

OVERVIEW OF IRON AND STEEL INDUSTRY

Steel is crucial to the development of any modern economy and is considered to be the backbone of human civilisation. The level of per capita consumption of steel is treated as one of the important indices of the level of socio-economic development and living standard of the people in any country. It is a product of a large and technologically complex industry having strong forward and backward linkages in terms of material flows and income generation. All major industrial economies are characterised by the existence of a strong steel industry and the growth of many of these economies has been largely shaped by the strength of their steel industries in their initial stages of development.

HISTORICAL PERSPECTIVE

The finished steel production in India has grown from a mere 1.1 million tonnes in 1951 to 29.27 million tonnes in 2000-2001. During the first two decades of planned economic development, i.e. 1950-60 and 1960-70, the average annual growth rate of steel production exceeded 8%. However, this growth rate could not be maintained in the following decades. During 1970-80, the growth rate in steel production came down to 5.7% per annum and picked up marginally to 6.4% per annum during 1980-90, which increased to 6.65% per annum during 1990-2000. Though India started steel production in 1911, steel exports from India began only in 1964. Exports in the first five years were mainly due to recession in the domestic iron and steel market. Once domestic demand revived, exports declined. India once again started exporting steel only in 1975 touching a figure of 1 million tonnes of pig iron export and 1.4 million tonnes of steel export in 1976-77. Thereafter, exports again declined to pick up only in 1991-92, when the main producers exported 3.87 lakhs tonnes, which rose to 2.79 million tonnes in 1995-96. The steel exports in 1999-2000 was 2.36 million tonnes and in 2000-01 it was 2.57 million tonnes.

The growth in the steel sector in the earlier decades since Independence was mainly in the public sector units set up during this period. The situation has changed dramatically in the decade 1990-2000 with most of the growth originating in the private sector. The share of public sector and private sector in the production of steel during 1990-91 was 46% and 54% respectively, while during 2000-01 the same was 32% and 68% respectively. This change was brought about by deregulation and decontrol of the Indian iron and steel sector in 1991.

A number of policy measures have been taken since 1991 for the growth and development of the Indian iron & steel sector. Some of the important steps are (a) removal of iron & steel industry from the list of industries reserved for the public sector and also exemption from the provisions of compulsory licensing under the Industries (Development & Regulation) Act, 1951, (b) deregulation of price and distribution of iron & steel, (c) inclusion of iron and steel industry in the list of high priority industries for automatic approval for foreign equity investments upto 74%, (d) lowering of import duty on capital goods and raw materials etc.

GROWTH OF THE INDIAN STEEL SECTOR AFTER LIBERALISATION

FINISHED CARBON STEEL

The Indian steel sector was the first core sector to be completely freed from the licensing regime and the pricing and distribution controls. This was done primarily because of the inherent strengths and capabilities demonstrated by the Indian iron and steel industry. During 1996-97, finished steel production shot up to a record 22.72 million tonnes with a growth rate of 6.2%, while in 1997-98, the finished steel production increased to 23.37 million tonnes, which was 2.8% more than the previous year. The growth rate has drastically decreased in 1997-98 and 1998-99 being 2.8% and 1.9% respectively as compared to 20% in 1995-96 and 6.2% in 1996-97. The growth rate in 2000-2001 has improved to a healthy 9.60% with the total production touching 29.27 million tonnes. The production of finished steel during April – November, 2001 has been 19.43 million tonnes, which is lower by 0.7% than the production during the corresponding period of last year.

This fall in the growth rate of steel production has been brought about by several factors which, inter alia, include general slow down in the industrial production and construction activities in the country coupled with lack of growth in major steel consuming sectors. The total production of finished steel and the share of main and secondary producers during 90's and upto the present has been as follows :-

(In million tonnes)

YEAR	MAIN PRODUCERS	SECONDARY PRODUCERS	TOTAL
1991-92	7.96 (55%)	6.37 (45%)	14.33
1992-93	8.41 (55%)	6.79 (45%)	15.20
1993-94	8.77 (57.6%)	6.43 (42.4%)	15.20
1994-95	9.57 (53.8%)	8.25 (46.2%)	17.82
1995-96	10.59 (49.5%)	10.81 (50.5%)	21.40
1996-97	10.54 (46.4%)	12.18 (53.6%)	22.72
1997-98	10.44 (44.6%)	12.93 (55.4%)	23.37
1998-99	9.91(41.6%)	13.91(58.4%)	23.82
1999-2000	11.20(41.9%)	15.51(58.1%)	26.71
2000-2001	12.49 (43%)	16.78(57%)	29.27
2001-2002 (Till Nov.)	8.33(42.8%)	11.10(57.2%)	19.43

(Figures in brackets indicate the percentage share)

