

World Steel Dynamics (WSD) is a leading steel information service in Englewood Cliffs, N.J. 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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Q. What is WSD's outlook on the Chinese economy in the upcoming years, and what impact will this have on China's consumption of steel products?

A. Key measures of the Chinese economy that impact steel consumption are up strongly. For example, in the past few months:

WSD's "micro" weighted steel-consumption index (Figure 1), which is comprised of activity measures for 10 specific industrial, consumer durable or construction sectors that consume substantial quantities of steel, was up 20% year-on-year for October. For the first nine months of 2010:

- Car production was up 33%.
- Industrial boiler production was up 29%.
- Cement production was up 12%.
- Internal combustion engine output was up 38%.
- Large and medium tractor output was up 38%.
- Locomotive production was up 70%.
- Shipbuilding completions were up 48%.
- Square meters of floor space under construction were up 24%.

WSD's "macro" steel-consumption index (Figure 2), which is composed of four macroeconomic-type items, in October was up 19% year-on-year.

- The FAI (fixed asset investment) reported figure was up 35% year-on-year. (Note: This figure includes land sales.)
- Money supply was down 29% year-on-year.
- Retail sales were up 22% year-on-year.
- Value added by industry was up 14% year-on-year.

The steel intensity of the Chinese economy — i.e., steel consumed per unit of real GDP — seems almost certain to decline significantly in the next few years. Reasons include:

- More emphasis by Chinese authorities on growth of household consumption, with less emphasis on FAI growth. "Adjusted" FAI (in effect, gross domestic capital formation in GDP terms) may amount to 48-50% of GDP in 2010, versus 45% in 2009.
- The attempt by Chinese officials to have more economic growth occurring in high-value-added and more technical sectors, which are less steel-intensive.
- Less growth of net exports as a share of GDP — currently at 3.4% of GDP.
- Some decline in the steel consumption created by special economic incentive programs. These programs in 2008 and 2009 boosted Chinese steel consumption by an estimated 110 million tonnes. In 2010, the estimate is 105 million tonnes (5 million tonnes less than 2009). A number of these programs are expected to be far less substantial by 2012.

Peter Marcus, WSD's managing partner, sees steel demand growing perhaps 4-5% per year in 2011 and 2012, as the government needs to sustain growth by promoting fixed asset investment — notwithstanding all the talk about more consumer spending. Then, starting in about 2013, steel demand expands 3% per year as FAI grows only in line with the economy. If the economy expands 7-8% per year during 2013-2020, steel demand in 2020 would amount to about

