

Fact Sheet for the Honorable Lloyd M. Bentsen, U.S. Senate

February 1988

## U.S.-JAPAN TRADE

# Trade Data and Industry Views on MOSS Agreements





RESTRICTED—Not to be released outside the General Accounting Office except on the basis of the specific approval by the Office of Congressional Relations.

541338

135356



United States General Accounting Office Washington, D.C. 20548

National Security and International Affairs Division

B-227630

February 23, 1988

The Honorable Lloyd M. Bentsen United States Senate

Dear Senator Bentsen:

On February 25, 1987, you requested that we assess the results of the U.S.-Japan Market-Oriented Sector-Selective (MOSS) talks which were initiated to open Japanese markets, specifically by reducing or removing barriers to free trade, thereby increasing the potential for U.S. exports to Japan. These talks covered five industrial sectors: telecommunications, medical equipment/pharmaceuticals, electronics, forestry products, and transportation machinery. On July 10, 1987, we delivered an interim briefing report which addressed two of the five MOSS sectors—telecommunications and medical equipment/pharmaceuticals. 1

As requested by your office, this fact sheet provides U.S.-Japan trade data specifically pertaining to the sectors covered under the MOSS talks (see app. I), as well as a brief summary of responses to a survey we conducted to document the views of selected firms doing business in Japan concerning the effectiveness of the MOSS agreements reached (see app. II). Our forthcoming overall assessment of the results of the MOSS talks will provide more detailed analysis of these topics.

The data presented in appendix I in tables I.1-I.3 summarize U.S. exports to Japan for the original four sectors negotiated in the MOSS initiatives for the 5-year period 1983-87. Additionally, tables I.2 and I.3 attempt to place U.S.-Japan bilateral trade in context by comparing it with U.S. exports worldwide and to the European Community (EC). Table I.4 presents bilateral auto parts trade data pertaining to the Transportation Machinery MOSS talks. This was the fifth sector negotiated under the MOSS process, with an agreement concluded in August 1987. Due to the recency of these negotiations, a full year of post-MOSS data is unavailable. The most current data available compare the level of U.S. auto parts purchased by Japanese automobile manufacturers and their U.S. companies for the first two quarters of Japan Fiscal Year (JFY) 1986 with the comparable period in JFY 1987.

<sup>1</sup>See U.S.-Japan Trade: Interim Report on Sector-Selective Agreements, (GAO/NSIAD-87-186BR, July 10, 1987).

MOSS talks and whether the agreements negotiated have helped them conduct business in Japan. Although we interviewed business representatives in each of the five MOSS sectors, we found it was useful to employ a formal questionnaire in only two sectors—telecommunications and medical equipment/pharmaceuticals. We were able to identify a large enough number of U.S. firms having active business interests within Japan to warrant a formal questionnaire. We sent questionnaires to 42 medical equipment/pharmaceutical firms and 25 telecommunications firms during November and December 1987, and obtained at least a 70 percent response rate in each case. Our forthcoming overall report will have a much fuller discussion of our questionnaire and individual companies' case histories for each of the five MOSS sectors.

As requested, we did not obtain agency comments on this fact sheet. If you have questions on the information provided please contact me on (202) 275-4812.

Sincerely yours,

Allan I. Mendelowitz

Senior Associate Director

<sup>2</sup>We chose to conduct individual interviews and not to develop a written questionnaire for the remaining three MOSS sectors due to sampling problems—the electronics sector was ill-defined and too broad to adequately sample, the forestry sector included relatively few firms exporting to Japan, and the auto parts sector negotiations were just concluded when we conducted our study.

