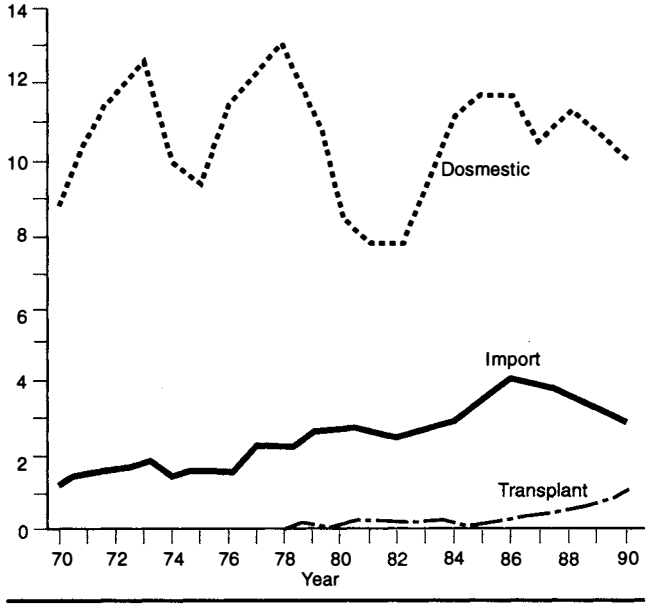
The U.S. auto industry drove itself into the ditch

by Marsha Freeman

The buzz word of auto industry executives and analysts for the past decade has been "market share," the complaint that Americans have been buying imported rather than domestic vehicles, leaving U.S. producers a declining percentage of the market. But as **Figure 1** makes clear, *total* sales of cars and light trucks in the United States have been stagnant for 20 years, with interspersed catastrophic declines, from which the industry has never recovered. While it is true that imports have gained a larger and larger share of total sales, total sales are a quickly shrinking pie.

Had auto sales continued to grow at even a modest rate of 1-2% per year since 1970, the U.S. industry would have had to *expand* capacity by nearly 50%, even *with* imports. Instead, the industry today is selling little more than half the number of cars it did in 1973 and, according to an estimate in *Business Week* in December, finds itself with the prospect of this year's declining sales leading to an incredible North American production "overcapacity" of nearly 6 million vehicles. Employment in what was the largest manufacturing industry in the country dropped from its peak in 1978 of approximately 1 million directly employed in the auto industry, and 1.4 million in secondary jobs, to about half that today. In the "Reagan recovery" decade of the 1980s, the computers-electronics-semiconductor industry passed the auto and steel industries combined in terms of employment.

FIGURE 1
U.S. retail sales of passenger cars & trucks
(millions of units sold)



Source: Motor Vehicle Manufacturers Association of the United States Inc. and Ward's Automotive Reports.

The 1970s oil shock

The first blow to the auto industry, whose impact is clear in Figure 1, was the Middle East war and Arab oil embargo in 1973. As the price of oil and gasoline skyrocketed, Americans delayed purchasing new cars. Then, just as auto sales were climbing back up, a one-two punch was delivered in 1979: The Iranian "revolution" doubled the price of oil and again put the security of imported oil supplies into question, and Federal Reserve chairman Paul Volcker doubled interest rates. The cost to the average American family of financing a car loan at an 18-20% rate of interest was out of the ballpark, and the effect on new car purchases was immediate. As interest rates soared from 10 to 20%, annual car sales plummeted from 10 million vehicles per year to 7 million in 1980.

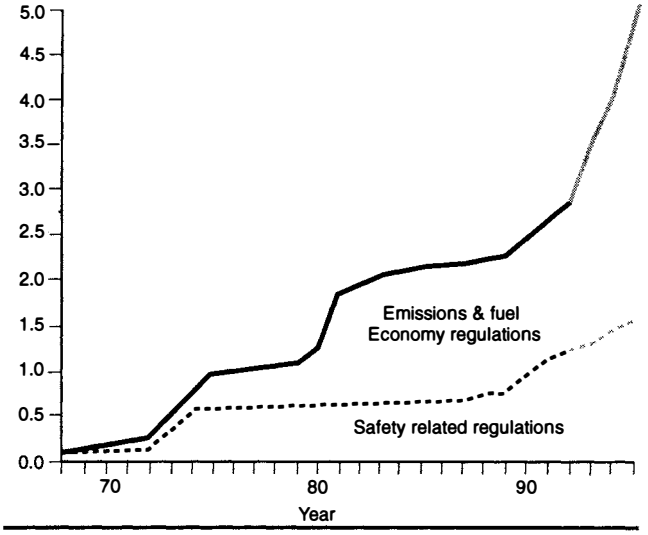
On top of that, the emission standards which had been set by the 1970 Clean Air Act started coming into effect in the mid-1970s—emission standards based on climate change predictions which have been coming under increasing scrutiny and criticism. Automakers scrambled to spend research and development dollars to figure out how to cut tailpipe emissions, and then had to add the cost of that pollution control gear, mandated by federal law, onto the price of their product. Another round of more stringent regulations for emissions went into effect in 1982, again increasing the price of U.S. cars.

