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THE OTHER SIDE OF THE TRADE IMBALANCE: WHAT WILL JAPAN DO?

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The Other Side of the Trade Imbalance: What Will Japan Do?

ABSTRACT

With the mounting U.S. trade deficit, much attention has centered on the role of U.S. macroeconomic policy and economic structure as contributing factors.

This paper contends that the economic structure and policies of Japan have also done much to contribute to the trade imbalance. Institutional features of Japan's macroeconomy and industrial structure which have promoted her large trade surplus are discussed and industrial policies evaluated.

Given the nature and magnitude of the role played by Japan in causing the bilateral trade imbalance, the next question the paper addresses is how Japan might best act to alleviate this imbalance. This section of the paper examines fiscal, monetary and other policy initiatives Japan might take to reduce the trade imbalance. The evidence stresses the desirability of expanding Japan's services industries, particularly leisure-related services.

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I. Introduction

In recent months there has been considerable debate over how to cut the U.S. trade deficit. Perhaps because a deficit is viewed as something "bad" and a surplus as something "good", much attention has been focused on what the U.S. might do to improve the situation. There is some sense to this. After all, if a surplus really is desirable, countries like Japan which enjoy a substantial surplus can hardly be expected to take the initiative in altering the status quo.

Yet, it is dangerous to focus on potential U.S. actions while relegating Japan's response to the background. The trade imbalance is in fact a problem for Japan as well as the U.S. Our countries have grown so economically interdependent that trade problems in the U.S. can have disastrous consequences for Japan and vice-versa.

It is imperative to understand the Japanese perspective on how the trade imbalance emerged, and Japan's likely role in resolving this imbalance. These are the issues we wish to address here. More specifically, we examine and discuss objective features of Japan's economy and economic policies which have contributed to the trade imbalance, and evaluate Japan's subjective assessment of its responsibility for this problem. We then discuss what Japan's likely response to the trade imbalance issue will be, and the implications for Japan-U.S. trade imbalances and trade friction.

II. Japan's Role in the Trade Imbalance

Japan's role in the current trade imbalance is the result of several economic factors buttressed by an eclectic and sometimes questionable economic philosophy. Before discussing Japan's rationale for its role in the trade imbalance, however, we examine those features of Japan's economy and the economic policies which have contributed to this problem.

Macroeconomic Structure

Japan's economy differs in important respects from that of the U.S. Factors such as Japan's high savings rate and weak domestic demand have served to promote a Japanese trade surplus vis-a-vis the U.S. The high rate of saving and weak domestic demand reflect in part the high cost of housing and education relative to income.[1]

To the extent that Japan's pattern of saving and domestic demand reflect structural factors like housing and education costs, they are likely to persist unless the Japanese government takes active steps to induce structural change. However, to the extent that they reflect cultural factors,[2] expansionary government initiatives may be less effective and less appreciated than they would be in a more consumption-oriented society.

One the surface, Japan's tax structure does not appear to be responsible for its sluggish personal consumption. As Table 1 indicates, taxes on individual income account for a smaller percentage of tax receipts in Japan (36.1%) than in the U.S. (48.3%). This is rather surprising in view of the fact that the U.S. is by far the more consumption-oriented society. However, the damaging effect of Japan's tax structure on personal consumption has

come from what has not been taxed rather than from what has been taxed. In particular, the tax exempt status of private savings has raised saving relative to personal consumption.

Table 1
Percent Distribution of Tax Receipts by Type of Tax - Japan and the U.S.-1983.

	Tax			
	Individual*	Corporations**	Goods and Services	Other
Japan	36.1	34.8	13.2	15.9
U.S.	48.3	22.3	15.6	13.8

*Includes individual income taxes and employee contributions for social security.
**Includes corporate income tax and employers' contributions for social security.
Note: Taxes on goods and services are listed separately because both corporations and individuals pay these taxes. At any rate, the striking difference in tax incidence between Japan and the U.S. is found in the income and social security taxes.
Source: Organization for Economic Cooperation and Development, Paris, France, Revenue Statistics of OECD Member Countries, annual.

Other factors are also important. Paltry increases in real earnings have kept consumption in check. As Table 2 indicates, real cash earnings in Japan rarely increased by more than two percent per annum over 1979-1985, in spite of annual productivity gains which rarely increased by less than two percent (and which usually increased by substantially more). Other structural features, such as Japan's longer working hours, have also served to strengthen savings and dampen demand.

Table 2
Wages, Productivity and Unit Labour Costs
Percentage change from a year earlier

	Wage increases negotiated in Spring rounds	Regular wages[1] (A)	Overtime (B)	Contract[2] (C) = (A) + (B)	Bonus payments, etc.[2] (D)	Total cash earnings[2] (C) + (D)	Total[2,3] cash earnings (real)	Compensation per employee	Productivity Total[4]	Productivity Mnfg[5]	Unit labour costs Total[6]	Unit labour costs Mnfg[7]	Memorandum: GNP deflator
Monthly average per worker[1]		209 445 (67.5)	21 149 (6.8)	230 594 (74.3)	79 869 (25.7)	310 663 (100)							
1979	5.8	5.3	12.1	5.8	6.4	6.0	(2.3)	6.0	3.9	7.7	2.7	-0.7	2.6
1980	6.7	5.6	0.9	5.7	8.2	6.3	(-1.6)	6.3	3.7	3.6	3.9	3.7	2.4
1981	7.7	5.3	4.1	5.2	5.6	5.3	(0.4)	6.4	3.2	0.0	4.0	5.6	2.7
1982	7.0	5.3	3.6	5.1	2.5	4.5	(1.7)	4.4	2.2	-0.5	2.7	5.4	1.7
1983	4.4	3.9	5.0	4.0	2.0	3.5	(1.6)	3.0	1.3	3.6	2.1	0.2	0.5
1984	4.5	3.6	9.6	4.2	5.1	4.5	(2.2)	4.1	5.1	9.6	-0.3	-4.5	0.6
1985	5.0	-	-	-	-	-	-	-	-	-	-	-	-

1. For 1984, in yen; the figures in parenthese are shares in total cash earnings.
2. Established with over 30 regular employees.
3. Deflated by the consumer price index.
4. GNP at constant prices divided by total employment
5. Industrial production divided by the number of regular employees.
6. Compensation of employees divided by GNP at constant prices.
7. Total cash earnings divided by manufacturing productivity

Sources: Ministry of Labour, Monthly Labour Survey; MITI, Industrial Statistics Monthly; EPA, Annual Report on National Accounts

Nor consumption increases driven by economic growth a likely outcome. Investment growth has been trending downward in Japan for years (see Figure 1). This pattern is to be expected for a maturing economy. The alarming fact, however, is that in recent years, investment and saving have diverged. Figure 2 indicates that, from about 1983 onward, saving rose sharply as a percent of GNP, while investment leveled off. This divergence, in turn, has induced a capital outflow, resulting in a weaker yen and a larger trade surplus for Japan.

