Opportunities for Action in Industrial Goods

Global Steel:
Breaking the Stalemate

THE BOSTON CONSULTING GROUP
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The recent furor over the U.S. imposition of tariffs on steel imports—including threats of retaliatory measures by the European Union, Japan, and others—reflects the important role that steel continues to play in the world’s economy. Steel remains one of the most widely used materials, and the industry creates sales of about $300 billion and employs some 2 million people.

Despite the industry’s importance, global steel is in a bad way. Few companies are profitable. Even fewer are achieving adequate returns, and fewer still are experiencing profitable growth. Since 1989, the industry as a whole has been destroying value by repeatedly failing to earn its cost of capital.

In spite of the steel companies’ best efforts to improve their profitability from year to year, systemic factors such as a long-term downward price trend eat up most of their results. Efforts by individual companies to improve their competitive position have usually not succeeded, because all the leading players have employed similar strategies. Industry regulators, for their part, have perpetuated inefficiencies by protecting domestic steel companies with tariffs and quotas.

Thus the industry repeatedly finds itself at a stalemate. The time has come to break that stalemate by addressing not the symptoms of the industry’s malaise but its root causes.1

1. A detailed discussion of the industry’s predicament, together with BCG’s analysis of possible value-creation strategies, will be included in the forthcoming report Breaking the Stalemate: Value Creation Strategies for the Global Steel Industry, to be published in July 2002. To request a copy of the report, please e-mail imc-info@bcg.com.
Critical Issues Facing the Industry

Among several root causes of the present difficulties, two offer scope for useful change: the industry’s chronic overcapacity and its global fragmentation.

Chronic Overcapacity. Basically, there is considerably more steel-making capacity than there is demand for steel. From 1990 through 2000, global capacity utilization fluctuated between 70 and 80 percent. That is because, despite the sluggish growth of demand for steel, the industry both expanded capacity in existing plants and added new capacity in developing markets, without removing excess capacity.

Worldwide demand for steel grew only 0.8 percent per year from 1990 through 2000, and it is expected to grow just 1 to 1.5 percent per year for the next ten years. At the same time, capacity is expected to grow at around 1 percent per year. (Some 60 percent of that growth will come from new plants and the rest from the enhancement of existing facilities.) Hence, without some significant reductions in capacity, the industry’s chronic overcapacity will persist.

However, once installed, steel-making capacity is very hard to eliminate because of high exit costs. Even temporary reductions in capacity are difficult because of the inflexible nature of the integrated steel-production chain. For this reason, integrated plants often find it cheaper—on a marginal cost-calculation basis—to avoid temporary shutdowns by continuing full production and then shipping their marginal tonnage to spot markets at low prices. Permanent reductions in capacity are, of course, even more expensive because of high legacy costs, such as pension obligations and environmental liabilities, and because of political sen-
sitivity. Without stronger incentives to close plants, the capacity overhang is not going to disappear.

Global Fragmentation. The steel industry has high fixed costs, low variable costs, and production lines that are very hard to shut off. In such an environment, fragmentation is costly because there is little transparency in the market and everyone has an incentive to sell off marginal tonnage at low prices in someone else’s territory. Despite recent mergers—especially in Europe, as exemplified by the creation of Arcelor—the global steel industry is still highly fragmented. In 2001 the top five steel companies accounted for less than 20 percent of the world steel market; in comparison, the top five automotive companies had a nearly 70 percent share of the world market. This structural imbalance between the steel industry and one of its principal customer industries means that steel companies are often at a disadvantage in negotiating contracts—another costly effect of fragmentation.

Three Paths to Value Creation

The Boston Consulting Group has identified three paths to renewed value creation for the steel industry: regional consolidation; specialization and downstream migration; and deconstruction and global networking.

Regional Consolidation. Regional consolidation, which is well under way in Europe, will continue worldwide. We see this as a reasonable, if insufficient, next step toward rationalizing the industry by reducing fragmentation and helping to eliminate over-capacity. We anticipate that this trend will culminate
in the formation of companies that will control some 30 to 40 percent of their respective regions. Such companies will achieve further cost reductions of 4 to 6 percent as compared with today’s players.

**Specialization and Downstream Migration.** This approach can help individual companies, especially smaller ones, escape from the commodity segments of their current businesses into higher-margin businesses. Specialization, for instance, might take the form of focusing on downstream value-added businesses, such as metal components or systems, or on acquiring a more general competence in materials. The latter strategy will require know-how in a variety of materials, in addition to steel. In general, specialists will need to focus on meeting their direct customers’ needs, rather than on cutting production costs.

