

The Foreign
Investment Debate
Opening Markets Abroad or
Closing Markets at Home?

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Foreign Direct Investment and the Economy

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American policy toward international investment is undergoing a dramatic shift. Long the world's most ardent advocate of unrestricted investment, the United States has traditionally opposed attempts by other nations to place conditions on investment, arguing that politics should not intrude on business decisions and undermine competition. There is, however, a growing movement in Congress to impose new restrictions and conditions on international investment, and technology policy is the preferred vehicle for this sort of investment protectionism.

Attempts by Congress to restrict international investment are out of touch with the demands of an increasingly global economy. Rapidly rising global investment by companies around the world has forever changed the nature of economic life. Investment is now more important than trade as a component of international business. Transnational corporations currently operate some 170,000 affiliates across the globe; this worldwide network of foreign affiliates generated more than \$5.5 trillion in world sales in 1990, a figure that exceeded world exports of \$4 trillion of goods and nonfactor services.¹

The evidence is clear: international investment stands ever more clearly as a key determinant of domestic productivity and of economic success in the global economy. The inflows bring jobs as well as new technologies and management practices to the host country. The outflows enable companies to open markets abroad, generating exports in the form of intrafirm trade. The issue at stake in the debate over international investment should be the ability of an economy to attract it.

This chapter examines the role of foreign investment in the U.S. economy and recent trends in U.S. policy toward this investment. It

begins with a review of U.S. policy, highlighting the key pieces of legislation that attempt to impose conditions (performance requirements or other types of restrictions on foreign investment) and outlining the major assumptions upon which such investment protectionism is premised. The second section examines the increasingly important role played by international investment in the American economy and the larger global economy. A new theory is offered that identifies a clear link between international investment and productivity and employment growth. Particular attention is paid to the economic contribution of foreign investment in the areas of the technology base, job generation, and the economic revitalization of the Midwestern manufacturing belt. The chapter concludes with an outline for a multilateral investment agenda or GATT-like agreement on investment.

A Dangerous Drift in Policy

When it comes to having a liberal investment regime, the United States has led the world by example. For most of the modern, post-World War II era, the United States has generally refrained from putting conditions on international investment and has maintained instead a strong commitment to openness and neutrality.² This open-door policy was politically sustainable largely because the country and its leaders perceived that competition from foreign producers did not constitute a major threat to domestic industry.

American policy toward international investment has generally been based on adherence to the principle of equal treatment for all investors, which ensures that all firms operating in the United States are treated equally regardless of nationality of ownership. This principle means that foreign investors are treated the same as domestic investors under American laws. Equal treatment strengthens the U.S. economy by ensuring a stable international investment system, attracting foreign capital (and with it, jobs and technology) and, in theory, helping to protect U.S. investments in other countries. The practice of conferring most-favored nation treatment has also meant that a foreign-owned company receives treatment no less favorable than that accorded any other foreign-owned companies.

U.S. negotiators have generally insisted on adhering to these principles in NAFTA and in the continuing campaign to convince developing nations to enter into bilateral investment treaties with the United States. The United States has similarly challenged the use of trade-

related investment measures by other nations, because such measures impose export requirements, local content demands, and technology conditions on firms.³ The United States has even insisted on the adoption of a TRIMs code under the GATT, forbidding such practices.

Congress's commitment to equal treatment has waned in recent years. Beginning in the late 1980s, Congress started to consider and to pass legislation that imposes new requirements and conditions on international investors and foreign-owned firms in general, particularly foreign-affiliated companies that might wish to participate in federally funded technology programs. There are two principal components of this recent shift to a more restrictive policy regime toward international investment:

- *Conditional national treatment* links the treatment of foreign investors to the practices of their home country governments. Conditional national treatment is frequently defended as a tactical mechanism to open foreign markets.

- *Performance requirements* are the standards on domestic content, employment, or other performance goals. These are often nationality-neutral, applying to both domestically and foreign-owned firms.

Two additional components of the legislative shift toward a more protectionist posture on international investment are:

- *disclosure requirements* on operations and intended acquisitions of international affiliates

- *screening*, which is designed to evaluate the impact of international affiliates and potentially to block acquisitions on the grounds of national economic security⁴

Virtually all advanced economies place restrictions on international investment. In the United States, these laws affect the ownership of or rights to such things as agricultural property, banks, mineral leases and extraction, geothermal production, construction of deep-water ports, and production of nuclear energy.⁵ The rationale for these restrictions is the protection of national security. During the early 1970s, however, Congress saw the need for greater control over international investment. This attention was aroused in large measure by the surge in portfolio investment from abroad, particularly from the OPEC nations. In response to this concern, the Ford administration signed an executive order in 1975 creating the Committee on Foreign Investment in the United States (CFIUS), an interagency

group that tracks international investment and makes recommendations to the president.⁶

By the late 1980s, in the wake of a series of high-profile foreign acquisitions, congressional pressure mounted for additional restrictions to protect against foreign acquisitions of U.S. companies that owned or manufactured critical defense technologies. As part of the Omnibus Trade Bill of 1988, Congress passed the Exon-Florio amendments. The Exon-Florio provisions granted the president the authority to take whatever actions he deems appropriate to prevent foreign acquisitions of defense-related companies that would threaten or impair national security. President Reagan delegated this authority to CFIUS.⁷ In 1988, the House appended the Omnibus Trade Bill with a provision known as the Bryant amendment. This measure would have required significant disclosure of information on the part of foreign investors if they intended to obtain more than 5 percent ownership of an American firm; the amendment would have required even more disclosure in the event that foreign ownership reached 20 percent. The provision did not survive conference, but it did pass the House as a free-standing bill.

In 1990, to mollify the concern that lay behind the Bryant amendment, the Bush administration proposed and signed a bill to improve the analysis and distribution of information on foreign investment that the federal government was already collecting. In effect, the law authorized the Census Bureau and the Bureau of Economic Analysis to make information available that, for reasons of confidentiality, they had previously kept to themselves. While Exon-Florio ultimately became a permanent federal law, as opposed to one requiring reauthorization, an attempt to extend Exon-Florio to cover national *economic* security—the acquisition of civilian high-technology companies—was unsuccessful. At last count, CFIUS had received more than 800 notifications of intent to invest in defense-related companies, and at least 15 cases had gone through the investigation. This resulted in only one proposal being blocked, however.⁸

In the early 1990s, congressional support for increased restrictions on foreign investment surged anew, turning to the more contentious and potentially more damaging issues of performance requirements and conditional national treatment (see table A-1). A number of recent pieces of federal technology policy legislation call for stringent performance requirements of both domestic and foreign-owned companies. This means that potential participants in federal

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programs must give evidence that they operate manufacturing facilities, conduct research and development, or maintain significant employment in the United States. Many of these bills seek to condition the participation of foreign-owned firms on the practices of their home governments, requiring that these nations provide comparable or equivalent opportunities for U.S.-owned companies to participate in programs abroad, and that they afford comparable investment opportunities and similar intellectual property protection to U.S. firms abroad.⁹ Conditional national treatment is frequently defended as a tactical measure to open foreign markets to U.S. goods and services. The Congressional Office of Technology Assessment, for example, recently suggested that "selective reciprocity" could be used to provide leverage for the U.S. government in the task of promoting trade and investment by U.S. firms.¹⁰

The American Technology Preeminence Act of 1991 is a case in point. This legislation requires that participating foreign-owned companies conduct substantial R&D and manufacturing in the United States, and that they have a home government that allows U.S.-owned companies to participate in government-sponsored programs, affords local opportunities to U.S. companies, and gives U.S. firms suitable intellectual property protection. The language from this bill has found its way into further legislation for the development of critical technologies, manufacturing technologies, aerospace technologies, environmental technologies, space-exploration technologies, and defense technologies—just about the full gamut of technologies. In 1993, the House passed two similar amendments—the Manton and the Collins amendments to the National Competitiveness Act of 1993—which would create much tougher criteria for program participation by foreign-owned companies by requiring that their home governments provide U.S. firms with access to information and resources *equivalent* to those authorized under that act.

This protectionist drift in investment policy threatens not only a key source of domestic economic improvement but also the central principle of national treatment that is at the base of the modern global economy. It has not yet provoked retaliation from abroad. But if the drift persists, conflict will also increase with our trading partners, and foreign retaliation against U.S. multinationals abroad might ensue. The European Community has already threatened to invoke its version of conditional national treatment—the so-called Metten resolution, which bears striking similarity to the Manton amendment

to the National Competitiveness Act—if U.S. policy moves further down the path to investment protectionism.¹¹ Such a policy showdown would be costly to all those involved and would potentially undermine the international flow of investment that has become the key feature of the new global economy. The Clinton administration, to its credit, has shown a willingness to reject the more restrictive proposals from the Congress on conditional national treatment. But the risks to the domestic and the global economy posed by the trend demand more. The United States must articulate a coherent policy toward international investment and economic globalization.

