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Magnus Blomström
Denise Konan
Robert E. Lipsey

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ABSTRACT

This paper examines how inward and outward foreign direct investment (FDI) have influenced the restructuring of the Japanese economy and can be expected to continue to do so in the future. We find that outward investment has helped Japanese firms to sustain foreign market shares and contributed to the restructuring of the Japanese economy away from older industries. By shifting from exporting to affiliate production, there has been a geographical reallocation of the activities of Japanese firms, particularly those of multinational manufacturing firms. However, Japanese outward FDI is still not very large relative to the Japanese economy, despite the rapid growth since the mid-1980s, and there is still scope for significant increase when compared with the levels of most other OECD countries. Inward FDI will presumably have an even stronger impact on the restructuring of the Japanese economy. Although the stock of inward foreign direct investment is still very small, there are important changes under way. Deregulation has opened up much of the industrial and service sectors to foreign multinationals.

Magnus Blomström
European Institute of Japanese Studies
Stockholm School of Economics
P.O. Box 6501
SE-113 83 Stockholm, Sweden
and NBER
gmb@hhs.se

Denise Konan
University of Hawaii at Manoa
2424 Maile Way, SSB 542
Honolulu, HI 96822
USA
konan@hawaii.edu

Robert E. Lipsey
NBER
365 Fifth Ave., Suite 5318,
New York, NY 10016
and CUNY
rlipsey@gc.cuny.edu

1. Introduction¹

Both outward and inward foreign direct investment (FDI) play an important role in restructuring economies. Outward investment is a way of maximizing the rents on the accumulated knowledge and skill of a country's firms, or preserving them as long as possible when the country itself has lost its comparative advantage in their industries, and the industries, or parts of them must relocate. Inward investment may bring new firm specific skills and new industries to countries that lack them or preserve the rents on workers' skills in sectors where domestic firms have lost their firm specific advantages. In this paper we will analyze the role outward and inward FDI can play in the coming restructuring of the Japanese economy.

The paper begins with a brief description of the major changes in the economic structure of Japan in the last 20 years and discusses some important factors that may influence the future development of the Japanese economy. Among the factors included here are the implications of institutional changes, such as the continuing deregulation of the Japanese economy and economic changes, such as the aging of the population, the rise in per capita income, and the increasing education and labor force participation of women. With this as a background, we examine what role outward and inward FDI can play in this restructuring process.

With respect to outward FDI, we will ask what types of production (e.g. labor intensive, skill intensive etc.) and activities Japanese firms have moved abroad in the past and what type they are likely to move in the future. And what are the motivations for these re-locations? How are they related to, for instance, changes in relative production costs in Japan *vis-à-vis* foreign countries or in the availability of skills?

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A different role is envisioned for inward investment. So far, we have seen relatively little activity by foreign multinationals in Japan, but because of gradual deregulation we expect that to change in the future. Inward FDI will bring foreign firms' skills and technologies to Japan in areas where Japanese firms, partly because of the protected environment in which they have developed, are relatively uncompetitive. These Japanese firms may be forced by the intensified competition to shrink or disappear.

2. The Japanese Economy: Recent Changes and Future Developments

Every fast growing economy has to go through significant structural transformations, shifting production and employment from low to high productivity activities. The remarkable economic performance during the 20th century, particularly between 1950 and 1990, is a testimony of Japan's ability to adapt and restructure. Japan grew rapidly after World War II, with an average annual growth rate of eight per cent from 1953 to 1973 and over 10 per cent in the 1960s. As Wolff (2000b) documents, Japan was able to transform from a mid-tech based economy in 1970 to a high-tech region by the mid-1990s. Japan's rate of transformation was much more rapid than that of its primary competitors, the United States and Germany.

Production shifted from an agricultural and light manufacturing base before WWII to heavy industry and, increasingly, to services. Employment trends reflect these shifts in Japan's economy. In 1954, primary sectors (agriculture and mining) accounted for 38 per cent of employment, while manufacturing comprised only 17.8 per cent. By 1970, primary production had fallen in relative terms to 17.8 per cent of the labor force and manufacturing had risen to 27 per cent of employment. As in other developed countries, the workforce has continued to move sharply out of agricultural production and toward services (see Table 1). Manufacturing's share

of overall employment has actually fallen since 1977, in spite of Japan's enormous success as an exporter of manufactured goods.

Within the manufacturing sector there were also major changes in structure. In the 1950s, manufacturing was dominated by textile and other light industry. Iron and steel production and the shipbuilding industry rose to prominence in the 1960s, followed by the chemical sector. By the 1970s, electronics and automobile production dominated manufacturing activities. Since the 1970s, electrical machinery and chemicals, particularly the former, continued to grow much faster than manufacturing production in general (see Table 2). Transport equipment did not even quite keep up with the average in manufacturing. Food and tobacco and iron and steel declined in importance relative to other manufacturing industries, and textiles shrank in absolute size. Although these are very broad groupings, it is tempting to see in these changes a shift to more technology-intensive sectors.

