A review of Japanese voluntary export restraint (VER) on automobiles

Toshihiro ATSUMI Faculty of Economics Meiji Gakuin University

1. Introduction

This research note reviews the voluntary export restraint (VER) on Japanese automobiles which was introduced in 1981 and remained in place until 1994. Section 2 examines what the U.S. government, manufacturers and labor unions initially demanded of Japan, including its background, and the dialogues between Japan and the U.S. What was agreed on through the negotiations, and how the VER was introduced and implemented are summarized in section 3. Section 4 reviews how the Japanese manufacturers responded to the VER, using trade and industry data. Section 4 surveys studies on economic evaluation of the consequences of the VER. Section 5 summarizes.

2. Protectionist pressure from abroad, 1974ⁱ

2.1 UAW mission to Japan

It was from around 1974 that the U.S. side started taking actions to check automobile imports from Japan. In early 1974, United Auto Workers (UAW) President Leonard Woodcock put forward protectionism to fix import shares in the U.S. market, which shocked those in the industry. As shown in table 1 panel b, total share of imported cars was 13.8% in the U.S. market in 1974. Volkswagen had the highest share among the foreign brands (3.8%), followed by Toyota (2.7%).

What was the background for this change? Particularly after the oil shock of 1974, U.S. manufacturers were in a slump, with their car sales declining while the share of imported cars in the U.S.

『経済研究』(明治学院大学)第154号

					• •	0					
a. U.S. car sales											
	AMC	Chrysler	Ford	General Motors	Honda	Nissan (Datsun)	Toyota	Volks wagen	Other imports	Total imports	Total
1974	335,093	1,246,561	2,291,148	3,754,813	41,719	185,162	238,135	334,423	425,714	1,225,153	8,852,768
1975	322,272	1,057,472	2,038,798	3,783,902	102,389	259,842	287,103	267,730	513,444	1,430,508	8,632,952
1976	247,640	1,380,912	2,286,181	4,811,199	150,929	270,103	346,900	201,760	410,126	1,379,818	10,105,750
1977	184,361	1,341,014	2,615,217	5,177,198	223,633	388,383	493,048	262,932	493,058	1,861,054	11,178,844
1978	170,739	1,249,845	2,662,926	5,404,504	274,876	339,364	441,800	242,241	524,116	1,822,397	11,310,411
1979	162,057	1,080,258	2,218,477	4,931,726	353,291	472,252	507,816	295,293	639,181	2,267,833	10,660,351
1980	177,732	786,922	1,543,826	4,116,482	375,388	516,890	582,195	269,466	607,228	2,351,167	8,976,129
1981	167,759	840,813	1,413,456	3,796,696	370,705	464,806	576,491	244,910	657,439	2,314,351	8,533,075
1982	150,135	793,930	1,345,698	3,515,660	365,865	470,246	530,246	159,529	648,033	2,173,919	7,979,342
1983	226,712	951,191	1,571,321	4,053,561	401,072	521,902	555,766	162,090	738,456	2,379,286	9,182,071
1984	202,570	1,078,716	1,979,317	4,600,512	508,420	485,298	557,982	177,322	800,228	2,529,250	10,390,365
b. sha	АМС	Chrysler	Ford	General Motors	Honda	Nissan (Datsun)	Toyota	Volks wagen	Other imports	Total imports	Total
1974	3.8%	14.1%	25.9%	42.4%	0.5%	2.1%	2.7%	3.8%	4.8%	13.8%	100.0%
1975	3.7%	12.2%	23.6%	43.8%	1.2%	3.0%	3.3%	3.1%	5.9%	16.6%	100.0%
1976	2.5%	13.7%	22.6%	47.6%	1.5%	2.7%	3.4%	2.0%	4.1%	13.7%	100.0%
1977	1.6%	12.0%	23.4%	46.3%	2.0%	3.5%	4.4%	2.4%	4.4%	16.6%	100.0%
1978	1.5%	11.1%	23.5%	47.8%	2.4%	3.0%	3.9%	2.1%	4.6%	16.1%	100.0%
1979	1.5%	10.1%	20.8%	46.3%	3.3%	4.4%	4.8%	2.8%	6.0%	21.3%	100.0%
1980	2.0%	8.8%	17.2%	45.9%	4.2%	5.8%	6.5%	3.0%	6.8%	26.2%	100.0%
1981	2.0%	9.9%	16.6%	44.5%	4.3%	5.4%	6.8%	2.9%	7.7%	27.1%	100.0%
1982	1.9%	9.9%	16.9%	44.1%	4.6%	5.9%	6.6%	2.0%	8.1%	27.2%	100.0%
1983	2.5%	10.4%	17.1%	44.1%	4.4%	5.7%	6.1%	1.8%	8.0%	25.9%	100.0%
1000	1.070										
1984	1.9%	10.4%	19.0%	44.3%	4.9%	4.7%	5.4%	1.7%	7.7%	24.3%	100.0%