PIG IRON

Along with the production of steel, the production of pig iron in the country during the period 1991-92 to the present has also increased. The details are as under :-

(In million tonnes)

YEAR	MAIN PRODUCERS	SECONDARY PRODUCERS	TOTAL
1991-92	1.485	0.102	1.587
1992-93	1.679	0.165	1.844
1993-94	1.977	0.273	2.250
1994-95	2.005	0.780	2.785
1995-96	1.735	1.060	2.795
1996-97	1.733	1.557	3.290
1997-98	1.760	1.687	3.447
1998-99	1.354	1.644	2.998
1999-2000	1.245	1.900	3.145
2000-2001	0.97	2.43	3.40
2001-2002 (Till Nov.)	0.670	1.872	2.542

SPONGE IRON

During the early 90s, sponge iron industry had been specially promoted so as to provide an alternative to steel melting scrap, which has increasingly becoming scarce. The production of sponge iron (Direct Reduced Iron - DRI) during the period 1991-92 to the present was as under:-

(In million tonnes)

YEAR	PRODUCTION	% INCREASE
1991-92	1.31	-
1992-93	1.44	9.9
1993-94	2.40	66.7
1994-95	3.39	41.3
1995-96	4.40	29.8
1996-97	5.01	13.8
1997-98	5.35	6.78
1998-99	5.16	(-) 3.55
1999-2000	5.18	1.37
2000-2001	5.44	5.01
2001-2002 (Till Oct.)	3.30	3.99 (during the same period last year)

Today, India is the second largest producer of sponge iron in the world. The production of sponge iron in the country has resulted in providing an alternative feed

material to steel melting scrap, which was hitherto imported in large quantities by the Electric Arc Furnace Units and the Induction Furnace Units. This has resulted in considerable savings in foreign exchange.

APPARENT CONSUMPTION OF STEEL

Apparent consumption of steel is arrived at by subtracting export of steel from the total of domestic production and import of steel in the country. Change in stock is also adjusted in arriving at the consumption figures. It is also treated as the actual domestic demand of steel in the country. The year-wise apparent consumption of finished steel since 1990-91 is given in the table below :-

(In million tonnes)

YEAR	APPARENT CONSUMPTION
1990-91	14.37
1991-92	14.83 (3.2%)
1992-93	15.00 (1.2%)
1993-94	15.32 (2.0%)
1994-95	18.66 (21.8%)
1995-96	21.65 (16.0%)
1996-97	22.13 (2.2%)
1997-98	22.63 (2.6%)
1998-99	23.54(4.02%)
1999-2000	25.01(6.24%)
2000-2001	26.53(6.08%)
2001-02(Till Nov.)	17.33(0.6%)

(The figures in brackets indicate the percentage increase over the previous year / period)

The apparent consumption of steel did not show any substantive increase in 2001-2002 (till November) mainly due to slowdown being faced by some of the steel using industries like automobile and engineering industries and construction. With the revival of the demand for automobile and engineering goods and general improvement in the economy, it is expected that consumption of steel will pick up.

India's per capita crude steel consumption, as per the latest figures available, is 27 Kg, which is far below the level of other developed and developing countries -- 458 kg., 406 kg. and 108 kg. in USA, the EU and China respectively. With the ongoing economic liberalisation resulting in faster economic growth, steel consumption is expected to increase rapidly.

LONG TERM DEMAND-AVAILABILITY PROJECTIONS OF FINISHED STEEL

In order to have a long term perspective and planning, a Sub-Group on Steel and Ferro Alloys was constituted for steel sector under the aegis of Planning Commission. The Sub-Group deliberated upon all aspects including supply-demand projections for finished steel during the period 2001-02 to 2011-12. Considering a GDP growth rate of 6.5% as realistic during the Xth Plan, the Sub-Group has projected the demand for finished carbon steel in the country to rise as follows:-

(In million tonnes)	
Year	Forecast of demand for Finished Carbon Steel
2001-02	28.24
2002-03	30.01
2003-04	31.91
2004-05	33.92
2005-06	36.05
2006-07	38.22
2007-08	40.74
2008-09	43.30
2009-10	46.03
2010-11	48.93
2011-12	52.01

IMPORT AND EXPORT OF IRON AND STEEL

IMPORT OF STEEL

India was importing about 10 to 15 lakh tonnes of steel, annually.

Due to a rise in domestic demand, the import of saleable steel in 1996-97 reached a level of 1.80 million tonnes. The incidence of import was mainly in hot rolled coils, cold rolled coils and semis. Import of saleable steel during 2000-01 was about 1.9 million tonnes, which was about 14% less than the import in 1999-2000.

