

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. The first half of 2011 has been marked by unique historical events, i.e., floods in Australia, revolutions in the Middle East, and the earthquake in Japan. How do these events affect WSD's outlook on the global economy and the steel industry for the second half of 2011?

A. Despite the catastrophic nature of each of the events, World Steel Dynamics believes that a steel mill profit boom may start in the second half of 2011. In the immediate term, each of these events has had a negative effect on both the global economy and the steel industry.

Flooding in Queensland, Australia, in late 2010 and early 2011 has raised 2Q11 coking coal prices in the world export market to about \$330 per tonne, versus \$225 per tonne a year ago.

The Egyptian political/economic crisis, which began in late January, and the spread of revolution through Northern Africa and the Middle East have forced scrap prices to decrease in Turkey, a normally sizable exporter of rebar and billet to Egypt and other Middle East, as these areas have slowed their scrap purchases. World Steel Dynamics believes that the Egyptian crisis may have been

the initial development that ended the surge of hot rolled band prices on the world export market.

The earthquake and subsequent tsunami and nuclear crisis in Japan will likely cut Japanese production by 20% annualized or 22 million tonnes annually due to: (a) lingering steel plant problems and (b) the reduced availability of electric power.

In the long term, the Middle East political/economic crisis and the Japanese earthquake/tsunami/nuclear calamity should lead to far more construction activity in these regions a year from now. The construction of affordable housing will be booming in Egypt, Saudi Arabia and the UAE.

In the big picture, the global steel-sheet-producing industry avoided a devastating boom-and-bust cycle. Since 2008, shortages have not been characterized by booming steel demand and high operating rates for steel companies. The price spikes evolved primarily due to:

- Changing patterns in new orders from steel buyers – i.e., ending their substantial steel inventory liquidation efforts in the summer of 2009 and, in early

Table 1

WSD Ex-China Steel Mill Cost Change Forecast, 4Q10 vs. 2Q11
For Producers Purchasing Raw Materials Exclusively on the Spot Market
(Production in metric tonnes, prices in \$ per tonne)

	4Q10			2Q11		
	Usage per tonne shipped	Market price of input	Production cost of input	Input price change	Impact per tonne shipped	New cost
BF/BOF sheet mills — 95% of total						
<i>Iron ore (fines and pellets)</i>						
Purchased	1.6 tonnes	\$170	\$272	\$41/T	\$66	\$338
Self-supplied	0.0 tonnes	\$50	\$05	1/T	\$1	\$0
Subtotal	1.6 tonnes		\$272			\$338
<i>Coking coal</i>						
Purchased	0.6 tonnes	\$209	\$125	\$121/T	\$73	\$198
Self-supplied	0.0 tonnes	\$85	\$0	\$2/T	\$0.0	\$0
Subtotal	0.6 tonnes		\$125			\$198
<i>Scrap</i>						
	0.2 tonnes	\$350	\$70	\$100/T	\$20	\$90
Home scrap credit	0.1 tonnes	-\$315	-\$32	\$100/T	-\$10	-\$42
<i>Electricity</i>	200 kWh	\$0.07	\$14	1%	\$0	\$14
<i>Other energy</i>	12 mmBTU	\$5.2	\$62	1%	\$1	\$63
<i>Net labor</i>	1–10 man-hours	\$2–60	\$70	1%	\$1	\$71
<i>Freight (inbound)</i>	2.4 tonnes	\$20	\$48	\$4/T	\$10	\$58
<i>All other costs</i>			\$65	4%	\$2.6	\$68
Subtotal			\$695		\$163	\$857
<i>Fixed cost impact (F.C. @ \$70/t)</i>						
70% operating rate (2009)			\$30		\$30	
80% operating rate (2010)			\$18		\$18	
90% operating rate (2007)			\$0		\$0	
TOTAL			\$725		\$150	\$875

2010 and early 2011, advancing their new orders because of fears about steel price increases due to higher raw material prices.

- Steel production outside of China is far below the annualized level in the second quarter of 2008.
- Steel market psychology has shifted in favor of the steel mills.

Entering the second half of 2011, steel mills have little room to cut the export price of hot rolled band because of high costs. Many integrated steel mills' operating cost to produce hot rolled band appears to be locked in at peak levels through the third quarter of 2011, given that they've agreed to pay such high prices for iron ore and coking coal in the second quarter.

Additionally, steel production outside of China may lag behind the rise of demand in the next six months due to the steep cost curve to produce this product. One reason is that

many blast furnaces in the advanced countries are tied to steel plants that have below-par prospects. The high prices for spot iron ore and coking coal are causing a number of blast furnaces to be kept off-line; instead, management may be turning to the purchase of more slab on the international market – which explains why slab is so tight. A simplified summary of the WSD Interactive Flat Rolled Cost Curve System (Table 1) reflects the cost of a non-Chinese integrated mill purchasing raw materials exclusively on spot markets. ♦

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