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 valued at about $57 billion. The steel industry consisted of about 90 companies that produced raw steel at about 139 locations, with combined raw steel production capability of about 114 million tons. Indiana accounted for about 22% of total raw steel production, followed by Ohio, 14%, Michigan, 7%, and Pennsylvania, 7%. Pig iron was produced by 11 companies operating integrated steel mills, with about 33 blast furnaces in continuous operation. The distribution of steel shipments was estimated as follows: Warehouses and steel service centers, 24%; transportation (predominantly for automotive production), 14%; construction, 16%; cans and containers, 3%; and others, 43%. Ferrous foundries, numbering about 1,100, continued to be importers of pig iron into the United States, mainly from Brazil, Russia, and Ukraine.

Salient Statistics—United States:	**1998**	**1999**	**2000**	**2001**	**2002[e]**
Pig iron production[2]	48.2	46.3	47.9	42.1	39.4
Steel production:	98.6	97.4	102	90.1	92.0
Basic oxygen furnaces, percent	54.9	53.7	53.0	52.6	49.0
Electric arc furnaces, percent	45.1	46.3	47.0	47.4	51.0
Continuously cast steel, percent	95.5	95.9	96.4	97.2	97.2
Shipments:					
Steel mill products	92.9	96.3	99	89.7	89.6
Steel castings[3]	1.3	1.2	1.0	0.8	1.0
Iron castings[3]	9.8	9.8	9.4	8.3	9.0
Imports of steel mill products	37.7	32.4	34.4	27.3	28.3
Exports of steel mill products	5.0	4.9	5.9	5.6	5.3
Apparent steel consumption[4]	118	116	119	107	107
Producer price index for steel mill products (1982=100)[5]	113.8	105.3	108.4	101.3	102.3
Steel mill product stocks at service centers yearend[6]	7.7	7.7	7.8	7.1	7.3
Total employment, average, number[7]					
Blast furnaces and steel mills	160,000	153,000	151,000	141,000	140,000
Iron and steel foundries[e]	133,000	127,000	125,000	117,000	116,000
Net import reliance[8] as a percentage of apparent consumption	22	17	18	16	14

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

Import Sources (1998-2001): European Union, 19%; Canada, 14%; Japan, 10%; Mexico, 9%; and other, 48%.

Tariff: Item	**Number**	**Normal Trade Relations[9] 12/31/02**	**Mexico 12/31/02**
Pig iron	7201.10.0000	Free	Free.
Carbon steel:			
Semifinished	7207.12.0050	0.8% ad val.	0.4% ad val.
Structural shapes	7216.33.0090	0.2% ad val.	Free.
Bars, hot-rolled	7213.20.0000	0.4% ad val.	0.1% ad val.
Sheets, hot-rolled	7208.39.0030	1.0% ad val.	0.4% ad val.
Hot-rolled, pickled	7208.27.0060	1.0% ad val.	0.5% ad val.
Cold-rolled	7209.18.2550	0.6% ad val.	0.3% ad val.
Galvanized	7210.49.0090	1.3% ad val.	0.6% ad val.
Stainless steel:			
Semifinished	7218.91.0015	1.0% ad val.	0.5% ad val.
	7218.99.0015	1.0% ad val.	0.5% ad val.
Bars, cold-finished	7222.20.0075	2.1% ad val.	1.0% ad val.
Pipe and tube	7304.41.3045	1.5% ad val.	Free.
Cold-rolled sheets	7219.33.0035	2.0% ad val.	1.0% ad val.

Depletion Allowance: Not applicable.

Government Stockpile: None.

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IRON AND STEEL

Events, Trends, and Issues: During the first 7 months of 2002, monthly pig iron production fluctuated near 3.6 million tons and monthly raw steel production fluctuated near 8.2 million tons. Production totals during these periods decreased about 12% for pig iron and 4% for steel from those of 2001. Shipments of steel mill products during the first 5 months of 2002 were down 3% compared with those of 2001. Raw steel production was beginning an upward trend during the second half of 2002.

The U.S. steel industry has been seriously distressed since the Asian financial crisis of 1998. By early 2002, about 29 U.S. steel companies were bankrupt and 13 integrated and non-integrated steelmakers closed. Two of the companies, Bethlehem Steel Corp. and LTV Steel Corp., represent about half of the steelmaking capacity and jobs in the industry. Excessive steel importation allegedly has adversely affected the income of U.S. integrated steelmakers and their ability to pay health and pension benefits to retired workers.

The International Trade Commission's (ITC) Section 201 investigation under the Trade Act of 1974 determined that the U.S. steel industry has been significantly harmed by excessive steel importation. The ITC decided that U.S. makers of 16 of 33 steel product categories were injured by imports and these 16 products were eligible for trade restraints. Before the Section 201 investigation, the U.S. industry had filed 159 antidumping and countervailing duty cases to combat alleged unfair trade practices and succeeded in getting as much as 79% of steel imports under antidumping orders. ITC recommendations in December 2001 led to a March 2002 imposition of 8% to 30% duties on a wide range of products; the action led to a protectionist movement among foreign countries to repel cheaper steel no longer allowed in the United States.

World Production:

	Pig iron		Raw steel	
	2001	2002[e]	2001	2002[e]
United States	42.1	39.4	90.1	90.0
Brazil	27.8	28.0	27.5	27.0
China	145	160	149	170
European Union	91.9	84.7	161	161
Japan	78.8	80.5	103	106
Korea, Republic of	25.9	26.0	43.9	44.0
Russia	45.0	46.0	59.0	57.8
Ukraine	26.4	27.0	33.1	33.5
Other countries	98.0	110	180	180
World total (may be rounded)	581	600	851	870

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 having 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 molten to steelmaking furnaces located at the same site.
[3]U.S. Department of Commerce, Census Bureau.
[4]Defined as steel shipments + imports - exports + adjustments for industry stock changes + adjustment for imports of semifinished steel products.
[5]Bureau of Labor Statistics.
[6]Steel Service Center Institute.
[7]Bureau of Labor Statistics. Blast furnaces and steel mills: SIC 3312; Iron and steel foundries: NAICS 331511.
[8]Defined as imports - exports + adjustments for Government and industry stock changes.
[9]No tariff for Canada, Israel, and certain Caribbean and Andean nations.