International Trade and Import Competition:

U.S. Auto Industry

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INTRODUCTION

The increasing reliance of the United States on international trade has not only provided export opportunities for Great Lakes region business enterprises but has also created some problems. One of those problems is import competition in the U.S. auto industry. The last twenty-five years have witnessed a significant trend toward global economic interdependence with virtually all countries engaging more intensively in trade. In 1950, fully 52 percent of all international trade was American-based. Today, because of the broadening base of trade, the figure stands at 22 percent. From 1960 to 1983, imports as a percent of the Gross National Product (GNP) have risen from 4.6 percent to 10.4 percent. During the same period, the share of exports in GNP has increased from 5.7 percent to 10.2 percent. This trend has had a significant impact on the manufacturing sector in the U.S. where the percent of workers in industries facing direct import competition rose from 8.4 percent in 1970 to 14.7 percent in 1980. The percent of workers related directly and indirectly to exports rose from 8.1 percent to 14.5 percent. Moreover, there has been a disparate trade balance impact across economic sectors. Services and investment income, agriculture and chemicals have registered large trade surpluses since 1960. Others, such as autos, steel, and machine tools have equally striking trade deficits over the same period.

Classical economic theory holds that a country should specialize in producing those products in which it holds a "comparative advantage" and rely on trade for the balance of its needs. Unfortunately, government-induced or sanctioned trade barriers effectively constrict the flow of commerce among countries and enormous political pressure exists in these countries to provide a competitive edge to domestic producers. The world community has sought, with limited success, through the General Agreement on Tarriffs and Trade (GATT) to reduce barriers and promote the free flow of international commerce.

The U.S. auto industry is a good example of a major industry facing difficult challenges from the international arena. The automotive industry is the largest single manufacturing industry in the U.S. with almost 1 of every 12 manufacturing jobs related to automotive production. Approximately 3.6 million jobs are related to auto manufacturing, sales and service in the U.S. Because of its vast size, the health of the auto industry has far reaching effects on the U.S. economy and on the Great Lakes region economy in particular. For 1982, the auto industry consumed 21 percent of all steel used in the country, 50 percent of the malleable iron, 34 percent of the zinc, 12 percent of the primary aluminum, 13 percent of the copper, and 60 percent of the synthetic rubber. With over half of vehicle assembly and substantial automotive parts production located in the Great Lakes region, the condition of the auto industry and the region's economic performance are closely linked. Import competition is a principal international trade issue that has had a major impact on the U.S. auto industry.

RECENT HISTORY

The U.S. auto industry was hit hard by the recent recession. After reaching a peak of 1.05 million workers in January of 1979, vehicle production employment fell by nearly 40 percent to 641,000 workers in November of 1982. Auto workers on indefinite layoff reached a record 269,000 at the beginning of 1983. By the end of 1983, the situation had improved considerably. Unemployment in the motor vehicle and equipment industry had declined to 10 percent from 23 percent a year earlier with over 100,000 production workers recalled to their jobs. After four consecutive years of declining sales, the motor vehicle market staged a solid recovery in 1983 with sales of new cars and trucks increasing to 12.2 million units. In 1984, sales were estimated at 13.6 million cars and trucks.

Over the past several years, import penetration of the U.S. automobile market has been around 25 percent. For this period, imported Japanese cars and trucks have made up approximately 22 percent of the total market, or over four-fifths of all imports. Nearly one out of five Japanese-built vehicles is shipped to the United States. From 1981 to the present, the U.S. automobile trade deficit has risen from $11 billion to $27 billion: auto imports have expanded from $19 billion to $32 billion while auto exports have declined from $8 billion to $5 billion. Without any limit on vehicle imports, the import market share was predicted in the early Eighties to increase dramatically by 1990: 36 percent by Chase Econometrics, 40 percent by Merrill Lynch Economics, and as much as 65 percent by a National Academy of Engineering panel. Import competition is a fact of life for the American auto industry. The industry has had to adjust to the changing trade environment. Four import control mechanisms, three proposed and one implemented, have been advanced to protect the domestic auto manufacturers from the onslaught of imports. The two main strategies are domestic content legislation and the voluntary restraint agreements (VRA's). Vehicle import quota legislation and an imported goods surcharge are the other possibilities.