Figure 1
Japan: Real Investment and Output Growth
percent per annum

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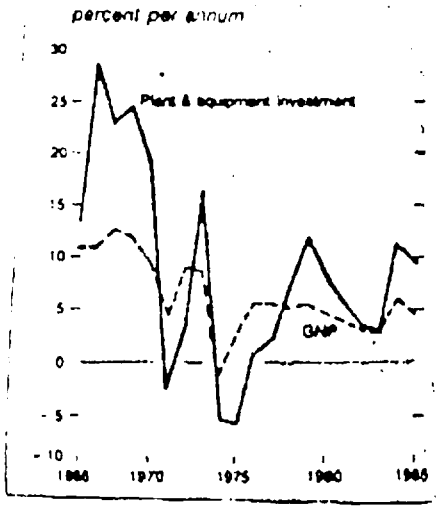
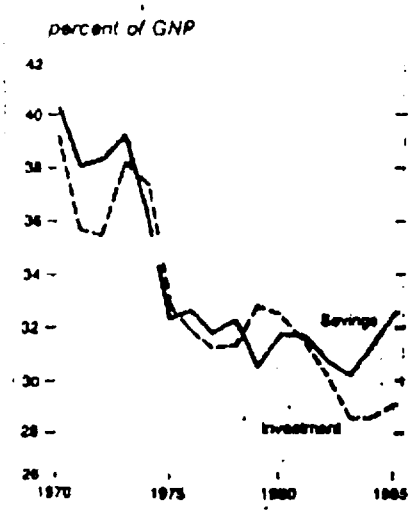


Source: World Financial Markets, New York: Morgan Guaranty Trust Co., November, 1985.

Figure 2
Japan: Domestic Savings and Investment
percent GNP



Source: World Financial Markets, New York: Morgan Guaranty Trust Co., November, 1985.

Private consumption has become an increasingly important component of domestic demand in Japan over the past 15 years. For instance, while business investment accounted for 21% of domestic demand in 1970, it now accounts for only 16%[3]. While public sector spending increased substantially after the first oil shock, its share of domestic demand today is roughly the same as it was in 1970, around 17%. For this reason, sluggish private consumption is of particular concern today.

Macroeconomic Policy

Japan's macroeconomic policies have tended to reinforce the effects of its macroeconomic structure on the trade imbalance. Where expansionary fiscal policy might have significantly increased domestic demand, redressing the need to expand exports, Japan has instead pursued a course of fiscal restraint over the past several years. Given current Japanese sentiment, it may be difficult to implement expansionary fiscal policy. In the business community, fiscal expansion is viewed as an avenue of last resort. For example, Eishiro Saito, Chairman of the Japan Federation of Economic Organizations (Keidanren), has emphasized that government should explore other possibilities before resorting to expansionary fiscal policy via a construction bond issue:

> Some people argue that construction bonds to finance social infrastructure building are different from deficit-covering bonds, but in reality they share the same effect of leaving debts to future generations.[4]

Monetary growth has been moderate for the past decade or so. This pattern may have come in response to the unprecedented inflation Japan experienced in the early 1970s following the Bank of Japan's failure to control the money supply during that period.

Recently, the money supply (M2 + CDs) has crept upward, growing at a rate of about 9 percent from late 1985 to mid 1986. However, much of this growth reflects, not government expansionary efforts, but weak investment. According to Bank of Japan analysts,

> Such high money supply growth is attributable to increased corporate preference for putting idle funds into money management instead of investment in plant.5

Given Japan's low interest rates, it is unlikely that monetary policy could play a strong expansionary role. Larger increases in the money supply would primarily serve to increase inflation.

Industrial Structure

Over the past ten years, Japan has made strong efforts to increase production in its manufacturing sector, which constitutes the major portion of its exports. Evidence of this restructuring effort is striking. Table 3 indicates that total manufacturing output has increased at an average annual rate of 5.5 percent in Japan over 1975-1984, well in excess of the U.S. (4.0 percent), and much further ahead of other major industrial countries. These manufacturing increases have been concentrated in the more advanced industries, such as electric machinery and processing industries, rather than in heavy industries.

Table 3

International comparisons of structural change in manufacturing
Annual average percentage changes, 1975-1984

	Japan	USA	Canada	France	Germany	Italy	United Kingdom	Belgium	Netherlands	Sweden
A. Industrial production										
Total manufacturing	3.5	4.0	2.0	1.4	1.7	2.2	-0.5	2.1	2.3	0.8
Electrical machinery	16.4	7.2	1.6	3.5	5.1	3.7	1.5	0.3	5.4	3.4
Other processing industries										
General machinery	5.8	4.2	3.0	0.4	2.1	2.1	-1.3	1.1	-0.1	1.7
Transportation equipment	3.4	3.8	2.6	3.4	2.9	3.8	-2.9	4.9	-2.2	1.0
Metal products	3.3	2.5	-0.6	1.8	0.7	-1.5	-0.5	-0.1	0.6	0.1
Heavy industries										
Chemicals	6.0	5.2	3.4	2.3	2.4	2.6	1.8	3.9	4.2	2.7
Basic metals	2.8	3.4	-0.7	0.1	0.5	1.8	-1.8	-0.7	-0.5	-2.8
Iron and steel	2.3	-2.0	1.1	-1.4	-0.5	1.2	-4.1	0.1	—	-1.0
Non-ferrous metals	3.9	2.3	3.0	4.0	3.0	2.1	-0.4	3.2	—	0.8
Labour-intensive industries										
Food	1.6	3.0	1.4	1.7	1.4	2.4	1.3	2.4	3.1	0.9
Textiles	0.5	0.8	0.6	-1.4	-1.9	1.7	-2.1	0.4	-3.2	-3.5
Standard deviation	4.5	1.8	1.1	1.3	1.2	0.9	1.1	1.8	—	1.6

Source: OECD, Indicators of Industrial Activity; OECD Secretariat

Japan's industrial structure today is the outcome of a concerted effort to become more energy-efficient in response to the oil shocks of the 1970s. Besides increasing productive efficiency, Japanese industries have successfully advanced into those fields having a high income elasticity of demand. Table 4 indicates that the income elasticity of Japan's exports exceeds that of most other major industrialized countries, particularly if one includes the 1980s. Although it is not shown, Table 4

Table 4
Income Elasticity of Exports and Imports for
Selected Industrialized Countries

	Periods	Exports	Imports
Japan	1975 I - 1980 IV	1.237	0.835
	1975 I - 1983 II	1.717	0.742
U.S.	"	1.135	2.258
W. Germany	"	1.166	2.034
U.K.	"	0.888	2.268
France	"	1.212	2.316
Italy	"	1.212	1.943
Canada	"	1.052	1.194

Note: Roman numerals indicate quarters.
Source: Trade White Paper 1985

implies that the income elasticity of Japan's exports from the first quarter of 1980 to the second quarter of 1983 were a whopping 2.81. Such a dramatic increase simply could not have happened without a strong effort by Japanese industry to change its industrial structure.