Shaky Concepts, Faulty Assumptions

The recent drift in Congress toward investment protectionism is based on a series of shaky concepts and faulty assumptions that provide an inappropriate rationale for policy. This view starts from the premise that international investment *injures* the U.S. economy in a number of ways: by eliminating high-wage jobs, by transferring U.S. technology to foreign competition, and by contributing to the trade deficit. As a consequence, government intervention is required to protect jobs, halt the flow of U.S. technology abroad, and maintain national economic security by ensuring that critical economic and technological assets are not controlled by foreign interests. This approach ignores the considerable contributions that international investment has made to the home economy, and it fails to recognize the fundamental trend toward the globalization of economic activity—a trend that federal legislation will be unable to curtail.

The debate over international investment, in particular, over the issue of performance requirements, has revolved around the faulty concept of corporate nationality. In an article published in the *Harvard Business Review* and later expanded in his book *The Work of Nations*, Robert Reich argued that corporate ownership is less important than the scope and nature of domestic activities those corporations undertake.¹² Posing the provocative question, "Who Is Us?" Reich suggested that international firms that invest in plant, equipment, and jobs in the United States may contribute more to domestic economic welfare than U.S.-owned companies that invest abroad. The chairperson of the Council of Economic Advisers, Laura Tyson, countered that corporate nationality continues to matter, insisting that foreign-owned companies "are not us."¹³

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Although quite innocuous on the surface, this debate has done a great deal to undermine America's traditionally open investment regime. At the same time that Reich defends the concept of equal treatment, his argument has helped to fuel the fire for performance requirements by suggesting that a firm's contribution to the domestic economy can be measured by the level of investment, technology development, or employment it provides. The implication of this perspective is that the federal government should offer incentives for companies that place a considerable share of their assets and activities in the United States, while creating explicit disincentives or outright penalties for those that do not. Indeed, a highly controversial story in the *New York Times* reported that members of the Clinton administration had devised a crude performance-rating system for U.S. and international corporations based on the level of their activities in the United States.¹⁴

The implication of Tyson's argument goes further, suggesting that the federal government should promote U.S.-owned firms and should condition international investment in the United States on equivalent access to foreign markets. Such implications are reflected in the recent Office of Technology Assessment report, which proposes a specific reciprocity approach, affording equal treatment to investors according to mirror-image principles.

This concept of conditional national treatment has also been advanced in a series of recent reports by former U.S. Trade Representative negotiator Clyde Prestowitz and the Economic Strategy Institute (ESI).¹⁵ A 1991 report on foreign investment charged that the Committee on Foreign Investment in the United States—the interagency group that reviews foreign acquisitions with national security implications—was too lenient and approved virtually everything that came its way. It raised the specter that control of key U.S. industries, from semiconductors to advanced materials, was slipping away to foreign competitors, and it made the case for stiffer performance requirements on foreign acquisitions of so-called sensitive U.S. companies.

A 1993 ESI study of the airline industry alleged that strategic investments by foreign airlines, such as British Airway's investment in USAir, were threatening the ability of American-owned airlines to gain access abroad, especially in Britain, and eroding the competitiveness of U.S.-owned airlines. And in a widely cited 1994 report on the United States and Europe, ESI contrasted investment from the European Community with that from Japan and Asia more broadly.

The study argued that while European-owned firms invest in ways that strengthen U.S. technology and production methods, Japanese- and Asian-owned companies invest strategically and in potentially damaging ways. The report thus made the case for differential treatment of investment by European and Japanese companies.

The framing of the debate in terms of what share of a corporation's assets is invested, what percentage of its activities take place in the United States, or worse yet, how its home government treats U.S.-owned firms is based on a shaky set of assumptions. Consider first the faulty logic of performance requirements. The balance of domestic-versus-international activities that such companies undertake cannot be determined by any legislatively mandated formula. The nature of this balance is likely to vary considerably between industrial sectors and fields of technology. Although automotive firms may be able to produce a large share of total content in the markets where products are sold, it will be much more difficult to achieve similar content in sectors like electronics, which are subject to much higher degrees of wage-related competition.

In other words, globalization affects all aspects of corporate strategy and behavior—technology, production, and markets. To be successful in an environment characterized by global markets, corporations must—and are frequently forced to—undertake both manufacturing and R&D on a global basis. R&D and innovation must take place in global centers of technology, whether in the United States, Europe, or Japan. Some forms of manufacturing have to take place near the markets, while others—particularly in highly priced competitive lines of business, where wages matter—have to take place in offshore locations.

From the perspective of domestic economic welfare, it is indeed advantageous when international companies like Honda or Sony decide to design, develop, and produce their products in the United States. It is also necessary for both U.S.- and foreign-owned companies to conduct a significant share of their activities outside the United States. Attempts to force foreign-owned or domestic firms in such industries to conduct higher shares of their activities in the United States, or to penalize them for holding offshore activities, are likely to have an adverse effect on the U.S. economy. Not only will such measures affect current investments, but also they are likely to make firms reluctant to undertake future investments as well, forfeiting millions, if not billions, of dollars in inflows.

It makes even less economic sense to penalize individual companies for the practices of their home-country governments. Such measures essentially impugn individual companies, regardless of their own record on investment, for governmental policies and practices they may not even support. Allegedly designed to open foreign markets, such measures run the risk of sparking foreign retaliation, thus poisoning the whole environment for foreign investment.

International Investment in a Globalizing Economy

Globalization and international cross-investment are the new and defining features of economic life. All aspects of corporate activity, from R&D and product development to production and marketing, must be oriented to and increasingly take place in major markets throughout the globe. Globalization is occurring through a variety of mechanisms, but none is more important than international investment, which has risen to all-time highs over the past decade. Federal legislation can provide little shelter from such pervasive globalization. Consider just a few facts. According to data compiled by the United Nations program on transnational corporations,¹⁶ the world stock of international investment rose from \$500 billion in 1980 to more than \$2 trillion by 1992 (see table A-2). The pace was particularly dramatic between 1987 and 1992, when the amount of international investment doubled, a rate of growth that significantly exceeded that of trade.

The United States has been a primary beneficiary of this trend, as international investment has become the key mechanism through which the United States has integrated with the global economy. Indeed, the United States has been the recipient of a disproportionate share of the recent increase in international investment (see figure A-1). According to U.S. Department of Commerce data, inflows of international investment in the United States surged upward from \$20 billion in 1985 to a peak of \$68 billion in 1989 (see figure A-2).¹⁷ This surge in investment was concentrated in the manufacturing sectors, as the international investment share of U.S. manufacturing doubled between 1985 and 1991. In fact, the United States—which for a long time was the world's largest outward investor—is now the largest recipient of inward investment as well. According to a recent Department of Commerce report:

The internationalization of production by the world's largest corporations is a continuation of a process already underway in the late nineteenth century. In the 1950s and 1960s, the

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rapid globalization of international production was led by many U.S.-owned firms and quickly followed en masse by international corporations. In the 1960s, U.S. outward direct investment grew rapidly, with U.S. firms accounting for about one-half of the world's direct investment outflows. By the 1980s, the U.S. was receiving about one-half of the world's direct investment inflows, reflecting the rapid rise in foreign firms' presence in the U.S. economy.¹⁸

By 1990, according to the Department of Commerce, there were 11,900 foreign-affiliated manufacturing establishments in the United States, employing 2.1 million manufacturing workers and having shipments in excess of \$418 billion. International manufacturing investment was concentrated in the chemical, drug, computer, and consumer electronics industries (see table A-3). Foreign-affiliated manufacturers generated approximately \$177 billion in value added, 13 percent of the value added by all U.S. manufacturing establishments. More than half the value added by foreign-owned manufacturing establishments was concentrated in four industries: chemicals and allied products (\$49 billion), food products (\$20 billion), electronics (\$17 billion), and industrial equipment (\$14 billion). International manufacturing investment in the United States came primarily from the advanced industrial nations, with just seven countries—Britain, Canada, Japan, Germany, France, Switzerland, and the Netherlands—accounting for more than 80 percent of the employment, shipments, and value added by foreign-affiliated manufacturers. British-owned establishments accounted for the largest share of production (23 percent), followed by Canadian-owned establishments (15 percent) and Japanese-owned establishments (13 percent).¹⁹

Although much has been made of so-called asymmetries in international investment, a review of the most current data available from the Department of Commerce suggests that this issue has been overblown. Such contentions, which are typically based on an analysis of short-term investment flows, are not borne out by longer-term trends. The notion that investment patterns between the United States and Japan are asymmetrical, for example, is based almost exclusively on the unique pattern of the mid-to-late 1980s, when Japan was building a production base in North America in response to both market and political pressures. In fact, investment flows from a given country vary greatly from year to year, reflecting economic conditions in the home country.

