THE WALL STREET JOURNAL. ONLINE

FORMAT FOR PRINTING sponsored by TOSHIBA Don't copy. Lead.

June 9, 2006

Japan Yields Low-End Production to China

Manufacturers Battle Cheaper-Cost Rivals By Concentrating Efforts on Higher-Value Products

By JATHON SAPSFORD
June 9, 2006; Page A4

DOW JONES REPRINTS

This copy is for your personal, non-commercial use only. To order presentation-ready copies for distribution to your colleagues, clients or customers, use the Order Reprints tool at the bottom of any article or visit: www.djreprints.com.

• See a sample reprint in PDF format.
• Order a reprint of this article now.

IWAKI, Japan -- Decades after cheap Japanese competition hammered U.S. manufacturers, Japanese companies are getting a taste of their own medicine from low-cost Chinese rivals.

So how is Japan fighting back?


Hiroshi Amano

One clue lies in a huge empty lot in the middle of an industrial park outside Iwaki, a city 130 miles north of Tokyo. Cheap Chinese competition has prompted chemicals maker **Kureha** Corp. to tear down a factory that produced polyvinyl chloride, an inexpensive plastic used to make everything from deck chairs to plastic pipes.

The other half of the solution lies just a stone's throw away. There, Kureha is expanding a separate plant that makes a pricey substance called polyphenylene sulfide, a heat-resistant material used to house electric motors, among other applications. Demand is strong from makers of circuit boards and gas-electric hybrid auto engines. The product is proving lucrative.

The reworking of Kureha's industrial park illustrates how Japan intends to maintain its edge in manufacturing. The plastics maker is one of thousands of companies across Japan leaving the production of less sophisticated products to Asian neighbors so that researchers and engineers at home can better focus on making high-value-added goods. The move is reducing Japan's role as a maker of low-tech goods for the mass market. Instead, Japan aims to become a leader in developing sophisticated new products, which tend to be lucrative. Thus, politicians and bureaucrats speak of making Japan a global "innovation center."

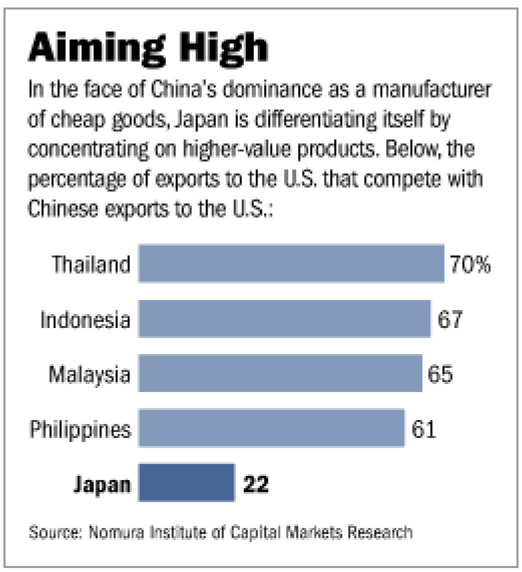
"If the Chinese can make it," says Takao Iwasaki, Kureha's research director, as he rides around the industrial park in a black

sedan, "we can't really afford to be in the business."

Behind all this is a national effort to preserve Japan's manufacturing heritage, a centuries-long tradition of craftsmanship in areas from ceramics to textiles. A draft government white paper to be released later this month, entitled "A Strategy for Growth," asserts that while the U.S. now relies on service rather than manufacturing as its engine of growth, Japan should "take a different path" and cultivate twin engines of services and manufacturing.

Despite having shifted huge chunks of production to other, lower-cost countries, companies like **Sony** Corp. or **Matsushita Electric Industrial** Co. still produce many of their most complex products at home. **Toshiba** Corp. for example, makes the silicon wafers for semiconductors -- the most difficult part of chip manufacturing -- in Japan near its development centers but does much of the actual chip assembly overseas. Or consider **Toyota Motor** Corp., which makes Corollas and Camrys around the world but produces most of its premium-brand Lexus sedans, with complex engineering and finer instrumentation, in Japan.

Growing investment in this kind of high-end production has contributed greatly to Japan's economic revival the past five years. Capital spending jumped 13.9% in the January-March quarter over the same period a year earlier, the 12th consecutive quarter of year-on-year increases.



