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STEEL

April 2010

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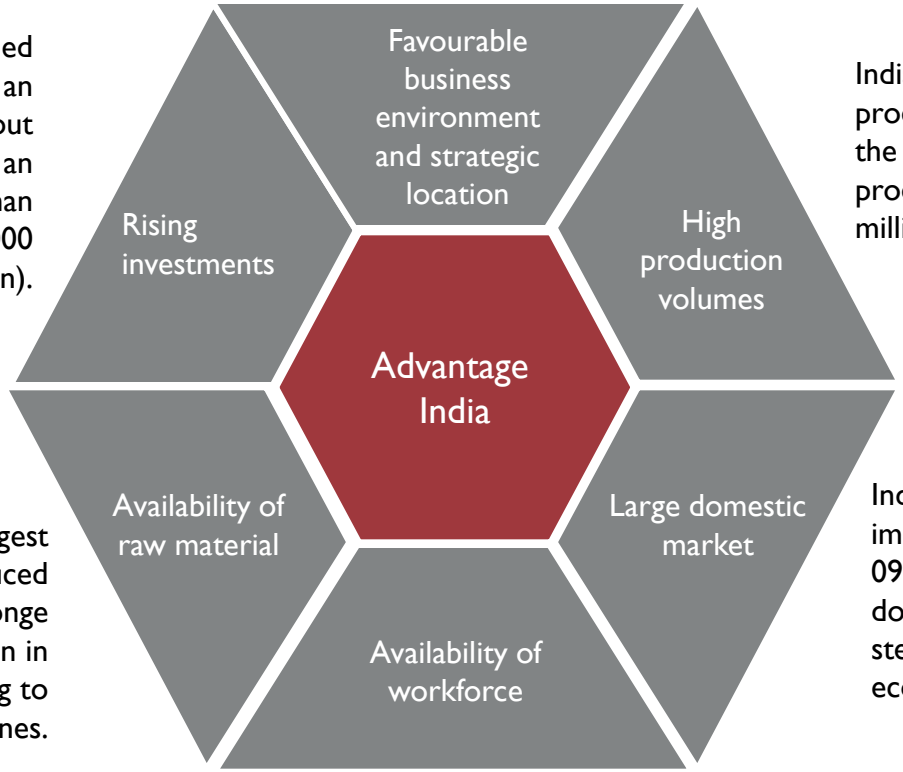
Advantage India

222 MoUs* have been signed by various states with an intended capacity of about 275.7 million tonnes, and an investment of more than US$ 229 billion (INR 11,000 billion).



India is the fifth-largest producer of crude steel in the world (2008), with a production volume of 54.5 million tonnes.

India is the world's largest producer of direct reduced iron (DRI) or sponge iron, with the production in 2008–09 amounting to nearly 20 million tonnes.

India emerged as a net importer of steel in 2008–09, due to the sustained domestic consumption of steel despite the global economic slowdown.

The steel sector is expected to generate additional employment of about four million by 2020.

Source: Ministry of Steel (MoS), GoI; annual report 2008–09
MoU* Memorandum of understanding

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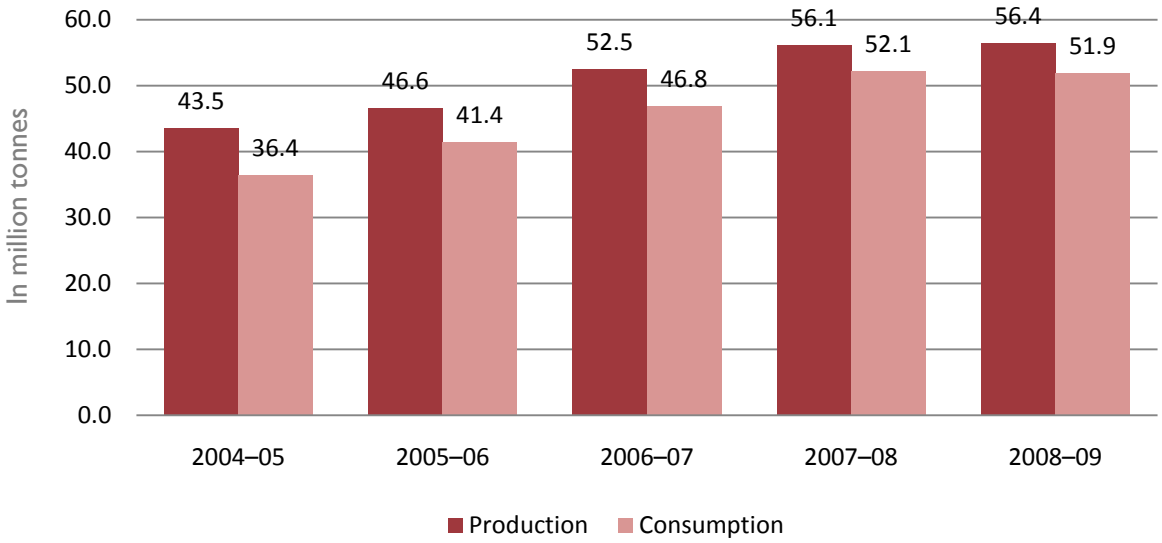
Market overview