APPENDIX I

Table I.2: U.S. Exports Worldwide, and to Japan and EC, 1983-1987 (in millions of dollars)

Telecommunications	(11 millic	ms of doil	ars;			
Worldwide	Sector	1983	<u> 1984</u>	1985	1986	1987
Japan	Telecommunications					
Percent to Japan   5.4   5.0   5.1   6.6   7.7	Worldwide	\$3,634	\$3,730	\$3,996	\$4,085	\$4,408
Percent to Japan	Japan		185	203	269	340
Percent to EC   23.6   23.2   23.5   22.7   25.5	EC	857	865	941	927	1,126
State		5.4	5.0	5.1	6.6	7.7
Worldwide	Percent to EC	23.6	23.2	23.5	22.7	25.5
Japan	Electronics					
EC         5,505         6,816         6,625         7,212         8,485           Percent to Japan Percent to EC         37.3         36.6         36.7         37.3         36.2           Pharm./Med. Equipment Worldwide Japan 785         \$4,799         \$4,987         \$5,152         \$5,914         \$6,488           Japan 785         832         871         1,009         1,150         EC         1,861         1,913         1,962         2,376         2,640           Percent to Japan 16.4         16.7         16.9         17.1         17.7         Percent to EC         38.8         38.4         38.1         40.2         40.7           Forest Products         Worldwide \$3,158         \$3,069         \$2,778         \$3,406         \$4,331         Japan 642         641         643         810         1,042         EC         815         675         498         714         927           Percent to Japan Percent to EC         25.8         22.0         17.9         21.0         21.4           Total, Four Sectors         Worldwide \$26,341         \$30,421         \$29,954         \$32,718         \$38,691           Japan Percent to Japan Percent	Worldwide	\$14,750	\$18,635	\$18,028	\$19,313	\$23,464
Percent to Japan 7.4 7.6 8.2 8.2 8.9 Percent to EC 37.3 36.6 36.7 37.3 36.2  Pharm./Med. Equipment Worldwide \$4,799 \$4,987 \$5,152 \$5,914 \$6,488 Japan 785 832 871 1,009 1,150 EC 1,861 1,913 1,962 2,376 2,640  Percent to Japan 16.4 16.7 16.9 17.1 17.7 Percent to EC 38.8 38.4 38.1 40.2 40.7  Forest Products Worldwide \$3,158 \$3,069 \$2,778 \$3,406 \$4,331 Japan 642 641 643 810 1,042 EC 815 675 498 714 927  Percent to Japan 20.3 20.9 23.1 23.8 24.1 Percent to EC 25.8 22.0 17.9 21.0 21.4  Total, Four Sectors Worldwide \$26,341 \$30,421 \$29,954 \$32,718 \$38,691 Japan 2,715 3,078 3,201 3,681 4,629 EC 9,038 10,269 10,026 11,229 13,178  Percent to Japan 10.3 10.1 10.7 11.3 12.0	Japan	1,092	1.420	1.484	1.593	2,097
Pharm./Med. Equipment  Worldwide \$4,799 \$4,987 \$5,152 \$5,914 \$6,488 Japan 785 832 871 1,009 1,150 EC 1,861 1,913 1,962 2,376 2,640  Percent to Japan 16.4 16.7 16.9 17.1 17.7 Percent to EC 38.8 38.4 38.1 40.2 40.7  Forest Products  Worldwide \$3,158 \$3,069 \$2,778 \$3,406 \$4,331 Japan 642 641 643 810 1,042 EC 815 675 498 714 927  Percent to Japan 20.3 20.9 23.1 23.8 24.1 Percent to EC 25.8 22.0 17.9 21.0 21.4  Total, Four Sectors  Worldwide \$26,341 \$30,421 \$29,954 \$32,718 \$38,691 Japan 2,715 3,078 3,201 3,681 4,629 EC 9,038 10,269 10,026 11,229 13,178  Percent to Japan 2,715 3,078 3,201 3,681 4,629 EC 9,038 10,269 10,026 11,229 13,178	EC	5,505	6,816	6,625	7,212	8,485
Pharm./Med. Equipment           Worldwide         \$4,799         \$4,987         \$5,152         \$5,914         \$6,488           Japan         785         832         871         1,009         1,150           EC         1,861         1,913         1,962         2,376         2,640           Percent to Japan 16.4         16.7         16.9         17.1         17.7           Percent to EC         38.8         38.4         38.1         40.2         40.7           Forest Products           Worldwide         \$3,158         \$3,069         \$2,778         \$3,406         \$4,331           Japan         642         641         643         810         1,042           EC         815         675         498         714         927           Percent to Japan 20.3         20.9         23.1         23.8         24.1           Percent to EC         25.8         22.0         17.9         21.0         21.4           Total, Four Sectors           Worldwide         \$26,341         \$30,421         \$29,954         \$32,718         \$38,691           Japan         2,715         3,078         3,201	Percent to Japan	7.4	7.6	8.2	8.2	8.9
