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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.

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

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Steel industry scenarios: grim outlook for 2015; better in 2017

Odds for non-Chinese steel industry scenarios: 2015–2017

The fundamental problem for steel mills in 2015 and 2016 is likely to be stagnating steel demand. In China, it may recede due to declining residential construction (given the accelerating decline in housing prices). Elsewhere, demand will be impacted by lagging fixed asset investment (due to spreading financial contagion) and less spending on energy and energy-related projects.

For 2015, WSD places the odds at 95% that the steel industry will be in either a "shake-out times" or "bad times" condition (Table 1). Not until 2017 does WSD turn optimistic about the steel industry profit outlook — with the odds for "good times" and/or "boom times" placed at 65%. The outlook by 2017 is bolstered by: (a) rising steel demand outside of China (largely due to

increased fixed asset investment); (b) reduced steelmaking capacity both in China and elsewhere; and (c) a sufficiently high operating rate, on an ECO capacity* or efficient capacity basis, for "pricing power" to start shifting back to the non-Chinese mills.

Initial gains in 2017 could set the stage for a steel industry boom in 2018 as steel demand rises strongly outside of China and gains in ECO capacity are constrained.

*ECO capacity — which is efficient, economic and ecological capacity — is defined as the amount of steel production that can be achieved before a significant rise in the cost to produce the last metric ton occurs. In fact, as production rises to the ECO capacity figure, there's a drop in unit costs due to a spreading of fixed costs.

Table 1

Shifting Odds for Non-Chinese Steel Industry: 2015–2017

Scenario	2015		2016		2017	
	New odds	Prior odds*	New odds	Prior odds*	New odds	Prior odds*
Shake-out times	70%	25%	30%	15%	5%	10%
Bad times	25	40	40	33	10	25
Fair times	5	20	20	25	20	25
Good times	0	15	5	25	45	25
Boom times	0	0	5	2	20	15

*Odds in the 18 December 2014 Inside Track "The Chinese Steel Armada: Massive, Unconventional and Indefatigable." Source: WSD Estimates.

Scrap price down, EAF-based sheet mills' competitiveness up

The extraordinary recent fall in steel scrap prices has permitted:

- Electric arc furnace (EAF)-based long product mills, including those in Turkey, to

participate somewhat more effectively in the export market, although they are still at a sizable cost disadvantage versus integrated mills in China and Russia. If the steel scrap price had remained high, the Turkish mills would have been largely eliminated from a number of their traditional export markets due to an extreme lack of cost competitiveness.

- EAF-based sheet mills to regain cost competitiveness versus integrated steel mills. A number of the mills in Turkey, South Korea and Japan have shut down because of high costs and low prices. In the United States, the EAF-based sheet mills in 2014, although they had much higher costs than the average-cost integrated mill, reported good profits because of much higher price realizations than their offshore competitors. For this group, the maximum recent cost disadvantage versus the average-cost U.S. integrated mill was estimated at US\$119/metric ton in September 2014. The disadvantage in February 2015 was reduced to US\$37/metric ton.

Table 2

U.S. EAF-Based Sheet Mill vs. Average-Cost Integrated Mill (HRB operating cost per metric ton)

	Sep'14	Jan'15	Feb'15
Blended EAF metallics cost	US\$461	US\$407	US\$328
EAF-based sheet mill	US\$647	US\$596	US\$520
Average-cost integrated mill	US\$528	US\$504	US\$483
EAF vs. integrated	+119	+92	+37

Source: WSD Estimates

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