MANAGEMENT

Staying alive in a volatile market

Coming up for the steel industry: wide swings in demand and a shakeout of high-cost producers and those that don't satisfy customers

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The future path of the steel industry contains sharp turns, unexpected twists, and many distractions. Steelmakers will have to deal effectively with volatile demand and successfully adapt to rapidly evolving operating practices. Satisfying customers also is paramount.

The worldwide steel industry is highly cyclical. Unlike in stable industries such as food and tissue paper, the demand for steel moves like a roller coaster. Worldwide steel production should grow at a rate of 1.5 percent per year over the next 10 years.

Today, steel-market growth is shifting toward developing economies and away from non-free-market producers (see charts). China, for example, is amid phenomenal growth. The steel industries in Korea and more recently in some smaller Asian economies also are growing rapidly. Japan, however, is entering the latter stages of a substantial shift away from steel and steel-intensive industries.

Elsewhere, steel production in Eastern Europe and the Commonwealth of Independent States is close to hitting rock bottom after 4-5 years of free fall. Growth in Mexico and Brazil will be strong because of privatization and eventual economic recovery.

Meanwhile, the U.S. steel industry has just passed its cyclical peak. Steel production here will be in a sustained decline for at least the next three years, 1996-1998.

As in other regions, the steel industry in the U.S. is highly cyclical. Capacity utilization of U.S. steelmakers changed either up or down by an average of 13 percent per year between 1980 and 1993 (see chart). In six of the fourteen years, capacity utilization decreased; in the remaining eight, it increased.

This means it is extremely difficult for steel producers to plan volumes.

Increasing operating rates

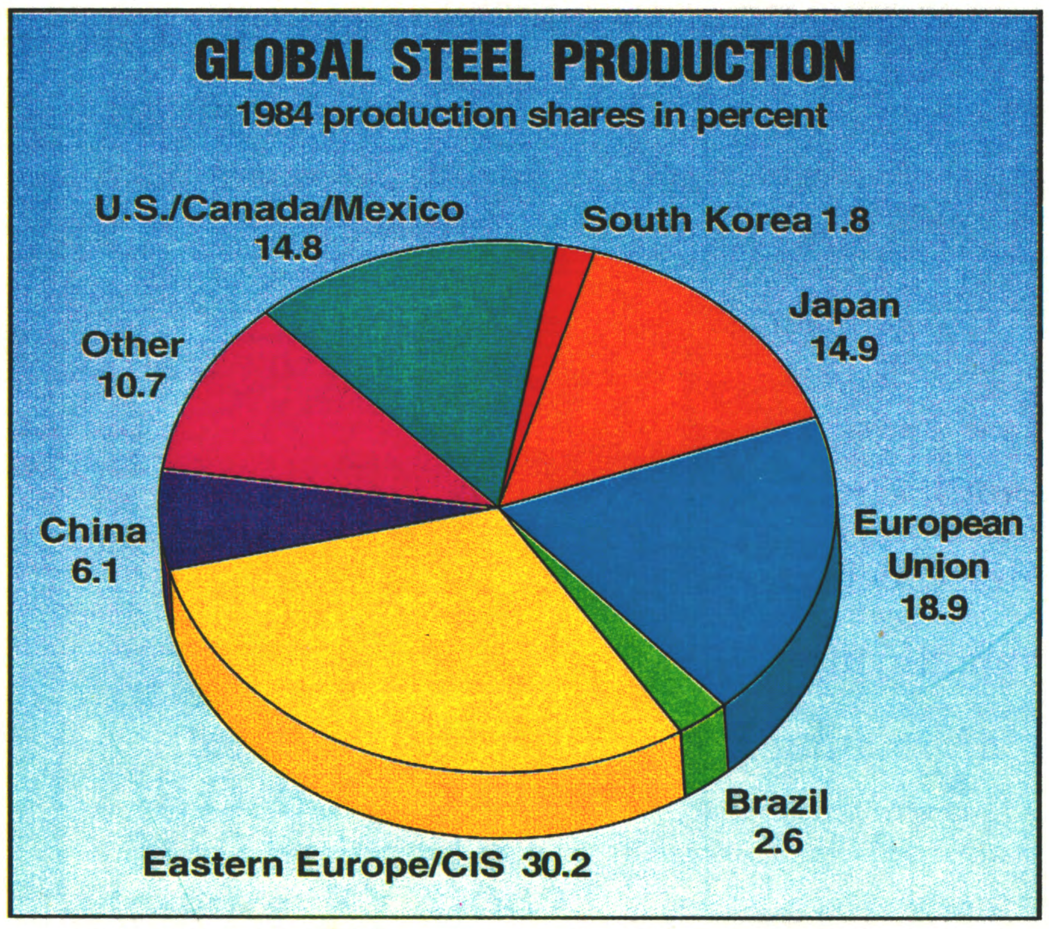
Before 1985, steelmakers based their strategy on being able to serve peak demand. As part of this old strategy, integrated producers invested in electric furnaces; production from these could be raised or lowered to meet peak market demand more easily than it could at blast furnaces and basic oxygen furnaces.