Worldwide         \$4,799         \$4,987         \$5,152         \$5,914         \$6,488           Japan         785         832         871         1,009         1,150           EC         1,861         1,913         1,962         2,376         2,640           Percent to Japan         16.4         16.7         16.9         17.1         17.7           Percent to EC         38.8         38.4         38.1         40.2         40.7           Forest Products           Worldwide         \$3,158         \$3,069         \$2,778         \$3,406         \$4,331           Japan         642         641         643         810         1,042           EC         815         675         498         714         927           Percent to Japan Percent to EC         25.8         22.0         17.9         21.0         21.4           Total, Four Sectors           Worldwide         \$26,341         \$30,421         \$29,954         \$32,718         \$38,691           Japan         2,715         3,078         3,201         3,681         4,629           EC         9,038         10,269         10,026         11,229         13,178	Percent to EC	37.3	36.6	36.7	37.3	36.2
Japan       785       832       871       1,009       1,150         EC       1,861       1,913       1,962       2,376       2,640         Percent to Japan Percent to EC       38.8       38.4       16.9       17.1       17.7         Percent to EC       38.8       38.4       38.1       40.2       40.7         Forest Products         Worldwide       \$3,158       \$3,069       \$2,778       \$3,406       \$4,331         Japan       642       641       643       810       1,042         EC       815       675       498       714       927         Percent to Japan Percent to EC       25.8       22.0       17.9       21.0       21.4         Total, Four Sectors         Worldwide       \$26,341       \$30,421       \$29,954       \$32,718       \$38,691         Japan       2,715       3,078       3,201       3,681       4,629         EC       9,038       10,269       10,026       11,229       13,178         Percent to Japan         Percent to Japan	Pharm./Med. Equipment	:				
Japan 785 832 871 1,009 1,150 EC 1,861 1,913 1,962 2,376 2,640  Percent to Japan 16.4 16.7 16.9 17.1 17.7 Percent to EC 38.8 38.4 38.1 40.2 40.7  Forest Products Worldwide \$3,158 \$3,069 \$2,778 \$3,406 \$4,331 Japan 642 641 643 810 1,042 EC 815 675 498 714 927  Percent to Japan 20.3 20.9 23.1 23.8 24.1 Percent to EC 25.8 22.0 17.9 21.0 21.4  Total, Four Sectors Worldwide \$26,341 \$30,421 \$29,954 \$32,718 \$38,691 Japan 2,715 3,078 3,201 3,681 4,629 EC 9,038 10,269 10,026 11,229 13,178  Percent to Japan 10.3 10.1 10.7 11.3 12.0	Worldwide	\$4,799	\$4,987	\$5,152	\$5,914	\$6,488
EC       1,861       1,913       1,962       2,376       2,640         Percent to Japan Percent to EC       16.4       16.7       16.9       17.1       17.7         Percent to EC       38.8       38.4       38.1       40.2       40.7         Forest Products         Worldwide       \$3,158       \$3,069       \$2,778       \$3,406       \$4,331         Japan       642       641       643       810       1,042         EC       815       675       498       714       927         Percent to Japan Percent to EC       25.8       22.0       17.9       21.0       21.4         Total, Four Sectors         Worldwide       \$26,341       \$30,421       \$29,954       \$32,718       \$38,691         Japan       2,715       3,078       3,201       3,681       4,629         EC       9,038       10,269       10,026       11,229       13,178         Percent to Japan         Percent to Japan       10.3       10.1       10.7       11.3       12.0	Japan	785	832	871	1,009	
Percent to EC 38.8 38.4 38.1 40.2 40.7  Forest Products Worldwide \$3,158 \$3,069 \$2,778 \$3,406 \$4,331 Japan 642 641 643 810 1.042 EC 815 675 498 714 927  Percent to Japan 20.3 20.9 23.1 23.8 24.1 Percent to EC 25.8 22.0 17.9 21.0 21.4  Total, Four Sectors Worldwide \$26,341 \$30,421 \$29,954 \$32,718 \$38,691 Japan 2,715 3,078 3,201 3,681 4,629 EC 9,038 10,269 10,026 11,229 13,178  Percent to Japan 10.3 10.1 10.7 11.3 12.0	EC	1,861	1,913	1,962	2,376	2,640
