<tr>
<td>SAIL</td>
<td>Finished steel (non-alloy steel)</td>
</tr>
<tr>
<td>JSW Steel Ltd</td>
<td>Hot-rolled coils, strips and sheets</td>
</tr>
<tr>
<td>Jindal Steel and Power Ltd</td>
<td>Iron and steel</td>
</tr>
<tr>
<td>Welspun-Gujarat Stahl Rohren Ltd</td>
<td>Tubes and pipes</td>
</tr>
<tr>
<td>Visa Steel Ltd</td>
<td>Ferro Chrome, coke and special steel</td>
</tr>
<tr>
<td>Essar Steel</td>
<td>Hot Rolled, Cold Rolled, Galvanized, Colour-Coated products, extra wide plates and pipes</td>
</tr>
<tr>
<td>RINL Powergrid TLT Pvt Ltd.</td>
<td>Forged Rounds, Rebars, Rounds, Wire Rod coil, rounds, billets</td>
</tr>
</tbody>
</table>

*Source: TechSci Research*
KEY STEEL PLANTS IN INDIA

Alloy and special steel plants under SAIL (Bhadrawati and Salem); iron and steel plant at Visvesvaraya

Steel integrated plants under SAIL (Bhilai, Rourkela, Bokaro, Durgapur and Burnpur)

Tata Steel's largest steel plant, based in Jamshedpur

RINL steel plant in Vishakhapatnam

Source: Company websites, TechSci Research
# STEEL SEZs IN INDIA

<table>
<thead>
<tr>
<th>Developer</th>
<th>Location</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tata Steel Special Economic Zone (TSSEZ)</td>
<td>Gopalpur, Odisha</td>
<td>Steel and allied downstream industries</td>
</tr>
</tbody>
</table>

*Source: Formal approvals granted in the Board of Approvals after the SEZ rules coming into force, Special Economic Zones in India website, www.sezindia.nic.in*
RECENT TRENDS AND STRATEGIES
NOTABLE TRENDS IN THE INDIAN STEEL INDUSTRY

Growing investment

- Most of the companies in the industry are undertaking modernisation and expansion of plants to be more cost efficient. E.g. SAIL has undertaken modernisation and expansion for its 6 plants.
- Ministry of Steel plans to invest US$ 70 million in the eastern region of the country through accelerated development of the sector.
- The production capacity of SAIL is expected to increase from 13 MTPA to 50 MTPA in 2025 with total investment of US$ 24.88 billion.
- Super Smelters plans to invest close to Rs 1,000 crore (US$ 143.08 million) in setting up a greenfield steel unit in West Bengal.
- In June 2020, ArcelorMittal Group announced plans to invest Rs 2,000 crore (US$ 283.73 million) in Odisha.

Strategic alliances

- SAIL and Arcelor Mittal are going to form a joint venture (JV) to set up a 1.5 MTPA steel plant.
- In December 2019, Arcelor Mittal completed the acquisition of Essar Steel at Rs 42,000 crore (US$ 6.01 billion) and formed a JV with Nippon Steel Corporation.
- In March 2020, Arcelor Mittal Nippon Steel India (AM/NS) acquired Bhander Power plant in Hazira, Gujarat from Edelweiss Asset Reconstruction Company.

Entry of international companies

- Attracted by the growth potential of the Indian steel industry, several global steel players have been planning to enter the market.
- In February 2020, GFG Alliance acquired Adhunik Metaliks and its arm, Zion Steel, for Rs 425 crore (US$ 60.81 million), marking its entry into the Indian steel market.
- CarVal Investors, the investment arm of US-based agri group, Cargill, has offered around Rs 2,000 crore (US$ 277.20 million) along with Asset Reconstruction Company (India) Ltd for the purchase of Uttam Value Steels and Uttam Galva Metallics.

Notes: MTPA - Million Tonnes Per Annum
Source: Ministry of Steel, Ministry of Railways, News Sources
Indian steel companies have now started benchmarking their facilities and processes against global standards to enhance productivity.

These steps are expected to help Indian companies improve raw material and energy consumption as well as improve compliance with environmental and pollution yardsticks.

Companies are attempting coal gasification and gas-based direct-reduced iron (DRI) production. Other alternative technologies such as Hismelt, Finex and ITmk3 being adopted to produce hot metal.

