

---

## The Economics of Japan-United States Trade and Investment

The economic relationship between Japan and the United States is not defined solely by the macroeconomic issues discussed in the previous two chapters. An important part of the story involves the volume and composition of trade—the products and services each country exports and imports to and from the other—and ultimately the impact of this trade on economic welfare in each society.

The commodity composition of international trade is determined by the interaction of two broad forces. One consists of economic fundamentals, such as technology, the quantity and quality of factors of production, and institutional organization embodied by the economy. The other is public policy. Government actions shape economic life in a variety of ways that have intended (and unintended) effects on the market outcomes that we observe. The form and content of these public-policy interventions reflect a complex interaction of economic goals, domestic politics, bilateral pressures, and the constraints that the global environment imposes on both firms and governments.

This chapter and chapter 5 analyze the impact of these two broad forces, economic fundamentals and economic policy, on the bilateral trade relationship of Japan and the United States. Historically, this relationship has been shaped by the two countries' complementary patterns of specialization in products such as agriculture and manufactures, and their rivalry in the high-technology sphere. These patterns of interaction continue to play an important role.

In the past decade, however, as the interaction of technological advance and policy reform has led to an expansion of cross-border investment

and international trade in services, issues of investment and services have increased in prominence relative to more traditional issues of trade in primary products and manufactures. Although the focus in the past has been on US complaints about access to the market for manufactured goods in Japan and the intensifying rivalry between the two countries in high-technology sectors, the focus is shifting toward trade in services. The bilateral relationship could become more difficult, owing to Japan's lagging competitiveness in some parts of this more and more important component of economic life. The implication is that the regulatory and competition policy issues that are central to investment and trade in services will be even more important in the coming decade than they have been in the past.

Understandably, during the past 50 years, success in constructing a rules-based multilateral trade regime has been greatest in the traditional areas of merchandise trade. As a consequence, the issues of increasing salience to the bilateral relationship are also those for which relatively little international progress has been achieved and that have the greatest potential for progress.

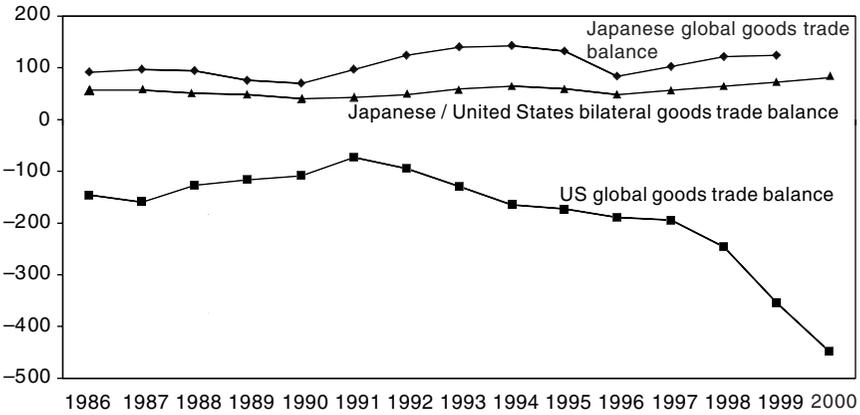
If one conceptually regards these developments as describing the *substantive* issues, then the *procedural* context for dispute resolution is changing as well. The formation of the WTO has, in certain respects, fundamentally altered the resolution of trade disputes between the two countries. The impact of the WTO has been felt primarily through its constraint on the US recourse to unilateral measures, but also through its limitation of Japanese policy, most notably in agriculture. More generally, the strengthening of the WTO has encouraged the attainment of national objectives through multilateral channels. This is to say that both the bilateral agenda and the resolution of bilateral disputes are more and more conditioned by the functioning of the international system.

This chapter begins with a review of the trade and investment relations between Japan and the United States, and then discusses how these are affected by each country's policies. Chapter 5 then goes on to analyze dispute resolution in the 1980s and 1990s, and make recommendations for more constructive relations in the future.

## The Economic Context

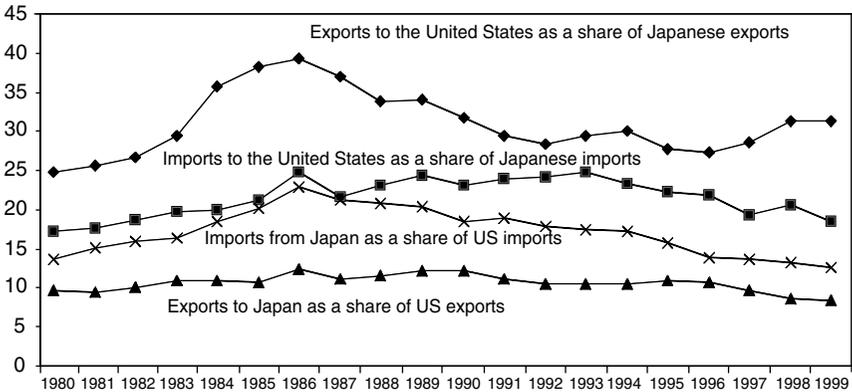
According to US Department of Commerce figures, total bilateral merchandise trade between Japan and the United States reached \$212 billion in 2000, its highest level ever, with Japan running a record surplus of \$81 billion (figure 4.1). Yet despite the historically unprecedented magnitude of trade between these partners, the two countries occupy positions of differing importance in each other's global trade and investment relations (figure 4.2). The United States is Japan's largest trade partner, and in

**Figure 4.1 Global and bilateral trade balance in goods for Japan and the United States, 1986-2000 (billions of dollars)**



Sources: IMF, *International Financial Statistics*; StatsCanada, 1980-97 (CD-ROM).

**Figure 4.2 Bilateral imports and exports as shares of total imports and exports for the United States and Japan, 1980-1999 (percent)**



Sources: StatsCanada, 1980-97 (CD-ROM); Department of Commerce, Bureau of Economic Affairs; Ministry of Finance, Japan.

recent years, trade with the United States has accounted for about a quarter of total Japanese trade (imports plus exports). In contrast, Japan is the third or fourth largest US trade partner (depending on whether or not the EU member states are treated as a single entity), accounting for less than 10 percent of US trade in recent years. As figure 4.2 shows, if

anything there has been a declining trend in the importance of each country in the other's trade. Both countries' trade has increased more rapidly with faster-growing regions such as the rest of Asia (abstracting from the temporary impact of the financial crisis in 1998), and trade between the United States and its immediate neighbors has expanded quickly as a result of regional integration through NAFTA.

The aggregate figures, however, do not tell the whole story. Table 4.1 reports sectoral trade shares for the United States and Japan globally and bilaterally according to broad categories of the Standard International Trade Classification (SITC) system. Both globally and bilaterally, US trade pattern exhibits less specialization across categories, as befits a large continental economy endowed with a variety of natural resources. Although 84 percent of US merchandise exports are manufactures (SITC categories 5-8) (about half of US exports consist of machinery and transportation equipment), the United States also exports large amounts of other agricultural products and other natural-resource-based goods. Within manufactures, the United States has specialized in knowledge- and human-capital-intensive high technology.

In contrast, Japan exhibits a "spikier" pattern of specialization. Merchandise exports are entirely concentrated in manufactures, with almost three-quarters of global exports consisting of machinery and transport equipment alone, whereas food and fuels account for 30 percent of imports. Within manufacturing, Japan (like the United States) has more and more specialized in human-capital-intensive high-technology products (Noland 1996a).

The product composition of bilateral trade largely conforms to the pattern of each country's global trade—the United States exports a diverse basket of goods to Japan, with nonmanufactures, notably food, somewhat more prominent, and machinery and transport equipment somewhat less prominent in comparison with the worldwide pattern of US exports. At this broad level of aggregation, the sectoral composition of Japanese exports to the United States is quite similar to that of Japanese exports worldwide.

The relative endowments of the two countries also influence the bilateral pattern of their trade. Japan's relative resource scarcity means that it tends to run a net deficit in such products as oil or food. For any given level of its global imbalance, Japan will tend to run net deficits with oil exporters such as Saudi Arabia, and tend to run surpluses with importers of manufactures, either in the form of intermediate inputs (e.g., with South Korea in capital goods), or in the form of consumer products (as happens with the United States).

That said, one would still expect Japan to import some manufactures. One of the most notable characteristics of the postwar global trade boom has been the rise of intraindustry trade in differentiated manufactured

**Table 4.1 Composition of Japanese and US trade globally and bilaterally, 1999 (percent)**

Total by SITC classification	Japan						United States							
	Global		Bilateral		Bilateral		Global		Global		Bilateral		Bilateral	
	exports 100	imports 100												
0—Food and live animals	1	14	0	15	0	3	6	1	3	15	0	0	0	0
1—Beverages and tobacco	0	1	0	4	0	1	1	4	1	4	0	0	0	0
2—Crude materials, inedible, except fuels	0	7	0	6	0	2	3	6	2	6	0	0	0	0
3—Mineral fuels, lubricants, and related materials	0	16	0	1	0	7	1	1	7	1	0	0	0	0
4—Animal and vegetable oils, fats, and waxes	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5—Chemicals and related products n.e.s.	7	7	5	10	5	6	10	10	6	10	5	5	5	5
6—Manufactured goods	8	13	6	5	6	11	9	11	11	5	6	6	6	6
7—Machinery and transport equipment	73	31	76	42	76	47	53	42	47	42	76	76	76	76
8—Miscellaneous manufactured articles	11	11	10	14	10	17	12	14	17	14	10	10	10	10
9—Commodities and transactions n.e.s.	0	0	3	2	3	5	4	2	5	2	3	3	3	3

n.e.s. = not elsewhere specified.

SITC = Standard International Trade Classification.

Sources: US and bilateral trade data, <http://dataweb.usitc.gov>; Japanese trade data, <http://www.mof.go.jp/english/trade-st/199928ce.htm>.

**Table 4.2 Selected trade indicators for five industrial countries**

Indicator	Japan	United States	Germany <sup>a</sup>	United Kingdom <sup>a</sup>	South Korea
Intraindustry trade index					
1990	0.26	0.55	0.56	0.59	0.28
1997	0.36	0.62	0.50	0.59	0.43
Import share of domestic consumption of manufactures, 1995 (percent)	7.00	19.90	10.30	19.40	25.90

a. Intra-European Union trade has been eliminated from intraindustry trade index calculations. Intraindustry trade index calculations have also been adjusted for trade imbalances.

Sources: StatsCanada 1990-97 CD-ROM; Global Trade Analysis Project, Purdue University, Web site database, <http://www.agecon.purdue.edu/gtap/data.htm>.

goods among the high-income industrial economies, and Japan appears to exhibit unusually low intraindustry trade relative to other industrial countries (table 4.2). It is less clear whether this reflects extraordinary Japanese competitiveness in manufacturing, distinctively strong preferences for home goods among Japanese purchasers, or a relatively closed market.<sup>1</sup> In any event, intraindustry trade in Japan increased in the 1990s, because of increases in imports of traditional export products (not exports of traditional import goods), both globally and bilaterally, though it still remains below that of comparable countries.<sup>2</sup> Likewise, the import share of domestic consumption in manufactures in Japan is lower than in other large industrial economies, although (as in the case of intraindustry trade) this figure has risen slightly over time, eroding Japan's distinctiveness.<sup>3</sup>

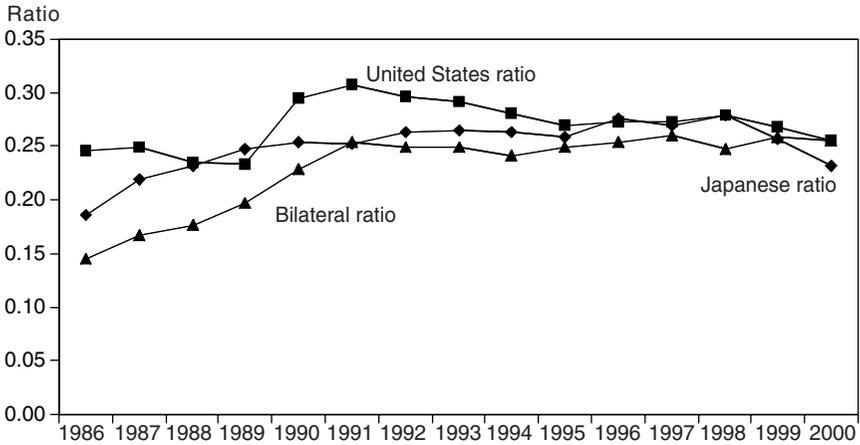
The discussion thus far has concerned merchandise trade. One of the notable trends in recent years has been the growing global importance of trade in services—financial, communications, engineering, transportation, educational, and professional services—as well as in tourism. The service sectors have assumed a more prominent role in the external trade of both

1. See Lincoln (1990, 1999) for the latter interpretation. Unlike the figures reported in table 4.2, Lincoln does not adjust his calculations for Japan's trade imbalance. As a consequence, his indices provide a downwardly biased indication of Japan's intraindustry trade. Similarly, Lincoln's figures on intraindustry trade (and on the share of imports in apparent consumption) apparently do not exclude intra-European Union trade. This omission tends to exaggerate Japan's distinctiveness.