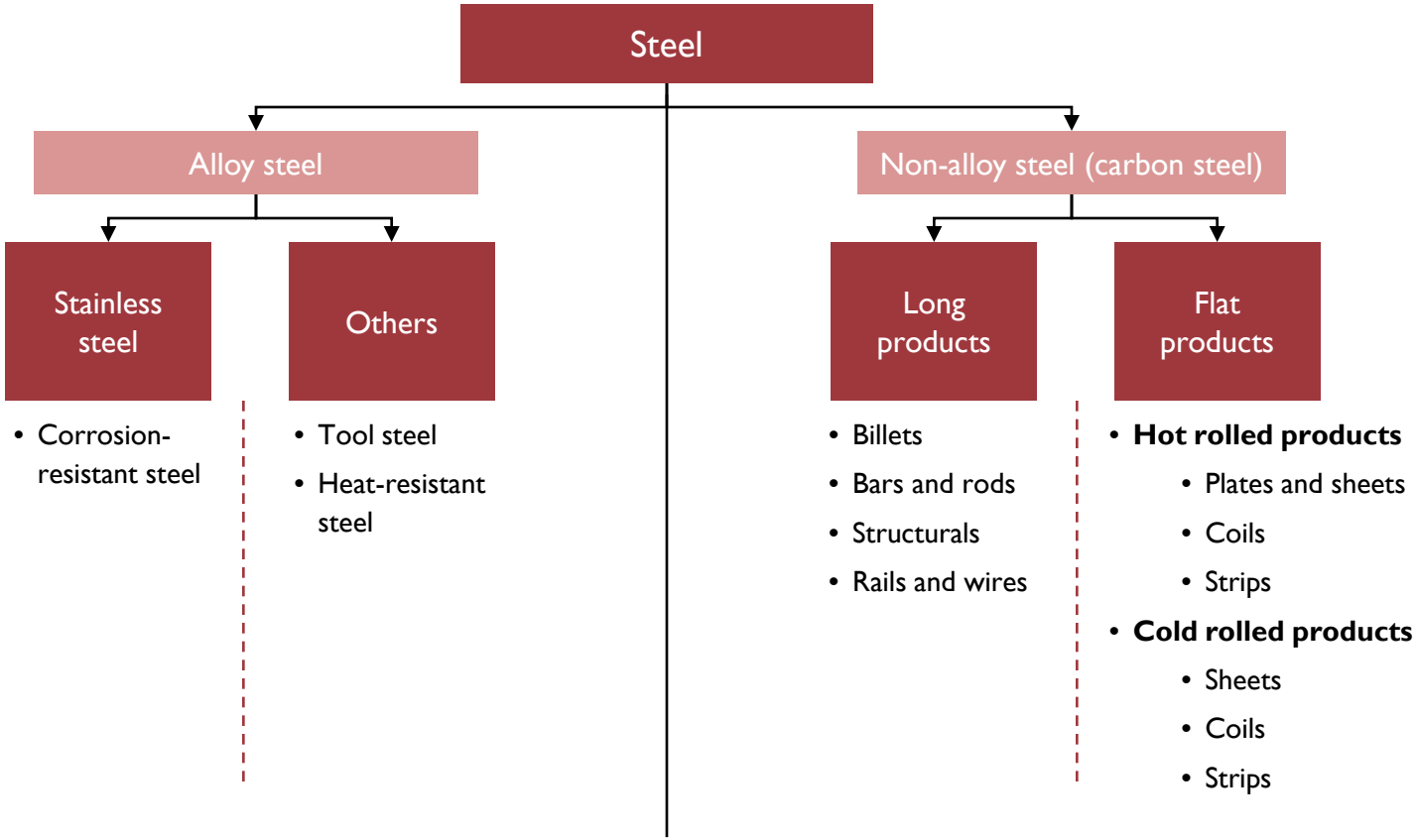
The production of total finished steel (alloy and non-alloy) registered a compound annual growth rate (CAGR) of 6.7 per cent between 2004–05 and 2008–09, while consumption increased at a faster rate of 9.3 per cent during the period.