Another mirror that reflects changes in the Japanese and world economies is the composition of trade. An advantage of trade data is that they are available in more detail than production or employment, especially for the world as a whole or for other individual countries with which we might wish to compare Japan.

For world trade as a whole, the major changes between 1977 and 1995, as shown in Table 3, were a large growth in the share of Electrical machinery and large declines in Foods and Metals, both relatively declining industries within Japanese manufacturing production as well. World trade as a whole has been moving to computers and electrical and electronic equipment and away from primary production and from capital goods used in primary production.

The path of development of the composition of Japanese exports has been similar in many ways, but often steeper (see Table 4). The two predominantly primary industry groups,

Foods and Metals, declined faster as parts of Japanese exports than as part of world exports. Japan already showed a revealed comparative disadvantage in exports of Foods in 1977. The relative descent of Metals in 1995 is particularly striking, as Japan had been a relatively strong exporter of metals, particularly steel, in 1977. It would not be surprising if the decline of Metals continued in the future.

The individual industries for which the share of Japanese exports grew the most were all industries for which shares in world exports grew, but Japan seemed to be leading the way in this shift. Among the most rapidly declining industries in Japanese exports, three of the four were also declining in world exports, but not as quickly as in Japan. Thus, we can summarize the trends in trade by saying that as the world was shifting out of primary production and trade and into more technologically advanced products, Japan was doing the same, but more sharply, leading the way.

Another way to describe the shifts in Japanese trade structure is to compare them with the trade structure, and changes in it, for the United States, the highest country in per capita income and presumably the world's technological leader (again Table 4). The shares of the seven major industry groups in Japanese exports in 1995 were closer to those in US exports than they were in 1977 in five cases and further away in only two. The sum of the absolute differences in shares between Japan and the US in the seven industry groups was 57.5 percentage points in 1977, but by 1995, the Japanese export shares had moved much closer to the US shares of 1977, the sum of the differences being reduced to 41.0. Thus, the distribution of exports by the US appears to serve as a leading indicator of the future changes in the structure of Japanese exports. By 1995, the total of the percentage differences was down to 33.3. Thus, the Japanese export pattern was

not only catching up to the earlier US pattern, but was following some of the changes that were taking place in the US distribution.

2.1 The Future

Turning to the changes that we expect in the underlying characteristics of Japan's economy in the next few decades, a closer look at demographic trends is crucial. Japanese demographics and family practices are interacting in a dramatic manner. Japan has recently achieved the longest life expectancy of all countries. Fully one-third of the Japanese are expected to be over sixty-five years of age in 2040, double the level of 1995. The size of the total population is expected to peak around 2010. Simultaneously, rates of fertility have dropped to 1.4 per woman, in part due to a delay in women's decisions to marry. These demographic influences will presumably result in a severe labor shortage early in the twenty-first century at a time when the aging population will place severe pressure on health and welfare facilities. As Mason and Ogawa (2000b) point out, Japan will likely experience a slowing in the traditionally high savings rate as the population continues to age. This, in turn, implies a dramatic slowdown in investment and long-term growth rates unless offsetting increases in productivity emerge.

Yet, throughout history Japan has risen to challenges by restructuring its culture and economy. As we discuss above, Japan has rapidly adjusted its industrial activities during this century to move from agriculture and low-tech manufacturing to high tech industries. Blomström, et al. (2000b) provide details on numerous adjustments that will likely be forthcoming in the twenty-first century, many of which will have implications for inward and outward FDI. Likewise, FDI will act as an additional catalyst for adjustment to the new demands of the global information age. In this section, we highlight three of the main structural adjustments that are underway in the Japanese economy.

A major structural change is the liberalization of the labor market and the greater inclusion of women in the labor force. The conventional wisdom is that low unemployment rates and job turnover rates, attributable to a system of 'life-time employment' and worker devotion to the firm, contributed to Japan's rapid growth. Firms invested heavily in costly worker education that focused on providing broad exposure to manufacturing activities, increasing productivity and firm-specific innovations. The system also acted as a type of private pension plan that essentially underpaid young workers with the promise of job security and a generous senior employee package. Ito (1996) asserts that the lifetime employment system is facing problems similar to pay-as-you-go retirement systems in other countries as the population rapidly ages. Also changing, according to Ito, is the need for very narrowly and highly specialized workers in high technology and service sectors, such as telecommunications, computer information and software, and finance. In response, the broad-based, firm-specific worker training in manufacturing will shrink. As the labor force within high-growth, high-technology sectors expands, the demand for specialized education and the job turnover rate will rise. Within the twenty-first century, labor markets will become increasingly flexible. Unemployment rates will be closer to US levels, reflecting a more competitive business environment. Labor practices will also undergo fundamental changes with performance and merit increasingly determining advancement.