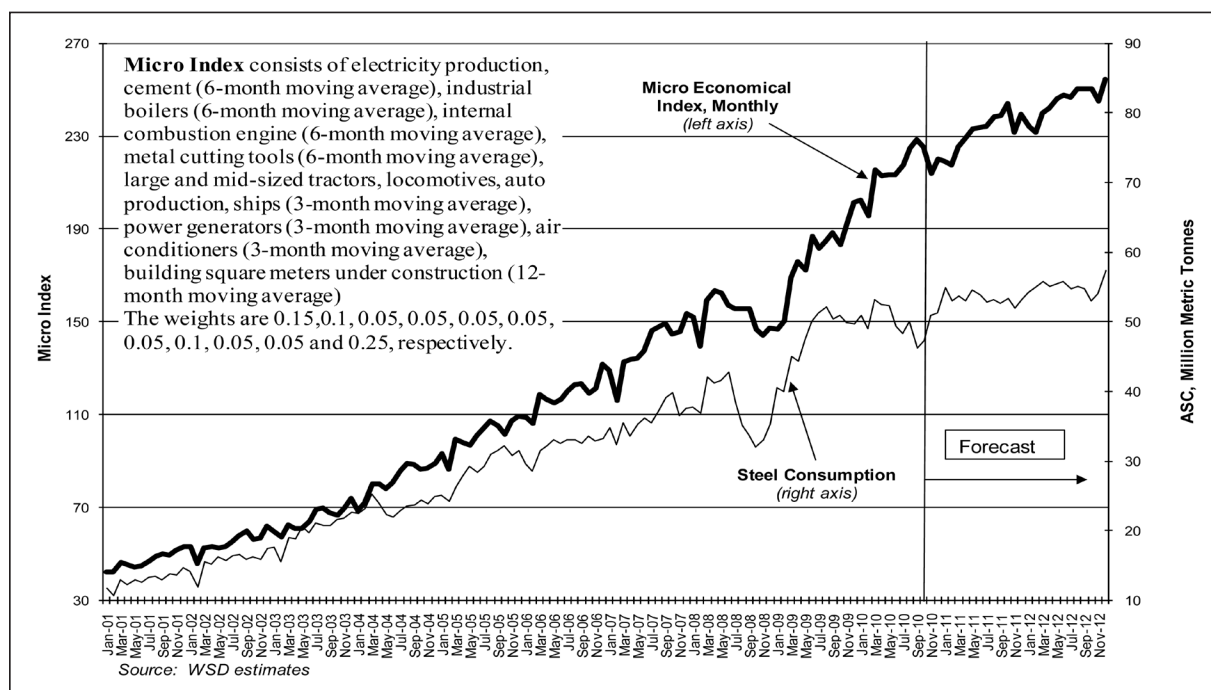


Figure 1 — WSD China micro-economic steel index vs. apparent steel consumption.

840 million tonnes – a compound growth rate versus 2010 of 3.25% (see Table 1). ♦

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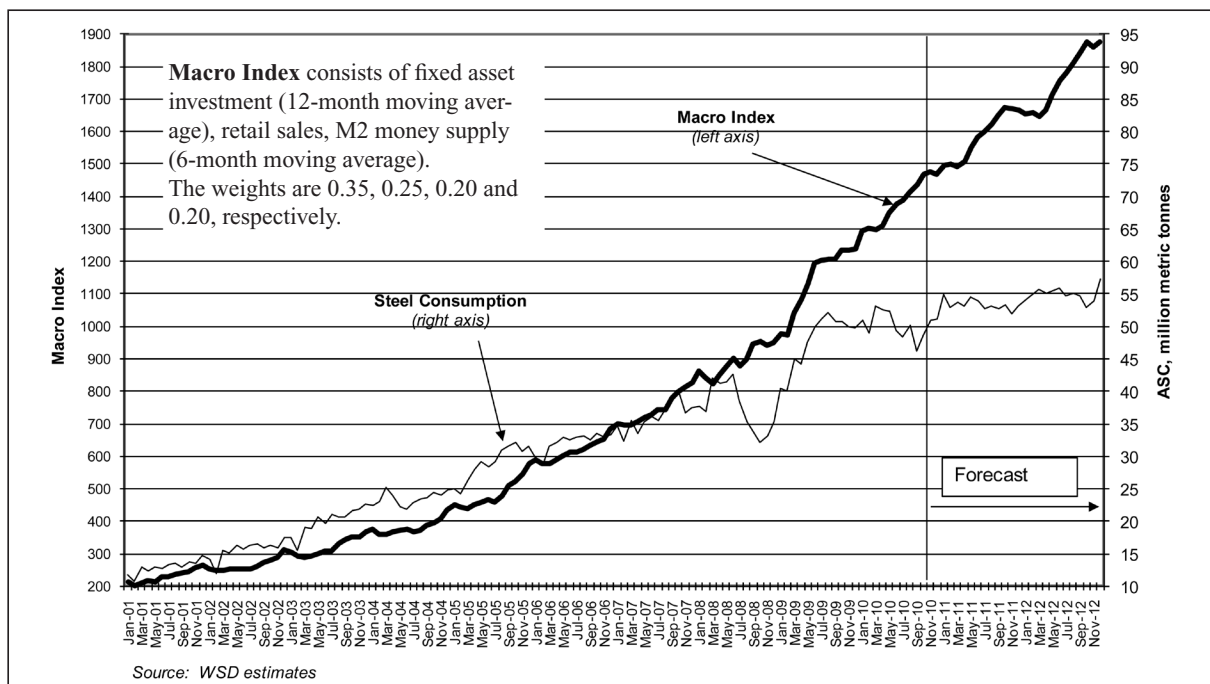


Figure 2 — WSD China macro-economic steel index vs. apparent steel consumption.