Production and consumption trends in the total finished steel market



Source: MoS, GoI, annual report 2008–09

Product segments



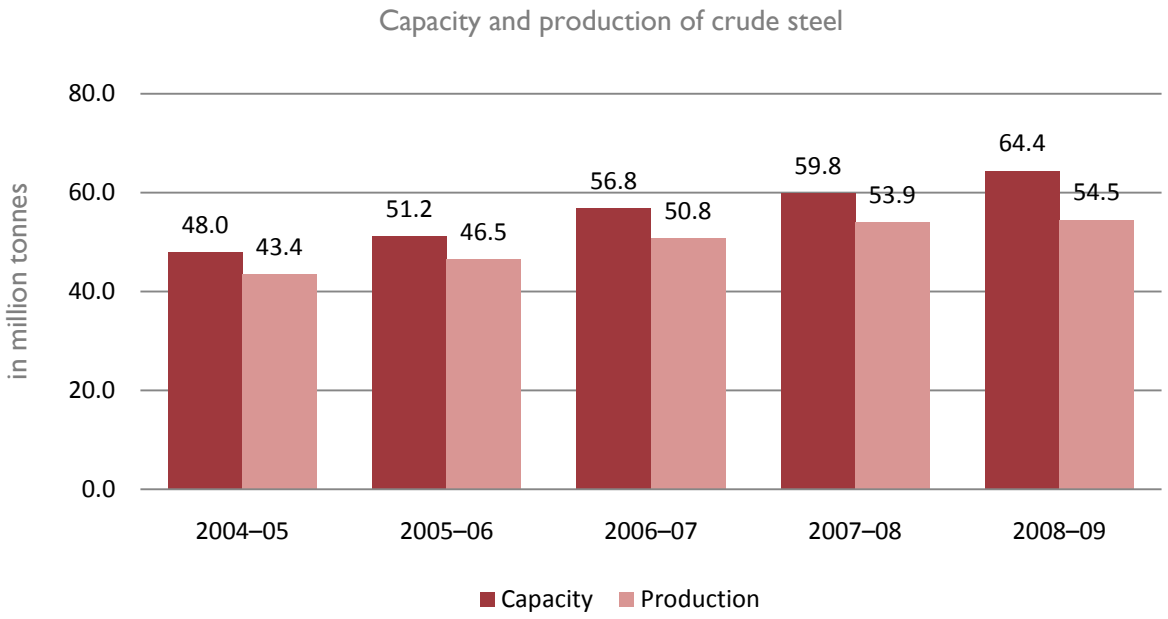
Exports

- The value of steel exports declined between 2007 and 2009 due to the increase in domestic consumption and relatively lower demand from importing countries.

Source: MoS, GoI, annual report 2008–09

Domestic demand … (1/5)