In response to an increasing labor shortage, we anticipate that the twenty-first century will also bring a new role for Japanese women. Women have traditionally been underutilized given their level of education. While the increase in women's engagement in the labor force has been quite rapid, Mason and Ogawa (2000b) report a 1997 female participation rate of only 50 per cent (relative to 77.7 per cent amongst males). Women, especially if married, currently tend

to work part-time. Yet, gender discrimination in the labor market seems to be easing in response to market conditions. Thus, a conceivable scenario would be for Japanese female participation rates to increase in response to labor shortages and more closely resemble patterns in other OECD countries.

The increasing role for women in the labor market will tend to make child-rearing even more challenging. Thus, we foresee a persistent pressure on the Japanese labor force to be highly productive and competitive in order to maintain a high living standard. Japan may seek to ease its highly restrictive immigration policies to expand the workforce. More likely in our view, as we discuss in the next section of this paper, Japanese firms will increasingly relocate their less skilled labor activities overseas.

A second structural adjustment in the Japanese economy is that of regulatory reform. Twentieth-century Japan has been characterized by a high level of governmental involvement and regulation in most industries (see Carlile and Tilton, 1998). Japan's post-war development strategy relied on a public-private partnership. The government sought to modernize the economic base by selecting promising industries and actively nurturing capacity by limiting competition, supporting research, development, and technology transfers, and encouraging the extension of credit. Industries with a potential to achieve economies of scale and scope were particularly favored and permitted to form horizontal and vertical cartels that cooperated on pricing, R&D, production, etc. The government also aimed to protect special interests, such as rice farmers and small retail shops, against competition through a complex system of licensing, regulation, and quality control standards.

This close partnership between business interests and the Japanese government is in direct contrast to the Western, and particularly the American model, which is grounded in a

tradition of strong antitrust policy, market competition, and private ownership. Japan has viewed this approach as encouraging waste as firms may use real resources to drive others out of business or may duplicate R&D costs. Yet, in the face of a stagnant economy and an increasingly integrated global economy, Japan has been under increasing pressure to modify the existing regulatory framework and promote greater market competition.

We anticipate that the Japanese regulatory environment will increasingly converge towards the industrial policies of other advanced industrial nations, as we enter the twenty-first century. These reforms will act to create new markets, stimulate competition, attract foreign investment and technology transfer, and improve consumer welfare. While the exit of declining firms and industries will be hastened, this should eventually free resources for use in more globally competitive sectors and should promote longer-term growth and stability. Deregulation promises to be particularly valuable in non-tradable services, such as insurance, travel (airlines), telecommunications, and utilities. Both business and consumers will be the ultimate beneficiaries.

Finally, global economic conditions will continue to restructure the Japanese economy. Japan has committed to further liberalization of its markets to trade under the WTO. While export expansion led the economic growth of the twentieth century, we anticipate that import competition and inward FDI will play a leading role in increasing productivity in Japan in the twenty-first. As Lawrence and Weinstein (1998) found, using OECD data, productivity in Japanese import sectors has grown more rapidly than in export sectors. Imports act to create a more competitive domestic business environment. We anticipate that, as import barriers continue to fall and as domestic distribution systems become more transparent and converge to OECD standards, the import share of Japanese GDP will rise hence improving domestic productivity.

We also anticipate that deregulation and a greater openness of the Japanese economy will generate inward FDI, discussed below. The competitive pressure from such investment can play role similar to that of import competition, enhancing productivity growth (see Blomström and Sjöholm, 1999).

In conclusion, while it is impossible to predict in detail the future development of the Japanese economy or any other, there is little doubt that the economy will change. In order to guess at the future role of FDI in these changes, it is necessary to make some forecast of their direction. We find it likely that Japan will continue to grow in per capita income and to move further in deregulating the economy, and will therefore become more like other economies, such as the United States.

3. The Role of Japanese Outward Direct Investment

What role has increasing outward FDI played in the restructuring of the Japanese economy? Outward FDI is not very large relative to the Japanese economy, and it showed little sign of growth, in relative terms, before the mid-1980s, despite the increases in the Japanese wage level and in the strength and size of Japanese firms (Lipse, et al., 1998). After the rise in the value of the Yen that began in 1985, a new trend appeared: a sharp rise in the importance of production and employment outside Japan by Japanese firms. Employment in Japanese affiliates abroad, which had been below 2 per cent of aggregate home employment since the early 1970s, rose to over 5 per cent by 1996. In manufacturing, overseas employment, 5 to 6.5 per cent of home employment before 1985, rose to 19 per cent in 1996. Value added in Japanese manufacturing affiliates abroad roughly doubled in size relative to total manufacturing value added in Japan between 1980 and 1992 (Lipse, et al., 1998).

Within multinational corporations (MNCs), employment abroad rose from under 40 per cent of home employment in 1977 and 1980 to 55 per cent in 1992, and the affiliate share of production within Japanese manufacturing multinationals rose from 6.5 to 16.5 per cent (Ramstetter, 1991 and 1996).