2. See Menon (1997).

3. There is econometric evidence that the income and price elasticities of Japanese manufactured imports have been increasing since the 1980s, and that there has been a secular increase in imports since 1985 (Arize and Walker 1992; Ceglowski 1997). The pattern of change by end-use category suggests that these increases are related to the ongoing integration of the Japanese economy with those of its Asian neighbors (Ceglowski 1996).

**Figure 4.3 Ratio of services trade to goods trade, globally and bilaterally, for Japan and the United States, 1986-2000**



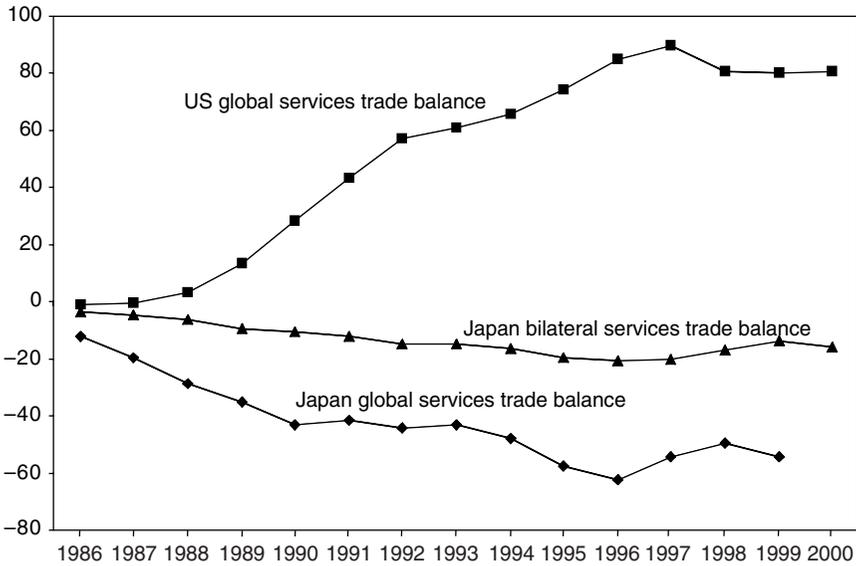
Sources: IMF, *International Financial Statistics* CD-ROM; StatsCanada, 1980-97, CD-ROM; US Department of Commerce, Bureau of Economic Affairs, <http://www.bea.doc.gov/bea/ai/1099srv/intlserv.htm>; US International Trade Commission, <http://dataweb.usitc.gov>.

Japan and the United States, and in their bilateral relationship (figure 4.3). In a reversal of the merchandise-trade situation, Japan runs a global deficit, and the United States a surplus, both globally and bilaterally with Japan (figure 4.4). Indeed, since 1992, US service exports to Japan have been more than half the level of its total merchandise exports. The primary drivers of Japan's growing service deficits have been travel and tourism expenditures, as well as the education category. In both cases, these results reflect a complex legacy of regulation and associated vested interests, which contribute to a lack of competitive pressure and the relative inefficiency of heavily regulated industries in Japan.<sup>4</sup>

The asymmetrical relative prominence of Japan and the United States in each other's trade relations also holds for investment. Historically, far more investment has flowed out of Japan than into Japan, and Japan maintains the world's largest net stock of foreign direct investment (FDI). In comparison, the stock of inward FDI is comparatively low, reflecting scant flows until recently. According to Fukao and Ito (2000), the ratio of inward investment stock to GDP is less than 1 percent, whereas the

4. The IMF (1998) observes that the nonmanufacturing sector of the Japanese economy is regulated far more heavily than manufacturing, and that productivity is far lower. For a specific example, Lincoln (1999) provides an informative discussion of the declining competitiveness of Japanese airlines. The possible impact of deregulation in general, and in the civil aviation sector in particular, is taken up below.

**Figure 4.4 Global and bilateral services trade balances for Japan and the United States, 1986-2000 (billions of dollars)**



Sources: IMF, *International Financial Statistics* (CD-ROM); US Department of Commerce, Bureau of Economic Affairs, <http://www.bea.doc.gov/bea/ai/1099srv/intlserv.htm>.

equivalent figures are 16 percent for the United States, 21 percent for the United Kingdom, and 26 percent for France.

This is important, inasmuch as direct investment is an important modality of economic exchange, especially in knowledge-intensive sectors where information asymmetries between potential buyers and sellers make arm’s-length transactions suboptimal. (E.g., it may be difficult for a firm to convince a potential licensee of a proprietary technology of its worth without revealing trade secrets. It may be preferable for that firm to simply establish operations in the target market itself.) Also for this reason, US firms have historically preferred to hold majority stakes in their foreign subsidiaries. At the same time, Krueger and Ito (2000) caution that FDI statistics are generally among the least reliable economics data, and quantitative comparisons such as these should be evaluated with a critical eye.<sup>5</sup>

The lion’s share of sales by US firms’ affiliates in Japan are to the local market. However, FDI is complementary to exports (i.e., US investment

5. Fukao and Ito (2000) argue that Japanese inward FDI flows are seriously underreported in commonly cited statistics. The Ministry of Finance figures understate actual inward FDI flows because they are based only on voluntary reporting of cross-border capital flows, excluding any reinvestment from retained earnings and investment through capital borrowed in Japan. See also Fukao (2001).

and exports are positively correlated; Noland 1996b), and one would expect intrafirm trade to play an important role in international trade, especially in high-technology products.<sup>6</sup> However, recent data from the US Commerce Department indicate that trade with affiliates accounts for a falling share of US exports to Japan (less than half in 1997, the most recent year for which data are available), whereas intrafirm trade accounts for a rising share of US imports from Japan (more than 80 percent in 1997). Moreover, in Japan the share of US assets accounted for by majority-owned subsidiaries (67 percent) remains below the global average for all US investment (86 percent).

That last comparison may reflect the historical legacy of Japanese policies that discouraged foreign investment in general, and majority ownership in particular.<sup>7</sup> However, the flow of FDI into Japan has been rising rapidly in recent years, more than quadrupling between FY1997 and FY2000 (according to Ministry of Finance figures) to more than \$25 billion at exchange rates prevailing in FY2000. (As a point of comparison, the annual flow of FDI into the United States tripled during the same period to more than \$300 billion.) Even with this rapid increase, outward investment still exceeds inward investment by more than 3 to 1, and Japan still is the destination for only about 5 percent of US outbound FDI, despite accounting for more than twice that share of world output (excluding the United States, and measured at prices adjusted for purchasing power).

The increase in investment into Japan is due in part to distress sales of failing Japanese firms.<sup>8</sup> (Abegglen [2001] goes so far as to praise foreign investors for graciously assuming Japanese firms' underfunded pension liabilities.) According to Stokes (2000), in 1998-99 four-fifths of merger and acquisition (M&A) deals in Japan involved distressed firms. And although M&A activity in Japan was up in 1999, it fell the following year, with cross-border activity involving acquirers outside Japan declining by almost half. M&A activity still accounts for only 7 percent of stock market capitalization in Japan, in comparison with 14 percent in the United States, and 10 percent in the European Union. Even at its peak, the number of mergers and acquisitions was less than a tenth of that in the United States. Eighty-six percent of these deals are purely intra-Japanese, and the number of Japanese takeovers of foreign firms exceeded the converse

---

6. The positive correlation between trade and foreign investment has been documented for Japan as well, starting with Kojima (1978). See also Kawai and Urata (1995) and Bayoumi and Lipworth (1998).

7. See Encarnation (1992), Mason (1992), and WTO (1995) for historical descriptions of Japanese FDI policies.

8. To cite some well-known examples: Long-Term Credit Bank was bankrupt and had been nationalized before it was sold to Ripplewood Holdings, and Japan Leasing (bought by GE Capital) was bankrupt, as was Yamaichi Securities (its retail operations were acquired by Merrill Lynch).

by 50 percent. No hostile domestic bid has ever succeeded, although in 2000 Boehringer Ingelheim, a German pharmaceutical maker, took over SSP, a Japanese drug company.<sup>9</sup> That said, the share of stock trading accounted for by foreigners more than tripled during the 1990s, and foreigners now own perhaps 40 percent of the freely floating shares. The issue of whether these figures reflect fundamental capital market imperfections that impede the existence of a genuine market for corporate control will be taken up in the next section.

The United States is usually the largest single destination for outbound Japanese FDI, typically accounting for 25-40 percent of the total (though in 1999 it was exceeded by the EU member countries in the aggregate). Indeed, despite increased Japanese interest in the rest of Asia, investment in the United States is typically two to three times that of Japanese investment in the region. Japanese firms face the same organizational, locational, and internalization incentives to invest in the United States as US firms do with respect to Japan (Alexander 1997a; Blonigen 1997; McKenzie 1998).

US trade policy may further encourage Japanese investment, as confirmed by the survey responses reported by Urata (1998). Voluntary export restraints on autos in the 1980s encouraged "tariff-jumping" investment by Japanese auto assemblers in the United States, and today, antidumping cases in the United States, discussed in the following section, are having the same effect.<sup>10</sup> In most years, the United States is also the largest foreign investor in Japan, and in 1999 invested just over \$2 billion in Japan, according to Ministry of Finance (MOF) data.<sup>11</sup>

In contrast, Japan is either the third or sixth largest investor in the United States, again depending on whether the EU member countries are counted individually or in the aggregate. Although Japanese investment in the United States increased substantially in 1999 to \$8 billion, this figure was still less than half the previous peak of \$20 billion in 1990. Moreover, during the post-bubble period, Japan's investment in the United States

---

9. Paper bids are subject to two-thirds majority votes by the shareholders of both sides, in effect requiring that hostile bids be for cash.

10. A good example of this would be Fuji Film's construction of a state-of-the-art photographic facility in Greenwood, South Carolina, in 1995 after an antidumping case filed by Kodak. Blonigen and Feenstra (1997) find that Japanese investments in the United States at a detailed sectoral level of disaggregation are correlated with antidumping cases. Barrell and Pain (1999) find that Japanese FDI flows into the United States and European Union are correlated with antidumping actions in each of the two regions. Blonigen (2000) finds that antidumping cases encourage Japanese multinationals to invest in the United States, though he describes the quantitative impact of this effect as "modest." See also Blonigen and Feenstra (1997).

11. In 1999, however, the United States was topped by France due to Renault's takeover of Nissan, and was even surpassed by the Cayman Islands. The DaimlerChrysler takeover of Mitsubishi Motors caused the United States to lag behind the European Union in 2000 as well.

has been of the same magnitude as Switzerland's. Nevertheless, Japanese investment in the United States is a multiple of US investment in Japan.

During the late 1980s, Japanese purchases of "trophy properties" such as Rockefeller Center, the Pebble Beach golf course, and the Columbia Pictures movie studio made the headlines, and the scale of Japanese investment raised concerns among some Americans, and even became a topic of popular culture (e.g., Michael Crichton's novel *Rising Sun*). However, with the end of the bubble and the onset of financial retrenchment in Japan, many of these investors were forced to sell their acquisitions, sometimes at a profit and in other cases with large losses. These aggregate figures suggest that the United States remains central to Japan's global trade and investment relations, whereas Japan, at least in the post-bubble period, occupies a less important position from the perspective of the United States.

The performance of Japanese investment in the United States is generally poor, exhibiting lower returns than comparable US investments, or Japanese investments elsewhere in the world. Urata (1998) ascribes this to the inability of Japanese manufacturers to transfer the *keiretsu* system to the United States; to their misguided attempts to apply inappropriate Japanese human resource management practices in a very different environment; and to poor preproject evaluation, owing to the rushed nature of some investments (as a response to anticipated trade restrictions in the US market).

As a result of Japan's recurrent trade surpluses, its comparative advantage in manufactures, and its relatively low level of inward FDI, foreign firms generally have a smaller role in the Japanese economy than elsewhere. Official figures compiled by the MOF indicate that the foreign-firm share of sales in Japan was less than 2 percent, relative to double-digit shares in other major industrial countries, although the MOF figures undoubtedly understate actual FDI.<sup>12</sup> An issue is to what extent this distinctiveness is determined by economic fundamentals, and to what extent it is a product of government policy, anticompetitive practices of Japanese firms, or the distinct private preferences of Japanese consumers.

## Government Policies

A variety of government policies affect trade and investment flows. Border measures such as tariffs and quotas have a direct impact on international

---

12. The MOF figures refer to 1995. Presumably, this figure has risen in the intervening years due to increased FDI and the takeovers of Nissan and Mitsubishi Motors by foreign firms. Weinstein (1997) argues that MOF methodology leads to an underestimate of the presence of foreign firms in the Japanese economy, and that the actual level of sales accounted for by foreign firms may be as much as twice as high as the official figures indicate. Even so, this would still leave Japan far below the levels observed in other large industrial countries (Bergsten and Noland 1993, table 3.3).

trade and are subject to bilateral, regional, and multilateral agreements. Internal support policies, which can have significant indirect effects on trade, also are subject to multilateral constraints, most obviously in agriculture.

However, as border protection has been removed and the two countries have become more integrated (in absolute, if not relative, terms), more traditionally domestic regulatory issues have come to the fore. As cross-border investment and international trade in services have grown, regulatory issues have become more important, inasmuch as it is primarily regulation, not traditional internal or external measures, that impede this exchange. Moreover, regulation can act as a facilitating device for anticompetitive behavior undertaken by private parties, which has been a source of considerable tension in the bilateral relationship.