A study released Jan. 6 by the Automotive Consulting Group, Inc. (ACG) estimates that $2,582 of the cost of every American car today is the cumulative effect of having to meet government regulations for emissions, safety, and fuel economy. How government regulations have contributed to driving up the price of a new car is seen in **Figure 2,** taken from the study. The end result of this strategy to force automakers to carry the cost of adding pollution control devices,

FIGURE 2

Per vehicle cost of government regulations

(thousands of dollars)



Source: Motor Vehicle Manufactures Association, 1991

which then are passed on to the consumer, only further cut new car sales.

Did the regulations reduce pollution, at least? It is demonstrable that older cars generally run less efficiently and release more emissions than the newer models. The ACG study reports that between 1985 and 1990 the number of cars in operation older than 11 years increased from approximately 45 million to over 57 million vehicles. This represents a 27% increase in just five years. Dennis Virag from ACG points out that meeting mandated standards in all three areas of emissions, fuel economy, and safety often includes inherent contradictions. For example, the more pollution control equipment the manufacturer adds, the heavier the vehicle becomes, reducing the mileage per gallon of gas. This leads to further downsizing of cars to reduce their weight, compromising safety.

While auto industry R&D dollars were vectored toward meeting pollution standards, the manufacturing plants producing the vehicles also had to be brought into compliance with new clean air and clean water standards. The current head of the Environmental Protection Agency, William Reilly, has bragged that American industry now spends more than $100 billion per year to meet these regulations. It is estimated that last year, General Motors alone had to pour more than $700 million into such an effort.

Since the early 1980s, this cost to GM, as the automaker with the oldest manufacturing facilities, has been in the tens of billions of dollars—money which could otherwise have contributed to developing new transportation technology and replacing older plants with more modern facilities.

During the 1990s, more stringent standards will have to be met in safety, fuel economy, and emissions. The ACG study estimates this could drive the regulatory-expense component of what you pay for a car up to $5,000 per vehicle. ACG estimates that it will cost the auto industry between $12-15 billion of research and development funds to try to figure out how to meet these new standards.

Auto sales continued their decline following the shocks of oil price and interest rate hikes in 1979, and by 1981, because the industry had been losing ground for three consecutive years, it became generally recognized that it was in dire straits. In response to the uproar over the fact that Japanese market share had gone from 18% to 27% between 1978 and 1981, which had been accelerated by the collapse of total sales, on May 1, 1979, the Japanese government announced that voluntary export restraints would be put into effect for three years. At congressional hearings during that year, analysts for the Department of Commerce surveyed the situation and intoned that "a revived economy is the only change that can be realistically expected to remedy the industry's condition." Nice words.

But the government, and Detroit, stumbled along from one blundering stupidity to another. What the "economic miracle" of the new Reaganomics did was to churn out consumer credit—backed by virtually no investment in productive capacity or infrastructure, creating the largest speculative bubble in the nation's history. This bubble kept auto sales aloft until 1986, when the industry once again went down the negative growth side of the roller coaster.

Industry downsizes cars and capacity

Detroit acted dazed. According to Sean McAlinden, of the University of Michigan's Transportation Research Institute, over its history the auto industry has planned its operations to cope with an expected ratio of three good years for each bad year, in terms of sales. The often-attacked "generous" unemployment and other benefits for auto workers were seen as necessary by the manufacturers to preserve the work force through periods of temporary plant closings expected by the industry. But now every year was a bad year.

Only an impossibly naive Detroit executive could have believed at that point that the government would intervene to restore aggregate demand for autos, because of the sheer size and impact of the auto industry on the national economy. McAlinden observed that any such agreements went out the window in 1980. No federal government policy to stimulate consumer purchases, or make cheaper credit available to the industry, was in the offing.

Moreover, the U.S. auto industry was slow off the mark when Americans began to buy smaller cars. The U.S. car buyer could not afford family-size cars—no more than he could afford decent family-size housing, and other needs. The Japanese automakers were right there with small cars. They had been ready for years, even building custom ocean

auto-freighters to handle the cargo.

Ford and Chrysler began to shrink capacity because they could not carry huge losses for long, but GM, the giant which is the largest corporation in the United States, tried to weather the storm, while it reported a loss for the first time since 1921. Detroit talked about the U.S. trend toward smaller cars being "temporary," and talked of an upturn.