While overseas manufacturing affiliates were becoming more important relative to their parents and to total manufacturing in Japan, the parents' share of Japanese manufacturing was shrinking. Value added in Japanese manufacturing parent firms fell from around 60 per cent of value added in Japanese manufacturing in 1980 and 1983 to about 50 per cent in 1992. There has apparently been a geographical reallocation of the activities of Japanese firms, and particularly those of multinational manufacturing firms. The reallocation must have changed the characteristics of the economy as a whole or it resulted from underlying changes in the economy.

Japan's share of world manufacturing exports rose over 60 per cent between 1970 and 1986 and then, by 1995, declined by a quarter. During the period of rising Japanese export shares, foreign production affiliates were small relative to aggregate Japanese employment and output, but they were of importance in some individual sectors. In Mining, and in three manufacturing sectors close to primary products, Food products, Non-ferrous metals, and Wood, paper and pulp, Japanese affiliates were export-oriented, usually to the extent of half or more of their sales, and were focussed on exporting to the Japanese market (Ramstetter, 1991). That concentration reflected the traditional Japanese concerns about raw material and food supplies and kept at least part of import sources under Japanese control.

In Foods, Textiles and apparel, and Wood, paper and pulp, overseas affiliates were the main sources of whatever share Japanese MNCs had of markets outside Japan. In two of those industry groups that share had traditionally been small, but Textiles and apparel were a different

case. Japanese exports alone had accounted for 12 per cent of world exports in 1970 and Japan had a strong export comparative advantage at that time. As Japan's share of world exports of these products fell to 7.5 per cent in 1977 and 2 per cent in 1986, and Japan lost its comparative advantage in this industry, Japanese affiliates took over part of the Japanese share in overseas markets. By 1977, they were already supplying more of those markets than their parents, and by 1986 they supplied twice as much. Thus, they helped to retain for Japanese MNCs some of the market share they might have lost if they had depended entirely on exporting from Japan.

The changes that took place in the location of the production from which Japanese MNCs served foreign markets are shown in Table 5. By 1977, the first year for which we have affiliate data, the affiliates had already taken over half or more of the Japanese MNCs' foreign markets in the declining industries, Foods, Textiles and apparel, and Wood, paper and pulp. In the next decades, still in the period of Japanese trade ascendancy, the affiliate share in these industries grew still further.

In the Chemicals sector, never one of Japanese export comparative advantage, and one in which Japanese parent exports hardly grew from 1977 to 1986, affiliates were initially unimportant. However, by 1986 they supplied two thirds of Japanese MNCs' foreign sales.

Most of Japanese and Japanese MNC exports and affiliate sales are in the Metals, Machinery, and Transport Equipment groups, and affiliates accounted for less than 25 per cent of overseas markets for Japanese MNCs in 1977. That affiliate share grew in all these industries even as Japan's world export shares were growing, but the smallest increase in affiliate shares was in Electrical Machinery, the sector in which Japan's comparative advantage was greatest.

While the affiliate shares of MNC markets most closely reflect the decisions of parent firms, these decisions affect the country as a whole, outside of the MNCs. The outcome for the

country can be seen in Table 6, which shows how all Japanese firms, including non-MNC firms, served their foreign markets. That calculation can be extended to 1995, because it does not require parent data. The period of declining Japanese export shares is most closely approximated in our data by 1986-1995.

If the adjustment required by the Japanese economy in this decade was a decline in the role of manufacturing, the overseas affiliates contributed to it in every industry by supplying larger and larger shares of the foreign markets served by all Japanese manufacturing firms, MNCs and others. While the affiliate share for manufacturing as a whole grew only from 15 to 23 per cent during the high growth period, it increased from 23 to 40 per cent in the low growth era, and to 40 per cent or more in every industry except Non-electrical Machinery.

Even in those industries in which Japan retained its comparative advantage in 1995, the two machinery groups and Transport Equipment, the share of affiliates in serving Japan's foreign markets increased. The shift from exporting to affiliate production and sales was particularly large in Transport Equipment: from an affiliate share of 16 per cent in 1986 to 45 per cent in 1995. The move to affiliate production in this case sustained Japanese exports. Of the increase of \$36 billion in exports from Japan, \$31 billion were imports from Japan by manufacturing affiliates in the Transport Equipment industry, presumably mostly components for production there. Of the total growth in foreign market sales in this industry of \$148 billion, exports from Japan accounted for only the \$36 billion mentioned above; the rest came from affiliate sales net of their imports from Japan. Thus, the affiliates expanded the total Japanese market share in the industry, sustained exports from Japan, and permitted a shift in Japanese home production to inputs into the production process.

Table 7 describes, for the whole range of manufacturing industries, the role of affiliate production and sales in the period of decline in Japanese home country export shares. More than half the growth in Japanese firms' sales in foreign markets, whether from exports from Japan or Japanese production abroad, came from the foreign production. The foreign production share was close to or above half in all industries but one, Non-electrical Machinery. The home country share was highest in the industry groups that contained the more sophisticated or research-intensive industries, but not by a huge margin.

