after month this year. Japan's raw steel production was upbeat until the second quarter of 1991.

But output began to turn downward in midyear with drops of 1.0 percent in the third

5 trillion yen (\$40 billion) into the economy. This prolonged a boom in the following years but only inflated the bubble that was to burst eventually.

Kawasaki Steel Corp., for one, now

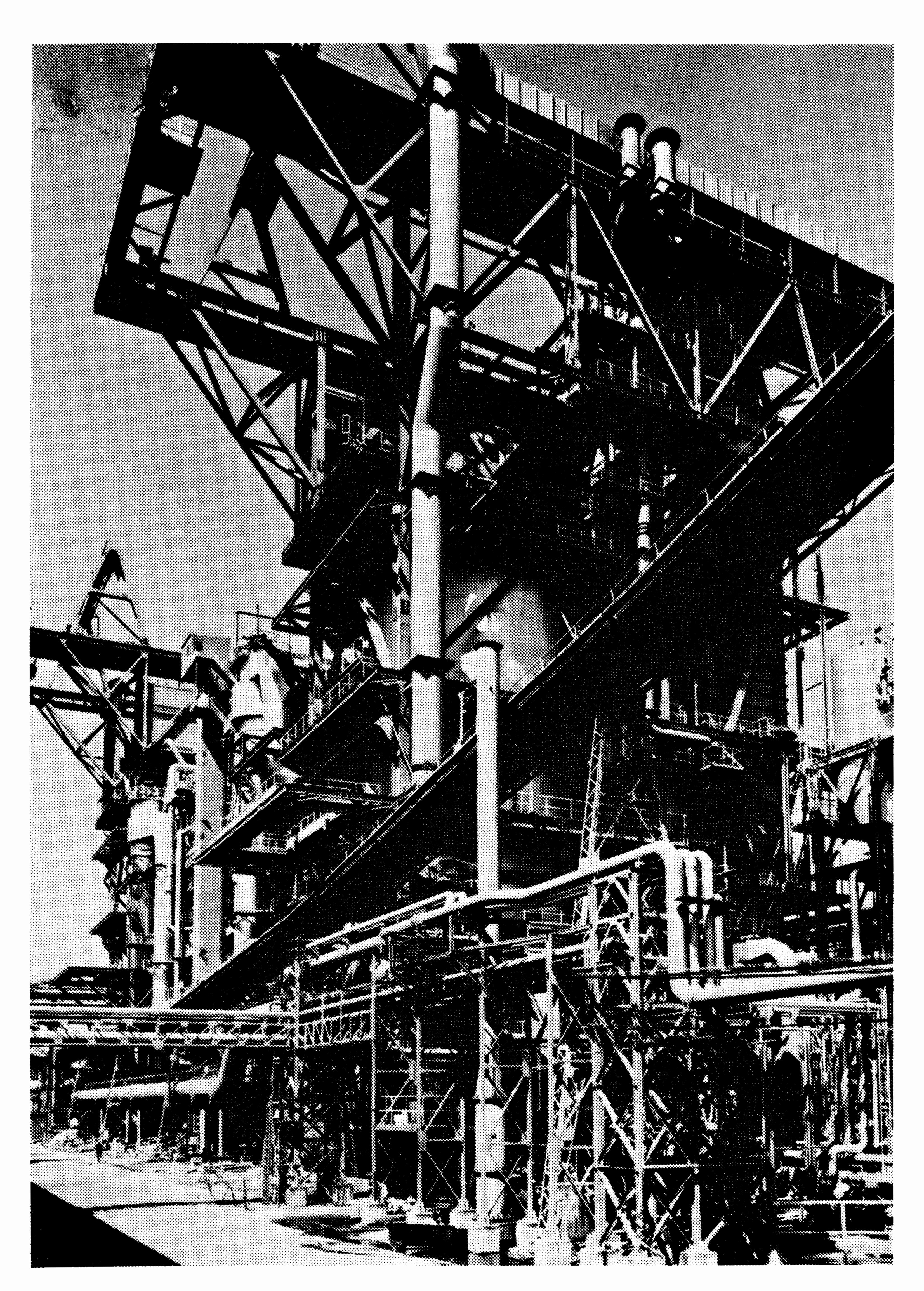
needs in excess of 100 million tons."

The confidence of Japanese steel industry executives in the future of steel seems unshaken for several reasons, the biggest reason being that steel is now becoming a

rector of the Japan Iron and Steel Federation. He stressed the essential importance of a country's industrial infrastructure: "In the final analysis, the steel in-

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## Japan's steelmakers face massive change



KAWASAKI STEEL'S Chiba Works. Much of Japan's steel now is being produced in jointly owned mills in other countries. Kawasaki owns 50 percent of Armco Steel Co. LP, Middletown, Ohio.