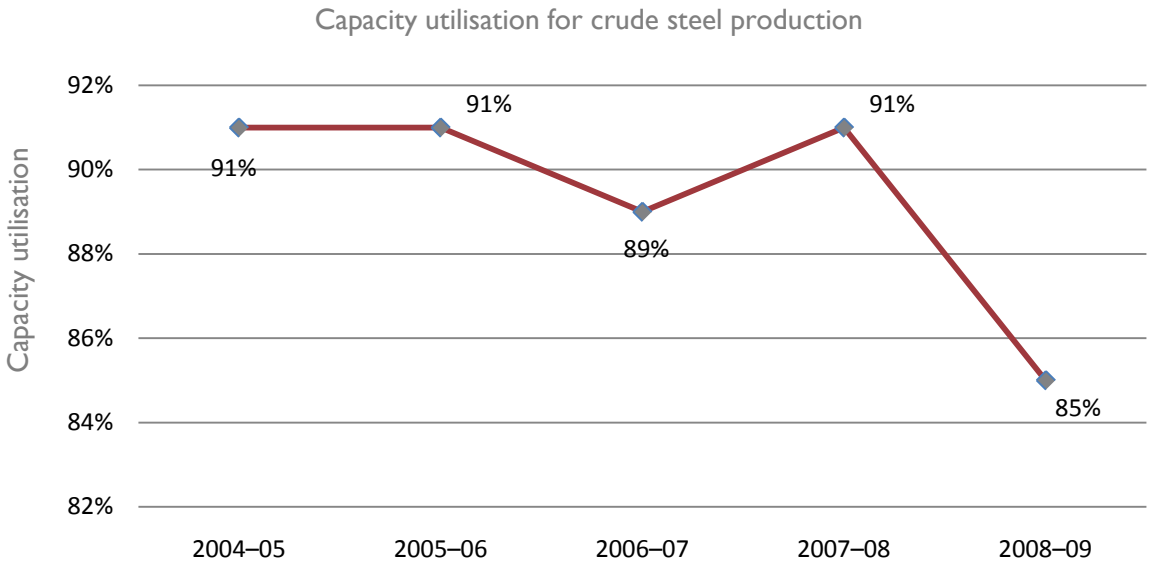
- India's per capita steel consumption was recorded at 46 kg in 2008.
- The domestic demand for steel is estimated to grow at an annual average rate of more than 10 per cent in the next five years.



Source: MoS, GoI, annual report 2008–09

Domestic demand … (2/5)

- The steel production capacity is estimated to reach 124 million tonnes by 2011–12.
- In 2008–09, the installed capacity for crude steel was estimated at 64.4 million tonnes, while production was estimated at 54.5 million tonnes, resulting in an 85 per cent capacity utilisation.

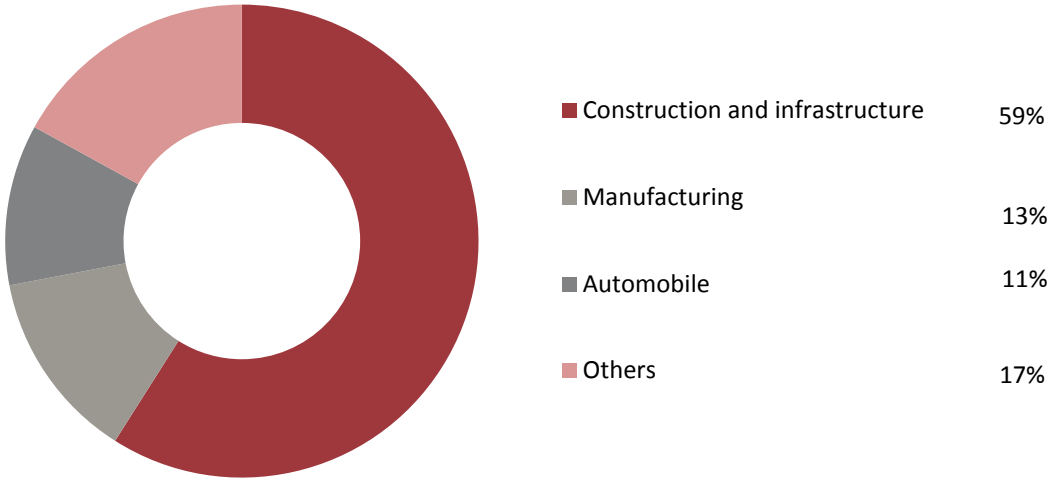


Source: MoS, GoI, annual report 2008–09

Domestic demand … (3/5)

- Long-products constituted 57 per cent of the total finished steel consumption, while the remaining 43 per cent was constituted by flat-products in 2007–08.

