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# Finding success in the 1990s

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There are two "rules of the game" when it comes to the business of steelmaking. The first is, "Those who respond to change reap huge rewards," and the second is a corollary to that rule, "Those who attempt to avoid change are doomed to disaster."

Why is the issue of change so important to the steel industry? Many steel firms have spent decades operating their assets as they have always been operated. Employees at old line steel companies have been more focused on the glories of the past than on building a strong business for the future.

Meanwhile, new methods of working have caught on and been extremely successful. During the 1990s, firms using the "new steel paradigm" are rapidly gaining market share while firms clinging to the "old steel paradigm" march steadily toward extinction.

| Old Steel Paradigm | New Steel Paradigm |
|---|---|
| Centralized decisions | Decentralized decisions |
| Work rules | Problem solving |
| Lack of communication | Lavish communication |
| Invest in equipment | Invest in people |
| Company first | Customer first |

The industrial business environment has changed radically since the 1940s. Coming out of World War II, the recipe for success was centralized planning, strict work rules, unilateral decision-making, massive investments in plant and equipment, and a paternalistic employment policy. This "old industrial paradigm" was well suited to a period of mass production based on economies of scale. The objective of industrial America was to push as many units (e.g. cars, dishwashers, etc.) out the door as possible. These mass produced goods were gratefully received by the consumer.

Customer demands have become more refined and global competition has become more intense. Buyers are looking for performance and reliability—not just quantity. Many steel end-markets like autos and appliances are experiencing intense pressure to delight the customer with innovation and service. The dynamics of change are felt clear up the supply chain to steel producers who must provide on-time delivery, product uniformity, and even product design.

The shift in the industrial paradigm is most pronounced in the case of industrialized economies. In developing economies the old paradigm often still holds.

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—John E. Jacobson

Regions with new infrastructure building and budding capital goods industries will support steel sector growth almost regardless of quality and service. Mass production based on economies of scale has recently been successful in South Korea and Turkey. The steel industry in China has been on a steep growth curve and may well experience an unprecedented boom in steel demand sometime during the next decade.

The WEFA Group World Steel Production Forecast, contained in the October 1992 Steel Executive Summary, projects world steel production to increase 30 million tonnes by 1996. Recent projections from the International Iron and Steel Institute (IISI) in Brussels have world steel consumption 32 million tonnes higher in the year 2000 than in 1990.

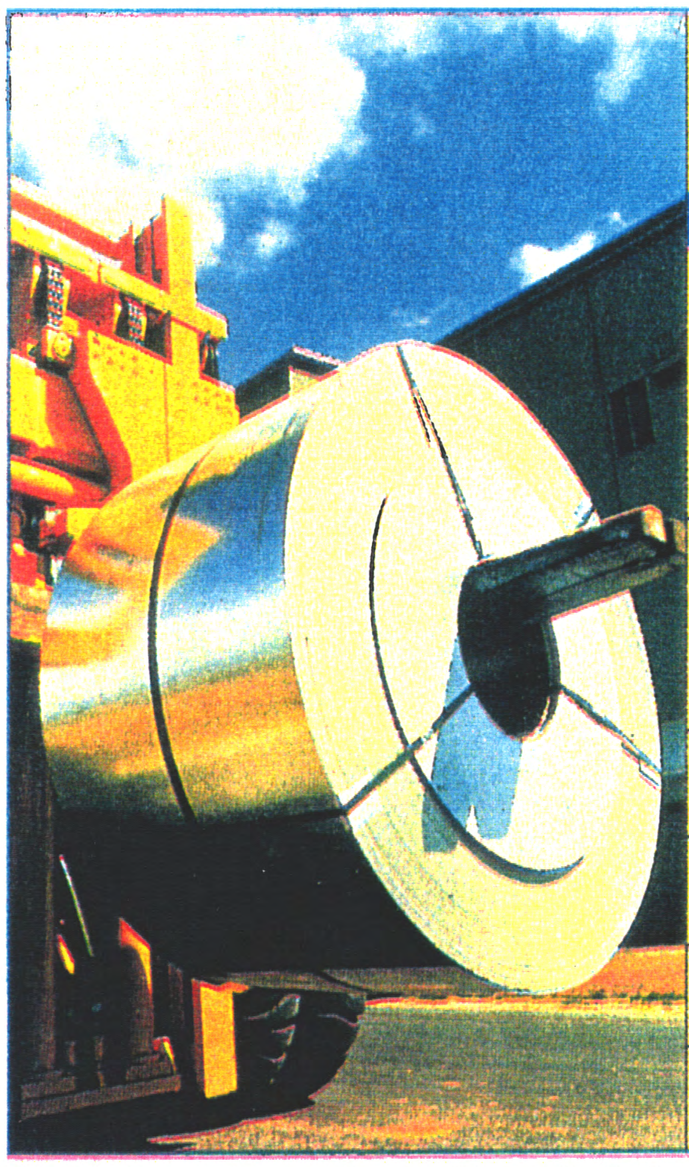
### World steel outlook

Most steel tonnage growth will occur in developing regions of the world. Between 1987 and 1991 overall world steel production was essentially flat, while steel production in developing regions rose 24 percent or more than 21 million tonnes. The steel outlook in the developed regions of Japan, Western Europe and the United States is for no growth. Steel production growth will be centered in Latin America, developing market economies of Asia, and China.

