

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
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Q. Global consolidation in the steel industry seems to have resulted in the industry being able to respond more quickly to the slowdown in fourth-quarter demand with across-the-board production cuts. Given the more pessimistic outlook for pricing and production in 2009, does WSD expect this consolidation to stall?

A. The "urge to merge" for the steel industry is not about to let up. Concentration is good for steelmakers, as it enhances "pricing power." Awareness of the improved demand growth and profit prospects for the steel industry, and many other capital-intensive industries, is causing a remarkable reordering of asset weightings — a shifting of priorities — by industrialists, economists, lenders and investors. These groups are now scrambling to boost their exposure to the basic industrial sector, which has caused quite a rise in the price of the assets of the companies in these sectors.

The strong steel market has been masking vulnerabilities in some of the weak companies. Down cycles for the industry typically lead to conditions of stress and crisis that are suffered to a far greater extent by the weaker players. In the environment we foresee in the next decade, a number of weaker companies will not grow strong enough during periods of recovery to avoid being threatened with extinction during periods of weak steel demand.

Some losing steel mills will not be able to cope with sharply swinging prices for steel on the world market, old and poorly located equipment, weak balance sheets and stronger competitors. Because "catch-up" is difficult to achieve, losers will seek to sell out to their stronger competitors. If managers are not proactive in this regard, shareholders are apt to step in, as we have seen, forcing boards to consider and accept hostile overtures.

While the industry will never be dominated by just a few global steelmakers, it still appears that size has advantages. The larger the company, the more apt it is to cut back production in a specific steel market where apparent demand has weakened. The globalization of the steel industry will offer new chances to engage in alliances and joint ventures.

The rejuvenated financial positions and soaring EBITDAs of many companies continue to fuel an unprecedented wave of consolidation. The steel mills outside of China have huge cash flows — on the order of \$60 billion in recent years versus a negative \$1.3 billion in 2001 — giving them the wherewithal to acquire others; however, if they are not careful, they may be acquired themselves. In this environment, the strong players are those with good currency, i.e., cash, borrowing power and typically a much-improved stock market value.

Q. What characteristics make a steel company a highly desirable acquisition?

A. Attractive target attributes include: (a) sizable EBITDA, (b) ownership of steelmakers' raw materials, (c) low debt, (d) a relatively low valuation and (e) an "inside" group that owns a sizable block of the stock.

Q. Does WSD foresee any decline in mergers and acquisitions activity within the steel industry?

A. Overall, M&A activity seems sure to continue at a high rate over the next decade, no matter what the industry circumstance. Our expectation is that, by 2015, there will be five to 10 companies with a capacity range of 50–150 million tonnes.

- If the profit environment remains favorable, many steel companies will have the cash flows to make substantial capital outlays and still be acquisitive.

There is still a strong incentive to acquire plants rather than to build them. Why take five to seven years to build and start-up a major new integrated steel plant when, instead, one can be purchased that has: (a) good equipment, (b) few environmental problems, (c) a solid supporting infrastructure, (d) a strong customer base and (e) an experienced work force?

- If shake-out conditions return, with steel prices dropping for a while to the marginal cost of the average-cost producer, the cost to acquire steel companies presumably will be much lower.

Outside of China, stronger mills will gobble up the weaker ones at bargain prices, although probably nowhere near the bargain-basement values that prevailed in 1998–2003.

Top steel executives in China, the China Iron & Steel Association (CISA) and central government policymakers (at the National Development and Reform Commission) are calling for sizable capacity rationalization.

The actions of Lakshmi Mittal, chairman and CEO of ArcelorMittal, have greatly influenced the M&A strategy of his peers in recent years. Via a series of bold moves, Mittal created the world's largest steel company in just 16 months and gained the distinction of being the first of the expected 50- to 100-million-tonne behemoths. Hence, doubts no longer exist that speed and decisiveness are necessary if a company is to "win" in the steel industry M&A game.

ArcelorMittal is a global steelmaker with facilities in Algeria, Argentina, Belgium, Bosnia, Brazil, Canada, Czech Republic, France, Germany, Italy, Kazakhstan, Liberia, Luxembourg, Macedonia, Mexico, Morocco, Poland, Romania, South Africa, Spain, Trinidad, Ukraine and the United States.