Table 1: Sales and share of imported passenger cars in the U.S. market, 1974-1984

Source: Ward's Automotive Yearbook, various years.

market was rising. Although oil export embargo from the Middle East to the U.S. was cancelled in April 1974, gasoline prices remained high, and the real wages of U.S. consumers had dropped due to price hikes. The oil shock led to a shift in demand towards smaller cars, which worked to the disadvantage of the U.S.'s Big Three manufacturers. This led to job losses, including more than 200 thousand auto workers being laid off. It was then considered that car imports from Japan and West Germany were at least partly responsible for this slump.

In March 1974, Herman Rebhan, UAW director for international affairs, was sent to Japan to meet with representatives of the Japan Automobile Workers' Unions (JAW) and the Ministry of International Trade and Industry (MITI), as well as leaders of Japanese auto industry and to request a Japanese voluntary export restraint (VER) on automobiles. The request was that the VER should be imposed until September 30, 1975 and the quota should be set at the actual average exports of the previous three years. Rebhan mentioned that a similar request had been notified to West Germany, and if both Japan and West Germany adopted the restrictions, then other exporting countries would follow.

Importantly, the plan of asking Japan to impose a VER on automobiles, therefore, had already existed at this point. The idea behind the UAW's request was that the VER would give the U.S. automobile manufacturers time to develop small and economical new models suitable for the needs of the new era and provide better employment conditions for the U.S. workers.

According to Rebhan, UAW preferred the VER by Japan rather than the U.S. restricting imports since the UAW had taken free trade positions, although it also had support from influential U.S. statesmen for passing an import restriction bill. In fact, in the U.S. House of Representatives, a bill on temporal restriction of automobile imports was introduced in 1974. In the next year, the Treasury conducted a survey on the dumping of automobiles.

2.2 Pressure from Europe

Movements to restrict automobile imports from Japan took place in other countries as well: in October 1974, Sir Raymond Brookes from the Society of Motor Manufacturers & Traders (SMMT) criticized the imbalance in automotive trade between Japan and Europe, and Japanese non-tariff barriers on automobile imports. SMMT requested the Commission of European Communities to conduct a survey on the dumping of Japanese automobiles. The Commission declined the request, claiming that the issue is specific to the United Kingdom. SMMT then sent a request to its Trade Ministry to carry out the survey in May 1975, which was also declined, in August of that year.

However, Peter Shore, U.K. Secretary of State for Trade, visited Japan in September 1975, requesting a limit to be set on automobile exports to the U.K. Japanese automobile manufacturers responded to this request by restricting exports at the previous year's level.

2.3 Japanese response and the second wave of protectionist pressure from the U.S.

The Japanese side, despite having agreed to restrict exports to the U.K., responded to the U.S. that they could not comprehend the slump of the U.S. auto business being due to Japanese and German exports. They claimed that it was the steep rise in gasoline prices and falling demand due to the oil shock hitting U.S. manufacturers particularly hard because most of their cars were in the larger segments. The Japanese side also questioned whether the U.S. Big Three, which were expanding their global businesses, had agreed on the UAW proposal.

Despite the actions taken by the U.S. in the first half of the 1970s, sales of Japanese cars in the U.S. market kept increasing. Figure 1 shows annual car exports from Japan to the U.S. In 1976, Japanese car exports to the U.S. exceeded one million units for the first time, and kept increasing until 1980, to reach 1.81 million units, which was nearly three times larger than in the early 1970s when UAW started actions against imported cars.

