

# Japan's Intangible Barriers to Trade in Manufactures

Mounting U.S. trade deficits over the past three years have greatly intensified political and economic pressures for trade protectionism. These pressures have subsided somewhat following the recent decline in the dollar but will most likely continue to be strong over the near-term. Japan has borne the brunt of the criticism because our bilateral trade deficit with Japan—the largest with any country—has been growing very rapidly and now accounts for about one-third of our total trade deficit. While Japan's tariffs and quotas, at least on manufactured products, are recognized as being similar to or lower than other major industrial countries, many suspect that what are sometimes called "intangible" barriers to imports contribute to Japan's trade surplus.

Intangible barriers are mainly systems and regulations applying to both domestic and foreign producers which, by accident or design, work to the special disadvantage of imports. In Japan those barriers provoking the most foreign complaints have been product standards and testing procedures, the wholesale and retail distribution systems, and government procurement. Intangible trade barriers are found in many countries and have attracted increasing international criticism as tariffs and quotas have gradually been negotiated downward. In fact, reductions of some barriers were included in the Tokyo Round of multilateral trade agreements that became effective in 1980. As a signatory, Japan has adopted a series of measures designed to substantially reduce its intangible barriers. Because the changes are being phased-in gradually between 1983 and 1988, and because the trade response will take time, the results will emerge slowly.

This article briefly describes the nature of intangible barriers to imports of manufactures, the products principally affected, the liberalization moves already made and those

planned for 1986-88, and systemic changes that could also ease entry of foreign products. Finally, it offers rough estimates of the long-run trade consequences of greatly reducing those barriers.

We find that these intangible barriers have probably been important for a significant number of products. These include computers, sophisticated telecommunications equipment, and other industrial machinery for which several industrial countries compete strongly with Japan. It is also true of chemicals and some other products for which Japan is at a comparative disadvantage. We estimate, very roughly, that other things being equal, reduction of intangible trade barriers, as defined here, for affected products to the level prevailing in the United States and the European Community (EC), could ultimately raise Japan's imports by as much as 7 percent, or about \$9 billion from the 1983 level. However, because only partial barrier removal can be expected, the actual increase in imports over the next five to ten years would be smaller. About half of any gain would accrue to U.S. exports to Japan.<sup>1</sup>

## Japan's import policy in perspective

Japan's markets are sometimes perceived as relatively closed to foreigners. But as far as tariffs and quantitative restrictions on imports of manufactures are concerned, this is certainly not true. In the early postwar years, Japan imposed high tariffs and stringent quotas to allow war-ravaged industries to rebuild and to protect infant industries such as automobiles as well as the relatively inefficient agriculture sector. However, as basic industries like steel regained their

<sup>1</sup> This is somewhat higher than differently derived estimates by W F Bergsten and William R Cline in *The United States-Japan Economic Problem*, Institute for International Economics (October 1985)

footing and as the automobile and consumer electronics industries became strong competitors in world markets, Japan joined with other nations in mutual reduction of tariffs and quotas on imports of manufactures. Before the latest round of tariff reductions in 1980, Japan's trade-weighted average tariff on manufactured goods was around 10 percent, nearly identical to the EC average and slightly higher than that of the United States.<sup>2</sup> When the Tokyo Round cuts are fully implemented, which in Japan's case has already occurred, Japan's average tariff on manufactures, at 2.9 percent, will be one and one-half to four percentage points lower than the also low averages for the other industrial countries.<sup>3</sup>

In the area of quantitative restrictions, Japan maintains 22 quotas on imports of agricultural products, rivaling the EC in the protectionist thrust of its trade policy. But for manufactures, its use of such restrictions is more limited: there are quotas only on leather products and coal briquettes. And Japan is a member, along with the United States and the EC countries, in the multi-fiber agreement which limits exports of textile products from developing countries to industrial countries. However, unlike the United States, Canada, and the EC countries, Japan has not requested that its trading partners impose other "voluntary" restraints on their exports to Japan.

While quantitative restrictions apply to a limited range of Japan's imports of manufactures, the scope of intangible barriers is broader. Foreign countries have complained that restrictive product standards and related inspection and certification procedures, the wholesale and retail distribution systems, and government procurement procedures make Japanese markets for many manufactured products difficult to penetrate. These barriers have included clear and specific elements of discrimination against imports. But beyond this, some have limited market access to all newcomers, domestic and foreign, and thus may have also served to restrict imports. Pressures on the Japanese government to eliminate these intangible barriers to imports have mounted sharply as the country's trade surplus has widened. The following three sections will describe these intangible barriers, the Japanese government's moves to reduce them, and systemic changes working in the same direction.