Forest Products  Worldwide \$3,158 \$3,069 \$2,778 \$3,406 \$4,331  Japan 642 641 643 810 1,042  EC 815 675 498 714 927  Percent to Japan 20.3 20.9 23.1 23.8 24.1  Percent to EC 25.8 22.0 17.9 21.0 21.4  Total, Four Sectors  Worldwide \$26,341 \$30,421 \$29,954 \$32,718 \$38,691  Japan 2,715 3,078 3,201 3,681 4,629  EC 9,038 10,269 10,026 11,229 13,178  Percent to Japan 10.3 10.1 10.7 11.3 12.0	Percent to Japan	16.4	16.7	16.9	17.1	17.7
Worldwide         \$3,158         \$3,069         \$2,778         \$3,406         \$4,331           Japan         642         641         643         810         1,042           EC         815         675         498         714         927           Percent to Japan         20.3         20.9         23.1         23.8         24.1           Percent to EC         25.8         22.0         17.9         21.0         21.4           Total, Four Sectors           Worldwide         \$26,341         \$30,421         \$29,954         \$32,718         \$38,691           Japan         2,715         3,078         3,201         3,681         4,629           EC         9,038         10,269         10,026         11,229         13,178           Percent to Japan         10.3         10.1         10.7         11.3         12.0	Percent to EC	38.8	38.4	38.1	40.2	40.7
Japan       642       641       643       810       1.042         EC       815       675       498       714       927         Percent to Japan       20.3       20.9       23.1       23.8       24.1         Percent to EC       25.8       22.0       17.9       21.0       21.4         Total, Four Sectors         Worldwide       \$26,341       \$30,421       \$29,954       \$32,718       \$38,691         Japan       2,715       3,078       3,201       3,681       4,629         EC       9,038       10,269       10,026       11,229       13,178         Percent to Japan       10.3       10.1       10.7       11.3       12.0	Forest Products					
Japan       642       641       643       810       1.042         EC       815       675       498       714       927         Percent to Japan Percent to EC       20.3       20.9       23.1       23.8       24.1         Percent to EC       25.8       22.0       17.9       21.0       21.4         Total, Four Sectors         Worldwide       \$26,341       \$30,421       \$29,954       \$32,718       \$38,691         Japan Japan Japan Percent to Japan Percent to Japan Japa	Worldwide	\$3,158	\$3,069	\$2,778	\$3,406	\$4.331
EC       815       675       498       714       927         Percent to Japan Percent to EC       20.3 20.9 23.1 23.8 24.1 23.8 24.1 21.0 21.4         Total, Four Sectors       25.8 22.0 17.9 21.0 21.4         Worldwide Japan 2,715 3,078 3,201 3,681 4,629 2.715 3,078 3,201 3,681 4,629 2.715 3,078 10,026 11,229 13,178         Percent to Japan 10.3 10.1 10.7 11.3 12.0	Japan	642	641	643		
Percent to EC 25.8 22.0 17.9 21.0 21.4  Total, Four Sectors Worldwide \$26,341 \$30,421 \$29,954 \$32,718 \$38,691 Japan 2,715 3,078 3,201 3,681 4,629 EC 9,038 10,269 10,026 11,229 13,178  Percent to Japan 10.3 10.1 10.7 11.3 12.0	EC	815	675	498	714	•
Percent to EC 25.8 22.0 17.9 21.0 21.4  Total, Four Sectors Worldwide \$26,341 \$30,421 \$29,954 \$32,718 \$38,691 Japan 2,715 3,078 3,201 3,681 4,629 EC 9,038 10,269 10,026 11,229 13,178  Percent to Japan 10.3 10.1 10.7 11.3 12.0		20.3	20.9	23.1	23.8	24.1
Worldwide       \$26,341       \$30,421       \$29,954       \$32,718       \$38,691         Japan       2,715       3,078       3,201       3,681       4,629         EC       9,038       10,269       10,026       11,229       13,178         Percent to Japan       10.3       10.1       10.7       11.3       12.0	Percent to EC	25.8	22.0	17.9		
Japan     2,715     3,078     3,201     3,681     4,629       EC     9,038     10,269     10,026     11,229     13,178       Percent to Japan     10.3     10.1     10.7     11.3     12.0	Total, Four Sectors					
Japan       2,715       3,078       3,201       3,681       4,629         EC       9,038       10,269       10,026       11,229       13,178         Percent to Japan       10.3       10.1       10.7       11.3       12.0	Worldwide	\$26,341	\$30,421	\$29,954	\$32,718	\$38.691
EC 9,038 10,269 10,026 11,229 13,178  Percent to Japan 10.3 10.1 10.7 11.3 12.0	•	2,715	3,078			
	EC	9,038	10,269	•	-	-
Maria de la compansa		10.3	10.1	10.7	11.3	12.0
	Percent to EC	34.3	33.8	33.5		

