

**The Controversy over Japan's
Low Manufactured Imports**

Edward J. Lincoln

Working Paper No. 42

Edward J. Lincoln
Senior Fellow
The Brookings Institution

Working Paper Series
The Center on Japanese Economy and Business
Graduate School of Business
Columbia University
January 1990

Introduction

Relative to other industrial countries, Japan continues to have very low levels of manufactured imports, a distinctive feature that has not been affected substantially by the high value of the yen since 1985. This aspect of Japan has been widely known by economists, but there is still substantial disagreement over the causes of the low level of imports. Can it be ascribed to implicitly protectionist behavior, or can it be explained by standard economic variables? As with most social science questions, the answer is probably a combination of many factors, none of which provides a complete explanation by themselves.

This paper reviews the evidence on Japan for both the low level of imports and the low level of intra-industry trade, another pattern of trade which is very substantial for virtually all industrial nations except Japan. A variety of explanations have been offered by economists, political scientists, and business scholars, and these explanations are explored here. A final topic which cannot be ignored is the impact of the rising yen since 1985 and how it is changing Japanese behavior.

This paper, however, is not simply a review exercise. My conclusion from looking at the various possible explanations for Japan's behavior is that it cannot be entirely explained by standard economic factors. Overt import barriers may be relatively low, but other forms of informal barriers or collusive activity by Japanese corporations must be part of the explanation of Japan's distinctiveness. ~~Some changes in these behavior~~ patterns may be underway, motivated by the high value of the yen, but the evidence for change is more readily visible in the press and government documents than it is in actual market behavior. My prognosis, therefore, is cautious: Japan is different; it is capable of changing; it may be entering

a lengthy period of adjustment; but that process is still in an early phase and it is unlikely to result in a Japan behaves entirely like other industrial nations.¹

The Evidence on Unusual Trade Behavior

Anecdotal evidence on protectionist Japanese import behavior and aggressive export behavior in the postwar period is abundant. Businessmen believe that they have faced, and continue to face, a variety of formal and informal barriers impeding entry to the Japanese market, as well as predatory pricing, patent infringement and other practices which damage their ability to compete against Japanese products in third markets and at home in the United States. Demonstrating the peculiarity of Japanese practices ought to be a straightforward job of assembling facts, but the issue is not so simple because formal import barriers--tariffs and quotas--are no longer very significant in most cases and the existence of many other informal barriers has been vehemently denied by the Japanese. Despite these caveats, one approach to the question is to catalogue import barriers and estimate their probable impact on trade. Reviews of Japanese trade barriers are now widespread.²

1. This paper is based largely on extracts from a larger research project on Japan's trade patterns: Edward J. Lincoln, Japan's Unequal Trade (Washington: The Brookings Institution, forthcoming 1989).

2. See for example, William V. Rapp, "Japan's Invisible Barriers to Trade," in Thomas A. Pugel, ed., Fragile Interdependence: Economic Issues in U.S.-Japanese Trade and Investment (Lexington, MA: Lexington Books, 1986); C. Fred Bergsten and William R. Cline, The United States-Japan Economic Problem (Washington: Institute for International Economics, 1985), pp. 53-72; Bela Belassa and Marcus Noland, Japan In the World Economy (Washington: Institute for International Economics, 1988), pp. 49-62; Ryutaro Komiya and Motoshige Itoh, "Japan's International Trade
Continued on next page

Without repeating the litany of formal and informal restraints at length, it is possible to briefly review the evidence on Japan. Early in the postwar era, Japan erected very stiff tariff and quota barriers. Under the authority of the 1949 Foreign Exchange and Foreign Trade Control Law, all imports were subject in principle to government control through import licences. The Ministry of International Trade and Industry exercised enormous power through its control over allocation of the foreign exchange budget from which import licenses were granted, which in effect amounted to a quota on all imports.³ Some items were decontrolled later in the 1950s (by granting automatic licenses), but the direct control system remained very extensive. Not until Japan came under increasing pressure within the GATT and the IMF to dismantle its stiff import barriers did any real change take place. Most quota restrictions were eliminated in the early 1960s, although in many cases liberalization of particular products was accompanied by imposition of high tariffs. According to Japanese calculations at the time, 60 percent of all Japanese imports were subject to quota restrictions

Continued from previous page

and Trade Policy, 1955-1984," in Takeshi Inoguchi and Daniel I. Okimoto, eds., The Political Economy of Japan: Volume 2: The Changing International Context (Stanford: Stanford University Press, 1988); or ~~the more anecdotal approach adopted in~~ Clyde V. Prestowitz, Jr., Trading Places: How We Allowed Japan to Take the Lead (New York: Basic Books, 1988). In addition, the Office of the United States Trade Representative must report to Congress each year on trade barriers in other nations, including Japan; see Office of the United States Trade Representative, National Trade Estimate Report on Foreign Trade Barriers.

3. For a review of this period in Japan's import policies see Warren S. Hunsberger, Japan and the United States in World Trade (New York: Harper and Row, 1964), pp. 133-141.

in 1960, and liberalization reduced that percentage to only 11 percent by 1963.⁴

Since the process of import liberalization began in the early 1960s, formal quota and tariff barriers have steadily fallen. By the 1980s Japan had lower average tariffs on industrial products than other industrial nations and fewer quantitative restrictions. No one denies that Japan has made impressive progress in dismantling the vast array of formal barriers which characterized the earlier postwar period, although the few instances of high tariffs or quotas which remain often happen to be on products of importance or interest to Japan's trading partners. Relatively high tariffs continued in the 1980s on whiskey, biscuits, chocolates, and plywood, while stringent quotas remained on beef, citrus fruit and several other agricultural products. Even these remaining formal barriers are in the process of being negotiated away, with the quotas on beef and citrus fruit, for example, to be lifted in 1991.⁵ Despite this continued formal opening of the market, however, the sense of pervasive restrictions through more informal means has persisted. These are the implicit restraints which are so difficult to verify and to remove because by their very nature they are deniable.

4. Ministry of International Trade and Industry, Tsusho Hakusho [Trade White Paper], 1963 edition (Tokyo: Ministry of Finance Printing Office, 1963), p. 147.

5. Mirroring the actions of the early 1960s, the elimination of the beef and citrus quotas will be followed by imposition of high tariff barriers--a jump from 15 percent to 70 percent on beef (in 1991, falling to 50 percent in 1993) and continuation of 20 percent off-season and 40 percent in-season tariffs on oranges. See Susan MacKnight, "Japan to Free Imports of Beef and Citrus," JEI Report No., 24B, June 24, 1988, pp. 15-17.

Table 1 lists the principal types of informal import barriers which attracted the attention of American negotiators in the 1980s and examples of products that have been affected by them. This listing includes only those actions by government or industry which are obvious policy decisions and leaves out general cultural or business behavior patterns that may have the effect of restricting imports. Problems related to some of the specific products included in the table have been partially or fully solved, but others have not.

A broader picture of Japan's trade behavior is presented in table 2. Japan imports substantially fewer manufactured goods than other nations, regardless of whether the measure is the ratio of manufactured imports to GNP or to domestic manufacturing output. In 1987, the ratio of manufactured imports to GDP was only 2.4 percent, with the United States (7.3 percent), Italy (10.0 percent), and Spain (10.9 percent) the only other industrial nations on the list at all close to Japan. Among the developing countries listed, only India is close to Japan. The comparison is even more stark when it is based on imports as a share of domestic manufacturing output (GDP originating in the manufacturing sector), with Japan the only nation on the list below 10 percent. Japan is not just lower, it is startlingly lower than any other country in the table.