DOMESTIC CONTENT LEGISLATION

Domestic content legislation has been introduced in both the 97th and 98th Congresses. In the last session, H.R. 1234 passed the House of Representatives by a narrow margin but its counterpart, S.707, was stalled in the Senate. Both bills were designed to promote production by American workers by limiting the amount of foreign-built components and materials used in automobiles sold in the U.S. These content requirements are defined as a United States value added as a percent of the wholesale automobile price, and would affect every automobile manufacturer, foreign or domestic, selling more than 100,000 units in the U.S. The content percentages are graduated from 10 percent to a maximum of 90 percent for firms selling more than 900,000 units (See Table I). If any vehicle manufacturer failed to meet these requirements, the company would be subject to a limit on future sales in the U.S., as determined by the Secretary of Transportation.

TABLE I:
SELECTED MINIMUM DOMESTIC CONTENT RATIOS (H.R. 1234)

Number of Motor Vehicles Produced by the Manufacturer and Sold in the U.S. During Such Year	Minimum Domestic Content Ratio in Model Year		
	1985[a]	1986[b]	1987 and Beyond[c]
Less than 100,000	0	0	0
100,000	3.3	6.6	10.
200,000	6.6	13.3	20.
300,000	10.	20.	30.
400,000	13.3	26.6	40.
500,000	16.6	33.3	50.
600,000	20.	40.	60.
700,000	23.3	46.6	70.
800,000	26.6	53.3	80.
900,000 and Over	30.	60.	90.

[a] exact minimum determined by dividing the number of vehicles sold by 30,000
[b] exact minimum determined by dividing the number of vehicles sold by 15,000
[c] exact minimum determined by dividing the number of vehicles sold by 10,000

There has been protracted debate on the costs and benefits that would accrue from enactment of this legislation. Proponents argue that it would preserve jobs in America. According to some estimates, a total of 107,000 additional jobs would result from the legislation, 38,000 jobs directly in the auto sector and 69,000 jobs in related industries. Opponents concede that there would be increases in employment in the areas mentioned, but that the net costs to the economy would outweigh the positive employment benefits. Detractors argue that it would lead to a reduction in efficiency throughout the economy as resources are artificially shifted away from emerging industries to the auto sector. This would result in less auto market competition and higher prices for consumers. According to the Congressional Budget Office, an average of $333 per car could be added to the price of each new car as a result of the proposed quota legislation. Opponents also suggest that the legislation would dampen international trade, especially U.S. agricultural exports and would invite retaliation against U.S. export products. To the extent that world trade is reduced, it would also tend to strengthen an already overvalued U.S. dollar and further threaten overseas U.S. markets. Content legislation is strongly supported by the United Auto Workers Union and is opposed by the President who has threatened a veto.

On February 7, 1985 Representative John Dingell (D-MI), Chairman of the House Energy and Commerce Committee, introduced a bill to limit foreign vehicle imports to 15 percent of the market. It has been labeled the "Made in America" bill. This kind of quota legislation resembles legislation introduced last year aimed at controlling imports of iron ore and steel. The bill

requires the Secretary of Commerce to allocate the percentage of vehicles subject to control among foreign vehicle manufacturers on the basis of their respective domestic shares during the prior year. Canadian vehicle imports would remain subject to existing agreements and thereby be exempt from the legislative quota.

Also, there has been much talk lately about the possibility of a U.S. imported goods surcharge as the U.S. trade deficit keeps growing. In 1984, the trade deficit was approximately $123 billion and is forecast to reach $150 billion in 1985. Of the deficit in 1984, $90 billion or 72 percent of the deficit was related to manufactured goods. This factor is especially prominent in Japan-U.S. trade where the deficit exceeded $30 billion in 1984. Over two-thirds of this deficit was attributed to automobiles and automotive products trade. Many groups have shown support for a surcharge and the Congressional Budget Office is presently doing a study of the proposal. Some people have even estimated that a surcharge could help to cut the federal budget deficit by $50 to $60 billion.

