

This report includes forward-looking statements that are based on current expectations about future events and are subject to uncertainties and factors relating to operations and the business environment, all of which are difficult to predict. Although WSD believes that the expectations reflected in its forward-looking statements are reasonable, they can be affected by inaccurate assumptions made or by known or unknown risks and uncertainties, including, among other things, changes in prices, shifts in demand, variations in supply, movements in international currency, developments in technology, actions by governments and/or other factors.

Shift in Steelmakers' Metallic Balance, Hot Metal Outpaces Scrap Demand

WSD forecasts that the global metallics balance growth in 2013 will shift disproportionately as hot metal consumption growth outpaces demand for steel scrap (Figure 1). Assuming 1,571 million metric tons of global steel production in 2013, 1,948 million metric tons of metallics are required for crude steel and foundry production (up 1.5% year-on-year from 1,919 million metric tons in 2012), of which:

- Pig iron/hot metal accounts for 1,142 million metric tons, up 3.1% year-on-year from 1,107 million metric tons in 2012.

- DRI accounts for 74.4 million metric tons, up 1.3% year-on-year from 73.4 million metric tons in 2012.
- Steel scrap accounts for 732 million metric tons, down 0.8% year-on-year from 738 million metric tons in 2012.

Based on trends in blast furnace output through the first six months of 2013, hot metal production growth is on track to more than double the pace of crude steel production growth. This is largely the result of unbalanced growth in hot metal output relative to crude steel production in advanced countries, China and developing world ex-China.

China: Steel's Overcapacity Conundrum

Capital spending by the Chinese steel industry in 2012 was about US\$80 billion, which was enough to keep Chinese capacity rising at perhaps a 4% rate. In 2013, although capital outlays year to date are up about 4%, WSD estimates that the figure for the year will decline to about US\$78 billion.

China's effective (real) steel-making capacity in 2013 is estimated to be about 930 million metric tons, up about 25 million metric tons from 2012. In 2014, perhaps capacity may rise to about 950 million metric tons. Given

WSD's estimate that Chinese steel output in 2013 will be 770 million metric tons, the industry's effective-capacity operating rate is about 80%. Moreover, many of the larger steel plants — i.e., China Iron and Steel Association members — are partly owned by municipalities. Besides appointing the top manager at the steel company, the municipality is interested in sustaining output in order to keep up employment and receive their 25% share of the value-added tax (VAT) revenues (with the VAT amounting to 17% of sales).

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.

The views and opinions expressed in this article are solely those of World Steel Dynamics and not necessarily those of AIST.