## Border Measures

Countries typically use international trade policy to protect those sectors that are least competitive internationally. (Analytically, they protect factors of production that are “scarce” in terms of international trade, i.e., which will be adversely affected if international trade is liberalized.)<sup>13</sup> In densely populated, land-scarce Japan, historically this has meant intervening in markets to protect its relatively inefficient natural-resource-based industries, in particular agriculture.<sup>14</sup> In contrast, the United States—which has accumulated a large stock of capital and is well endowed with natural resources, but in global terms is scarce in labor—has protected its labor-intensive low- or medium-technology manufacturing sectors. Other forces (e.g., the degree of producer concentration, the extent of unionization, and the political power of specific politicians or pressure groups) further shape actual outcomes with regard to particular sectors.

The complementary pattern of specialization between Japan and the United States has meant that trade is beneficial to both countries. However, it has also meant that trade has been accompanied by painful adjustments in each country’s import-competing sectors. For understandable political reasons, both governments intervene to forestall or cushion these internal adjustments. Predictably, these policy interventions, which run counter to the interests of the other country’s most productive sectors, become a source of bilateral tension.<sup>15</sup>

---

13. See Lee and Swagel (1997).

14. Under foreign pressure, Japan has undertaken some “affirmative action”-like policies to boost imports (e.g., providing subsidized office space in Tokyo to foreign small and medium-sized enterprises that are potential exporters), though like Greaney (2000b) we are skeptical about their impact.

15. See MITI (2000) and USTR (2000) for the views of the Japanese and US governments, respectively.

**Table 4.3 Average weighted tariffs, 1999 (percent)**

Country or group	Total	Primary products	Manufactured goods
European Union	3.2	3.3	3.2
Japan	2.5	4.5	2.0
South Korea	7.4	9.0	7.0
United States	2.5	3.1	2.4

Source: World Bank, *World Development Indicators 2000*, [http://www.worldbank.org/data/wdi2000/pdfs/tab6\\_6.pdf](http://www.worldbank.org/data/wdi2000/pdfs/tab6_6.pdf).

In examining the pattern of intervention, the simplest and conventional place to start is with tariffs. Table 4.3 reports average tariff levels for Japan and the United States (weighted by imports)—and, for comparison’s sake, the European Union and South Korea. Two points are immediately obvious. Successive rounds of international trade negotiations have resulted in a situation in which, on average, tariffs are low (though they remain high in certain sectors).<sup>16</sup> The remaining tariffs, in general, conform to the notion that Japan protects its natural resource sectors and the United States protects manufacturing.

Tariffs are not the whole story, however, even with respect to official border measures. Both countries continue to apply nontariff protection, which in sensitive sectors dwarfs the impact of *ad valorem* tariffs.<sup>17</sup> Some progress on nontariff barriers was achieved in the Uruguay Round, which banned VERs, and established a phaseout of the highly discriminatory Multifiber Arrangement (MFA) on textile and apparel trade. In Japan, nontariff border protection is basically limited to some highly protective tariff-quota schemes in agriculture (e.g., rice), in which Japan historically maintained an import embargo, and even now permits only minuscule imports.<sup>18</sup> In the United States, the Uruguay Round agreement effectively eliminates recourse to quantitative protection in manufactures, so that WTO-consistent antidumping cases have become the protection instrument of choice.

Antidumping actions are the *bête noire* of trade policy instruments. Although antidumping laws may appeal to a certain sense of fairness

---

16. E.g., in the case of the United States, its tariff on light trucks (25 percent)—a legacy of the 1963 “chicken war” between the United States and the European Community—is of particular concern to Japan. Japanese tariffs tend to escalate by degree of processing, according higher effective protection on finished products than industrial intermediates, though this has largely been a concern of developing countries, not the United States. Unweighted average tariffs (which would give a larger weight to highly restricted sectors) would be higher than those reported in table 4.3.

17. See Sazanami, Urata, and Kawai (1996) and US ITC (1999) for informative discussions of nontariff barriers in Japan and the United States, respectively.

18. See Kako, Gemma, and Ito (1997) for an econometric analysis of the rice tariff-quota scheme. Phytosanitary regulations have also been used to impede imports; see Calvin and Krissoff (1998) for an example.

and economic rationality—firms should not be subject to predation—they are fundamentally flawed from a national welfare perspective. In competitive markets, firms may choose to price below marginal cost in the initial stages of production, in the expectation that costs will eventually fall; indeed, Texas Instruments, a US firm, pioneered “forward pricing” in the semiconductor industry.<sup>19</sup>

Moreover, competitive firms may temporarily price below costs if production or distribution is characterized by quasi-irreversibilities or hysteresis. This may occur in a floating exchange rate system as a function of transitory overshoots. Dumping rules include provisions for exchange rate fluctuations, but not misalignments. For these reasons, it is clear that firms vary their exchange rate “pass-through” behavior in response to antidumping actions (Blonigen and Hayes 1999).

Dumping may arise even under competitive market conditions because of market segmentation, transport costs, or other trade impediments.<sup>20</sup> In addition, there are severe problems with the cost-based methods used to implement the law in the United States. Finally, because of understandable public concerns about fairness and predation, antidumping cases enable protection-seeking firms to wrap themselves in the flag.<sup>21</sup>

Perhaps most important, however, antidumping actions effectively create a price-floor policy, making the imposing country a high-cost production location when antidumping duties are imposed on imported inputs. During any cyclical weakening of demand, foreign firms will be tempted to cut their home prices, because their ability to compete in foreign markets is restricted by the antidumping action. The result is that downstream users of the product (e.g., manufacturers of computers or telecommunications products in the case of semiconductors, or automobile assemblers in the case of steel) in net importing regions will be put at a competitive disadvantage. This was demonstrated vividly by the US experience in the first United States-Japan Semiconductor Trade Agreement (1986), which had the effect of creating a price floor for semiconductors in the United States and damaging computer and telecoms production.<sup>22</sup>

Indeed, the United States is the world leader when it comes to antidumping actions, with 300 such measures in place as of mid-2000 (though

---

19. See Dick (1991, 1994) for analyses of dynamic pricing strategies.

20. This is the “reciprocal dumping” model. See Brander and Krugman (1983) and Weinstein (1992).

21. Messerlin (2000) contains a number of recommendations to address these issues in the context of the WTO.

22. Some go so far as to argue that Japanese behavior was aimed at strangling the South Korean semiconductor industry in the cradle. The Semiconductor Trade Agreement contained a provision forbidding dumping in third markets, and the South Korean industry eventually grew into the world’s largest.

**Table 4.4 Use of antidumping measures by four major trading bodies**

Body and measures	1997	1998	1999 <sup>a</sup>
<b>European Union</b>			
Number of measures in force, 31 December	137	161	183
Investigations to which domestic exporters are subject	59	42	20
<b>Japan</b>			
Number of measures in force, 31 December	2	1	1
Investigations to which domestic exporters are subject	12	10	11
<b>South Korea</b>			
Number of measures in force, 31 December	20	28	28
Investigations to which domestic exporters are subject	16	20	18
<b>United States</b>			
Number of measures in force, 31 December	302	326	336
Investigations to which domestic exporters are subject	15	15	7

a. Figures are for January-June.

Source: World Trade Organization, *Annual Report*, 1998, 1999, 2000.

the European Union actually initiated more cases in 1999). The popularity of this instrument is presumably due to the relative ease of filing cases, and the elastic definitions of cost that the US Commerce Department's International Trade Administration uses in calculating dumping margins (table 4.4).<sup>23</sup>

Galloway, Blonigen, and Flynn (1999), using a computable general equilibrium (CGE) model calibrated to 1993, found that antidumping cases generate a net welfare loss to the US economy of \$4 billion annually. This is probably an underestimate of the current impact of such actions, for two reasons. First, the number of antidumping cases has increased since 1993. Second, Galloway, Blonigen, and Flynn only examine the impact of cases in which the US government reaches an affirmative decision and duties are applied. An extensive literature demonstrates that the mere filing on antidumping cases has a demonstrable effect on product pricing and trade flows (Staiger and Wolak 1994). That is, domestic producers can often intimidate foreign producers—which want to avoid costly legal action in the United States—into raising prices and restraining exports merely by filing a case that may be later withdrawn. With the negotiated phaseout of the MFA restrictions on textile and apparel trade, antidumping is the single most pernicious trade restriction employed by the United States, exceeding in impact the Jones Act maritime restrictions or the sugar or dairy quotas.

---

23. The United States has lost challenges mounted by Japan, the European Union, and others to its antidumping practices in the WTO. In fact, the exporting country has won every WTO case to date. See Prusa (1997) for an overview of US antidumping practices.

### **Box 4.1 Supercomputers**

The supercomputer industry is a classic oligopoly, dominated by government and public agency purchases (Bergsten and Noland 1993). It is unsurprising that sales in this market are highly politicized, and there is evidence that both governments have acted to channel sales to their respective domestic producers. In a 1996 episode, the US Department of Commerce leaked a "pre-decision memorandum" estimating dumping margins of 163-260 percent on Japanese-made supercomputers to the National Science Foundation in an apparent attempt to steer business to Cray Research (now a division of Silicon Graphics).

The following year, the Commerce Department announced dumping margins of 173-454 percent on Japanese supercomputers, including those produced by Hitachi, which had not actually sold any in the US market. This action effectively banned Japanese supercomputers from the US market and set off years of ultimately unsuccessful litigation by NEC, one of the Japanese producers.

The US action rebounded on its 1990 agreement with Japan on supercomputer procurement. According to Southwick, "In supercomputers, for a few years, Japan made sure to purchase at least a few Cray and other US machines, but its interest in this agreement has diminished since the US government intervened, unfairly in Japan's view, against NEC in its bid for a US government supercomputer in 1996" (Southwick 1998, 7). In May 2001, the Commerce Department announced that the 454 percent dumping penalty was lifted upon an agreement between Cray and NEC. Under the deal, Cray became the sole original equipment manufacturer and distributor of NEC supercomputers and received a capital injection from NEC of up to \$25 million.

Japan has been a major target of these actions, accounting for 18 percent of US antidumping cases filed between 1979 and 1999 and 17 percent of the affirmative outcomes. As of December 1999, 99 cases had been initiated against Japan, 56 with affirmative outcomes. (This 60 percent affirmative determination rate is the highest for any trade partner.) If one simply allocates the Galloway, Blonigen, and Flynn (1999) welfare loss proportionately, antidumping cases against Japan reduce US economic welfare by approximately \$800 million annually.

The impact on Japanese exporters contains some ambiguity. Although the antidumping cases restrain exports, Japanese exporters are disproportionately multinational corporations operating in oligopolistic markets. Antidumping cases may act as facilitating mechanisms for them and their US counterparts to raise prices, and the firm-specific nature of this instrument encourages highly strategic uses by US firms. For example, in 1992, at the same time that it was accusing Mazda of dumping minivans, Ford was producing sport utility vehicles for its partner.

The extraordinary dumping margins that the US Department of Commerce assesses in these cases can have the effect of effectively cutting off trade (see box 4.1). For example, in 1993, the Department of Commerce imposed dumping margins of more than 300 percent on Fuji and Konica products, encouraging them to raise prices and cut sales to the US market,

and in the case of Fuji, accelerate its investment in the United States. Steel continues to be a focal point. Antidumping rules have been used to restrict imports from Japan and other countries, although US practices are under fire more and more in the WTO (see box 4.2).

## Internal Measures

In addition to these border measures, both countries use a variety of policies to promote domestic industry. In the case of agriculture, the extent and impact of these policies are reasonably well understood. As part of the Uruguay Round agreement, signatories committed themselves to specified reductions in aggregate measures of support, defined as all domestic support to agriculture that does not qualify for certain specified exemptions (including, e.g., research and development expenditures, production-decoupled income payments, and direct payments to farmers under environmental protection programs).

As is shown in table 4.5, domestic support to Japanese farmers is lavish, greater as a share of output or in per capita terms than that provided to farmers in a similarly rich entity (the European Union) or a similarly situated one (South Korea). Similar results are obtained with respect to a broader measure of support, the producer support equivalent measure. Moreover, while the US producer support measure fell from 30 percent in 1990 to 22 percent in 1998 as a consequence of its market-oriented agriculture reforms, the decline for Japan was far smaller—from 68 percent in 1990 to 63 percent in 1998. Indeed, farm incomes in Japan exceed the national average (OECD 2000a). This comes at a real cost to Japanese consumers—as Lincoln (2001) observes, Japanese people spend 23 percent of their income on food, in comparison with 14 percent for Americans, despite the fact that Americans eat out twice as much as Japanese people.

The averages, however, obscure the highly uneven incidence of protection of agriculture in Japan, which is, after all, the world's largest food importer, and exhibits the world's highest imported calorie equivalence (though it has declared its intention to decrease this dependency). Much of its protection is concentrated on a few products, most conspicuously rice. This protection has not promoted productivity increases, and the budget for agricultural support remains high despite the sector's declining economic significance.