By JOHN E. JACOBSON Jacobson & Associates

industry is beset by a multiplicity of challenges. Cozy arrangements with customers are being assaulted by aggressive foreign competitors and the changing needs of customers.

The demand for steel is in a free-fall due to a cyclical economic slowdown and a secular shift toward less steel-intensive industries. Japanese executives are sitting on mature assets in need of massive capital infusions while new technologies are becoming available at substantially lower capital costs.

At present, the landscape of the Japanese steel industry is littered with many more land mines than gold mines.

The problems of the Japanese steel industry include:

- Huge capital investments in yesterday's technology.
- A desire to diversify away from steel at all costs.
- A drastic slowdown in "new thinking" and innovation.
- A focus on engineering over market development.
  - Calls for steel trade protection.
- A maturing economy and aging work force.

The record of success by the Japanese steel industry since World War II has been without

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equal. Its continued success in the 1970s and 1980s was in direct contrast to the record of retrenchment and failure by integrated steel companies in the United States. However, many of the same ingredients that led to the bloodbath of the largest U.S. steel companies are present in Japan today.

We expect that the Japanese steel industry of the 1990s will experience many of the same gutwrenching changes that the U.S. majors have just been struggling with for so long. Japanese steel production is in the process of falling from the 110-million-ton-peryear mark of the 1989-91 period to 95 million tons this year.

We believe that steel production in Japan will never again exceed 100 million tons. Here's why:

Japan's relative cost position and international steel competitiveness have drastically worsened in recent years. Thanks to the strong yen, rising compensation costs and more efficient overseas competitors, the Japanese steel industry has become the high-cost world steel producer. The Japanese also have enormous debt service obligations, which might compound their problems in coming years.

Asian neighbors, especially South Korea, have exploded onto the world stage with low-cost steel production capabilities.

Other global steel producers are particularly interested in serving the Japanese steel industry as a symbol of their prowess. This is an interesting parallel to the long-standing attraction of the prestigious U.S. steel market to producers around

the world.

The bottom line is that Japanese steel exports are down by more than 15 million tons from the mid-1980s. The country's exports now represent only 10 to 15 percent of steel produced versus 30 to 40 percent of total steel output only eight years ago. Exports probably will drop further as Japanese producers are obliterated from commodity steel markets around the globe.

In the countries in which Japanese steel producers wish to participate, such as the U.S., onsite production units will take the place of products shipped from Japan. Tons of steel from Japan are being replaced by tons produced in jointly owned production facilities in various home markets.

This situation is especially true for the U.S. carbon steel market. For example, NKK Corp. owns 70 percent of National Steel Corp., Kawasaki Steel Corp. owns 50 percent of Armco Steel Co. LP, Nippon Steel Corp. owns 13 percent of Inland Steel Co., and California Steel Industries is 50-percent owned by Kawasaki.

Today, almost one out of every four people employed by a U.S. steel company works at plants jointly owned by a Japanese steelmaker.

There is also a substantially reduced potential for indirect steel exports, given the tremendous Japanese overseas investments in downstream steel-using industries like the automotive industry.

Japanese auto producers will be making products near the cars' end-

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## Change

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markets and will not be shipping so many cars from Japan. An increasing number of stool firms will be investing in production facilities near their targot murkulu.

The real doterminant of success and failure for the Japanese steel industry, like any other business, will be how well it adapts to massive change. Management needs to focus on:

- Winning technologies how to implement new production technologies rather than blindly defending the existing capital base.
- Satisfaction how to enhance customer satisfaction rather than erecting trade barriers.
- Global strategies how to best serve customers around the globe rather than keeping specific production locations open at all costs.
- Niche marketing how to take advantage of areas of distinctive competence rather than simply running away from the steel business.

Adjustments will be made even more difficult, given the current state of the Japanese economy.

The end of the prolonged dose of fiscal policy stimulation has caused economic and steel industry growth of the Japanese juggernaut to slow considerably.

Today, the Japanese are confronted with a situation with many similarities to the U.S. of the 1970a. Labor costs havo rison onormous ly as productivity has alowed, the currency has remained strong. making gains in export markets more difficult, and the bubble in financial and real estate markets has

Throughout the summer of 1992, the economic adjustment phase has continued in Japan. Virtually all measures of economic and fl nancial activity have continued to show weakness.