By contrast, the income elasticity of Japan's imports are far lower than in most other industrialized countries, as Table 4 also indicates. The relatively low income elasticity of Japan's imports can be explained in part by Japan's import structure, which includes a high share of raw materials and fuels. Income elasticities are fairly low for these kinds of imports.

Industrial Policy

Just as Japan's macroeconomic policies have complemented structural features of its macroeconomy, Japan's industrial policies have complemented its industrial structure. In response to the havock wrought by the first oil crisis, Japanese industrial policy sought to promote R & D investment in high technology industries and to assist stagnant industries in downscaling operations.

It should be noted, however, that Japanese industry, moreso than Japanese government, was responsible for changes in industrial structure. To be sure, government provided guidance and incentives, but it was industry which made the decisions altering Japan's industrial structure. Adherence to government directives was largely elective. Commenting on the relationship between government and industry during this period, Suzumura and Okuno-Fujiwara have remarked that:

> ...private firms did not have much reason to comply with administrative guidance unless such compliance was mandatory and/or doing so was consistent with the firm's private motives. Thus, the character of industrial policy became mostly passive, indicative and intermediary rather than active, interventionist and regulatory.6

Trade Barriers

In terms of actual tariffs and quotas, it is difficult to argue that Japanese protectionism has meaningfully contributed to its trade surplus. The supporting evidence simply is not there. Table 5 indicates, for example, that nominal tariff rates are low in Japan relative to other major industrialized nations.

Table 5
Nominal Tariff Levels
Percentages: weighted by own-country imports, excluding petroleum

	Japan	US	Germany	France	UK	Italy	Canada	Benelux
All industries	2.9	4.3	6.3	6.0	5.2	5.4	5.2	5.9
Textile	3.3	9.2	7.4	7.3	6.7	5.6	16.7	7.2
Wearing Apparel	13.8	22.7	13.4	13.2	13.3	13.2	24.2	13.4
Iron and Steel	2.8	3.6	4.7	4.9	4.7	3.5	5.4	4.6
Non-electrical machinery	4.4	3.3	4.5	4.4	4.2	4.5	4.5	4.3
Electrical machinery	4.3	4.4	8.3	7.7	8.1	8.0	5.8	7.4
Transport equipment	1.5	2.5	7.7	7.9	7.2	8.8	1.6	7.9

Note: This table shows Tokyo Round tariffs, to be reached in 1987.
Source: Institute for International Economics, Trade Policy in the 1980s, ed by W.R. Cline.

Some complaints have been voiced, however, to the effect that unduly stringent and even discriminatory non-tariff barriers, such as health and safety requirements, have effectively limited exports to Japan. Given the difficulties in obtaining reliable quantitative evidence on either side of this argument, available evidence is anecdotal in nature. Thus, this is likely to remain a controversial issue for some time. Since the Japan-U.S. trade imbalance occured quite rapidly and is of

relatively recent vintage, however, it is unlikely that this pattern was strongly driven by long-standing non-tariff barriers. Nor do there appear to have been substantial recent changes in non-tariff barriers which might have caused a large trade imbalance.

Capital Mobility and Japan's Capital Markets

For the past several years, the United States has been clamoring for increased liberalization of Japan's capital markets and increased capital mobility. This pressure culminated in the so-called Yen/Dollar Agreement reached at the summit meeting in Tokyo in November, 1983.

The intent of this agreement was to eliminate yen depreciation allegedly caused by a combination of artificially low interest rates in Japan and restrictions on capital flows -- restrictions which were particularly discouraging to capital inflow into Japan.

The actual importance of these factors for the yen/dollar exchange rate and, ultimately, the Japan-U.S. trade imbalance, is a matter of considerable dispute. Some have argued that in the past Japan has deliberately tried to depreciate the yen by keeping domestic interest rates artificially low. At first blush, there seems to be some evidence to support this claim. As Table 6 indicates, interest rates tended to be substantially lower in Japan than in the U.S. Furthermore, while interest rates for long-term government bonds declined in both Japan and the U.S. over 1982-1985, the spread actually increased.

Table 6
Interest Rates in Japan and the U.S.
Yields on Long-Term Government Bonds

Year/month	Japan	U.S.
1982(Dec)	7.96%	10.61%
1983(Dec)	7.45	12.00
1984(Dec)	6.36	11.61
1985(Dec)	6.10	9.49

Source: World Financial Markets, New York: Morgan Guaranty Trust Co., March, 1986.

Nor does this pattern appear likely to change any time soon. This is particularly unfortunate since capital market liberalization may be the most significant measure Japan can take, not only in terms of appreciating the yen, but in the interest of greater equity and efficiency:

> ...domestic liberalization (of capital markets) might be considered the most likely (measure) to have a significant upward effect on the yen, and to have beneficial implications for the efficient and equitable working of the Japanese economy. But domestic liberalization is already taking place at a deliberate pace and is the category of policy measures least susceptible to being speeded up in response to U.S. pressure. 7

In terms of actual exchange rate outcomes, however, the case against Japan is much weaker. Frankel demonstrates that, when currency values are measured in terms of a weighted average among trading partners, the effective exchange values of European currencies decreased over 1980-1984, but the effective exchange value of the yen actually increased. Frankel concludes from this that:

> ...the primary problem is with the strong appreciation of the dollar and the roots of that appreciation within U.S. economic policy, not with yen appreciation or Japanese economic policy.8

Even if Frankel's conclusion is true, it does not follow that Japanese policy towards its domestic capital markets poses no significant problems for the Japan-U.S. trade imbalance and trade friction. First, the economic problem remains. While the effective exchange value of the yen appreciated over 1980-1984, the questions is, would this measure of the yen's value have appreciated even more if Japan had fully liberalized domestic capital markets? There is no quantitative answer to this question, but as Frankel himself has noted, domestic liberalization is perhaps the most significant capital market action Japan can take to appreciate the yen.

Second, the political problem remains. Regardless of the objective effect of domestic liberalization on exchange rates, Japan's failure to fully liberalize domestic capital markets is perceived as a malicious effort to depreciate the yen. Hence, it serves as a convenient scapegoat for her trading partners when they find themselves running a trade deficit with Japan.

Furthermore, while Japan has taken greater strides in promoting capital mobility, such measures, unaccompanied by meaningful domestic liberalization, have served to promote a capital outflow bias. As long as this situation persists, Japan's capital market policy will remain a festering sore to her trading partners.

Synthesis

While it is undoubtedly the case that the factors mentioned

above have made the Japan-U.S. trade imbalance greater than it otherwise would have been, it does not necessarily follow that Japan has been primarily responsible for this imbalance. The high U.S. trade deficit and interest rates, as well as brisk consumer spending, were significant contributing factors. In fact, the pattern of trade between Japan and her major trading partners provides some evidence which suggests that the U.S. trade deficit may be primarily a U.S. problem. Table 7 shows the five leading countries from which Japan imports while Table 8 shows the five leading countries to which Japan exports. While the U.S. is Japan's leading source of imports by a substantial amount, its lead in purchasing Japan's exports is truly enormous.