<sup>2</sup> Gary Saxehouse, "Evolving Comparative Advantage and Japan's Imports of Manufactures", in K. Yamamura, ed., *Policy and Trade Issues of the Japanese Economy* (University of Washington Press, 1982). The averages included mine products.

<sup>3</sup> Alan V. Deardorff and Robert M. Stern, "The Economic Effects of Complete Elimination of Post-Tokyo Round Tariffs", in W. R. Cline, ed., *Trade Policy in The 1980s* (Institute for International Economics, 1983).

In those areas where industrial countries' tariffs are still protective (notably apparel and footwear, where imports from developing countries are considered a threat) Japan's tariffs are fully as high as those of all major industrial countries except the United States. But for those products where Japan has a clear competitive advantage, Japan's tariffs are significantly lower than in other industrial countries. This reduces its average tariff relative to other industrial countries.

## Product standards

Product standards are frequently mentioned as Japan's most important intangible barrier to trade. Established by the central government to cover most domestic and imported manufactures, standards are of two kinds. First, there are awards for excellence. The Japanese Industrial Standards Committee awards the "JIS" mark to products made in factories where production methods and quality controls meet committee standards. Similarly, the Ministry of Agriculture, Forestry, and Fisheries awards the "JAS" mark (Japanese Agricultural Standards) to processed foods and forestry products from factories meeting its standards. The standards underlying the JIS and JAS marks are so rigorous that many small- and medium-sized firms do not apply for them. But the marks greatly increase product saleability and in many cases have become mandatory for sales to public bodies. Second, most products must meet *required* minimum standards. These are set by various government departments, with the advice of industry committees, and are designed to protect the health and safety of consumers and to assure overall product quality.

For foods and pharmaceuticals, where health and safety are involved, Japanese and U.S. approaches to setting required minimum standards are generally similar. But for other products, Japanese standards-setting is more concentrated in the central government and more comprehensive. In the United States, standards-setting is often left to local governments (*e.g.*, local plumbing and wiring ordinances) or trade associations (*e.g.*, standards for electrical appliances). There is also greater reliance in the United States on competition and consumer response, rather than elaborate standards requirements, to assure quality—and perhaps stronger industry resistance to central government standards-setting.

Until recently, the Japanese system of standards overtly discriminated against foreign suppliers. This was recognized in an official report of 1981,<sup>4</sup> and the barriers were described in some detail in a 1980 report of an unofficial group drawn from United States and Japanese business firms and government agencies.<sup>5</sup> The major discriminatory features identified were the following:

- The coveted JIS and JAS marks were not available to foreigners.
- Exporters to Japan were not members of the advisory standards-setting committees and had no direct channels for making their views known to the authorities since they were required to work through Japanese importers.

<sup>4</sup> Report of the Japan-United States Economic Relations Group (1981)

<sup>5</sup> United States-Japan Trade Study Group, *A Special Progress Report* (April 1980)

- The standards themselves were often “non-transparent”—*i.e.*, vaguely worded, hard to understand, and frequently not published in a readily available source.
- Testing requirements were more burdensome and expensive for imports than for domestically produced products. Japanese producers could choose among three methods of meeting standards: “type approval”, based on factory inspection and product testing; “lot inspection”, *i.e.*, testing samples from each lot; or individual inspection of each product. For the large producer, “type approval” is usually the cost-efficient choice. But until 1983, exporters to Japan could not use this method. Instead they were required to pass “lot inspection” or even individual inspection, and to work through a Japanese agent.<sup>6</sup>

Foreign exporters claiming to have been unfavorably affected by one or more of these restrictions have included foreign suppliers of plywood products, pharmaceuticals, agricultural chemicals, cosmetics, forest products, automobiles, electrical appliances, telecommunications equipment, and some types of industrial machinery.