a Estimate based on 11 months of actual data (Jan.-Nov. 1987).

bPercent change calculated on annual data before rounding. Department of Commerce data.

Table I.4: U.S. Auto Parts Purchased by Japanese Automobile Manufacturers and their U.S. Companies

Auto part	April-Sept. 1986²	April-Sept. 1987a	Percent changeb (current dollars)	Percent change <sup>c</sup> (constant dollars)
	(mil	lions)		
Engine parts	\$118.9	\$128.4	8.0	7.5
Chassis & drive train parts	94.7	130.0	37.2	36.6
Body parts	347.4	461.5	32.8	32.2
Electrical/ electronic parts	438.2	459.1	4.8	4.2
Accessories etc.	56.8	40.8	-28.1	-27.7
Materials	120.7	180.0	49.2	48.4
Total <sup>d</sup>	\$1,176.8	<b>\$1,399.9</b>	19.0	18.4

<sup>&</sup>lt;sup>a</sup>Data reported by the Japan Automobile Manufacturers Association, Inc. (JAMA). The first two quarters (i.e. April to September) of JFY 1986 are compared with the comparable period in JFY 1987 since JAMA has only reported data for the first two quarters of JFY 1987.

<sup>\*</sup>Percent change calculated on annual data before rounding.

Based on Department of Commerce analysis changing the data into constant dollars using the U.S. export price index for automotive parts.

dColumns may not add due to rounding.

Japan were much or generally improved for the medical sector since the MOSS talks, and 17 believed this was true for their own firms.

Respondents most frequently cited increased efforts by their firms as a primary factor in changing Japanese business opportunities. The MOSS talks were cited next most frequently as a factor. (See table II.1).

Table II.1: Primary Factors Changing Japanese
Business Opportunities for U.S. Firms

Primary factors changing opportunities	Yes	<u>No</u>
Firm's individual efforts	22	8
MOSS talks	16	14
Exchange rate changes	13	17
Congressional pressure	4	26

Several MOSS agreements dealt with the Japanese system of approving product applications. Of the 19 firms submitting product applications since the MOSS talks concluded, 9 indicated that the talks had helped to a moderate or greater extent in assuring fair treatment for their product applications. However, only 3 of 19 believed that the MOSS talks helped increase their access to the Japanese market to a moderate or greater extent. (See table II.2).