Table 7
Japan's Imports from Five Major Sources-1984
(In billions of dollars; per cent distribution by country in parenthesis).

Country	Total	Machinery & Chemicals	Raw Materials	Mineral Fuels	Food Stuffs	Other
U.S.	$26.9 (100%)	$10.8 (40)	$4.8 (18)	$2.2 (8)	$5.4 (20)	$3.7 (14)
Saudi Arabia	14.7 (100%)	—	—	14.7 (100)	—	—
Indonesia	11.4 (100%)	—	.6 (5)	10.1 (90)	.4 (3)	.4 (3)
Australia	7.2	(1)	(35)	(45)	(6)	(13)
China	6.0	.3	.9	2.7	.9	(20)

Note: Percent distribution of specific types of imports were estimated from bar charts and are only meant to be illustrative of the general magnitude involved, as are the dollar values of specific types of imports.
Source: Adapted from data in the Statistical Handbook of Japan 1985.

Table 8
Japan's Exports to Five Major Sources-1984
(In billions of dollars; per cent distribution by country in parenthesis)

Country	Total	Machinery & Chemicals	Non Metal Products	Metal Products	Other
U.S.	$59.9 (100%)	$47.9 (80)	$1.2 (2)	$4.8 (8)	$6.0 (10)
Korea	7.3 (100%)	4.7 (65)	.2 (3)	1.2 (17)	1.1 (15)
China	7.1 (100%)	3.6 (50)	—	2.8 (40)	.7 (12)
Germany F.R.	6.6	5.8	—	—	.8
Hong Kong	6.6 (100%)	4.0 (60)	—	.7 (10)	2.0 (30)

Note: Percent distributions of specific types of exports were estimated from bar charts and are only meant to be illustrative of the general magnitude involved, as are the dollar values of specific types of exports..
Source: Adapted from data in the Statistical Handbook of Japan, 1985.

Now if Japan's industrial structure (which largely produces machinery and equipment) were significantly responsible for the Japan-U.S. trade imbalance, we might expect to observe a similar pattern between Japan and other countries which import a large share of manufactured goods from Japan. No such pattern emerges, however. For example, although at least 50% of Japan's exports to China, Korea and Australia are in manufactured goods, these countries have only modest trade imbalances with Japan; indeed, Australia enjoys a modest trade surplus vis-a-vis Japan.

III. Japan's Perceived Responsibility for the Trade Imbalance

Given the structural features and policy measures in Japan which have contributed to the trade imbalance, the next question

we ask is: to what extent do the Japanese view themselves as responsible for this imbalance? To answer such a question requires an understanding of both traditional Japanese values and more recent adaptations in response to changing economic realities.

Why Japan Does Not Feel Culpable

Traditionally, Japan has been a hardworking, team-oriented society. The Japanese work longer hours than do workers in other major industrialized countries. Table 9 indicates that Japanese labor works substantially more hours than their counterparts in the U.S., the U.K., France and West Germany. If anything, this gap appears to be increasing over time.

Table 9
International Comparison of Total Annual Actual Working Hours
(Production workers in manufacturing industry)

(Hours)

Year	Japan	U.S.	U.K.	France	W. Germany
1975	2,043	1,888	1,923	1,830	1,678
1978	2,137	1,924	1,955	1,772	1,719
1981	2,146	1,885	1,910	1,717	1,656
1982	2,136	1,841	1,915	1,683	1,626
1983	2,152	1,898	1,938	1,657	1,613
1984	2,180	1,934	1,941	1,649	1,652
Scale of company	over 5 workers	All work places	over 10 workers	over 10 workers	over 10 workers

References: Ministry of Labor "Monthly Labor Statistics Survey"; U.S. Labor Department "Monthly Labor Review", Employment and Earnings"; EC Statistics Bureau "Labor Cost in Industry"; ILO "Bulletin of Labor Statistics"; and others

Sources: Figures up to 1983 are estimates of the Planning Section, Wages and Welfare Department, Ministry of Labor. Figures for 1984 are estimates worked out by the Leisure Development Center in accordance with the Ministry of Labor's method of calculation.

Japan's commitment to achievement through individual sacrifice and collective cooperation makes it a nation particularly reluctant to accept the blame when trade imbalances arise. This reluctance is exacerbated when the complaining trading partner (viz., the U.S.) enjoys a higher standard of living (especially if leisure and housing are included) with apparently less sacrifice.

A predilection for cooperation and individual sacrifice makes Japan less likely to feel responsible for the trade imbalance for two reasons. First and more obviously, Japan tends to view its economic achievements as a direct result of sweat and sacrifice. As such, Japan takes a dim view of pressure by other nations to relinquish what it regards as its "just desserts."

Second, the team-oriented nature of Japanese society makes it difficult to point an accusing finger at any one segment of the society. In the U.S., perhaps the antithesis of a team-oriented society, there is no shortage of accusing fingers. Consumers point to ill-advised U.S. macroeconomic policy as contributing to the trade imbalance while government is quick to cite spendthrift consumers as the main culprits. In a team-oriented society, however, it is more difficult to point an accusing finger at the poor performance of one or two members of that team. To function smoothly, a team must collectively accept blame or collectively reject blame. While Japan may privately acknowledge that some of its sectors have contributed to increasing the trade imbalance, collectively, Japan does not feel significantly responsible for it. "Team Japan" does not feel that it has commited any foul play.

In addition to traditional and cultural factors, adaptations in Japan's attitudes and philosophies have helped promote its industrial restructuring following the first and second oil crises. The most important adaptation was inspired by Professor Thurow's "Zero-Sum Society" doctrine[9]. According to this doctrine, if one economic entity gains, the other must inevitably lose.

Published in 1980, Professor Thurow's ideas were enormously popular in Japan, especially among the Japanese business community. The appeal that such a doctrine held for the Japanese during this time is not surprising. In response to the oil crises of the 1970s, greater energy efficiency in production and increased exports to pay for the high cost of oil imports were objectives of top priority in Japan. While these goals held great promise for Japan, it was apparent that they could lead to trade deficits and/or loss of international competitiveness for Japan's trading partners, most notably the U.S. The Zero-Sum philosophy argued that such outcomes, while perhaps unfortunate, were inevitable. Now if a Zero-Sum world were as inevitable as the most hard-boiled laws in economics, then such a rationale for Japan's industrial restructuring efforts would seem even better than appealing to cultural and traditional factors unique to Japan. Cultural and traditional explanations for Japanese industrial retrenchment could always be attacked as being outdated and inappropriate for a major economic power like Japan. But who could dispute the "inevitable"?

But however the Zero-Sum philosophy is certainly not the most optimistic way to think about possible trade outcomes between Japan and the U.S., and it is probably not the most accurate way. There is, in fact, a much older (and perhaps more enduring) doctrine than the Zero-Sum doctrine to characterize possible trade outcomes between Japan and the U.S. This is the classic Prisoner's Dilemma. According to the Prisoner's Dilemma, either both parties can cooperate, and each become better off, or each can try to deceive the other, in which case both become worse off.

