Ask WORLD STEEL DYNAMICS

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

WORLD STEEL DYNAMICS

Q. What does WSD mean when it labels a company a World-Class Steelmaker?

A. WSD's "world-class" system was initiated in 2002 when we observed that many steel companies had enhanced their competitive position, notwithstanding, and/or because of, the more difficult industry environment. Even so, investors seemed to be almost universally negative about the group.

WSD thinks the steel industry contains many well-managed companies, because those that moved ahead had to overcome difficult industry conditions from the late 1970s to 2003. If a company was to be in the "winning" category, it needed to implement many correct decisions about facilities, market emphasis, and mergers and acquisitions. A World-Class Steelmaker is a company that is growth oriented, has a culture of excellence and is positioned to win in the future. We like to say that managements became "age hardened" during these difficult years (the "Old Continuum"). They learned how to survive and be good performers in an adverse industry environment.

In the Old Continuum, pricing conditions tended to be 70-to-30 in favor of steel buyers. Since early 2004, the start of the New Continuum, we think that the odds have shifted to 30-to-70. WSD observes that many steel companies seem to be ahead of their customers when it comes to understanding and employing the strategies to take advantage of the new realities of the marketplace.

Today, WSD believes many non-Chinese steel companies are proactive, progressive and engaged in a variety of actions to steadily improve their competitive position. Of course, there's no doubt that the friendlier industry environment since late 2003 may be hiding some of the companies' weaknesses.

While the industry will never be dominated by just a few global steelmakers, as in the aluminum industry, it still appears that size has advantages. Many of the World-Class Steelmakers on our list are large enough to have a solid, if not dominant, market position in their home market. The globalization of the steel industry will offer new chances to engage in alliances and joint ventures.

In March 2007, after publishing 11 prior "world-class" reports using our original rating system and/or minor variations to it, WSD added new categories of ratings, including: (a) size, (b) location in high-growth markets and (c) dominance in mature markets. We also changed the individual weightings for a number of the other items. In general, the ratings reward those companies that: (a) have a proactive management, (b) are expanding capacity and (c) are integrated from raw materials to downstream products.

In June 2008, we began including rankings for 31 steelmakers from around the world. Their combined steel shipments in 2008 amount to 606 million tonnes, or 44% of the global total of 1,391 million tonnes.

Q. What are some of the characteristics of a World-Class Steelmaker?

A. Following is a list of 24 characteristics that we have identified in winning steel companies:

1. Aggressive, experienced and visionary management.
2. Ongoing actions to "leap frog" the competition using new technologies.
3. Low operating costs.
4. Strong relations with workers. Loyal, skilled and productive workforce.
5. Strong balance sheet.
6. Niche and high-quality products.
7. Strong customer service orientation.
8. "Pricing power" with large buyers.
9. Ownership of downstream steel-using businesses.
10. Key joint ventures.
11. Makes strong use of computer systems.
12. Some control over their steel scrap situation.
13. Ownership of low-cost iron ore and coking coal mines.
14. Geographic advantages.
15. Favorable location to serve customers.
16. Economy-of-scale benefits.
17. High-cost, nearby competitors.
18. Low overhead costs.
19. Low price paid for electricity.
20. Sizable year-by-year cost-cutting efforts.
21. High proportion of sales in the home market.
22. Home market prices not principally impacted by world export prices.
23. Access to funds from outside sources on a favorable basis.
24. A critical mass. Larger companies have more clout and status.

Q. At your June Steel Success Strategies XXIII conference, AK Steel was added to the World-Class Steelmaker list. Can you elaborate on some of the reasons behind this addition?

A. AK Steel has been added to WSD's list of World-Class Steelmakers, reflecting its extraordinary turnaround since 2003. The company's strengths include good equipment, a high-end product mix, low conversion costs, far-above-average price realizations because of its mix, good profitability, ongoing cost reduction programs, improved labor relations and a vastly improved balance sheet. The company's weak point is the market prices it is paying for most of its iron ore and coking coal requirements.

The company has leading market positions in high-value-added products. It is one of the top producers in the United States of automotive sheet (although shipping less than before), ferritic (non-nickel-containing) stainless steel for automotive mufflers and other applications, and the highest-value-added grades of silicon electrical steel.

Once it has produced its liquid steel, which is high-cost because of what it is paying for steelmakers' raw materials, AK Steel is a low-cost converter of the liquid steel to finished products. The company typically has high production per facility, quite good labor productivity, low rejects and high product quality. It is consistently rated at the top of its class in product quality according to independent surveys.

Its operating profit per ton is one of the best among the U.S. integrated steelmakers.

