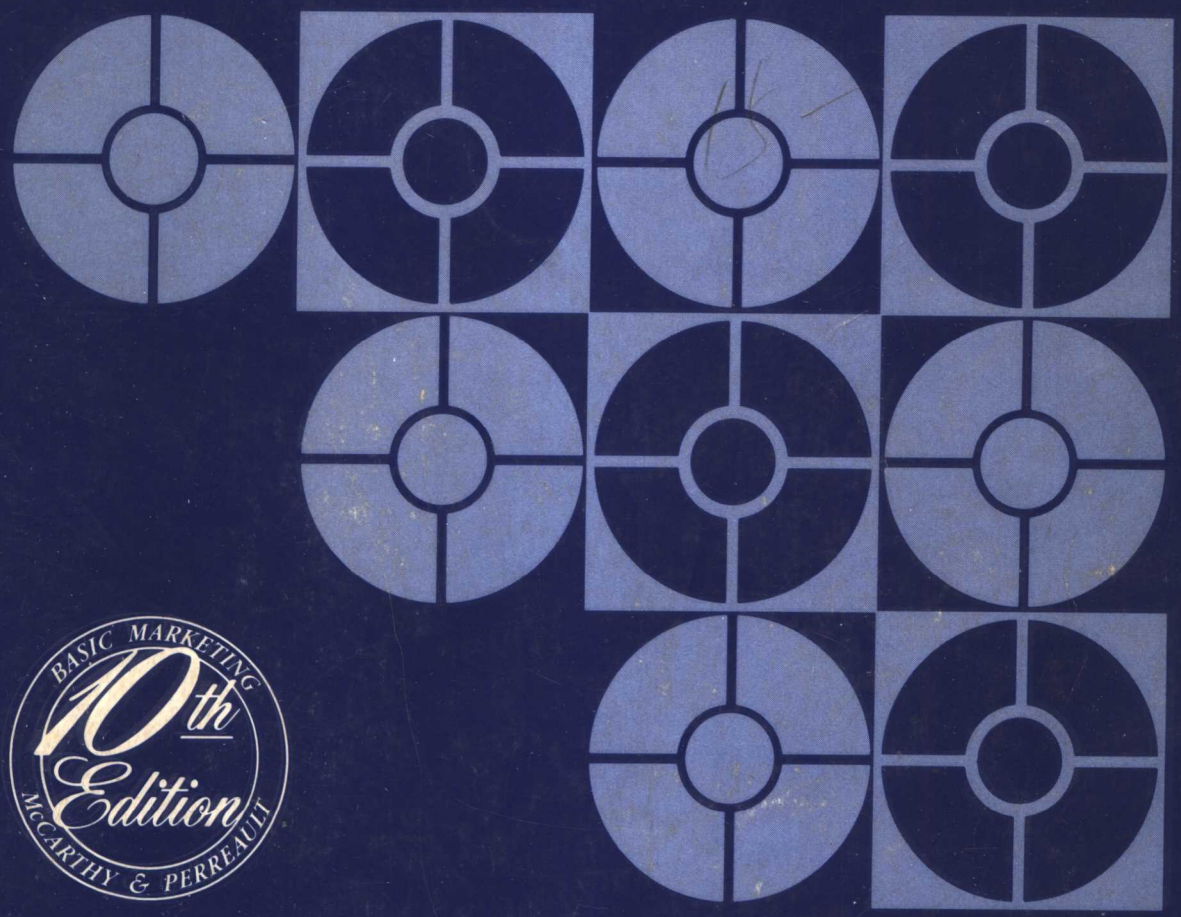
Applications in Basic Marketing 1990 Edition

Clippings from the Popular Business Press



E. Jerome McCarthy/William D. Perreault, Jr.

Applications in Basic Marketing

Clippings from the Popular Business Press

1990 Edition

E. Jerome McCarthy
Michigan State University

and

IRWIN
Homewood, IL 60430
Boston, MA 02116

ISBN 0-256-08522-6

Printed in the United States of America

1 2 3 4 5 6 7 8 9 0 VK 7 6 5 4 3 2 1 0

Preface

We developed this set of marketing "clippings" from popular business publications to accompany our texts--the new 10th edition of *Basic Marketing* and the 4th edition of *Essentials of Marketing*. All of these clippings report interesting case studies and current issues that relate to topics covered in our texts and in the first marketing course. We will publish a new edition of this book *every year*. That means that we can include the most current and interesting clippings. Each new copy of *Basic Marketing* will come shrink-wrapped with a free copy of the newest (annual) edition of this book. It can also be ordered from the publisher separately for use in other courses or with other texts.

Our objective is for this book to provide a flexible and helpful set of teaching and learning materials. We have included clippings (articles) on a wide variety of topics. The clippings deal with consumer products and industrial products, goods and services, new developments in marketing as well as traditional issues, and large well known companies as well as new, small ones. They cover important issues related to marketing strategy planning, including ideas related to selecting target markets and developing a marketing mix. The readings can be used for independent study, as a basis for class assignments, or as a focus of in-class discussions. Some instructors might want to assign all of the clippings, but we have provided an ample selection so that it is easy to focus on a subset which are especially relevant to specific learning/teaching objectives. We have put special emphasis on selecting highly readable, short articles--ones which can be read and understood in 10 or 15 minutes--so that they can be used in combination with other reading and assignments for the course. For example, they might be used in combination with assignments from *Basic Marketing*, exercises from the *Learning Aid to Accompany Basic Marketing*, the *Computer-Aided Problems to Accompany Basic Marketing*, or *The Marketing Game!* micro-computer strategy simulation.

All of the articles are reproduced here in the same style and format as they originally appeared. This gives the reader a better sense of the popular business publications from which they are drawn, and stimulates an interest in ongoing learning beyond the time frame for a specific course.

We have added this new component to our complete set of Professional Learning Units Systems (our P.L.U.S.) to provide even more alternatives for effective teaching and learning in the first marketing course. It has been an interesting job to research and select the readings for this new book, and we hope that readers find it of true value in developing a better understanding of the opportunities and challenges of marketing in our contemporary society.

E. Jerome McCarthy and William D. Perreault, Jr.

Acknowledgments

We would like to thank all of the publications that have granted us permission to reprint the articles in this book. Similarly, we value and appreciate the work and skill of the many writers who prepared the original materials.

Linda G. Davis played an important role in this project. She helped us research thousands of different publications to sort down to the final set, and she also contributed many fine ideas on how best to organize the selections that appear here.