The more global a steel company becomes, and the more diversity in its product mix, raw materials facilities and downstream operations, the greater the likelihood that it can find smaller “fill-in” acquisitions in which there are great synergies.

In China, there is a program under way to consolidate many of the subsidiaries into a single entity, which will make it easier for international companies to obtain part ownership of Chinese companies. Mergers and acquisitions among Chinese steelmakers will rise even more sharply. The larger government-owned steel companies will be encouraged to merge with smaller, and often weaker, companies in their industry.

Chinese steel mills are outstanding acquisition or merger candidates. While BaoSteel may be the most coveted of the Chinese steelmakers, there are many other good choices (Anben, Wugang, Tangshan, perhaps Shougang, Panzhihua and others). Privately owned Shagang, with its massive new sheet plant on the Yangtze River, would be a great acquisition for an international steelmaker. WSD believes that, in a few years, Chinese central government policymakers will change their minds and permit some of the leading Chinese mills to merge with their offshore competitors.

Indian steelmakers, particularly Tata Steel, SAIL and Essar, but also some others, are also a highly desirable part of the M&A mix. Steel companies in this region will benefit in the years ahead from an improving economy, abundant and low-cost iron ore, low wage costs for skilled workers, and sizable expansions of their plants. Indian steel companies are already among the lowest-cost producers in the world.

We also expect there to be more technical and marketing agreements and alliances among companies. As a result, we see pricing power shifting more in the favor of steel mills in the next decade.

In Figure 1, WSD places virtually all of the world’s leading steelmakers in one of seven groups. We published the first version of this figure in 2004. The purpose of this approach is not to prove that there will be only seven steel companies in the future, which is an absurd possibility, but rather to spark our readers’ imagination regarding possible permutations and combinations that may lead to further concentration in the steel industry.

Changing ownership patterns will be one of the principal forces working to make the steel industry ever more global. The consequence of globalization should be an increasingly fast-moving, dynamic and responsive industry. Management, in such an environment, should be more attuned to responding to opportunities in the global environment, and less enmeshed in parochial issues. We envision steelmakers evolving and consolidating into one of two categories:

1. *Global players.* This group should have the opportunity to sell a good portion of their product on a high value-added and high tonnage basis. Prices would be determined on an annual contract basis. The needs of customers with manufacturing facilities in a number of countries will be paramount.
2. *Domestic players.* This group would sell a far greater proportion of less value-added products on

a lower tonnage basis. Prices would be determined in the spot market.

Running countercurrent to the industry’s concentration tendency are its formidable barriers to exit. It is not a simple process to dispose of steel facilities, due to a variety of operational, tax-related, environmental and labor (including legacy costs) issues.

Q. What are some other possible consequences of new ownership patterns?

A. On a collective global basis, the steel mills may better calibrate their output to industry conditions.

Steelmaking capacity additions may be more limited than in the recent past. For example, we don’t look for many export-oriented steel plants to be built in the next five to 10 years.

Marginal steel plants will find it harder to survive.

The global steel market may remain highly protected. Many countries will restrain foreign deliveries into their respective markets.

Demand for steel slab should expand as many steelmakers may lack the financial wherewithal to have the steelmaking capacity that will fully sustain the capability of their rolling mills.

Winners will include steel mills with ultralow costs, with special product mixes and/or with special reasons that have enabled them to garner an advantage in their respective markets.

Q. Why the “Urge to Merge”?

A. Balance sheets are much improved, and it is still cheaper to “buy” than to “build.” Diversion of cash flows to M&A means that less funds will be spent to create excess capacity.

Management of companies that have improved prospects need to boost the value of their common stocks; otherwise, someone else will do it for them. When combining steel plants from a number of countries into a single amalgamation, this diversifies the “country risk” factor. Interestingly, those plants listed in countries with more “country risk” tend to have sizable EBITDA. Once the bigger pieces — the big companies — are put together, the enlarged companies (the bigger pieces) can engage in a number of “fill-in” opportunities, i.e., the acquisition of companies with a capacity of several million tonnes per year.

M&A may provide an opportunity to boost enterprise values, especially in the case of steel mills that are located in countries where there is a significant “country risk factor.”

