IRON AND STEEL[1]

(Data in million metric tons of metal unless otherwise noted)

Domestic Production and Use: The iron and steel industry and ferrous foundries produced goods in 2007 that were valued at about $150 billion. The industry consisted of about 57 companies that produced raw steel at about 116 plants, with combined production capability of about 113 million tons. Indiana accounted for about 24% of total raw steel production, followed by Ohio, 15%, Pennsylvania, 6%, and Michigan, 5%. Pig iron was produced by 8 companies operating integrated steel mills in 18 locations. The distribution of steel shipments was estimated to be warehouses and steel service centers, 21%; construction, 17%; transportation (predominantly for automotive production), 13%; cans and containers, 2%; and other, 47%. About 1,100 ferrous foundries continued to import pig iron into the United States, mainly from Brazil, Russia, and Ukraine.

Salient Statistics—United States:	2003	2004	2005	2006	2007[e]
Pig iron production[2]	40.6	42.3	37.2	37.9	36.1
Steel production:	93.7	99.7	94.9	98.2	97.8
Basic oxygen furnaces, percent	49.0	47.9	45.0	57.1	41
Electric arc furnaces, percent	51.0	52.1	55.0	42.9	59
Continuously cast steel, percent	97.3	97.1	96.8	96.7	96.7
Shipments:					
Steel mill products	96.1	101	95.2	99.3	96.8
Steel castings[3]	0.7	0.7	0.7	[e]0.7	[e]0.7
Iron castings[3]	7.5	7.5	7.4	[e]7.4	[e]7.4
Imports of steel mill products	21.0	32.5	29.1	41.1	31.5
Exports of steel mill products	2.5	7.2	8.5	8.8	10.1
Apparent steel consumption[4]	107	117	113	120	110
Producer price index for steel mill products (1982=100)[5]	109.5	147.2	159.7	174.1	183.3
Steel mill product stocks at service centers, yearend[6]	12.3	14.4	11.7	15.0	17.0
Total employment, average, number[7]					
Blast furnaces and steel mills	127,000	123,000	122,000	122,000	121,000
Iron and steel foundries[e]	116,000	116,000	115,000	115,000	115,000
Net import reliance[8] as a percentage of apparent consumption	10	14	15	17	12

Recycling: See Iron and Steel Scrap and Iron and Steel Slag.

Import Sources (2003-06): Canada, 17%; European Union, 16%; Mexico, 11%; Brazil, 8%; and other, 48%.

Tariff: Item	Number	Normal Trade Relations 12-31-07
Pig iron	7201.10.0000	Free.
Carbon steel:		
Semifinished	7207.12.0050	Free.
Structural shapes	7216.33.0090	Free.
Bars, hot-rolled	7213.20.0000	Free.
Sheets, hot-rolled	7208.39.0030	Free.
Hot-rolled, pickled	7208.27.0060	Free.
Cold-rolled	7209.18.2550	Free.
Galvanized	7210.49.0090	Free.
Stainless steel:		
Semifinished	7218.91.0015	Free.
Do.	7218.99.0015	Free.
Bars, cold-finished	7222.20.0075	Free.
Pipe and tube	7304.41.3045	Free.
Cold-rolled sheets	7219.33.0035	Free.

Depletion Allowance: Not applicable.

Government Stockpile: None.

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IRON AND STEEL

Events, Trends and Issues: Gross domestic product (GDP) growth may be considered a predictor of the health of the steelmaking and steel manufacturing industries worldwide and domestically. The global economy is projected by the International Monetary Fund to grow by 4.8% in 2008, down from 5.2% in 2007. The U.S. GDP growth is projected by the World Bank to increase by 3.0% in 2008, down from 2.1% in 2007.

Global raw steelmaking capacity was expected to increase steadily to 1.48 billion metric tons in 2008 from 1.44 billion tons in 2007. Global crude steel production increased 12.8% to 1.32 billion tons in 2007 from 1.17 billion tons in 2006. Production growth is expected to fall to 5.2% in 2008. Global steel production may reach 1.55 billion metric tons in 2015, according to the Boston Consulting Group. Global consumption of finished steel products was projected to increase by 6.8% to 1.20 billion tons in 2007, and by 6.8% in 2008, driven by high demand in Brazil, China, India, and Russia, which together accounted for about 41% of global steel consumption in 2006. Consumption was expected to increase in 2007 and 2008 in the United States by 5.0% and 6.7%, respectively; in the European Union, by 4.0% and1.4%, respectively; in India by 13.7% and 11.8%, respectively; in Brazil by 15.7% and 5.1%, respectively; in the Commonwealth of Independent States, by 8.9% in 2007 and 2008; and in Canada, Mexico, and the United States combined by 4.0% in 2007 and 2008.

Economic activity in China, which is the world's leading steel producer, continued to be an important influence on the world economy and steel markets. China contributed about 36% to total global production and accounted for about 64% of production growth recorded during the year. Steel production growth in China may slow to 11% in 2008 from 15% in 2007. China's steel production was 419 million tons in 2006, up from 353 million tons in 2005, and may reach an estimated 482 million tons in 2007. Steel consumption growth should remain strong (11.4% in 2007 and 11.5% in 2008) but should start to decelerate, especially after the Olympics in 2008, which accounted for 4% to 5% of China's economy in 2006-07. Steel use in China accounted for 35% of the world total in 2007. Raw steelmaking capacity may increase to 1.48 billion tons in 2008, from 1.44 billion tons in 2007 and 1.40 billion tons in 2006. China has been encouraging consolidation in the steelmaking sector to limit overcapacity. China is expected to have a capacity of 538 million tons in 2008. By 2010, China may produce 63 million tons of steel in excess of domestic demand.

World Production:

	Pig iron		Raw steel	
	2006	2007[e]	2006	2007[e]
United States	38	36	98	98
Brazil	35	35	33	32
China	404	465	419	482
France	13	13	20	14
Germany	47	31	47	33
Italy	12	11	32	21
Japan	84	87	116	120
Korea, Republic of	28	30	48	51
Russia	52	50	71	70
Ukraine	33	36	41	43
United Kingdom	11	11	14	10
Other countries	108	132	231	350
World total (rounded)	865	940	1,170	1,320

World Resources: Not applicable. See Iron Ore.

Substitutes: Iron is the least expensive and most widely used metal. In most applications, iron and steel compete either with less expensive nonmetallic materials or with more expensive materials that have a performance advantage. Iron and steel compete with lighter materials, such as aluminum and plastics, in the motor vehicle industry; aluminum, concrete, and wood in construction; and aluminum, glass, paper, and plastics in containers.

[e]Estimated.

[1]Production and shipments data source is the American Iron and Steel Institute; see also Iron Ore and Iron and Steel Scrap.

[2]More than 95% of iron made is transported in molten form to steelmaking furnaces located at the same site.

[3]U.S. Census Bureau.

[4]Defined as steel shipments + imports - exports + industry stock changes - semifinished steel product imports.

[5]U.S. Department of Labor, Bureau of Labor Statistics.

[6]Metals Service Center Institute.

[7]U.S. Department of Labor, Bureau of Labor Statistics. Blast furnaces and steel mills: NAICS 33111; Iron and steel foundries: NAICS 33151.

[8]Defined as imports – exports + adjustments for Government and industry stock changes.