The ideas for this new book evolve from and build on previous editions of *Readings and Cases in Basic Marketing*. John F. Grashof and Andrew A. Brogowicz were coauthors of that book. We gratefully recognize the expertise and creativity that they shared over the years on that project. Their fine ideas carry forward here and have had a profound effect on our thinking in selecting articles that will meet the needs of marketing instructors and students alike.

We would also like to thank the many marketing professors and students whose inputs have helped shape the concept of this book. Their ideas--shared in personal conversations, in focus group interviews, and in responses to marketing research surveys--helped us to clearly define the needs that this book should meet.

Finally, we would like to thank all of the people at Richard D. Irwin, Inc., our publisher, who have worked hard to turn this idea into a reality. We respect their commitment to excellence in all stages of the project, and are grateful for their vision in making these materials widely available.

Contents

Product

Place—Channel Systems and Physical Distribution

Promotion

Marketing's Role in Society

Small Shopkeepers Losing Grip on Japanese Consumers

Mom-and-Pop Stores, Wholesalers Who Supply Them Fall Out of Favor

By CHRISTOPHER J. CHIPELLO
Staff Reporter of THE WALL STREET JOURNAL

TOKYO—In the shopping arcade next to a train station in Tokyo's upper-middle-class Meguro ward, Yoshiyuki Abe and his wife operate the Japanese equivalent of a delicatessen. Wielding chopsticks, they insert pieces of marinated meat, fish and vegetables into takeout boxes.

The couple's teen-age sons help part time, as does their grandmother. But while the sons lend a hand, their friends scoff at the thought of working in such a place, says Mr. Abe, rubbing a hand over his shaved head.

The Abes are fortunate. Three other shops in the arcade have shut down this year because the owners' sons didn't want to help keep them going. "It's got everyone around here talking," Mr. Abe says.

What's happening in his neighborhood is no isolated event. Throughout Japan, small businesses like Mr. Abe's—the mom-and-pop stores that once dominated retailing—are losing their clout.

Emerging in their place are convenience stores and chains specializing in everything from shoes to audio equipment. At the same time, department stores and supermarkets are stepping up efforts to sell their own brands directly. Manufacturers, too, are moving to establish their own marketing channels.

Wholesale Scramble

As a result, wholesalers are being squeezed, and some are scrambling to find new roles in a changing system.

"A vast restructuring of the Japanese retail industry is under way," says a recent report by Salomon Brothers Inc. Adds Yoshihiro Tajima, president of the Distribution Economics Institute of Japan, "The basic picture is changing."

A shifting distribution structure ultimately could help restrain Japan's notoriously high prices. It will certainly offer consumers more choices. And the move by some big Japanese companies to set up wholesale importing operations may even help foreigners crack the world's second-largest consumer market.

But the changes are bad news for the hundreds of thousands of people who run Japan's candy stores, vegetable stands, fresh-fish outlets and other small shops.

After decades of uninterrupted growth, the number of stores run by individuals stagnated between 1976 and 1982, and declined by 8% from 1982 to 1985, the latest year for which figures are available. Corporate-run stores in the most recent four-year period increased by 35%.

Chain Reactions

"The small-scale traditional type of stores are disappearing," says Mr. Tajima, of the economics institute, making it likely that "the wholesalers who supply them will also disappear."

The forces behind these changes range from a new breed of fashion-conscious Japanese consumers to the strong yen. Computerized check-out systems and data networks linking retailers with suppliers are pushing the process along. The government's proposed 5% value-added tax—if it survives the storm of criticism it has generated—could accelerate these trends.

Japan's sprint from deprivation to affluence has altered personal values and tastes. Young Japanese are less interested in taking over the family business and squirreling away money than they are in working for prestigious companies and skiing on weekends. Buying habits have shifted, forcing retailers to adjust or be left behind.

The three defunct shops near the train station fell victims to what Mr. Tajima calls the "bubble effect." As Japan rebuilt itself helter-skelter on the rubble of World War II, people returning from China and Korea made a living peddling goods on the streets, moving to indoor premises when they had saved enough. With the economy rising fast through the early 1970s, there was enough new business to accommodate big and little retailers alike. But since the mid-1970s, the surge in oil prices and other factors have made Japan's double-digit growth a thing of the past.

"The bubble became bigger and bigger," says Mr. Tajima. "But now it's finished."

Of Japan's 1.3 million small shops, industry analysts say, the ones that specialize stand the best chance of surviving.

Take Kojima Denki, a small electronics shop across the street from the Abes' establishment. Two years ago the store was a typical neighborhood *denkiya*, a household-appliances shop crammed with everything from televisions to washing machines. Today, disco music spills out of the store, and the shelves are filled with videotapes, pocket radios, floppy disks and a few compact blow-dryers.

A gray-haired employee who has spent much of the past 25 years making house calls on regular customers sits these days behind a partition keeping the books. Targeting the *shinjinrui*—literally, the "new humankind," as Tokyo's upwardly mobile trendies are known—has paid off, he says. For small retailers, "It's hard to get by anymore being a we've-got-it-all shop."

Seven-Eleven Japan Co. has it all—or so it might seem. Thirteen years after the first Japanese Seven-Eleven opened for business, under an agreement with Southland Corp. of the U.S., some 3,000 of the convenience stores, with their orange, green and red trim, dot the country's urban neighborhoods and rural highways.

A First for Japan

In 1983, Seven-Eleven became the first Japanese retail chain to introduce computerized check-out systems in all its outlets. It also pioneered a system in which suppliers pool their deliveries to outlets. Before this so-called vendor system was introduced, "it was unthinkable to put one maker's goods on another's trucks," says Yoshinobu Naito, spokesman for Ito Yo-'ado Co., which owns 51% of publicly traded Seven-Eleven Japan.

The strong yen is also encouraging retailers to go bargain hunting overseas. Last September, for instance, Korean-assembled rolls of Fuji Photo Film Co. film began showing up on the shelves of a major superstore chain. The retailer's representative in Seoul had discovered that exchange-rate shifts made it possible to repatriate the film and still undercut the standard Japanese price.

The 5% value-added tax before Japan's parliament could speed consolidation of the distribution industry. Despite exemptions for 51 product categories and measures to insulate small businesses from the proposed levy, many small operations will be hit hard, analysts believe. "We expect the small middleman to virtually disappear," says the Salomon report.