Table II.2: Firms' Assessment of MOSS

Medical Equipment/Pharmaceutical Agreements<sup>a</sup>

Assessments	Great or very great extent	Moderate extent	Some extent	Little/ no extent	Can't judge
Assured fair treatment for U.S. product applications	5	4	8	1	1
Increased access to the Japanese market	1	2	9	5	2

<sup>&</sup>lt;sup>a</sup>Based on responses of 19 firms who have submitted product applications since 1986.

Table II.4: Satisfaction with Aspects of U.S. Followup of MOSS Agreements

	Very or		Very or	
Aspects of Followup	Generally Satisfied	Marginally Satisfied	Generally Dissatisfied	Not Certain
Level of official U.S. involvement	19	6	-	4
Monitoring agreements	17	6	2	4
Arrangements for raising new trade issues	5	10	4	10

<sup>&</sup>lt;sup>a</sup>Based on 29 firms responding to our questions on monitoring of the MOSS agreements

### TELECOMMUNICATIONS SECTOR

Ten of the 11 respondents believed opportunities to do business in the Japanese telecommunications sector were much or generally improved since the MOSS talks concluded, and 8 of 11 respondents believed this was true for their own firms.

All 11 respondents indicated that increased efforts by their firm was a primary factor in changing their Japanese business opportunities; 7 cited the MOSS talks; 5 indicated Congressional pressure as a factor; and 4 indicated that exchange rate changes were a primary factor.

Most firms felt that the MOSS agreements helped greatly in assuring fair treatment for approving U.S. telecommunications products but their assessment was mixed regarding help in increasing their access to the Japanese market. (See table II.5).

Requests for copies of GAO reports should be sent to:

U.S. General Accounting Office Post Office Box 6015 Gaithersburg, Maryland 20877

Telephone 202-275-6241

The first five copies of each report are free. Additional copies are \$2.00 each.

There is a 25% discount on orders for 100 or more copies mailed to a single address.

the Superintendent of Bocuments.

United States General Accounting Office Washington, D.C. 20548

· Comment of the second

Official Business Penalty for Private Use \$300 First-Class Mail Postage & Fees Paid GAO Permit No. G100

Table II.5: Firms' Assessment of MOSS Telecommunications Agreements

Assessment	Great or very great extent	Moderate extent	Some extent	Little/ no extent	Can't judge
Helped assure fair treatment in approving U.S. products	7	3	1	-	_
Increased access to the Japanese market <sup>a</sup>	2	3	2	3	_

<sup>\*</sup>One firm did not respond to this question

We also asked the firms to what extent selected provisions of the telecommunications MOSS talks increased their ability to do business in Japan. As shown in table II.6, six of the 11 firms stated that the provision to establish product approval institutes independent of the Japanese government increased their ability to do business in Japan to a great extent. The agreement to accept manufacturers' test data was rated by 5 firms as greatly increasing their ability to do business in Japan.

Table II.6: Extent Provisions of MOSS Telecommunications Agreement Increase U.S. Firms' Ability to Conduct Business in Japan

Provisions	Great or very great extent	Moderate extent	Some extent	Little/ no <u>extent</u>	Can't judge
Establish independent approval institutes	6	1	2	1	1
Accept manufacturers' test data for approval seals	5	2	1	2	1
Limit technical standards to "harm to network"	4	2	4		1
Set standard processing time for approval of products	1	3	4	_	3

(483466) 12

APPENDIX II

Table II.3 displays the firms' assessment of selected agreements reached under the medical equipment and pharmaceuticals MOSS talks which changed certain Japanese regulatory practices. The agreement by the Japanese to list insurance reimbursable prices on a regular basis was cited by 13 firms as increasing their ability to conduct business in Japan to a great or very great extent. Eight firms also stated that the agreement to regularly publish new regulations helped to a great or very great extent. Moreover, most firms believed this agreement, as well as the agreements on standard processing periods for product approvals and the acceptance of foreign test data, helped them to at least some extent.