Furthermore, many of the nations listed in this table exhibit substantial increases in the share of manufactured imports in their economies over time. ~~As a share of GDP, manufactured imports in the United States almost tripled, from 2.5 percent to 7.3 percent from 1970 to 1987.~~ Substantial increases also occurred in France, West Germany, Spain, and the United Kingdom. Even South Korea, a developing country actively pursuing

Table 1
Informal Barriers in the 1980s

<u>Problem</u>	<u>Nature</u>	<u>Examples</u>
Standards	product standards set differently from international standards and specified in a way to deliberately exclude foreign products.	metal baseball bats, formaldehyde levels in infant clothing, processed food.
Testing and Certification Processes	Difficulty in obtaining either broad type certification or self-certification at foreign factories necessitating expensive and time-consuming individual inspection.	Automobiles, metal baseball bats, medical equipment, telecomm. equipment.
Customs Procedures	Delays and arbitrary actions by Customs officials, sometimes in opposition to liberalization measures announced at a higher level.	Automobiles.
Intellectual Property Right Protection	Inadequate protection of intellectual property rights and fears that patent approval processes for foreign technology are delayed to benefit Japanese competitors, trademark approval delays.	Computer software, fiber optics, sound recordings.
Government procurement practices	Manipulation of procurement by government and government-funded organizations to benefit domestic suppliers despite a 1979 agreement in the Tokyo Round agreement to open procurement.	Communications satellites, tobacco, super computers, TRON operating systems.
Industry collusion	Collusive actions by industry with or without government sanction to inhibit imports through joint exercise of market power or direct control of import channels.	Soda ash, chemical fertilizer (urea), integrated circuits, silicon wafers, auto parts.
Administrative guidance	Informal advice from government to importers or users to inhibit imports.	Textiles, gasoline
Other government regulation	Use of regulations related to the use of products that inhibit use of foreign goods (size and weight limits in road transportation, procedures under the national health insurance system, retail promotion guidelines, etc.	Kidney dialysis machines, high-cube containers, cigarette advertising, processed food.

Source: Office of the United States Trade Representative, 1989 National Trade Estimate Report on Foreign Trade Barriers, Japan Economic Institute, Yearbook of U.S.-Japan Economic Relations in 1981 (and later edition).

Table 2
Manufactured Imports in the Economy

Country	GDP						GDP in Manufacturing					
	1970	1973	1978	1980	1985	1987	1970	1973	1978	1980	1985	1987
Japan	2.3	2.4	1.9	3	2.6	2.4	6.5	6.9	6.3	10.3	8.6	8.3
United States	2.5	3.3	4.7	4.8	6.5	7.3	10.1	13.5	20.2	22.1	32.1	37.8
Developed Industrial Nations:												
Australia	11.1	9.6	11	11.7	12.6	13.7	45.8	43.7	57.6	61.1	73.5	80.6
Austria	17.1	18.7	20.2	21.9	22.3	22	50.9	61	72.3	78.8	82	83.7
Belgium	26.4	30.5	32.5	35.7	42.1	41.4	82.1	99.8	124.4	146.2	187.7	187.3
Canada	13.4	15.4	17.1	17.4	19.2	18.8	66.9	77.2	93.9	97	83.1	109.9
Denmark	19.3	18.9	17	17.1	20.4	18.3	104.4	105.8	103.2	99.3	121.8	107.6
Finland	17	15.9	13.9	17.1	15.2	16.6	71.4	65.9	57.7	67.8	68.5	77.6
France	7.7	8.9	10	11	12.3	12.9	28.4	33.1	38.6	45.4	55.4	59.2
West Germany	8.9	8.9	11.1	12.6	15	14.4	23.1	24.5	32.7	38.5	47	44.7
Italy	6	7.2	8.1	10.1	10	10	22.3	26	29	35	42	43.1
New Zealand	16.1	15.9	16.7	16.4	20.3	18.8	N/A	72.8	74.7	74.4	90.8	N/A
Norway	6.8	7.2	5.4	6.1	7.8	10.9	N/A	N/A	N/A	21.7	28.7	37.5
Netherlands	26	23.2	23.9	24.8	30	29.4	100.4	93.5	122.4	138.6	168.2	157.2
Norway	23.5	23.9	20.7	19.7	19.5	21	108.7	111.1	117.5	123.2	139.2	140.9
Sweden	14.4	14.5	15.3	16.7	19.4	20	56.5	59.6	71.9	78.8	89.9	96.2
Switzerland	22.7	20.6	21.1	25.2	25.1	24.4	N/A	N/A	N/A	N/A	N/A	N/A
United Kingdom	7.9	11.3	15.1	13.6	16.4	17	27.4	40.3	56.9	57.7	78	78
Developing Countries:												
India	2	2.2	3.3	3.3	5	5.6	15.7	17.5	22.1	20.5	30.3	31
South Africa	17.6	11.3	15	22.3	19.4	16.9	81.1	51.7	74.8	109.7	95.7	79.1
South Korea	12.2	17	17.5	15.4	20.6	20.8	57.8	67.7	62.5	52	73.1	68.5
Singapore	14.4	14.2	14.6	16.8	15.9	16.2	88.3	73.1	72.7	79.1	71.6	67

Sources: World Bank, World Tables (New York: , 1989), pp. ;
Organization for Economic Cooperation and Development, Historical
Statistics (Paris: OECD, 1989), pp.

industrial policies to build its domestic manufacturing sector, shows a large increase in import penetration over time in its economy.

As formal trade barriers around the world have fallen in the postwar era, and transportation costs have dropped, consumption patterns in industrial nations have converged somewhat. These trends led to the increases in import penetration shown in the table. Countering this trend, oil prices rose dramatically in the 1970s, and one of the rebuttals often heard concerning the low level of manufacturing imports in Japan is that the rising cost of oil (and the weakening exchange rate which accompanied it) prevented a rise in manufactured import shares in the economy. However, France, West Germany, and the United States all suffered from similar problems. In addition, from 1980 to 1987 the price of oil dropped dramatically while the yen rose. Despite these developments, imports as both a share of total GDP and of value-added in manufacturing fell. The only other nations showing such a trend in the share of manufactured imports to value-added in manufacturing are South Africa and Thailand, hardly exemplary comparisons. Even without turning to more sophisticated economic measures, the failure of manufactured import penetration to rise over this long 17-year period is highly suggestive that protectionism remains.

This picture is reinforced by looking at intra-industry trade. This phenomenon, in which nations both export and import a product, is very extensive among industrial nations. The notion of a two-way flow of goods in a particular product would seem to contradict comparative advantage theory, which is an explanation of why a nation should either export or import a product, but not both. Intra-industry trade began as an empirical observation as economists investigated trade patterns in the postwar era, and they have since developed a variety of theoretical explanations for why

such trade exists. However, the theory is less important than the fact that this trade is very extensive, especially among industrial nations. Table 3 presents a comparison across a number of countries based on the standard statistic which economists use to measure the incidence of intra-industry trade.⁶

My own research has concentrated on a more detailed look at the intra-industry trade phenomenon, which shows Japan to be very distinctive. Basic intra-industry trade data on 5 countries--Japan, the United States, West Germany, France, and South Korea--are summarized in table 4. Looking at all traded products, Japan's average level of intra-industry trade has been far below that of other countries. In 1985, Japan's average IIT index number was only 23, less than half that of the United States, and even farther below those of France and West Germany. Not only is Japan lower, but its level of intra-industry trade failed to rise significantly over time. The level in 1985 was virtually unchanged from that reported by others for Japan as far back as 1964, and not much higher than in 1959. The United States, France, and West Germany, in contrast, all show large increases over time.

If the comparison is shifted from all products to manufactured goods the disparity remains. Japan's level of intra-industry trade has been virtually constant since the mid-1970s at a level that is actually lower than in 1970. As of 1985, Japan's IIT index number of 26 was only 43 percent the level of

6. That measure for a particular industry is:

$IIT_i = 100 * [1 - |x_i - m_i| / (x_i + m_i)]$, where x_i = exports of industry i products, and m_i = imports of industry i products. This produces a statistic which varies over the interval $[0,100]$, with 0 representing no intra-industry trade (either exports or imports equal zero), and 100 representing complete intra-industry trade (imports exactly equal exports). An average level for a nation can be calculated by summing across industries using shares in total trade as weights:
 $IIT = \text{SUM}_i [IIT_i * (x_i + m_i) / (X + M)]$, where X and M are total exports and total imports of the nation.

Table 3
International Comparison of Intra-Industry Trade Levels

Country	Intra-Industry Trade Index Number Based on 94 industries
Australia	22
Belgium	79
Canada	68
Finland	49
France	82
Germany	66
Italy	61
Japan	25
Netherlands	78
Norway	51
Sweden	68
United Kingdom	78
United States	60
South Korea	48
Switzerland	61

Note: The intra-industry trade index is scaled here to vary between zero (no intra-industry trade) and 100 (complete intra-industry trade). The calculation of this index is specified more fully below in the text.

Source: Robert Z. Lawrence, "Imports in Japan: Closed Markets or Minds?" Brookings Papers on Economic Activity, 1987, No. 2, p. 520.