UNDERGROUND ECONOMY

THE PARADOX OF *PERESTROIKA*: A RAGING BLACK MARKET

Reforms are making the sale of illicit goods more lucrative than ever

Eyes peeled for plainclothes cops, two lookouts dressed in sporty windbreakers scan hordes of Saturday shoppers. In a narrow alley lined with aluminum kiosks, goods of all kinds are going fast at markups of 50%, 100%, even 200% over state stores. The lookouts swing into action as I push my way in to photograph a man hawking a vial of perfume. One shoves a newspaper in front of my camera lens, while the other shouts a warning: "Be careful. You don't know who he is. Could be KGB."

Welcome to Ryzhki Rinok, one of at least 25 illegal outlets in Moscow for black market goods. Can't find blue jeans in the state stores? Buy them here for 150 rubles—about three weeks' pay for the average worker. Want some Beluga caviar? Just ask the guy leaning on his car. Need an AK-47? It can be obtained, perhaps from an Afghan vet. Here, and at other markets in town, you can also shell out 85 rubles for Polish sneakers—or 6,000, two years' pay, for a Japanese videocassette recorder.

When Mikhail S. Gorbachev's *perestroika* can't deliver the goods, the Soviet Union's *fartsovshiki*—black marketers—can. Four years after Gorbachev began his economic reform campaign and crackdown on corruption, the black market is stronger than ever. Fully 84% of the Soviet population gets the goods they need on the black market, estimates the Soviet economic journal *Eco*. Illegal trade is worth some 150 billion rubles a year—but it may exceed 350 billion, some $560 billion at official exchange rates. "The black market passes through everyone," says Yuri Shchekoshikin, an investigative reporter for the newspaper *Literaturnaya Gazeta*.

Goods sold at markets such as Ryzhki Rinok are believed to be produced in hundreds of underground factories across the country. Perhaps up to 20 million people earn their living from it.

In an economy straitjacketed by central planning, *fartsovshiki* can easily make a killing. One example is a black marketer from the republic of Uzbekistan. When he traveled to Moscow, he lived in the style of a Soviet Al Capone, with a limousine and eight rooms at a pricey foreigners' hotel.

BRIBES. He supplied wood and sheet metal to individuals and enterprises at prices far above those fixed by the state. To get supplies, he bribed top officials in the state planning and supply agencies and persuaded them to send telexes authorizing deliveries. "He had everything just like the Italian mafia—bodyguards, weapons, his own special communications network," Shchekoshikin says. The black marketer, who ran his illegal business in the late 1970s and early 1980s, was tried and convicted a few years ago.

In the years of Soviet leader Leonid I. Brezhnev, the authorities turned a blind eye to many such cases. The black market seemed to be officially sanctioned as a way to keep the rigid Soviet economic system moving. But that changed when former KGB chief Yuri Andropov became leader and won support from both reformers and the KGB to root out corruption. Gorbachev, Andropov's protégé, stepped up the campaign. Last year, Yuri Churbanov, Brezhnev's son-in-law, was sentenced to 15 years in prison for taking bribes.

Yet it's plain that Gorbachev's cleanup campaign has backfired. To stop corruption and provide consumer goods, he tried to bring the black market into the open by legalizing small private businesses. In two years, more than 100,000 of the businesses, called cooperatives, have sprouted. They now employ some 2.7 million, or 2.1% of the labor force.

But the co-ops haven't become substitutes for the black market. In fact, they are regularly accused of spawning crime. Some are believed to launder black market funds. Others, if they are successful, provide gangsters with cash-laden targets for extortion or robbery.

Indeed, violent crime is on the rise. In 1987 and 1988, armed robbery went up nationwide by 42.8%. For the first four months of this year alone, violent crime rose 40%. Many blame Gorbachev's reform efforts. They maintain that by freeing debate through *glasnost* and encouraging political activity, Gorbachev is breaking down the social order that gave Soviets few choices but did keep violent crime in check.

Moreover, there's a paradox in the attitude of many Soviets toward cooperatives. People often express anger at cooperatives that charge high prices or envy at owners who make high salaries. Yet, Soviets hardly think twice about paying higher prices on the black market. It's a mindset that says: "If you're doing it illegally, it must be O. K."

A RUSE. Even more subversive is the outright sabotage black marketers may be wreaking on Gorbachev's reforms. Soviets believe that *fartsovshiki* and state officials who fear the destruction of their businesses are the cause of shortages in the state stores. What's really happening, they think, is that state officials and black marketers collude to prevent goods from reaching the shelves.

Citizens of the Caucasian city of Grozny were mystified recently when soap miraculously appeared in large quantities in state stores the moment rationing was introduced. Up to then, it couldn't be found. Apparently, soap had been available all along but had been secretly stockpiled in local warehouses.

The 1964 downfall of another reformer, Nikita Khrushchev, was at least partly brought about by similar sabotage. Such a fate seems unlikely for Gorbachev, but it's scant consolation to know that *perestroika's* biggest unintended result so far is the booming underground. Now, if only the legal economy could do so well.

By Peter Galuszka in Moscow

Going It Alone

East Germany Opens A Front in Cold War: The Kitchen Freezer

Stalinist Central Planning, Passe in the Soviet Union, Is Making Its Last Stand

Ilona Enthofer Breaks Out

By BARRY NEWMAN
Staff Reporter of THE WALL STREET JOURNAL

KARL MARX STADT—In 1981, the all-powerful Politburo of the Central Committee of the ruling Communist Party secretly decided to open a new front in the Cold War: East Germany would build home freezers—and they would open at the front.

The deep-freeze directive, embedded in the five-year plan, won unanimous assent at the Party Congress. And Parliament gave it the force of law. The Council of Ministers then ordered the State Planning Commission to order the Ministry of General Machines to order the giant state household-appliance combine in Karl Marx Stadt to make front-loading freezers.

The combine passed the deep-freeze directive to its refrigerator enterprise in the town of Scharfenstein. The central plan clanked into gear. And so it is that in the hamlet of Niederschmiedeberg, home freezers by the hundred thousand march along a computerized assembly line, opening and closing at the front.

The Cold War these freezers are then shipped off to fight may be the only real Cold War left: the one that pits East German freezers against the freezers (and washing machines and food processors) advertised, for all East Germans to see, on West German television.

New and Improved

"If you live far from the competition, the situation never confronts you," says Reinhart Greuner, an economics journalist. "Here, everybody can compare." So far, the East's freezers have held the fort. They fit kitchens a lot better than those bulky top-loaders the combine used to turn out. But Dieter Buttner, technology chief at the household-appliance combine, can never relax. "We are feeling a certain pressure," he says, "on microwave ovens."