ArcelorMittal has taken an important lead, which is causing its rivals to try to take actions to slow it down and engage in their own activities. Today, companies must take more risks to play the game successfully. ♦

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Figure 1 — The Urge To Merge 2008

(Shipments in millions of metric tonnes)

<u>Consolidators</u> (Principal locations noted)	Million tonnes		<u>Acquirees</u>	Million tonnes
ArcelorMittal (Global)	117	★	Anshan-Benxi (China)	24
Nippon Steel (Japan)	36	★	Jiangsu Shagang (China)	23
JFE (Japan)	34	★	Tangshan (China)	23
POSCO (S. Korea)	31	★	Wuhan (China)	20
BaoSteel (China)	29	★	Riva (Italy)	18
Tata-Corus (India, EU)	27	★	Evrax Holding (Russia)	16
U. S. Steel (USA, Eastern Europe)	22	★	Maanshan (China)	16
Nucor (USA)	20	★	SAIL (India)	14
Gerdau (Brazil, USA, Canada)	19	★	Sumitomo Metals (Japan)	14
Severstal (Russia, USA)	17	★	Magnitogorsk (Russia)	13
ThyssenKrupp (Germany)	17	★	Ternium (Latin Amer.)	13
Commercial Metals (USA)	6	★	Shougang (China)	13
			Jinan (China)	12
			Laiwu (China)	12
			Valin (China)	11
			China Steel (Taiwan)	11
			IMIDRO (Iran)	10
			Hyundai Steel (S. Korea)	10
			Novolipetsk (Russia)	10
			Taiyuan (China)	9
			Metinvest Holdings (Ukraine)	9
			Anyan (China)	9
			Baotou Iron & Steel (China)	9
			Usiminas (Brazil)	9
			Handan (China)	8
			Celsa (United Kingdom)	8
			Kobe Steel (Japan)	7
			Tangshan Jianlong (China)	8
			Essar (India)	8
			Jiuquan (China)	7
			Salzgitter (Germany)	7
			Ilyich (Ukraine)	7
			Voest Alpine (Austria)	7
			BlueScope (Australia)	7
			Panzhuhua (China)	7
			JSW Steel (India)	7
			Metalloinvest	6
			Beitei (China)	6
			Azovstal (Ukraine)	6
			Duferco (Germany)	6
			Rizhao Steel (China)	6
			SSAB (Sweden)	6
			Mechel (Russia)	6
			Nanjing Steel (China)	6
			AK Steel (USA)	6
			Guangxi Liuzhou (China)	6
			Ezz (Egypt)	6
			CSN (Brazil)	5
			Erdemir (Turkey)	5
			Steel Dynamics (USA)	5
			HADEED	5
			Zaporizhstahl	5
			Rautaruukki (Finland)	5
			Schnitzer (USA)	5
			Ahmsa (Mexico)	4
			Tokyo Steel (Japan)	4
			California Steel Ind. (USA)	3
			OneSteel (Australia)	3
Total	374			530

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<u>7 Theoretical Combinations</u>	Million tonnes
ArcelorMittal Steel, Wuhan, SAIL, Valin, Panzhihua, Erdemir, HADEED, Ahmsa	182
BaoSteel, Nucor, Severstal, Riva, Maanshan, Ternium, Hyundai, Anyan, Baotou, Handan, Kobe, Rautaruukki	161
JFE, Tata-Corus, CMC, Evrax, China Steel, Celsa, Azovstal, Duferco, SSAB, AK Steel, CSN, CSI	134
Nippon Steel, POSCO, Magnitogorsk, Salzgitter, Tangshan Jianlong, Jiuquan, Ilyich, BlueScope, SDI	121
U. S. Steel, Sumitomo Metals, Shougang, Jinan, Laiwu, Taiyuan, Metinvest, Usiminas, Rizhao, Mechel	112
ThyssenKrupp, Anshan-Benxi, Tangshan, IMIDRO, Novolipetsk, Tangshan, JSW, Metalloinvest, Beitei, Zaporizhstahl	108
Gerdau, Jiangsu Shagang, Essar, Voest Alpine, Nanjing, Guangxi Liuzhou, Ezz, Schnitzer, Tokyo Steel, One Steel	86
Total	904
Total global shipments	1483

Note: In this "think piece", the confusion between consolidators and acquirees is intentional.

(Note: The major Chinese mills are likely acquirers of mid-sized mills in their country.)

★ "World-Class" steelmaker as designated by WSD