Ministry of Steel has issued necessary direction to the steel companies to frame a strategy for taking up more R&D projects by spending at least one per cent of their sales turnover to facilitate technological innovations in the steel sector.

Ministry has established a task force to identify the need for technology development and R&D.

Ministry has adopted energy efficiency improvement projects for mills operating with obsolete technologies.

*Source: Ministry of Steel*
STRATEGIES ADOPTED

- Companies in the steel industry are investing heavily in expanding their capacity. Major public and private companies, including Tata Steel, SAIL and JSW Steel, are expanding their production capacity.

- A long-term perspective is to achieve capacity of 300 MTPA by 2030 as per National Steel Policy 2017.

- JSW Steel is looking to further enhance the capacity of its Vijayanagar plant from 13 MTPA to 18 MTPA. In April 2019, the company announced plans to expand the plant’s production capacity to 13 MTPA by 2020 with an investment of Rs 7,500 crore (US$ 1.12 billion).

- Tata Steel is expanding the capacity of its Kalinganagar plant from 3 MTPA to 8 MTPA with an estimated investment of Rs 23,500 crore (US$ 36.46 billion). The expansion is likely to be completed by 2021 or early 2022. It is expected to improve margins and lead to cost effectiveness. The company is planning to increase its overall installed capacity to 30 MTPA by 2025 from the current 18.5 MTPA.

- JSW Steel has undertaken capacity expansion at its Dolvi unit in Maharashtra. It is investing around Rs 15,000 crore (US$ 2.24 billion) to double the capacity of its plant to 10 MT by the end of 2019. The company has set a target of increasing its capacity from the current 18 MTPA to 24 MTPA by March 2020.

- The steel sector is going through a phase of consolidation and companies operating in the sector are expected to undertake brownfield investments for expansion.

- In March 2019, ArcelorMittal was declared as the winning bidder to acquire Essar Steel for a consideration of Rs 42,000 crore (US$ 5.82 billion).

*Note: GDP – Gross Domestic Product, MTPA – Million tonnes per annum
Source: CCI, Ministry of External Affairs*
STRONG DEMAND AND POLICY SUPPORT DRIVING INVESTMENTS

Growing demand
- Growing demand in the construction industry
- Growing demand in the automotive sector
- Rising demand for consumer durables and capital goods

Policy support
- 100 per cent FDI in the steel sector
- The Government released the National Steel Policy 2017 and laid down a broad strategy for encouraging long term growth for the Indian steel industry by 2030-31.
- Government has also promoted policy which provides a minimum value addition of 15 per cent in notified steel products covered under preferential procurement

Increasing investments
- Rising investment from domestic and foreign players
- Increasing number of MoUs signed to boost investment in steel
- Foreign investment of nearly US$ 40 billion committed in the steel sector

Notes: FDI - Foreign Direct Investment, MOU – Memorandum of Understanding
During 2018-25F, the appliance and consumer electronics (ACE) sector will expand at a CAGR of 9.91 per cent, contributing to the growth of the steel industry.

Growth in automobile production is also expected to augment growth in steel production. Automobile production in India stood at 26.35 million units during FY20.

Gross Value Added (GVA) of the construction industry grew 4.4 per cent* during FY20* and is expected to post strong growth in the current fiscal year, backed by higher expenditure from the Government.

Since construction industry is a major consumer of steel, expansion across construction industry will translate into growth of steel sector.

Notes: F- Forecast, FY - Indian Financial Year (April - March), * Provisional Estimates of National Income, * - As per 2nd advanced estimate
Source: SIAM, PWC, CEAMA
New National Steel Policy was formulated by the Ministry of Steel in 2016 to retain the objectives included in National Steel Policy (NSP) 2005. It aimed at covering broader aspects of steel sector across the country including environment and facilitation of new steel projects, growth of steel demand in India and raw materials.

Under the policy, the central Government stated that all the Government tenders will give preference to domestically manufactured steel and iron products. Moreover, Indian steel makers importing intermediate products or raw materials can claim benefits of domestic procurement provision by adding minimum of 15 per cent value to the product.

The National steel policy, 2017 aspired to achieve 300MT of steel making capacity by 2030-31. This would translate into additional investments of Rs 10 lakh crore (US$ 156.08 billion).