When Jim Wainscott was appointed president and CEO in 2003, AK Steel common stock was under $2 per share; in May 2008, it traded over $73 per share (versus the June 16, 2008, closing price of $69 per share). Wainscott, who also served as AK Steel's chairman of the board in 2005, has instituted a flat management structure, with just six other executives running the staff and operating functions.

The balance sheet is remarkably improved. Legacy costs for retired workers are sharply down. The annual legacy cost operating expense has been reduced to about $16 per ton at present versus about $47 per ton in 2003 (when the price of steel was less than one-half the current level).

Interestingly, management has purposely reduced the share of automotive business because the return on investment in this business when producing high-strength automotive sheet, for example, is less than that for some commodity products.

The company is increasing its silicon electrical steel capacity to about 344,000 tons per year, improving its long-term coke availability and cost, and adding to steelmaking capacity at its Butler, Pa., plant (in order to largely eliminate its purchases of steel slab, which in 2008 may be 0.5–0.6 million tons).

The company's labor contract probably provides for more contracting-out flexibility than some of its competitors, despite new contract negotiations that were completed in late August 2008. AK Steel also reached an early agreement on a labor contract expiring in October 2008 at its Ashland, Ky., coke works.

One of AK Steel's major concerns is that the state of Ohio is showing signs of offering sizable tax incentives to a potential new Russian-owned greenfield steel plant. This would not be a plus for the company, given the possible location of the new plant in south central Ohio.

Management's next challenges include decisions on merger and acquisition activity and actions to reduce its raw material costs. ✦

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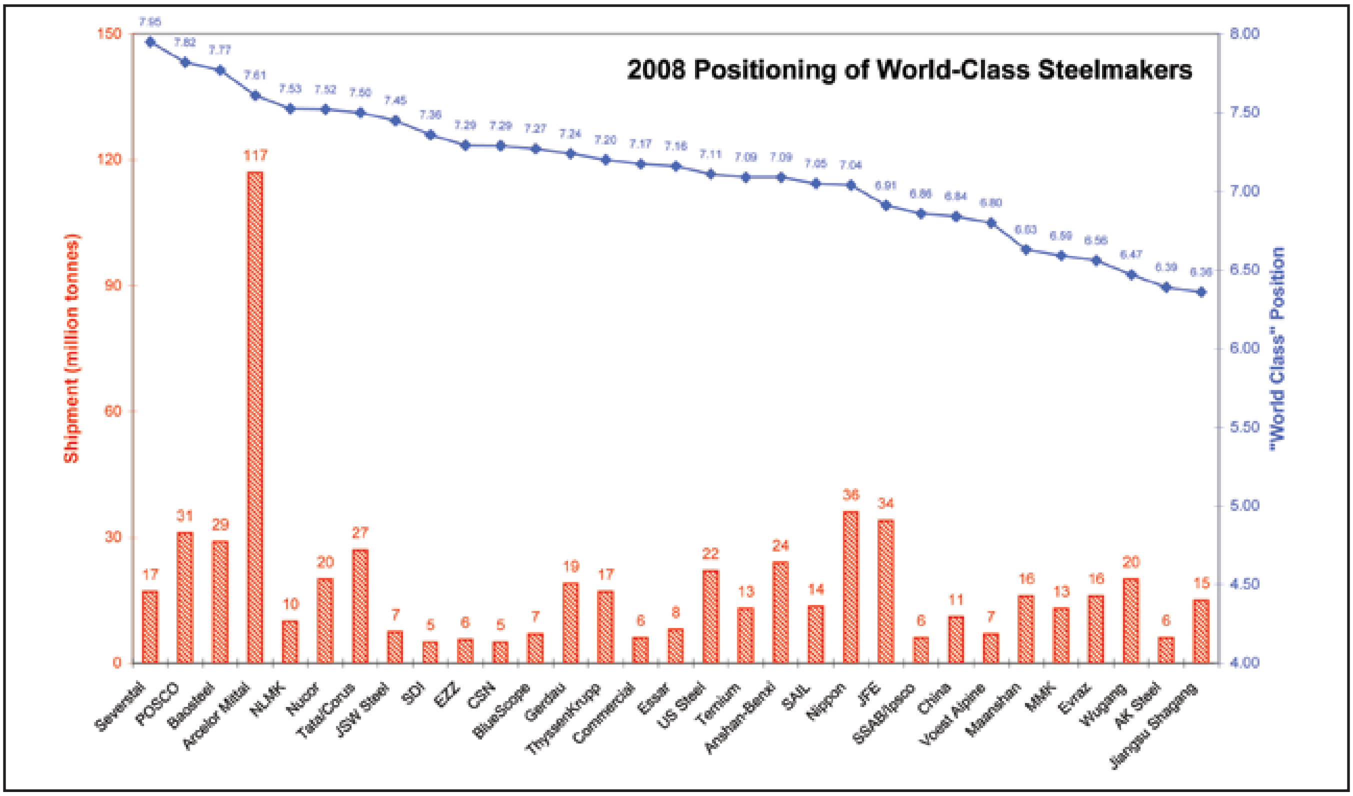