As was the case for older industries in the period of rising Japanese export share, before 1986, the affiliates were helping Japan to sustain foreign market shares at a time when Japan's market shares were declining, and especially in Japan's less competitive industries.

Another area where we find significant Japanese outward FDI is in banking, but here we find some interesting differences from manufacturing. Overseas branches of Japanese banks have been much more important than foreign banks in Japan. The total assets of overseas branches of Japanese banks reached a peak, in absolute terms, in 1990, after much more than doubling in the previous eight years (Bank of Japan, 1997, pp. 94-98). After 1990, these assets declined by almost a third, and then recovered somewhat, but they remained, in 1997, well below the 1990 level. Until 1990, Japanese banks were growing at home, as well as abroad, and even faster, so that the assets abroad were declining relative to those at home during the latter part of the 1980s. After 1990, the rate of decline was faster abroad than at home, so that the ratio of foreign to domestic assets fell by almost half from 1985 to 1997.

That process, first of rapid expansion abroad, and then of contraction, is illustrated by the changes in the position of Japanese banks in the United States, as reported in the Reserve Board's Reports of Conditions and Income. From 1985 to 1990, assets of US offices of Japanese

banks more than doubled, and grew from 6.6 to almost 12 per cent of total assets of all banks in the United States. This share of business loans grew even faster, from about 8.5 per cent in 1985 to 19 per cent in 1990. The expansion was fed by high Japanese saving rates and restrictions on competition by foreign institutions for Japanese saving rather than by any technological superiority or high operating efficiency on the part of Japanese banks. After 1990, the absolute amount of Japanese bank assets in the United States fell sharply, and their share in total assets even more rapidly, falling to about 5.5 per cent in June 1998, well below the 1985 level. The firm comparative advantage of Japanese banks apparently disappeared with the decline in their domestic assets and the need to restore capital at home.

3.1 Future Trends

A continuation of the trends of the last twenty years in the Japanese economy would point to continued relative decline of manufacturing and growth in service industries. However, a larger share for foreign firms in somewhat liberalized finance and trade sectors might produce reductions in employment in these areas even as output grows, if these sectors are presently as inefficient as is often said.

Within manufacturing, and therefore in commodity trade, the declines in Japanese export shares and the growth in affiliate shares in many old industries, such as Foods, Textiles and apparel, and Metals, do not have much further to go. One exception is the Iron and steel industry, although foreign affiliates have not sustained Japanese MNC shares much in that case.

Manufacturing exports are, and will probably be in the future, increasingly concentrated in Machinery and in Transport equipment, mainly motor vehicles. Even if these remain the bulk of Japanese exports, the trend in Electrical machinery and Transport equipment has been, and

will probably continue to be, toward supplying more of foreign markets from affiliate production. That trend has hardly begun for Non-electrical machinery so far.

A comparison of Japanese affiliates with US majority owned foreign affiliates points to some differences that suggest directions for the future evolution of Japanese FDI. One is the much smaller involvement of the Japanese affiliates in Non-electrical machinery, which includes computers and parts, despite Japan's comparative advantage in that industry. The revealed comparative advantage ratio for Japanese affiliates in this industry is 0.48, as compared to 1.40 for US affiliates, although the ratios for the two home countries are close, from 1.32 to 1.42. The likely future path is a rapid growth for Japanese affiliates in this industry.

The second difference is that in Non-electrical machinery and Transport equipment, exports/sales ratios are much lower in Japanese affiliates than in US affiliates, 35 as against 54 per cent and 11 as against 53 per cent. The gap between US and Japanese affiliates is larger in both developed and developing country locations, especially in Transport equipment. US affiliates in developed countries exported 54 per cent of their output and Japanese affiliates only 14 per cent. The shares in developing countries were 43 and 7 per cent.

Both the lack of Japanese affiliate production in Non-electrical machinery and the low export ratios of Japanese affiliates in Electrical machinery and Transport equipment probably reflect the relative immaturity of the Japanese affiliates. Japanese manufacturing MNCs seem to be behind US MNCs in dividing up their output into segments and producing each segment in the most efficient, or economical location. The future should see more movement in this direction, especially if home labor market restrictions are loosened. The reallocation of production to affiliates should help the parent firms to adjust to the changing conditions of

production in Japan and improvements in host countries, and to hold on to or expand their markets in the face of high home production costs.

Much of the reduction in Japanese banking operations abroad, and its timing, must have reflected cyclical conditions in Japan. But the development may also be, to some extent, a response to expectations of future liberalization at home. Until some time in the 1980s, Japanese banks were awash in cheap funds from Japan's high saving rate and the banks' monopoly position at home. With the future promising probably lower saving by an aging population and more competition for funds from foreign financial firms entering the Japanese market, the Japanese banks may have concluded that their problems were not temporary and that large foreign networks would no longer be profitable.