VOLUNTARY RESTRAINT AGREEMENTS

Japanese car makers, responding to increasing political pressure in the U.S., announced on May 2, 1981 that they would abide by a voluntary restraint agreement (VRA) reducing passenger car exports to the U.S. by 7.7% to 1.68 million units for the Japanese fiscal year 1981. The VRA is based on a manufacturer-specific allocation. The voluntary restraint agreement was extended for two more years at the 1.68 million unit ceiling and then extended for fiscal year 1984 at a higher level of 1.85 million. The current agreement is scheduled to end on March 31, 1985 and there is some doubt whether it will be extended again.

The restraint agreement was originally intended to provide the U.S. auto industry with some "breathing room" to adjust its product mix and become more competitive in the new world market. The original agreement also had the goals of inducing change in the "unfair" Japanese tax system as well as correcting the dollar/yen currency imbalance. While the restraint agreements have not been entirely successful in meeting these latter two objectives, they have allowed the U.S. auto companies to become more competitive and gain record profits. The profits of the Big Three are projected for 1984 at: G.M. $4.5 billion, Ford $3 billion and Chrysler $2.5 billion. Auto industry executives have argued that the VRA's prompted Nissan and Honda to invest nearly $1.2 billion in new plants in Tennessee and Ohio. Mazda announced in November, 1984 that it will team up with Ford to build an assembly plant in Michigan--to begin production in 1986. Also, during 1984, Toyota and General Motors gained government approval to form a joint venture to build compacts in California. Chrysler Vice Chairman Gerald Greenwald has stated that if the restraint agreements are not extended, 750,000 jobs would disappear due to Japanese import penetration and that Chrysler would be forced to follow both GM and Ford and produce small cars overseas.

Most of the arguments used against domestic content legislation also apply to restraint agreements. Analysts have estimated that car prices are $400 to $800 higher than they would be in the absence of the agreement. Some analysts

consider the agreement to be a cumulative $5 billion cash transfer from consumers to the U.S. auto industry. Those who disagree with this reasoning argue that the increase in the price of American cars is primarily attributable to a change in consumer preference toward cars with more options and accessories.

At this time, the likelihood of an extension of the VRA's is still in doubt. Three scenarios are possible:

1. The agreement could be extended again at the present level of 1.85 million units;
2. The agreement could be extended, but the limit raised; and
3. The agreement could be allowed to expire.

Of the three possibilities, most analysts feel that the VRA's will be extended with an increase in limits up to the 2.2 - 2.4 million unit range. There are several reasons for this. First, the rising trade deficit, which reached $123.2 billion in 1984, would be exacerbated by a surge in imported automobiles. Second, the Japanese automobile industry has been troubled by the specter of domestic content legislation. At present, this legislation has insufficient support in the Senate. However, if the industry experiences a downturn, it is likely that content legislation would be given serious attention again. Since the U.S. is the largest overseas market for Japan's automobiles, the last thing the Japanese auto magnates want to see is a return to concerted pleas for protection from the U.S. auto sector. Third, many people feel that the VRA's have been of great benefit to the Japanese industry as well. Because of the limit, they maintain that Japan has exported its most profitable cars to the U.S., and that a continuation of the agreement would permit "business as usual." Finally, the VRA's have actually protected Toyota, Nissan, and Honda from competition with other Japanese auto companies who have smaller allocations.

PRODUCTIVITY AND WAGES

Much has been said of changing management practices and increasing productivity in the U.S. auto industry. U.S. auto companies have taken advantage of the restraint agreements to increase, sometimes dramatically, the efficiency of their operations. Ford has reduced its breakeven point by an estimated 40%. Chrysler, which had to sell 2.2 million units to break even in 1980, now has to sell only 1.1 million units to break even. In 1981, the average GM midsize car took 163 man-hours to assemble. Today, that figure stands at 135 man-hours.

Unfortunately, all is not positive for the American auto workers on the productivity scene. For instance, even with these dramatic gains, the average midsize Japanese car takes only 90 man-hours to produce, or about 2/3 of the U.S. time. Vehicle size is related to productivity rates but also, size has been tied to unit profit potential; the larger the car, the more profit. Nevertheless, both Ford and GM plan to build smaller cars in the U.S. in the future. According to reports from recent contract negotiations, GM's new Saturn project and Ford's Taurus and Sable lines will be produced in the U.S. The smaller car plans will preserve a domestic market niche for U.S. small cars as

well as assist with productivity improvements. This action is a very important change in terms of international competition because Japan's greatest cost advantage comes in the small car market. Increased ability to compete in this market would augur well for industry fortunes and for the region.