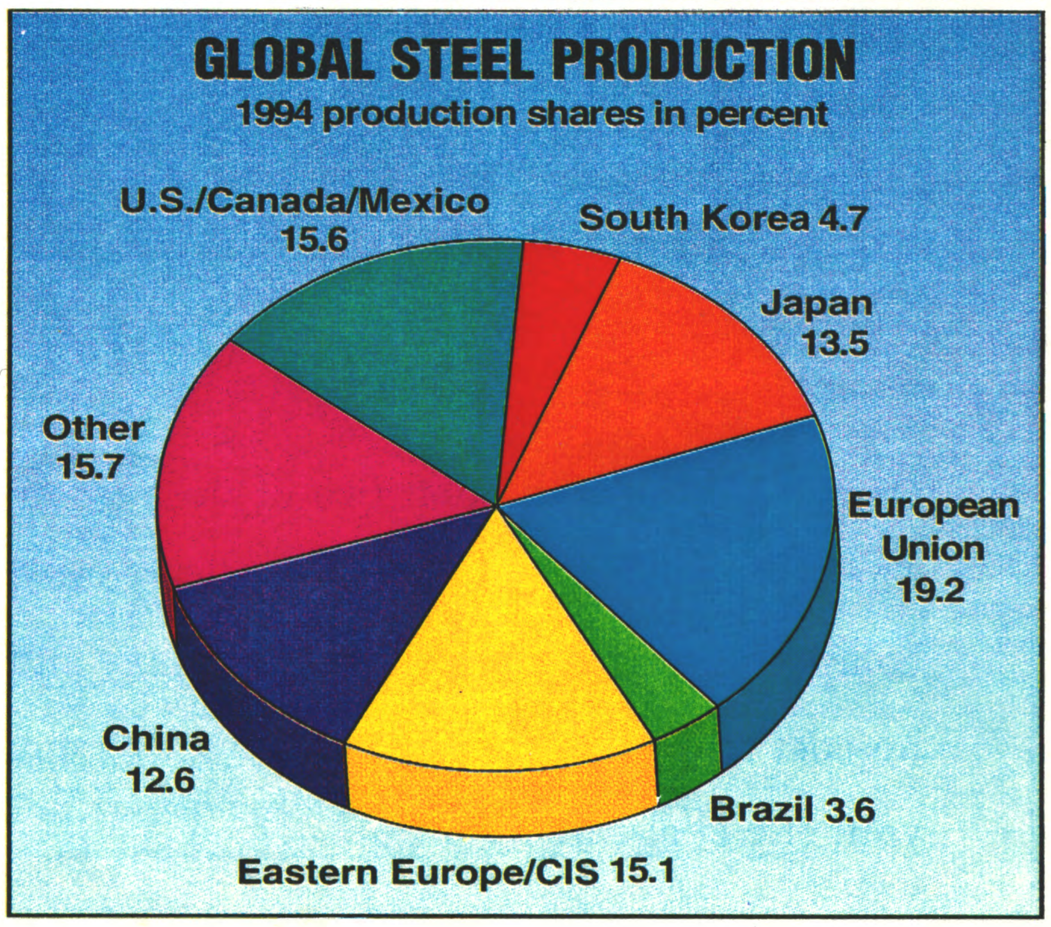
But since 1985, steel producers instead have tried to achieve profitability throughout the cycle. The U.S. steel industry structurally improved its operations to make more steel and more money from a given investment in plant and equipment.