Table 4
Average Intra-Industry Levels
Based on 3-digit SITC industry classification

All traded products

Country	Year					
	1959	1964	1970	1975	1980	1985
Japan	17	21	26	19	19	23
United States	40	40	53	57	56	54
France	45	60	67	65	66	74
West Germany	39	42	54	52	57	63

Manufactured products only

Country	Year				
	1970	1975	1980	1985	1985*
Japan	32	26	28	26	22
United States	57	62	62	61	53
France	78	78	82	82	74
West Germany	60	58	66	67	58
South Korea	19			49	44

Notes: * 4-digit SITC data

Sources: 1959 and 1964 figures are from Grubel and Lloyd, Intra-Industry Trade (New York: John Wiley and Sons, 1975), p. ; 1970 through 1985 are based on data from the United Nations trade data tapes on computer center printout EXPERC.TAB, 10/30/87.

the United States. In all other countries in the sample, intra-industry trade levels were higher in 1985 than in 1970; only in Japan has it fallen. This comparison is not affected materially by using a more disaggregated 4-digit industry classification. Even south Korea, a relatively small developing country that should exhibit low levels of intra-industry trade, had an IIT index number in 1985 that was twice as high as Japan's, and demonstrated an enormous rise in intra-industry trade over time, also in strong contrast to Japan.

If the comparison is shifted from global levels of intra-industry trade to bilateral trade, Japan still appears low, as shown in table 5, based on bilateral trade flows in manufactured products. In 1985, the level of intra-industry trade characterizing Japan's bilateral trade with the other countries was considerably below that of most other countries.⁷ The United States in 1985, for example, displays an IIT index number for its trade with France (53) and West Germany (36) that is double or more the level with Japan (19). Even U.S. trade with South Korea generated a higher IIT index number (26) than did trade with Japan. The experience of France is similar, with its bilateral intra-industry trade with West Germany (73) and the United States (52) much higher than with Japan (25). Only West Germany shows a similarity in its IIT pattern, with rough parity in the level for its trade with the United States (41) and Japan (39). Despite this one exception, the general conclusion remains that Japan's pattern of bilateral

7. Because of differences in data collection among countries, as well as the difference between the value of f.o.b. exports and c.i.f. imports, the numbers in the upper-right half of the table differ by minor amounts from those in the lower-left half in most cases.

Table 5
Bilateral Intra-Industry Trade

1985					
Reporting Country:	Bilateral Trade with:				
	United States	France	West Germany	Japan	South Korea
United States	--	53	36	19	26
France	52	--	73	25	11
West Germany	41	74	--	39	23
Japan	25	31	40	--	33
1980					
	United States	France	West Germany	Japan	South Korea
United States	--	54	43	26	
France	42	--	76	27	
West Germany	46	78	--	39	
Japan	31	31	40	--	
1975					
	United States	France	West Germany	Japan	South Korea
United States	--	46	46	31	
France	44	--	73	29	
West Germany	48	74	--	45	
Japan	34	36	50	--	
1970					
	United States	France	West Germany	Japan	South Korea
United States	--	39	41	31	15
France	44	--	70	44	1
West Germany	42	70	--	43	5
Japan	31	41	48	--	18

Source: United Nations trade data tapes, in computer center printout MEXPRC.TAB, 1/12/88. Figures for S. Korea taken from my spreadsheets based on computer center printout.

intra-industry trade with developed countries is distinctly lower than what prevails among other industrial countries.

Over time the disparity has widened. In 1970, Japan's bilateral trade with other developed countries did not appear to be unusual. Both West German and French trade with the United States was characterized by a degree of intra-industry trade similar to their trade with Japan. From a U.S. perspective, intra-industry trade with Japan was only somewhat lower than with these other two. Since that time the degree of intra-industry trade on a bilateral basis with Japan has consistently fallen for all three of these trading partners. The IIT index number for U.S./Japan dropped steadily from 31 to 19, while that for France/Japan dipped from 44 to 25, and that of West Germany/Japan fell somewhat less from 43 to 39.

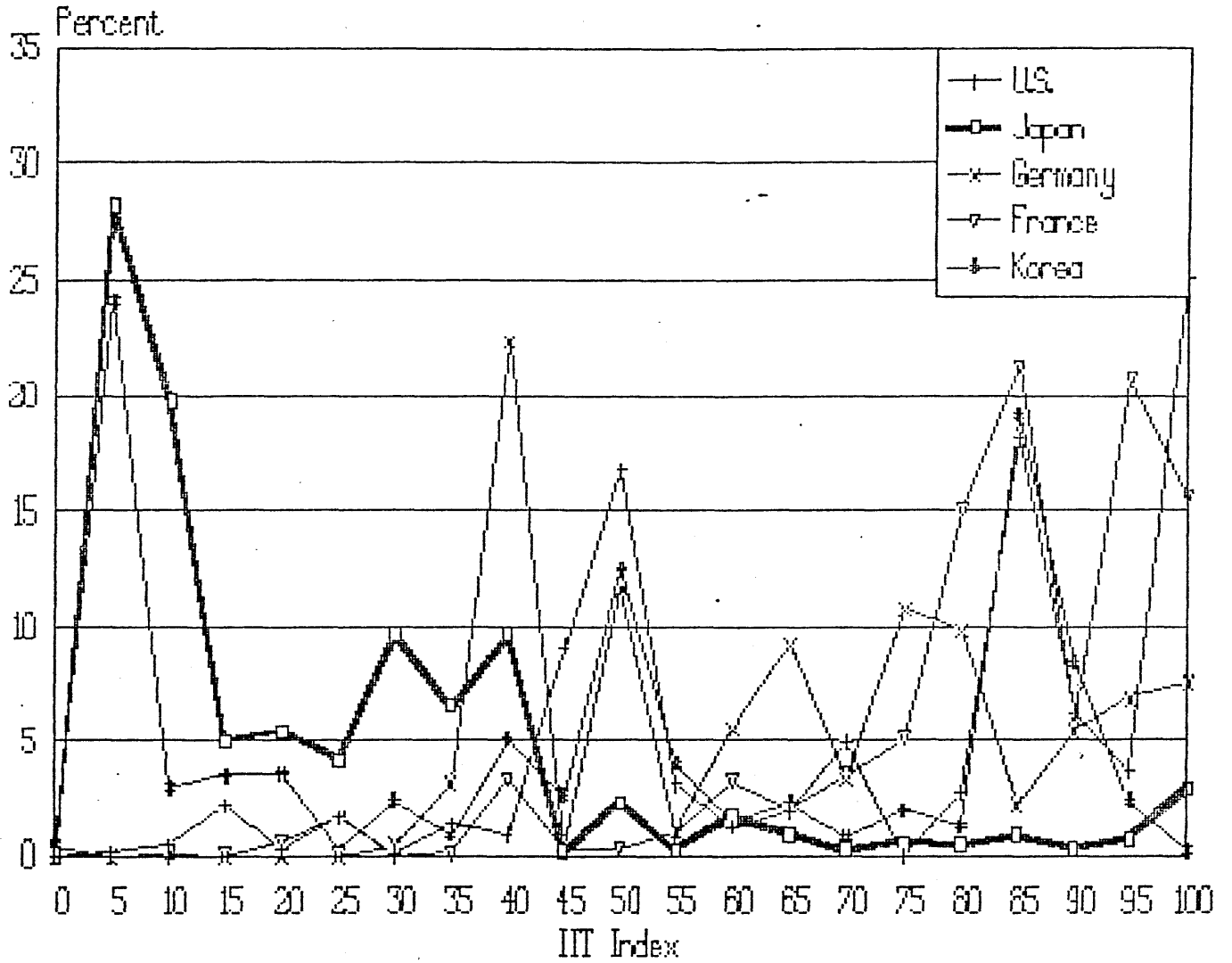
Japan is also strikingly different from other countries on the question of the connection between exports and intra-industry trade. Figure 1 presents a simple visual approach to this question. The horizontal axis in this diagram divides the intra-industry trade index into 21 intervals: $0 < IIT \leq 5$, . . . , $95 < IIT \leq 100$. The vertical axis measures the share of the dollar value of total manufactured exports which fall in each of these intervals, based on 3-digit industry categories. Although one might expect that the result would be a normal distribution centered on the mean for each country, figure 1 shows that the actual distribution is much more diffuse and uneven. However, Japan is astoundingly different from other industrial countries. An extraordinarily high sharer of its exports--53 percent--falls in the intervals of $0 < IIT \leq 15$.⁸ The other countries have very few of their

8. For the IIT index number to equal 15, exports must be approximately 12 times larger than imports (or visa versa).

Figure 1

Manufactured exports--1985

Share of Exports in Each III Interval



exports in this low range: the United States has only 3 percent, France 0.5 percent, and West Germany 0.1 percent. South Korea is closer to the Japanese pattern (with 31 percent of its exports in this range), but its high concentration at this bottom end of the scale is offset by a large share of exports at the upper end of the scale as well. Conversely, very few of Japan's exports are in industries where the level of the intra-industry trade index is high. Only 5.3 percent of the value of Japan's exports are in industries where the IIT index is greater than 75, compared to 56 percent for the United States, 32 percent for West Germany, and 78 percent for France. Even South Korea has 31 percent of its exports in this range.