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In recent years, international investment has shown a close relationship to the business cycle. When companies and nations grow, they invest abroad; but when hard times hit, investment slows. Throughout the late 1980s, it is indeed true that investment inflows into the United States exceeded the investments made by American companies abroad (see figure A-3). In 1989, for example, the United States posted a \$32 billion investment gap with the rest of the world. This gap has narrowed considerably in recent years, however, as a result of the U.S. recovery and the Japanese and European recessions. Indeed, by 1993 the gap had turned into a sizable surplus, as U.S. investments of \$58 billion abroad were more than \$35 billion greater than foreign investments of \$22.6 billion in America.²⁰

This basic pattern holds for both Europe and Japan. In 1989, the United States posted an investment deficit with Europe of roughly \$19 billion, as European companies invested \$43 billion in the United States, while American companies invested \$24 billion in Europe. But by 1992 this had turned into an investment surplus of more than \$13 billion, as European investment in the United States fell to \$800 million, while U.S. investment was \$13.5 billion. The gap has closed for Japanese investment as well. In 1989, Japanese companies posted a \$17 billion investment surplus with the United States, investing \$18 billion in the United States, while U.S. companies invested \$300 million in Japan. But by 1993, this surplus had narrowed to less than \$1 billion, as U.S. companies invested \$1.3 billion in Japan as compared with Japanese investments of \$2.2 billion in the United States.²¹

Furthermore, while Congress is debating how to restrict international investment, it has failed to notice that international investment in the United States has declined and that investment on a global basis may be shifting away from North America and toward Asia. After increasing to some \$68 billion in 1989, international investment in the United States plummeted to \$11.5 billion in 1992, before rebounding to \$22.6 billion in 1993.²² In 1992 and 1993, Japanese investment in U.S. manufacturing dropped sharply, according to the U.S. Department of Commerce. Japanese investment in the United States plummeted from a high of more than \$18.7 billion in 1988 to just \$2.2 billion in 1993.²³ The falloff in Japanese investment is especially damaging since it was largely concentrated in manufacturing, particularly automobiles and steel. Indeed, Japanese investment has been redirected away from the United States and toward Asia, as the rapid appreciation of the yen has forced a shift to offshore pro-

duction. According to Japan External Trade Organization (JETRO), Japanese investment in China is growing at a rate of 25 percent per year and continues to flow to the ASEAN countries, particularly Malaysia and Thailand, even as Japan remains mired in recession.²⁴ These nations are developing growth strategies premised on international investment.²⁵ European investment in the United States also fell, declining from a high of \$43 billion in 1988 to near zero in 1992—a year when the United Kingdom, the Netherlands, France, and Italy all registered capital outflows from the United States. European investment, however, rebounded significantly to \$27.5 billion in 1993, though this remains below massive inflows of European investment of the 1980s.

The New View of International Investment

A new view on investment has emerged in the past decade, largely in response to these trends. The classic view of international investment and of the multinational corporation is that the principal motive for international investment is the desire of multinational firms to secure the least costly production of goods for sale in world markets. According to this view, international direct investment in manufacturing is determined by the growth and strategies of oligopolistic corporations seeking to minimize costs—particularly labor costs—and maximize profits. Furthermore direct manufacturing investment revolves around sector-specific strategies and is usually based on significant advantages over local firms, which the international investors seek to preserve through location in areas that increase access to markets and reduce costs of production.²⁶

The theory of international investment evolved in the late 1950s and the 1960s. It is based in large measure on the work of John Dunning in England, Raymond Vernon at Harvard, Charles Kindleberger at MIT, and especially Kindlebergers's student, Stephen Hymer. This theory rests upon two concepts: the product cycle and the international division of labor. The classic product cycle model advanced by Vernon shows that international investment occurs over the product's life cycle, with products initially introduced in the home market and later dispersed to offshore locations as they become mature and the manufacturing process becomes standardized.²⁷ The international division of labor approach associated with Hymer, among others, began with the notion that doing business abroad and managing an

international network of operations involve considerable costs that can be offset only by substantial firm-specific advantages or assets, mainly in the form of economies of scale or superior technology.²⁸

Hyer further suggested that multinational firms usually place the different aspects or stages of their activities in different locations throughout the globe. In other words, multinational corporations strategically arrange their activities according to an international division of labor, with high-level administration, finance, and technology development, for examples, occurring in central, core locations and more standard production and labor located in lower-wage, peripheral locations. More recent contributions from the field of industrial organization economics suggest that international investment reflects a particular type of firm-specific asset, referred to as an "internalization" advantage. Such an asset might be a particularly high level of quality, for example. This approach would make international investment the preferred way to enter foreign markets.²⁹ Oliver Williamson and David Teece similarly argue that international investment represents a way of overcoming significant transaction costs involved in trade and technology licensing arrangements.³⁰

John Dunning has advanced his so-called eclectic paradigm, which combines the notions of firm-specific advantages, locational advantages, and internalization.³¹ He suggests that international investments result when: (1) a firm has advantages such as technology or products that it can exploit in global markets; (2) overseas investment offers a cost-effective mechanism for exploiting such advantages, as for example if offshore production offers greater returns than technology licensing; or (3) overseas factor conditions are favorable. Michael Porter has argued that globalization is becoming a key element of corporate strategy, influenced by high degrees of international competition and the need to exploit both local and international factors of production, particularly clusters of related and supporting industries.³²

By and large, the conventional theory suggests that international investment is driven by firms—for the most part oligopolistic ones—seeking to exploit advantages that come from economies of scale or superior technology to preserve or increase market share and reduce costs of production—particularly labor costs. Most of these advantages are reinforced by market failures, asymmetries in information, or high transaction costs in moving goods or services between nations. Interestingly, this view has done little to counter the popular notion

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that international investment generates costs and is at times injurious to host nations by generating dependence on foreign sources of technology, influencing a pattern of uneven development, and eroding the power of nation-states to control their own destinies.³³

The new focus on international investment turns attention to the relationship between the globalization of production, international investment, and domestic productivity growth. It suggests that international investment is often the source of technology transfer, new management practices, and knowledge that leads to productivity improvements, employment growth, and increasing wealth for the host nation. This role should not be minimized.

Improving productivity is the major economic challenge facing the advanced industrial nations, and foreign direct investment will play a pivotal role in achieving that growth.³⁴ International investment in the form of transplant or foreign-owned manufacturing establishments increases competition in local markets, forcing all producers to improve their performance. Domestic producers benefit from the augmented competition, because these investors bring in international "best practices" to the domestic scene. Knowledge of such best practices spreads through imitation, as local firms become suppliers to transplants through joint ventures between transplants and domestic firms, through the regular flow of information between transplants and their local suppliers and clients, and through the normal rotation of personnel. The introduction of best practices by foreign investors results in a general rise of productivity levels in the domestic manufacturing base, setting in motion a "virtuous cycle" (as opposed to a vicious one) of imitation, adaptation, and improvement. Productivity improvements enable firms to generate more jobs and pay better salaries, increasing domestic income levels and creating more affluent and demanding local customers. These customers put pressure on companies to keep themselves active in the search for best practices in all areas of business and management, which in turn leads companies to increase their exposure to the demands of globalization and thereby to improve the ability of the domestic economy to attract additional foreign investment.

Transplants play a key role in productivity improvement by transferring both state-of-the-art technology and work organization to the countries in which they are located. A recent report on *Manufacturing Productivity* by the McKinsey Global Institute in conjunction with Robert Solow and Martin Baily focuses on nine key manufactur-

ing sectors in the United States, Europe, and Japan, and provides striking evidence of the role of transplants in fostering productivity growth.³⁵ The McKinsey study found that these transplant factories have played a far more important role than trade in improving productivity in both the United States and Europe, noting that:

Transplants from leading-edge producers: (1) directly contribute to higher levels of domestic productivity, (2) prove that leading-edge productivity can be achieved with local inputs, (3) put competitive pressure on other domestic producers, and (4) transfer knowledge of best-practices to other domestic producers through natural movement of personnel. Moreover, foreign direct investment has provoked less political opposition than trade because it creates jobs instead of destroying them. Thus, it is likely to grow faster in years to come.³⁶

The McKinsey study confirms that these forces are universal, operating not only in the United States but also in the major industrial economies such as Japan and Germany. Figure A-6 provides a useful synthesis of the main findings. The horizontal axis on this figure is a productivity ranking, where 1 represents the highest attainable productivity level and 3 the lowest. The vertical axis classifies the types of competition to which firms are exposed into three categories: local, regional, and global. The analysis indicates a close relationship between productivity and the degree to which an industry is exposed to the forces of global competition. First, world class productivity is attained only by sectors that are exposed to global competition. Second, and contrary to the thrust of the conventional wisdom of the past few years, the United States attains top productivity rankings in several sectors, including traditional heavy manufacturing sectors—indeed, the same sectors that are typically seen as symbols of U.S. industrial decline.