At nearly every other point on the Communist compass, the thrill of competing with capitalism by responding to central command is gone. Even Czechoslovakia, which persists in clobbering dissidents, mimics the reformist fashions of the Soviets and Chinese. Only a few zealots resist: Cuba, North Korea, Albania, Romania—economic invalids all. And East Germany.

But East Germany is no invalid. Someday, forces closing in from both West and East may undo it. For now, however, it remains the richest country under communism—the one place where unreconstructed planners can utter the words "commence production" and actually see it commence. This is where Stalin's cherished system of central planning is making its last stand.

Best There Is

"The German Democratic Republic," says a Western diplomat in Berlin, "is as well-organized as a planned economy can be and does as well as a planned economy can do." The system is "efficient, dynamic and flexible," party chief Erich Honecker once crowed. "While it has not yet reached a state of perfection," he admitted on another occasion, "we have made good headway."

This country has no debt problem. The 17 million East Germans earn 30% more than their next-richest partners, the Czechoslovaks, and not much less than the English. East Germans build 32-bit minicomputers and a socialist "Walkman," and the only queue in East Berlin forms at the opera.

From this vantage, today's thinking in the Soviet Union has turned stagnation in the U.S.S.R. into catastrophe, while reform has produced chaos in Yugoslavia, class conflict in Hungary and political defeat in Poland. Who needs it? Certainly not a functioning planned economy.

"We are different from our fraternal countries," says Karl-Heinz Stiemerling, an economist presented by the authorities to outline the skeptical official view. "If they can produce more success, we will use their ideas."

German Thinking

East German Communists never did like the Bolsheviks. The Berlin party declared back in 1945 that "it would be wrong to force the Soviet system on Germany." It soon was made to eat those words and find a new slogan: "Learn from the Soviet Union! Learn the way to victory!" Today, the party has reprised its old line. "We have never yet regarded copying as a replacement for our own theoretical thinking," Mr. Honecker said recently, "nor shall we ever do so."

For all its bravado, however, East Germany has gotten itself caught between capitalism and Gorbachevism, and that makes the planned life less and less predictable.

West German consumer goods touted on TV may well keep the East on its toes. But West Germany also hands East Germany's repressive regime some $2 billion a year in handouts—tax rebates on imports, currency conversion at the silly official rate, and such. That prop helps keep potentially destabilizing cracks from widening in the East's poor housing and worse cars. The country's rulers can thank Mikhail Gorbachev, too, for their greater "independence" to suppress free speech and fresh ideas—but only so long as the economy holds.

The planners are running scared. They have to spend more on high-tech heavy industry without shortchanging consumers, who see the West pulling ahead ever faster. And the Soviets won't stay satisfied too long with the less-advanced imports it gets from its biggest trading partner; if the Gorbachev economic reform succeeds, the Soviets will raise standards and insist on more goods—not just freezers, but microchips—and a leap in quality.

Toward Perfection

Yet to escape these pressures from both sides of the ideological wall, the East Germans ask no favors. They seek neither loans from the West nor ideas from the East. They just want to perfect the plan.

Enter the combine, an invention Mr. Honecker considers "the most important step toward perfect management and planning."

"Here's the concept," says technology chief Buttner of VEB Haushaltsgeraete, the household-appliance combine. "Bring it all together—a totally closed production cycle. We don't just produce the product, but the parts, and the machines to make the parts."

In a camel jacket with a Communist Party pin on the lapel, he sits on a velour sofa in the headquarters reception room, flanked by three colleagues, also party members. Pots and pans nest in glass cases. Illuminated graphs show the progress of freezer production. Downstairs, on the main square of Karl Marx Stadt, broods a massive stone head of Marx himself.

Here at combine headquarters, a staff of 1,000 directs 28 factories, where 28,000 workers make 10,000 things—meat grinders, spoons, kitchen sinks—all sold under one name: "Foron."

(cont.)

All-Purpose Logo

"It doesn't mean anything," Mr. Buttner says. "It's easy to remember. If you have one combine, you need one logo."

East Germany, over a decade, has conglomerated all its sizable factories into 133 of these vertical monopolies. No other socialist country has concentrated control this way. It means planners at the top can, and do, call the entire industrial elite into one room to tell them what's what. The process doesn't appear to strain the managerial imagination. How, for example, does the appliance combine know that East Germans are hot for front-loading freezers?

"There is a certain demand," says planning chief Eckhard Bohmke, who sits beside Mr. Buttner, taking notes. "This becomes known to the Planning Commission. They have years of experience. They give us quotas for individual products."

Mr. Buttner adds: "There is a certain body under the Ministry of Trade and Supply. It has contact with the wholesale trade organization, which is in contact with distribution bodies. They know what deliveries are necessary."

More With Less

Market research made simple. Demand established, the planners then ordain what the economy can afford to supply—steel, plastic, paint, wages—to get the freezers made. In a country with a shrinking work force and scant resources, it is never enough. The combine asks for more, rarely gets it, and then struggles to hit the target with less. The East Germans call this "intensification."

"We try to prove our case," Mr. Bohmke says. "But the Commission has the final say. It knows what's in the interest of the economy." Says Mr. Buttner: "We are forced—really forced—to think about what we have to do to meet the demand."

The planners have devised an ingenious instrument of compulsion. They call it "profit." But it is simply a percentage dreamed up at the State Planning Commission: the difference between fixed revenue and fixed taxes. Here, profit resembles the engine of capitalism less than a beaver resembles a platypus.

The profit target assigned to the appliance combine is 7.5%. Achieving higher profit means more pay and lower taxes, so naturally the combine craves that. But to increase profit, it can't raise prices; they're fixed. It can try to cut costs. Better yet, it can make new products, like freezers.

Why bother? Because the planners will arbitrarily assign a higher profit to a new product. If a product isn't improved for five years, according to the rules, the permissible profit drops. This is innovation the way East Germans like it—on command.

"The rules set by the state make profit our central figure," says Mr. Buttner. Yet that isn't enough to make him promote sales; they cruise along at $2 billion a year. If a freezer proved wildly popular, the combine wouldn't be able to expand production, even if it wanted to. "In a market, you'd go out and buy more steel. Here, we have a long-term national material supply policy, based on the central plan, elaborated on a long-term basis."

Mr. Bohmke gets up to shake hands. "One must see oneself," he says, "as a component part of the whole society."