The total import of steel, pig iron and scrap during the last five years and value thereof is as under :-

(Quantity –million tonnes)
(Value – Rupees in crore)

Category	1996-97		1997-98		1998-99		1999-00		2000-01 (Prov.)	
	Qty	Value	Qty	Value	Qty	Value	Qty	Value	Qty	Value
Saleable Steel	1.797	3041	1.815	2900	1.652	2459	2.200	2930	1.885	2712
Pig Iron	0.015	12	0.003	3	0.002	2	0.003	2	0.002	2
Steel Scrap	1.165	709	0.819	497	0.880	478	1.076	584	1.512	945
Total	2.977	3762	2.637	3400	2.534	2939	3.279	3516	3.399	3659

EXPORT OF STEEL

The Industry has been able to maintain its net exporter status during the year in the trading of finished steel. In fact exports of non-flat products recorded a growth rate of 5.7% over last year. The quantity and value of steel, pig iron and sponge iron exported from the year 1996-97 is as given below.

(Quantity –million tonnes)
(Value – Rupees in crores)

Year	Saleable Steel		Pig Iron		Sponge Iron		Total Iron & Steel	
	Qty	Value	Qty	Value	Qty	Value	Qty	Value
1996 – 97	1.992	2039	0.406	192	0.380	165	2.778	2396
1997 – 98	1.878	2343	0.784	404	0.374	190	3.036	2937
1998 – 99	1.945	2293	0.276	131	0.169	85	2.390	2509
1999 – 2000	2.024	3163*	0.290		0.053	15	2.367	3609*
2000 – 2001#	2.336	3973*	0.232		Nil	Nil	2.568	4672 *

*Source: DGCI&S #Provisional

Earlier, exports consisted mainly of plates, structurals, bars and rods, whereas now additional items like semis, hot rolled coils, cold rolled coils, colour coated sheets, GP/GC sheets and pig iron are also being exported. In future, it is expected that the quantum of exports of more value added items would further increase.

CURRENT GLOBAL SCENARIO

The global production of crude steel increased from 777 million tonnes in 1998 to 785 in 1999. The world steel consumption has also increased by 1%. The international steel trade constituted around 279.6 million tonnes or 39.8% of the production.

World steel industry witnessed major ups and downs in the last two decades and especially over the past five years. The pattern of trade has been upset by two important developments. These are the collapse of the Soviet Union and the severe financial crisis in most South East Asian countries as well as in Korea and Japan.

The Asian crisis and the collapse of USSR have transformed importers of steel into exporters. Till the recent financial crisis, the Asian countries were large importers of steel. In 1996, eight of the ten largest steel producing nations were in Asia and import by the region in the mid 1990's was around 80-90 million tonnes of finished and semi finished steel per year, which is equivalent of a third of total steel trade. After the Asian crisis, the region got transformed into a net exporter of steel.

The world steel industry is today characterised by excess capacity and poor demand. This scenario has led to an undesirable impact in the form of increasing protectionism within the developed countries and large scale dumping in the international markets. During this year, Indian exports have been subjected to Anti-

dumping/Counter-vailing duties investigations in EU, USA and Canada. There have also been instances of dumping of steel in our country. It is in this global context that the Indian steel industry will have to cast its future role.

DOMESTIC STEEL SECTOR SCENARIO

The iron and steel sector has been experiencing a slow down in the last few years. The growth of the steel sector is dependent upon the growth of the economy in general and the growth of industrial production and infrastructure sectors in particular. The major reasons for the slow growth in the steel sector during the last few years include:-

(a) Sluggish demand in the steel consuming sectors

Steel being the basic raw material for the construction industry, the capital goods and engineering goods industry, as also the auto sector and white goods sector, its growth is dependent upon the demand for steel by these segments of the industry. Since no major infrastructure or construction projects have been implemented in the last few years, demand for steel has remained low. No major projects in the oil sector, power sector, fertiliser sector, where intensity of steel consumption is high, have come up in the recent past.

(b) Overall economic slow down in the country

All major core sectors of the economy have been facing an economic slow down. These include, power, coal, cement, industry, mining and steel. The slow down phenomenon is not restricted to the steel sector alone. Only when the overall economy of the country picks up, the steel sector would also show signs of revival.

(c) Lack of investment by Government/private sector in major infrastructure projects

Due to budgetary constraints, no major construction activity in mega projects including fertiliser, power, coal, railways etc. have been planned by the Government. Despite liberalisation of the economy and relaxation in the investment norms, private sector investment is yet to materialise in the core sectors of the economy. This has also contributed to slowing down demand for steel.

(d) Cost escalation in the input materials for iron and steel

Power tariff, freight rates, coal prices etc. have been under the administered price regime. These rates have been frequently enhanced, thereby contributing to the rise in input costs for steel making.