Reality prevailed. Consumers still bought smaller cars. As of 1980, U.S. producers found themselves still managing an industry 60% of whose capacity was designed and tooled to produce intermediate and full-size cars. Smaller "economy cars" had been historically viewed as the bottom of the sales market, priced cheaply enough for lower-income consumers to buy, but not profitable to the corporations. Their bread and butter, through higher mark-up, came from the larger and luxury models, which Americans could not afford.

To try to adjust, the industry both accelerated shutdowns of older plants and those producing unpopular models, and embarked on an impressive $80 billion capital investment program, starting in 1978, to re-design its products and re-build its manufacturing base. But it had already lost more than a quarter of the car market to imports.

General Motors got started later than Ford or Chrysler in its capital spending program because its bankers did not want to have to amortize such a capital investment program over more than a few years, and because, due to its sheer size, the company thought it could weather temporary losses. But GM did spend $40 billion in the 1980s under Roger Smith, following upon investments by Ford and Chrysler, in a program which included the construction of nine new assembly plants at a cost of nearly $1 billion each. An additional $40 billion was spent over the 1980s on product development and R&D. A new division was added to GM to build the Saturn car, and the company made an attempt to introduce robotics and other automation technology into its assembly operations. The new plants were supposed to increase productivity by 25%. But the economic climate in the nation only worsened while the auto industry was plunking down billions to upgrade and restructure its facilities. GM's new assembly plants never had the opportunity to prove whether or not their new technology increased productivity, because, thanks to shrinking sales, the plants never ran anywhere near full capacity. Even when total car sales inched back up past the 11 million mark in 1986, the *domestic* industry was selling over than 2 million fewer cars than at its 1978 peak. There was only continued decline in domestic production.

In 1981, when the Japanese government's three-year voluntary restraint on exports began, the "Big Three" were bleeding red ink. The largest industry in the nation was facing catastrophe while it had been scrambling to make the changes necessary to compete with the Japanese. Short-term financial measures were seen as a way to restore some profitability to the industry, while it made the investments to allow it to introduce fuel-efficient, reliable cars down the road.

'Diversifying' out of auto into finance

Following in the 1970s footsteps of the shrunken steel industry, in the 1980s the "Big Three" automakers were seized by what *Business Week* described as "acquisition fever." What made this attractive, in addition to the promise of quick revenues and profits while the industry retooled, were the myriad banking deregulation and other policies which would have made it more advantageous to sell paper than automobiles, even if the car market hadn't been collapsing.

According to Sean McAlinden, the end of the Kennedy-era investment tax credit in the 1986 changes in the federal tax code, plus the miserly tax credit which could be garnered from investment in R&D, ended the era of large-scale capital investment in the auto industry. Even if companies were actually losing money on their financial investments, the tax advantages still made them more profitable than selling cars. As it became more and more difficult for the auto companies to borrow money due to their own declining financial position, they transmuted themselves into virtual banks, to help acquire new loans which were secured by the property their financial subsidiaries now held.

Ford Motor Co. went into S&Ls, buying First Nationwide Financial Corp., in addition to other "assets." Chrysler turned its financing operation toward commercial lending and leasing, and by 1990 half of Chrysler Financial Corp.'s revenues were from non-automotive financing transactions. GM bought Hughes Aircraft and the EDS company. *Business Week* compared this industry-wide "diversification" to U.S. Steel's ill-fated purchase of Marathon Oil.

The General Motors Acceptance Corp. (GMAC), which had been established in the 1920s to finance the purchase of GM cars by dealers and consumers, bought into the mortgage servicing market, insurance, and other financial services. GMAC's growth has been breathtaking, spurred by the steady erosion of bank and finance regulation. In 1985, GMAC had assets of $54.4 billion, with half of that in property mortgages. By 1987, assets had nearly doubled to $96 billion, growing at a rate of 22% per year.

Car loans, even for new Toyotas, were being offered at half the interest rate charged by banks. Though GMAC could not make a profit loaning money for new cars at just over 5% interest, the loss was carried by the parent company because it was more profitable to carry a loss in its financial services than to sell cars by giving huge rebates to customers.

By 1991, GMAC's assets had topped $100 billion. If GMAC were a bank, it would be the nation's fifth largest. If last year's banking deregulation legislation had been passed, it is likely that would have happened. But as financial operations were nearly the only thing the auto industry found that would keep at least part of the industry in the black, it was financial operations which dictated last month's dramatic announcement by GM which will permanently "disappear" a large chunk of what was the greatest mass production industry in the world.