Nevertheless, as Lincoln (1999) observes, Japanese protection of agriculture is a "rearguard action." In the immediate future, Japan's internal support should continue to decline because of its acceptance of the developed-country commitment in the Uruguay Round to a 20 percent reduction in its aggregate measure of support between 1995 and 2001. In the more distant future, internal support could be expected to fall even further as additional multilateral agreements are concluded, Japan's dwindling

## **Box 4.2 Steel**

Steel is *not* primarily a bilateral issue, although Japan figures prominently. Globally, the industry is characterized by excess capacity owing to ubiquitous national promotion policies, including tolerance of cartels. This problem is not new: In 1968, legislation was introduced in the US Congress to impose import quotas, and the United States negotiated VERs with Japan and the European Community that went into effect the following year. In the decades since, the industry has periodically been afforded special protection in the United States. Indeed, during the past 20 years, the US industry has responded by adding 20 million tons of capacity, while the European Union, for example, was reducing capacity by 50 million tons. Even while domestic production has increased, however, employment in the steel industry has fallen steadily, owing to the adoption of efficiency-enhancing technological improvements.

In 1998, the United States experienced a surge of imports—mostly from Brazil, Japan, Russia, and South Korea—as a result of the booming US economy, the slump in Asia, exchange rate movements, and a reorientation by Russian producers toward foreign markets. US output declined, and a number of producers were driven out of business. By the end of the year, capacity utilization rates in the US steel industry had fallen below 75 percent. The industry filed antidumping cases, and the US Commerce Department announced penalty duties ranging from 67 percent on imports coming from Japan to 2,000 percent on those originating in Russia.

Conditions improved in 1999. Shipments increased, and by early 2000, capacity utilization exceeded 90 percent. Despite the increase in output, however, employment in steel continued its secular decline, as technological improvements steadily raised labor productivity in the sector.

In 1999, after the worst had passed and conditions were improving, the industry sought special protection, abjuring conventional “escape clause” relief. The steel quota bill failed, but the industry continued its political campaign. In 2000, US Senator Robert Byrd successfully inserted into an agricultural bill a rider that would give US steel producers, rather than the US government, the roughly \$40 million in proceeds from antidumping duties. The agriculture bill, including the Byrd amendment, was signed into law in October 2000.

Japan, the European Union, and others immediately challenged this law in the WTO, as they had other aspects of US antidumping practices. In earlier cases, the WTO had ruled against mostly procedural aspects of US practices. The adverse WTO rulings have not, however, gutted the antidumping law, and both it and the steel controversy are likely to be around for a long time.

Rather than engaging in legislative chicanery, a more constructive approach would combine broadly based income-maintenance and worker-retraining programs to deal with the problem of displaced workers (whether the source of displacement be technological change, international trade, or something else), while attempting to strengthen the trade regime multilaterally, and engaging our trade partners bilaterally. Hufbauer and Goodrich (2001) make specific recommendations with respect to both the wage insurance and multilateral trade negotiation aspects of the problem.

With respect to Japan, the bilateral aspects of such a policy could include consultations to ensure that regulatory barriers do not impede imports into Japan, that competition policies are applied to support a competitive internal market for steel, that the 1999 Industrial Revitalization Law is used to promote restructuring as intended and does not become a backdoor means of subsidizing the Japanese industry, and similarly monitoring the lending practices of the Development Bank of Japan, the principal public-sector lender to the Japanese industry. Until these actions are undertaken, US producers will use antidumping measures for protection.

**Table 4.5 Aggregate measures of support (AMS)**

Measure	European Union	Japan	South Korea	United States
AMS (millions of dollars), 1997	56,748	26,042	2,032	6,238
AMS as a percentage of total agricultural output, 1997	23.0	32.3	8.0	3.1
AMS per capita (US dollars), 1997	152	207	44	23
Producer support equivalent (PSE), 1998	45.6	63.2	58.9	22.2
PSE per farmer (thousands of US dollars) average, 1996-98	17	23	23	14

Sources: AMS and agricultural output figures from WTO notifications of member countries, <http://www.wto.org>. PSE data from US Department of Agriculture, Economic Research Service. Other data from World Bank, *World Development Indicators* (CD-ROM), 1999.

farm population is losing political clout, and the Japanese budget comes under pressure from rising social welfare expenditures due to the aging of the population.

Our understanding of the impact of agricultural policies is far more complete and less controversial than that of manufactures trade. During the postwar period, Japan pursued an active industrial policy, and commentators as diverse as Johnson (1982), Shinohara (1982), and Tyson (1992) have ascribed a central role to industrial policy in Japan's postwar economic development. Analytically, these policies could be justified as an infant industry promotion strategy undertaken by a technological follower playing catch-up (Iwata 1997). Export or other external performance targets could be used to measure success and discipline the moral hazard associated with the exploitation of a captive domestic market (Ito 1992).

Domestic support policies have included direct subsidies, preferential trade treatment, preferential access to credit, government procurement preferences, the establishment of producer cartels, and public subsidization of research and development (R&D) consortia. These policies were facilitated by the existence of a network of public-sector financial institutions. Programs such as the postal saving and insurance systems acted as deposit or payment-taking institutions. These funds were then intermediated by the MOF-controlled Fiscal Investment and Loan Program (FILP) through public-sector lending institutions such as the Japan Development Bank, providing the government a mechanism by which to channel capital to preferred users or industries. External policies have included trade protection, limitations on inward direct investment, and control over high-technology trade. It is clear from studies by Noland (1993) and Beason and Weinstein (1996) that these policies had a demonstrable impact on the country's composition of output and trade, although the notion that they were welfare-enhancing was not supported. Similarly, Sakakibara and Porter (2001) found that domestic rivalry—not collusion or a sheltered

home market—has induced dynamic improvements in international competitiveness.<sup>24</sup>

The US government also has undertaken a variety of policy interventions that collectively might be regarded as an industrial policy, although it was never articulated as such. These measures have included special tax policies, input subsidies, preferences in government procurement, public subsidies to R&D and its dissemination in the agricultural sector, and large-scale government purchases that have effectively created markets (e.g., in avionics, ground-tracking stations for satellites) often associated with defense procurement.

In both Japan and the United States, however, the impact of these policies may have waned over time, for a variety of reasons. In the United States, and to a lesser extent Japan, there has been an ideological shift away from the interventionist model. This has coincided with a drying up of public funding—in the United States due to the constraints on aggregate government spending through legislated restrictions on federal spending starting in the late 1980s, and in Japan due to the competing demands for social welfare spending due to the rapidly aging population. Moreover, in Japan, the public-sector financial infrastructure—in the form of the postal saving system, the FILP, and public-sector financial institutions—is undergoing transformations, which in principle are to make it less amenable to capital channeling in the future than it was in the past (as will be discussed in detail below). Last, the Uruguay Round agreement constrains both countries' ability to implement industrial policy through such things as input subsidies and preferential government procurement.

## Structural Barriers

The picture becomes even cloudier when it comes to “structural” access barriers. It has often been argued that foreign firms seeking to enter the Japanese market through either exporting or investing have encountered other forms of nontraditional access barriers, at least in comparison with what similarly situated firms might encounter in the United States. There is a certain immediate plausibility to this assessment: the United States is an immigrant society, and the need to foster and maintain social stability has led to the development of a political system and policymaking apparatus that emphasizes inclusion, access, and procedural transparency. US firms have been technological leaders for an extended period of time, and

---

24. Ryan (1997) found that market power among manufacturers in Japan was declining, which could be interpreted as consistent with Sakakibara and Porter's analysis. However, he also found that the declining market power was associated with slowing total factor productivity (TFP) growth, though it is unclear whether this correlation was actually causal or simply reflected the contemporaneous secular decline in TFP growth due to dwindling opportunities for catch-up (Eaton and Kortum 1997).

the US role in the Cold War lent itself to ideological, strategic, and economic justifications for openness.

Japan has a very different culture and history, and it is unremarkable that policymaking in Japan is not characterized by the same degree of access or transparency. Indeed, it would be surprising if it were. In Japan—a large, relative latecomer to industrialization—the arguments for and practice of infant-industry protection were adopted quite naturally. The issue is how to disentangle access impediments, created by Japanese firms exploiting rent-seeking opportunities opened up by Japan’s bureaucratically driven policymaking, from the “natural” impediment created by geographical distance from other major industrial countries or by “cultural” distance—as might be inferred from the fact that, until recently, Japan was the only OECD member whose written national language did not use an alphabet.

Bergsten and Noland (1993) identified four possible structural impediments to international economic exchange through either trade or investment: the lack of intellectual property protection, restrictions on inward investment, product liability and regulation, and industrial structure and competition policy. With respect to the first, legal changes in Japan, bilateral agreements, and the Uruguay Round agreement appear to have resolved the major disputes, though new ones will surely arise in the future as information technology and the “new economy” create issues not adequately covered under existing agreements. Changes in Japanese patent law have, for example, shifted the burden of proof from the plaintiff to defendant; introduced third-party assessment to facilitate proof of damages; widened judges’ discretion in the finding of damages; and ended the practice of granting patents in Japan for inventions or innovations that are publicly used or part of public knowledge outside Japan.<sup>25</sup> Bergsten and Noland (1993) recommended that the United States and Japan learn from European practices in this area, including US adoption of the near-universal first-to-file patent system and Japanese speeding up of the patent-approval process and discontinuation of the practice of allowing pregrant patent challenges. According to the American Chamber of Commerce in Japan (ACCJ 2000), the government of Japan has indeed implemented the 1994 bilateral agreement that restricted pregrant challenges and speeded up the approvals process.

Likewise, it is hard to identify policies aimed at actively discouraging FDI today in Japan. For nearly a decade, surveys done by the ACCJ have found that most of their respondents believe that the situation with regard to FDI has been improving. The impediments to investment, as ranked by the respondents, were the high cost of doing business; difficulties in locating and hiring qualified personnel; general complexities; a multi-

---

25. See Koyanagi (2001) for more detail on Japanese patent law changes.

tiered distribution system (including anticompetitive practices and distribution *keiretsu*); interlocking business ownership (*keiretsu*); and lack of transparent ministry guidelines. A survey of 2,656 foreign firms conducted by the Ministry of International Trade and Industry (MITI) obtained similar results.<sup>26</sup> Neither survey had government policies at the top of the list.

To the extent that there is scope for policy to facilitate inward FDI, it appears to be more in the form of generic policies to improve the functioning of land and labor markets and the quality of corporate governance rather than specific policies to stimulate FDI. As the IMF (1998) observes, impediments in the form of labor and pension regulations constrain the efficient operation of Japanese labor markets. Similarly, the ACCJ, for example, recommends that to stimulate FDI “the US government should press Japan to adopt policies to improve corporate governance; increase pension portability; encourage the growth of capital markets and venture capital transactions; and increase the liquidity of Japan’s land and labor markets” (ACCJ 2000, 107). To the extent that there are serious impediments to FDI beyond the generic difficulties of securing land or hiring labor in Japan, they appear to take the form of “private” barriers that may remain (as discussed below). Indeed, the government of Japan has undertaken a number of affirmative-action-like programs to encourage inward investment (especially by small and medium-sized enterprises)—although, like Lincoln (1999), we believe that their ultimate impact is likely to be small. Nevertheless, it is difficult to argue today that the government of Japan is actively trying to hamper inward FDI. If anything, the opposite is true.

## Regulatory Issues

The Japanese Economic Planning Agency (EPA) has estimated that regulation restricts 40 percent of the Japanese economy. It is no surprise that regulatory issues remain at the center of the bilateral agenda, because of the direct impediment to trade and investment that they can pose, but also because of their potential role as facilitating mechanisms for anticompetitive private behavior. As the Miyauchi Commission observed, “In the non-manufacturing industries in particular, government regulations protected the vested interests of specific groups, and prevented the proper distribution of resources” (JERI 2001, 5). These regulatory issues are especially pertinent in the services area, in which government fiat—rather than the market—may be the primary determinant of market entry

---

26. In a 2001 governmental reorganization, the Ministry of International Trade and Industry became the Ministry of Economics, Trade, and Industry (METI).

and the terms under which competition occurs.<sup>27</sup> Regulations designed explicitly to control domestic competition also have had the effect of limiting foreign entry.

In Japan, one source of trouble relates to the array of state-owned firms or quasi-public entities, or where privatization has been incomplete (as in the case of Nippon Telephone and Telegraph, or NTT). In fairness to Japan, one can point to Deutsche Telecom or Air France as enterprises that have as much or more state involvement than their Japanese counterparts. Indeed, a partly state-owned firm, Renault, which earned rents from the import quotas imposed on Japanese cars, was permitted to take over a Japanese private competitor, Nissan. From a global, rather than bilateral, perspective, the United States may be the outlier in this regard, though even it is not immune from criticism.<sup>28</sup>

Another source of trouble has been in the institutional mechanisms used to ensure product safety. Rather than seeking to achieve this and other social goals through a liability law and the court system (or other “ground-up” systems), Japan traditionally used the detailed specification of regulations.<sup>29</sup> Not surprisingly, the Japanese government bureaucracy does not have the capability to perform this task in a complex modern economy (no bureaucracy would), so the actual specification of standards and other regulations is often devolved to quasi-official industry councils (*shingikai*) that consist of representatives of private firms or industry groups. The fast-changing nature of information technology industries has made this consensus-style decision making completely obsolete.