Further, it aimed to increase per capita steel consumption to 160 kgs by 2030-31.

The scheme for the promotion of R&D in iron and steel sector has been continued under the 14th Finance Commission (FY20). Under the scheme, 26 projects have been approved with financial assistance of Rs 161 crore (US$ 24.98 million) from the Ministry of Steel.

Ministry of Steel is setting up industry driven institutional mechanism - Steel Research & Technology Mission of India (SRTMI) – with an initial corpus of US$ 30.89 million. The institute will facilitate joint collaborative research projects in the sector.
### POLICY SUPPORT AIDING GROWTH IN THE STEEL SECTOR ... (2/2)

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rise in export duty</td>
<td>- The Government hiked the export duty on iron ore to 50 per cent ad valorem on all varieties of iron ore (except pellets).</td>
</tr>
</tbody>
</table>
| Reduction in custom duty on plants and equipment | - The Government has reduced the basic custom duty on the plants and equipment required for initial set up or expansion of iron ore pellets plants and iron ore beneficiation plants from 7.5/5 per cent to 2.5 per cent.  
- Customs duty on imported flat-rolled stainless-steel products has been increased to 15 per cent from 7.5 per cent.  
- Basic customs duty on steel grade dolomite and steel grade limestone is being reduced from 5 per cent to 2.5 per cent. Basic customs duty is being reduced from 10 per cent to 5 per cent on forged steel rings used in the manufacture of bearings of wind-operated electricity generators. |
| Push due to Make in India initiative | - Going forward, the Make in India initiative and policy decisions taken under it are expected to augment the country’s steel production capacity and resolve issues related to the mining industry. |
| FDI                             | - 100 per cent FDI through the automatic route is allowed in the Indian steel sector.                                                                                                                                 |

**Source:** The Economic Times, Ministry of Steel, Business Standard, Make In India
THE SECTOR WITNESSED RISING INVESTMENTS IN THE LAST DECADE

<table>
<thead>
<tr>
<th>Date announced</th>
<th>Acquirer name</th>
<th>Target name</th>
<th>Value of deal (US$ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar-20</td>
<td>Arcelor Mittal Nippon Steel India</td>
<td>Bhandar Power plant</td>
<td>-</td>
</tr>
<tr>
<td>Feb-20</td>
<td>JSW Steel</td>
<td>Bhushan Power and Steel</td>
<td>2,818.72</td>
</tr>
<tr>
<td>Mar-19</td>
<td>ArcelorMittal</td>
<td>Essar steel</td>
<td>5,821.21</td>
</tr>
<tr>
<td>Sep-18</td>
<td>Tata Steel</td>
<td>Usha Martin Ltd (Specialty Steel Business)</td>
<td>641.41-701.07</td>
</tr>
<tr>
<td>Aug-18</td>
<td>Nippon Steel and Sumitomo Metal Corp</td>
<td>Sanyo Special Steel Co Ltd</td>
<td>-</td>
</tr>
<tr>
<td>Jul-18</td>
<td>Aion Investments-JSW Steel</td>
<td>Monnet Ispat and Energy</td>
<td>428.85</td>
</tr>
<tr>
<td>Jul-18</td>
<td>Liberty House</td>
<td>Adhunik Metals</td>
<td>58.42</td>
</tr>
<tr>
<td>Jun-18</td>
<td>Vedanta Star Ltd</td>
<td>Electrosteel Steels</td>
<td>825.45</td>
</tr>
<tr>
<td>May-18</td>
<td>Tata Steel Ltd</td>
<td>Bhushan Steel</td>
<td>5,461.60</td>
</tr>
<tr>
<td>Dec-17</td>
<td>Tata Steel Ltd</td>
<td>Bhubaneshwar Power</td>
<td>39.5</td>
</tr>
<tr>
<td>Jan-17</td>
<td>Tata Steel Ltd</td>
<td>Creative Port Development Pvt Ltd</td>
<td>-</td>
</tr>
<tr>
<td>Aug-16</td>
<td>JSW Steel Ltd</td>
<td>Praxair Oxygen Pvt. Ltd.</td>
<td>36</td>
</tr>
<tr>
<td>Aug-16</td>
<td>Kirloskar Ferrous Industries Ltd</td>
<td>VSL Steels Ltd.</td>
<td>23.68</td>
</tr>
<tr>
<td>Aug-14</td>
<td>JSW Steel Ltd</td>
<td>Welspun Maxsteel Ltd</td>
<td>165.85</td>
</tr>
<tr>
<td>Apr-14</td>
<td>JSW Steel Ltd</td>
<td>Vallabhb Tinplate Pvt Ltd</td>
<td>7.63</td>
</tr>
<tr>
<td>Mar-14</td>
<td>Lalitanjali Group Pvt Ltd</td>
<td>Centom Industries Ltd</td>
<td>-</td>
</tr>
<tr>
<td>Dec-13</td>
<td>Venus Insec Pvt Ltd</td>
<td>Goodluck Steel Tubes Ltd</td>
<td>23.73</td>
</tr>
</tbody>
</table>