It was then around 1980 that new actions were taken after U.S. automobile manufacturers all incurred losses while the share of imported cars exceeded 21.3% in the U.S. market. (See tabel 1, panel b.) In June 1980, the UAW requested the U.S. International Trade Committee (ITC) to invoke Sec-



tion 201 of Trade Act of 1974. Ford also made the same request to the ITC to restrict automobile imports from Japan, meaning that both the management and the unions started working together on the issue.ⁱⁱ

On behalf of Japanese automobile manufacturers, the Japan Automobile Manufacturers Association (JAMA) took actions in the U.S. in response to the second wave of growing protectionist pressures. JAMA published issue-advocacy ads in U.S. newspapers including the New York Times, quoting from U.S. intellectuals stating that U.S. restriction on automobile imports hurts consumers. In an ITC public hearing, JAMA testified that 1) the argument that imported cars were unfairly priced was unjustified, 2) the rise in the share of imported cars in the U.S. was due to the fuel economy premium, 3) the U.S. manufacturers had improved their fuel economies, making competition with imported cars possible, and hence 4) problems in the U.S. automobile industry including unemployment is due to factors other than imports. Japanese manufacturers were cleared from suspicion of dumping this time in November 1980.

3. Introduction and implementation of the VER

3.1 The start of the VER, 1981

Although the Japanese government and auto industry had argued against U.S. pressures as mentioned above, the inauguration of the Reagan administration in January 1981 changed the situation drastically. New administration members demanded Japan voluntarily restrain its automobile exports to the U.S. William Brock of the Office of the United States Trade Representative (USTR) then started negotiations with Japanese MITI.

In April 1981, Brock and MITI Minister Tanaka agreed on a VER on automobiles. Correspondingly, Tanaka announced the VER on passenger cars to the U.S., detailed as follows.

- a. The Japanese government will, for the next three years (until March 1984), require Japanese manufacturers to report monthly their passenger car exports to the United States, and, regarding passenger car exports to the United States, adopt a new monitoring system.
- b. During the first year (from April 1981 to March 1982) the upper limit on passenger car exports to the United States will be set at 1.68 million cars.ⁱⁱⁱ
- c. In the second year (from April 1982 to March 1983) the upper limit on passenger car exports to the United States will be set at 1.68 million cars plus 16.5% of the market growth.
- d. As regards the third year (from April 1983 to March 1984), it will be discussed at the end of the second year whether the restriction should be continued, taking into account such factors as the market condition of passenger cars in the United States.
- e. Whatever the situation, the abovementioned measures are to be terminated by March 1984.

In addition to restricting exports, Japanese authorities implemented a number of measures to promote automobile imports in Japan. First, imported cars were given two-year postponement on the application of the new Japanese car emissions regulation of 1978. Second, procedures for type approval of imported cars was simplified. Third, the import tariff on automobiles was eliminated in 1978.^{iv} Fourth, indulgence for imported car dealers in Japan was extended from 120 days to 180 days, to facilitate imports.

3.2 The VER from the second year and on

In March 1983 it was decided that the upper limit should be set at 1.68 million cars for the second year of the VER. How the limit for the third year (from April 1983 to March 1984) would be set attracted attention because the U.S. Big Three showed remarkable performance in 1983: the Big Three reported total profits of 6.3 billion dollars, compared to their poor performance in 1980, when they recorded total losses of more than 4 billion dollars. Some of Japanese businesses hoped that the VER could be relaxed or terminated based on these improved figures of the U.S. auto industry.

In December 1982 the U.S. House of Representatives passed a local content requirement bill, which was, however, shelved and abandoned in the Senate. In February 1983 the bill was introduced once again, reflecting the still strong protectionist pressure in the U.S. It was then decided that the limit of the VER be set at 1.68 million cars for the third year as in the previous year. Pressure from the Congress, the UAW, and the Big Three became even stronger next year: although the VER was not be continued beyond March 1984 as Minister Tanaka had announced in 1981, in the meeting between MITI Minister Uno and USTR representative Brock in November 1983, it was decided that

the VER would be continued into a fourth year with the upper limit on exports set at 1.85 million cars.