The study offers a compelling explanation for the comparative performance of industrial sectors—one that provides important guidance for policy. The most competitive sectors were those that faced a high degree of global exposure, particularly through open international investment. U.S. sectors that were exposed to high degrees of competition through open policies toward both trade and investment scored consistently high. This is clear for automobiles and steel, which have high levels of international investment and the establishment of Japanese transplant factories. It is also clear for high-tech-

nology electronics, where U.S. semiconductor and computer manufacturers have responded to the test of global competition. In consumer electronics, Japanese and European producers have recreated a world-class manufacturing base on American soil. High levels of European investment and transplant factories in the chemical and pharmaceutical sectors have contributed to world-class U.S. productivity in these sectors as well.

The McKinsey study shows that European strategies that have sought to bolster domestic industries either through trade protection or by restricting inflows of foreign investment have backfired, as firms and industrial sectors with lower levels of global exposure have lagged badly behind those that have been forced to meet the tests of global competition at home and abroad. In fact, U.S. openness is a key source of economic advantage, vis-à-vis both Europe and Japan. The U.S. open investment regime is a source of global capital, technology, and management practices that have created a truly globalized, state-of-the-art, high-productivity industrial base—a source of considerable advantage in an increasingly global economy.

A recently completed OECD study provides additional evidence of the link connecting international investment, productivity, and economic growth. Comparing investment and productivity patterns in fifteen advanced industrial nations, the OECD study found that foreign-owned companies are typically more efficient than domestic firms both in absolute levels and in rates of productivity growth. The study found that these productivity gains resulted from the foreign-owned companies' using more advanced technology than that used by domestic industries, or from adding capacity. By contrast, productivity increases at locally owned companies more often resulted from downsizing and layoffs.

The study also found that international investment has been a key source of employment growth across the advanced industrial nations. In ten of fifteen nations studied, foreign-owned companies generated new employment more rapidly than did their domestically owned counterparts, sometimes expanding their operations while domestic firms were contracting. In three others they eliminated jobs, but they did so more slowly than did domestically owned enterprises. The largest employment declines occurred in Japan and Germany, where soaring costs during the 1980s caused international investors to cut a significant number of jobs. Interestingly, employment at U.S. subsidiaries in Japan fell by roughly 30 percent over the course of

the 1980s. This supports the view that investment differentials between the United States and Japan—particularly the considerable differentials of the 1980s—are not simply the result of formal and informal barriers but rather reflect considerable market dynamics as well.³⁷ Furthermore, the OECD study points to a link between investment and trade, as foreign subsidiaries tend to export and import more than domestic firms, with most of the imports taking the form of intrafirm trade.

The Evidence on Foreign Investment and the United States

This virtuous-cycle view of foreign investment clashes with that of some leading individuals in the policy debate, who view foreign investment as a zero-sum game of “us versus them.” But the evidence is overwhelmingly on the side of the positive-sum view investment illustrated in figure A-4. A review of the available evidence demonstrates, for example, that foreign investment strengthens the American economy, stimulates investment, improves productivity, generates jobs, and helps to position firms and regions for success in a rapidly globalizing economy.

The preponderance of available evidence indicates that international investment in U.S. manufacturing has generated productivity increases and value-added significantly greater than American-owned manufacturing has generated (see figure A-5). Productivity grew more rapidly in manufacturing establishments of international affiliates in the United States than for the manufacturing sector as a whole during the 1980s. In real terms, the gross product of international affiliates rose nearly four times as fast as for all manufacturing establishments between 1980 and 1987. According to Department of Commerce data, labor productivity in manufacturing industries, measured as value added per production employee, was nearly 30 percent higher for foreign-owned establishments than for U.S.-owned establishments—\$74 per hour, as compared with \$52 per hour. The Department of Commerce analysis further indicates that the productivity of foreign-owned establishments was higher than that of U.S.-owned establishments in a significant number of industries; it was more than 10 percent higher in 153 of the 312 industries examined. The productivity of foreign-owned establishments was lower than that of U.S.-owned establishments in considerably fewer industries. According to the Department of Commerce data, it was at least 10 percent lower in just

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70 industries. In 89 industries, foreign-owned establishments had productivity that was roughly equal to that of U.S.-owned establishments.³⁸ The Department of Commerce analysis suggests that these productivity differentials reflect the tendency for foreign-owned establishments to be concentrated in industries in which productivity is high, and they stemmed from the higher levels of plant size, capital intensity, and employee skill found in foreign-owned manufacturing establishments rather than from foreign ownership per se.

International investors have invested more in plant and equipment over the past few years than have their domestic counterparts. Department of Commerce data show that in 1988, international affiliates spent almost 50 percent more on plant and equipment per worker than the average for all U.S. manufacturing.³⁹

These data further indicate that during the past few years, plant and equipment expenditures by international affiliates increased much more rapidly than did such expenditures by U.S.-owned businesses. From 1987 to 1990, for example, the rate of increase in plant-and-equipment expenditures for international affiliates (for example, nonbank, nonagricultural business) was five times greater than that for U.S.-owned business, 106 percent versus 21 percent. Between 1987 and 1990, Japanese-owned enterprises had a far higher rate of increase in new plant and equipment spending (up by 157 percent) than had any other major foreign ownership group. The largest percentage increases in new plant and equipment spending between 1987 and 1990 occurred in automotive-related industries, where major new Japanese investments were concentrated. European companies also invested heavily in U.S. plant and equipment. In 1990 alone, U.S. subsidiaries of European firms invested more than \$38 billion in modernizing and upgrading their American facilities. As a whole, European-owned companies spend more on new plant and equipment than do U.S. manufacturing businesses. Foreign firms in general invested roughly 45 percent more than their U.S. counterparts—\$12,200 versus \$8,400 per employee in 1988, with nearly half the capital payments of foreign firms in the United States made by European firms.⁴⁰

Interestingly, by helping to improve productivity and to bolster the performance of domestic industry, international investment has contributed to the expansion of trade and the export-driven economic turnaround of the late 1980s and early 1990s that restored the United States to its position as the world's largest exporter. Exports by

international affiliates increased from \$52 billion in 1980 to \$98 billion, or 23 percent of total U.S. exports, in 1990. Manufacturing exports by international affiliates grew from \$9 billion in 1980 to more than \$32 billion in 1990. This link between foreign direct investment and trade is enhanced by alliances and supply relationships between foreign-owned and domestic companies, which help U.S. companies to gain inroads into foreign markets.

The Role of Transplants. Transplant factories have played a key role in the revitalization of American industry, accelerating the adoption and diffusion of new methods of production organization. Transplants have shown that new forms of production and work organization, such as teams, rotation of workers from task to task, quality control circles, and continuous improvement schedules can work in American industry with American workers.

Other evidence supports the view that transplants have played a key role in bolstering U.S. productivity through the transfer of new management methods and practices. Research conducted in collaboration with Martin Kenney identifies a high rate of adoption and diffusion of new organizational practices among automotive-related transplants. As table A-4 shows, our 1988 survey of the entire population of Japanese transplant automotive parts suppliers found that more than three-quarters of them organized work in production teams; 71 percent used teams self-directed by workers; 82 percent rotated workers within these teams; 62 percent rotated workers between teams; 44 percent made use of quality circles where teams of workers engage in efforts to improve quality; and nearly 75 percent planned to use quality circles in the future.⁴¹

The adoption and diffusion of these management practices at Japanese automotive-related transplants are significantly higher than for U.S. manufacturing as a whole. According to a 1993 survey conducted by Paul Osterman of a random sample of roughly 800 U.S. manufacturing establishments, roughly 50 percent of U.S. manufacturing plants report the use of teams, 55 percent rotate workers between teams, and 45 percent report the use of quality circles.⁴² My own field research and interviews indicate that these practices are taking root in many of the steel joint ventures as well. At LSE, the LTV-Sumitomo joint venture in Cleveland, and at I/N Tek, a joint venture between Inland Steel and Nippon Steel, management and labor have agreed to implement new work systems that reduced job classifications to a min-

imum, removed front-line supervisors, structured work in teams, and empowered workers to engage in continuous improvement and make decisions typically reserved for management.⁴³

Transplants have also helped to facilitate the diffusion of state-of-the-art management practices into the U.S. industrial base. Many transplants, particularly those in the automotive industry, work with their suppliers to help them adopt these world-class practices. Our detailed research at transplant factories indicates that Toyota and Honda have set up supplier-support programs to encourage and facilitate the adoption of world-class practices among their suppliers. A growing number of domestic suppliers are adopting these practices. Johnson Controls, for example, has adopted the Toyota Production System in its Kentucky factory, which supplies Toyota's Georgetown, Kentucky, facility. A just-in-time supplier, it begins producing seats for Camrys just as those Camrys start their way down Toyota's line. Johnson Controls has gotten Toyota business throughout North America and in Europe as well. The Kentucky facility is now a model both for Toyota suppliers in the United States and for other Johnson Controls plants around the world—diffusing these best practices back into the U.S. industrial base. Transplants have thus played a significant role in catalyzing the organizational transformation of the U.S. economy.

