IRON AND STEEL1

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

<u>Domestic Production and Use</u>: The iron and steel industry and ferrous foundries produced goods in 2005 valued at about \$126 billion. The industry consisted of about 79 companies that produced raw steel at about 122 plants, with combined production capability of about 106 million tons. Indiana accounted for about 22% of total raw steel production, followed by Ohio, 16%, Michigan, 6%, and Pennsylvania, 6%. Pig iron was produced by 9 companies operating integrated steel mills with about 31 blast furnaces in continuous operation. The distribution of steel shipments was estimated as follows: warehouses and steel service centers, 23%; construction, 15%; transportation (predominantly for automotive production), 13%; cans and containers, 3%; and other, 46%. About 1,100 ferrous foundries continued to be importers of pig iron into the United States, mainly from Brazil, Russia, and Ukraine.

Salient Statistics—United States:	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	2005 ^e
Pig iron production ²	42.1	40.2	40.6	42.3	33.1
Steel production:	90.1	91.6	93.7	99.7	92.4
Basic oxygen furnaces, percent	52.6	49.6	49.0	47.8	44.9
Electric arc furnaces, percent	47.4	50.4	51.0	52.2	55.1
Continuously cast steel, percent	97.2	97.2	97.3	97.1	96.7
Shipments:					
Steel mill products	89.7	90.7	96.1	101	102
Steel castings ³	0.8	0.7	0.7	0.7	0.7
Iron castings ³	8.3	7.8	7.5	7.5	7.4
Imports of steel mill products	27.3	29.6	21.0	32.5	30.1
Exports of steel mill products	5.6	5.4	2.5	7.2	8.4
Apparent steel consumption⁴	107	107	107	117	122
Producer price index for steel mill products					
$(1982=100)^5$	101.3	104.8	109.5	147.2	161.3
Steel mill product stocks at service centers					
yearend⁰	6.9	13.7	12.3	14.4	13.6
Total employment, average, number					
Blast furnaces and steel mills	141,000	140,000	140,000	128,000	120,000
Iron and steel foundries ^e	117,000	116,000	116,000	116,000	115,000
Net import reliance ⁸ as a percentage of					
apparent consumption	16	15	10	14	15

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

Import Sources (2001-04): Canada, 17%; European Union⁹, 17%; Mexico, 12%; Brazil, 10%; and other, 44%.

<u>Tar</u> iff: Item	Number	Normal Trade Relations
Pig iron	7201.10.0000	<u>12-31-05</u> 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.
	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.

IRON AND STEEL

Events, Trends, and Issues: During the first 8 months of 2005, monthly pig iron production fluctuated near 3.0 million tons, and monthly raw steel production fluctuated near 8.5 million tons. Production totals during these periods decreased about 19% for pig iron and 6.1% for steel from those of 2004. Steel production was trending upward during the first 8 months of 2005. Shipments of steel mill products for 2005 were down nearly 11% compared with those of 2004. Imports of steel mill products increased an estimated 3.4% compared with those of 2004, and U.S. net import reliance as a percentage of apparent consumption exceeded an estimated 15%, the highest level since 2002.

The recovery of the global economy that began in late 2003 has been steady and gradual. The International Iron and Steel Institute (IISI) and the Organisation for Economic Co-operation and Development (OECD) estimated a world gross domestic product increase of 3.7% in 2005 compared with that of 2004. The U.S. Congressional Budget Office estimated the economic growth rate in the United States to be 3.7% in 2005 and 3.4% in 2006, with a steady decline to 2.5% through 2015. World consumption of finished steel products was estimated to increase by 3.9% to 5.0% by IISI. The OECD expected world steel demand to increase by about 5%, driven by the continuing strong growth in demand in China, where steel consumption was expected to increase by nearly 11%. However, increasing energy costs, including those of oil, during late 2005 may negatively affect the global steel industry, as happened in 1973 and 1979 when oil prices rose dramatically. Global steel consumption fell by 7.2% in 1975 and 11.6% in 1982, compared with that of the previous year, followed by a 6-year recession. Declining demand during 2006 while capacity expands may result in a capacity surplus.

China continued in 2005 to be the fasted growing economy in the world and the world's leading steel producer and consumer. China's 2005 steel production was an estimated 333 million metric tons, 22% more than that in 2004, but growth was expected to slow in 2006. The China Iron and Steel Association stated that the country's new steel policy will result in significant consolidations of a fragmented steel sector, which should reduce the threat of oversupply from China. China's top 10 steelmakers were expected to control more than 50% of that nation's total steel output by 2010 and more than 70% by 2020.

World Production:

	Pig	iron	Raw steel		
	<u>2004</u>	2005 ^e	<u>2004</u>	2005 ^e	
United States	42.3	33.1	99.7	92.4	
Brazil	32.9	34	31.2	31.5	
China	252	290	272	333	
European Union ⁹	107	107	*193	186	
India	30.8	31	32.0	34	
Japan	83.0	83	112	113	
Korea, Republic of	28.0	28	47.5	49	
Russia	53.1	48	64.3	64.2	
Ukraine	31.0	30.3	38.7	42	
Other countries	<u>52</u> 712	<u>63</u> 747	<u>*158</u>	<u> 146</u>	
World total (rounded)	712	747	*1,050	1,090	

World Resources: Not applicable. See Iron Ore.

<u>Substitutes</u>: 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.

^eEstimated. *Corrected on March 2, 2006.

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

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

³U.S Census Bureau

⁴Defined as steel shipments + imports - exports + adjustments for industry stock changes + adjustment for imports of semifinished steel products.

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

⁶Metals Service Center Institute.

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

⁸Defined as imports - exports + adjustments for Government and industry stock changes.

⁹ European Union membership increased from 15 to 25 as of May 1, 2004.