These discriminatory features did not conform to the standards agreement under the General Agreement of Tariffs and Trade (GATT) that became effective in 1980. That agreement specified that standards should avoid unnecessary obstacles to trade, be transparent, conform to international standards where appropriate, and provide “national” treatment to foreign suppliers (*i.e.*, treat foreign suppliers the same as domestic suppliers). Although Japan initiated limited moves toward compliance in 1980, major efforts began only in 1983. At that time 16 statutes were amended in order to provide national treatment for foreign suppliers. Following the 1980-83 changes, foreigners were permitted to apply for the JIS and JAS plant approval marks, to elect the “type approval” route to meeting required standards, to become members of advisory committees, and to present their views directly to official standards-setting bodies.

Despite these changes, product standards remained a major irritant in Japan's trade relations. As foreign and domestic suppliers became subject to the same requirements, foreign pressures for change shifted to the standards themselves. Complaints were focused on the complexity of Japanese standards and their dissimilarity to international standards (where such existed), or to those in the supplier's own country. Objections were also raised to Japanese government inspection of factories outside Japan, and to the need for product testing in Japan rather than by approved foreign certification agencies. These aspects of Japanese standards requirements did not always violate national treat-

ment precepts. However, they may have put a greater financial burden on foreign entrants to Japanese markets than they did on Japanese producers. If so, they may have discouraged imports of products for which foreign producers had a comparative advantage.

The Japanese authorities had made a start at addressing these complaints in 1983. But in 1985, spurred by a widening trade surplus and mounting tension with trading partners, they initiated a new broad-scale program scheduled to take effect gradually between 1985 and 1988. To meet the criticism that standards were unnecessarily complicated, some standards were to be eliminated altogether and many others were to be simplified. Instead of requiring Japanese inspection of foreign factories, Japan decided to accept approved foreign tests for many products and permit self-certification by suppliers of numerous products. The government also agreed to step up its study of international standards and to consult with other interested countries and international standards-setting bodies. For a few products, Japan also agreed to accept a few international standards in 1985 and 1986. (Details of the 1985 program are given in the appendix.) Since many aspects of the 1985 program remained to be spelled out, official U.S.-Japan trade groups continued to meet, hammering out specifics acceptable to both sides.

#### **The distribution system as a barrier to imports**

As with product standards, the Japanese distribution system has presented two types of barriers to imports: clear discrimination against imports in a few areas, and more pervasive systemic barriers to new entrants, foreign or domestic. Both sorts of barriers are crumbling—the discriminatory ones at the insistence of foreign suppliers and the systemic ones as part of a slow evolution.

The outstanding case of deliberate discrimination against imports, *per se*, in the distribution system has been that practiced by the government-owned Japan Tobacco and Salt Public Corporation (JTS). In addition to monopolizing the purchase of raw materials and the manufacture of tobacco and salt products, JTS controlled the *distribution* of tobacco products until 1985. By limiting the number of retailers permitted to sell foreign cigarettes and restricting advertising expenditures, it limited imports to about 2 percent of total sales. In April 1985, JTS was “privatized”, becoming Japan Tobacco (JT), a “special corporation” under government jurisdiction.<sup>7</sup> In response to political pressure from Japanese tobacco growers, it will continue to monopolize purchases of tobacco and the manufacture of cigarettes and other tobacco products. But it has relinquished its con-

<sup>6</sup> *Operations of the Trade Agreements Program*, 35th Report (1983) and United States International Trade Commission (June 1984)

<sup>7</sup> In the foreseeable future, JT will not become privately owned, as the word “privatized” (used in the official description of the change) might suggest. The details of the privatization and market prospects for JT and foreign suppliers are discussed in “The Tobacco Monopoly Goes Private”, *Economic Eye, a Quarterly Digest of Views from Japan*, Japan Institute for Social and Economic Affairs (June 1985)

Table 1

### Distribution of Sales by Japan's Retailers and Wholesalers by Number of Persons Engaged per Establishment

In percent of total sales

Number of persons engaged *	Retailers			
	1954	1960	1974	1982
One to four	58.8	48.3	34.1	32.8
Five to forty-nine	32.4	38.6	44.8	47.0
Fifty and over	9.1	13.1	21.2	20.0
	Wholesalers			
One to four	7.8	5.7	4.0	5.3
Five to forty-nine	56.5	50.6	39.0	41.3
Fifty and over	35.7	43.9	57.0	53.4

Percentages may not add to 100 due to rounding

\* Includes proprietors, family members, and corporate officers

Source: *Japan Statistical Yearbooks*

trol over the *distribution* of tobacco products and will allow foreign cigarettes and other tobacco manufactures to compete freely by allowing them unlimited access to wholesale and retail distribution channels.

