Case 2

## The United States Steel Industry

For decades, the United States steel industry was in deep economic malaise. The problems of the industry were numerous. Beginning in the 1970s, falling trade barriers allowed cost-efficient foreign producers to sell steel in the United States, and they were taking market share away from once dominant integrated steel makers, such as U.S. Steel, Bethlehem Steel, and Wheeling-Pittsburg.

To make matters worse for incumbents, there was also new domestic competition in the form of mini-mills. Mini-mills were small steel makers who used electric arc furnaces to smelt and produce scrap steel , often at a significantly lower cost than large established companies. Because they did not use iron ore, mini-mills did not need to invest in blast furnaces to smelt iron ore (blast furnaces are very capital intensive). The average mini-mill was approximately one tenth of the size of a large integrated mill, used nonunion labor, and was typically located in rural communities where labor costs were relatively low. Scrap steel was in plentiful supply and priced low. Initially, most mini-mills produced low-grade construction steel, although they have moved into higher-grade steel in recent years.

If the expansion in supply from foreign companies and mini-mills wasn't enough, demand for

steel was also contracting as customers switched to substitutes, including aluminum, plastics, and composites. The combination of growing supply and shrinking demand resulted in excess capacity. Indeed, at one time, as much as 45 % of the steel-making capacity in the United States was excess to requirements. As steel makers struggled with excess capacity, they slashed their prices to try and capture more demand and cover their fixed costs, only to be matched by rivals. The result was intense price competition and low profits. In addition, customers, for whom steel was mostly a commodity type input, could easily switch demand from company to company, and they used this leverage to further bargain down prices. To make matters worse, established steel makers were typically unionized, and a combination of high wage rates and inflexible work rules raised labor costs, making it even more difficult to make a profit in this brutally competitive industry. Strong unions, together with the costs of closing a plant, were also an impediment to reducing excess capacity in the industry.

The steel industry rarely made money. Many of the old integrated steel making companies ultimately went bankrupt, including Bethlehem Steel and Wheeling-Pittsburg. Then, in the early 2000s, things started to change. There was a surge in demand for steel from the rapidly developing economies of China, India, Russia, and Brazil. By 2004, China alone was consuming almost one third of all steel produced worldwide, and demand there was growing by more than 20% per year. Moreover, two decades of bankruptcies and consolidation had finally removed much of the excess capacity from the industry, not just in the United States, but also worldwide. In the United States, the producers that survived the decades of restructuring were efficient enterprises with productive workforces and new technology. Now finally competitive, for the first time, steel producers were able to hold their own against foreign imports. A decline in the value of the U.S. dollar after 2001 helped make steel imports relatively more expensive, and helped to create demand for steel exports *from* the United States.

As a result of this changed competitive environment, prices and profits surged. Hot rolled steel plate, for example, was priced at $260 per ton in June of 2003. By June of 2008, it had increased to $1225 per ton! In 2003, U.S. Steel, the country's largest steel producer, lost $406 million. In 2008 it made $2 billion in net profit. Nucor Steel, long regarded as the most efficient steel maker in the country, saw its profits increase from $63 million to $1.8 billion over the same period.

However, in late 2008 and 2009 demand for steel slumped again as a deep recession gripped the United States and many other nations following the global financial crisis. U.S. Steel makers cut their production from 108 million tons in 2007 to just 65.5 million tons in 2009. In 2009, the industry lost money. Even Nucor, long considered the most efficient steel maker in the United States, recorded a $293 million loss, while U.S. Steel lost $1.9 billion. The following year brought a recovery, however, with production rebounding 44% on the back of stronger demand trends. This enabled many steel makers to cover their fixed costs and start to make money again. Nucor, for example, made $134 million in 2009.

**Sources:** S. James, "Lofty Steel Prices Could Keep Climbing," *Herald Tribune*, May 19, 2008; *The Economist*, "A Changed Game," July 15, 2006, pp. 61–62; M. Gene, "U.S. Steel is on a Roll," *Business Week*, June 30, 2008, p. 20; L.J. Larkin, *Standard & Poors Industry Survey, Metals: Industrial*, February 17, 2011.

## Case Discussion Questions

1. Using the information contained in the case, conduct a five-forces analysis of the U.S. Steel industry. What conclusion can you draw from this?
2. Do you think there are any strategic groups in the U.S. Steel industry? What might they be? How might the nature of competition vary from group to group?
3. Demand for steel is very cyclical. Why do you think this is the case? What might steel makers do to better cope with the cyclical nature of demand?
4. Given the nature of competition in the U.S. steel industry, what must a steel maker focus on in order to be profitable?