WSD's World-Class Steelmaker Rankings as of June 2008 [(1)] (Page 1 of 2)
(Version A - by Factor Weight)

1 = least favorable   10 = most favorable

			AK Steel	Arcelor Mittal	Anshan-Benxi	Bao-Steel	Blue-Scope	China Steel	Commercia Metals	CSN	Essar	Evraz	EZZ	Gerdau	JFE	Jiangsu Shagang	JSW Steel	Maan-shan	MMK
			USA	*Multi*	*China*	*China*	*Oceania*	*Taiwan*	*Serbia USA*	*Brazil*	*India N. Amer.*	*Russia N. Amer.*	*Egypt*	*Brazil N. Amer.*	*Japan*	*China*	*India*	*China*	*Russia*
	Annual Steel Shipments (MMT)		6	117	24	29	7	11	6	5	8	16	6	19	34	15	7	16	13
	Factor	***Weight***																	
1	Size	*6%*	4	10	7	7	4	5	3	3	4	6	3	6	8	6	4	5	6
2	Expanding capacity	*6%*	7	7	10	10	5	5	7	10	10	4	10	10	3	10	10	10	9
3	Location in high-growth markets	*6%*	3	6	10	10	6	5	6	8	9	10	10	6	4	10	9	10	10
4	Dominance in mature markets	*4%*	7	9	1	2	9	10	5	8	3	1	1	8	8	4	1	4	1
5	Downstream businesses	*4%*	4	5	4	5	10	4	10	5	3	3	2	6	10	3	3	3	4
6	Alliances, M&A and JVs	*6%*	3	10	8	10	10	6	10	8	9	7	3	10	9	7	8	8	6
7	Harnessing tech revolution	*6%*	6	7	8	9	7	7	5	6	9	4	9	6	8	7	9	8	6
8	Environment and safety	*4%*	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
9	Country risk factor	*6%*	10	7	7	7	10	10	10	8	7	6	5	8	10	7	7	7	6
10	"Pricing Power" with large buyers	*6%*	8	8	5	9	8	10	5	8	6	5	9	8	9	4	5	5	8
11	Threat from nearby competitors	*4%*	7	7	3	5	5	5	5	7	7	6	10	7	5	3	7	3	6
12	Conversion costs; yields	*5%*	10	8	6	8	8	8	8	7	9	6	8	8	10	7	10	6	6
13	Cost-cutting efforts	*4%*	8	10	8	9	6	6	6	6	6	7	7	6	6	7	7	8	8
14	Raw material costs (12% of total)	*3%*	4	7	8	7	7	5	5	8	7	9	8	5	4	5	8	6	3
15	Iron ore mines	*3%*	2	8	9	4	5	3		10	8	10		2	3	3	10	3	3
16	Coking coal mines	*3%*	6	6	6	6	6	3		3	3	10		0	3	3	5	3	3
17	Location to procure raw materials	*3%*	6	7	8	7	7	7	6	8	7	9	7	6	6	6	8	6	5
18	Labor costs (10% of total)	*4%*	6	7	9	9	6	6	7	7	10	10	10	8	5	9	10	9	10
19	Skilled and productive workers	*3%*	10	8	6	9	9	9	10	8	7	4	8	9	9	6	8	6	5
20	Liabilities for retired workers	*3%*	6	5	9	9	6	7	9	8	9	9	8	8	5	9	9	9	9
21	Energy costs	*4%*	6	6	6	6	7	6	6	6	5	5	6	6	5	5	7	6	7
22	Profitability	*4%*	8	8	6	8	8	10	8	10	7	9	10	10	8	6	9	6	8
23	Balance sheet	*3%*	7	9	9	9	9	10	10	7	8	7	8	10	7	5	9	8	9
	Average Score		**6.39**	**7.54**	**7.04**	**7.57**	**7.26**	**6.78**	**7.14**	**7.30**	**7.04**	**6.78**	**7.19**	**7.04**	**6.70**	**6.13**	**7.48**	**6.43**	**6.39**
	Ranking		*28*	*4*	*16*	*3*	*11*	*22*	*14*	*9*	*16*	*22*	*12*	*16*	*25*	*31*	*6*	*26*	*28*
	Weighted-Average Score		**6.39**	**7.61**	**7.09**	**7.77**	**7.27**	**6.84**	**7.17**	**7.29**	**7.16**	**6.56**	**7.29**	**7.24**	**6.91**	**6.36**	**7.45**	**6.63**	**6.59**
	Ranking		*30*	*4*	*19*	*3*	*12*	*24*	*15*	*11*	*16*	*28*	*10*	*13*	*22*	*31*	*8*	*26*	*27*

[(1)] *All companies included in this list, in WSD's opinion, are positioned to be winning performers in the future.*
The purpose of the rankings are to better understand the companies' attributes rather than to imply that one company is better or more worthy than another.
The rankings reward pro-active management, size, and integration from raw materials to downstream businesses. The ranking system is subjective and duplicative.
World-Class non-Chinese companies represent about 50% of non-Chinese deliveries. World-Class Chinese companies represent about 23% of Chinese deliveries.