Furthermore, it is clear that such councils have the scope and incentives to perform their role in ways that protect the interests of incumbent producers at the expense of new entrants (foreign or domestic) and consumers.<sup>30</sup> The interest of Japanese officials in securing postretirement (*amakudari*) positions with these firms and organizations potentially reinforces these tendencies, and a wave of financial scandals in 1997-98 exposed the

---

27. As Alexander observes, “Many industries in which American businesses are trailblazers, such as retailing, finance, telecommunications, entertainment, and Internet products (among others), have been regulated in Japan, and local rivals consequently suffer from high costs and low levels of innovation. That offers enormous opportunities for American firms. However, the very factors that have kept these industries uncompetitive in Japan also restrict the entry of newcomers, foreign or domestic, that have new products and services” (Alexander 1997b, 3).

28. For example, the OECD has pointed out that the practice of implementing professional certification at the state—rather than the federal—level increases the costs of market entry for both foreign and domestic potential service providers.

29. Japan passed a new product liability law in 1995, moving it marginally closer to the US model. See Hamada (1996) for a comparative analysis of the US and Japanese systems.

30. See Schaede (1999). Balassa and Noland (1988) and Lincoln (1990) provide some particularly vivid examples.

coziness between the regulators and their charges, as well as their outright corruption.<sup>31</sup> The OECD (1999b) concluded that “lack of transparency in regulatory and administrative processes is a major weakness of Japan’s domestic regulatory system. Non-transparency affects all potential entrants and competitors . . . but has disproportionate costs on foreign parties.” Indeed, in a fascinating paper, Yano (2001) shows that acquiescence in anticompetitive practices in the nontraded sector of a large, trade-surplus economy can act as a “beggar-thy-neighbor” policy, shifting real income to itself from its trade-deficit partner.

Not surprisingly, regulatory issues are a topic of intense discussion internally within Japan; bilaterally, with the US government requesting both systemic and industry-specific changes; and multilaterally, through the OECD.<sup>32</sup> Starting in the early 1990s, the government of Japan initiated a process of reform of its regulatory practices, both systemically and with regard to particular priority sectors.<sup>33</sup>

So in 1999, for example, as an administrative measure, Japan introduced a public comment process on draft regulations, including administrative guidance issued to multiple parties, and passed an information disclosure law effective April 2001.<sup>34</sup> In principle, these changes should greatly improve the ability of individuals and firms to track the formulation and implementation of public policy. At the same time, the government of Japan has made the strategic decision to move to a regulatory system based on retroactive supervision rather than prior intervention.

## Sectoral Issues

The government of Japan has designated a number of sectors as high priority, including (to name a few) finance, telecommunications, power generation and distribution, and health care. In telecommunications, restrictions on the sale of cellular phones were lifted in April 1994 as part

---

31. See Wanner (1998a, 1998b) and Lincoln (2001) for more on these points.

32. The OECD now publishes surveys of the regulatory practices of its members, and has undertaken the promulgation of “best practices” in a number of areas such as corporate governance. USTR (2000) contains an informative description of the bilateral deregulation agenda from the US government perspective. Sectorally, the United States has made deregulation of telecommunications, medical equipment, financial services, power-generating equipment, housing, and retail distribution its priorities. These are sectors in which the US government believes its producers are competitive, and there is some support for reform domestically in Japan.

33. In part, the government of Japan responded in a piecemeal fashion, issuing lists of hundreds of regulations that had been abolished, though a quick perusal of one of these lists might lead one to doubt the economic impact of the deregulation undertaken. See IMF (1998) and Lincoln (1999) for contrasting assessments of these actions.

34. See Marcus (2001) for discussion.

of a bilateral agreement with the United States, and the price-setting system was shifted from an approval to a registration system in December 1996. The result has been an explosion of cellular phone use in Japan—from 2.1 million users in 1993, before deregulation, to 50 million in 1999 (Lincoln 2001).<sup>35</sup> Telephone access fees (the non-NTT phone companies' access to the connection point for the "last mile") were further reduced as part of another bilateral agreement concluded with the United States in July 2000. Other telecoms reforms have included relaxing restrictions on foreign ownership of domestic systems and restructuring the giant NTT group.<sup>36</sup>

Nevertheless, reformers were disappointed by the April 2001 legislative proposals of the Mori cabinet, which fell far short of the reform recommendations made by a government advisory panel. Japan remains the only industrial major country without an independent telecoms regulatory body.<sup>37</sup> Japan's competition policy watchdog, the Japan Fair Trade Commission (JFTC), has played a passive role on telecoms issues, and the Ministry of Posts and Telecommunications has not solicited its advice. Indeed, the Ministry of Economics, Trade, and Industry (METI) went so far as to make the need for further reform in the telecommunications sector the centerpiece of its 2001 White Paper—which came out after the resolution of the interconnection dispute with the United States (METI 2001). (See box 5.5.)

The retail distribution sector has been another area of interest. The most prominent example has been the progressive relaxation of the Large-Scale Retail Store Law (*Daiten-Ho*) and its eventual repeal at the national level in April 1999. These changes have resulted in a sharp increase in large-scale retail store openings (and in the lengthening of operating hours for existing enterprises), and the entry of such foreign chains as Toys 'R Us, now the largest toy retailer in Japan, and Carrefour, a French supermarket firm.<sup>38</sup> In many small and medium-sized cities, a shopping district located

---

35. See Bergsten and Noland (1993) for background on the cellular phone case. Ironically, spurred by foreign pressure for deregulation, wireless communication and wireless interface with the Internet have emerged as leading Japanese sectors of competitiveness in the information technology revolution.

36. US restrictions on foreign ownership are now tighter than those in Japan. Telecom firms competing against NTT in Japan have significant foreign ownership, and the majority owner of Japan Telecom, a competitor of NTT, will be the British firm Vodafone when it completes its purchase of shares owned by British Telecom.

37. The European Union threatened Japan with a WTO complaint if it did not commit to the establishment of an independent regulatory body. To be clear, the establishment of such a regulator would in all likelihood be an improvement over the status quo, but would be no panacea.

38. See Asano (1997, 1998) for overviews of the distribution sector, and Bergsten and Noland (1993) for more on the Toys 'R Us case. Mitsugi, Takamoto, and Yamazaki (1998) contains an interesting discussion of how technological progress and telecoms reform has enabled

in front of the commuter train station or in the center of the city is giving way to large discount shops with ample parking on the periphery of town.

In the transportation field, the government announced a phased relaxation of entry restrictions and fare-setting regulations for taxis, railways, buses, ships, and aviation. A new civil aviation pact was concluded with the United States (see box 4.3). The January 1998 agreement expanded the number of airlines that have unlimited access to unspecified routes between the two countries, and for incumbent carriers, increased flights permitted between the United States and Japan, though the pact fell far short of the “open skies” agreement that the United States had sought.

In the energy sector, retail price setting for electricity and gas was liberalized in January 1996, contributing to modest declines in retail prices.<sup>39</sup> New entry into the electrical power generation industry was liberalized in December 1995. However, California’s experience with rolling blackouts in 2000-01 after deregulation of the electricity market there has begun to knock the wind out of the reform sails in Japan.

In the petroleum sector, prices began falling in 1994 after the government began liberalizing rules on the importation of oil and gasoline. At the retail level, prices have fallen rapidly since restrictions on self-service gas stations were removed in April 1997, beginning a process of consolidation at the retail level. Japan was the only G-7 country in which the oil price increase of 2000 did not generate significant political or social reactions, because major declines in gasoline prices had occurred in preceding years.<sup>40</sup> Prices in Japan are now similar to those in Europe, and taxes explain most of the price differences vis-à-vis the United States.

Health care is another key area of deregulation, owing to its growing importance in the Japanese economy and the government’s heavy involvement. Because of inefficiencies in delivery and Japan’s rapidly aging population, health care expenditures have been rising 4 percent a year—reaching 8 percent in 2000, double its share of GDP in 1970. In the absence of reform, the government expects this share to again more than double to 19 percent of GDP by 2025. (It is about 15 percent in the United States.)

Unlike the United States, Japan provides for universal health care coverage through a combination of private employer-provided insurance and a national insurance system for those outside the employer-provided

---

“Seven-Eleven Japan” to radically increase the efficiency of retail distribution in Japan through the application of information technology.

39. See Suzuki (1997) for an informative discussion of liberalization of electrical generation and distribution.

40. Between 1998 and 2000, the typical gas price at the pump dropped from 120 yen per liter to 98 yen per liter, and the price hike during the autumn of 2000 raised the price to only 104 yen per liter. At the same time, the aggregate number of retail sales outlets declined as many relatively inefficient incumbent sellers exited the market. See Nagaoka and Kimura (1999) for a rigorous econometric study of the Japanese gasoline market.

### **Box 4.3 Aviation**

In the 1950s, airliners could not fly between the United States and mainland Asia without refueling, so US negotiators secured for three US carriers the right to stop in Japan before proceeding to other destinations, such as Hong Kong. These “beyond rights” were at the center of a contentious renegotiation of the bilateral pact that was concluded in January 1998. The US side was interested in preserving the existing arrangement, insofar as it gave United, Northwest, and FedEx access to the rapidly expanding Asian market, whereas the Japanese carriers were much less interested in beyond rights to Latin America.

The original 1952 bilateral agreement might be described as “unfair and liberal”—it embodied both a more one-sided and a more open, competitive arrangement than Japan’s Ministry of Transportation would have preferred, given the relative inefficiency of Japanese carriers. (Japanese airlines are considerably less efficient than their US competitors; private-sector analysts estimate that their costs per seat-mile are more than 50 to 70 percent higher than the US carriers, and in fact, liberalization of the market has been accompanied by restructuring at both Japan Airlines and All Nippon.) As two observers of the renegotiation described it, “It was apparent that Japan’s overriding negotiating objective was to restrict US competition with Japanese airlines” (Jaggi and Morgan 1996, 169). Or, as one US official observed in 1993, although the Japanese were opposed to numerical targets in goods trade, they were in favor of quantitative limits on airline travel.

At the same time, this was not a purely United States-versus-Japan affair: There were significant differences in interests in both countries between the dominant incumbent firms (Northwest, United, FedEx, and Japan Airlines) and the newcomers (All Nippon, Continental, Delta, and American). On the US side, the newcomers were willing to sacrifice the beyond rights of the incumbents in return for expanded access to Japan. On the Japanese side, it might be more accurate to describe the government’s position as one of protecting Japan Airlines, rather than promoting Japanese interests per se (which officials admitted privately). For its part, United, one of the incumbents, funded a study by the consulting firm Booz, Allen & Hamilton, which concluded that the loss of the beyond rights would reduce the US surplus in passenger traffic by as much as \$7.6 billion by 2015.

*(box continues next page)*

ambit. Growing demand is swamping the capacity of the private insurance market and imposing an increasing burden on the national budget. Japan faces the need to both improve the efficiency of service delivery and expand the capacity of the system to deliver home care. The government undertook a number of reforms in the late 1990s, but most observers believe that these will not be sufficient to address the problems (Suzuki 1997; Takahashi 2001). In particular, more competition will have to be introduced into the system to encourage cost reductions by sheltered providers. One aspect of this will be to increase the degree of international competition, at least in the provision of medical equipment and pharmaceuticals, an area of longstanding interest to the United States.

With respect to factor markets, restrictions on the range of occupations where private placement firms could operate was relaxed in April 1997.

### **Box 4.3 Aviation** *(continued)*

The issue of beyond rights was not the only one on the agenda. Japan has fewer international flights than other OECD countries—indeed, fewer than its Asian neighbors. The main Japanese airport at Narita outside Tokyo is highly congested and inefficient: With two terminals and a single runway, Narita was handling only 360 takeoff and landing slots, ranking it 153rd in the world. With a single runway, but less surrounding space, London's Gatwick Airport handles up to 810 takeoffs and landings a day. New rights would mean little, if the US carriers could not obtain landing slots. Ironically, British advisors were brought to Narita by the Japanese government to increase the number of available slots. However, the pact concluded with the United States contained a “fix” that infuriated the Europeans: To square the interests of the incumbent US carriers with the new entrants, it allowed FedEx to sell some of its unused slots to American, Continental, and Delta (at a tidy profit), which violated the “use it or lose it rule” and angered other carriers that were in the queue for the coveted slots.

In the end, the new agreement preserved the beyond rights of the incumbents while expanding access to the newcomers. Although the agreement fell short of the “open skies” liberalization that the United States had sought, the gains for both Japanese and US citizens would appear to be nonnegligible.

Findlay, Hufbauer, and Jaggi (1996) attempted to estimate the impact of barriers to trade in civil aviation by estimating (from cross-national data) the cost differentials created by regulation and then applying the potential cost reduction to expected future demand. They estimate that the annual cost savings to Japan from civil air deregulation would be \$9.4 billion by 2010. It should be noted that this is not an estimate of the pure efficiency gain (the welfare triangle). Much of this figure presumably represents transfers from Japanese airlines and associated firms to Japanese consumers as enhanced competition erodes their regulatory-generated rents. US officials claimed that over 4 years the pact would generate an additional \$4 billion in revenue for US carriers and save \$300 million for US passengers. No estimates of expanded international trade in aviation products or services were provided, though one might expect that, given the relative efficiency of US aviation product and service providers, US firms also would benefit from the expanded opportunities afforded by deregulation. Indeed, the potential spillover effects in such sectors as tourism could swamp the direct impact of increased efficiency in civil aviation. (See Yamauchi and Ito 1996, Greaney 1997, and Lincoln 1999 for more detailed analyses.)