4. The Role of Inward FDI

Japanese outward FDI takes place in industries of existing Japanese firms' comparative advantage, typically also the comparative advantage of Japan itself, present or possibly past. Inward FDI would be expected to come into industries in which foreign firms have some firm comparative advantage over Japanese firms. They might be export industries in which Japan already has some comparative advantage as a location or could have with the addition of some foreign firms' technology, or they might be non-tradable industries, or sectors of them, in which Japanese firms are backward in some respects.

Inward FDI may affect host countries both directly and indirectly. Investments by foreign companies will directly influence macro variables like capital formation, employment, tax revenues, and trade. Indirectly, foreign investment may also influence the structure of the host economy, as well as the conduct and performance of locally owned firms. Although the direct effects of foreign direct investment may be important in certain situations and/or countries, it is

generally accepted that a significant share of the long-run impact of FDI is likely to occur in the form of indirect effects or “spillover” (see Blomström, 1989). This is because FDI, apart from being a financial capital flow, also involves the capitalization of technology, knowledge, skills, and other resources that represent the MNCs’ intangible assets.

Spillovers can occur because MNC affiliates import and demonstrate technologies that are not used in the host country, and because their operations (or mere presence) may increase the level of competition and force local firms to search for more efficient methods of production. Among many possible channels for technology spillovers, the most concrete may be linkages with foreign MNCs and hiring of employees trained in MNCs. Recent studies have confirmed that the nature and significance of spillovers appear to vary between countries and industries, and that the positive effects of FDI are likely to increase with the level of local capability and competition (see e.g. Blomström, et al., 2000a). This suggests that there is a great potential for FDI spillovers in the Japanese economy in the future.

Historically, inward FDI has played an important role in the economic restructuring process in Japan (Sohn, 1998). Although always small, inward FDI was prominent in key industrial sectors in Japan before World War II and had a significant impact in the modernization of its industrial base in the inter-war period (see Takeshi and Udagawa, 1990). The Japanese government actively encouraged multinational entry in heavy and chemical industries, most notably in petroleum processing, rubber tires, automobiles, and electrical machinery. The impact was notable in the restructuring of Japan’s economy toward high value-added manufacturing. Western investors revolutionized the country’s industrial base by introducing technology of advanced production, firm organization, and management. From textile MNCs was gained a sense of quality control, western standards and design, and marketing strategies. The foreign

automotive industry brought techniques of mass production and vertical corporate organization. Modern methods were widely disseminated and blended with Japanese cultural practices (see UNCTAD, 1995).

Inward investment is still very low in Japan, as is well documented in the literature (see e.g. Yoshitomi and Graham, 1996). An often-cited figure is that foreign firms in Japan account for only one per cent of Japanese sales. However, a more careful look at the numbers would place sales of foreign affiliates at 5.3 to 5.7 per cent of all sales (Weinstein, 1997). These figures are about half of that of the United States, and are well below international averages. Foreign firms' shares of Japanese production measured by value added, are also low in an international comparison (see Lipsey, et al., 1998).

Low foreign involvement in the Japanese economy is due to a combination of factors that have been discussed over the years. Until the early 1970s, Japan's policies toward inward FDI were extremely restrictive. Although these restrictions were largely eliminated in 1980, inward FDI is still relatively small, leading some (e.g. Encarnacion, 1992) to suggest that private barriers to FDI have replaced public barriers. Others, however, have argued that these findings are the result of general entry barriers (e.g. Ramstetter and James, 1993). For instance, the cost of doing business in Japan is exceedingly high due to high rental costs, high taxation of corporate profits, and complicated governmental regulations. Rigidities in the labor market, such as an expectation of 'lifetime' employment and high living standards, result in very high implicit wages.

Foreign entry is further limited by the difficulty of acquiring ownership in existing Japanese firms. Cross-ownership of shares within *keiretsu*, vertically related groups of firms, are thought to discourage hostile mergers and acquisitions as a low level of stocks are publicly traded (Dunning, 1996). Furthermore, governmental regulations and subsidies favor small and

medium-sized enterprises, while multinational activity tends to arise predominantly in large enterprises (Weinstein, 1997).

4.1 The Future

Inward FDI will play more of a role than in the past in the sectors we expect to grow in Japan. These include high-tech sectors in manufacturing and financial services, in which Japanese firms are relatively backward. Foreign firms will also benefit from the ongoing deregulation of the Japanese economy. These reforms will act to create new markets, attract foreign investment, and stimulate competition. We can already see the beginning of this structural change.

Compared with foreign rivals, many Japanese firms are either too small or too dependent on their home market to survive. By paring away jobs and unprofitable businesses, they are restructuring to regain competitiveness (see e.g. Whittaker, 1997). This process – known as *risutora* – is rapidly changing those sectors of the Japanese economy that are open to competition. Mergers and acquisitions, which also involve foreign owned multinationals, make up a big part of this restructuring. In 1998, over 900 mergers took place in Japan, which is more than twice as many as five years earlier, and the number seems to have increased since then. The foreign acquisitions of Japanese firms grew more than six-fold in value the same year. There is still a long way to go, however, in comparison with the United States, where over 11,000 mergers were announced in 1998. The banking crisis is also eroding the cross-shareholdings within the *keisetsu*: the major banks are trying to reduce their risk exposure by reducing their holdings of stocks.