Cumulative FDI inflows

<table>
<thead>
<tr>
<th>Period: April 2000 to December 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sector</td>
</tr>
<tr>
<td>Metallurgical industries</td>
</tr>
<tr>
<td>US$ 11.45 billion</td>
</tr>
</tbody>
</table>

Source: Thomson ONE Banker, Department for Promotion of Industry and Internal Trade (DPIIT). News Articles
OPPORTUNITIES
### OPPORTUNITIES … (1/2)

<table>
<thead>
<tr>
<th>Automotive</th>
<th>Capital goods</th>
<th>Infrastructure</th>
<th>Airports</th>
</tr>
</thead>
</table>
| - The automotive industry is forecast to reach US$ 260-300 billion by 2026.  
- The industry accounts for around 10 per cent of the demand for steel in India.  
- With increasing capacity addition in the automotive industry, demand for steel from the sector is expected to be robust. | - The capital goods sector accounts for 11 per cent of the total steel consumption and is expected to increase 14-15 per cent by 2025-26. It has the potential to increase in tonnage and market share.  
- Corporate India’s capex is expected to grow and generate greater demand for steel. | - The infrastructure sector accounts for 9 per cent of steel consumption and is expected to increase to 11 per cent by 2025-26.  
- Due to rising investment in infrastructure the demand for steel products would increase in the years ahead.  
- 70 per cent of the country’s infrastructure, estimated at Rs 6 lakh crore (US$ 89.50 billion), is yet to come up. Thus, a significant growth potential for steel sector is present.*  
- For various infrastructure sectors, including real estate and power, Ministry of Finance planning to set up a stress fund. | - More and more modern and private airports are expected to be set up.  
- In FY19, passenger traffic at Indian airports stood at 344.69 million.  
- The number of operational airports stood at 103 as on 31 March 2019.  
- Development of tier II city airports will sustain consumption growth.  
- Estimated steel consumption in constructing airports is likely to grow more than 20 per cent over the next few years. |

*Note: Capex – Capital Expenditure, P – Provisional, *According to Mr Chaudhary Birender Singh, Minister of Steel

Source: Make In India, SIAM, Ministry of Steel, Airport Authority of India
## OPPORTUNITIES … (2/2)

### Railways
- The Dedicated Rail Freight Corridor (DRFC) network expansion would be enhanced in the future.
- Gauge conversion, setting up of new lines and electrification would drive demand for steel.
- Introduction of high-speed bullet trains and metro trains will increase steel usage.
- As per information in the Union Budget 2019-20, 657 km metro rail network is already operational.

### Oil and gas
- India’s primary energy consumption of oil and gas is expected to increase to 10 mbpd and 14 bcfd, respectively, by 2040.
- This would lead to an increase in demand of steel tubes and pipes, providing a lucrative opportunity for the steel industry.

### Power
- The Government has envisaged capacity addition of 58,384 MW from conventional sources between 2017-22*. Also, the Government is targeting to achieve 175 GW of renewable power generation capacity by 2022.
- This will lead to enhancement in both transmission and distribution capabilities, thereby raising steel demand from the sector.

### Rural India
- Rural India is expected to reach per capita consumption of 12 to 14 kgs of finished steel by 2020.
- Policies like Pradhan Mantri Awa Yojana and Pradhan Mantri Gram Sadak Yojana are driving growing demand for steel in rural India.
- In FY19, per capita consumption of steel in rural India was estimated to be between 10 to 15 kgs.