R&D and Technology. International investments have added to U.S. investment in R&D, significantly strengthening our technology base. There are now roughly 390 international research, product development, and design centers in the United States, providing more than \$11 billion per year in R&D funding (see figures A-7 and A-8).⁴⁴

European companies account for more than half of all U.S. R&D spending in industrial chemicals and more than 40 percent in the drug industry, strengthening U.S. technological capabilities in these areas and in the related field of biotechnology—industries where the United States remains at the forefront of global competition. Interviews with the executives in charge of these laboratories indicate that there are two main reasons why international corporations are locating R&D in the United States. The first is to achieve a higher degree of “global localization” by conducting R&D, factory production, and particularly product design and development all together in proximity to “foreign” markets. The second is to gain access to the pool of scientific and technical talent in established U.S. centers of technology and innovation.

R&D spending by international investors accounts for a rapidly rising share of the total R&D being performed in the United States. R&D spending by international affiliates grew from \$6.5 billion in 1987 to \$11.3 billion in 1990, an increase of nearly 75 percent. This compares with an increase of just 30 percent for U.S.-owned firms. International R&D spending also accounts for a growing share of the total U.S. technology base. According to the Department of Commerce, international affiliates provided roughly 15 percent of total R&D in the manufacturing sector in 1990, up from just 5.7 percent in 1980. Furthermore, international affiliates devote roughly 2.5 percent of sales to R&D and 6.5 percent of value addition—comparable to the spending done by U.S.-owned firms.

R&D spending by international affiliates is concentrated in those sectors where international companies lead rather than lag behind the United States—European companies in chemicals and drugs, Japanese and German companies in automotive-related technologies and consumer electronics. European R&D spending in the United States represents more than half (59 percent) of domestic R&D spending in industrial chemicals and synthetic materials. International R&D spending accounts for 42 percent of total R&D spending in the drug industry.⁴⁵ European firms make important contributions to the U.S. R&D base in chemicals and in medical and environmental technology.⁴⁶ This high level of foreign R&D and technology investment provides a potentially powerful explanation for the competitive strength of the U.S. chemical and pharmaceutical sectors.

Critics of international investment have suggested that such investment in R&D threatens U.S. technological leadership by giving international companies easy access to U.S. technology. Some have gone so far as to argue that foreign R&D facilities are merely listening posts whose main objective is to steal U.S. ideas and technology. Recent data compiled by the U.S. government and other sources suggest that this simply is not the case, since the net flow of R&D appears to be positive for the United States, according to several indicators. In fact, an analysis of royalty and license data conducted by the Department of Commerce found an overwhelmingly large net inflow of technology to U.S. affiliates from their foreign parents (see figures A-9 and A-10).

This analysis shows that net payments by U.S. affiliates to their foreign parents increased from \$378 million in 1980 to \$2.1 billion in 1991, and that payments by high-technology affiliates represent

more than one-half of total payments by U.S. affiliates in the manufacturing and services sectors to foreign parents. It also found that British, German, and Japanese multinationals accounted for approximately 60 percent of total royalties and license-fee payments in high-technology industries. These patterns led the Department of Commerce to conclude: "The growing deficit of affiliates' payments over their receipts suggests that foreign parents are transferring more technology to their affiliates in the United States than the reverse."⁴⁷

Employment and Jobs. President Clinton has pledged that his administration will take the high road to economic revitalization—placing emphasis on the creation of high-wage jobs with good benefits and security. The evidence suggests that international investors are already helping the U.S. economy move toward this high-road strategy.

International affiliates have generated good jobs at good wages throughout the nation. These affiliates also provide jobs for 4.7 million American workers, up from roughly 2 million in 1980. The jobs generated by international affiliates are heavily concentrated in the manufacturing sector, which accounts for roughly 2.1 million jobs (see figure A-11; also see table A-5). European transplants accounted for 1.3 million manufacturing jobs, while Japanese transplants provided roughly 300,000 manufacturing in 1990. International affiliates account for 5 percent of all U.S. employment but employ 10.9 percent of all Americans in the manufacturing sector. Employment in foreign affiliates made up more than 10 percent of total U.S. employment in the following sectors: chemicals; petroleum and coal; stone, clay, and glass; primary metals; electronics; rubber; instruments; food processing; and industrial machinery.

Furthermore, Department of Commerce data indicate that international affiliates are concentrated in capital-intensive manufacturing industries and in those that require a higher level of employee skill. According to data released in October 1993 by the Department of Commerce, more than 85 percent of the work force in Japanese automotive transplants are engaged in production jobs, in comparison with just 60 percent for all manufacturing establishments in that industry.

These statistics have not precluded the rise of a significant debate over the employment impacts of international investment. Several authors have argued that foreign investment in the automotive industry has had a damaging effect on U.S. manufacturing and workers. A large part of the debate has been centered on the employ-

ment effects of the Japanese automotive transplants, with several studies arguing that Japanese investment in the automotive sector has displaced jobs provided by domestic producers. A 1989 study by Norman Glickman and Douglas Woodward argued that international investment tends to displace more jobs than it creates.⁴⁸ In 1988, the U.S. General Accounting Office (GAO) estimated that the automotive transplants would create 112,000 new jobs and displace 156,000 jobs between 1985 and 1990, resulting in a net job loss of roughly 44,000 jobs.⁴⁹ In a follow-up study done in 1989, the GAO estimated that Japanese automobile-related production in the United States provided 66,000 jobs but displaced 77,000 other jobs, resulting in a net job loss of 11,000 jobs.⁵⁰ A United Auto Workers study estimated a net job loss of between 74,000 and 194,000 jobs over the same period.⁵¹ A recent study published by the Economic Policy Institute suggests that the recent influx of Japanese automotive transplants has resulted in the displacement of jobs provided by the traditional Big Three automotive manufacturers, and a reduction in the total wage and benefit levels provided to workers in this industry.⁵²

These conclusions have to be approached cautiously. The problem is that these studies assume a causal relationship between transplants and the performance of domestic firms. This assumption neglects the fact that domestic firms face competition not only from transplants but also from domestically owned and global rivals producing in other markets. Simply put, the real issue is not transplants versus domestic producers. U.S. jobs may have been lost anyway as a result of foreign competition.

Indeed, transplant production has clearly offset import penetration, trading offshore jobs for domestic ones. Evidence confirming this substitution effect is abundant. A February 1991 report in *Ward's Auto World* indicated that in 1986, imports accounted for 28.3 percent of total U.S. vehicle sales, while exports accounted for just 4.7 percent. By 1990, however, imports had decreased to 25.8 percent, while transplant production accounted for 15.2 percent. Remarkably, by 1991, Japanese car makers were holding back exports to protect their U.S. production facilities and retain jobs for American workers.⁵³ A recent report in *Business Week* citing data collected by Autofacts Inc. indicates that four Japanese auto makers—Honda, Toyota, Mitsubishi, and Nissan—have reached the point where more than half the cars they sell in the United States are made in North America. This is a substantial improvement over the

situation just two years ago, when only Honda could make that claim.⁵⁴

The real issue is strikingly simple: Do we want the jobs, or alternatively, would we prefer them to stay in factories in other countries that ship their products to our shores? Our database of more than 350 automotive-related transplants indicates that the employment provided by these Japanese transplants accounts for approximately 110,000 direct jobs, excluding any indirect multiplier effects (see table A-6). This estimate is conservative, counting only those establishments that have majority-Japanese ownership.

Moreover, from a macroeconomic perspective, the entire issue of displacement is moot, since attempts to calculate employment impacts by sector represent a fundamental misreading of the issue. In reviewing the evidence, Edward Graham and Paul Krugman note: "The net impact of FDI on U.S. employment is approximately zero, and the truth of this assertion has nothing to do with job gains and losses at the industry level."⁵⁵ The reason, they assert, "has nothing to do with the results of the job effects at the regional or industry level, but rests on the macroeconomic point that employment in the United States is essentially determined by supply, not demand, except in the very short run."

Wages and Compensation. International affiliates also pay higher-than-average compensation and wages. Annual compensation levels in foreign-owned manufacturing establishments were approximately \$5,300 higher than those for U.S.-owned establishments in 1990—\$38,300, as compared with \$33,000.⁵⁶ Furthermore, the Department of Commerce analysis shows that compensation per employee in foreign-owned establishments was more than 10 percent higher than that of U.S.-owned establishments in 131 of 312 industries examined, whereas it was more than 10 percent lower in just 28 industries. As figure A-12 indicates, international affiliates and U.S. establishments pay comparable rates across a wide range of industrial sectors.

In terms of production workers, foreign-owned manufacturing establishments pay higher average hourly wages than do U.S.-owned manufacturers. The average hourly wage for production workers in foreign-owned manufacturing establishments was 12 percent higher than that for U.S.-owned manufacturers—\$12.57, as compared with \$11.04 per hour. Comparing the wages of production workers is a particularly useful exercise, because it provides some level of control

for occupational mixtures, eliminating variations in the ratio of production workers to other workers as a source of differences in pay. Furthermore, production workers constitute a relatively homogeneous group, particularly in comparison with other workers who may represent a wide variety of occupations.