At their extreme, these strategies can become a bold move to transform the company’s portfolio so radically that the company is no longer perceived as primarily a steel player. Because commodity steel volumes are so large compared with the more obvious specialties, companies best positioned to pursue this path are the small and midsize players already occupying strategic niches today.

**Deconstruction and Global Networking.** This third—and most promising—long-term model for value creation can help reduce global fragmentation and over-capacity while also separating commodity and non-commodity businesses. Deconstruction adds the most value in industries—such as steel—in which the required sets of key capabilities differ between the upstream and downstream ends of the value chain. Under these circumstances, a deconstructed industry can open up opportunities for new business models
focused on the requirements of just one part of the previously integrated chain. Because steel is highly divergent in this sense, a company taking a greenfield approach could minimize steel production costs by separating the less complex upstream production of standard-grade semifinished steel from the more customized downstream production.

Such a separation would make economic sense because the two ends of the steel value chain have such different criteria for success. Whereas the upstream end is driven primarily by cost and scale, the downstream end offers greater opportunities to achieve competitive advantage through differentiation.

The deconstructed companies could then create even more value through global alliances. In this “division of labor” approach, for example, a low-cost offshore producer of slabs might collaborate with a highly differentiated conversion specialist, thus reducing the cost of steel products by 10 to 20 percent, as compared with today’s best regional players, and creating substantial competitive advantage.

Despite the great promise of this approach, no company has yet made a significant move in this direction. Barriers include the high costs of closing upstream production capacity, the fear of supply shortages, and the risk of political opposition. These are all soluble issues, given sufficient insight, imagination, and will.

The Challenge for Leadership

To change the rules of the game in the steel industry and permit it to achieve healthy and efficient value
creation, steel companies will need to change their behavior in a number of important ways. Clearly, they will need to take at least one and possibly all three of the value creation paths outlined above. They should begin by segmenting their business portfolios into commodities and differentiable products or services, and then evaluate the opportunities for the former to consolidate or be consolidated, and for the latter to escape from a reliance on the commodity side. They should also prepare to participate in global alliances by establishing relationships with potential partners and by learning from cooperative efforts in areas where risk is manageable.

Most important, they need to think beyond their own corporate boundaries. Improvement in any individual company’s situation must be accompanied by a strategy designed to allow broader and more lasting success for the industry as a whole.

Although the strategic choices of the leading steel players will certainly have a huge impact on how the sector recovers, steel companies alone cannot transform the rules of the game. The solution to the chronic problems plaguing the industry must involve governments in the major steel-producing regions. The remedies commonly espoused by national governments, including trade barriers and subsidies for low-efficiency plants, will only preserve overcapacities rather than reduce them. Any improvements that may occur in the average cost position of a nation’s steel industry during the limited period of protection are not likely to reduce substantially the cost differential between developed and developing countries. Therefore, we don’t believe that protective measures alone can buy national companies enough time to cure themselves.
Rather than imposing protective measures, regulators must support the renaissance of the steel industry by developing an economic and political framework that ensures a reasonably safe transition. Governments and other regulatory bodies should focus all their regulatory actions on reducing overcapacity and promoting consolidation. They should also actively encourage the international trade of steel products and effectively mitigate the risks of cross-regional cooperation.

Companies and regulators alike must take action—individually and collectively—to break the present impasse. By collective action we do not, of course, mean to suggest any “behind closed doors” activity that could possibly be construed as collusion or other illegal behavior. Rather, we believe that key players in the steel industry, together with the bodies that regulate them, should openly and publicly examine the constraints that currently prevent the industry from functioning effectively, and then take action to remove them.

In the long run, in the high-volume segments and markets, we expect that some eight to ten international companies, each with an optimized structure of plants and logistics, will supply standard steel grades. In addition, we expect to see a broader spectrum of a few dozen specialist companies supplying smaller volumes of sophisticated products in combination with further value-added services, such as collaborative development and engineering and more complex logistics services.

Getting there will not be easy. It will require vision, will, and courage to take those vital first steps onto a new path, with no guarantee that the rest of the
industry will follow. And it will require strong leadership to implement bold new value-creation strategies. But if the industry is to develop in a positive direction, this is the work that must be done. The time to start is now.

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