(e) Continuous reduction in import duty on iron and steel

After liberalisation, import duty rates on iron and steel items have been gradually reduced over the years. This has opened up the domestic iron and steel sector to international competition. Due to rationalisation in the import duty structure in 1999-2000, the rates of basic custom duty have generally gone up. The Table given below indicates the extent of changes brought about in the customs duty of some of the items of steel since 1993-94 :-

(Import duties % Ad valorem)

Item	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02
HR Coils	50	40	30	25	25	25	25	25	25
CR Coils	75	50	40	25	30	30	35	35	35
Plates	75	50	40	30	30	30	35	35	35
Bars/ Rods/ Structural	85	50	40	30	30	30	35	35	35

ACTION BEING TAKEN BY MINISTRY OF STEEL

The Ministry of Steel has been making all out efforts to help the domestic steel sector to overcome the problems faced by the steel industry at present. These include :-

(a) Boosting demand in the steel consuming sectors

To help the steel industry by way of research and developmental support for boosting steel consumption and providing technical support and trained manpower to steel producing and consuming sectors, the following institutes have been set up:-

- (i) The Institute for Steel Development and Growth (INSDAG), Kolkata (West Bengal);
- (ii) National Institute of Secondary Steel Technology(NISST), Mandi Govind Garh (Punjab); and
- (iii) Biju Patnaik National Steel Institute, Puri (Orissa).

The Development Commissioner for Iron & Steel(DCI&S) has launched a National Campaign for increasing the demand for steel, in non-traditional sectors, particularly in the construction, rural and agro-based industrial sectors.

(b) Reduction in Power & Rail Tariffs

In order to make despatches of iron and steel material more attractive through railways, the Railway Board has been requested to consider lowering the classification of steel, give freight discount to bulk users and to bring down freight rates of iron and steel commodities.

(c) Reduction in input costs

The Ministry of Steel has been able to rationalise the classification of coking coal in consultation with the Coal Ministry so as to reduce the impact of royalty payable on

this basic raw material. Import duties on several raw materials, such as, scraps, ships for breaking, coke, etc. used by the steel industry have been reduced steadily over the past 4 to 5 years.

(d) Strengthening of Anti Dumping mechanism

To check the increasing trend of cheap imports in certain categories of flat products especially from CIS and South East Asian countries, the Ministry of Steel has suggested a few necessary steps to Department of Commerce to strengthen the anti-dumping mechanism so that quick decisions to check dumping can be taken.

Future Prospects

With the onset of liberalisation, the steel industry has now to gear-up, not only to domestic competition, but also to global competition in terms of product range, quality and price. The growth of the steel sector is intricately linked with the growth of the Indian economy and especially the growth of the steel consuming sectors. India has become self-sufficient in iron and steel materials in the last 3-4 years. Exports are rising and imports are taking place mostly in a few specialised categories. Production and production capacities are increasing. The position needs to be further consolidated and issues affecting production and consumption need to be resolved on a continuous basis. At the same time, productivity of our steel plants must be maintained at levels close to international standards. The Ministry of Steel continues to play an active and major role in helping the steel industry to overcome bottlenecks in the growth of this sector.

FUNCTIONS OF THE OFFICE OF DEVELOPMENT COMMISSIONER FOR IRON AND STEEL

The Office of Development Commissioner for Iron & Steel (DCI&S) through its Regional Offices continued to perform its advisory, developmental and regulatory functions during the year.

After the deregulation of distribution and pricing of iron and steel, the major functions of the Development Commissioner for Iron and Steel are as follows :-

- a) Collection, processing and dissemination of basic information relating to the Iron and Steel industry and to act as the data bank of the Ministry of Steel;
- b) Monitoring of regional price and supply trends and suggesting to the Ministry of Steel remedial measures for correcting the imbalances, if any;
- c) Tendering advice on matters relating to import and export policies of iron and steel;
- d) Management of distribution of iron and steel materials to the designated priority sectors such as, Defence, Railways, State Small Industries Corporations, Engineering Goods Exporters and the North Eastern States;
- e) Survey of various segments of Steel Industry;

- f) Interface between the Government and different consumer groups to facilitate consumer – producer interaction; and
- g) Co-ordination for movement of raw materials to Steel Plants.

Steel Exporters Forum

The Ministry of Steel has set up a Steel Exporters Forum in February 1998 with a view to fulfil the long felt need of the producers and exporters from the iron and steel sector and also to resolve issues, problems and bottlenecks faced by them in exports. The Chairman of the Forum is the Development Commissioner for Iron and Steel and all major steel producers/associations are its members. Representatives of the Ministries of Finance, Railways and Surface Transport are also its members in addition to those of the Ministry of Steel.

Indian steel is exported to China, Japan, USA, Korea, Taiwan, Indonesia, Thailand, Malaysia, Italy, U.K., Germany, Canada, Spain, Australia etc.