Once a combine meets its planned profit, state inspectorates armed with all manner of guidelines and indicators, order how the profit gets spent, from bonuses for workers to summer camps for their children. The system may not create wealth on a Western scale, but it does parcel out the wealth evenly. And, more efficiently than in any fraternal country, it works by the book.

Where it doesn't work is on the world market. The appliance combine, as hard up for hard currency as all the other combines are, has to sell its freezers in competitive West Germany for less than it charges consumers at home. The state's own economists admit the technological revolution is steadily being lost. Innovation can't keep up. Growth has slowed.

Ever Better Planning

Outsiders blame planning. They say that its phony prices produce phony profits, and that the total absence of a market leads to higher costs and a colossal waste of materials. The planners know all about it. Their answer is to keep on perfecting. They would rather cut the budgets of education and health care than give East Germany a dose of capitalism. Instead, combines will soon load on new cargoes of incentives and indexes, governing every part of production but the one no central plan has ever seemed to reach: human motivation.

Scharfenstein, home of the refrigerator factory, is a hill town of rushing brooks and stone bridges on the road to Prague. Siegfried Haase joined it as an apprentice in 1944 when it already was making refrigerators. Now he is in charge of contacts with the planners and the combine's central management—"those superior to us." He wears a blue suit. His style is practical and calm. What motivates him?

"It's not just a matter of taking orders," he says. "If you don't know people, if you don't have contacts, you don't get anything done. I grew up with this factory. My father worked here. My whole career has taken place here. I know what I'm talking about. We export hundreds of thousands of compressors, and it has nothing to do with the central plan. It's tradition."

A few miles away, in tiny Niederschmiedeberg, freezer bodies pass through a West German epoxy bath and onto an assembly line run by a Philips computer. A blackboard displays the month's target. A chart records waste. A poster proclaims: "Initiative For All!"

What Makes Ilona Enthofer Run

As the production chief glares at them from across a table in the canteen, two workers are asked what makes them run.

"Pressure is put on you to work fast," Peter Wittig says.

"If you don't fulfill the quota," says Ilona Enthofer, "you get wage deductions." The production chief leans toward her. Miss Enthofer squirms nervously. A wine-red rash appears above the neck of her T-shirt.

"Germans generally show commitment to work," she says, trying to scratch unobtrusively. "It raises the living standard. It's a whole cycle. I have a freezer. Almost everybody has a freezer."

And what is it, after all, that makes everybody want a freezer? The answer becomes clear at the appliance combine's Berlin showroom. East Germans need freezers, buyers there explain, because they have to snap up all the meat and vegetables they can, when they are available. People never know when to expect more. Centrally planned agriculture is too unpredictable.

Glutted Markets

A Global Overcapacity Hurts Many Industries; No Easy Cure Is Seen

Among Those Hit Are Autos, Steel, Computers, Chips; Some Chemicals Recover

One Winner: The Consumer

A WALL STREET JOURNAL *News Roundup*

Raise the subject of America's industrial problems, and you hear a lot of complaints. You are told that much of U.S. industry is performing sluggishly because Americans don't want to work anymore or have forgotten how; that foreign rivals are competing unfairly through government machinations, ridiculously low wages or both; that the U.S. just hasn't surmounted the legacy of an overvalued dollar.

But all this emphasis on what is going wrong in the U.S. and in its relations with trading partners—especially Japan, with its mercantilist drive to export—tends to obscure a world-wide problem: Many major industries, all around the globe, are burdened with far too much capacity.

"Overcapacity is a world-wide problem, and it's getting worse," says Lester Thurow, an economist at the Massachusetts Institute of Technology. "We're still investing as if the world economy were growing at 4% a year instead of the actual rate of about 2%."

Demand Sluggish

While a lot of automated capacity has been added, effective demand has been sluggish. Knocking many buyers out of the market have been the debt burdens in Latin America, the political and economic slide of much of Africa, and the torpor of most Communist economies.

Even then, the forces of supply and demand should, theoretically, produce prices that clear the markets. But they seem not to be doing so, or are working only slowly and painfully, partly because of protectionism, government subsidies and other forms of political interference with the process of economic adjustment. In many industries, moreover, declining prices have rendered some high-cost facilities uneconomic.

Not everyone is rattled by the overcapacity, however. Marvin Runyon, a former Ford executive who runs Nissan's plant in Smyrna, Tenn., says: "You read that we're putting too much capacity in place, but that's the way it has to be in a competitive industry. I say hooray for the American consumer, because somebody is going on political interference with the process of economic adjustment. In many industries, moreover, declining prices have rendered some high-cost facilities uneconomic.

Not everyone is rattled by the overcapacity, however. Marvin Runyon, a former Ford executive who runs Nissan's plant in Smyrna, Tenn., says: "You read that we're putting too much capacity in place, but that's the way it has to be on a competitive industry. I say hooray for the American consumer, because somebody is going to have to do things better than somebody else. The consumer will benefit."

Many Industries Afflicted

Whether good or bad, overcapacity is obvious in many industries. Among them:

Autos. Roger Vincent, an expert at Bankers Trust Co., estimates that world automotive demand stands in the "low 30 millions" of vehicles annually, while capacity "is in the low to mid-40s." By 1990, capacity should rise to the mid-40s, he says, and demand won't grow very much. Thus, world overcapacity could expand to about 15 million units from about 10 million currently, he believes.

Steel. Estimates vary, but most economists calculate the annual global overcapacity at 75 million to 200 million metric tons—compared with total capacity of 570 million tons in non-Communist countries and 455 million tons in industrialized nations. John Jacobson, an economist at Chase Econometrics, figures that only if the entire U.S. steel industry shut down would demand equal supply in the non-Communist world.

Computers. Although no figures on the industry's capacity use are published, most computer makers are clearly being plagued with overcapacity. The problem is reflected in declining orders and intense competition.

Semiconductors. In the U.S. and Japan, which together account for 87% of global chip making, the equipment-use rate—the best measure of overcapacity—skidded from nearly 100% in 1984 to about 60% in 1985. However, Dataquest Inc., a market-research firm, says it is now back up to roughly 70% and rising.

Heavy Equipment. Makers of farm and construction equipment are buried in overcapacity, but, surprisingly, some countries, especially South Korea, are nonetheless believed to be planning more plants.

Textiles. In the textile industry, cheap-labor foreign competition is causing the howls. Overcapacity lingers on as more and more mills are built in less developed nations, with more and more mills in the U.S. thus turned into surplus capacity.