Japan's future role in the global economy will be dictated, to a large extent, by how well it pulls off this strategy. The main condition for success is to stay out of China's way, and Japan is managing to do that so far. Because of the focus on high-value-added products, 78% of Japan's exports to the U.S. "do not compete" with what China exports to the U.S., says C.H. Kwan, a senior fellow at Nomura Institute of Capital Markets Research.

Staying ahead of China is "like riding a bike," says Kureha President Hiroshi Tanaka. "Stop pedaling and you fall over."

From 1997, in the middle of Japan's long economic downturn, the company's managers began introducing tough changes. By 2000, Kureha was exiting a slew of unprofitable low-end businesses, from plastic films and latex to artificial grass used in sports arenas. All of these were high-volume segments that made little money because of competition from other Asian producers.

"We had to change the entire conversation at the company from one that focused on sales to one that focused on profits," says Chairman Hiroshi Amano.

The new strategy meant a significant change: Sales began falling as Kureha closed or sold off a number of commodity businesses. By 2000, though, even as sales fell, profits began to rise because what remained in Kureha's portfolio were those business lines that were clearly making money. Yet keeping the momentum going meant enforcing discipline in Kureha's product-research teams.

This proved difficult, considering Japan's postwar experience. During Japan's boom years, manufacturers worried little about the costs of development. A surging economy allowed for budgets to hire legions of engineers, who were given relatively free rein to pursue even ideas somewhat removed from core businesses. Developers often had few strict deadlines. For every successful product, many more never panned out. But this costly system helped Japan come up with innovations like the Sony Walkman or the Game Boy by Nintendo Co., as well as the high-end plastics, metals and ceramics that made these products possible.

The dilemma over the cost of creativity hit Kureha hard. The company's innovations have been a foundation block of Japanese manufacturing. It is one of thousands of unsung materials makers that develop new and useful plastics, chemicals and glass that bigger companies like Toyota or Sony use to make luxury cars and PlayStations that dominate their markets.

The challenge was to preserve that heritage of innovation while staying focused on profits. Kureha turned to U.S. management consultant Booz Allen Hamilton Inc. for advice. It came up with a system of hurdles that every research project at Kureha had to clear before moving forward -- including deadlines, financial constraints and marketing plans. Among the goals: force researchers to think in terms of making a profit from the start of a project.

That angered some researchers. Kunitaka Hirose joined Kureha during Japan's high-growth era. For years, the company funded Dr. Hirose's search for a cure for rheumatism, a field of research only distantly related to Kureha's core businesses. He won plaudits in medical journals but hadn't come up with a marketable product yet. The new Booz Allen template, however, required him to find an outside sponsor to help fund the project.

When he failed, Kureha canceled his project and told a dejected Dr. Hirose to pursue something more practical. He has complaints about the new way of working. "If development were this easy," he says, irritated and waving the Booz Allen template, "we would all be Nobel Prize laureates!"

But Kureha is back to health. The company now focuses on promising new materials, from new batteries to glass that cuts ultraviolet rays -- all high-end products that are being developed with clear marketing strategies. For the past five years, sales have been falling as profits have edged higher. But now, both profits and sales are on the rebound. For the year ended March 31, net profit rose 16% to 5.17 billion yen ($45.7 million), while sales rose 4% to 136 billion yen.

Booz Allen consultant Masugi Kaminaga, who helped Kureha adopt the template, says the key is a new corporate culture that forces researchers to think in terms of business. "We are applying U.S. venture-capital discipline to Japanese manufacturing," he says.

Write to Jathon Sapsford at jathon.sapsford@wsj.com[1]

URL for this article:
http://online.wsj.com/article/SB114981259188775655.html

Hyperlinks in this Article:
(1) mailto:jathon.sapsford@wsj.com

Copyright 2006 Dow Jones & Company, Inc. All Rights Reserved

This copy is for your personal, non-commercial use only. Distribution and use of this material are governed by our **Subscriber Agreement** and by copyright law. For non-personal use or to order multiple copies, please contact Dow Jones Reprints at 1-800-843-0008 or visit **www.djreprints.com**.