Developments in the auto industry can illustrate these changes as well. The companies that were first to respond to the new challenges, primarily Honda and Toyota, are still at the top of the world league, both technologically and financially. The laggards are now in the midst of

the restructuring process. Ford's stake in Mazda, Renault's deal with Nissan, and Daimler-Chrysler's with Mitsubishi, are three examples of the mergers and acquisitions that are reshaping Japan's industry.

One sector in which the liberalization of the Japanese economy is expected to have the greatest impact is that of banking and other finance. These are not industries, for which FDI data are plentiful, especially banking, which is something of an orphan in the US FDI data collection system.

US depository institutions, mainly commercial banks, clearly held a smaller toehold in Japan at the latest FDI census data, 1994, than in most other developed countries. For example, the ratio of assets of US depository institutions to GDP was lower in Japan than in the 9 other large developed countries for which we have data and lower also than that in Korea, not a country noted for welcoming inward FDI (US Department of Commerce, 1998). The same was true for sales and employment in these institutions. Japan has apparently not been an easy market for US banks to penetrate, at least via FDI.

The US depository institutions were not only small in Japan in 1994, but had been decreasing in size relative to Japanese GDP since 1982, whether we measure size by assets, sales, or the direct investment stock, calculated at historical cost (US Department of Commerce, 1985). The assets of US - owned banks in Japan declined even more over these 12 years relative to the assets of Japanese domestically licensed banks (Bank of Japan, 1997). Thus, there was no apparent move into the Japanese market up to 1994 by US banks.

Since 1994, the story is somewhat different. The assets of Japanese branches and subsidiaries of US banks rose from .24 per cent of those of Domestically Licensed Japanese Banks in 1994, to .40 per cent at the end of 1997. Although this US bank share was tiny in

comparison to the assets of the domestically licensed Japanese banks, there is some suggestion of an increase in importance of the US banks, although the large fluctuations make it hard to say we can see a trend. The rise in importance of the US banks owes almost as much to the decline in assets of the local banks, as to growth in the US banks.

Another indicator of changes in the finance sector is the US investment position in Japan in that sector, although it is risky to assume a close relationship between the investment stock and activity. Within the banking sector, there was relatively slow growth in the US investment stock until 1997. In that year, the stock jumped by about 50 per cent, possibly foreshadowing larger future moves in response to a loosening of controls. Further evidence of change in the banking sector is given by Japanese data on the assets of foreign banks in Japan. The absolute size of these assets increased in most years until a peak in 1990, fell thereafter in every year until a low point in 1994, and then began to rise again. The largest increase, by about 50 per cent, as in the data for US banks, took place in 1997. Relative to total Japanese bank assets, the foreign bank asset levels jumped from a low of 3.2 per cent in 1994 to 3.7, 4.6, and, in 1997, 6.6 per cent of Japanese bank assets. Thus, the data covering all banks confirm the impression that some barriers have been lifted and that foreign banks, have begun to increase their role in the Japanese financial sector.

The “Other Finance” category involves far more US investment in Japan than the banking sector, but it is hard to know what the appropriate sector within Japan is for comparison. If we compare the US investment stock with the assets of Japanese insurance companies, a procedure that underestimates the US role, because assets are usually much larger than the investment stock, we find little change in the ratio through the 1980s. US investment grew rapidly from 1982 to 1988, but the Japanese insurance sector also grew rapidly. After 1988,

however, the US investment grew faster, and the ratio more than doubled, suggesting that some liberalization may have been affecting this sector. However, the US direct investment data for Finance are so heavily suppressed that it is impossible to use them to identify just what parts of the sector are receiving the US investment.

5. Conclusions

We expect both outward and inward FDI to play an increasingly important role in the restructuring of the Japanese economy in the future. Outward FDI is still not very large relative to the Japanese economy, despite the rapid growth since the mid-1980s, so there is still scope for significant increases before it reaches the levels of other OECD countries. The outsourcing and relocation of production will particularly affect labor intensive manufacturing operations, not least because of demographic factors. On the domestic scene, this will facilitate the necessary restructuring of the Japanese economy towards more advanced activities with higher value added.

Inward FDI will presumably have an even stronger impact on the restructuring of the Japanese economy. Although the stock of inward foreign direct investment is still very small, there are important changes under way. Deregulation has opened up industries as well as service sectors to foreign multinationals. In combination with the economic crisis, this has begun to weaken the cross-shareholding relationships within the *keiretsu* groups, which facilitates mergers and acquisitions between Japanese and foreign firms. The consequences of increasing foreign participation in the Japanese economy are likely to be highly beneficial. The level of competition and the inflow of foreign technology will increase, with higher productivity growth as a major result.