Given the large and growing economic interdependence between Japan and the U.S., the potential harm that either country can inflict upon the other and the potential benefit that either country can bestow on the other are considerable. These are precisely the conditions under which the Prisoner's Dilemma arises.

Aside from Japan's cultural factors and political philosophies which mitigate feelings of responsibility for the current trade imbalance, there is genuine sentiment in Japan that the U.S. is largely responsible for the current trade deficit and is trying to "slough off" responsibility for it onto Japan. Expressing the Japanese view on this issue, Komiya states:

> That the fundamental sources of the American current account deficit lie principally in the American economy and a correction of the (trade) deficit depends on improvement in macroeconomic policies of the United States itself, must be very clear to people who understand just a little economics.10

To many Japanese, U.S. accusations of Japan's responsibility

in the trade imbalance is little more than the irrational ravings of a bested competitor:

> When a country falls into a difficulty, the domestic reaction is often to emphasize that it is caused by unreasonable and unfair actions of foreign countries. Criticism of Japan is partly to be understood in this context, and is thus not something which will drift away of its own accord.[11]

To be sure, the official stance of the Japanese government on Japan's role in the trade imbalance is considerably more diplomatic. On numerous occasions, Prime Minister Nakasone has declared that Japan should promote international harmony by cooperating to reduce the trade imbalance.

The official government position almost certainly results from Japan's concern over potential U.S. protectionism, not because Japan feels responsible for the trade imbalance. One need not look too far beneath the surface before evidence of Japan's resentment and concern over U.S. protectionist measures to redress the trade imbalance clearly emerges. For example, MITI Chief Michio Watanabe labelled as "outrageous"[12] a bill passed in the U.S. House of Representatives designed to

> ...toughen laws against unfair trade practices and force other nations to reduce "excessive" trade surpluses with United States.[13]

Foreign Minister Shintaro Abe also voiced strong disapproval of this bill.[14] Behind a veil of soothing diplomatic oaths, Japan's government seems no happier about U.S. pressure to reduce the trade imbalance than do her constituents. The difference is the government has a better appreciation of the political realities.

Thus far, we have discussed objective features of the Japanese economy which have contributed to the trade imbalance and Japan's perception of its responsiblity for that imbalance. While we have isolated a number of features of Japan's economy which have contributed to the trade imbalance, there is scant evidence that Japan feels at fault for this pattern. In fact, quite the opposite seems to be the case.

IV. What Will Japan Do?

That Japan does not feel responsible for the trade imbalance and resents U.S. pressure to help alleviate it seems to suggest it will do little more than pay lip service to U.S. demands for active involvement in reducing the trade imbalance. Such a conclusion, however, is inaccurate. It is inaccurate for the simple reason that Japan has too much to lose by failing to cooperate with the U.S. Strong protectionist measures by the U.S. would be disastrous for the Japanese economy, and Japan would much sooner cooperate, albeit grudgingly, than deal with U.S. protectionism. There are a variety of measures Japan might take to alleviate the trade imbalance, and we turn now to an examination of these possibilities.

Exchange Rate Realignment

Exchange rate realignment has already taken place on a grand scale, with the yen appreciating from a low of 240 ¥/$ in September, 1985 to about 160 ¥/$ by July, 1986.

Although the conventional wisdom holds that yen appreciation alone will not resolve the U.S.-Japan trade imbalance, the U.S. must recognize that the yen appreciation which has already occurred has had a substantial and negative impact on the Japanese economy. Estimates indicate that Japan's export-oriented industries will sustain a 30% drop in profits in fiscal year 1986.[15]

Indeed, yen appreciation has already made itself felt at the macroeconomic level. Japan's seasonally-adjusted GNP dropped by 0.5 percent in real terms in the first quarter of 1986. This was the first such drop in Japan's GNP since 1975. In light of the adverse effects of yen appreciation, Japan is most reluctant to allow the yen to appreciate further, and in fact has taken active steps to prevent a further rise in the yen.[16] That yen appreciation appears to have had little effect over the short run in reducing the trade imbalance[17] will probably not induce Japan to embark on further efforts to strengthen the yen. Exchange rates are about as realigned as they are going to get.

Domestic Demand Expansion

This is the most potent and controversial measure Japan can take to alleviate the trade imbalance. In spite of its great promise, domestic demand expansion will proceed more slowly than did exchange rate realignment. Japan is concerned about possible adverse effects of fiscal stimulus, and is likely to implement substantial fiscal stimulus only if U.S. pressure to do so increases.

Japan's reluctance to implement domestic demand expansion

results from several factors. First, there is the problem of the "greying" of Japan - the ever-increasing number of Japanese who must be supported by social security. To support their retirees

> ...many in Japan deem vital the present buildup of foreign assets through the current account surplus.18

Second, there is concern that fiscal stimulus will substantially increase government deficits. It is also feared that such deficits will limit policymakers' ability to set interest rates and will ultimately be inflationary. Another concern is that, given Japan's low propensity to import, fiscal stimulus will have little effect on imports and will not substantially improve the trade imbalance.

Upon closer inspection, however, these arguments are not compelling. Relying on a current account surplus to support retirees amounts to Japan's supporting its retirees at the expense of other nations. To the international trading community this is hardly a good reason for Japan to continue running a current account surplus.

Inflationary fears in the wake of a moderate government deficit in Japan seem groundless, precisely because domestic demand is relatively low while saving is relatively high. The argument that government deficits may decrease policymakers' ability to set interest rates will not be received sympathetically by Japan's trading partners. This is particularly true of the U.S., which has been pressuring Japan to liberalize its capital markets for years. Finally, concern that

fiscal stimulus will be ineffective in reducing the trade imbalance simply because it may fail to increase imports conveniently ignores other potentially beneficial effects of fiscal stimulus, such as increasing domestic demand for manufactured goods which are typically exported, or increasing the demand for services.

Generally speaking, there is some agreement as to the value of domestic demand expansion in a broad, abstract sense. There are considerable differences, however, as to how such stimulus might best be implemented. Given Japan's high saving rate (which is largely due to high personal saving) and low personal consumption, an ideal policy would be one directly aimed at reducing saving and increasing personal consumption. Government could help achieve this goal by removing the tax exempt status of personal saving and by reforming tax and finance policies to promote housing investment and demand.

Furthermore, there can be little doubt that shorter working hours would significantly expand demand in the services industries. This is so because (1) Japanese work much longer hours than do their counterparts in other industrialized nations (see Table 9) and (2) while many Japanese have already acquired manufactured goods, there seems to be strong pent-up demand for servies.