A collapse of investment activity is the primary reason for the slowdown, but an inventory cycle has further subdued production activity. According to the latest WEFA Group and Jacobson & Associates projections, Japanese gross national product growth will register 2.6 percent in 1992 while steel production will slide to 95 million tons.

A convergence of trends has placed enormous pressure on the Japanese steel industry. Maintaining output at 1989-91 levels will be

virtually impossible for it. Japanese steel exports will continue to shrivel and pressure from steel imports will continue to mount.

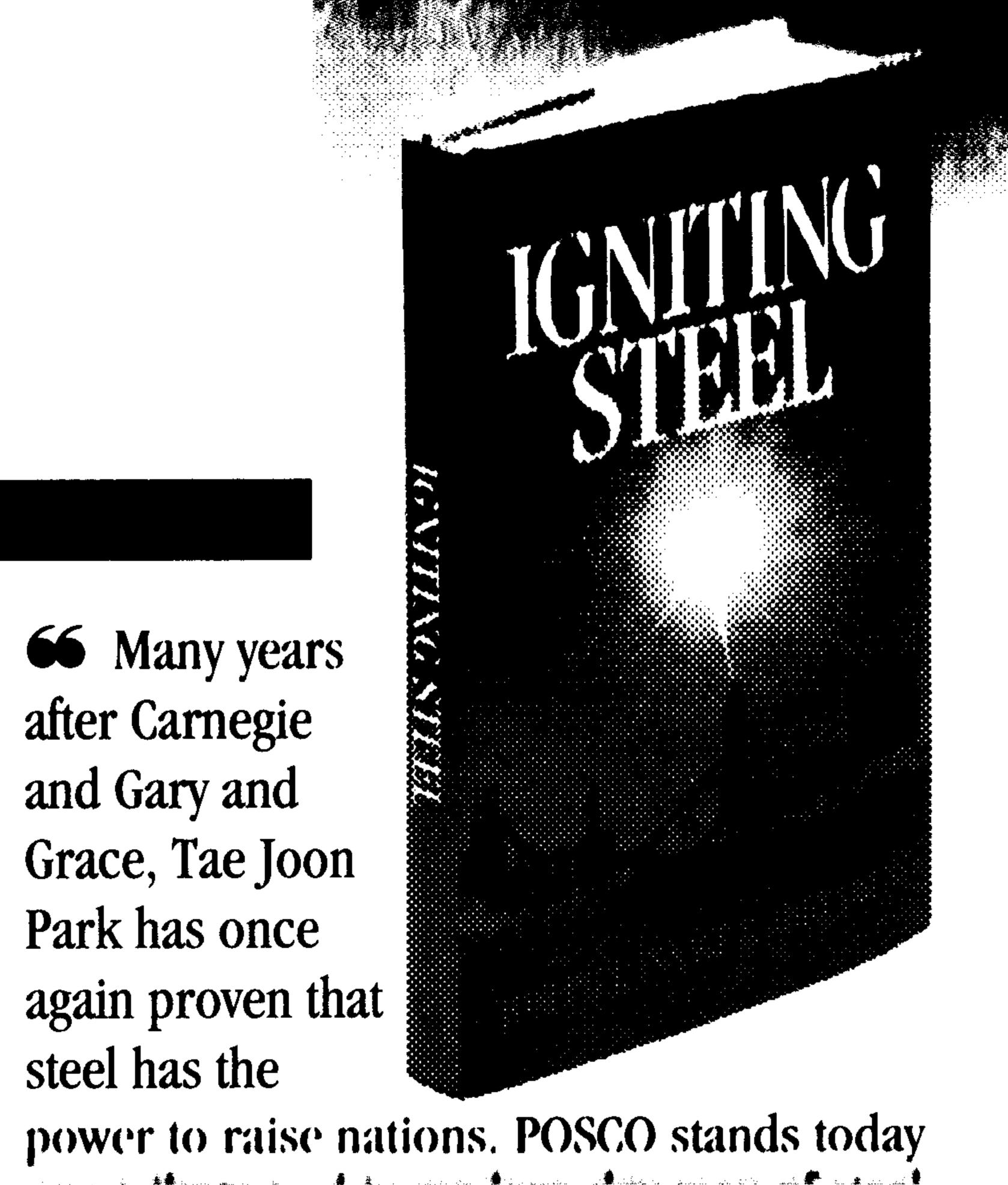
To successfully weather the

storm, the Japanese steel producers must fully implement their longplanned facility shutdowns and accelerate new business development activities.

The biggest hurdle to improving business prospects is the same faced by U.S. companies — internal and governmental bureaucracy.

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