Another problem, widely addressed in media accounts, is the large wage disparity between U.S. and Japanese production workers. Even with the past "give backs", the American auto worker makes more than twice as much as his Japanese counterpart and 50% more than the average U.S. industrial wage earner (see Table II). These higher wages make up a significant part of the $1,500-$2,000 landed cost advantage that the Japanese auto companies presently enjoy in the U.S. market--based on average car price and full spectrum of models available.

TABLE II:
TOTAL HOURLY COMPENSATION IN THE MOTOR VEHICLE INDUSTRY
AND ALL MANUFACTURING -- U.S. AND JAPAN
($/Hour)

	UNITED STATES		JAPAN	
YEAR	MOTOR VEHICLES	ALL MANUFACTURING	MOTOR VEHICLES	ALL MANUFACTURING
1975	9.44	6.35	3.56	3.05
1976	10.27	6.93	4.02	3.30
1977	11.45	7.59	4.82	4.03
1978	12.67	8.30	6.85	5.54
1979	13.68	9.07	6.90	5.49
1980	16.29	9.89	6.89	5.61
1981	17.28	10.95	7.65	6.18
1982	18.66	11.68	7.18	5.70
1983	19.02	12.31	7.91	6.24

ADAPTED FROM: "Import Quotas and the Automobile Industry: The Costs of Protectionism," Robert W. Crandall, The Brookings Review, Summer, 1984, pp. 8-16.

OUTSOURCING

Outsourcing involves contractual agreements between a manufacturer and other companies, either within or outside of the U.S., to produce parts that the company has the capability for producing in-house. Manufacturers turn to outsourcing when they determine that these parts can be obtained more cheaply from outside suppliers. In recent years, with increased international competition, the U.S. automobile companies have increased their use of outsourcing overseas to reduce production costs. A good example of this trend is the recent agreement between Chrysler and Mitsubishi Motors Corporation. Mitsubishi has agreed to supply up to 400,000 fuel-injected V-6 engines a year for use in North American built miniwagons. This trend by American companies

follows the practices of the Japanese auto companies which have had considerable experience with outside purchase.

The move toward outsourcing has come about for two main reasons: outside parts suppliers usually have lower labor costs than the large auto firms and in many cases, these firms have greater economies of scale because of product specialization and longer production runs. In addition, competition for parts manufacturing has come not only from local parts suppliers, but also from low-wage countries like Korea, Taiwan, Mexico and Brazil. Because of this growing practice, the United Auto Workers (UAW) made job security their number one priority in the 1984 contract talks with both Ford and General Motors (the present UAW Chrysler contract does not expire until fall of 1985). In both contracts, substantial changes were made in the manner in which outsourcing decisions would be made in the future.

TRENDS AND RECENT DEVELOPMENTS

Several long-term trends and recent developments in the auto industry merit attention. Perhaps most notable has been the increasing cooperation between U.S. and foreign auto companies and decisions by foreign firms to build vehicles on U.S. soil. The American Motors Corporation's joint venture with Renault has resulted in production of the "Alliance" model at its Kenosha, Wisconsin assembly plant. Volkswagon was first in the U.S. (late Seventies) with a major assembly plant in Pennsylvania. Both G.M. and Chrysler have begun discussions with Korean carmakers about possible joint ventures. Chrysler imports Japanese-made cars for the U.S. market. Thus far, there are three Japanese automakers with manufacturing plants in the U.S., and a fourth will start up operations in 1987: Toyota has begun producing the new "Nova" in a joint venture with General Motors in Fremont, California; Nissan has a light truck plant in Smyrna, Tennessee; Honda has an "Accord" plant in Marysville, Ohio; and Mazda has recently unveiled plans for a $450 million assembly plant in Flat Rock, Michigan. These actions have been taken for a number of reasons. The cost of building cars in the U.S. has gone down due to business incentives offered by the states and because labor costs have decreased. This has been due not only to "give-backs" on the part of the UAW, but also because the newer plants are more technologically sophisticated and automated, and therefore, cheaper to operate. For example, it was reported that Michigan gave tax breaks and other incentives totalling $120 million to obtain the Mazda facility. This package included wage concessions by the UAW. It was estimated by one source that the concessions could total as much as $6.00 per hour. Also, in two of the foreign carmaker plants, the UAW is not a major presence and this fact can partly explain the lower "total benefit" package characteristic of the new assembly concerns. Another reason for this trend is the desire of foreign auto companies to increase their market share in the United States even while operating under the VRA's. Since the VRA's have been in effect, the Japanese market share has dropped from 22% in 1982 to only 18% in 1984. Under the current agreement, for instance, Mazda can only import 173,400 units per year. The new plant in Flat Rock, MI, forecast to produce 240,000 cars by 1987, would not be subject to a VRA limit. Honda is in a similar position. With worldwide profits of $10 billion, and 40 percent of that from the U.S. market, Honda hopes to double its sales in North America to 800,000 units in 1988, by producing 300,000 cars at the Marysville plant (up from 130,000 units in 1984).