Also that year, the 40-hour work week was made mandatory, and the (male-female) equal employment law was strengthened. As was noted in chapter 3, restrictions on land use and real estate transactions were also relaxed in 1997. These included simplification of the process by which land could be converted from agriculture to other uses, easing of restrictions on the ratio of floor space to plot size, and requirements of prior notification of land purchases.

It is fair to say, however, that the centerpiece of the Japanese deregulation campaign has been in the financial and corporate-governance sphere. Historically, Japan has maintained a repressed, fragmented, bank-centered financial system (Meerschwam 1991; Hoshi and Kashyap, n.d.). Some argue that in the immediate postwar period this was a rational response, allowing the concentration of scarce human capital in a few

key institutions. Others argue that the bank-centered financial system contributed to careful monitoring and “patient” capital (Aoki 1984, 1988).<sup>41</sup> Of course, as Kang and Stulz (1997) point out, causality could run the other direction as well: borrowing firms could be adversely affected when their main bank encountered difficulty. Indeed, Aoki’s argument is a purely theoretical one, and it is not at all clear that the main banks actually played any uniquely effective monitoring function.<sup>42</sup>

However true these notions might have been in the past, by the 1980s and 1990s, corporate governance had grown lax and rates of return on capital had fallen. As the IMF observed, “the ability of the banks to discipline the corporate sector eroded considerably” (IMF 1998, 149). Capital-market discipline was hampered by “pervasive” cross-shareholding, which reduced the role of noncorporate shareholders in corporate governance. According to Stokes, “only one-quarter of Japanese public firms have an outside director, and even these generally represent the interests of the company’s main bank or an affiliated firm” (Stokes 2000, 63).<sup>43</sup>

Furthermore, the lack of M&A activity “further reduced pressure to achieve satisfactory rates of return” (IMF 1998, 150). This was compounded by “weaknesses in accounting and disclosure standards” that “adversely affected governance” (IMF 1998, 150); Stokes adds that “even the statutory auditor, nominally independent, is usually a former employee” (Stokes 2000, 64).

Nontransparency and the absence of strong institutional mechanisms for disciplining managers have impeded foreign investment and facilitated both corruption of the state and penetration of business by organized criminal groups.<sup>44</sup> *Sokaiya* (corporate extortionists) often in concert with *yakuza* (gangsters) prey on corporate managers by extorting money in exchange for not revealing publicly embarrassing information. (See Box 3.2.)

Finally, the IMF observed that inadequate “bankruptcy laws have not helped enforce corporate discipline in Japan, and have discouraged

---

41. In reality, the evidence does not appear to support the notion that Japanese managers are any more patient than their counterparts in the United States (Hall and Weinstein 1996). Indeed, in one case of Japanese and American managers working in an environment embodying almost precisely the same incentives—professional baseball—the Japanese managers appear to operate with the time preferences of heroin addicts!

42. Kang and Shivadasani (1999) show that “independent” firms, without main-bank affiliation, exhibited substantially better operating performance than did their main-bank-affiliated counterparts, and document the existence of alternative institutions to monitor management. See also Scher (1997) on the ineffectiveness of main-bank monitoring.

43. See Wanner (1998b) for an overview of Japanese corporate governance issues, and Scher (1999) on the role of cross-holding.

44. Lack of transparency is said to be a major impediment to foreign investment. See Alexandra Harney, *Financial Times*, 17 November 2000, for examples.

restructuring" (IMF 1998, 150-51). These weaknesses were largely ignored when the economy was expanding rapidly and most firms' equity values were appreciating.

These problems have been exacerbated by an expansion of the public-sector financial system driven by the economy's poor macroeconomic performance during the 1990s, and the political system's unwillingness to countenance transparent restructuring of the magnitude implied by private-sector market outcomes. As the IMF observes, outstanding loans by public-sector financial institutions grew from just over 10 percent of GDP in 1977 to nearly 30 percent of GDP two decades later. Ironically, despite the "Big Bang" financial reforms described in the previous chapter, in the short run (1998-2000) at least, the Japanese government's direct lending influence has actually increased as a result of greatly expanded loans to small and medium-sized enterprises and nationalization of failed banks.<sup>45</sup> Indeed, the FILP has grown as the postal saving share of deposits has increased, as have receipts from the postal life insurance program. As of 2001, this picture may change, because the Ministry of Public Management, Home Affairs, Posts, and Telecommunications is no longer required to invest these funds in the FILP.

Nevertheless, the Big Bang reforms are encouraging a transformation of the Japanese financial sector. The structure of the financial system is changing; bank deposits account for a falling share of household portfolios as savers diversify into new instruments. Access by foreign service providers is improving in parallel. Foreign brokers now manage more than a third of the volume on the Tokyo Stock Exchange. Foreign fund managers continue to increase their share of the pension management business. However, foreign management of mutual funds appears to have peaked and is back at its 1991 share, as Japanese banks enter this increasingly crowded market.

Changes in the structure and operation of financial markets have been accompanied by changes in corporate governance. Bans on holding companies have been lifted, though some restrictions remain. It is hoped that this will encourage the restructuring of Japanese firms by facilitating the divestiture of subsidiaries and the concentration of activities in areas of core competence as well as the entry into new ventures. The April 2000 Corporate Rehabilitation Law should further contribute to corporate restructuring. Driven partly by the government and partly by the demands

---

45. Stokes provides the following example: "In early 2000, nationalist opposition in the Diet blocked the sale of Nippon Credit Bank to the U.S.-based Cerebrus Group, leading to the purchase by a consortium lead by Japan's Softbank. This xenophobia cost Japan's taxpayers \$540 million, the difference between Softbank's purchase price and Cerebrus' offer" (Stokes 2000, 66). Friedman (2000) contrasts the secretive (and apparently politicized) actions of Japan's Financial Recovery Commission with the more transparent auction procedures used by the Resolution Trust Corporation in the United States. See also Lincoln (2000).

of foreign investors, revisions of accounting laws have been undertaken to introduce consolidated financial statements and recognize pension liabilities, though the mandatory adoption of these practices has been postponed.<sup>46</sup> In recent years, shareholders have successfully sued such corporations as Nomura Securities, Daiwa Bank, Dai-Ichi Kangyo Bank, and Kobe Steel for malfeasance.

## Assessment

The record of the Japanese deregulation program is mixed. Observers universally hail progress in the financial sector and on corporate governance issues, although more remains to be done, and some recent postponements of scheduled actions give pause.<sup>47</sup> An expanded unemployment insurance system could facilitate labor shedding and restructuring. Although the implementation of these changes will certainly not be without controversy (see USTR 2000 for a US government perspective), as the OECD observes, “it seems fair to say that within a few years Japan’s regulatory landscape may well have been radically transformed” OECD (1999b, 25).

Outside the financial sector, progress has been more uneven. As the IMF (1998) observes, the tendency has been to relax rather than abolish regulations.<sup>48</sup> It cites the example of the Diet considering raising the limit on bar exam passers from 700 to 1000 and queries why any restrictions are needed at all. Similarly, in the case of the abolition of the Large-Scale Retail Store Law, local and prefectural governments were encouraged to formulate their own laws on the basis of environmental and traffic considerations. It is not surprising that incumbent retailers have exploited these new local procedures to stifle competitors.<sup>49</sup> In the transportation field, the revision of the 1952 bilateral agreement has resulted in some additional flights, but air travel between Japan and the United States

---

46. See Hashimoto (1999), Shinn (1999), and Shikano (2001) for more on Japanese accounting practices.

47. For example, the introduction of limits on bank deposit insurance and the introduction of new accounting rules on banks’ derivative positions have been postponed.

48. Lake (1998) observes that the term *kisei kanwa*, frequently translated into English as “deregulation,” would more accurately be translated as “relaxation of regulation” and that the Japanese equivalent of “deregulation,” *kisei teppai*, is not often used. He concludes that Japanese government leaders “are not really interested in a comprehensive elimination of regulation that would fundamentally change the role of government in Japanese society” (Lake 1998, 13).

49. Stokes (2000), for example, cites such cases in Yokohama and Sendai. At the same time, it should be noted that Japanese authorities are not alone in imposing such restrictions to aid incumbent retailers. Some local governments in the United States act similarly, and such restrictions are ubiquitous in Europe.

remains restricted (in part due to capacity constraints at Tokyo's Narita Airport) and costly.<sup>50</sup> In the energy sector, Lincoln observes that despite the legalization of self-service gasoline stations, "the combination of stiff regulations and collusion have not encouraged many stations to experiment with this new form of service" (Lincoln 2000, 95), although prices at the pump did come down following the liberalization of gasoline imports.

All this suggests that considerable scope for deregulation remains. The main beneficiaries of that process are likely to be Japanese consumers. Indeed, on these issues, when one takes into account Europe as well as Japan, the real global outlier may be the United States. The potential impact of additional deregulation on the US and Japanese economies is taken up below.

## Private Barriers

The regulatory agenda is critical for another reason, as well. The historic lack of transparency at the public level has a counterpart in the organization of Japan's private firms, and has been accompanied by allegations of anticompetitive behavior of Japanese firms, either through industry cartels or *keiretsu* networks of affiliated firms (see box 3.5, "Keiretsu").<sup>51</sup> The case of the former is relatively straightforward: legally sanctioned "recession" or "rationalization" cartels, as in the soda ash industry, or illegal cartels, as in the construction sector, have acted to block imports or foreign firm activity in Japan.

However, horizontal agreements among competitors—including price fixing, cartels or market allocation schemes, and bid rigging—are all mechanisms for exploiting market power that contain the seeds of their own destruction. If prices are artificially raised, then new entrants (foreign or domestic) will enter the market attracted by supernormal profits, undermining the arrangement. In the obverse case of predation, prices may be lowered to drive competitors out of the market. However, when the incumbent firm raises prices, new entrants will reenter the market. Similarly, successful bid rigging requires some mechanism for restraining entry to sustain the arrangement, and without such a device, cartels may not be sustainable, even if legal (Warner 1996). Typically, some kind of government regulation is needed to sustain horizontally collusive behavior.

Take, for example, the construction industry, where anticompetitive problems are large and ongoing. Restrictions on entry into the construction

---

50. As in the case of retailing, similar restrictions and high prices are also encountered in Europe, with air travel between the United States and the United Kingdom being a prime example.

51. See Kotabe and Wheeler (1996) for a bilaterally oriented survey.

business (especially for foreign firms), together with the designated-bidder system in public works tendering and the practice of fragmenting major public works projects into smaller components, have contributed to cartelization. The associated rents are allocated through the practice of *dango*, a form of bid rigging in which firms negotiate with each other as to which firms will participate in bidding on a given project and at what prices. McMillan (1991) estimates that excess profits from collusion in public works projects typically amount to 16-33 percent of the price. Evidence from the few cases that have been prosecuted supports this range of estimates, the most famous case being the 1989 episode in which the US Department of Justice reached an out-of-court settlement with 99 Japanese construction firms for bid rigging at the Yokosuka Naval Base; fines levied in that case amounted to \$32.4 million, or 24 percent of the billed costs.<sup>52</sup> Former Diet member and now Tokyo mayor Shintaro Ishihara once put the implicit cost at 40 percent. The Japanese business newspaper *Nihon Keizai Shimbun* once observed that public works cost on average 20-30 percent more than comparable private-sector projects, and estimated that ¥8-12 trillion of the public works budget was wasted. The OECD (2000b) guesses that elimination of *dango* could reduce the overall public works budget by 15 percent. As was noted in box 3.1, the construction industry is the largest source of political contributions to Japanese campaigns.

These problems are not a thing of the past. Data from FY1997 on 1,676 multiple-round, open-bidding contracts for work worth at least ¥100 million let by 34 prefectures revealed bidding patterns consistent with widespread bid rigging. In 97.9 percent of the cases, the firm that bid the lowest in the first round was never underbid. Moreover, although the bids of other firms shifted in value during subsequent rounds, the winning bidder never altered its bid, which averaged 99.2 percent of the local government's maximum acceptable cost projection (Choy 1998).

In May 2000, the JFTC issued a cease-and-desist order against bid rigging by 203 construction and 94 engineering survey companies on agricultural projects handled by the Hokkaido prefectural government (OECD 2000b). The most stunning thing about the case is that the Agricultural Department of Hokkaido actually participated in the process, establishing annual procurement targets for each firm, and suggesting pre-

---

52. McMillan (1991) discusses this and three additional cases in which excess profits due to collusion were estimated to have ranged from 9 to 31 percent. The US Justice Department subsequently settled a case against 11 Japanese electronics firms for rigging bids at the US Air Force base at Yokota. The firms agreed to pay \$36.7 million in fines, or nearly 36 percent of the value of the \$103 million in contracts. Ultimately, the licensing restrictions to entry facilitate these practices, and these regulations impeding entry, especially the entry of foreign firms, have become the object of comment by the United States, the European Union, Canada, and Australia (MITI 1996, 365-66, 372).

ferred winners on individual projects! According to the OECD, the amount of business received by individual firms was a function of the number of former bureaucrats that they employed. The JFTC, although it could act against the firms, is powerless to act against the prefectural government.<sup>53</sup> Unfortunately, this kind of collusion is not limited to construction but appears to extend to other aspects of public procurement as well.<sup>54</sup> The JFTC has launched multiple investigations of bid rigging and issued warnings to firms, most recently in 2000.