A wider-spread problem for foreign suppliers of many consumer goods has been the barrier to new entry, domestic or foreign, created by exclusive dealer arrangements. Such arrangements thrived in the highly fragmented distribution system of the early postwar years but are losing importance as the distribution system changes.

In the early postwar period, the small store was predominant in Japanese retailing (Table 1). In 1960, for example, nearly 50 percent of all retail sales were made in establishments of one to four employees and only 13 percent in stores with 50 or more employees. Linking manufacturers to retailers was a network of national, regional, and local wholesalers, which also tended to be small. Producers of manufactured consumer goods easily dominated this fragmented distribution system, either by direct ownership of some wholesalers or by exclusive dealer arrangements. Wholesalers in turn often made exclusive agreements with retailers. Given their small size, most retailers had little ability or incentive to resist such arrangements.

However, changes in the Japanese economy gradually forced changes in the size of the distribution unit. As the ownership of automobiles and refrigerators, rare in the 1950s and early 1960s, became common later in the 1960s and after, the need for small retail stores close to home diminished. At the same time, increasing competition in labor markets in the 1960s increased the need for larger, more labor-efficient distribution units. The government con-

tributed to the shift to larger distribution units by making low-interest loans to wholesalers and retailers for relocating and modernizing. By the mid-1970s, only 34 percent of all retail sales were made in establishments with one to four employees and sales of stores with 50 or more employees had risen to 21 percent of the total. The scale of wholesalers increased correspondingly.<sup>8</sup>

Since the mid-1970s, however, the trend toward larger retailers and wholesalers has slowed. At least part of the explanation lies in changing government policy. As the growth of employment opportunities in manufacturing diminished, government policy shifted from fostering more efficient operations to protecting the small retailer and employment in retailing by limiting the size of retailers. A 1974 law required Ministry of International Trade and Industry approval for construction of any retail store of 1,500 square meters or more (3,000 square meters in ten large cities). Since then, several prefectures have enacted even more stringent regulations.

However, changes in the scale of retailing that had occurred before the mid-1970s and the continued increase in the proportion of mid-sized retailers were enough to loosen the grip of exclusive dealer arrangements in some areas. Many larger retailers, especially in consumer electronics, have gone into high-volume discount sales, bypassing wholesalers altogether and dealing directly with a number of competing manufacturers.<sup>9</sup> Wholesalers, fighting for their existence, are also beginning to avoid exclusive marketing agreements and are offering a wider variety of products.<sup>10</sup>

Developments of this sort should ease entry for all new market participants, including foreign suppliers. However, these trends seem to be strongest in consumer electronics, where few if any foreign suppliers are competitive. In retail areas where imports should be competitive, some distribution difficulties persist. A recent government survey of distribution markups for domestic and imported products found that for whiskeys, candies, edible oils, men's overcoats, and footwear, markups on imports were double those on domestic products.<sup>11</sup> Even after allowing for the inclusion of tariffs in the markup on imports, the discrepancy between markups for imports and those for domestic products remained large. The difference in markups suggests the presence of exclusive distribution arrangements. The resulting high price for imports has probably limited the sale of imported products.

<sup>8</sup> This description of the evolution of the Japanese distribution system draws heavily on Edward J. Lincoln, "The Zebra Stripes or a Tale of Distributus Japonicus and the Economists", in M. Harvey and R. Lusch, eds., *Marketing Channels: Domestic and International Perspectives* (University of Oklahoma Press, 1982). However, Lincoln focuses on the efficiency of the system.

<sup>9</sup> "Home Electric Appliances: High Volume Retailers are Changing Distribution Patterns", *Daiwa Bank Monthly Research Report* (December 1985).

<sup>10</sup> "Wholesalers Struggle to Ride Out Stormy Rationalization in Distribution", *Mitsubishi Bank Review* (May 1985).

<sup>11</sup> A report by Japan's Council on Price Stabilization, summarized in *Japan Economic Journal* (November 23, 1985).