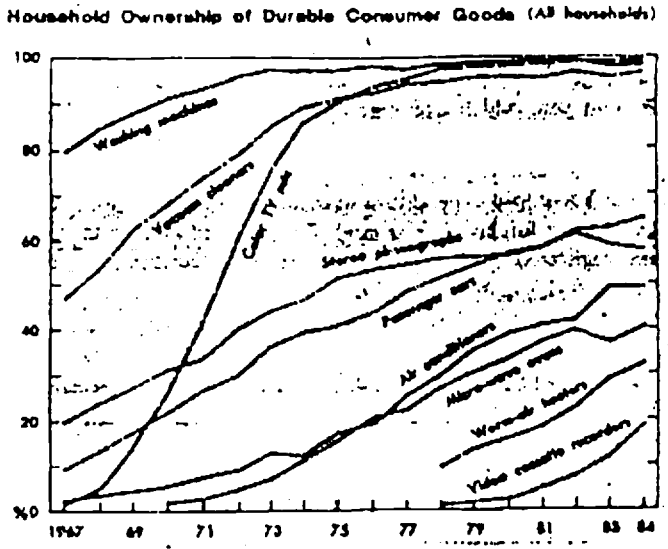
Figure 3 shows the dramatic rise in Japan's consumption of durable goods in the past fifteen to tenty years. Today, nearly all households in Japan own washing machines, vacuum cleaners and color TV sets. Sizable proportions own stereos and automobiles as well.

By contrast, consumption of services seems to have lagged behind. This pattern does not, however, reflect consumer apathy toward services. Indeed, 1984 public opinion survey data[19] indicates that Japanese gave top priority to enjoying their leisure activities. This rated ahead of housing, which had received top priority each time the public opinion survey had been conducted prior to 1984. By contrast:

> ...'durable goods' and 'clothing', for which most families have already attained satisfaction to a level, (did) not play important roles in planning or wishes concerning future living.[20]

It is also interesting to note that, from 1970 to 1984, the share of consumption expenditures devoted to reading and recreation activities actually decreased from 9.2% to 8.7%.[21] The overall impression is that potential demand in the services industry - particularly recreation-related servies - is a major untapped source of economic growth.

Figure 3



Source: Statistical Handbook of Japan 1985.

It will not be easy to translate potential demand for services into actual demand, however. Major Japanese firms and their subcontractors have already suffered from yen appreciation, and they are hardly likely to respond to this setback by asking their employees to work shorter hours. Another unhappy result of Japan's sluggish industrial sector is that wage hikes will continue to be low,[22] which will also adversely effect demand for services. Additionally, substantial increases in the demand for services will require a shift in industrial structure from manufacturing industries to service industries. Some industries will surely suffer from such restructuring, and they will naturally resist.

From a society-wide perspective, increased demand for services and a corresponding industrial restructuring would be desirable, for it would improve the quality of life and induce structural changes which would make Japan less dependent on exports for economic growth. Furthermore, since services tend to be consumed frequently relative to manufactured goods, once domestic demand for services has been firmly entrenched and industry restructured to accomodate it, domestic demand for services could provide a boost to the Japanese economy for a long period of time. In the absence of strong governmental actions, such as regulations on length of the week and incentives for expansion in the services industries, however, this type of domestic demand expansion will probably not occur. So far,

policymakers have shown little inclination to provide a strong stimulus to domestic demand for services.

Domestic demand stimulants, such as a shorter work week and elimination of tax exempt status from personal savings, could also increase the demand for manufactured goods. This would help divert some Japanese exports to domestic markets. Furthermore, those government initiatives specifically aimed at increasing domestic demand for manufactured goods (as opposed to services) may be more politically feasible to implement, since industrial restructuring requirements to meet higher domestic demand for manufactured goods would probably be lower. Unfortunately, Japan does not appear inclined to take the initiative in expanding demand by these means, either.

Another way to expand domestic demand is by increasing public expenditures. Here Japan has shown some progress. For example, the government is committed to implementing increases in construction bonds to finance improvements in Japan's infrastructure, though Prime Minister Nakasone has stressed that such increases should be kept to a minimum.[23] As Table 10 indicates, both government deficits and bond issues have been trending steadily downward relative to GNP since 1979. Thus, there appears to be a good deal of room for this type of domestic demand stimulus without inviting adverse consequences. Such expansion will indirectly reduce the trade surplus by reducing aggregate saving in Japan, thereby decreasing capital outflow and strengthening the yen.

Table 10
Selected Fiscal Statistics

Fiscal years	Deficit[1] yen billion	Central government budget, administrative basis, general account: Deficit as a % of: General account expenditure	Deficit as a % of: Nominal GNP	Bond issues yen billion: Construction bonds	Bond issues yen billion: Deficit-financing bonds	Bond issues yen billion: Total	Bond issues as a % of: General account expenditure	Bond issues as a % of: Nominal GNP	General government net lending or borrowing (-) As a % of GNP
1970	266	1.6	0.4	347	0	347	8.2	0.5	1.9
1971	1 049	11.0	1.3	1 187	0	1 187	12.4	1.4	0.6
1972	1 498	12.6	1.6	1 950	0	1 950	16.3	2.0	0.3
1973	634	4.4	0.6	1 766	0	1 766	12.0	1.5	2.1
1974	2 864	15.0	2.1	2 160	0	2 160	11.3	1.6	0.1
1975	5 940	28.5	3.9	3 190	2 091	5 281	25.3	3.5	-3.6
1976	7 202	29.4	4.2	3 725	3 473	7 198	29.4	4.2	-3.5
1977	9 796	33.7	5.2	5 028	4 533	9 561	32.9	5.1	-4.1
1978	10 225	30.0	5.0	6 330	4 344	10 674	31.3	5.2	-4.1
1979	10 256	28.2	6.0	7 133	6 339	13 472	34.7	6.1	-4.4
1980	14 524	33.9	6.0	6 955	7 215	14 170	32.6	5.9	-4.0
1981	13 013	27.7	5.1	7 040	5 860	12 900	27.5	5.1	-3.7
1982	13 811	28.2	5.2	7 036	7 009	14 045	29.7	5.3	-3.5
1983	13 848	27.3	5.0	6 810	6 676	13 486	26.6	4.8	-3.0
1984	13 263	25.7	4.5	6 810	6 455	12 865	25.0	4.3	—
1985	11 680	22.0	3.7	5 950	5 730	11 680	22.2	3.7	—

1. Bond issues plus carry-over from the previous fiscal year.
Sources: Ministry of Finance, Financial Statistics; EPA, Annual Report on National Accounts; 1985 estimates are based on official forecasts.

The direct effects of this type of expansion on Japan's trade surplus are less clear. Will an increase in public spending to improve Japan's infrastructure increase Japan's imports? Possibly, but probably not enough to significantly affect the Japan-U.S. trade imbalance. While Japan imports a substantial amount of the raw materials needed for construction from the U.S. (see Table 7), this figure pales in comparison to Japan's exports to the U.S. (see Table 8). It is equally unclear that increased expenditures on public construction will appreciably divert Japanese exports to the U.S.-Japan exports manufactured goods to the U.S., not lumber and cement.