However, in February 1985 in meetings within the Reagan administration, the President was recommended abolition of the VER. On March 1 1985, President Reagan announced that the United States was no longer requesting Japanese VERs on automobiles.^v

Despite the announcement by President Reagan, the Japanese side, wary of further trade issues developing between the U.S., decided on its own to continue the VER into a fifth year (from April 1985 to March 1986): in March 28, 1985, MITI Minister Murata announced that Japan's VER would continue, with the upper limit raised to 2.3 million cars.^{vi} Further, on February 13, 1986, MITI Minister Watanabe commented that taking into account both political and economic relations with the United States, the VER would be carried over to its sixth year (from April 1986 to March 1987) with the upper limit of 2.3 million cars. The continuation of the VER to a seventh year (from April 1987 to March 1988) was announced in January 1987, and the VER was eventually continued until March 1994.^{vii}

Among the factors contributing to the termination of the VER was the settlement of the Uruguay Round negotiations of the General Agreement on Tariffs and Trade (GATT) in 1994. Such grayzone trade arrangements as the VER were to be banned as one of the achievements of the Uruguay Round. Another factor, as explained in the next section, was production by Japanese manufacturers in the U.S., which reduced their exports from Japan. Actual exports started falling short of the VER limits from the late 1980s.

4. Response by Japanese manufacturers and outcomes

The Japanese manufacturers complied with the VER, keeping their exports within the limit each year, as shown in table 2. In the meantime, they had also been preparing for overseas production in the U.S. The first step was taken by Honda Motors. In 1978, Honda set up its American subsidiary, Honda American Manufacturing, Inc. (HAM). Honda's start of U.S. production through HAM in 1982 was followed by many other Japanese manufacturers: after establishing Nissan Motor Manufacturing Corporation U.S.A. (NMMC) in July 1980, Nissan first started light truck production in the U.S. in 1983 and then went on to produce passenger cars from 1985. Toyota set up New United Motor Manufacturing, Inc. (NUMMI), a joint corporation with General Motors, to start U.S. passenger car production in 1984, and later built other transplants on its own, such as, Toyota Motor Manufacturing, U.S.A., Inc. (TMM). Toyota and Honda also started production in Canada.

Smaller manufacturers including Mazda, Mitsubishi, Subaru and Isuzu found partners to produce in the U.S. In January 1983 Mazda set up Mazda Motor Manufacturing USA Corporation

A review of Japanese voluntary export restraint (VER) on automobiles

$\left[\right]$	Actual export of cars to the U.S.*	VER limit**	Meetings/announcements	Production launch of Japanese transplants	Total U.S. produc- tion by Japanese manufacturers*
1974	683,578	—	Rebhan (UAW mission)	—	—
1975	711,901	_	Shore (U.K. Minister)	—	—
1976	1,050,685	—	—	—	—
1977	1,339,022	—	—	—	—
1978	1,408,669	—	—	—	—
1979	1,546,739	_	—	—	—
1980	1,819,091	_	—	—	—
1981	1,761,403	1,680,000	Brock-Tanaka; Tanaka (imple- mentation of VER)	_	—
1982	1,691,806	1,680,000	_	HAM (Honda)	1,500
1983	1,697,852	1,680,000	Brock-Uno	Nissan (Light trucks)	55,337
1984	1,851,855	1,850,000	—		138,572
1985	2,215,811	2,300,000	Reagan (termination of VER); Murata (continuation of VER)	NUMMI (Toyota), Nis- san (passenger cars)	253,748
1986	2,348,456	2,300,000	Watanabe (continuation of VER)	_	509,101
1987	2,204,653	2,300,000	—	MMUC (MAZDA)	632,976
1988	2,051,318	2,300,000	—	TMM (Toyota), DSM (Mitsubishi)	794,371
1989	1,944,281	2,300,000	—	SIA (Subaru & Isuzu)	1,130,861
1990	1,876,055	2,300,000	—	—	1,320,031
1991	1,763,287	2,300,000	_	_	1,356,256
1992	1,584,468	1,650,000		—	1,417,260
1993	1,454,553	1,650,000		—	1,540,277
1994	1,441,858	_	Termination of VER	—	1,787,204
1995	1,149,699	_		—	1,944,977

Table 2: Response to the VER by Japanese automobile manufacturers

Note: *Based on calendar year; **Based on Japanese fiscal year, i.e., from April to March.