Table II.3: Extent MOSS Medical Equipment/Pharmaceutical Agreements
Increase U.S. Firms' Ability to Conduct Business in Japan

Agreement	Great or very great extent	Moderate extent	Some extent	Little/ no extent	Can't judge
Regular listing of insurance reimbursable prices	13	6	1	2	8
Regular publication of new regulations	8	11	5	3	3
Standard processing time for product approvals	5	11	6	5	3
Accept foreign test data for product applications	5	7	8	8	2

Most firms were very or generally satisfied with the U.S. monitoring of the MOSS agreements and the level of official U.S. involvement in the MOSS process, as shown in table II.4.

### SUMMARY OF GAO SURVEY OF SELECTED FIRMS DOING BUSINESS IN JAPAN

### SURVEY RESPONDENTS

To obtain information about whether the Market Oriented Sector Selective (MOSS) trade talks have helped U.S. firms conduct business in Japan, we surveyed U.S. firms in the pharmaceuticals/medical equipment and the telecommunications sectors. Our survey was carried out from November 1987 through January 1988.

We sent questionnaires to 42 firms identified by the Health Industries Manufacturers Association and the Pharmaceutical Manufacturers Association as the firms either (1) participating or expressing an interest in industry group discussions on MOSS or (2) doing business in the Japanese medical equipment/pharmaceutical market. Thirty-one of these firms responded to our questionnaire; one conducted no business in Japan in 1986 and was deleted from our analysis.

We sent questionnaires to the 25 firms that the American Electronics Association identified as doing telecommunications business in Japan. Eighteen firms responded to our survey but five did not have business in Japan and two other firms did not know of the MOSS talks. These seven firms were removed from the analysis. Our survey results are thus based on the 11 telecommunications firms and the 30 medical equipment/pharmaceutical firms that responded to our questionnaire and indicated they were aware of the MOSS talks and were conducting business in Japan.

### MEDICAL EQUIPMENT/PHARMACEUTICAL SECTOR

Twenty-two of the 30 firms believed that business opportunities in

APPENDIX I

Table I.3: Growth in U.S. Exports Worldwide and to Japan, 1984-1987

		~ ~ ~ ~ ~ ~			
Sector	1984	1985	1986	1987a	
		(pe	rcent <sup>b</sup> )		
Telecommunications					
Increase, world	2.7	7.1	2.2	7.9	
Increase, Japan	-5.7	9.3	32.7	26.4	
Electronics					
Increase, world	26.3	-3.3	7.1	21.5	
Increase, Japan	30.0	4.6	7.3	31.6	
Pharm./Med. Equipment					
Increase, world	3.9	3.3	14.8	9.7	
Increase, Japan	6.0	4.6	15.9	14.0	
Forest Products					
Increase, world	-2.9	-9.5	22.6	27.2	
Increase, Japan	3	. 3	26.0	28.7	

<sup>&</sup>lt;sup>a</sup>Estimate based on 11 months of actual data (Jan.-Nov. 1987). <sup>b</sup>Percent change calculated on annual data before rounding. Department of Commerce data.

APPENDIX I

### U.S.-JAPAN TRADE DATA BY MOSS SECTOR

Tables I.1-I.4 present an overview of the changes in U.S-Japan trade flows for selected sectors. Tables I.1-I.3 are based on U.S. export data collected by the Department of Commerce and show U.S. exports to Japan, the EC, and worldwide by MOSS sector for the original four sectors negotiated--telecommunications, electronics, pharmaceuticals/medical equipment, and forest products--covering 1983-87 and growth in U.S. exports to Japan and worldwide for 1984-87. Definitions of these MOSS sectors are based on Department of State SIC code designations as follow.