The Department of Commerce analysis further indicates that the wages of production workers were more than 10 percent higher in foreign-owned establishments than in U.S.-owned establishments in 113 of the 312 industries examined, whereas they were at least 10 percent lower in only 43 industries. Interestingly, five of the industries in which the wage rates of foreign-owned establishments were significantly lower than those of U.S.-owned establishments were automotive-related. The Department of Commerce analysis notes that the lower wage rates in these industries may reflect the fact that these plants are recent establishments and have a work force with less accumulated job tenure than have typical U.S.-owned establishments. Industry data indicate, however, that Japanese automotive assembly transplants pay relatively high wages, which are more or less on par with those provided by Big Three producers (see table A-7).

Labor-Management Relations. International investment demonstrates that labor and management can work together to institute cooperative relations, establish cutting-edge work practices, improve productivity, and retain and create jobs. Many have argued that international investment works against unions. A detailed econometric analysis of the factors that shaped the location decisions of more than 1,000 Japanese transplants, conducted jointly with Donald Smith, shatters the myths that Japanese transplants avoid unions, high-wage urban areas, or places with relatively high concentrations of minority populations.⁵⁷ In fact, our analysis indicates that Japanese companies in the automotive sector prefer to locate in relatively high-wage, unionized, densely manufacturing areas, rather than in rural areas. The most important factors were proximity to a large Japanese assembly facility and location in an area with a well-developed and specialized manufacturing base.

Related research conducted in collaboration with Martin Kenney shows that international investors, particularly Japanese investors, have formed successful alliances between business and labor, helping to provide models of constructive and cooperative labor-management partnerships from which U.S. industry and man-

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agement are learning. National Steel, which is 70 percent owned by NKK, has established a new cooperative partnership with the United Steel Workers Union, which not only has resulted in better and more constructive relations but also has allowed management to reduce the number of job classifications and introduce new technology, resulting in considerable productivity increases. Workers and their unions were able to buy into this partnership because National Steel provided a guarantee that workers would not be laid off. Pioneering labor-management efforts that reduce the number of job classifications and organize work in teams have been implemented at a host of joint-venture steel transplants, including I/N Tek, the Inland Steel-Nippon Steel joint venture in Indiana; LSE, the LTV-Sumitomo Metal joint venture in Cleveland, Ohio; and Wheeling-Nisshin, the joint venture between Wheeling-Pittsburgh Steel and Nisshin Steel in West Virginia.⁵⁸ At the automotive transplants NUMMI and Diamond Star, management engaged the UAW in similarly constructive partnerships, reducing job classifications from the one hundred-plus norm to just three or four, implementing teams, and reducing work rules in return for good wages and increased job security.

Local Content. Foreign investment in the United States, it is often claimed, takes the form of low-end branch plants. The empirical evidence, however, does not support this statement. In their review of the evidence, Graham and Krugman note that the "data do not provide any support for the view that foreign firms typically keep the good jobs and high value-added activities at home."⁵⁹

Many contend, however, that Japanese automotive transplants are a special case because the transplants simply do low value-added assembly work in the United States, keeping R&D and technology development at home and deriving their key components from Japan. According to this interpretation, these plants assemble cars from knocked-down kits imported from Japan, and they thus have a minimal impact on local and regional economic development. A related line of reasoning, referred to as the screwdriver hypothesis, is that Japanese plants have moved only standard, low value-added operations to the United States, keeping higher value-added, more sophisticated activities in Japan. The available evidence contradicts the screwdriver hypothesis. The automotive transplants produce high value-added components like engines and transmissions in the United States.⁶⁰ They also operate twenty-two R&D, product develop-

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ment, and design centers in the United States that design and develop cars for the North American and world markets (see table A-8).

Additionally at issue is the local content of the transplants. It is commonly asserted that the transplants derive more than half their parts from Japan; recent evidence, however, suggests that this is erroneous. A 1989 UAW study using foreign-merchandise imports as a measure of imported content concluded that transplants have low rates of domestic content. Not surprisingly, the study found that in 1988, foreign merchandise imports made up 61 percent of total merchandise at Mazda and 39 percent at Honda.⁶¹

Foreign-merchandise imports, however, do not provide an appropriate measure of foreign and domestic content. Domestic content refers to the direct material inputs such as steel, rubber, automotive parts, engines, and transmissions that are used in the manufacture and assembly of automobiles. Foreign-merchandise imports, however, include expensive capital equipment in the form of heavy machinery, machine tools, conveyor belts, and the assembly line itself. Mazda's 61 percent foreign-merchandise imports (reported in the UAW study) thus reflect the value of Japanese equipment imported during the plant's construction and start up in 1987-1988, not the actual components of each vehicle. While the transplants obtain a large share of dedicated capital equipment from Japan, they derive the bulk of in-process materials from the United States. Foreign-merchandise imports have declined lately, as transplant producers have completed initial start up and as capital equipment makers open more U.S. factories.

As table A-9 shows, domestic content has risen to between 65 and 75 percent for most transplant assembly plants. A survey of transplant suppliers done in 1988 reported a local content of 64 percent, a figure that has doubtless risen since then.⁶² The increase in local content is attributable to three factors: (1) the movement of engine and transmission facilities to the United States; (2) the influx of Japanese automotive component suppliers, steel firms, and rubber plants; and (3) recent efforts by transplants to integrate U.S. suppliers.

Rustbelt Reindustrialization. A decade or two ago, numerous commentators predicted a shift of manufacturing investment and activity away from the U.S. industrial heartland to newer, lower-wage regions of the Sunbelt, Latin America, or Asia. These prophets of doom portrayed the future as one of deindustrialization and abandon-

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ment of industrial centers in the United States and Europe. The events of the past decade have shown such predictions to be incorrect. In fact, international investment has played a key role in the reindustrialization of America's so-called Rust Belt during the past decade. This investment came from two sources: from international companies, particularly Japanese companies, setting up facilities in the industrial Midwest, and also from the domestic companies that had to compete against these new participants in the U.S. economy.

Japanese investors have played a key role in this transformation. Japanese companies alone have invested more than \$25 billion in eight major automotive assembly complexes, more than seventy joint-venture steel facilities, more than twenty rubber and tire factories, and roughly 400 automotive parts suppliers.⁶³ More than half this investment is concentrated in four Great Lakes states—Ohio, Indiana, Michigan, and Illinois (see figure A-13). These transplants have brought a significant influx of capital and world-class manufacturing technologies and organizational practices to the region. Honda's assembly complex in Marysville, Ohio, for example, has provided more than \$2 billion in investment and created more than 10,000 jobs.

The transplants have shown that the combination of lean production techniques and American workers can yield productivity levels comparable to those of Japan. Japanese investment has also provided capital, technology, and organizational know-how that have helped to revitalize the region's steel industry. Japanese steel makers have invested billions of dollars in state-of-the-art steel finishing facilities throughout the region, and they have entered into joint ventures with the region's key integrated steel producers (see table A-10).⁶⁴ Furthermore, the combined investments of Japanese and European electronics companies have helped to rebuild the television production infrastructure of the region (see figure A-14). A key economic advantage of the region lies in its ability to attract a growing constellation of the world's best companies.

Transplant investment has helped to spur the adoption and diffusion of improved technology and organizational practice throughout the region. It has done so by placing competitive pressure on domestic competitors like Ford, Chrysler, and Goodyear and through a process of learning and adaptation on the part of domestic suppliers. The findings of a survey of roughly 200 Midwestern manufacturers we conducted in collaboration with the Council of Great Lakes Governors in 1993 indicate that roughly half the region's manufacturing base is engaged in the transformation to best-practice manufacturing manage-

ment. More than half the firms responding to the survey have implemented production teams, roughly half have implemented total quality management programs, 55 percent use statistical process control, and 46 have instituted just-in-time systems for inventory control.

Today the industrial Midwest is a vibrant economic area of the country, thanks to foreign investment. Our analysis shows⁶⁵ that after a severe contraction from 1977 to 1987, manufacturing output in this part of the country grew 7.8 percent from 1987 to 1988, surpassing not only the 7.4 percent growth rate of the United States as a whole, but also the 6.3 percent rate for Japan and the 5.2 percent rate for Germany. From 1980 to 1988, manufacturing productivity in the new industrial heartland rose by 36 percent, as compared with 15 percent for Germany, 32 percent for the United States, and 52 percent for Japan.

