

World Steel Dynamics (WSD)

is a leading steel information service in Englewood Cliffs, N.J.



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WSD's steel experience, steel database and availability of steel statistics are the principles for performing steel forecasts, studies and analysis for international clients. WSD seeks to understand how the "pricing power" of steel companies the world over will be impacted by changes in the steel industry's structure.

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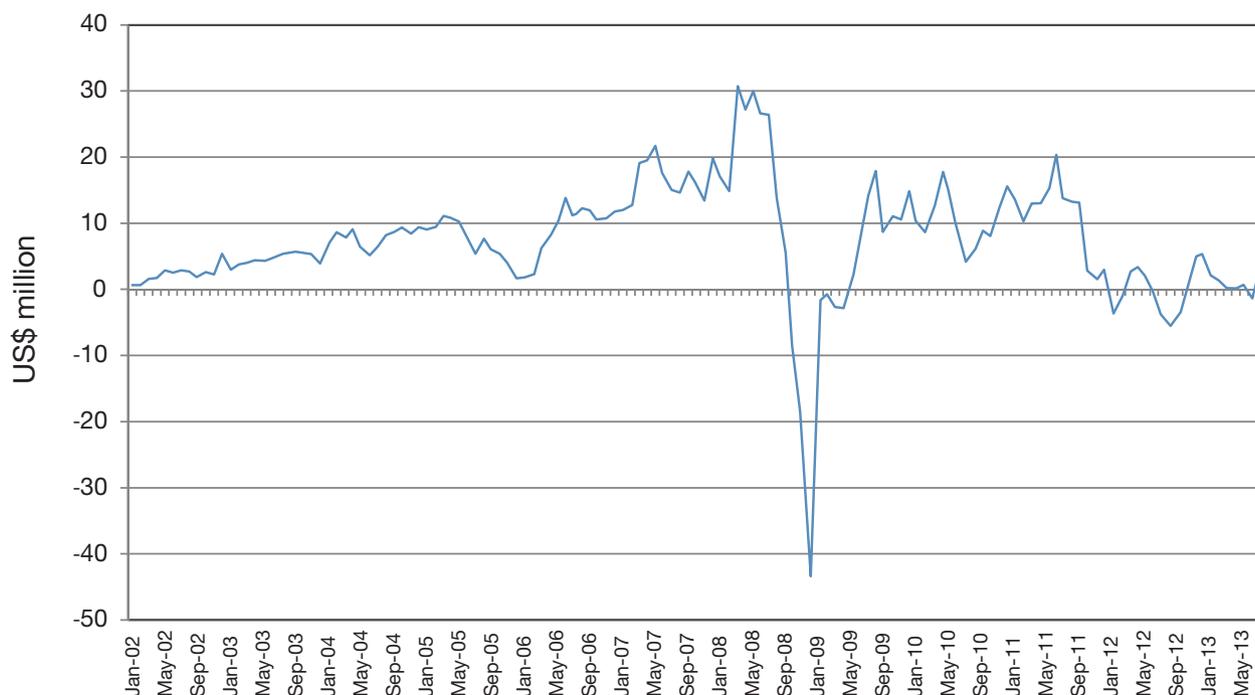
China — High Volume, Low Profits

The Chinese steel industry and its traders are in a low-profit-margin rut. In the first quarter of 2013, the estimated pretax profit for Chinese Iron and Steel Association (CISA) members was 0.37% of sales (Figure 1). In the second quarter, the pretax profit figure fell to only 0.22% of sales, in part because higher prices were paid for iron ore.

Chinese large mills' profit problems are the consequence of key negatives that have surfaced over the past few years, which include:

- **Overcapacity.** Excess capacity is probably more than 100 million tonnes, but not the 250–300 million tonnes figure used by some observers.
- **Capacity is still rising.** The Chinese government is taking measures to curb overcapacity by shutting down marginal steel producers. However, the Chinese steel industry in 2013 may spend about US\$75 billion on capital improvements, on top of US\$80 billion last year. New greenfield steel plants are still under construction, and more than 30 new blast furnaces will come into operation in the next year.
- **Huge debt.** China's 86 large- and medium-sized steel companies collectively have more than 3 trillion RMB, or US\$486 billion, in debt — of which 1.3 trillion RMB is outstanding bank loans, according to the figures released by CISA. Debt per tonne produced is about 5,000 RMB (US\$816).
- **Too many producers.** Chinese steel markets are "competitive" in the academic sense of the word because there are too many producers for any single mill, or group of mills, to control the price. High fixed costs, low profit margins and municipalities that own most of the companies give most of the mills the incentive to go for volume via price cuts rather than reducing volume in the hope of stabilizing the price.
- **The steel demand outlook.** Chinese steel demand in 2014 may be flat with 2013, and demand in 2025 may be little changed from the present time. Key developments in the next decade will be: (a) lower fixed asset investment as a share of gross domestic product (GDP) — it is currently about 50% on an adjusted basis — and (b) lower steel intensity for the economy, i.e., million tonnes of steel consumption per trillion RMB of GDP.
- **Loss of export competitiveness for Chinese manufacturers.** China's economic growth has ignited a rapid increase in wages that's not yet slowing down sharply. The Chinese RMB has been far stronger than the currencies of most developing world countries the past year. As a result, new technologies and other factors have made the U.S. a more attractive location than China to build a new manufacturing plant in many cases.

Figure 1



Monthly profits of 86 Chinese large- and medium-sized steel mills (US\$100 million). Source: WSD estimates.

China — Rebar Production Peaking, Next Direction Probably Down

The rebar production outlook in China in the next few years is negative (Table 1). Chinese rebar production in 2013 may be at least 185 million tonnes versus only about 6 million tonnes in the U.S. However, it could fall back to about 160 million tonnes by 2016 due to: (a) the increased use of higher-strength rebar that's about 20% more efficient

to use than the lower-grade product still being produced by many of the smaller mills; and (b) a decline in China's residential construction activity that in 2013 has risen probably to unsustainably high levels — i.e., perhaps 5.9 billion square meters of new housing, largely apartments, under construction by the end of 2013. ♦

Table 1

China Apparent Rebar Consumption and Gross Domestic Product (million tonnes, billion US\$)

	Year									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013E
Production*	47.12	71.23	83.04	101.07	97.09	121.50	130.96	152.56	175.38	185.00
Y to Y %	—	51.2%	16.6%	21.7%	-3.9%	25.1%	7.8%	16.5%	15.0%	5.5%
Import	0.19	0.09	0.06	0.05	0.03	0.06	0.05	0.05	0.07	0.05
Export	1.17	1.74	3.74	5.90	1.17	0.31	0.22	0.22	0.26	0.25
Apparent consumption	46.14	69.58	79.36	95.22	95.95	121.25	130.79	152.39	175.19	184.80
Y to Y %	—	50.8%	14.1%	20.0%	0.8%	26.4%	7.9%	16.5%	15.0%	5.5%
GDP (US\$ billion)	1,944.0	2,291.0	2,798.0	3,517.0	4,566.0	5,107.0	5,985.0	7,277.0	8,243.0	9,300.0
GFCF** (US\$ billion)	835.0	952.0	1,168.0	1,464.0	1,999.0	2,408.0	2,877.0	3,516.0	4,095.0	4,661.0
% of GDP	43.0%	41.6%	41.7%	41.6%	43.8%	47.2%	48.1%	48.3%	49.7%	50.1%
Rebar/GFCF (million tonnes/US\$ billion)	0.055	0.073	0.068	0.065	0.048	0.050	0.045	0.043	0.043	0.040

Note: *Including double counting. **Gross fixed capital formation. Source: WSD estimates.