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**Note:** RE – Revised Estimates, mbpd – million barrels per day, bcfd – billion cubic feet per day, *National Electricity Plan 2018

**Source:** Make In India, Ministry of Power
KEY INDUSTRY ASSOCIATIONS
### INDUSTRY ASSOCIATIONS

<table>
<thead>
<tr>
<th>Indian Steel Association</th>
<th>Ministry of Steel</th>
</tr>
</thead>
<tbody>
<tr>
<td>207-208, 2nd Floor, Kailash Building, 26 K. G. Marg, New Delhi - 110 001, Phone: 011 – 42668800, Fax: 011 – 42668805</td>
<td>Udyog Bhavan New Delhi - 110011, Fax : 91-11-23063236, Phone : 91-11-23063417</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>National Mineral Development Corporation</th>
<th>Indian Stainless Steel Development Association</th>
</tr>
</thead>
<tbody>
<tr>
<td>Khanij Bhavan, Masab Tank, Hyderabad – 500028, Fax: 91-235338711, Phone: 040-23538713-21</td>
<td>L-22/4, DLF Phase-II, Gurgaon, Haryana –122 002, Phone: 91-124-4375501, Fax: 91-124-4375509, E-mail: <a href="mailto:nissda@gmail.com">nissda@gmail.com</a></td>
</tr>
</tbody>
</table>
## INDUSTRY ASSOCIATIONS

<table>
<thead>
<tr>
<th>Organization</th>
<th>Address</th>
<th>Telephone</th>
<th>Fax</th>
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<tr>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
GLOSSARY

- **CAGR**: Compound Annual Growth Rate
- **FDI**: Foreign Direct Investment
- **FY**: Indian Financial Year (April to March)
  - So FY10 implies April 2009 to March 2010
- **JV**: Joint Venture
- **MoU**: Memorandum of Understanding
- **MT**: Million Tonnes
- **MTPA**: Million Tonnes Per Annum
- **NPAT**: Net Profit After Tax
- **SEZ**: Special Economic Zone
- **TMT**: Thermo Mechanically Treated
- **US$**: US Dollar
- Wherever applicable, numbers have been rounded off to the nearest whole number
## EXCHANGE RATES

### Exchange Rates (Fiscal Year)

<table>
<thead>
<tr>
<th>Year</th>
<th>INR Equivalent of one US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004–05</td>
<td>44.95</td>
</tr>
<tr>
<td>2005–06</td>
<td>44.28</td>
</tr>
<tr>
<td>2006–07</td>
<td>45.29</td>
</tr>
<tr>
<td>2007–08</td>
<td>40.24</td>
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<td>2008–09</td>
<td>45.91</td>
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<tr>
<td>2009–10</td>
<td>47.42</td>
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<tr>
<td>2010–11</td>
<td>45.58</td>
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<td>2011–12</td>
<td>47.95</td>
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<td>2012–13</td>
<td>54.45</td>
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<td>2013–14</td>
<td>60.50</td>
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<tr>
<td>2014–15</td>
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</tr>
<tr>
<td>2015–16</td>
<td>65.46</td>
</tr>
<tr>
<td>2016–17</td>
<td>67.09</td>
</tr>
<tr>
<td>2017–18</td>
<td>64.45</td>
</tr>
<tr>
<td>2018–19</td>
<td>69.89</td>
</tr>
<tr>
<td>2019–20</td>
<td>70.49</td>
</tr>
</tbody>
</table>

### Exchange Rates (Calendar Year)

<table>
<thead>
<tr>
<th>Year</th>
<th>INR Equivalent of one US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>44.11</td>
</tr>
<tr>
<td>2006</td>
<td>45.33</td>
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<tr>
<td>2007</td>
<td>41.29</td>
</tr>
<tr>
<td>2008</td>
<td>43.42</td>
</tr>
<tr>
<td>2009</td>
<td>48.35</td>
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<tr>
<td>2010</td>
<td>45.74</td>
</tr>
<tr>
<td>2011</td>
<td>46.67</td>
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<td>2012</td>
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<td>2017</td>
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<td>2018</td>
<td>68.36</td>
</tr>
<tr>
<td>2019</td>
<td>69.89</td>
</tr>
</tbody>
</table>

*Source: Reserve Bank of India, Average for the year*
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