Sector-wise consumption of finished steel (2007–08)

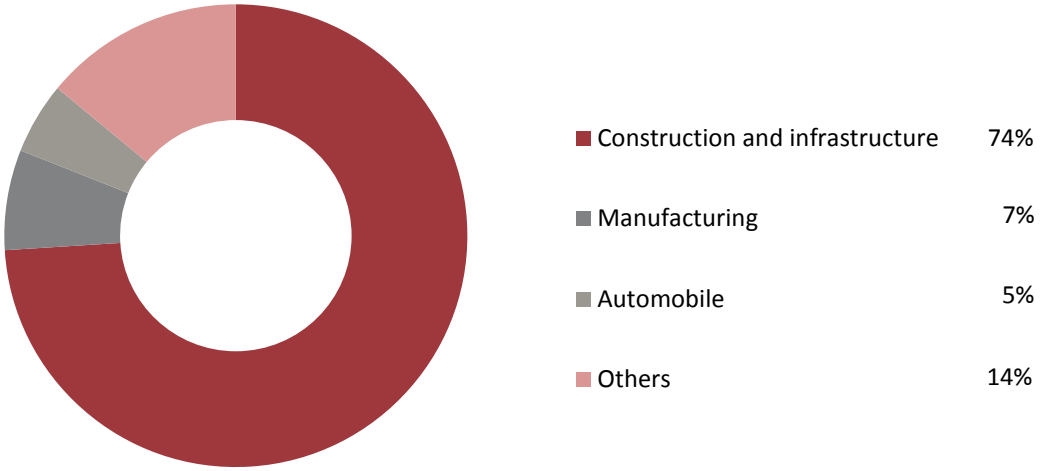


Sources: MoS, GoI, annual report 2008–09; JSW Steel, annual report 2007–08

Domestic demand … (4/5)

- The construction sector, accounting for 39 per cent of the sales of the total galvanised products in 2007–08, is expected to drive the demand for galvanised plain coils and corrugated sheets.

Long-product consumption (2007–08)

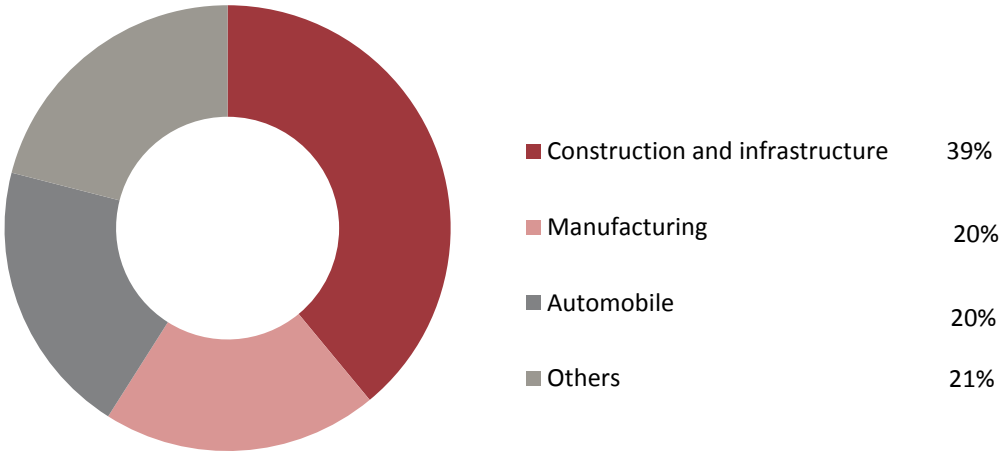


Sources: MoS, GoI, annual report 2008–09; JSW Steel, annual report 2007–08

Domestic demand … (5/5)

- The demand for flat steel in the automobile sector continues to rise exponentially.

Flat-product consumption (2007–08)



Sources: MoS, GoI, annual report 2008–09; JSW Steel, annual report 2007–08

Growth drivers … (1/4)

Ease of input availability

- India's steel sector has a competitive advantage vis-à-vis the availability of raw material and workforce, both skilled and unskilled. Iron ore and coal constitute the primary raw materials for steel production.
- India is endowed with large reserves of iron ore. The iron ore-rich states of India are Orissa, Jharkhand and Chhattisgarh. The National Minerals Development Corporation (NMDC) plans to expand its iron ore production capacity from its current capacity of 30 million tonnes per annum (MTPA) to 50 MTPA by 2014–15 through the capacity expansion of existing mines as well as by setting up new mines.
- The total coal production, including raw coal and lignite, stood at 525.3 million tonnes in 2008–09, and increased at a CAGR of 6.2 per cent between 2004–05 and 2008–09. The key raw material for the production of steel is metallurgical coal, which accounts for 17 per cent of the country's coal reserves.
- India has a strong workforce base, with about 40 per cent of the country's population constituting its labour force.