Rebound in Chemicals

However, some once-glutted industries have got supply and demand back into balance. For example, much of the chemical and plastics group has cut capacity and expanded sales, and the glut of a few years ago has been largely cured.

Looking at many troubled industries, Joseph L. Bower, a Harvard Business School professor, attributes much of the excess capacity to "country after country building world-scale facilities." Newly industrializing countries have ample reason for fostering development, of course. They want to create industrial jobs at a time of rapidly expanding populations, of an influx into the cities and of rising educational levels, which create labor forces sufficiently skilled for factory work. The weakness in many commodity markets also encourages the idea that any hope for economic growth lies in industry.

Industrialization has been rapid, Mr. Bower adds, "because technology and capital are now highly mobile—it's staggering how fast they can move around the world nowadays." No longer, he says, is the game played by "just four or five good players." He urges that American companies "understand that we've moved from Ivy League football to the Big Ten."

Many economists trace the overcapacity back to the booming early 1970s, when many manufacturers saw tremendous growth in demand ahead and expanded accordingly. Other analysts go back much further. Jay W. Forrester, also of MIT, traces the problem—which he thinks will get worse—largely to "the big buildup of capacity during and after World War II." He recalls that "the idea took hold that more capital plant was invariably desirable," and building it was facilitated by "the enormous forced savings that had accumulated during the war years."

Also greasing the path to industrial overcapacity are plentiful supplies and low prices of many raw materials—an incentive for marginal manufacturers to keep producing and for newcomers to enter the game. The gluts affect a wide range of commodities. For example, producers of nickel and molybdenum, both used in pro-

(cont.)

ducing steel, are operating at roughly 70% to 75% of capacity world-wide, estimates Robin Adams, the president of Resource Strategies Inc., a consulting firm in Exton, Pa. The copper industry is operating at a little over 80% of capacity, he adds.

The stage for the commodity gluts was set in the inflationary 1970s, when price shocks stimulated investment in production capacity in many commodities. But in many cases, demand hasn't grown to meet the increased production.

Pressure to Produce

Moreover, many debt-laden countries increased the output of commodities to avoid spending precious foreign exchange on imports. Others invested in commodity-producing capacity to generate export cash regardless of price. Many countries "only had one option, and that was to produce more. So we didn't follow the normal corrective path," says Donald Ratajczak, the head forecaster at Georgia State University. Copper, for example, has responded slowly to reduced demand.

Oil is abundant, too. The Organization of Petroleum Exporting Countries is producing less than 15.8 million barrels of oil a day, compared with capacity of nearly 30 million. However, the surplus is mainly in crude oil—both in the ground, in production capacity, and above it, in inventories. In petroleum refining, much of the overcapacity has been trimmed back. U.S. refineries are operating at about 80% of capacity, a relatively high level, and as gasoline demand rises, processing facilities may be approaching their effective limits.

But the oil-service sector remains awash in red ink. After the collapse in petroleum prices last year, oil companies slashed exploration and production spending by 40% to 50%. This year, spending remains depressed. Thus, only 25% of the U.S. drilling-rig fleet is active, and manufacturers of oil-field equipment have several times the capacity currently needed.

Here is a detailed look at the overcapacity problems in major industries.

Autos

Automotive experts agree that the industry suffers from vast overcapacity world-wide and that Japan, like North America and Europe, will soon be hit as it builds more U.S. plants. But they disagree about the extent of the overcapacity; some measure cars, for example, and others measure all vehicles.

Ford, which gauges capacity quite differently from Bankers Trust, estimates 1985 world-wide overcapacity at 3.8 million cars and trucks, and it believes that by 1990, world-wide excess capacity will rise to six million units, 5.7 million of which will be aimed at North America.

The principal force behind the projected increase is the expansion of Japanese auto manufacturing. The Japanese, having pushed aggressively into the U.S. auto market, are reacting to the voluntary export restraints and the threat of more American protectionism. "The building of Japanese plants in the U.S. wasn't motivated by economics," Bankers Trust's Mr. Vincent says. "It was motivated by concern over future protectionism."

As a result, the auto glut bedeviling the U.S. industry is being worsened. Starting in 1989, Daihatsu Motor will be producing cars in Canada, thus becoming the last of Japan's nine auto makers to put an assembly plant in North America.

Meanwhile, other players keep getting into the game. In the wake of the success of South Korea's Hyundai Excel, Kia Motors of Korea is planning to export cars and vans world-wide by the end of this decade. Yugoslavia is exporting its Yugos to the U.S., and Malaysia plans to send its Proton Sagas here next year. Thailand and Taiwan also are trying to export.

Japanese Auto Makers

A comprehensive listing of Japanese companies that build cars in North America or are planning production:

COMPANY	YEAR: TOTAL CAPACITY
Honda of America	
Marysville, Ohio	1986: **220,000**
Nissan Motor Mfg. U.S.A.	
Smyrna, Tenn.	1986: **65,690**
Toyota Motor Mfg. U.S.A.[1]	
Fremont, Calif.	1987: **50,000**
Georgetown, Ky.	1988: **75,000**
	1989: **200,000**
Mazda Motor Mfg.[2]	
Flat Rock, Mich.	1988: **135,000**
	1989: **240,000**
Diamond Star Motors[3]	
Bloomington-Normal, Ill.	1989: **182,400**
Daihatsu Motor[4]	
Valcourt, Que.	1989: **37,200**
Isuzu-Subaru	
Lafayette, Ind.	1990: **240,000**
Suzuki/GM	
Ingersoll, Ont.	1990: **200,000**

[1]Joint venture with General Motors
[2]Joint venture between Mazda and Ford
[3]Joint venture between Mitsubishi Motors and Chrysler
[4]Joint venture with Bombardier

Source: Chase Econometrics

"Newly industrialized countries all want auto companies so they can have steel industries and reasons to build roads and purchase technology from the outside world," says Susan Jacobs, the manager of automotive research at Merrill Lynch Economics Inc.

However, she also attributes the excess capacity to sluggish world-wide demand. In addition, she says, new plants were built to make the small cars that became popular during the energy crisis of the 1970s and to enter new market niches, such as that for light trucks.

Japan hasn't had more automobile start-up companies than Europe or the U.S., Mr. Vincent says. "It's just that they all managed to survive"—with government help. Other nations have done much the same, however. The U.S. government saved Chrysler. And Donald Petersen, Ford's chairman, notes the heavy French subsidies for Renault and American Motors and says he expects the two French producers, Renault and Peugeot, to survive "as long as there is a France."