Source: Compiled by author based on data from JAMA and Ward's Automotive Yearbook.

(MMUC) and started production in September 1987. MMUC produced both Mazda and Ford cars. Mitsubishi set up Diamond-Star Motors Corp. (DSM), a joint venture equally shared by Chrysler, to start production in 1988. Both Mitsubishi and Chrysler brand cars were produced by DSM as in the Mazda case. Subaru and Isuzu jointly started U.S. production at Subaru-Isuzu Automotive, Inc. (SIA) from the end of 1989.^{viii}

The process of the Japanese manufacturers' U.S. production is summarized in figure 2. As shown there, the following points should be noted: 1) It was only one year after the introduction of the VER that Japanese manufacturers started production in the U.S. This implies that Japanese manufacturers had planned on U.S. production prior to the implementation of the VER when pressure came from the U.S. 2) By the end of the 1980s, almost all Japanese passenger car manufacturers had started U.S. production. The Japanese manufacturers were quick in preparing production in the U.S. to substitute exports within the decade. 3) In fact, as shown in table 2, production by Japanese manufacturers in the U.S. exceeded their exports to the U.S. for the first time in 1993, when the VER was finally terminated. The resultant change in the presence of the Japanese manufacturers in the U.S. is shown in figure 3. In 1995 Japanese manufacturers produced almost 2 million cars in the U.S., which





Figure 3: U.S. passenger car production and share of Japanese manufacturers

Source: Graph created by author based on data from Ward's Automotive Yearbook.

92

amounted to 31% of U.S. car production.

5. Economic evaluation of the VER

Economic analysis is concerned with the consequences of the abovementioned industrial and governmental actions, taking into account the corresponding changes in prices and the welfares of economic agents including consumers. Through the lens of economics, academic researchers uncovered the true costs of protection to the U.S. society.

Restriction on trade, in a competitive economy, usually imposes losses on the importing country by reducing consumer surplus to a degree that outweighs gains to domestic industry and tariff revenue to the importing country (in the case of imposing tariffs on imports) or rents to importers (in the case of a quota on imports), leading to a net loss, known as the deadweight loss. In the case of a VER, the situation is even worse for the importing country because the rent will be earned by the exporters, that is, the Japanese manufacturers in the present case. Welfare analysis along these lines was conducted by Dinopoulos and Kreinin (1988) and Feenstra (1992).

Dinopoulos and Kreinin (1988) not only considered the two countries involved in the VER, i.e., Japan and the U.S., but also Europe. They found that when Japan implemented the VER, European automobile manufacturers raised the prices of their cars shipped to the U.S. According to their estimate, U.S. welfare loss to Europe was 1.5 billion dollars in 1982 (3.4 billion dollars in 1984), while its loss to Japan was 2.3 billion dollars in 1982 (2.4 billion dollars in 1984). The loss within the U.S. in 1982 was 208 million dollars. The total social cost of the VER was over 4 billion dollars in 1982 to save an estimated 22,358 jobs. This meant that the annual cost was around 180 thousand dollars per job saved.

Feenstra (1992) pointed out that trade restriction by a large economy like the U.S. can negatively impact the exporting country as well because the exporters face a decrease in demand. In the case of automobiles, Feenstra (1992) estimated that the protection during the mid-1980s cost 0.2 to 1.2 billion dollars as the deadweight loss to the U.S. economy, 2.2 to 7.9 billion dollars quota rents transferred abroad, and 0 to 3 billion dollars of foreign deadweight loss.