Sources: "Employment in Organised Industry: Engineering Sector contributes the most," Engineering Export Promotion Council website, www.eepc.org, accessed January 6, 2010; "Provisional Coal Statistics 2008–09," Ministry of Coal, GoI; "World Factbook — India," CIA website, https://www.cia.gov/index.html, accessed May 15, 2010

Growth drivers … (2/4)

Sustained growth in the construction and infrastructure sector

- The construction sector is a major consumer of long-products such as rods, bars/coil sections, wire and reinforcing.
- The construction industry is expected to regain momentum over the next few years, with the Indian Government laying emphasis on infrastructure development and increasing expenditure on development activities across sectors.
- The Eleventh Five Year Plan (2007–2012) has allocated investments worth US$ 490 billion for the core infrastructure sector, comprising power, roads, highways, railways, ports, airports, mining and irrigation.

Source: Indian Engineering and Construction Industry Study — Financial Year 2007–2008, Ernst & Young

Growth drivers … (3/4)

Automobile sector regaining demand

- India is the world's second-largest manufacturer of two wheelers and the fifth-largest manufacturer of commercial vehicles. Car and multi-utility vehicle production stood at 1.8 million units in 2008–09, registering a 4 per cent growth over 2007–08.
- The automotive sector in India is witnessing growth and is expected to register strong growth in both the domestic market and export segments.
- Low-cost passenger cars are expected to lend a significant impetus to domestic demand.
- The production of passenger and commercial vehicles is expected to reach 4.9 million, and two and three-wheeler production is expected to reach 36.5 million by 2016, further driving the demand for the flat steel segment.

Sources: "Industry statistics," *Auto component Manufacturers Association website*, www.acma.org, accessed January 28, 2010

Growth drivers … (4/4)

Oil and gas sector expanding base

- India's oil and gas sector is on an expansion mode, with the demand outstripping supply and companies aiming at increasing the gas grid network. This sector is expected to raise the demand for the long-products segment — pipelines.

- India had total reserves of 775 million metric tonnes (MMT) of crude oil and 1,074 billion cubic metres (BCM) of natural gas as on April 1, 2009. The Krishna-Godavari (KG) basin has been a potential zone for oil and gas extraction and has gained further significance due to the back-to-back oil exploration and extraction successes of several oil majors such as Reliance Industries Limited (RIL), Oil and Natural Gas Corporation (ONGC) and Gujarat State Petroleum Corporation (GSPC).

- The three KG basin gas discoveries by RIL are expected to result in a quantum leap towards achieving India's energy security by accounting for 40 per cent of the country's current hydrocarbon production, also leading to reduced dependence on external sources.

- The volume build up is expected to translate into potential pipeline demand for laying of the transportation networks for both liquid and gas fuel distribution. Apart from the long-product pipeline demand, the oil and gas sector is also expected to drive the demand for steel used in the construction market due to the increase in refinery capacity.

Sources: "Basic Statistics on Petroleum and Natural Gas, 2008–09," Ministry of Petroleum & Natural Gas, GoI; Indian Engineering and Construction Industry Study — Financial Year 2007–08, Ernst & Young