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Table 1: Employment: 1997/1977

All Industries	1.23
Services	1.83
Wholesale and Retail Trade & Eating & Drinking Places	1.24
Manufacturing	1.08
Agriculture & Forestry	.55

Source: Bank of Japan (1997) p. 363, and (1986) pp. 303-304.

Table 2: Manufacturing Producer Shipments: 1997/1976

All Industries	1.83
Electrical Mach.	6.49
Chemicals	2.36
Transp. Equip.	1.65
Food & Tobacco	1.23
Iron & Steel	1.14
Textiles	.65

Source: Bank of Japan (1997) p.358. (1996) p. 356.

Table 3: Shares of World Exports, 1995/1977, Selected Groups

Industry Groups	
Electrical Machinery	1.76
Foods	.77
Metals	.75
Industries	
Electronic components	4.27
Computer & other office equip.	3.30
Misc. plastic products	2.37
Household audio & video equip.	1.66
Farm & garden mach.	.46
Construction & mining mach.	.52

Source: NBER World Trade Database

Table 4: Shares of Japanese and US Exports, 1995/1977, Selected Groups

Industry Groups	Japan	US
Non-electrical machinery	1.79	.93
Electrical machinery	1.58	1.96
Foods	.47	.79
Metals	.37	.96
Industries		
Electronic components	8.82	3.64
Computer & other office equip.	5.43	2.03
Misc. plastic products	2.53	2.45
Drugs	1.88	1.07
Other electrical mach.	1.87	1.06
Apparel & other textile products	.35	.97
Other transport equipment	.31	.74
Primary metal industries, ferrous	.31	.78
Leather & products	.21	1.22

Source: NBER World Trade Database

Table 5

Share (%) of Japanese Affiliates in Total Foreign Sales by Japanese MNCs, 1977-1988

	1977	1980	1986	1988
Total	19	20	28	36
Foods	87	85	100	93
Chemicals	25	27	66	59
Metals	22	20	37	45
Nonelectrical Machinery	12	13	28	23
Electrical Machinery	21	21	30	35
Transport Equipment	6	7	14	26
Other Manufacturing	41	42	48	52
Textile & Apparel	51	57	63	67
Wood, paper and pulp	50	61	68	68
Other	27	31	38	44

Note: Total foreign sales by Japanese MNCs are the sum of manufacturing parent exports, and sales by foreign manufacturing affiliates, minus affiliate imports from Japan and affiliate exports to Japan from affiliate production, measured as total affiliate exports to Japan multiplied by the ratio of affiliate imports from Japan to total affiliate sales. Affiliate shares are derived from the difference between total foreign sales and parent exports. Manufacturing affiliate sales in 1986 and 1989 are from Japan, ITI (1999). Other data are from Ramstetter (1991).

Table 6

Share (%) of Japanese Affiliates in Total Foreign Sales by Japan and Japanese Affiliates, 1977-1995

	1977	1980	1986	1988	1989	1995
Total	15	13	23	31	33	40
Foods	44	28	59	73	74	83
Chemicals	16	16	37	52	51	51
Metals	16	14	29	39	38	46
Nonelectrical Machinery	5	5	12	11	15	15
Electrical Machinery	20	19	28	38	37	42
Transport Equipment	4	5	16	25	29	45
Other Manufacturing	32	27	33	44	48	52
Textile & Apparel	36	29	35	46	43	45
Wood, paper and pulp	46	42	46	58	50	58
Other	24	24	30	41	50	53

Note: Foreign sales by Japan and Japanese affiliates are the sum of exports of manufactures products from Japan and sales by foreign manufacturing affiliates, minus affiliate imports from Japan and affiliate exports to Japan, measured as for Table 11.5. Affiliate shares are derived from the difference between total foreign sales and Japanese exports. Exports of manufactured products from Japan are from the NBER World Trade Database. Manufacturing affiliate sales in 1977 and 1980, manufacturing affiliate imports from Japan and exports to Japan from 1977 to 1988 are from Ramstetter (1991). Manufacturing affiliate sales from 1986 to 1995 are from ITI (1999). Manufacturing affiliate imports from Japan in 1989 and 1995 are adjusted from MITI (1998). Manufacturing affiliate exports to Japan in 1989 and 1995 are adjusted from MITI (1998) and Japan, ITI (1999).

Table 7

Share (%) of Affiliate Production in the Growth of Japanese
Firms' Sales of Manufactures in Foreign Markets

	1986-1995
Total	51.2
Foods	93.0
Chemicals	55.7
Metals	64.9
Nonelectrical Machinery	17.4
Electrical Machinery	49.6
Transport Equipment	67.0
Other Manufacturing	65.2
Textile & Apparel	67.3
Wood, paper and pulp	67.7
Other	64.6

Note: The growth of Japanese firm's sales of manufactures in foreign markets is the difference between the growth of exports from Japan from 1986 to 1995 and the growth of Japanese sales to foreign markets in the same period. The data are those underlying Table 11.6.