From 1980 to 1986, the steel industry's operating rate averaged 65 percent. But from 1987 to 1993, the average operating rate was 84 percent (see chart). The operating rate has been at almost 90 percent for the past two years through Feb. 1995.

The cyclical nature of the steel business causes substantial changes in price from one year to the next, especially spot prices. Nucor and Nucor-like low-cost producers inevitably will continue to be the bellwethers on price, particularly spot prices. Given the renewed strength

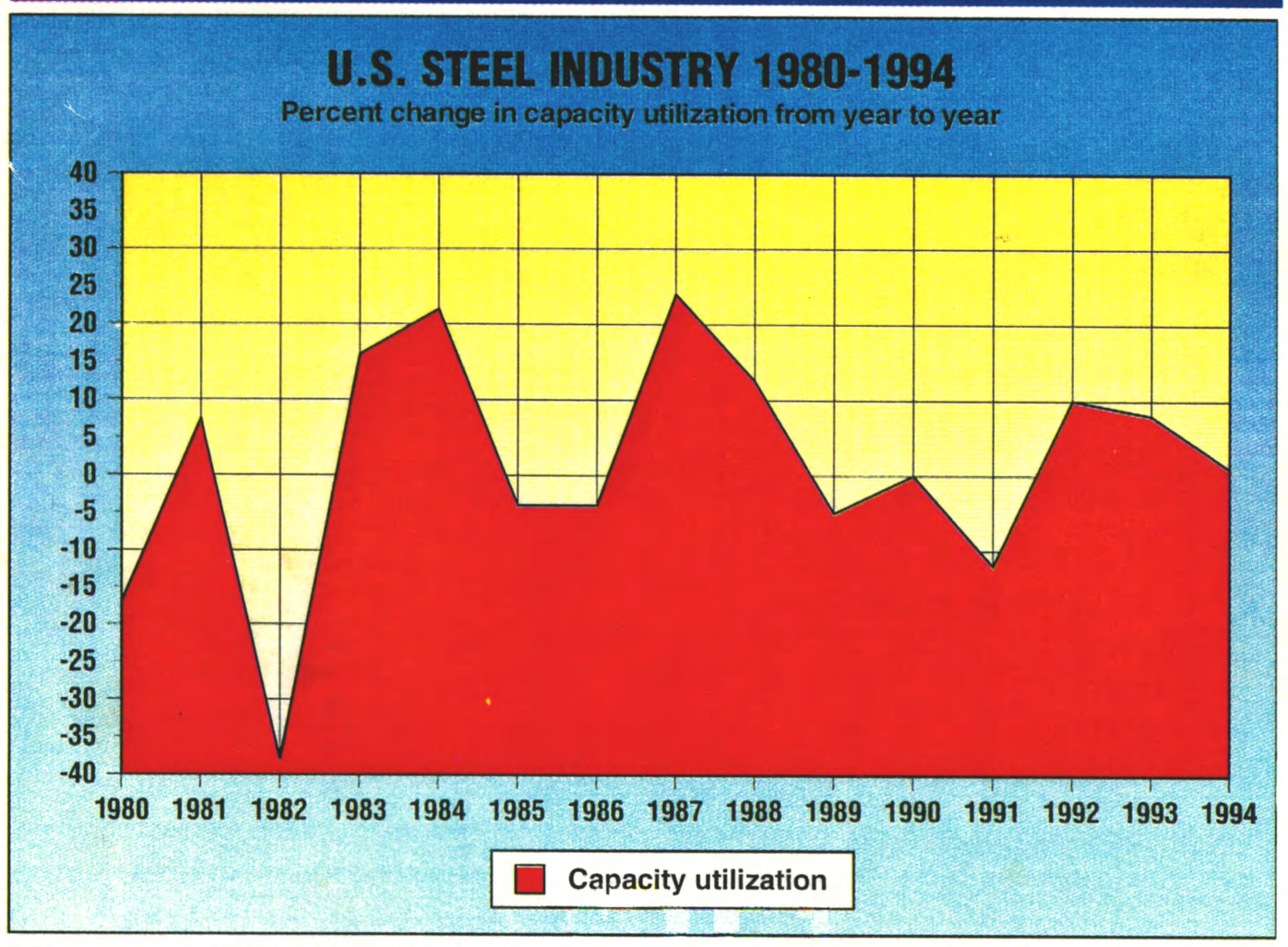
Production shift toward developing countries