### Government procurement

In Japan as in other industrial countries, government procurement has favored domestic producers. To reduce this discrimination, the Tokyo Round included an agreement on government procurement, which Japan and most other industrial countries have accepted. This requires that foreigners be permitted to bid on government contracts valued at SDR 150,000 (about \$165,000-U.S.) or more, and that bidding procedures be "transparent".

Interest in the Japanese government's procurement of industrial products has been focused on Nippon Telephone and Telegraph (NTT) which has purchased annually about \$2-3 billion of telecommunications equipment in recent years. Following the Tokyo Round agreement and a special bilateral agreement with the United States in 1981, NTT opened its procurement to foreign bidders. The modest rise in its foreign purchases that followed proved disappointing to foreign suppliers. Judging from complaints registered with GATT in 1983, Japan was especially remiss in its reliance on single tendering, but was also criticized for short bid deadlines, short delivery times, maximum price specifications, and complex qualification requirements. Somewhat similar criticisms were made of other countries as well.<sup>12</sup>

In its market-opening package of 1985, Japan attempted to meet these complaints. It promised to review single tendering (acknowledging that this method should be used only exceptionally), to increase bid times (from 30 to 40 days), and to simplify qualification procedures. It also expanded the number of government agencies and corporations which would open their procurement to foreign bidding. However, there are still some important omissions such as the National Space Development agency, the sole government purchaser of communications satellites.

In the meantime, however, the opportunities for marketing sophisticated telecommunications equipment and computers have shifted to the private sector. This shift is partly because NTT was "privatized"<sup>13</sup> in 1985, thus moving a major purchaser of computers and sophisticated telecommunications equipment from the public to the private sector. But it is also because the telecommunications industry has been transformed by breaking the NTT monopoly over telecommunications and permitting the entry of foreigners.

In Japan the telecommunications industry is now divided into two branches: common carriers and services known as Value-Added Networks (VANs). The latter include data processing, computer linkages, teleconferencing, and videotex. Foreign firms may hold no more than one-third interest

in common carriers but are permitted 100 percent ownership of VANs. A number of large U.S. firms have entered or are about to enter the VANs area, alone or with Japanese partners including NTT. Since VANs were slow to develop in the period of the NTT monopoly, experienced foreign firms may have at least a temporary technological advantage.

Both common carriers and VANs (domestic and foreign) constitute a rapidly expanding market for sophisticated telecommunications equipment, computers, and software. NTT has pledged to conform to the procurement policies to which it had been committed as a government corporation under the GATT agreement on government procurement. Further, since private firms, including NTT, are now permitted to buy foreign communications satellites, a market for the U.S. product has been opened. In view of the importance of standards for computers and software in the competitive and rapidly growing telecommunications market, a U.S.-Japan committee was organized to negotiate the development of standards. As a result, standards and standards procedures originally proposed by Japan have been simplified.<sup>14</sup> Manufacturer-generated test data will be accepted and standards will be limited to insuring that the equipment does not harm the Japanese telecommunications network.<sup>15</sup> Bilateral negotiations with the United States covering these and other points were successfully concluded in January 1986.

### Trade consequences of eliminating intangible barriers to imports

Now that Japan's intangible barriers to imports of manufactures are falling, the natural question is how much of an increase in imports of manufactures can be expected as a result. We start with a very rough estimate of the maximum increase in Japan's imports of specified manufactured products that could ultimately come from reducing intangible barriers to the levels prevailing in the United States and the EC countries. These estimates are based on the presumption that, in the absence of trade barriers or subsidies to domestic output (or with uniform low trade barriers and subsidies across countries), countries with roughly similar comparative advantage in producing a given product will have similar propensities to import it.<sup>16</sup> These propensities are measured as

<sup>12</sup> Italy, France, and the United States were faulted for short bid deadlines, and Italy for publishing few tenders. The United States was criticized for proliferation of "Buy American" requirements. United States International Trade Commission, *op cit*, page 89.

<sup>13</sup> The NTT Act of December 20, 1984 made NTT a private company as of April 1, 1985. However, the government still holds all of NTT's stock issued on that date. It will be sold to the public gradually, beginning in 1986, but foreigners will not be permitted to purchase it.

<sup>14</sup> *Operation of the Trade Agreements Program*, U.S. International Trade Commission, Publication 1725 (July 1985), pages 148-149.

<sup>15</sup> *Annual Report on National Trade Estimates*, The U.S. Trade Representative, Executive Office of the President (1985), page 119.