Telecommunications: SIC 3661, 3662;

Electronics: SIC 3573, 3674;

Pharm./Med. Equip.: SIC 2831, 2833, 2834, 3693, 3841, 3842, 3843;

Forest Products: SIC 2421, 2426, 2431, 2435, 2436, 2439, 2492, 2621, 2631.

Table I.4 provides data on the transportation machinery/auto parts sector (the fifth and last MOSS talks negotiations) and shows U.S. auto parts purchases by Japanese automobile manufacturers and their U.S. companies for 1986 and 1987 based on the Japanese data made available to the Department of Commerce.

Table I.1: U.S. Exports To Japan By MOSS Sector (in millions of dollars)

<b>,</b>		•			
Sector	1983	1984	<u>1985</u>	1986	1987*
Telecommunications	\$196	\$185	\$203	<b>\$</b> 269	<b>\$</b> 340
Percent change <sup>b</sup>	17.9	- 5.7	9.3	32.7	26.5
Electronics Percent change	\$1,092	\$1,420	\$1,484	\$1,593	\$2,097
	13.1	30.0	4.6	7.3	31.6
Pharm./Med. Equip.	\$785	\$832	\$871	\$1,009	\$1,150
Percent change	7.7	6.0	4.6	15.9	14.0
Forest Products Percent change	<b>\$64</b> 2	<b>\$641</b>	\$643	\$810	\$1,042
	-1.3	-0.3	0.3	26.0	28.7
Totalc:	\$2,716	\$3,078	<b>\$3,200 4.0</b>	\$3,681	\$4,629
Percent change	8.1	13.3		15.0	25.8

<sup>\*</sup>Estimate based on 11 months of actual data (Jan.-Nov. 1987).

<sup>&</sup>lt;sup>b</sup>Percent change calculated on annual data before rounding.

Columns may not add due to rounding.

Department of Commerce data.

A number of important caveats must be placed on the bilateral trade data provided in appendix I. First, according to trade experts, trade flow data alone are inadequate for measuring the effects of a single factor or event, (e.g. the MOSS talks), since it is practically impossible to disassociate other factors influencing the level of U.S. exports to Japan, such as exchange rate fluctuations, cyclical effects, and the varying levels of effort by U.S. firms. Further, all provisions of the agreements reached during the MOSS talks were not implemented at the same time--certain tariff reductions were scheduled to take effect over several years, for instance--thus year-to-year comparisons by sector do not tell the whole story. Therefore, the data in appendix I present an overview of bilateral trade flows in the sectors negotiated under the MOSS framework, but changes in exports can not be assumed to be directly attributable to the MOSS process, since any ostensible increase in U.S. exports to Japan would be due to several factors, not only the MOSS agreements reached.

Second, we use the Standard Industrial Classification (SIC) code designations assigned by the State Department (the U.S. agency with overall responsibility for the MOSS talks), to define which products encompass the original four MOSS sectors (as listed in appendix I). Trade experts disagree regarding the exact definition of these sectors, however. For instance, several of these SIC designations cover more products than those directly negotiated under the MOSS framework, (e.g., the electronics sector data includes semiconductors although these were technically negotiated outside of the MOSS talks.) Nonetheless, since other definitions of the MOSS sectors encounter equivalent difficulties (i.e., the choice of products is either too broad or too narrow to fully represent a specific sector), we chose to maintain the State Department's method of reporting MOSS data.

Third, two distinct sets of data exist that track U.S.-Japan trade flows: U.S. export data and Japanese import data. Because Japan reports trade data differently than the United States and the United States has not yet adopted the international "harmonized system" of reporting trade data, import and export statistics do not correlate exactly (i.e., levels of U.S. exports to Japan do not always correspond to the levels of imports registered in Japan from the United States). Since we defined the MOSS sectors in terms of the State Department's SIC code designations, it was necessary to use U.S. export data provided by the Bureau of the Census, U.S. Department of Commerce, to track U.S.-Japan trade flows, since Japanese import data are not consistent with these SIC codes.

The data presented in appendix II briefly summarize the results of our survey of selected U.S. firms to obtain information about the