The myth of the Made-in-the-U.S.A. car

When Japan announced in 1981 that there would be a three-year voluntary restraint on exports to the United States, Japanese auto companies realized that to continue to expand sales in the American market, they would do best to set up factories and produce right here. These "transplants" use American workers and some domestic parts to produce cars that are either sold here or are exported. Most importantly, however, the companies have access to cheap Japanese credit and years of top quality Japanese small-car engineering and production experience, which makes them more competitive than American companies from the get-go.

In addition to building their own dedicated manufacturing plants here, Japanese auto companies have teamed up with all of the Big Three in joint ventures. On the same day that it ran coverage of GM's announcement of its cutbacks in December, the *Los Angeles Times* also ran an article entitled "Ford Unveils Japanese-Designed Minivan." The vehicle was designed by engineers from Nissan, and will be sold by Nissan as the Quest and by Ford as the Mercury Villager. The *Times* remarked that such joint ventures have "drawn the two sides into close working relationships even as they fight an increasingly bloody battle over trade policy."

Ford already builds its Probe in Nissan's plant in Flat Rock, Michigan. GM builds cars with Toyota in Fremont, California, and Chrysler has shared production facilities with Mitsubishi. Because of Chrysler's financial difficulties, Mitsubishi Motors Corp. agreed to buy Chrysler's half-interest in their joint venture of Diamond-Star Motors last October. This move was not Mitsubishi's effort to take over the company, but was a $100 million cash infusion for Chrysler, pushed by the American partner. It also ameliorates a politically embarrassing situation, because Chrysler chairman Lee Iacocca constantly levels harsh criticism of Japanese trade practices. Chrysler owns an 11% share of Mitsubishi Motors.

Japanese introduce robotics

One of the technologies U.S. automakers knew in the 1980s they had to try to master and apply to their mass-production industry if they were ever to compete with the Japanese, was robotics. General Motors introduced robotic systems into some of the new assembly facilities built in the past decade, but the effort was a disappointment. Sean McAlinden points out that automating only the assembly part of the process, even if it had been done more successfully, does not increase productivity enough to make a significant difference. Apparently the Japanese introduced robotics into their auto industry suppliers as well as their own assembly operations so that there are 100% automated tool and die shops in Japan, and increased productivity.

GM certainly understood, when it became interested in robotics in the early 1980s, that Japan offered technical expertise as well as shop-floor experience in this technology. Therefore, in June 1982, GM formed a joint venture with Fanuc Corp. to create GMFanuc Robotics Corp. A year and a half later, GMFanuc was the third largest producer in the robotics industry, with 9.3% of the market share. One year after that, GMFanuc was the industry leader, with 26% of market share. In 1985, the company established German and Canadian subsidiaries and sales grew to one-third of American robotic systems.

In 1986, GMFanuc was hit with capital spending cancellations and, therefore, robotics cancellations by the auto industry. A company half-owned by auto giant General Motors was forced to increase its sales to the non-automotive markets in order to try to make up for the cutbacks. International sales accounted for more than one-third of the company's sales, and half of the total sales were non-automotive. Using Japanese technology, manufacturing, industrial experience, and contributed capital, GM has bought its way to the top of the robotics industry.

Richard Florida, a professor at the Carnegie-Mellon School of Urban and Public Affairs in Pittsburgh, has conducted a study of Japanese investment in American industry—not investments in financial instruments such as federal debt, real estate, or entertainment companies—but the auto, steel, machinery, rubber, and related heavy industries. As American industry has been shutting down over the past two decades, he points out, much of the argument used to supposedly account for its uncompetitiveness was the high cost of labor. Acting on this opportunistic analysis, one of the strategies used by the auto industry during the early-1980s crisis was to open union contracts and extract concessions from employees—along with the search for cheap labor in the non-unionized southern U.S. and in Mexican slave labor camps called *maquiladoras*.

Professor Florida points out: Japanese companies investing in basic industrial facilities here, using the most modern plant and equipment and generally paying union wages, are competitive, while American companies insisted that paying union wages destroyed their competitiveness, and embarked on a campaign to slash labor costs.

All told, Japanese companies have invested more than $25 billion in U.S. heavy industry and Japanese transplants have created more than 100,000 jobs in the United States. Is this pure altruism? Hardly. Voluntary car export restraints, plus import quotas for steel, left joint ventures or wholly Japanese-owned transplants the only option for Japanese manufacturers to increase their business in the United States. In the process, the Japanese companies have brought their most advanced industrial technologies to the United States.

President Bush, Congress, and the chief executive officers of GM, Ford, and Chrysler can rant and rave all they like at the Japanese. Unless there is a complete turnaround in U.S. economic, credit, tax, and investment policies, there will not be a U.S. auto industry in the near future.