<sup>16</sup> It might be argued that Japan's imports should not be expected to conform exactly to our basic assumption (*i.e.*, that countries with similar comparative advantage in trade of a given product will have similar propensities to import that product) since Japan's higher propensity to import raw materials might lead to lower propensities to import manufactures. However, these basic international differences in resource endowment are at least partially reflected in Japan's exceptionally high comparative disadvantages relative to other countries for raw materials, and its exceptionally high comparative advantages in some manufactured products.

Table 2

**Comparative Advantage Indicators\* for Japan, the United States, and the European Community**

Selected industrial product groups

Products grouped according to Japan's comparative advantages relative to the United States and the European Community	Japan	United States	European Community
<b>Much stronger</b>			
Consumer electronics	5.6	0.6	0.4
Road vehicles	3.9	1.3	1.2
<b>Roughly similar or somewhat weaker</b>			
Office and data processing machinery	2.9	3.0	0.8
Electrical machinery not elsewhere specified	1.9	1.5	1.3
General industry machinery	1.4	1.7	2.2
Professional, scientific, and control instruments	1.2	3.0	1.5
<b>Much weaker</b>			
Chemicals	0.5	1.7	2.2
Pharmaceuticals	0.5	1.7	2.5
Essential oils and cosmetics	0.2	1.4	3.0
Fertilizers	†	1.2	0.8
Cork and wood products	0.2	0.6	0.5
Clothing	0.2	0.1	0.9
Beverages	0.1	0.2	4.4
Tobacco and manufactures	†	2.6	0.4

\* Ratio of share in OECD imports of given product group to share in OECD imports of all products. Based on data for 1983 as published in OECD, *Foreign Trade by Commodities, Volume II, Imports*. Intra-European Community trade has been excluded from the OECD imports total and the European Community share.

† Less than 0.05

the ratio of imports to GNP. We approximate comparative advantage in each product group by the ratio of the country's share in *supplying* world imports of the product in question to its share in *supplying* world imports of all products.<sup>17</sup> A ratio significantly higher than one denotes comparative advantage.

Table 2 provides a rough snapshot indicator of the comparative advantage of Japan, the United States, and the EC in 1983 for those product groups affected by Japan's intangible trade barriers described in the preceding sections.<sup>18</sup>

For consumer electronics and road vehicles, it is clear that Japan has an overwhelming comparative advantage

<sup>17</sup> This measure was developed by Bela Balassa in "Trade Liberalization and 'Revealed' Competitive Advantages", *Manchester School of Economic and Social Studies* (May 1965).

<sup>18</sup> As a matter of convenience, OECD imports from all sources are taken as a proxy for world imports. The year 1983, the latest for which the desired data were available, has the advantage of being the year Japan seriously embarked on reducing its intangible barriers to trade. Processed foods, though affected by intangible barriers to imports, are omitted for lack of OECD trade data.

relative to the United States and the EC. For office machinery (including computers), the comparative advantages of Japan and the United States are quite similar. For electrical machinery, a product group which includes both sophisticated telecommunications equipment and consumer electrical appliances, Japan's comparative advantage is slightly greater than the United States'. For general industrial machinery and professional, scientific, and control instruments, Japan has a weaker comparative advantage than the United States and the EC. For chemicals, wood products, clothing, beverages, and tobacco products, Japan has a decided comparative disadvantage while the United States and the EC have a strong comparative advantage in some of them.<sup>19</sup>

Table 3 shows strikingly lower import propensities for Japan than for the United States and the EC in virtually all product groups. This is true not only in cases where Japan has a strong comparative advantage but also in cases where similar comparative advantage would lead one to expect similar propensities. It is also true in the case of products for which Japan has a comparative disadvantage while the United States and/or the EC have a comparative advantage. Since tariffs and quota restrictions are low in all of these countries for most affected product groups, this asymmetry between comparative advantage and propensity to import in Japan suggests that its intangible barriers are in fact restrictive.

Table 3 also gives an estimate of the potential long-run increase in Japan's manufactured imports from a lowering of its intangible barriers for the products shown in the table to the level prevailing in the United States and the EC. Total manufactured imports could rise by 27 percent while total imports could rise by 7 percent. (This would raise Japan's total manufactured imports by about three-quarters of a percent of GNP.) Over half the increase should come in chemicals (including pharmaceuticals), computers, data processing equipment, and electrical machinery (including sophisticated telecommunications equipment). On the basis of current trading patterns, the United States' share of the overall gain should be at least half.