Japan and South Korea also have stimulated their auto industries by closing their home markets to outsiders and encouraging exports. Moreover, the Japanese also have helped South Korea develop its auto industry. Mr. Vincent believes that the Japanese are saying, "It's inevitable, and why not be part of it?"

Mr. Vincent notes that in the past, American auto companies, looking forward to the next auto-buying boom, often created excess capacity. If the market grew, "you are bailed out by higher demand; otherwise, you get stuck with overcapacity—which is what has happened to some companies," he says.

But the patterns have shifted. Ford reacted to flatter demand by changing its philosophy—keeping capacity tight, forgoing some sales but betting that lower capacity would cut costs and keep it profitable when demand fell. But until recently, General Motors kept more capacity running than its sales warranted. Now, however, GM also is closing more plants.

James P. Womack, the research director of the international motor-vehicle program at MIT, believes that apparent world overcapacity might not be as large as it seems because "some plants are dedicated [to a certain type of vehicle] and can't be switched from product to product." While the Japanese have built flexible plants that can make more than one vehicle, he says, "the North American philosophy has been not to complicate matters by mixing products"—a policy that aggravates the overcapacity.

(cont.)

Steel

The global glut of steel reflects poor investment decisions in the 1970s, dwindling use of steel in industrialized economies, burgeoning production in industrializing countries, and high financial and political barriers to closing mills.

Anticipating shortages, steelmakers in Europe and Japan greatly expanded capacity in the 1970s, and U.S. producers modernized existing mills. Not only did scarcity never come, but consumption fell sharply in industrialized countries. Between 1970 and 1980, according to the World Bank and International Iron and Steel Institute, capacity in industrialized nations climbed 14% to 485 million metric tons, while consumption dropped 8% to 334 million metric tons.

Yet despite mounting evidence of a "phony boom," steel executives "just wouldn't give up the illusion that the market was headed up," says Hans Mueller, a steel-industry consultant.

Plunging consumption in industrialized nations, which is expected to continue into the 1990s, reflects the maturation of their economies. Construction of railroads and highways has largely been completed. And in other big steel markets—autos and containers, for example—alternative materials are increasingly supplanting steel. Donald F. Barnett, a World Bank consultant, calculates that had U.S. steel usage since 1960 matched the growth in gross national product, steel consumption in 1985 would have been some 70% higher.

Faced with excess capacity, European and Japanese steelmakers, in particular, have turned to export markets. But there they are increasingly finding limits. U.S. producers have won import curbs, and less developed countries, though consuming more and more steel, are producing much of it themselves.

Some, moreover, are becoming major exporters, penetrating traditional European and Japanese export markets. In 1976, Brazil, for instance, produced 7.3 million metric tons of steel products and exported a mere 264,000 tons. Today, it is the world's fifth-largest non-Communist steelmaker, and it exported 40% of the 17.3 million tons it produced in 1985.

Rapid growth in steelmaking capacity may have as much to do with nationalism and industrial prestige as economic growth. Today, Zimbabwe and Qatar have steel industries. "Every industrializing country wants an airline and a steel mill," Chase's Mr. Jacobson says. "It's something that planning ministers push for."

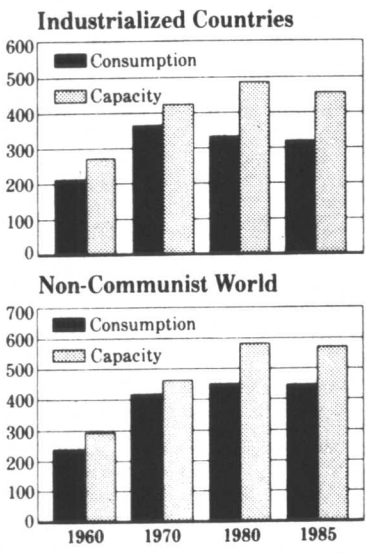
Capacity has fallen modestly among industrialized nations since 1980, and the reductions are continuing. In the U.S., steelmaking capacity (including recently announced cutbacks) is being slashed to 111.9 million short tons from its 1977 peak of 160 million tons. Even with the cutbacks that have been carried out, the U.S. industry is operating at only 55% of capacity, Georgia State's Mr. Ratajczak estimates.

In Japan, all five major steelmakers are cutting production capacity, although only one, Nippon Steel, has specified its plan in terms of crude steel-production capacity; it is cutting back to 24 million metric tons annually from 34 million tons.

Louis L. Schorsch, a consultant at McKinsey & Co., expects future mill closings to be much more difficult. In the U.S., many steelmakers, saddled with huge unfunded pension liabilities, are reluctant to shut even unprofitable plants because they can't absorb the cost of paying off workers and other expenses. Chase Econometrics estimates the total cost of closing a mill at $75,000 per employee. "Given an average of 4,000 employees per plant," Mr. Jacobson says, "we estimate that a typical integrated-plant closure today would cost over $300 million."

The Glut in Steel

(In millions of metric tons)



NOTE: Consumption figures are on a crude-steel-equivalent basis (number of tons of raw steel needed to make finished products)

Sources: Economic Associates Inc; World Bank, International Iron and Steel Institute.

Mr. Barnett adds: "So far, steelmakers have closed mostly old plants that hadn't been in operation anyway. Now, they've got to get rid of relatively modern capacity that can still make a satisfactory product. The hard part is just beginning."

Computers

Seduced by huge sales gains during the 1983-84 boom, computer companies expanded rapidly. Most "invested in growth rates that aren't materializing," says Ulric Weil, a Washington-based securities analyst. "Demand just didn't develop." According to Commerce Department figures, factory orders for the office-equipment and computer industry plunged 15% in the two-year period ended in 1986.

A good barometer is International Business Machines, which accounts for 40% of the world's computer sales. Last year, IBM's revenue rose only 2% to $51.25 billion, and profit slumped. This isn't the type of growth IBM anticipated. In the past five years, IBM spent more than $20 billion on plant and equipment, says Steven Milunovich, a First Boston analyst.

IBM responded to last year's disappointments by consolidating operations at several U.S. locations "to bring capacity in line with current and projected needs," IBM Chairman John Akers said in the company's 1986 annual report.