The role of horizontally or vertically integrated *keiretsu* is more controversial. These organizations are inherently exclusionary—the issue is whether there are efficiency gains that justify their exclusivity. Indeed, to the extent that rival vertically integrated groups compete against each other, the rents from exclusiveness may be quite limited. Although it has been claimed that members of horizontal *keiretsu* would refuse to purchase imports due to cross-industry affiliation, most US trade complaints involve vertical *keiretsu*, regarding either the refusal to purchase imported intermediate products or the use of captive distribution networks to impede the penetration of imported final products to consumers. Refusal to use higher-quality or lower-price foreign parts should weaken Japanese manufacturers in global competition. By and large, this does not appear to be the case. As a consequence, much of the international attention has focused on the institutional characteristics of the Japanese market that facilitate market segmentation between a protected home “bastion” or “sanctuary” market and a more contested foreign market.

The issue of vertical *keiretsu* has been particularly controversial for several reasons. First, at the conceptual level, there is little intellectual consensus about the optimality or desirability of differing forms of organization. Typical vertical restraints include resale price maintenance, exclusive dealing or distribution, tied sales, reciprocity agreements, territorial restrictions on dealers or distributors, refusals to deal, or vertical mergers. One line of argumentation, starting with Bork (1966, 1978), has held that the traditional competition policy approach of discouraging these practices was misguided in that these vertical arrangements enhanced efficiency—in the sense of reducing transaction and search costs, removing downstream (retail) price distortions, and encouraging optimal levels of investment in production and distribution. However, subsequent research pointed to potential divergences between private and social welfare asso-

---

53. The OECD argues that in general, local governments have not sought to eliminate *dango* because of their commitment to maintaining employment in small and medium-sized enterprises (OECD 2000b).

54. In 1995, the JFTC fined 37 domestic trading companies and department stores for bid-rigging equipment and materials contracts linked to foreign aid projects. The investigation concluded that the firms had colluded on some 631 projects worth approximately \$170 million.

ciated with these practices. Salop and Scheffman (1983, 1987) explored the possibility that dominant firms might be able to induce rivals to exit or deter their entry or simply put rivals at a disadvantage by raising their costs through the application of these techniques. Hart and Tirole (1990) subsequently identified situations in which vertical integration has the effect of foreclosing the market and is the optimal strategy for the firms involved.<sup>55</sup> From a policy perspective, these opposing effects present a conundrum. Given the apparent difficulty of vertical foreclosure and the possible efficiency enhancements associated with vertical integration, regulatory authorities typically have taken a less decisive stance with regard to vertical agreements, in comparison with the horizontal agreements discussed above.<sup>56</sup>

Second, at the level of empirical analysis, *keiretsu* is a slippery concept. There are different kinds of *keiretsu*. They can be identified according to differing criteria, and as a consequence, one must be careful in assessing empirical evidence on their presence and impact.

According to the WTO, vertical supplier *keiretsu* (*seisan-keiretsu*) “may create an entry barrier to outsiders. Firstly, a *keiretsu* relationship may induce apparent anti-competitive practices such as vertical boycotting and exclusive dealing . . . long-term relationships cultivated through a *keiretsu* may push up ‘switching costs’ and make it more costly for *keiretsu* participants to change their business partners” (WTO 1995, 92).<sup>57</sup> At the same time, there are theoretical arguments that even such practices could enhance efficiency (Spencer and Qiu 2000).

A second potential impediment to trade and investment is vertical restraints within the distribution system.<sup>58</sup> This occurs in both consumer and capital goods. Vertically integrated firms refuse to carry the products of competitors, and product return and rebate systems are used to tilt retailer incentives toward domestically produced products. According to the WTO, vertical distribution affiliation *keiretsu* (*ryutsu-keiretsu*)

usually set up by manufacturers, tie wholesalers and retailers together through various links including special agent contracts, extension of technical and financial

---

55. As in the case of horizontal agreements, foreclosure is difficult without some regulatory mechanism to facilitate blocking competitors’ counterstrategies of parallel vertical integration or establishment of distribution networks.

56. See Dobson and Waterson (1996) for an overview of these issues. Drysdale (1995) and McMillan (1996) provide Japan-focused commentaries.

57. It is unclear whether these practices should be considered illegal or not. According to the WTO, group boycotts and refusal to deal violate the Anti-Monopoly Law (AML); however, Matsushita (1997) argues that “as long as there is strong interbrand competition, including price competition, between *keiretsu* systems, such systems are considered lawful under the AML” (p. 79). See Morici (2000) for further commentary on this point.

58. See Flath (1989) for a description of vertical restraints in Japan.

assistance, exchange of personnel and cross-shareholding. Some Japanese business practices—such as the suggested retail and wholesale price system (*tatene*), a complex rebate system, and provisions for return of unsold goods—are important aspects of such relationships.

Distribution *keiretsu* are not found equally in all sectors; they are concentrated in specific sectors, such as cosmetics, electrical appliances, and automobiles, all of which are characterized by product differentiation, specialty goods, or occasional purchases, and important market segmentation.<sup>59</sup> Outside the automobile sector, where the affiliation ratio is exceptionally high, *keiretsu* distributors cover at most about half of the total market (50 percent in the cosmetic sector and 40 percent in the electrical appliance sector). Although manufacturers cannot legally prevent affiliated dealers from dealing in competing products, such deals are likely to be discouraged by additional burdens on after-sale servicing and sales-promoting activities, as well as by other advantages extended or pressures exerted by *keiretsu* manufacturers (WTO 1995, 92-93).<sup>60</sup>

This is confirmed by the sophisticated econometric research of Ariga, Ohkusa, and Namikawa (1991), which points to administered prices in sectors where there are strong vertical relationships or *keiretsu*, suggesting that control of the distribution system acts as an effective barrier to entry.<sup>61</sup> Indeed, the presence of horizontal and vertical *keiretsu* is associated with lower than expected sectoral imports (Noland 1997d), and higher prices (Noland 1995b). Nishimura (1993) finds that, relative to the United States, excessive distribution cost markups are predominant in consumer goods, as distinct from capital goods or export products.

The discussion thus far has largely concerned trade in goods. Capital-market imperfections may facilitate the imposition of impediments to trade in goods (by enabling the maintenance of captive distribution systems, as was alleged in the Kodak-Fuji photographic film case) or by impeding inward FDI. Specifically, informal obstacles to M&A activity (including cross-holding and tactical impediments to acquisition) may impede the primary channel of FDI in industrial-country markets. Due

---

59. At the same time, it could be argued that in the automobile sector, Japanese part suppliers-assemblers vertical restraints are similar to and perhaps actually looser than the in-house supplier model of the US industry.

60. Although these practices may indeed restrict foreign firms' sales through existing dealer networks, it is unclear (beyond high sunk costs) how these practices deter new entrants from establishing their own dealer networks. Indeed, the Japanese competition authorities have stated that exclusive purchase agreements would violate the AML, but that JFTC investigations have failed to reveal any such violations. Legally sanctioned resale price maintenance schemes have been gradually abolished in all areas except publishing and music.

61. To cite two examples, in 1996 the JFTC raided Häagen-Dazs, and in 2000 it raided Matsushita, in both cases on suspicion of price fixing. Both companies had allegedly forced retailers to charge specified prices or face punishments for noncooperation, including withholding product shipments.

to cross-holdings, for example, in Japan only 30-40 percent of shares are actually traded, effectively precluding a market for corporate control.<sup>62</sup>

It has been argued that stable shareholding or large institutional shareholders provide better monitoring of managers than more diffuse patterns of ownership, contributing to superior economic performance. In the case of Japan, Nakatani (1984) found that bank-affiliated firms had *lower*, though more stable, profits. He interprets bank or *keiretsu* affiliation as acting as an insurance scheme. This conclusion is reinforced by research by Kawai, Hashimoto, and Izumida (1996), which found that distressed firms with main-bank connections pay significantly lower interest rate premiums than do firms without main banks. From this perspective, therefore, bank or *keiretsu* affiliation could be seen as a stabilizing force on the economy.

However, Lichtenberg and Pushner (1992) found that a high degree of intercorporate stock ownership in Japan was associated with lower productivity, profitability, and growth. They interpreted this as indicating managerial shirking, facilitated by protection from takeover. Gower and Kalirajan (1998) similarly found that the main-bank affiliation was not associated with improved technical efficiency in nonmanufacturing firms. Weinstein and Yafeh (1995) argue that the corporate finance incentives faced by *keiretsu* member firms encourage overexpansion, and this is the explanation for their apparently low profitability, and the difficulties new entrants face in breaking into markets dominated by *keiretsu*. For better or worse, horizontal *keiretsu* appear to be heading the way of the dinosaur: The introduction of mark-to-market accounting rules and the financial weaknesses of the banks are forcing them to liquidate their holdings of affiliated firms' stocks—although, as Lincoln (2001) points out, they are apparently dumping non-*keiretsu* holdings first. The degree of internal competition within Japan appears to be rising.

## What Is at Stake?

The preceding discussion has established the fact that both the Japanese and US governments act in intentional (and possibly unintentional) ways to frustrate economic exchange. From a public-policy perspective, the issue is whether the impact of these interventions is sufficiently large to justify the expenditure of political capital needed to eliminate them. One can appeal to two sorts of evidence to answer this question: evidence derived from the quantity (volume) of trade or investment and evidence derived from prices and their behavior.

---

62. See box 3.5 on *keiretsu*. This is not to say that this phenomenon is unique to Japan—see Noland (1997b) for similar examples from continental Europe.

There is now a large literature that attempts to answer the question from the quantity side.<sup>63</sup> The immediate problem is how to specify the counterfactual: In other words, although we might observe low volumes of trade in a particular sector, this may reflect a myriad of influences other than public policies or private anticompetitive behavior. A typical approach in this literature is to specify a formal cross-national model of international trade, estimate it econometrically, and then interpret the residuals from the regression as indicative of the impact of trade impediments broadly defined. Because the magnitude of these effects is calibrated implicitly, model specification is critically important. Noland (1997d) nested a number of models within a general econometric framework and found some evidence that Japan exhibited unusually low imports in the aggregate, controlling for relative factor endowments and cross-national differences in factor productivity. At a sectoral level, the divergence between predicted and observed trade was explained by trade-policy variables, including tariffs, quotas, tariff quotas, sanitary and phytosanitary regulations, subsidies, VERs (both those imposed by Japan and those imposed against Japanese exports), and the presence of horizontal and vertical *keiretsu*.<sup>64</sup> Similarly, Weinstein (1996) and Noland (1997b) obtained weak evidence that the presence of *keiretsu* was negatively correlated with sectoral inward FDI.

The quantity evidence is nevertheless problematic because it depends so heavily on the specification of the counterfactual used to derive the implicit evidence of trade impediments. An alternative approach would be to examine prices directly. The price data could be subjected to two sorts of scrutiny: first to see if prices embody relative price distortions associated with trade barriers, and second to see if the temporal pattern of price change signals the maintenance of market power by local producers.

It is a well-known fact that the overall price level in Japan is relatively high. Attempts to compare prices cross-nationally—either as part of academic research (e.g., Summers and Heston 1991) or by private firms such as the Union Bank of Switzerland or the Economist Intelligence Unit attempting to calibrate executive compensation packages (Union Bank of Switzerland 1991)—found that the price level in Japan was unusually high relative to that in other industrial countries.

Beginning in the late 1980s as part of the Structural Impediments Initiative, Japan's MITI and the US Department of Commerce conducted two joint price comparison surveys of more than 100 products and services (US Department of Commerce 1989, 1991). The Japanese Economic Planning

---

63. See Noland (1997d) and the references cited therein.

64. The one paper that uses microdata on *keiretsu* and obtains the opposite conclusion, Ueda and Sasaki (1998), suffers from specification problems, as noted by Noland (1997d) in his more general treatment.

Agency (1989) also began conducting its own annual surveys comparing prices in major Japanese cities and cities in the United States and Europe. It is not surprising that these surveys have consistently found that prices in Japan tended to be higher than prices elsewhere. In the second Japan-United States price survey, for example, two-thirds of the prices in Japan were higher than in the United States, and on average, prices in Japan were 37 percent higher than in the United States.<sup>65</sup> Noland (1995b) found that tariff and nontariff barriers, as well as the presence of *keiretsu*, contributed to the differences in relative prices between Japan and the United States. Maki (1998), working from EPA data, ascribed the relatively high prices in Japan to regulation.