The same analysis can be extended to bilateral trade. In this case, some similarity exists between Japan and West Germany, with a heavy concentration of their exports to the United States at the lower end of the intra-industry index scale (because of the large share of their exports in a very unbalanced motor vehicle trade). But the reverse perspective, U.S. exports to other countries, shows something quite different. American exports to these countries are not concentrated in low IIT ranges. Thus trading behavior is strongly asymmetrical; while Japan enjoys (or enforces) limited import competition to its major exports, its trading partners do not benefit from a similar lack of competition to their own exports to Japan.

This analysis does not lend itself as easily to the visual format used above, and the basic results are summarized in table 6. This table shows average intra-industry levels in bilateral relationships calculated with three separate weights for individual industries: the share of each industry in total manufactured trade (that is, the normal calculation of average intra-industry trade), the share of each industry in total

Table 6

Average IIT Levels Weighted by Total Trade, Exports, and Imports
Bilateral Trade Between the United States and the Listed Countries

Average IIT Level Weighted by:				
United States Trade with:	Total Trade Shares	Export Shares (A)	Import Shares (B)	Ratio A/B
1985				
Japan	19	40	16	2.50
W. Germany	36	52	30	1.73
France	53	64	47	1.36
S. Korea	26	46	19	2.42
1970				
Japan	31	54	23	2.35
W. Germany	43	53	37	1.43
France	39	37	41	0.90
W. Korea	15	22	11	2.00

Source: Calculated from trade data from UN trade data tapes. Table 3-6

manufactured exports, and the share of each industry in total manufactured imports. The data in all cases are based on the United States as the reporting country: exports are U.S. exports to the other country and imports are U.S. imports from the other country. In all cases, the separate weightings by exports and imports give quite different results, but for trade with Japan, the disparity is startling. For example, in 1985, the average intra-industry trade index number weighted by U.S. exports to Japan was 40, whereas the average level for U.S. imports from Japan was only 16.

Thus, the United States accepts considerable imports from Japan in the same industries in which the United States exports to Japan (yielding an average IIT index number of 40), but is able to export very little to Japan in those industries in which Japan has heavy exports to the United States (yielding an IIT index number of 16). While there is also a disparity between the two weighting schemes for U.S. trade with France and West Germany, the differences in both 1970 and 1985 in the results from the various weights were much larger for trade with Japan than with other countries (shown in the final column in the table). The big distinction comes in the weighting by imports. In both 1970 and 1985, U.S. imports from West Germany and France were in industries with sizable levels of bilateral intra-industry trade (that is, in which the United States was also able to export similar products to these countries), in contrast to much lower levels for U.S. imports from Japan.

U.S. trade with Japan in both years most closely resembles that with South Korea, with much lower IIT index numbers generated by import share weighting than by export share weighting. However, even with South Korea, the ratio of the IIT numbers generated by the two weighting schemes (2.00 in 1970 and 2.42 in 1985) are not as extreme as in the case of Japan. The

implication of this comparison is that Japan is similar in its behavior to South Korea--a developing country pursuing vigorous industrial policies, including protection of home markets.

Explaining Japanese Patterns

A number of different approaches can be taken in looking for explanations for Japan's distinctive trade patterns. These might be loosely categorized as the direct approach (cataloguing and estimating the impact of known barriers), the business school approach (looking at distinctively successful aspects of Japanese competition), the unit labor cost approach (looking at Japan's cost position relative to other countries), the Chenery approach (looking at general economic factors explaining the overall level of manufactured imports), the comparative advantage approach (looking for conformity to predictions of comparative advantage models), the intra-industry trade approach (looking for economic factors explaining intra-industry trade results), and the behavioral approach (seeking behavioral evidence on the preferences of firms in business dealings).

Direct estimates. Several attempts have been made to estimate the impact of known trade barriers on Japanese imports. In 1984 the Department of Commerce estimated that removal of all known barriers would increase U.S. exports to Japan by \$16.9 billion (in 1982), based on the assumption that in the absence of barriers, American market shares in the Japanese market would equal American market shares in the world market. Bergsten and Cline re-estimated the Commerce data, dropping the assumption that market shares would necessarily be as high as in world markets, arriving at an estimate of

\$5-8 billion in additional U.S. sales to Japan.⁹ Their intent was to provide a crude estimate which is necessarily arbitrary. However, their rejection of a large increase in market share for cigarettes was clearly wrong; with the complete removal of barriers on cigarettes, imports (mostly from the United States) have expanded from one percent of the market to approximately 12 percent. Their estimate of expanded U.S. sales, therefore, may be too low.

Even that more modest estimate represented a 20 to 34 percent increase in U.S. exports to Japan--a substantial amount. The precise dollar impact of trade barriers is not particularly important beyond the general conclusion that a study which intended to show that Japan was relatively open found a potentially large expansion of imports in the absence of barriers.

The business school approach. Over the past two decades, Japanese manufacturing corporations have attracted increasing attention from specialists on business. These studies suggest that Japanese firms have made important technological breakthroughs which have simultaneously reduced the cost of manufacturing and increased product quality (measured in terms of defect rates). Management of the flow of parts through the factory; organization and tight control over inventories; engagement of blue-collar workers in production and quality control processes; cooperative interaction among engineers, marketing people, accountants, and factory managers in creating new products; new concepts in plant maintenance to reduce downtime and increase product quality; and aggressive reduction of the variety of

9. C. Fred Bergsten and William R. Cline, The United States-Japan Economic Problem (Washington: Institute for International Economics, 1984), pp. 109-116.

parts in products, have all been part of the revolution in Japanese firms.¹⁰ Now an increasing number of books is being published in English from some of the engineers who were intimately involved in these developments.¹¹ These studies do not directly address the question of low imports in Japan, but if they were to do so, the response would likely be to state that the advantage which the Japanese have in manufacturing over other industrial countries is so overwhelming that low imports is a natural outcome.

Even if the Japanese have carried out a revolution in manufacturing, however, questions remain. Why should this advantage be across all industries? Imports have also been limited in areas such as forest products where evidence suggests that the domestic industry is quite inefficient, and in other product areas where there is no compelling evidence that Japanese firms are better than their Western counterparts. Furthermore, even if the Japanese have had a cost advantage, the premise of intra-industry is product differentiation and specialization. Why should Japan and no other major industrial country be able to efficiently cover all conceivable variations of a product?

10. James C. Abegglen and George Stalk, Jr., Kaisha: The Japanese Corporation, How Marketing, Money and Manpower Strategy, Not Management Style, Make the Japanese World Pace-Setters (New York: Basic Books, Inc., 1985) is one of the best-known examples of the writing on this topic.

11. Two recent examples are Taiichi Ohno (a former production engineer at Toyota Motor Corporation), Workplace Management (Cambridge: Productivity Press, 1988); and Ryuji Fukuda (formerly of Meidensha), Managerial Engineering: Techniques for Improving Quality and Productivity in the Workplace (Cambridge: Productivity Press, 1984). This publisher, Productivity Press, has specialized, in fact, in translating and selling such books to a Western audience.

Kazuo Sato attempts to make such an argument, using the economic theory of economies of scope. His point is that the demand for differentiated products in Japan is effectively met by domestic firms who understand and cater to these demands more efficiently than do foreign producers.¹² This remains an intriguing idea, and may explain some of Japan's distinctiveness, but is still unsatisfying. Japan has nearby neighbors (South Korea, Taiwan, and Hong Kong) who have proved adept at meeting wide variations of demand in the United States for differentiated products; why should they be unable to do so for Japan?