Nevertheless, many computer makers expanded in the fight for sales. "People who participated in niches in the past want to expand and provide complete systems for their customers," says David Penning, the director of manufacturing-automation service at Dataquest. For instance, he adds, some personal-computer companies now make work stations, while some computer makers best known for mainframes make personal computers.

Technological advances have aggravated the overcapacity. With more power being stored on silicon chips, computer companies can make smaller, more powerful machines. "Any given square footage of plant can produce a lot more stuff in terms of horsepower," Mr. Weil says. The minicomputer market is being squeezed from two sides: on the lower end, by more powerful personal computers, and on the upper end, by lower prices on computers with the power once associated with mainframes.

The emergence of manufacturers in the Far East, especially those in Japan and South Korea, has compounded the overcapacity problem for U.S. computer makers. Last year, the U.S. computer and parts trade deficit with Far Eastern countries

(cont.)

soared 77% to $5.3 billion, according to the Commerce Department. Japan's exports to the U.S., ranging from parts to portable personal computers to supercomputers, surged 43% to $4.75 billion last year.

Moreover, countries that had primarily produced peripherals are exporting full machines now, says Tim Miles, a program manager in the department's Office of Computers. "The South Koreans began penetrating the U.S. market in terminals and other areas," Mr. Miles says. "Now, they're producing complete PC systems."

Not all computer makers have been suffering, however. Some companies, such as Tandy Corp., which makes personal computers, and Digital Equipment Corp., a minicomputer maker, have grown rapidly, primarily because of revamped product lines. Moreover, the pressure on the industry would be reduced by any pickup in sales. Already, there are signs of rebounding volume in personal computers.

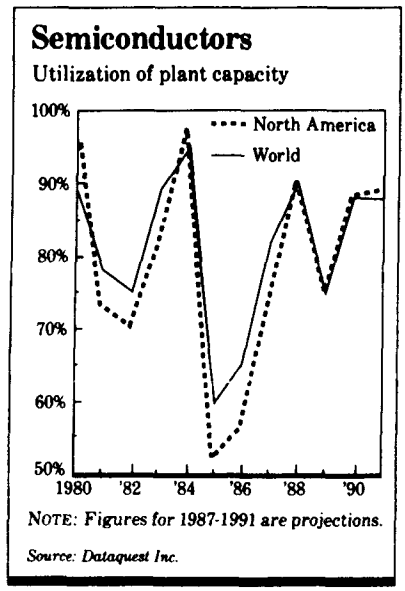
Semiconductors

The glut in the semiconductor industry eased last year, as orders picked up from a disastrous 1985, but most chip makers remain deeply troubled. The roots of the problems are twofold: Huge miscalculations of future demand and Japanese producers' targeting practices, under which they ignored market conditions while aggressively pursuing market share.

The introduction of the personal computer early this decade spawned a sudden surge in demand for chips. Global chip consumption jumped from about $15 billion in 1982 to $29 billion in 1984. Thus, chip makers rushed to add capacity to meet growing, apparently insatiable demand. Japanese chip makers' capital spending rose a total of 116% in 1983 and 1984, while U.S. chip-company spending doubled in 1984. World-wide capacity to produce chips increased about one-third in 1984 alone.

Then, when falling personal-computer sales sent global chip demand plummeting about 14%, to $25 billion, in 1985, chip companies started losing big money. Dataquest says the chip industries in Japan and the U.S. each lost about $1 billion last year.

Moreover, Japanese producers exacerbated the industry's overcapacity problems by continuing to add production and slash prices on certain products right through the slump. Taking advantage of their lower-cost capital, patient stockholders and government research assistance, the Japanese drove U.S. producers out of some major commodity markets by drastically underselling them.



Indeed, the U.S. government found that Japanese companies "dumped" certain chips in the U.S. and other markets, and the U.S. may soon penalize them if they don't raise their prices. Japan's Ministry of International Trade and Industry, trying to save a semiconductor trade pact signed last summer, has told Japanese chip makers to cut production 10%.

Heavy Equipment

Plunging demand has blighted the farm-equipment industry with huge world-wide overcapacity. The glut has persisted despite sharp cutbacks in the number of factories producing tractors, combines and other agricultural equipment.

Sales have consistently trailed even the most pessimistic forecasts. In retrospect, that isn't surprising. The world is awash in food. A few years ago, fears of shortages, embargoes and price gouging led many food-importing countries, such as Japan, to give agriculture a high priority. Many nations imported new agricultural technology that now has borne fruit.

The global surplus of food and feed grains is expected to surge to a 13-week supply this year; an eight-week supply would be ample. The U.S. has more than a one-year supply of wheat, enough for both exports and domestic consumption.

With farmers in dire financial trouble, the business of supplying them with new equipment is as dead as last year's cornfield. World-wide tractor output fell to 120,000 units last year from 230,000 in 1979. For larger equipment, the declines have been even sharper. Manufacturers produced 20,000 over-100-horsepower tractors last year, down from 80,000 in 1979.

"The downturn has been so dramatic that no one has done anything but cut back," says John Ruth, Massey-Ferguson's president. He says he doesn't know of any additions to industry capacity anywhere in the past five years. Because of high costs, some U.S. facilities were among the first to close, with part of their production moving to existing foreign plants.

Mr. Ruth sees further cutbacks in capacity needed for anyone to make a profit. But for now, companies are playing an industrywide game of chicken. No one wants to get out of the business so that rivals can make money again.

In construction equipment, too, demand is down, but, surprisingly, capacity is still rising.

In the late 1970s, construction-equipment sales surged, and plants were operating at close to capacity even though Japan was working hard to build a construction-equipment industry. But from 1980 to 1983, demand plunged 70%, beaten down by reduced demand for coal as well as a decline in world-wide construction activity. Construction was hurt in part by declining oil profits and international-debt problems.

Now, demand has recovered a bit, but the industry is still running only at about 60% of capacity. Nevertheless, some countries are planning to expand even more. Industry analysts expect South Korea soon to begin an assault on the market. "Korea is a big emerging threat," says Frank Manfredi, the publisher of Machinery Outlook, an industry newsletter. "Everyone is expecting them to come into the market like gangbusters." Other countries that have added capacity in construction equipment are China and Italy.

"It's ironic that even though sales have been lousy, there's more capacity in the industry than there was five years ago," says Mitchell Quainn, a securities analyst at Wertheim Shroder & Co. "It's almost as if every country wants to have its own bulldozer manufacturer."

Textiles

Seeking crucial foreign exchange and jobs for surging populations, many developing nations are producing textiles and apparel at rates far above domestic de-