The foregoing estimate is a maximum in the sense that it represents the rise in imports of specified products that could be expected if Japan's intangible barriers to those imports were reduced to the generally lower U.S. or EC levels. Since barrier reductions now in prospect are not complete, their import consequences are likely to be lower than these maximum estimates.

### Conclusion

We have found that although Japan's tariffs and quantitative restrictions are lower than in other industrial countries, its

<sup>19</sup> For wood products, clothing, and footwear, Japan, the United States, and the EC are all at a comparative disadvantage (Japan more than the others)—which may explain their universally high tariffs in those areas. Comparative advantage in these areas belongs to the developing countries.

intangible barriers have remained significant. Such barriers—product standards, the distribution system, and government procurement—have included elements of discrimination against imports as well as systemic impediments to all newcomers, domestic and foreign. As a result of heavy pressure from its trading partners, Japan has already reduced measurably many discriminatory features of standards-setting and government procurement and is in the process of doing more. In two programs announced in

1983 and 1985, the Japanese government has undertaken to greatly reduce systemic barriers in standards by simplifying the standards themselves and the certification procedures required to meet them. Moreover, a natural evolution of the wholesale and retail distribution system—mainly a move toward larger, more enterprising, and independent retailers—is gradually reducing systemic barriers in that area.

Other things remaining the same, reduction of intangible barriers to U.S. or EC levels for affected products could

Table 3

**Estimating the Long-Run Consequences of Eliminating Intangible Barriers to Japan's Imports**

Products grouped according to Japan's comparative advantage relative to the United States and the European Community	Japan's imports in 1983 In millions of dollars	Imports as percent of GNP					Ratio of estimated/actual imports for Japan	Japan's estimated imports In millions of dollars	Estimated change induced by lowering intangible barriers		
		Japan	United States	European Community	Japan (estimated, intangible barriers lowered)*	Percent of total 1983 imports			Percent of 1983 imports of manufacturers		
<b>Much stronger</b>	<b>1,083</b>							<b>1,083</b>	<b>0</b>		
Consumer electronics . . . . .	464	0 038	0 352	0 284	0 038	1 00	464	0			
Motor vehicles . . . . .	619	0 052	1 138	0 444	0 052	1 00	619	0			
<b>Roughly similar or somewhat weaker</b>	<b>5,178</b>						<b>8,834</b>	<b>3,656</b>	<b>2.9</b>	<b>11.8</b>	
Office and data processing machinery	1,068	0 090	0 211	0 416	0 211	2 34	2,504	1,436	1 1	4 6	
Electrical machinery (not elsewhere specified)	2,051	0 174	0 392	0 382	0 209†	1 2 †	2,461	410	0 3	1 3	
General industrial machinery	1,004	0 085	0 150	0 231	0 150	1 76	1,771	767	0 6	2 4	
Professional, scientific, and control instruments	1,055	0 089	0 063	0 177	0 177	1 99	2,098	1,043	0 8	3 3	
<b>Much weaker</b>	<b>9,096</b>						<b>13,965</b>	<b>4,869</b>	<b>3.9</b>	<b>15.4</b>	
Chemicals . . . . .	7,008	0 593	0 341	0 660	0 858	1 45	10,140	3,132	2 5	9 9	
Cork and wood products	172	0 015	0 045	0 083	0 045‡	3 00	516	344	0 3	1 1	
Clothing . . . . .	1,511	0 127	0 316	0 369	0 210‡	1 66‡	2,508	997	0 8	3 2	
Tobacco products . . . . .	93	0 045§	0 023§	0 066§	0 086	1 91	177	84	0 1	0 3	
Beverages . . . . .	312	0 026	0 089	0 028	0 052‡	2 00‡	624	312	0 2	1 0	
<b>Total of above</b>	<b>15,357</b>						<b>23,882</b>	<b>8,525</b>	<b>6.8</b>	<b>27.0</b>	
<b>Memorandum:</b>											
<b>Imports of manufactures<sup>  </sup></b>	<b>31,532</b>										
<b>Total imports</b>	<b>125,017</b>										