The notion that Japan has acquired some technological advantage which other industrial nations do not possess is a further problem with this approach. Either the rest of the world has been sadly remiss in not following this development or else the advantages are so bound up in Japanese culture that they cannot be copied. The former explanation has some truth to it, since American and European firms appear to have become interested in "Japanese management" only in the 1980s. The latter explanation would be quite unsettling if true, but much of what the Japanese have done inside the factory does not appear to be so closely connected to Japanese culture. Indeed, the business press now carries stories of U.S. firms who appear to have duplicated most or all of the features of Japanese manufacturing innovation.¹³

12. Kazuo Sato "Increasing Returns and International Trade: The Case of Japan," unpublished paper, February 1986.

13. See, for example, Ronald Henkoff, "This Cat is Acting Like a Tiger," Fortune, December 19, 1988.

To the extent that the low level of imports is related to technological advantage, the interest of foreign firms in those practices, the outpouring of books, the plethora of consulting firms promoting these practices, and the wave of Japanese foreign direct investment embodying many of these techniques should lead to a Japan that is far less distinctive in the future.

Unit labor costs. A broader variant of the technological advantage approach leads to Don Daly's work with unit labor costs. According to his detailed calculations, a combination of exchange rate movements, rapid productivity growth, and low wage growth kept unit labor costs in Japanese manufacturing well below those in the United States, Canada, or European nations. He finds that costs were so much lower in Japan that the limited ability of foreign products to penetrate the market is not particularly surprising.¹⁴ The rapid movement in exchange rates since 1985 has more than offset Japan's advantage in unit labor costs, however, leading Daly to expect that manufactured imports will now rise as a share of GNP.

This approach is more satisfying than the business school "Japanese management" approach because it represents a combination of both micro and macroeconomic features. That is, the Japanese may have generated higher productivity growth through their revolution in manufacturing, but their international cost advantage can be fully offset through currency appreciation. In a sense, the question becomes one of explaining why the

14. Donald J. Daly, "Canada's International Competitiveness," in Alan Rugman, ed., International Business in Canada: Strategies for Management (Scarborough Ont.: Prentice-Hall Canada, 1989), p. 46. His observations on Japan are developed further in "Japanese Manufacturing Competitiveness: Implications for International Trade," University of Toronto-York University Joint Center for Asia Pacific Studies, Working Paper Series, No. 53.

yen remained weak relative to purchasing power parity calculations for much of the 1970s and 1980s. The answer to that question should lie mainly in macroeconomic variables rather than in microeconomic ones. Now that yen appreciation has offset the production cost advantage of the Japanese, imports should rise rapidly and Japan should appear to be less distinctive. Change is taking place, but as discussed below, not as rapidly as one would expect.

Chenery studies. Those economists attempting to explain the simple variation in the ratio of imports to GNP or manufacturing output generally come to the conclusion that Japan's behavior is unusual, even after adjustment is made for economic factors. These studies follow the lines initially used by Hollis Chenery, positing that the level of imports (relative to total domestic output) in a nation will vary with per capita income (as an indicator of economic development) and population (as a size indicator).¹⁵ Kazuo Sato, looking at manufactured imports relative to domestic manufactured output, uses population, the ratio of net imports of raw materials to GDP in manufacturing, plus dummy variables for EEC membership, non-EEC European nations, and Japan. This formulation assumes that larger nations (in terms of population) import relatively less (because they have larger, more developed domestic manufacturing sectors), while the need to import raw materials could affect the ability to absorb manufactured imports, and that the institution of the European Economic Community, as well as the existence of common land borders among European nations

15. Hollis B. Chenery, "Patterns of Industrial Growth," American Economic Review, Vol. 67, September 1960, pp. 624-654; and Hollis B. Chenery and M. Syrquin, Patterns of Development, 1950-1970 (London: Oxford University Press, 1975). Chenery was interested in a wide variety of aspects of the economic process and not trade per se.

(regardless of EEC membership), are relevant factors in explaining the level of manufactured imports. His regressions show a negative coefficient for the Japan dummy variable that is significantly different from zero, implying that Japan's import level is unusually low; the other variables are insufficient to completely account for the low level of imports.¹⁶

Bela Belassa and Marcus Noland reach similar conclusions with a variety of slightly different equations. Explaining manufactured imports as a ratio to GNP, they use GDP per capita, population, raw material imports as a share of total imports, transportation costs, plus European and Japan dummy variables as explanatory variables. They too, conclude that Japan's low level of imports cannot be adequately explained by the economic variables. Their conclusion stands even when alternative dependent and independent variables are used in the equations.¹⁷

A final study by Lucia Barbone runs similar regressions, using per capita GNP (plus GNP squared), population (plus the log of population squared), as well as an estimate of transportation costs and the usual dummy variables.¹⁸ He, too, finds that the dummy variable for Japan is negative and significantly different from zero.

16. Kazuo Sato, "Increasing Returns and International Trade: The Case of Japan," unpublished paper, February 1986.

17. Bela Belassa and Marcus Noland, Japan in the World Economy (Washington: Institute for International Economics, 1988), pp. 239-254. By including GDP per capita, their specification is somewhat closer to the original Chenery model than is Sato's specification.

18. Based on Takeuchi, "Does Japan Import Less Than It Should?" (Washington: The World Bank, Policy, Planning and Research Working Papers, July 1988, WPS 63). This paper provides an excellent overview of competing economic analyses of Japan's import behavior, although he reaches no strong conclusions.

The overwhelming conclusion of various specifications of the Chenery approach to explaining imports of manufactured goods is that Japan is unusual. Whereas the distinctiveness of European countries--with import levels higher than predicted by economic factors--stems from their participation in the relatively free trade area of the European Economic Community and from their common land borders, the distinctively low level of Japan's imports must stem from implicit protectionism.

Comparative advantage. Defenders of Japan's normality have relied on studies of conformity to comparative advantage theory. Put simply, this theory states that among the array of products which a nation is capable of producing at a given moment in time, it exports those in which it is relatively more efficient compared to other nations. Conversely, it imports those products in which it is relatively less efficient. As currently developed, the theory goes on to state that nations should have a comparative advantage in exporting products which use intensely the factor(s) of production which they possess in relative abundance. This is a theory with great intuitive appeal; nations with abundant labor but not much capital stock export labor-intensive products, while nations with limited labor but abundant capital export capital-intensive goods.¹⁹

According to this theory, a nation could be more efficient at producing all products than other nations and still benefit from trade--the key word

19. All introductory international economics texts explain comparative advantage in its modern form. For one explanation, see Charles P. Kindleberger and Peter Lindert, International Economics, Sixth Edition (Homewood, IL: Richard D. Irwin, Inc., 1978), pp. 15-17, which provides both a history of comparative advantage from its origin in the writings of David Ricardo. In its modern form, the theory of comparative advantage is often known as the Hechsler-Ohlin theory or the Hechsler-Ohlin-Samuelson (HOS) theory.

is comparative. A nation more efficient at producing all products than other nations benefits by exporting those in which its lead relative to other nations is the least. For raw materials, on the other hand, absolute advantage may determine much of world trade patterns; nations export or import these materials depending on whether or not they have a natural endowment of them. Thus, Japan imports oil because it has an absolute disadvantage in oil production (it has virtually no oil reserves), but it imports labor-intensive cotton textiles because it has a comparative disadvantage in such products.

If a nation is unusually protectionist, or engages in unusually predatory policies to push exports as part of an overall strategy of industrial policy, then the resulting trade pattern ought to be different from purely market-determined outcomes. If one accepts static comparative advantage as the principal theory to explain the international trade result that should follow from smoothly functioning competitive markets, then comparative advantage becomes the norm against which actual trade results should be measured. Thus, if protectionism or other aspects of industrial policy in Japan has distorted the allocation of resources toward certain industries and away from other, then the actual pattern of exports and imports may be different from what a comparative advantage model would predict.