Feentra (1984, 1988) also conducted empirical studies based on the idea that restriction on trade could affect the quality choices of exporting firms. That is, it was theoretically predicted that if exporting firms were confronted with a VER, which was a quantitative restriction on exports, then the firms would ship higher quality and more expensive products abroad. Using data from 1979 to 1985, Feenstra confirmed the hypothesis by showing that after the VER started, the type of cars exported from Japan to the U.S. by the same manufacturers changed to larger sized or higher horse-

『経済研究』(明治学院大学)第154号

power ones, which contributed to the rise of the prices of Japanese cars in the U.S.

Dixit (1988) conducted a simulation analysis by constructing a theoretical model of the U.S. automobile industry. Included in the model were two types of products, Japanese and U.S. cars. Assuming a simple demand structure and production technology, the model was calibrated to fit the actual data of 1979 and 1980. The calibrated model was used to study whether there had been an opportunity for the U.S. government to increase U.S. economic welfare by manipulating trade policy, compared to that of simply levying a standard most-favored-nation based tariff rate of 2.9% on Japanese cars. The potential gains found were 17 to 300 million dollars.

Subsequent studies worked on modelling both consumer and firm behaviors at finer levels, taking into account the peculiarities of the automobile industry and consumers' purchasing behaviors of automobiles. Goldberg (1994) developed a structural model of the U.S. automobile industry which consisted of a multistage discrete-choice model of automobile demand and an oligopolistic supply model with product differentiation. The demand-side model was estimated using U.S. Consumer Expenditure Survey data to take into account such factors as behavioral differences between house-holds with different levels of income. The U.S. manufacturers' sales increased in 1983, 1984, and 1987, but the increase was smaller than the decrease in the sales of Japanese cars. At the same time, German brands also increased their sales, but total sales declined. Therefore, the impact of the VER on U.S. automobile production, employment, and sales was modest. According to Goldberg (1994) this was because 1) some of the demand shifted to German cars and 2) the increase in car prices due to the VER led to lower-income consumers giving up buying new cars. In contrast, the price effect of the VER was found to be significant. Both because some consumers dropped out of the new car market of smaller cars and because the relative price of larger cars became lower, the composition of the market shifted to larger cars, which can be interpreted as a kind of quality upgrading ocurring.

Berry et al. (1999) also used an oligopoly model of the automobile industry to estimate the VER impact. They found that 1) the VER raised car prices and increased the profits of U.S. manufacturers by about 10 billion dollars, but with a standard error (S.E.) of about 7 billion dollars, and 2) there were net welfare losses to the U.S. close to 3 billion dollars (but with a S.E. of 7.5 billion dollars), however, because consumers were hurt. Further, they estimated what would have happened if import tariffs, which could also have been used to restrict imports and generate tariff revenue for the U.S., were imposed instead of the VER. It was found that replacing the VER with a tariff would have increased U.S. welfare by about 8.3 billion dollars (but also with a S.E. of about 8.3 billion dollars).

The Japanese automobile manufacturers, in addition to the abovementioned quality upgrading of exports, had the option to produce in the United States by foreign direct investment (FDI), which they implemented and was planned by some manufacturers even before the VER, as presented in table 2 and figure 2. It is of interest to further study the full picture, that is, what the VER eventually brought about to the U.S. and the rest of the world, and how it can be evaluated, now that we have seen not only that the U.S. has become a location of production but also that U.S. operations have become so important for Japanese manufacturers.

5. Summary

A VER on Japanese automobiles for the U.S. market was first imposed in 1981, the idea of which already existed as early as in 1974, as indicated by a request by the UAW. Japan initially argued against the VER, but the tough business environment for the U.S. automobile manufacturers after the oil shock and the inauguration of the Reagan administration changed the situation, leading to Japanese authorities accepting a VER. This experience is instructive, in that too drastic a change, such as the increase of Japanese car exports to the U.S. in the 1970s, is likely to elicit strong opposition by those who need to adjust to the change.

The VER was planned for three years initially, but continued for thirteen years, from April 1981 to March 1994. While complying with the VER, almost all Japanese manufacturers built transplants and started production in the U.S. within ten years.