Calculated percentages may not add to totals due to rounding

\* The basic assumption, that in the absence of barriers, countries with similar comparative advantage have similar import propensities (defined as imports as a percent of GNP), is taken to imply the following

- Products for which Japan has a strong comparative advantage no change in import propensities
- Products for which Japan's comparative advantage or disadvantage is roughly similar to that of the United States or the EC Japan's import propensity would rise to that of whichever has the more similar comparative advantage
- Products for which Japan's comparative advantage is decidedly lower than that of the United States and the EC Japan's propensity is raised to 1 3 times the higher of the United States and the EC propensities This seems conservative in light of differences in import propensities for products where competitive advantages are similar

Exceptions to this procedure are footnoted separately

† In this heterogenous product group (which includes consumer and sophisticated industrial equipment) the difference in income propensities to import is too large to be explained by Japan's slightly higher comparative advantage Japan's import propensity is therefore raised by 20 percent

‡ Some of the discrepancy between Japan's propensity to import and the propensities of the United States and the EC are due to higher tariffs, in the case of wood products and alcoholic beverages, and to strict import restraints under the multi-fiber agreement for clothing The increase in imports assumed to follow from elimination of intangible barriers only is therefore somewhat arbitrary, but smaller than the increase that could be expected if all trade barriers were eliminated

§ Tobacco and tobacco products Trade in tobacco products not available separately

|| Standard International Trade Classifications 0 5, 0 6, 0 7, 0 8, 0 11, and 0 122 Processed foods omitted because trade data unavailable

raise imports by 7 percent in the long run. However, barrier reductions on this scale do not seem likely

These estimated long-term gains are not inconsequential. But they are too small to suggest that intangible barriers are the primary or even a major source of Japan's external trade surpluses—\$56 billion total, and \$42 billion of it with the United States in 1985.<sup>20</sup> Weak domestic demand growth and

a high savings ratio, especially relative to the United States, and the strong dollar appear to have been much more important forces behind Japan's rising trade surplus over the past several years. Nevertheless, the gradual reductions of intangible barriers now in view should contribute modestly over time to reducing Japan's external trade surpluses, both total and bilateral with the United States.

<sup>20</sup> Both balances are f o b Japan

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### Appendix: Measures Introduced in 1985 to Liberalize Standards and Testing Requirements in Japan\*

Industry	Conformance to international standards	Standards eliminated	Standards simplified	Approved foreign tests accepted	Self-certified
Flame-retardant material	†	1986 (20%)	†	1986	†
Special log construction methods	†	†	†	†	1986
Laminated lumber, strand board, and wafer board	†	†	1985	†	†
Medical equipment for animals	†	†	†	1986	1988
Drugs for animals	1987†	1986	1985	1985	†
Feed	1988‡	1986	†	1985	†
Fertilizers	1985	1986	1985	1988	1986
Chemicals	1988	1986	1988	†	1988
Pharmaceuticals	1985	†	1985	1985	1988
Medical equipment	†	1988 (25%)	1985	†	1988
Cosmetics	†	†	1988	†	1988
Food color and additives	1985‡	†	†	†	1988
Carbonated beverages	†	†	†	†	1988
Electrical appliances	1988	†	1988	1985	1988
Radio equipment	†	†	†	1986	†
Telecommunication terminals	†	†	1985	†	1986
Cellular and cordless phones and pagers	†	†	1986	†	†
Microwave ovens	†	†	†	†	1985
Boilers and high pressure gas equipment	1986‡	†	†	1986	1986
Small boilers and steam cleaners	†	1985	†	†	†
Dust respirators	1986‡	†	1986	†	1985
Fire fighting equipment	1985	†	1986	†	1986 (10%)
Measuring instruments	†	1986	1987	1985	†
Motor vehicles (all)	1985‡	†	†	†	1986
Motor vehicles up to 1000 units per type per year	†	†	1986	†	1986
JAS§ mark of factory approval for agricultural and forestry products	†	†	†	1985	1985
JIS   mark of factory approval for other manufactured products	†	1988 (10%)	†	1986	†

\* Actions usually apply to only some items in product groups specified. Percentages, when given, indicate affected proportion of items in product group. Years indicate the maximum time frame within which Japan will act. Years are the fiscal year beginning in April.

† No action planned

‡ Consultation or study

§ Japanese Agricultural Standards

|| Japanese Industrial Standards