The main proponent of explaining Japan's trade behavior through comparative advantage theory has been Gary Saxonhouse, who has explored this concept through a number of writings.²⁰ In this model, net exports (exports

20. The first articulation of the Saxonhouse position was in "Evolving Comparative Advantage and Japan's Imports of Manufacturers," in Koza Yamamura, ed., Policy and Trade Issues of the Japanese Economy:

minus imports) in individual industries are hypothesized to be the result of capital, labor, raw material, and land endowments in each of the countries included in the sample, as well as distance from markets. The production relationship for each industry is assumed to be a standard Cobb-Douglas production function (in which no economies of scale exist). Using this model, Saxonhouse finds that as a highly industrialized, high-wage nation with a high capital/labor ratio, Japan has a preponderance of its net exports in those industries which use capital intensively and net imports in labor-intensive industries, just as one would anticipate from comparative advantage theory. By estimating the model across a sample of countries and over time without the Japanese data, and then comparing the actual results for Japan to the predictions of the estimated equations when applied to Japan's values for capital, labor, and other factors, he finds only a small list of industries in which a dummy variable for Japan is significant. Other nations in the sample also have some industries with significant country dummy variables, so that Japan does not appear peculiar at all.

This approach to analyzing Japan's trade structure has been quite controversial and has sparked a vigorous debate. The original model was criticized for its use of net exports, a simplistic distance measure as one of the explanatory variables, and for the unrealistic assumption of no

Continued from previous page

American and Japanese Perspectives (Seattle: University of Washington Press, 1982). More recent versions include "Japan's Intractable Trade Surpluses In a New Era," The World Economy, September 1986, pp. 239-258; and "Comparative Advantage, Structural Adaption, and Japanese Performance," in Inoguchi and Okimoto, eds., The Political Economy of Japan: Vol. 2 The Changing International Context.

economies of scale. Use of net exports is especially troubling since this measure does not directly address the question of Japan's import structure. Widely differing patterns of imports are compatible with net trade outcomes that conform to comparative advantage.

Saxonhouse has responded to these criticisms with a new model which measures imports of particular products (as a share of GNP), rather than net trade, and also drops distance from markets as an explanatory variable. His basic approach remains the same--estimation of equations for each of 62 industries over a cross-section of nations, in which capital and labor stocks in each country, as well as education levels, oil and coal reserves, and land area are the explanatory variables. Japan is excluded in estimating the equations and then predictions for Japan from the equations are compared to actual results. His conclusions for Japan remain the same; in only eight of the 62 industries does Japan's import level differ significantly from the prediction, and for all industries together the hypothesis that the actual import levels differ from the prediction is rejected.²¹

These new results are interesting and do address some of the criticisms of Saxonhouse's earlier work. However, this new research is unlikely to end the controversy. First, the list of product categories includes a large number of raw materials concerning which no one argues that Japan imports too little because trade is dictated by absolute (dis)advantage. Second, among the manufactured products, the greatest detail in the Saxonhouse model

21. Gary R. Saxonhouse, "Differentiated Products, Economies of Scale and Access to the Japanese Market," Research Seminar in International Economics, Department of Economics, The University of Michigan, Seminar Discussion Paper No. 228, October 1988.

is provided on chemicals, one of the only industries in which Japan's behavior is less distinctive from that of other nations. Third, the countries used to estimate the equations include a number that are distinctively protectionist, such as Australia, India, Indonesia, and Norway. Indeed, many of the countries are developing nations which are likely to have protectionist policies and somewhat peculiar import patterns generated by incomplete manufacturing sectors. At least 17 countries out of the 41 fall in this category, and a looser definition of developing country could produce more. Fourth, this research gives us a picture at one moment in time. Overall, Japan's manufactured imports as a share of GNP have not risen over time while those of other countries have. If Japan's import patterns were normal in 1979, then, does this imply that Japan had unusually high imports in earlier years? Finally, one wonders why this disaggregated work on imports yields such different results from the Chenery-type models discussed above that analyze overall manufactured imports.

Intra-industry trade models. Little work has been done on generalized tests of Japan's conformity to intra-industry trade models. However, a number of results have emerged from the intra-industry trade literature including that the level of such trade rises with the degree of economic development, rises with economic size, and rises as import barriers fall. None of these characterizations fits Japan; as Japan moved from developing nation status in the 1960s to advanced industrial status in the 1980s with an economy which grew rapidly and is now the second largest in the world,

intra-industry trade theorists would predict that the degree of such trade

in Japan would rise substantially.²² But, as discussed above, the degree of intra-industry trade for Japan in the 1980s was no higher than in 1970 or earlier.

One study working on a variant of intra-industry trade has been attempted. Robert Lawrence uses a model developed by Helpman-Krugman, which hypothesizes that the share of imports of a particular product relative to total domestic consumption of that product will be a function of the share of that nation's production of the product relative to total consumption of it in all other countries.²³ A variant of this model relates import shares in an industry to that nation's exports as a share of world consumption. Testing both versions of this hypothesis, Lawrence finds that Japan remains distinctive just as the Chenery-type models on overall manufactured imports find. The assumptions in the Lawrence model are quite restrictive, but it has added another way of looking at Japan's distinctive import pattern.

Behavioral evidence. New evidence based on direct evidence of business practices by Japanese firms supports the contention of a bias away from foreign products. Looking at the purchases of capital equipment and industrial supplies in Japanese, American, and European manufacturing

22. Studies of the characteristics of intra-trade across countries and what determines the differences include the seminal work by Herbert G. Grubel and P. J. Lloyd, Intra-Industry Trade: The Theory and Measurement of International Trade in Differentiated Products (New York: John Wiley and Sons, 1975); plus Rudolf Loertscher and Frank Woltner, "Determinants of Intra-Industry Trade: Among Countries and Across Industries," Weltmirtsch. Arch., 1980, vol. 116, no. 2; and L Gavelin and L. Lundber, "Determinants of Intra-Industry Trade: Testing Some Hypotheses on Swedish Data," in P. K. Tharakan, ed., Intra-Industry Trade: Empirical and Methodological Aspects (New York: North-Holland, 1983).

23. Robert Z. Lawrence, "Imports in Japan: Closed Markets or Minds?" Brookings Papers on Economic Activity, 1987, No. 2, pp. 517-554.

subsidiaries operating in Australia, Mordechai Kreinin finds that Japanese subsidiaries exhibit a strong preference for Japanese products.²⁴ He finds no such preference for products of their own (or any other) nationality at American or European subsidiaries. This disparity is visible in both the actual purchasing patterns and the criteria listed by managers of these subsidiaries for deciding which products to buy. This evidence implies that even when stripped of a protective home government, Japanese firms still demonstrate a national buying preference which is distinctive from firms of other countries.

Evaluation

The multiplicity of studies reviewed above presents a confusing array of opposing results. Some of the evidence in Japan's favor cannot be ignored; low imports are not entirely the result of explicit or implicit protectionism. Some of the evidence of important technological advances in the manufacturing process in Japanese firms as well as the broader evidence offered by unit labor cost comparisons cannot be denied and generate some support for why Japan might have a level of manufactured imports that is lower than in other nations. The comparative advantage studies of Gary Saxonhouse, on the other hand, are rather unsatisfying; the use of net exports, distance variables, and now an odd country list and peculiar industrial indexes leave plenty of room for criticism.

An overwhelming cost advantage from a revolution in manufacturing processes combined with the macroeconomic variables (exchange rates and wage

24. Mordechai E. Kreinin, "How Closed is Japan's Market," World Economy, vol. 7, No. 4, December 1988, pp. 529-541.

settlements) could explain part of the Chenery-type results. Those models ignore macroeconomic developments.

Nevertheless, it remains difficult to accept an overwhelming Japanese cost advantage as the only explanation of low manufactured imports. The lack of any significant change in import penetration over a rather prolonged period of time as formal trade barriers fell remains difficult to explain away merely as the result of cost advantages. Why should Japan have almost totally unresponsive to the reduction in formal import barriers, in stark contrast to the experience of other industrial nations? The notion that the Japanese would possess an advantage across virtually all industries is also difficult to accept. Other nations do not have manufacturing sectors which are uniformly efficient across all industries, and there is no reason to believe that Japan is unique in this regard. Furthermore, the notion of intra-industry trade does not rest entirely on cost advantage; in a world of product differentiation there is room for high-cost manufacturers with distinctive designs to remain in the market. Japanese manufacturers have no particular dominance of all possible variations in product design in any industry, but Japan does stand out as the country with an extremely low level of intra-industry trade.