No one expects that the law of one price will hold everywhere and at all times. Because these initial price surveys were conducted during or after periods of yen appreciation, it could be argued that they reflected a transitory phenomenon. However, these price differences have not been eliminated in the past decade, and indeed, research on exchange rate pass-through suggests that such price differentials can persist for extended periods.<sup>66</sup> A 1999 MITI survey found that the average price for industrial goods (including manufactured goods and services used in industrial activities) was 67 percent higher in Japan than in the United States, 57 percent higher than in Germany, and more than 200 percent higher than in South Korea (MITI 1999b). The product-specific breakdown suggested that the prices for manufactured goods were roughly the same in Japan as elsewhere, but there were large differences in the prices of energy and services—two areas in which government regulation is ubiquitous.<sup>67</sup>

At present, the most comprehensive ongoing analysis of price differentials is done by the OECD. Lincoln (2001) reports that their results indicate that, at the end of 1997, prices in Japan were 74 percent higher than in the United States; the next most expensive country (Norway) was only 32 percent higher. The OECD's estimate of the purchasing power parity (PPP) of the exchange rate could be interpreted as a summary indication of the magnitude of high prices in Japan. As shown in figure 4.5, there has been some narrowing of the differential between the OECD's PPP

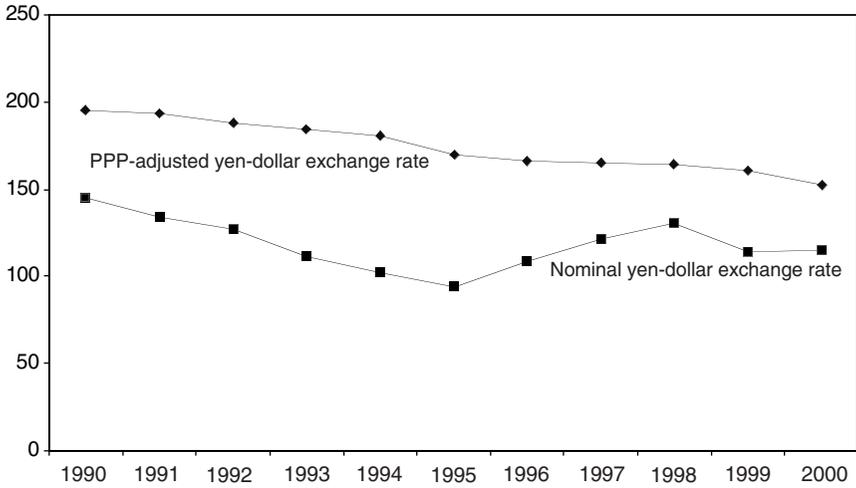
---

65. In the case of the United States-Japan surveys, it should be noted that the products included were not selected randomly, and might not be representative of prices in the industrial sector overall.

66. See Goldberg and Knetter (1996).

67. Again, as in the case of the United States-Japan price surveys, it is possible that the surveys done by the EPA and MITI are subject to similar selection biases. At a minimum, however, this would seem to suggest that it was not difficult for the statisticians in the Japanese government to design surveys in which their own domestic prices would appear high. Lincoln (1999) contains an entertaining discussion of differences in the prices of refrigerators and pacemakers in the United States and Japan.

**Figure 4.5 Nominal versus PPP-adjusted yen-dollar exchange rates, 1990-2000**



PPP = purchasing power parity.

Sources: IMF, *International Financial Statistics* (CD-ROM); World Bank, *World Development Indicators* (CD-ROM).

estimate and the actual nominal exchange rate, although the difference remains substantial.

These differences do not constitute *prima facie* evidence of “closedness.” In addition to the obvious price wedge created by border measures such as tariffs or quotas, a variety of other factors can contribute to observed price differences: producers may price the same goods differently for various destinations (pricing-to-market), international transportation costs may be large for some goods, or domestic transportation or distribution costs within the importing country may be high for a host of reasons.<sup>68</sup>

With these caveats in mind, a number of studies have attempted to estimate how Japan’s trade might change if the border, regulatory, and private barriers to trade and investment were eliminated. Noland (1995b), working from the 1989 and 1991 MITI-Department of Commerce price surveys, estimates that if border and *keiretsu*-related impediments to trade were eliminated, Japanese imports might increase by 28 percent, with most of this increase accounted for by the *keiretsu* variables. Elimination

---

68. Other explanations for these price differences included the price of land and inefficiencies in the Japanese distribution system (Lawrence 1991; Ito and Maruyama 1991; Itoh 1991) or dumping by *keiretsu* affiliates contributing to high prices in Japan and low prices abroad (Cheng and Kreinin 1996).

of border impediments alone might increase imports by 7 percent. If we take the US share of Japanese imports as 20 percent, and apply this to a base of roughly \$300 billion, these figures suggest that the first-round, partial-equilibrium impact of eliminating all border impediments would be to increase US exports to Japan by about \$4 billion. Elimination of all regulatory and private barriers could yield perhaps another \$13 billion, for a total of \$17 billion. Presumably, this is an overestimate of the situation today, inasmuch as the Uruguay Round agreement has reduced border measures, and cross-national price differentials have narrowed somewhat since the underlying price surveys were conducted. Moreover, the elimination of these impediments and the increase in imports would lead to a weakening of the yen, thus partly or even completely erasing any impact on Japan's global or bilateral balance.

Sazanami, Urata, and Kawai (1995) take another approach. They estimate price differentials for 47 selected merchandise categories (excluding services) thought to be accorded significant protection in Japan, and ascribe these differentials to trade impediments. As with Noland's research (1995b), these price differentials are calculated from the pre-Uruguay Round period.<sup>69</sup> They estimate that the elimination of barriers would double import volume in affected sectors (¥7.3 trillion or \$53 billion), which would have amounted to a 20 percent increase in base-year imports—in the same ballpark as Noland (1995b). And like that other study, the Sazanami, Urata, and Kawai (1995) estimate could be regarded as a ceiling—some of the barriers implicit in the price data in 1989 have been reduced or eliminated in the intervening years. It is also a partial-equilibrium estimate—yen depreciation would offset some of these effects if the trade impediments were removed, and the general-equilibrium effects associated with the increase and redistribution of income would mean that the incidence of increased imports might differ from the specific sectoral values that they obtain.

Yet another approach was adopted by Knetter (1997). He used time-series data on exports to Japan by 37 German industries to distinguish between the competing hypotheses that high retail prices in Japan were caused by discriminatory practices against imports, or high distribution costs associated with getting goods to the point of final sale. For the vast majority of industries examined, the data were consistent with the existence of import impediments. A similar inference was drawn by Dekle (1996), who found that employment in Japan's export industries was more sensitive to variation in the value of the yen than was employment in

---

69. Sazanami, Urata, and Kawai (1995) estimate that trade barriers imposed ¥10-15 trillion in unnecessary costs on Japanese consumers in 1989 (\$75-100 billion at the existing yen-dollar rate of 138). Producers got ¥7-9.6 trillion (\$50-70 billion), and the government collected ¥0.3 trillion (\$2 billion) in tariff revenue. The net cost to the economy was ¥1.1-2.4 trillion (\$8-17 billion).

import-competing sectors. Burgess and Knetter (1998) examine cross-national evidence on the employment response in manufacturing to real exchange rate shocks and obtain results consistent with the perception that “Japanese markets are less open to trade” (161).

In the case of the United States, Hufbauer and Elliott (1994) used partial-equilibrium models to examine cases of high protection and concluded that the pure efficiency to the elimination of all tariffs and quantitative restrictions in 1990 would be about \$10 billion. The US International Trade Commission (US ITC 1999) looked at the same issue using a more sophisticated, though possibly less robust, general-equilibrium model and reached a remarkably similar conclusion: in 1996, border measures imposed a deadweight efficiency loss on the US economy of \$11 billion. Both studies found that most US tariff and quota protection was concentrated in the textile and apparel sector and hence would be of little direct relevance to Japan.

These studies examined merchandise trade. Estimates of the impact of barriers to trade in services are fragmentary. The US ITC (1999) discusses US barriers to services trade in the transportation, telecommunications, and financial industries, but with the exception of restrictions on maritime transport services discussed below, does not attempt any quantitative analyses. As was shown in box 4.3, potential efficiency gains in civil aviation appear quite substantial, with important spillover effects in other sectors.

Some of these gains are already in the pipeline. Since the entry of two new airlines into heavily traveled domestic routes in 1999, and the complete deregulation of fares the following year, airfares in Japan have been falling. As occurred in the United States two decades ago, Japanese airlines are quickly learning to differentiate customers with low price elasticities (typically business travelers on company accounts) from those with high price elasticities (mostly pleasure travelers with flexible schedules). The cheapest ticket on a long-distance route (limited availability with respect to travel dates and capacity) is about a fifth of the unrestricted fare on the same route—or about the same differential as in the United States. Monopoly and duopoly routes, and routes without *shinkansen* (bullet train) competition are more expensive than others. These pricing patterns suggest that airfares are determined by the market.

Petrazzini (1996) applied a similar methodology to estimate the impact of regulatory barriers in telecommunications. He estimated that deregulation of Japanese telecoms would generate \$19 billion in cost reductions annually by 2010 and another \$10 billion in quality benefits. Again, this is not an estimate of the pure efficiency gain, nor are any estimates of resulting additional international trade in telecoms products or services provided. (In common with the civil aviation case, most of this cost saving would presumably amount to a reduction of regulatory generated rents

to the benefit of Japanese consumers.) As with the previous studies on merchandise trade, from today's vantage point, this estimate probably overstates the potential gains to telecoms deregulation to a certain degree—some deregulation has occurred since the study was undertaken, and the underlying growth rate of demand is probably overestimated. Using a conventional CGE model, Verikios and Zhang (2000) report that the pure welfare gain for deregulation of telecoms would be \$1.6 billion, coming almost entirely from terms-of-trade effects and the enhancement of Japan as a location of investment. These studies ignore cross-industry spillovers, dynamic gains, and other effects that could be quite significant in this case.

The IMF (1998) reports several attempts to formulate comprehensive estimates of the gains to deregulation. Studies done by MITI, the EPA, and the OECD in 1997 all concluded that deregulation could raise Japanese GDP by 6 percent. The EPA found that half of the productivity increase experienced in telecoms and civil aviation during the period 1987-95 was associated with increased competition in each sector resulting from the permitted entry of a single new entrant into each sector, and that the transfer of theretofore monopoly rents to consumers was substantial. In another study, MITI found that deregulation could create 7.4 million jobs in medical care, information technology and telecoms, distribution, and new manufacturing technologies (Stokes 2000). The OECD (1997) concluded that the gains to deregulation could be bigger in Japan than in three large European countries.<sup>70</sup>

Unfortunately, equivalent studies to the ones done on Japan of the direct impact of these policies on US industrial composition and trade patterns are generally unavailable, though Richardson (1993) estimates that US regulations, mainly in the form of export regulations, reduce US exports by \$30 billion annually. Most of this is due to regulations of the Coordinating Committee for Multilateral Export Controls, however, and would not be expected to significantly impede trade with Japan. The most obvious regulatory barrier to services trade is the Jones Act, which mandates that ships traveling between US ports must be built in US

---

70. These studies do not identify the gains to foreigners in general and Americans in particular associated with deregulation and opening in Japan. Perhaps the most ambitious estimate on this score comes from Lincoln (2001). He observes that if one takes a high-end (6 percent) estimate of the foreign firms' share of sales in Japan (i.e., one that accepts Weinstein's proposed adjustments to the data on foreign firm activities) and increases it to the level observed in the United States (12.4 percent—still below other industrial countries) this would imply a doubling of exports and FDI into Japan. For the United States, this might mean increasing exports by \$70 billion, from roughly \$66 billion in 1997 to \$136 billion, and increasing accumulated investment from \$36 billion in 1997 to \$75 billion. If one did the same calculation using the unadjusted data (i.e., the foreign firm share of corporate sales in Japan was 2.4 percent) this would imply a quintupling of the foreign presence.

shipyards, owned by US citizens, and operated by US crews. Estimates of the annual efficiency loss caused by the Jones Act range from \$556 million to \$2.8 billion.<sup>71</sup> Again, although this is costly to the US economy, it is unlikely that the impact of this restriction falls significantly on Japan.

As noted above, Galloway, Blonigen, and Flynn (1999) estimate that the net welfare cost to the United States of antidumping actions is \$4 billion annually, and this certainly underestimates the impact of these cases today, for the reasons given above. Nearly a fifth of these cases involve Japan. The impact on Japan, though surely negative, contains some ambiguity: Although antidumping cases restrain exports, Japanese exporters in what are predominant oligopolistic markets can exploit their ability to set prices in the US market and the process of administrative review to extract rents, so that some of the reduction in export volume is offset by higher prices. They can also invest in the United States and serve the US market from local facilities.

In summary, both Japan and the United States maintain a variety of barriers to economic exchange, both globally and bilaterally. On the whole, the United States appears to be somewhat more open than Japan. US barriers tend to be concentrated in textiles and apparel (and are now being revived in steel) and—with the exception of its antidumping cases—are largely irrelevant to bilateral trade. Japanese barriers are more ubiquitous, but have been declining over time. More and more, internal regulatory issues are the focus of bilateral discussion. The stakes are not trivial. The 1997 findings that comprehensive deregulation could increase Japan's GDP by 6 percent would be equivalent to all Japanese growth in the second half of the 1990s. Yet it is unclear whether the same modalities used to resolve trade disputes in earlier periods will be effective in dealing with this new agenda. It is to this topic that we now turn.

---

71. See Hufbauer and Elliott (1994), Hahn (1998), and US ITC (1999).