The increasing foreign investment in U.S. plants has occurred while the domestic automakers have made major changes in the workforce and in the workplace. The Big Three have adopted certain Japanese management and production methods for use in U.S. factories. For example, Kanban or "just-in-time" production has been/will be implemented at most new automobile factories. This system carefully coordinates and monitors the production process thus minimizing the accumulation of materials and components at work stations and in factories. This system limits the work-in-process inventory, which reduces the amount of working capital needed and ultimately business borrowing. Commercial loans have become a major auto manufacturer cost during the past few years of high interest rates.

In addition to management changes such as reducing managerial levels and more reliance on production teams, all of the domestic car makers have spent heavily on improving the technological sophistication of the assembly process. This trend has had, and will continue to have, a significant dampening effect on employment in the auto industry. At Ford Motor Company, for example, robots will reportedly perform fully 96 percent of the 2,600 spot welds on the newly introduced Taurus and Sable models. In addition, almost all of the outer body panels of these two models have been designed by computers. These types of changes have not only cut assembly employment, but have created a ripple effect throughout the industry ranks. At Ford, these changes have contributed to less white collar employment by 30 percent since 1980. The Chrysler Corporation has undergone similar sweeping changes since its near bankruptcy in 1979. In the last six years, it has invested $7.5 billion in plants and products. Chrysler Chairman Lee Iacocca recently announced that within the next five years, the company plans to spend an additional $10 billion in North America. Most of this investment will continue to go toward high tech automation as showcased in the newly opened Sterling Heights, Michigan plant. The plant has 101 robots and 162 laser cameras to inspect cars on the assembly line.

But perhaps the most significant and far reaching effort at technological sophistication is the creation by the General Motors Corporation of a new subsidiary corporation under the Saturn name. A new plant is forecast to employ 6,000 employees and produce 500,000 cars a year. The first Saturn cars should be introduced in the 1989 model year. The planners at GM envision a plant so advanced, that robots will inspect and repair other robots. By the year 2000, it is reported that innovations of this type could cut both GM's employment and factory space in half with current or increased production levels.

Another important event was the announcement on January 27, 1985 by Hyundai Motor Company of South Korea, that starting fall, 1985 it would begin selling 100,000 front-wheel drive subcompacts in the U.S. This development is significant because as a South Korean company, Hyundai is not subject to import restrictions (VRA) as are the Japanese companies. Also, Hyundai, along with the Daewoo Group, is rapidly stepping up its production capacity. If this trend continues, the Korean imports will also have to be considered a significant factor in the small car market.

CONCLUSION

The U.S. auto industry is presently rebounding from the doldrums of the early 1980's. The Big Three gained record profits in 1984 and multiple production shifts are now commonplace. The Great Lakes states, which account for half of national auto production, have shared in the improving fortunes. However, the continuing presence of import competition casts a shadow over the future for domestic automakers. The four-year experience with the Voluntary Restraint Agreements has been beneficial to the U.S. carmakers by giving them an opportunity to improve productivity and gear up for the post-VRA era. There is hope that the productivity and marketing improvements in the U.S. auto sector will offset part of the "competitive edge" of foreign auto manufacturers in the domestic market. Whether or not the VRA is extended through 1985, the spectrum of international trade issues affecting the U.S. auto industry should continue to be addressed.