Finally, the anecdotal evidence of barriers to entry in Japan is so pervasive that it simply cannot be dismissed as the objections of businessmen who do not "understand" Japan. A number of large multinational corporations operating in markets around the world find problems in entering Japan that they do not encounter elsewhere. This anecdotal evidence also fits what we know about Japanese society and the historical pattern of its economic development. That development process has been one of strong economic nationalism fueled by a sense of uniqueness and a strong insularity

from developments in the rest of the world. One can argue that given a development process of this sort, domestic firms were able to establish dominance over the domestic market--through strong personal relationships with upstream or downstream producers and heavy control over distribution. That dominance would prove to be quite durable even if formal barriers to the market were reduced because of the non-economic values involved in Japanese social relationships.²⁵

Where does this leave us? Japan may not be quite so distinctive as the raw data suggest, but it does appear to be an implicitly protectionist nation. A key test for the explanation of Japan's low level of manufactured imports will come from the nation's response to the rapid appreciation of the yen since 1985, which ought to bring a rapid increase in imports.

Recent Changes

Manufactured imports in Japan have been rising rapidly in dollar terms since 1985--up at an average annual rate of 33 percent between 1985 and 1988 (table 7). This rapid increase has been interpreted by the Japanese government as implying that major structural adjustment is taking place and that foreign criticism of import barriers is unjustified. However, the data should be interpreted cautiously.

The development most widely cited by Japanese observers is the increasing share of manufacturers in total imports. Japan used to be criticized for its low ratio of manufactured to total imports, although Japanese government officials used to justify this outcome on the grounds of

25. This explanation is pursued further below and in my forthcoming book, Japan's Unequal Trade.

Table 7
Japan's Trade in Manufactured Goods
1980 to 1988

YEAR	Denominated in dollars (millions of dollars)			Denominated in yen (billions of yen)			Imports as a share of: GDP in	
	Exports	Imports	Balance	Exports	Imports	Balance	GDP manufact.	
1980	124,651	30,566	94,085	28,213	6,961	21,252	2.9%	11.4%
1981	146,875	31,271	115,604	32,337	6,880	25,457	2.7%	10.6%
1982	134,256	30,251	104,005	33,291	7,506	25,785	2.8%	11.1%
1983	142,247	31,943	110,304	33,798	7,591	26,207	2.7%	10.8%
1984	165,097	37,175	127,922	39,135	8,807	30,328	3.0%	11.5%
1985	170,673	36,414	134,259	40,769	8,744	32,025	2.8%	10.8%
1986	203,535	44,038	159,497	34,341	7,427	26,914	2.2%	9.0%
1987	222,950	60,560	162,390	32,403	8,794	23,609	2.5%	10.4%
1988	257,116	85,598	171,518	32,940	10,072	22,868	2.7%	

Notes: Manufactured goods are SITC categories 5-8. For 19887, GNP rather than GDP is the denominator for calculating the share of exports in the economy.

Source: The Summary Report: Trade of Japan (Tokyo: Japan Tariff Association), December 1980, pp. 90-131, and similar pages in the December issue of each year through 1988; GDP data are from Economic Planning Agency, Annual Report on National Accounts (Tokyo: Ministry of Finance Printing Office, 1989), pp. ; GNP for 1988 is from Bank of Japan, Economic Statistics Monthly, May 1988, p. 178. GDP in manufacturing is from Economic Planning Agency, Annual Report on National Accounts, 1988 edition, pp. 178-189.

high import dependency on raw materials. Since 1985 this ratio has risen rapidly, reaching 43 percent in 1988 (and likely to exceed 50 percent in 1989). This share was no longer conspicuously below that of other nations. This result though, is only partly due to rising manufactured imports, with the dramatic drop in raw material prices providing an equally important explanation.

Furthermore, the rising dollar value of manufactured imports does not necessarily translate into larger yen amounts because the dollar has depreciated against the yen. In fact, the yen value of manufactured imports actually dropped in 1986, and did not exceed the 1985 value until 1988. Because the yen value has not risen significantly, manufactured imports as a share of GDP have actually fallen--from 3.0 percent in 1985 to 2.7 percent in 1988 (although this level represents a recovery from a temporary low of only 2.2 percent in 1986. How can a structural adjustment in which imports play a more important role be taking place if imports actually represent less of economic activity in Japan now than earlier in the 1980s?

The other indicator worth looking at is intra-industry trade. There are several problems here, including a modification of the industrial classification scheme used by the Japanese government in 1988. However, calculation of the average IIT index number for manufactured products at a 4-digit level using yen-denominated Japanese data yields a 27 percent increase in the index, from 19.5 in 1985 to 24.8 in 1988. This is an encouraging rise, but not particularly large, especially given the substantial reduction in the yen-denominated manufactured good trade surplus that occurred over the same time.

Some change has also occurred in the skewed pattern discussed earlier with the extremely heavy concentration of Japan's exports in very low IIT

intervals (figure 2). The share of exports in the IIT interval (0,5], for example, dropped from 38 percent to 15 percent, while that in the somewhat higher interval of (10, 15] rose from 9 percent to 25 percent. The share of exports in the interval (20,35] also rose somewhat. These are encouraging developments, to the extent that they represent a real phenomenon and are not just the result of the changing industrial classification in 1988.²⁶ However, no improvement has taken place in IIT levels of 40 or above, and Japan's extremely low share of exports in that range was part of the major contrast with other countries.

Table 8 shows the IIT index for the 12 largest export categories under the old CCCN classification in 1987 and their corresponding categories under the new HS classification of 1988 (consolidating those that had been further subdivided in the change). These data suggest the rise in IIT levels for the four largest exports is real, but is insignificant or negative for the rest of the list.

A growing body of political science and sociology writing emphasizes the inability of Japan to respond quickly to new international or domestic conditions or to endorse new policy directions.²⁷ The essence of these studies is that groups and group dynamics are the key variable in understanding Japanese behavior. Observers have long noted that Japanese

26. ~~Data for 1987 which are based on the same classification as the 1985 data show basically the same shifts displayed in figure 2, although the improvement is not quite as large.~~

27. Among these works are the recent popular book by Karel von Wolferen, The Enigma of Japanese Power (New York: Alfred A. Knopf, 1989); Kent E. Calder, Crisis and Compensation: Public Policy and Political Stability in Japan, 1949-1986 (Princeton: Princeton University Press, 1988); and Thomas Rohlen, "Order in Japanese Society: Attachment, Authority, and Routine," Journal of Japanese Studies, Vol. 15, No. 1, Winter 1989.

Figure 2

Japan's Intra-Industry Trade, 1985-1988

(share of manufactured exports in each IIT interval)