Key trends

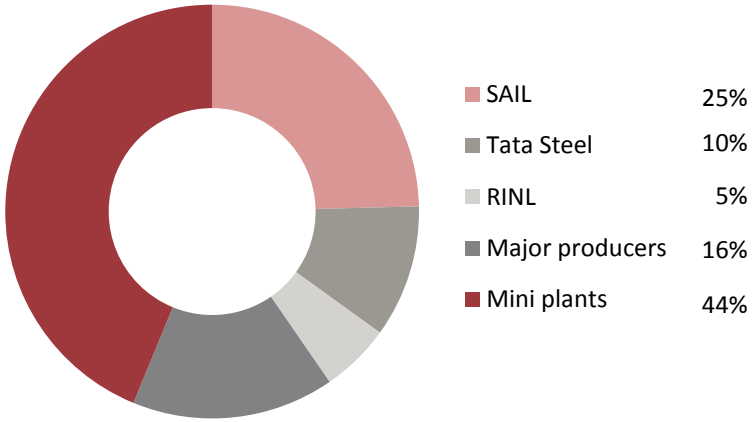
Capacity addition and expansion	• Capacity additions in the industry over the past five years are primarily a result of brownfield expansions. This can be attributed to the relatively lower investment commitment compared to the greenfield expansion. • Tata Steel added 1.8 million tonnes capacity to their crude steel production through brownfield expansions to reach 6.8 million tonnes. It plans to add another 3 million tonnes to reach a capacity of 10 million tonnes. • JSW Steel is expanding its Vijayanagar plant (Karnataka) through brownfield expansion to reach a production capacity of 9.6 million tonnes by 2010.
Technology upgrades	• Players are introducing latest technologies such as high top pressure, high blast temperature, pulverised coal injection, attention to burden preparation and distribution and higher use of sinter in place of lumps for reducing coke consumption in blast furnaces and improving productivity. • Currently, players are producing steel with a lower content of oxygen, nitrogen and hydrogen by introducing technologies such as ladle metallurgy and vacuum degassing, among others.
Focus on domestic market	• The demand-supply gap in the domestic market is increasing at a faster pace than the export growth, translating into a better opportunity for players to tap the existing domestic market. • India and China are the only countries to have registered positive growth in steel production in the period between January and March 2009.

Source: MoS, GoI, annual report 2008–09

Key players … (1/3)

- The Indian steel industry is consolidated, with the three main producers accounting for 40 per cent of the total production of crude steel in 2008–09.
- The public sector companies contributed 30 per cent to the total crude steel production.
- SAIL and Tata Steel have captive iron ore mines in India to cater to the domestic steel manufacturing plants, while other players rely on NMDC and other domestic players for their iron ore requirement.

Player-wise steel production for 2008–09



Source: MoS, GoI, annual report 2008–09
MBF* Mini blast furnace
ETF** Exchange-traded funds

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Key players … (2/3)

Steel manufacturers		
Main producers	Major producers	Mini plants
• Steel Authority of India Ltd (SAIL) • Rashtriya Ispat Nigam Ltd • Tata Steel Ltd	• JSW Steel Ltd • Essar Steel Ltd • Ispat Industries Ltd • Jindal Steel & Power Ltd	• Electric arc furnace (EAF) based units — 33 working units • Induction furnace-based units — 970 working units • MBF*-ETF** based units — two units

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Key players … (3/3)

Company	Sales (2008–09) US$ billion (INR billion)	Products
Tata Steel Ltd	31.01 (1,488)	Finished steel (non-alloy steel)
SAIL	11.11 (533)	Finished steel (non-alloy steel)
J S W Steel Ltd	3.72 (179)	Hot rolled coils, strips, sheets
Jindal Steel & Power Ltd	2.47 (119)	Iron and steel
Ispat Industries Ltd	1.98 (95)	Hot rolled coils, strips, sheets
Welspun-Gujarat Stahl Rohren Ltd	1.38 (66)	Tubes and pipes
J S L Ltd	1.134 (54)	Flat products
Bhushan Steel Ltd	1.11(53)	Cold rolled coils, strips, sheets
Uttam Galva Steels Ltd	0.94 (45)	Flat products
K E C International Ltd	0.73 (35)	Heavy structurals

Source: Prowess, January 19, 2010; Centre for Monitoring Indian Economy

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Industry infrastructure — special economic zones (SEZs)

Developer	Location	Product
Viraj Profiles Ltd	Thane, Maharashtra	Stainless steel engineering products
Jindal Stainless Ltd	Kalinga Nagar, Orissa	Stainless steel and ancillary/downstream industry
SAIL Salem SEZ Pvt Ltd	Salem, Tamil Nadu	Steel
JSW Bengal Steel Ltd	West Medinipur, West Bengal	Steel
Gremach Infrastructure Equipments & Projects	Kolhapur, Maharashtra	Metal
Orissa Industrial Infrastructure Development Corporation	Jajpur, Orissa	Metallurgical-based engineering and ancillary/downstream industry

Source: "Formal approvals granted in the Board of Approvals after the SEZ rules coming into force as on 15 January 2009," Special economic zones in India website, www.sezindia.nic.in, accessed January 5, 2010

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Investments … (1/2)

- The largest inbound deal announced between 1 January 2009 and 30 November 2009 was the 29 per cent acquisition of Uttam Galva Steel Ltd by Arcelor Mittal for US$ 82.3 million in September 2009.
- The largest outbound deal announced was the acquisition of Rocklands Richfields Ltd by Jindal Steel and Power Ltd for US$ 97.9 million in September 2009.
- The largest domestic deal announced was the 26 per cent acquisition of Orissa Sponge Iron & Steel by Bhushan Power & Steel Ltd for US$ 32.1 million in February 2009.