Authors



Peter Marcus

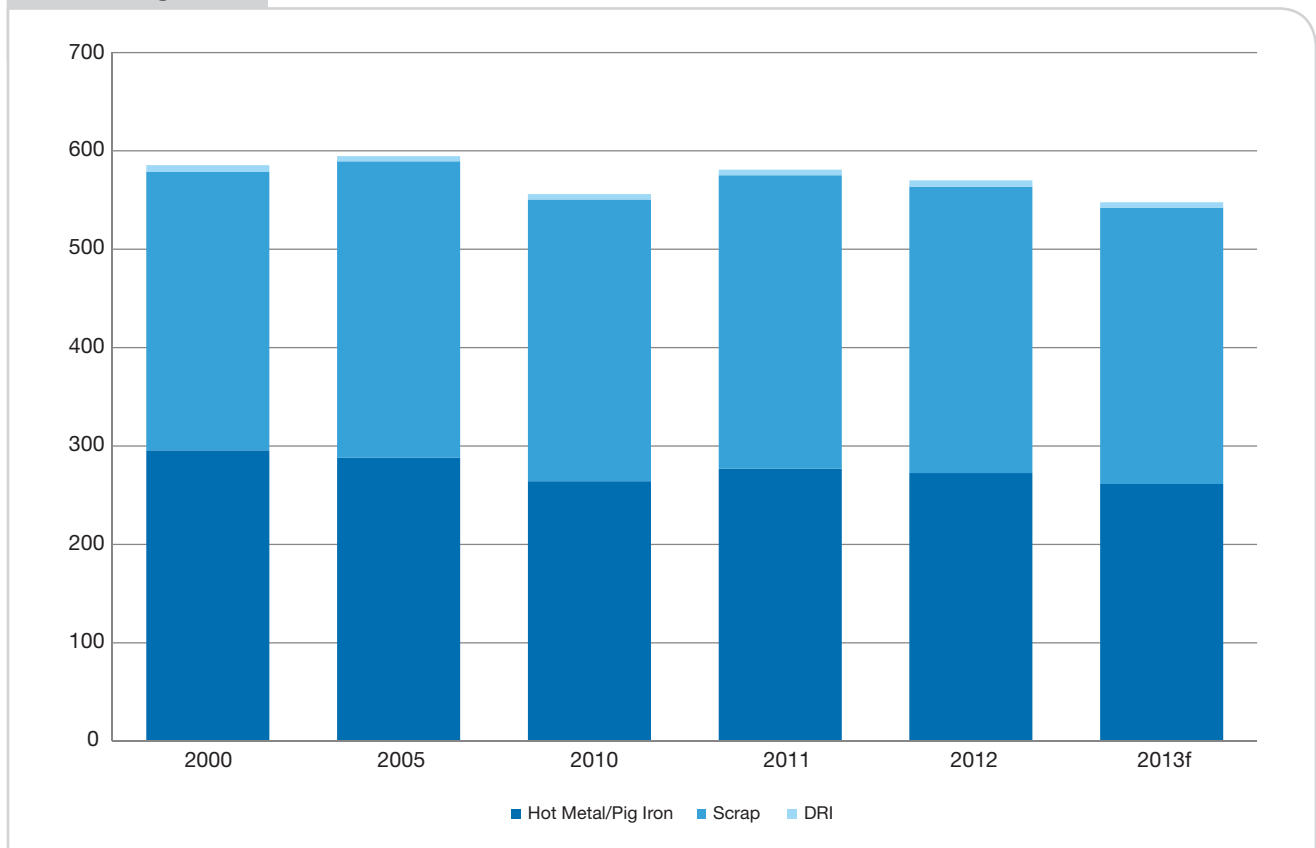
managing partner,
World Steel Dynamics
pmarcus@
worldsteeldynamics.com
+1.201.503.0902



Adam Green

senior research associate,
World Steel Dynamics
agreen@worldsteeldynamics.com
+1.201.503.0916

Figure 1



Global metallics consumption breakdown: advanced countries (million metric tons). Source: WSD calculations.

Two new 10 million metric tons/year greenfield plants on China's southern coast have been approved for construction — which are the Baosteel's Zhanjiang project and Wuhan Steel's Fangcheng project.

Angang did not get final approval to build a steel mill on the coast because its losses on recent expansions have been so sizable. Instead, it is building a distribution center to serve the automotive and appliance industries with the steel coming from the company's steel plants in the north. ♦

Table 1

	2007	2008	2009	2010	2011	2012	2013e	2015e	2017e
China Total	595,600	648,900	737,800	816,500	871,300	905,200	927,700	945,400	898,400
Year-to-year change (%)	16.5	8.9	13.7	10.7	6.7	5.3	3.2	0.9	(2.5)
Expansion type									
Greenfield	117,280	131,980	152,680	180,480	197,480	205,780	212,080	237,980	244,980
Year-to-year change (%)	33.8	12.5	15.7	18.2	9.4	6.8	3.6	5.9	1.5
Brownfield	281,210	319,810	388,010	438,910	476,710	502,310	518,510	510,310	456,310
Year-to-year change (%)	24.1	13.7	21.3	13.1	8.6	7.0	4.3	(0.8)	(5.4)