Roughly 15 percent of this gain for the region came from 1986 to 1988, a surge that even the Japanese economy could not match. A Federal Reserve Bank of Chicago study found Midwestern manufacturers to be 20 percent more efficient than their national counterparts. Furthermore, the Chicago Fed found that capital expenditure per worker was 9 percent higher in the Midwest from 1986 to 1990 than for the rest of the nation. Investment per worker was 16 percent higher in the Midwest transportation sector and 22 percent higher in the region's steel industry.⁶⁶

Meanwhile, manufacturing employment has virtually stabilized. Despite having only 30 percent of the nation's population, the region accounts for 36 percent of all manufacturing output in the United States, 60 percent of the steel, 55 percent of the automobiles, and 50 percent of the machine tools. Remarkably, the industrial heartland produced more automobiles and steel in 1992 than a decade before, even after counting the General Motors plant closings. The Midwestern manufacturing belt was largely spared in the bicoastal recession of the early 1990s. In a striking reversal of regional economic fortunes, regions and states like New England, the Sunbelt, New York, and even California, which led the nation in growth through the mid-1980s, remain mired in recession, while once written-off areas of the industrial heartland are going strong.

Battle Creek, Michigan, provides a striking illustration of the role of international investment in regional economic transformation.⁶⁷ During the late 1960s and 1970s, Battle Creek was synonymous with deindustrialization, as its manufacturing base of food and cereal producers, agricultural equipment factories, and automotive

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parts producers experienced severe disinvestment and a wave of plant closings. In 1968, the U.S. government closed Fort Custer, eliminating thousands of jobs and causing closings of a host of defense-related businesses. Moreover, the manufacturing shakeout and deindustrialization crisis that occurred from the mid-1970s through the early 1980s had a calamitous effect on the local economy. Automobile parts and farm machinery factories closed down, and by the early 1980s, unemployment was over 20 percent.

The city responded with a coordinated strategy to rebuild itself by attracting high-performance companies from around the world and by developing an explicit strategy for using international investment as a vehicle for economic revitalization. After converting the abandoned Fort Custer military base into an industrial park, Battle Creek is currently home to roughly a dozen Japanese automotive parts companies and other manufacturing firms, employing approximately 2,000 workers. In fact, it now has the single largest concentration of transplant automotive-parts producers in the United States. Anchoring this Japanese manufacturing complex is a \$200 million Nippondenso factory that produces air conditioners, heaters, condensers, and electrical parts for Toyota, Mazda, Honda, Mitsubishi, SIA, and the Big Three. In close proximity are three related suppliers that supply Nippondenso on a just-in-time basis: Koyo Metals, Tokai Rika, and Toyota Tsusho. Rounding out the complex are other Japanese firms: Hi-Lex, the former Nippon Cable Company; I.I. Stanley, a Honda supplier; and Technical Auto Parts, which makes suspension systems for Honda and Ford.

Battle Creek created a new nonprofit agency, Battle Creek Unlimited, to manage the industrial park, established a foreign trade zone and inland port, and opened an office in Tokyo. The city is now developing new approaches to worker training and vocational education to train workers to meet the needs of the new economy. In this regard, the Battle Creek strategy provides a useful guide for regional development policy, because it focuses on creating and strengthening value-added assets—providing services and infrastructure that enhance the potential for economic and industrial development, as opposed to the more conventional practice of luring companies with large financial incentives.

Toward a Multilateral Investment Agenda

America's policy toward international investment is clearly headed in a restrictionist direction. This is unfortunate. The current congress-

sional drift toward restriction—whether in the form of conditional national treatment or performance requirements—is counterproductive for both the domestic and the global economies. Worse yet, it runs counter to the fundamental forces at work in the world economy.

The overwhelming weight of the evidence indicates that international investment generates substantial benefits for the U.S. economy. International investment is a key source of productivity improvement and economic growth. Over the course of the past decade, international investment has proved to be a more effective vehicle for bolstering the U.S. economy than government bailouts or federal subsidies for so-called critical technologies. International investment has also proved to be a much better mechanism for stimulating exports than agreements that force foreign countries to buy American products.

An open international investment policy therefore has much to offer the U.S. economy. The United States must reaffirm its long-standing commitment to investment and the equal treatment of all investors. Policy makers must reject recent initiatives that invoke national security as the reason for new restrictions on international investment. They must also resist the temptation to make international investment a vehicle for opening foreign markets or for penalizing international investors for the problematic actions of their governments.

This nation must continue to pursue a multilateral set of rules on investment. By itself, the United States is ill equipped to deal with the extraordinary rise of international investment and the onset of an increasingly integrated international economic order. It is simply beyond the capacity of any nation-state to deal with the global investment explosion that has outpaced the existing international legal framework. A new round of multilateral policy making and institution building will be required to create new rules and regulations for investment on a global scale. The time has come for a truly multilateral approach to investment—a GATT-like agreement—that would remove legal impediments to cross-border investments and would ensure that all nations treat foreign companies as they treat domestic ones. Such a general agreement on investment is a logical extension of the GATT, and is just as valuable for building a prosperous global economy.

The OECD has already moved to develop such a framework.⁶⁸ In March 1993, the OECD ministers called for a feasibility study of a wider investment instrument, and in August of that year a working group on this issue completed its initial report for consideration by

the Committee on International Investment and Multinational Enterprises, and ultimately by the OECD ministers. The OECD study highlighted the fact that increasing protectionism and reciprocity requirements threaten the free flow of investment, noting that "despite the fact that FDI far outstripped growth in international trade, there is no comprehensive multilateral investment instrument underlying foreign investment." It concluded that existing multilateral arrangements such as the World Bank Guidelines on Investment lack the muscle required to deal with the growth of investment and do not even go as far as existing bilateral investment treaties and regional arrangements on investment such as the NAFTA. It thus called for a legally binding agreement that "by virtue of its treaty status would be given more weight by the international community and would also serve to directly engage Member countries' legislatures." Such an agreement could pave the way for better international investment conditions by eliminating existing restrictions and providing increased investment liberalization for all participants in the international economy.

The OECD's proposal would seek to provide legally binding obligations on all OECD members at all levels of government. It would thus put more teeth into the already existing OECD Liberalization Codes and the National Treatment Instrument. The main purpose of the OECD instrument would be to achieve a greater level of liberalization by improving the existing instruments and removing obstacles to the establishment of competitive opportunities for foreign investors. The instruments would initially apply to the OECD nations, which account for the great bulk of international cross-investment, but could be extended to include non-OECD members as well. The OECD instrument would also provide for clear definitions of international investment and provisions for investment protection, expropriation, and compensation. The OECD has already outlined a number of alternatives for achieving such a multilateral agreement on investment. While the OECD report notes that numerous business groups and some labor federations have expressed support for such a multilateral agreement, it remains up to the multinational business community and the advanced industrial nations to do the hard work of bringing such a framework into being. Such an agreement is clearly both a logical and a necessary extension of the Uruguay Round.

International investment has already done much to increase productivity, by creating good jobs, advancing new technologies, and

most important, stimulating a powerful transformation to world-class, best-practice management in America. That is why American policy makers must embrace international investment as a centerpiece of a new global economic agenda for the United States. And that is why they must work together with other nations to create a new international legal and policy framework for investment that is in sync with the emerging global economic order.

APPENDIX A

Tables and Figures

TABLE A-1
CONDITIONAL NATIONAL TREATMENT LEGISLATION, 1974-1993

<i>Law</i>	<i>Eligibility Restrictions for Program Participants</i>
Stevenson-Wydler Technology Innovation Act of 1980 (as amended by Technology Transfer Act, Advanced Technology Program Acts)	Home government of foreign parties must permit U.S. persons to enter into Cooperative Research and Development Agreements (CRADAs) and licensing agreements
American Technology Preeminence Act, including the Technology Administration Authorization Act of 1991 (P.L. 102-45)	Home country of foreign-owned firm must afford U.S.-owned companies: <ol style="list-style-type: none"> 1. opportunities comparable to those afforded to any other company to participate in joint ventures similar to those authorized under ATP 2. local investment opportunities 3. "adequate and effective" protection for intellectual property rights of U.S.-owned companies
Advanced Technology Program (ATP)	ATP conditions ^a
Energy Policy Act of 1992	ATP conditions ^a
Defense Authorization Legislation of 1992	ATP conditions ^a
National Cooperative Production Amendments of 1993	Foreign-owned company's parent country must grant "national treatment" to U.S. companies in its national competition law covering joint ventures ^b

<i>Proposals^c</i>	<i>Eligibility Restrictions for Program Participants</i>
Energy Labs Bill (S. 473) (amended by Rep. Sharp, May 1994)	For CRADAs with Department of Energy Labs ATP conditions ^a
Amendments to the Trade Act of 1974 (H.R. 249) (introduced January 5, 1993)	Actions by a foreign country denying national treatment in investment may be actionable under Section 301.
National Competitiveness Act of 1993 (H.R. 820) (introduced February 1993) Department of Commerce and National Science Foundation programs Manton amendment	Home government of the foreign-owned firm must: <ol style="list-style-type: none"> 1. provide U.S. companies "comparable" opportunities and offer them "access to resources and information equivalent to opportunities authorized under this legislation" 2. have "open and transparent standards-setting process that results in standards that are fair and reasonable" 3. meet the second and third ATP conditions (Senate companion(S.4) does not contain this Manton amendment)
Aeronautical Technology Consortium Act of 1993 (S. 419/H.R. 1675) (introduced February 24, 1993, and April 2, 1993)	Home country of foreign-owned firm must <ol style="list-style-type: none"> 1. afford U.S.-owned companies opportunities comparable to those afforded any other company in R&D consortiums to which government of that country provides funding directly or indirectly through international organizations or agreements 2. afford "adequate and effective" protection for intellectual property rights of U.S.-owned companies
Hydrogen Future Act of 1993 (H.R. 1479) (introduced March 25, 1993)	Restricted to U.S.-owned firms
National Environmental Technology Act of 1993 (S. 978) (introduced May 18, 1993)	ATP conditions ^a