Another drawback to this type of demand stimulus is that it can only last over a short to midterm horizon. Government can only incur so much debt before the public will call for austerity. Precisely because the effects of this type of domestic demand stimulus are only temporary, it is not likely to induce an appreciable change in Japan's industrial structure away

from export orientation.

About the best that can be said for this type of domestic demand expansion is that it may help Japan to weather the damaging effects of yen appreciation on her export sector without sliding into a recession.

Alternative Possibilities

Aside from exchange rate realignment and domestic demand stimulus, there is the possibility of improving the bilateral trade deficit between Japan and the U.S. by diverting some Japanese exports to developing countries rather than to the U.S. markets. The import capacity of these developing countries would be enhanced by directing the Japanese saving surplus to finance the deficits of developing countries. Such a proposal was made in a report by a study group of the World Institute for Development Economics Research (WIDER), in April, 1986.[24]

While creative and novel, this appears nonetheless to be a plan whose time has not yet come. When the economies of developing nations are sufficiently mature to provide markets and investment opportunities that are reasonable substitutes for those available in the U.S., then one can meaningfully speak of resolving U.S.-Japan trade imbalances by diverting Japan's exports and capital outflow to places other than the U.S.

For the next several years at least, it is most unlikely that developing countries will be able to absorb Japanese exports on a scale large enough to significantly reduce the Japan-U.S. trade imbalance. Looking back at Table 8, we see that the value

of Japan's exports to the U.S. are more than twice the value of Japan's exports to its next four largest markets combined. It is also unclear why capital should suddenly flow from Japan to developing countries when the current flow from Japan to the U.S. indicates that better investment opportunities exist in the U.S.

Speaking of capital outflows, another alternative for reducing the U.S.-Japan trade imbalance is simply to restrict capital outflows from Japan. To the extent that such outflows tend to depreciate the yen, their elimination should decrease the U.S. trade deficit. This solution, however, is at odds with long-standing U.S. efforts to deregulate and liberalize Japan's capital markets. It could also lead to substantially higher interest rates in the U.S., and even a recession. This policy would be so negatively received in the U.S. that it is most unlikely to be implemented. Even if this were not the case, Japan appears unwilling to undertake actions which might further appreciate the yen, as noted above.

Exchange rate realignment and domestic demand stimulus emerge as the two options Japan may resort to in redressing the trade imbalance. Since exchange rate realignment has apparently been implemented to the extent feasible, however, fiscal stimulus to expand Japan's domestic demand looms as the lone viable option for Japan to help further reduce the trade imbalance.

There is every reason to believe that such a policy can succeed. That Japan must depend on exports for growth is a myth. As Table 11 indicates, only over 1980-1984 did exports account for a substantial proportion of Japan's overall growth in real GNP. There is no reason why the pattern in earlier years, when

real GNP growth was driven domestically, cannot be repeated in the future.

Despite its seeming promise, strong fiscal stimulus remains an option that Japan will resort to only if sufficiently pressured by the U.S. Whether such U.S. pressure arises depends, in turn, on the success of U.S. policy initiatives like Gramm-Rudman in reducing government spending and, ultimately, the trade imbalance.

Table 11
Sources of Japan's Real GNP Growth*
(percent, annual averages)

Year	GNP	Domestic	External
1966-71	10.2	10.2	0.0
1972-74	5.5	5.9	-0.4
1975-79	4.7	2.4	0.5
1980-84	4.3	3.1	1.9
1985	4.6	3.1	1.5
1986	3.4	3.2	0.2

*Derived from national accounts data in 1975 prices.
Source: World Financial Markets, New York: Morgan Guaranty Trust Co., November 1985

V. Conclusion: Implications for the Trade Imbalance and Trade Friction

The U.S. is hell-bent on reducing its trade deficit with Japan. This will be accomplished, one way or another. The most benign scenario would be that the policy initiatives of Gramm-Rudman are spectacularly successful in reducing the U.S. trade deficit, so that the trade imbalance is resolved without further U.S. pressure on Japan.

On the other hand, if Gramm-Rudman fails to significantly reduce the trade imbalance, protectionist sentiment will flare up in the U.S. Even when Gramm-Rudman was in its early stages of promise, Congress demonstrated its willingness to consider strong protectionist legislature when the House of Representatives passed a bill calling for a variety of protectionist measures including some new definitions of unfair trade practices. One can only conclude that protectionist sentiments will be much

stronger should Gramm-Rudman fail.

If Gramm-Rudman fails, Japan will respond to mounting U.S. pressure by playing its last card-substantial fiscal stimulus. Most likely, this stimulus will first come in the form of greater efforts to expand public works.

Tax cuts, removal of the tax exempt status of personal saving and the like may follow if the public works expansion fails to abate mounting U.S. protectionist sentiment. Under either scenario, the trade imbalance will be substantially reduced.

More ominous, however, are the implications for trade friction. It is probably true that, other things remaining the same, a decline in a trade imbalance results in a decline in trade friction. But, in reducing the large trade imbalance between Japan and the U.S., "other things", such as mutual trust and respect and a sense of international economic cooperation, may fall by the wayside. It is even conceivable that, in reducing the trade imbalance, Japan and the U.S. will intensify their trade friction.

Many of the factors which could induce this unhappy result are already present. On the one hand, we see the U.S. pressuring Japan to open its goods and capital markets while at the same time threatening Japan with increased protectionist measures. While this may be an expedient way to reduce the trade imbalance, it is glaringly hyprocritical and hardly conducive to mutual trust and respect.

For its part, Japan seems too slow to realize that:

> If one country's economic performance moves against the interest of the world economy, that country will be asked to change course.25

Rather than accepting small trade surpluses as an exogenous political constraint in formulating domestic policy, Japan decides domestic policy as it sees fit, making significant changes only when countervailing actions by its trading partners seem imminent.

Exacerbating these basic problems is the fact that yen appreciation has apparently not been a strong force in reducing the trade imbalance. Masaya Miyoshi of the Keidanren (Japan's Federation of Economic Organizations) has remarked that

> ... the United States attaches importance to the results (while) Japan ... places importance on good intention more that anything else.26

If there is some truth to Miyoshi's observation, the salient effect of exchange rate realignment might lie, not in decreasing the trade imbalance, but in increasing trade friction.

In fact, aside from harming Japan's export sector directly, it is becoming increasingly clear that the strong yen is prompting many Japanese companies, particularly those in the critical automotive and electronics industries, to establish plants at locations abroad, including the U.S.[27] From the standpoint of economic theory, these responses result from firms' desire to maintain international competitiveness. From the perspective of the average worker, however, this means fewer jobs. Hence, the popular terms for relocation of Japanese plants abroad are "deindustrialization" and the "hollowing out" of Japanese industry. To the extent that

relocation is viewed as "hollowing out," it is likely to increase friction between Japan and the U.S.[28]

Like many trading partners, however, Japan and the U.S. have been conducting business under less than ideal circumstances for a number of years, and will likely continue to do so. Interestingly, the very fact that there remains much room for improvement in cooperative efforts and freeing of markets between the two nations helps prevent trade friction from really getting out of hand. As long as trade imbalances and trade friction can be blamed on relatively benign factors like policy coordination failure, closed markets and the like, the possibility of mutually beneficial trade remains. But imagine what might happen if the U.S., for example, incurred substantial trade deficits with Japan in a world where both countries behaved cooperatively, policies were prefectly coordinated and all markets were open. In such a world, U.S. deficits would be seen as due to a pervasive lack of competitiveness. Trade friction on a scale we have not yet observed would ensue.