Did the VER work? From the viewpoint of the UAW, that requested a VER to save U.S. auto jobs, the VER indeed worked because it held back increasing imports from Japan, later leading to Japanese manufacturers implementing U.S. production and hiring U.S. workers. However, it becomes questionable whether it worked when the total costs to maintain U.S. jobs are considered. Although some studies, including Dixit (1988) and Berry et al. (1999), leave open the possibility that strategic trade policies on automobiles may have worked to some extent, most economic analyses cast doubt on the VER in terms of overall economic welfare and its effectiveness as a measure to increase U.S. production and employment. This is largely because losses in U.S. consumer surplus were inevitable when trade was restricted.

Acknowledgement

I appreciate financial support through a Grant-in-Aid for Scientific Research (16H06551) from the Japan Society for the Promotion of Science.

Notes

i This section is the author's summary based on JAMA publications listed in the references.

ii In addition to restricting imports of assembled cars, a bill on local content requirement for imported automobiles was introduced in 1981.

iii In addition, quotas were set on exports of SUVs and exports to Puerto Rico.

『経済研究』(明治学院大学)第154号

- iv See Atsumi (2017, table 2) for details on tariff reduction.
- v This, however, did not mean that the U.S. side was totally satisfied with the results of the VER. In fact, the VER was followed by a series of new meetings and negotiations including consultations with the United States on Japan-U.S. Framework for a New Economic Partnership, Market-Oriented Sector Selective (MOSS) talks and Structural Impediments Initiative (SII).
- vi It is of interest to further study why the Japanese side continued 'voluntarily' the VER beyond 1985.
- vii VER of automobiles to Europe and Canada was also implemented, which is not covered in this research note.
- viii Suzuki went to Canada. In August 1986, Suzuki reached an agreement with General Motors Corp. of Canada for cooperation in establishment of a joint venture company. In April 1989, Production of Suzuki cars began at CAMI Automotive Inc. in Ontario, Canada.

References

- Atsumi, Toshihiro. 2017. "Infant industry argument for trade protection and Japanese automotive industrial policy" Papers and proceedings of economics, No. 153, pp. 165–177.
- Berry, Steven, James Levinson and Ariel Pakes. 1999. "Voluntary export restraints on automobiles: evaluating a trade policy" *American Economic Review* Vol. 89, pp. 400–430.
- Dinopoulos, Elias and Kreinin, Mordechai. 1988. "Effects of the U.S.-Japan auto VER on European Prices and U.S. welfare" *Review of Economics and Statistics* Vol. 70, pp. 484–491.
- Dixit, Avinash K. 1988. "Optimal trade and industry policies for the U.S. automobile industry" in Robert C. Feenstra, ed, *Empirical methods for international trade*. Cambridge MA: MIT Press, pp. 141–165.
- Feenstra, Robert C. 1984. "Voluntary export restraint in U.S. autos, 1980–81: quality, employment, and welfare effects" in Robert E. Baldwin and Anne O. Kruger, eds, *Structure and evolution of recent U.S. trade policy*. Chicago: University of Chicago Press, pp. 35–39.
- Feenstra, Robert C. 1988. "Quality change under trade restraints; theory and evidence from Japanese Autos" Quarterly Journal of Economics, Vol. 101, pp. 131–146.
- Feenstra, Robert C. 1992. "How costly is protectionism" Journal of Economic Perspectives Vol. 6, pp. 159-178.
- Goldberg, Pinelopi. 1994. "Trade policies in the U.S. automobile industry" *Japan and the World Economy* Vol. 6, pp. 891–952.
- Japan Automobile Manufacturers Association (JAMA), various years, Nihon Jidousha Sangyoushi (Industrial History of Japanese Automobiles).
- Japan Automobile Manufacturers Association (JAMA), various years, *Nihon Jidousha Sangyou no Ayumi* (Progress of Japanese Automobile Industry).
- Japan Automobile Manufacturers Association (JAMA), various isuues, *Jidousha Toukei Geppou* (Monthly Statistics of Japanese Automobile Industry).
- Keizaihyouronsha, various years, Jidousha Sangyou (The Automobile Industry).

Nikkan jidousha shinbun and Nihon shoukoukaigisho, various years, *Jidousha Nenkan* (Automotive Yearbook). Ward's Automotive Yearbook, various issues.