M&A scenario — details		
Period : January 1, 2009 to November 30, 2009		
Deal type	No of deals	Largest deal value (US$ million)
Inbound	3	82.3
Outbound	1	97.9
Domestic	4	32.1

Cumulative FDI inflows	
Period: April 2000 to January 2010	
Sector	US$ million
Metallurgical industries	3,073.4
Per cent of total FDI inflow	2.8

Sources: Bloomberg, accessed December 4, 2009; "Fact Sheet On Foreign Direct Investment (FDI)," *Department of Industrial Policy and Promotion website*, www.dipp.nic.in, accessed January 7, 2010; Ernst & Young analysis

Investments … (2/2)

- 222 MoUs that have been signed by various states with steel producers for a planned capacity of about 275.7 million tonnes.

- The major states attracting investment in the steel sector include Orissa, Jharkhand, Chhattisgarh, West Bengal, Karnataka, Gujarat and Maharashtra.

State	MoU signed	Capacity addition (MTPA)
Orissa	49	75.7
Jharkhand	65	104.2
Chhattisgarh	74	56.6
West Bengal	12	21.0
Other states	22	18.2
Total	222	275.7

Source: Ministry of Steel, GoI, Annual Report 2008–09

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Policy and regulatory framework … (1/2)

- 100 per cent foreign direct investment (FDI) through the automatic route is allowed in the Indian steel sector, after the de-licensing and liberalisation of the sector in 1991.
- The government also removed price and distribution controls in the sector, and the price is now determined by the demand-supply dynamics. However, the government controls the excise, import and export duty levies.
- Some of the initiatives taken by the government to promote the steel sector include:
    - National Steel Policy 2005
        - The national policy seeks to facilitate the removal of procedural and policy bottlenecks that affect the availability of production inputs, increased investment in research and development, and the creation of road, railway and port infrastructure.
        - The policy focusses on the domestic sector, but also envisages a steel industry growing at a faster pace than the domestic consumption, which will enable export opportunities to be realised.
        - According to the revised estimates of the MoS, the steel production capacity in the country is expected to be nearly 124 million tonnes by the year 2011–12.

Policy and regulatory framework … (2/2)

- Some of the initiatives undertaken by the Indian Government in the Eleventh Plan to promote the steel sector include:
    - The Planning Commission has approved a total outlay of US$ 9.5 billion (INR 456.1 billion) for the development and promotion of the iron and steel sector.
    - The 'scheme for the promotion of research and development in the iron and steel sector' has been approved with a budgetary provision of US$ 24.6 million (INR 1,180 million) for implementation.

Source: Ministry of Steel, GoI, Annual Report 2008–09

Source: MoS, GoI, annual report 2008–09

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Opportunities … (1/2)

Steel pipes and tubes

- The rising costs of coal and crude oil have resulted in a shift towards the use of alternate fuels. To leverage this opportunity, companies are investing in building a pipeline network for gas distribution.
- The setting up of refineries requires investment in pipe networks to transport crude oil and refined products, resulting in heightened demand for steel pipes and tubes.
- The increasing investments by the state governments in water and sewage pipes infrastructure management are also expected to augment the anticipated demand.

Opportunities … (2/2)

Structural steel

- The emphasis on infrastructure development is expected to enable a surge in demand for structural steel components, primarily used for construction purposes.
- Steel majors such as JSW Steel and Tata Steel are investing to enhance the capacities of products such as TMT bars (rebars).
- Pre-engineered buildings (PEBs) are also increasingly gaining prominence in the industrial construction area due to the ease of on-site erection and in-house design and fabrication. This segment has opportunities for products such as steel plates, galvanised, colour-coated and galvalume products.

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Industry associations

Indian Stainless Steel Development Association

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E-mail: nissda@gmail.com

Note

Wherever applicable, numbers in the report have been rounded off to the nearest whole number.

Conversion rate used: US$ 1= INR 48

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