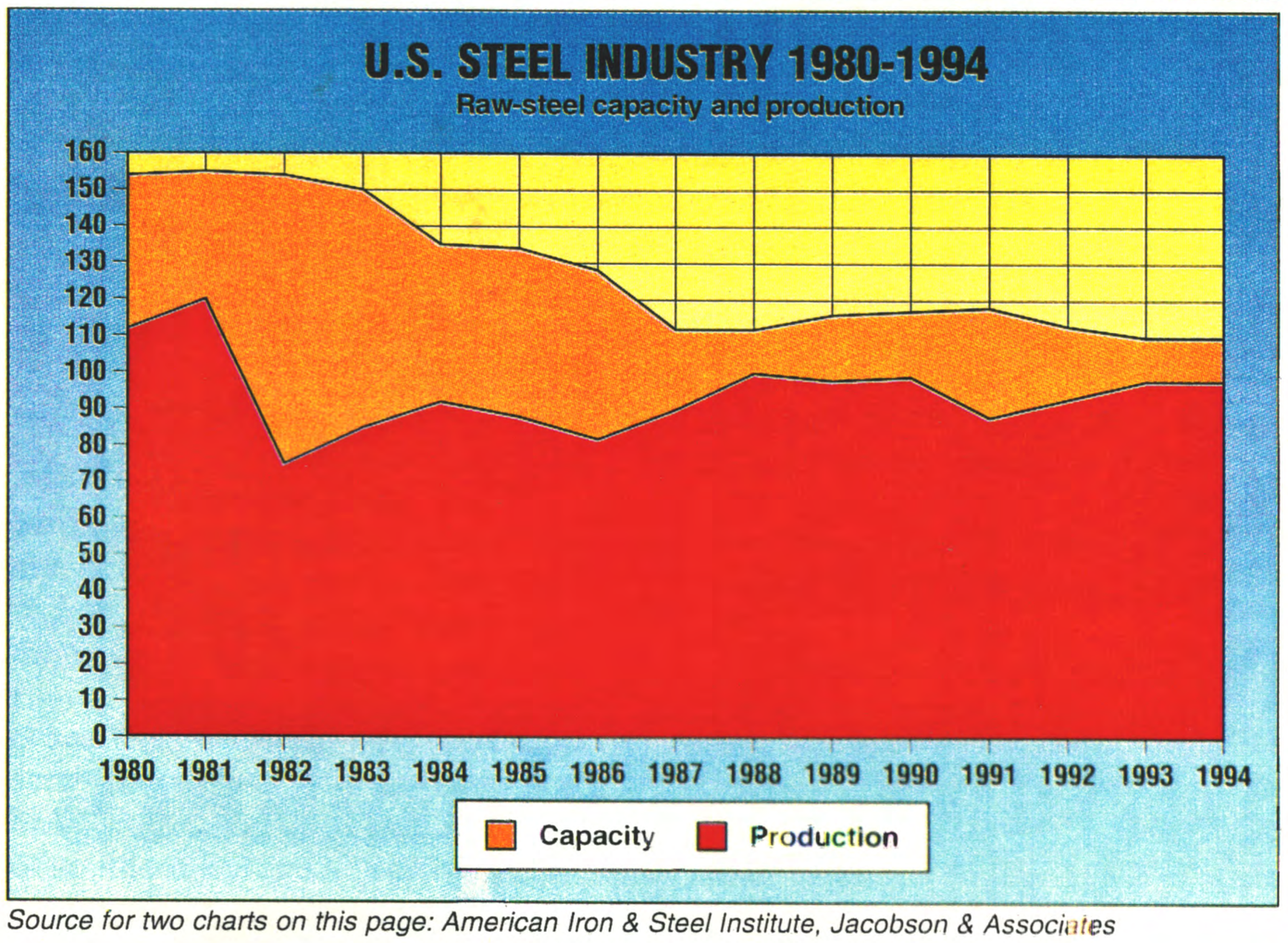




Source for two charts on this page: International Iron & Steel Institute, Jacobson & Associates

Closing the gap between capacity and production





Source for two charts on this page: American Iron & Steel Institute, Jacobson & Associates

10.5 million tons of added flat-rolled capacity

Project	Capacity (in tons)	Start Date
Caparo Steel, Sharon, Pa.	1,000,000	April 1, 1995
Gallatin Steel, Carrollton, Ky.	1,000,000	1Q 1995
Steel Dynamics, Butler, Ind.	1,000,000	1Q 1996
Ipsco, Montpelier, Iowa	1,000,000	Early 1996
North Star BHP Steel, Delta, Ohio	1,500,000	Oct. 1996
Nucor, Charleston, S.C.	2,000,000	Late 1996
Acme Metals, Riverdale, Ill.	250,000	Early 1997
WorldClass Steel, Ambridge, Pa.	750,000	Spring 1997
Trico, Decatur, Ala.	2,000,000	Late 1997
Total	**10,500,000**	

Quality most important to customers

	Importance	Performance of steel suppliers	Performance gap (in percent)
Quality	9.21	8.31	9.8
Service	8.90	7.77	12.7
Price	8.66	7.50	13.4

Overall attribute scores for steel companies in 1995 based on 1,431 responses from U.S. steel buyers who rated the attributes on a scale of 1 to 10.

of existing flat-rolled producers and the many new competitors jumping into the market, look for a colossal battle for market share to ensue.

Operating practices evolve

The amount and quality of steel produced per unit of capital employed are improving rapidly throughout the industry. This is true of both new greenfield plants and upgraded/modernized mills.

The new minimills and the modernization/upgrades at the more progressive existing plants will have two effects. First, U.S. producers will need more capacity to produce direct-reduced iron. Second, they will have to close existing steelmaking capacity.

The market environment of 1994 could have supported most, if not all, the recently announced capacity additions (see table). But the 1994 market has built a bomb waiting to explode in the laps of high-cost producers in the next downturn. The next downturn will be most pronounced at about the same time this current round of capacity additions is completed.

Satisfying customers

All leading steelmakers increasingly are focusing on satisfying customers. Consistent product quality is the basic requirement for being considered a supplier. Buyers give quality an importance rating of 92 percent versus importance ratings of 89 percent for service and 87 percent for price (see chart).

Steel users have become intolerant of receiving product they cannot use easily. Meeting their needs will be essential in a tight market. ❑

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