Table 1 — China GDP Forecast: 2010–2017 (billion RMB, %)**

	Gross fixed* capital formation	Chg %	Consumption expenditure		Inventory & net export	Total GDP current	Chg %	Real GDP on 1990	GDP current less real	GFCF		Consumption		Inventory change & net export		Total GDP
			Government	Household						Chg %	Chg %	Total %	Infrastructure others	Gov't	Household	
2000	3,484		1,566	4,585	239	9,875				35.3%		15.9%	46.4%	2.4%	100.0%	
2001	3,977	14.2%	1,750	4,944	7.8%	10,903	10.4%	8.3%	2.1%	36.5%		16.1%	45.3%	2.1%	100.0%	
2002	4,557	14.6%	1,876	5,306	7.3%	12,048	10.5%	9.1%	1.4%	37.8%		15.6%	44.0%	2.6%	100.0%	
2003	5,596	22.8%	2,004	5,765	8.7%	13,663	13.4%	10.0%	3.4%	41.0%		14.7%	42.2%	2.2%	100.0%	
2004	6,917	23.6%	2,233	6,522	13.1%	16,080	17.7%	10.1%	7.6%	43.0%		13.9%	40.6%	2.5%	100.0%	
2005	7,786	12.6%	2,640	7,265	11.4%	18,713	16.4%	10.4%	6.0%	41.6%		14.1%	38.8%	5.5%	100.0%	
2006	9,295	19.4%	3,053	8,210	13.0%	22,224	18.8%	11.1%	7.7%	42.2%	17.8%	24.4%	13.4%	37.8%	6.6%	100.0%
2007	11,094	19.4%	3,590	9,561	16.5%	26,583	19.6%	11.4%	8.2%	41.7%	16.3%	25.4%	13.5%	36.0%	8.8%	100.0%
2008	13,833	24.7%	4,175	11,059	15.7%	31,490	18.5%	9.6%	8.9%	43.9%	16.3%	27.6%	13.3%	35.1%	7.7%	100.0%
2009	16,446	18.9%	4,440	12,113	9.5%	34,502	9.6%	8.7%	0.9%	47.7%	19.2%	28.5%	12.9%	35.1%	4.4%	100.0%
2010e	19,200	16.7%	4,662	13,438	10.9%	38,600	11.9%	10.0%	1.9%	49.7%	20.6%	29.1%	12.1%	34.8%	3.4%	100.0%
2011e	21,500	12.0%	4,923	15,197	13.1%	42,980	11.3%	8.5%	2.8%	50.0%	20.2%	29.8%	11.5%	35.4%	3.2%	100.0%
2012e	23,600	9.8%	5,243	17,837	17.4%	47,980	11.6%	8.0%	3.6%	49.2%	19.0%	30.2%	10.9%	37.2%	2.7%	100.0%
2013e	25,700	8.9%	5,610	20,990	17.7%	53,500	11.5%	8.0%	3.5%	48.0%	18.5%	29.5%	10.5%	39.2%	2.2%	100.0%
2014e	27,800	8.2%	6,031	24,669	17.5%	59,500	11.2%	8.0%	3.2%	46.7%	17.5%	29.2%	10.1%	41.5%	1.7%	100.0%
2015e	29,600	6.5%	6,513	29,087	17.9%	66,000	10.9%	7.5%	3.4%	44.8%	17.0%	27.8%	9.9%	44.1%	1.2%	100.0%
2016e	31,400	6.1%	7,067	33,733	16.0%	72,800	10.3%	7.5%	2.8%	43.1%	16.5%	26.6%	9.7%	46.3%	0.8%	100.0%
2017e	33,300	6.1%	7,703	38,397	13.8%	79,800	9.6%	7.0%	2.6%	41.7%	16.0%	25.7%	9.7%	48.1%	0.5%	100.0%
Per annum compounded																
2000–08	18.8%		13.0%	11.6%	33.6%	15.6%				2.8%		-2.2%	-3.4%	15.6%		
2009–17	9.2%		7.1%	15.5%	-15.3%	9.5%				-1.6%		-3.5%	4.0%	-23.7%		

*GFCF

**International GDP definition. Data available annually.

Source: IMF and WSD estimates.

To submit your questions for WSD, e-mail WSD@aist.org.

Please include your full name, company name, mailing address and e-mail in all correspondence.