This does not imply that we should not seek to reduce the trade friction which is present today through policy coordination, open markets and the like. Nor does it imply that substantial trade friction is inevitable. We merely wish to point out that, while Japan and the U.S. should work together to achieve better coordinated macroeconomic policies and more open markets, each country must remain acutely aware that maintaining the international competitiveness of its industries is a fundamental ingredient in healthy trade relations. If

international competitiveness is not maintained, very serious trade friction will emerge.

Footnotes

1. Horioka, Charles Y. "Household Saving in Japan: The Importance of Target Saving for Education and Housing", Paper presented at the Japan Economic Seminar, Washington, D.C., September 21, 1985.

2. Frankel, Jeffrey A., The Yen/Dollar Agreement: Liberalizing Japanese Capital Markets, Institute for International Economics, Washington, D.C., December, 1984, p. 61.

   Frankel cites cultural factors as primarily responsible for high personal savings in Japan. While this is perhaps an overstatement of the importance of cultural factors, it underlines their significance.

3. "The G-5: Meaning and Mission," World Financial Markets, New York: Morgan Guaranty Trust, Novermber, 1985, p.7.

4. Eishiro Saito, as quoted in "Keidanren will endorse fiscal rehabilitation," Japan Economic Journal, June 7, 1986, p.4.

5. "Bulging money supply sparks fears of inflation at central bank," Japan Economic Journal, May 31, 1986, p. 23.

6. Suzumura, K., and M. Okuno-Fujiwara, "Industrial Policy in Japan: Overview and Evaluation," In: Trade Friction and Economic Policy, Ryuzo Sato and Paul Wachtel (eds.). New York: Cambridge University Press, 1987.

7. Frankel, ibid., pp. 47-48.

8. Ibid, p. 13.

9. Thurow, L., The Zero-Sum Society, 1980.

10. Komiya, R., "An Economic Analysis of the Japan-U.S. Trade Problem: a Japanese View," (translation of an article published in Japanese) in Shukan Toyo Keizai, June 7 and June 9, 1986.

11. Ibid.

12. "Abe Is Worried Over U.S. House Protectionist Bill", Japan Times, May 24, 1986, p. 1.

13. "U.S. Reps OK Bill Against Unfair Trade," Japan Times, May 24, 1986, p. 1.

14. "Abe Is Worried Over U.S. House "Protectionist Bill", Japan Times, May 24, 1986, p. 1.

15. "Export-oriented firms expect profits to drop by 30% in FY '86," Japan Economic Journal, May 24, 1986, p. 4.

16. "Gov't to Launch Measures in July to Halt Yen's Rise," Japan Economic Journal, May 24, 1986, p. 1.

17. The standard explanation for this pattern is the so-called "J-Curve" effect. According to this theory, foreign goods ordered before a plunge in the value of the domestic currency but paid for after the drop in that currency increase the cost of imports, temporarily increasing that country's trade deficit. This has surely been part of the reason why yen appreciation did not reduce the Japan-U.S. trade imbalance in the first half of 1986. Eventually, however, yen appreciation should bring some improvement in the Japan-U.S.trade imbalance. How much improvement depends upon factors such as Japanese firms' determination to maintain export market shares by avoiding price increases. Another important factor is that, while the dollar has depreciated substantially against the yen, the dollar's trade weighted decline against 25 currences dropped by only 5% from September 1985 - July 1986 (see Business Week, July 28, 1986). Thus, even if yen appreciation eventually improves the Japan-U.S. trade imbalance, the U.S. may remain in deficit vis-a-vis other trading partners.

18. "The G5 : meaning and mission," World Financial Markets, New York: Morgan Guaranty Trust Co., November 1985, p. 8.

19. Satistical Handbook of Japan 1985, p. 116.

20. Ibid., p. 116.

21. Ibid., p. 113.

22. See for example: "Wage hikes averaged 4.51% this year," Japan Economic Journal, June 7, 1986, p. 4.

    This article indicates that, for all industries other than the information sector, wage hikes in 1986 were lower than in 1985. This pattern was attributed to the hardship wrought by yen appreciation.

23. "The Week," Japan Economic Journal, July 12, 1986, p. 2.

24. "The Potential of the Japanese Surplus for World Economic Development," Report of a Study Group of the World Institute for Development Economics Research (WIDER), for the United Nations University, Tokyo, Japan, April 18, 1986.

25. "Mayekawa report should have been implemented three years earlier," (interview with I. Miyazaki), Japan Economic Journal, May 31, 1986, p. 7.

26. Miyoshi, M., "Economic Friction between the United States and Japan - Illusion and Reality," in Trade Friction and Economic Policy, R. Sato and P. Wachtel (eds); New York, Cambridge University Press, 1987.

27. For example, a recent survey of 63 presidents of major Japanese companies indicated that approximately 80% of them believed that:

> ...there will be a hollowing-out of the nations's manufacturing industry as a result of the shift to overseas production.... ("Corporate Heads See Hollowing-Out of Industry Due to hift Overseas," Japan Economic Journal, June 7, 1986, p.1).

In addition, the leading candidates cited for such hollowing out were the automotive and electronics industries.

28. An additional factor driving Japanese firms to locate abroad, particularly in the U.S., is the threat of U.S. protectionist measures. As an example, a recent article in the Japan Economic Journal describes Toshiba's decision to produce VCRs in the U.S.

> Only a year ago, most producers were cautious about making VCRs in the U.S., citing difficulty in procuring components locally. Political considerations, arising from increasing bilateral trade friciton, however, have prompted them to enter into local production ventures that are apparently costlier than in Japan ..... ("Toshiba to Start Making VCRs in U.S. Following Hitachi," Japan Economic Journal, August 16, 1986, p. 13).

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2. Economic Policy and Development: New Perspectives T. Shishido and R. Sato (eds.) Dover, Massachusetts: Auburn House Publishing Co., 1985.

3. Fragile Interdependence: Economic Issues in U.S. Japan Trade and Investment. T. Pugel (ed.) with R. Hawkins. Lexington, MA: D.C. Health and Co., 1986.

4. Frankel, Jeffrey A. The Yen/Dollar Agreement: Liberalizing Japanese Capital Markets. Institute for International Economics, Washington, D.C., December, 1984.

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11. Suzuki, Y. Money, Finance, and Macroeconomic Performance in Japan (translated by R. Feldman) New Haven: Yale University Press, 1986.

12. Thurow, L. The Zero-Sum Society, 1980.