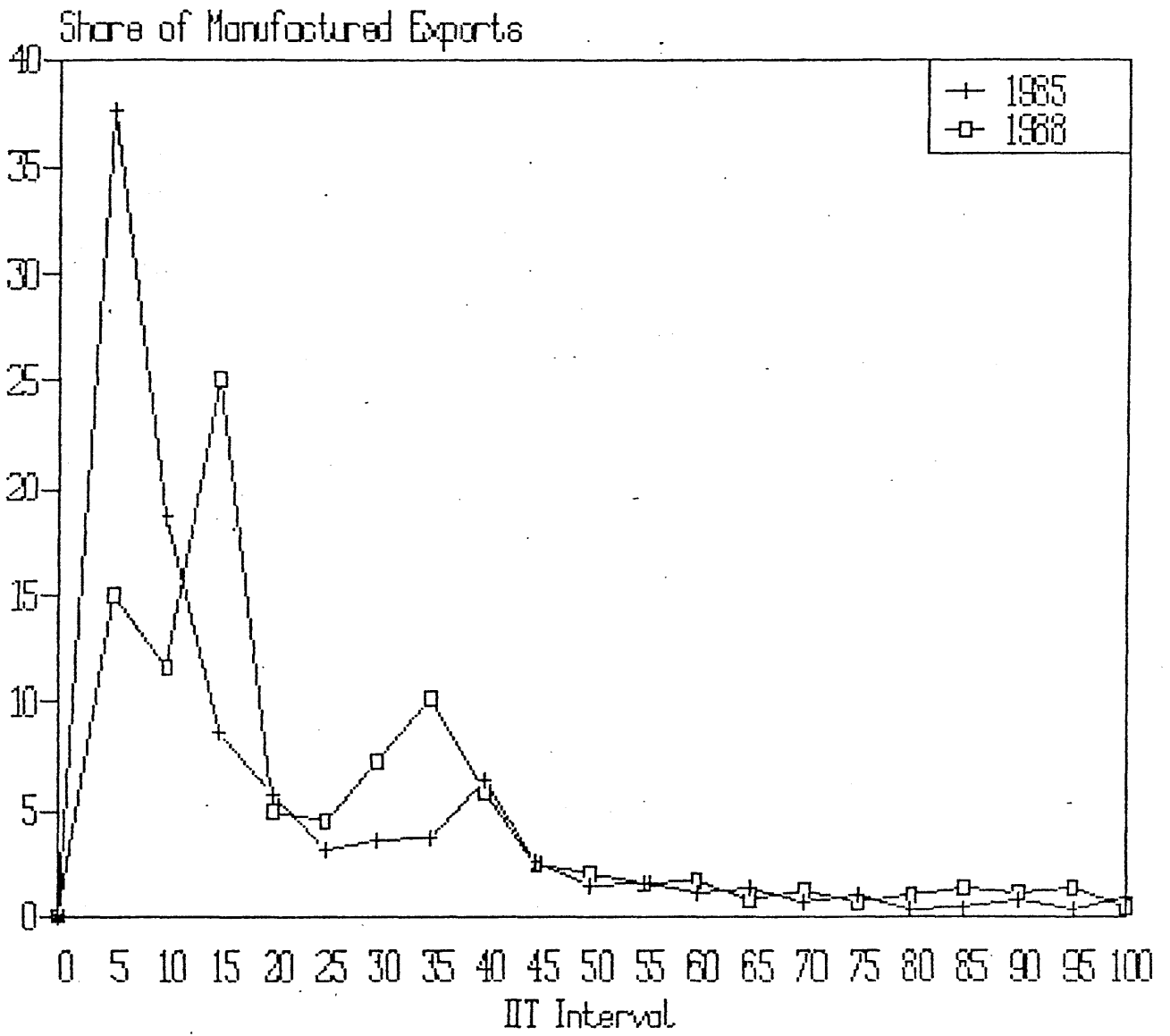


Table 8

Japan's Level of Intra-Industry Trade for Major Export Products
1985-1988

CCCN	HS	Description	---1985---		---1988---		Change In IIT Index Numbers
			Exports	IIT	Exports	IIT	
8702	8703,8704	motor vehicles	66,463	8.9	66,085	12.2	3.3
8706	8708	auto parts	1,556	6.2	1,168	8.9	2.7
8515	8525-28	TV, radio	1,527	10.7	1,241	12.5	1.8
8453	8471	computers	1,360	25.8	1,461	30.5	4.7
9211	8521	TV, sound recorders	1,249	2.1	796	2.2	0.1
8521	8540-42	tubes and semiconductors	1,206	31.1	1,579	31.3	0.2
8406	8407-08	internal combustion engines	699	7.2	528	4.2	-3.0
9010	9009	copiers	601	3.1	529	2.3	-0.8
8901	8901	ships	596	10.1	461	6.4	-3.7
8455	8473	computer parts	507	34.2	702	32.2	-2.0
8513	8517	telephones, fax, etc.	485	13.5	643	13.5	0.0
7318	7304	iron and steel tubes and pipe	371	7.5	359	1.1	-6.4

Note: The column HS reports the harmonized standard (HS) classification numbers which correspond to the CCCN classification categories used by Japan in 1985. In most cases, there is a one-to-one correspondance, but for some industries, the new HS classification has subdivided industries into more than one category.

Source: Japan Tariff Association, Japan Exports and Imports: Commodity by Country, December 1985, December 1988.

society is far more group-oriented than American society; if human behavior could be arranged on a continuum from complete individuality to complete group dominance, neither of our societies would be at the extremes, but we would be far apart along that spectrum. Although this is a commonplace observation about Japanese society, academics have more recently begun exploring the implications of a group-oriented society for economic policy making and political behavior.

In such systems, disagreements or outside pressures lead to a dynamic which involves partial accommodation or compensation to reduce the threat posed. Sharp discontinuities in policy or behavior are rare, although change does take place. Overarching principles or ethics are not the primary determinant of behavior or policy formation; group dynamics dominate the process. Those in power may alter their behavior in the face of new conditions or challenges, but the accommodation will be slow and partial, especially if the challenges involve the government as an arbiter. As Thomas Rohlen notes: "it is in the art of compromise, consensus building, and lateral linkage that the government plays an indispensable role. The key term is always balance."²⁸ Those in opposition will moderate or drop their opposition in the face of compensation or accommodation rather than continuing to press their own position. In determining the outcome, the hierarchy among or within groups is an important element.²⁹

28. Thomas Rohlen, "Order in Japanese Society," p. 32. The notion of the producing process producing stable balances of competing interests was a principal theme of John C. Campbell, Contemporary Japanese Budget Politics (Berkeley: University of California Press, 1977).

29. Hierarchical structures in Japanese society are the dominant feature in Chie Nakane's seminal book Japanese Society (). Thomas Rohlen, "Order in Japanese Society," argues that she overemphasizes hierarchy and
Continued on next page

These characteristics of Japanese society have an important bearing on economic behavior. The same principles which govern social groups are involved in interaction within and among firms, and between firms and government. Rodney Clark, for example, wrote of a "society of industry" in Japan, within which social concepts such as groups and hierarchy are very important determinants of economic behavior.³⁰ Yasusuke Murakami has also explicitly coupled the social concepts of group behavior with Japanese economic behavior.³¹ The visible behavior of Japanese businessmen endorses the concept of different social behavior patterns shaping economic actions: the intense training to build corporate loyalty, the openness of the physical work environment with desks crowded in large open rooms, endless meetings, the deference corporations show toward government officials (and the frequency with which they consult with government officials before making decisions), and the extraordinary amount of time spend maintaining human contact with buyers and suppliers. These aspects of corporate behavior all attest to the different context in which corporate decisions

Continued from previous page

underemphasizes leaderless groups. Nevertheless, within the group context, hierarchy is generally a useful guide in predicting outcomes.

30. Rodney Clark, The Japanese Company (New Haven: Yale University Press, 1979), p. 50.

31. Yasusuke Murakami, "The Japanese Model of Political Economy," in Kozo Yamamura and Yasukichi Yasuba, eds., The Political Economy of Japan: Volume 1 The Domestic Transformation (Stanford: Stanford University Press, 1987). Murakami's approach, in which he uses the Japanese words ie (household) and mura (village) for group concepts (giving a sense of Japanese uniqueness to his views) has been controversial. See the symposium on ie society in The Journal of Japanese Studies, Vol. 11, No. 1, Winter 1985, and especially Thomas Rohlen, "When Evolution Isn't Progressive."

are made in Japan, and this context implies that decisions are made which are not motivated purely by a calculation of economic gain or loss. These non-economic motivations of behavior provide a major reason to doubt that Japan's low level of manufactured imports are a result of economic factors alone.

Japanese behavior patterns also provide good reason to be discouraged about the speed or extent to which Japanese trade behavior will change even under the impact of the stronger yen. The close social bonds between established buyers and sellers, the strong sense of hierarchy (in which foreign products and firms are relegated to low priorities), explicit or implicit cartels (often with informal government approval or encouragement), and a sense that at the broadest level Japan is a "group" to be protected from foreign products, are daunting obstacles to be overcome.

Economic behavior though, is somewhat different from other forms of social interaction. Corporations may not be concerned with maximizing their profits, but the fact remains that they must earn some profit or ultimately go out of existence. That hard reality means that the priority they attach to their existing social bonds with other economic and political actors must be constrained somewhat; economic survival of the primary group (the corporation) must be more important than conforming to the expectations for behavior in wider groups. If existing relationships are not economically viable--if the price of domestic products is much higher than imports, for example--then firms can and must react at some point.

Economists, on the other hand, assume far too much rationality on the part of Japanese individuals and corporations. Economic necessity will bring changes in behavior, but these responses are always modified and limited by norms of Japanese social behavior. To the extent possible,

corporations will make decisions within the context of the groups within they operate--the web of their supplier/buyer network, other firms in their industry, and the industry/government connection. This context and the group dynamic which it implies means that economic rationality will be modified and moderated as it is bent to conform to social reality.

How does all of this apply to imports? Yen appreciation will lead to more imports, but pressure from import-competing manufacturers and established distributors of domestic products must be listened to, accommodated, and compensated. These social necessities mean that the inroads of imports in the Japanese economy will be blunted. Rising imports are certainly possible--as the numbers discussed above demonstrate--but the rise may have a limit considerably below what would occur under similar circumstances in the United States or other Western societies with a less group-oriented social system.