In the industrialized world, steel is no longer bought—it is sold. (Underlying fundamental—steel shortages in developed regions are a thing of the past.) This does not mean that the steel industry of industrialized nations will disappear, nor does it mean that steel companies must constantly suffer financial losses.

Savvy steel firms are both lowering their break-even production costs as well as developing strong market niches. Some firms have developed proprietary products with superior performance characteristics. Still more firms are selecting specific clients with which they are developing long-term relationships.

Some of the best steel companies in the U.S. have downstream businesses which use substantial quantities of steel. For example, Nucor runs both a steel joist and a steel grinding ball business which chew up a large quantity of their in-house production, and Acme Steel of Chicago has its own strapping and tire jack businesses which account for a substantial amount of internal steel demand.



## World steel production outlook

(million tonnes)

| Country/Region | 1987 | 1991 | 1992 | 1996 |
|---|---|---|---|---|
| Western Europe | 151 | 161 | 160 | 165 |
| United States | 81 | 79 | 85 | 87 |
| Japan | 99 | 110 | 96 | 95 |
| **Total all developed regions** | 361 | 379 | 372 | 380 |
| Latin America | 40 | 39 | 42 | 52 |
| Developing Asia | 41 | 61 | 65 | 78 |
| **Total all developing regions** | 88 | 109 | 117 | 143 |
| **Total Market Economies** | 448 | 488 | 489 | 522 |
| China | 56 | 71 | 79 | 92 |
| **Total world** | 736 | 734 | 717 | 749 |

Source: The WEFA Group October 1992 Steel Executive Summary
*Note: Not all countries and regions are presented in this table.*

**Developing regions of the world, particularly the Pacific Rim, are expected to account for much of the projected 30 million ton increase in world steel production between now and 1996.**

The world steel industry is a $300 billion plus arena in which there will continue to be winners as well as losers. Firms operating in the no-growth developed economies must orient their business towards the "new steel paradigm."

In the 1990s the customer is king. Those firms best able to respond to customer concerns regarding quality, service and price are rewarded with market share and profitability. Financial gain is less a function of how many units a company is able to produce and more a function of how efficiently a company is able to meet the needs of its customers.

### Self reliance

Steel firms are determining their own fate. Those who wait for the market to improve will lose, and those who aggressively develop customer relationships and help themselves will win. The classic examples of winning steel firms are minimills.

Minimills provide customers with a simple, economical and reliable source of supply. There are not a lot of hidden charges. Minimill prices are very competitive. Straightforward operating practices and employee empowerment have earned minimills the reputation of reliable suppliers. Their success is witnessed by ever increasing shares of all markets in which they compete and by superior financial results to their integrated competitors.

Perhaps the ultimate sign of success for minimills is the tidal wave of imitation currently underway. Only a few North American integrated steel producers have not announced interest in either building a mini-flat rolled plant or transforming themselves entirely into a minimill type of steel company.

A comparison of the performance of minimills and integrated producers during the 1986-1991 period provides compelling evidence for the shift toward minis. (See table, "Key business indicators")

The steel industry in the United States, as in other developed economies, is undergoing massive transformation. Minimills have had enormous success in the marketplace because their operations are aligned with the "new steel paradigm."

Today's marketplace calls for employee empowerment through decentralized decision-making, abundant communication, clearly defined goals and objectives, and financial incentives for employees. Successful steel companies in the 1990s and beyond are oriented toward meeting the needs of the customers and investing in their workers. The "new steel paradigm" will be the dominant force behind the renaissance of the U.S. steel industry. ■

## Key business indicators

1986-1991

| | Minimills | Integrated |
|---|---|---|
| Sales growth | 66% | 1% |
| Employment growth | 19% | -30% |
| Cumulative tons shipped (millions) | 71 | 243 |
| Capital spending per ton | $34 | $32 |
| Tons shipped per employee | 752 | 381 |
| Manhours per ton | 2.8 | 5.5 |
| Operating profit per ton | $32 | $3 |

**The notably higher operating efficiency of minimills has enabled these producers to not only carve out a large niche of the markets once dominated by integrated producers but to sustain exponentially larger profit margins as well.**

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