Source: World Steel Dynamics

WSD's World-Class Steelmaker Rankings as of June 2008 [1] (Page 2 of 2)

1 = least favorable   10 = most favorable

		Nippon Steel	NLMK	Nucor	POSCO	SAIL	SDI	Sever-stal	SSAB IPSCO	Tata/ Corus	Ternium	Thyssen/ Krupp	U.S. Steel	Voest Alpine	Wugang	Avg.
								Russia	*Sweden*	*India*	*Multi*		*USA*			
		Japan	*Russia*	*USA*	*S.K.*	*India*	*USA*	*USA, EU*	*N. Amer.*	*Europe*	*Americas*	*Germany*	*E.Eur.*	*Austria*	*China*	
	Annual Steel Shipments (MM	36	10	20	31	14	5	17	6	27	13	17	22	7	20	19
	Factor															
1	Size	8	6	7	8	5	3	6	4	7	5	6	7	4	6	5.6
2	Expanding capacity	3	9	6	6	10	9	8	4	9	8	8	5	5	10	7.7
3	Location in high-growth markets	4	10	2	6	9	2	8	2	7	8	5	6	5	10	7.1
4	Dominance in mature markets	8	1	6	10	1	5	5	7	7	3	8	7	8	1	5.1
5	Downstream businesses	10	4	10	6	3	7	8	7	7	6	8	4	7	4	5.7
6	Alliances, M&A and JVs	10	8	9	9	7	9	10	5	10	9	9	9	8	6	8.2
7	Harnessing tech revolution	8	8	10	10	7	9	8	6	7	6	7	6	7	6	7.3
8	Environment and safety	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9.0
9	Country risk factor	10	6	10	10	7	10	6	10	9	4	10	10	10	7	8.0
10	"Pricing Power" with large buyers	9	8	5	10	8	5	8	7	8	8	8	8	8	5	7.2
11	Threat from nearby competitors	5	7	5	5	7	5	8	6	6	8	6	6	6	3	5.8
12	Conversion costs; yields	10	7	10	10	5	10	7	8	9	7	10	7	10	6	8.0
13	Cost-cutting efforts	6	7	6	6	10	7	8	6	6	8	6	6	6	8	7.0
14	Raw material costs (12% of total)	4	9	5	5	8	5	9	7	6	8	6	8	6	5	6.4
15	Iron ore mines	3	9		3	10		9	6	10	7	2	10	2	4	6.0
16	Coking coal mines	3	8		3	4		9	2	3	3	3	6	3	6	4.3
17	Location to procure raw materials	6	7	6	7	7	6	8	6	8	7	6	8	6	5	6.8
18	Labor costs (10% of total)	5	10	7	7	8	8	10	7	6	8	4	4	4	9	7.6
19	Skilled and productive workers	10	7	10	10	6	10	7	10	8	7	10	10	10	6	8.1
20	Liabilities for retired workers	5	9	9	8	9	9	9	8	8	8	7	7	7	9	8.0
21	Energy costs	5	7	6	7	5	6	7	6	5	8	5	6	5	6	6.0
22	Profitability	9	10	8	10	7	10	9	9	8	9	9	7	9	7	8.4
23	Balance sheet	7	9	10	10	10	9	9	6	6	10	10	9	10	8	8.6
	Average Score	**6.83**	**7.52**	**7.43**	**7.61**	**7.04**	**7.29**	**8.04**	**6.43**	**7.35**	**7.13**	**7.04**	**7.17**	**6.74**	**6.35**	**7.06**
	Ranking	*21*	*5*	*7*	*2*	*16*	*10*	*1*	*26*	*8*	*15*	*16*	*13*	*24*	*30*	
	Weighted-Average Score	**7.04**	**7.53**	**7.52**	**7.82**	**7.05**	**7.36**	**7.95**	**6.86**	**7.50**	**7.09**	**7.20**	**7.11**	**6.80**	**6.47**	**7.10**
	Ranking	*21*	*5*	*6*	*2*	*20*	*9*	*1*	*23*	*7*	*18*	*14*	*17*	*25*	*29*	

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