(Table continues)

TABLE A-1 (continued)

<i>Proposals^c</i>	<i>Eligibility Restrictions for Program Participants</i>
National Aeronautics and Space Administration Act (S. 1881) (introduced March 1, 1994)	ATP conditions ^a
Omnibus Space Commercialization Act of 1993 (H.R. 2731) (introduced July 23, 1993)	ATP conditions ^a
Fair Trade in Financial Services Act of 1993 (S. 1527) (introduced October 7, 1993)	Authorizes sanctions against firms from countries that deny national treatment to U.S. financial services firms
Fair Trade in Services Act of 1993 (H.R. 3565) (introduced November 19, 1993)	Authorizes sanctions against foreign governments restricting U.S. firms in telecommunications and financial services
Authorizations for the Earthquake Hazards Reduction Act of 1977 (H.R. 3485) (introduced November 10, 1993)	No contract or subcontract can be made with a company organized under laws of a foreign country unless that country affords comparable opportunities to U.S. companies ^b
Hazardous Materials Transportation Act Amendments of 1993 (H.R. 2178) (passed by House November 21, 1993)	Waives mandatory filing requirement for persons not domiciled in U.S. if the country where person is domiciled does not require a U.S. domiciliary to file registration statements for same purpose; also contains ATP conditions ^a

a. Contains reciprocity conditions and language identical or similar to that for the Advanced Technology Program.

b. Rule may be waived if it violates GATT or any international agreement.

c. Unless noted otherwise, language is as originally introduced. CNT bills proposed as of June 1994.

SOURCE: Based on survey done by Robert Schwartz and Patricia O'Keefe of McDermott, Will & Emery. Table created by Cynthia A. Beltz and Richard Florida.

APPENDIX A

TABLE A-2
 STOCK OF FOREIGN DIRECT INVESTMENT BY COUNTRY AND REGION,
 1987-1992
 (billions of dollars)

<i>Country or Region</i>	1987	1988	1989	1990	1991	1992 ^a
Outward						
France	41	56	75	110	134	151
Germany, F.R.	91	104	122	140	169	186
Japan	78	112	156	204	235	251
United Kingdom	135	172	208	226	244	259
United States	339	353	379	408	438	474
Other	316	372	442	528	579	628
World	1,000	1,169	1,382	1,616	1,799	1,949
Inward						
<i>Developed countries</i>	787	920	1,088	1,260	1,369	
Western Europe	357	419	507	616	702	
North America	342	405	476	528	544	
Other developed	88	96	105	116	123	
<i>Developing countries</i>	212	241	270	300	338	
Africa	22	25	30	32	35	
Latin America and the Caribbean	84	95	104	114	129	
East, South, and Southeast Asia	106	121	136	154	174	
Central and Eastern Europe	0	0	0	0	0	
World	999	1,161	1,357	1,560	1,709	

NOTE: The levels of worldwide inward and outward foreign direct investment stocks should balance; in practice, however, they do not.

a. Estimated.

SOURCE: United Nations, *World Investment Report, 1993: Transnational Corporations and Integrated International Production* (New York: United Nations, 1993), table I.1, p. 14.

APPENDIX A

TABLE A-3
 FOREIGN DIRECT INVESTMENT POSITION, 1980-1990
 (billions of dollars)

<i>Industry</i>	<i>1980</i>	<i>1987</i>	<i>1990</i>
Manufacturing			
Industrial inorganic chemicals	6.2	14.6	25.1
Drugs	1.5	5.6	12.4
Computers and office equipment	0.4	1.4	2.7
Audio, video, and communications	1.1	5.2	5.4
Electronic components	1.5	1.3	3.9
Other transportation equipment	0.3	1.2	0.5
Instruments and related products	0.6	4.3	5.7
Services			
Computer and data processing	0.1	0.7	2.3
Engineering and architectural	0.1	3.1	1.2
Total high-tech	11.5	37.5	59.2
All affiliates	83.0	263.4	396.7
High-tech share of total (percent)	14.3	14.9	14.8

SOURCE: U.S. Department of Commerce, "Foreign Direct Investment in the United States: An Update," June 1993.

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APPENDIX A

TABLE A-4
 NEW WORK PRACTICES AT JAPANESE SUPPLIER TRANSPLANTS AND U.S.
 MANUFACTURING ESTABLISHMENTS
 (percent)

	<i>Japanese</i>	<i>U.S. Establishments</i>			
		<i>Manufacturing plants</i>		<i>All establishments</i>	
	<i>Auto Supplier Transplants</i>	<i>less than 50% any penetration</i>	<i>less than 50% any penetration</i>	<i>less than 50% any penetration</i>	<i>less than 50% any penetration</i>
Teams					
Production	76.7	—	—	—	—
Self-directed	71.2	50.1	32.3	54.5	40.5
Job rotation					
Within teams	82.2	—	—	—	—
Between teams	61.6	55.6	37.4	43.4	26.6
Quality circles					
Current	44.4	45.6	29.7	40.8	27.4
Current or planned	73.6	—	—	—	—
Total quality management	—	44.9	32.1	33.5	24.5
None	12.5	16.0	37.7	21.8	38.6
Teams/rotation/QCs	22.2	N/A	8.4	N/A	7.1

N/A = not available.

NOTE: All figures are expressed as the percent of establishments using the practices indicated.

SOURCES: Richard Florida and Martin Kenney, "Transplanted Organizations: The Transfer of Japanese Industrial Organization to the United States," *American Sociological Review*, vol. 56 (June 1991), pp. 381-98. Paul Osterman, "How Common Is Workplace Transformation and Who Adopts It?" *Industrial and Labor Relations Review*, vol. 47, no. 2 (January 1994).

APPENDIX A

TABLE A-5
EMPLOYMENT BY U.S. AFFILIATES OF FOREIGN COMPANIES, 1980-1990
(thousands of employees)

<i>Industry</i>	<i>1980</i>	<i>1987</i>	<i>1990</i>
Manufacturing	1,110	1,472	2,097
Mining	61	68	95
Transportation	40	87	223
Wholesale trade	147	282	348
Insurance	61	81	121
Retail trade	372	633	867
Finance, except banking	28	83	64
Real estate	17	31	37
Services	109	329	645
Agriculture	14	18	33
Construction	43	57	70
Communication and public utilities	2	14	27
Other	30	70	79
Total all industries	2,034	3,224	4,705

NOTE: The affiliate data are classified by industry of sales.

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis, as presented in U.S. Department of Commerce, *Foreign Direct Investment in the United States: An Update* (Washington, D.C.: U.S. Department of Commerce, Economics and Statistics Administration, Office of the Chief Economist, June 1993), table 4A-5, p. 33.

TABLE A-6
JAPANESE EMPLOYMENT AND INVESTMENT IN AUTOMOTIVE-RELATED
INDUSTRIES, 1991

<i>Industry</i>	<i>Employment</i>	<i>Investment</i> (millions of dollars)
Automobile assembly	30,080	8,950
Automobile parts	31,860	5,380
Steel	27,418	6,910
Rubber and tires	21,400	5,382
Total	110,758	26,622

SOURCE: Richard Florida.

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APPENDIX A

TABLE A-7
EARNINGS AND WAGES PAID BY JAPANESE TRANSPLANT ASSEMBLERS, 1993

<i>Company</i>	<i>Average Annual Earnings (dollars)</i>	<i>Average Hourly Wages (dollars)</i>	<i>Labor Status</i>
NUMMI	41,545	17.85	Union
Toyota	39,582	16.43	Nonunion
Diamond Star	38,406	17.00	Union
Honda	36,982	16.20	Nonunion
Nissan	36,294	15.62	Nonunion

SOURCE: Richard Florida's compilation from various sources.

APPENDIX A

TABLE A-9
DOMESTIC CONTENT FOR MAJOR JAPANESE VEHICLES PRODUCED IN THE
UNITED STATES, 1991
(percent)

<i>Vehicle</i>	<i>Company</i>	<i>Transplant Facility</i>	<i>Domestic Content</i>
Accord	Honda	Marysville, OH	75.0
Civic	Honda	East Liberty, OH	72.0
Corolla	Toyota	NUMMI, Fremont, CA	75.0
Camry	Toyota	Georgetown, KY	65.0
Sentra	Nissan	Smyrna, TN	74.6
Nissan Pickup	Nissan	Smyrna, TN	57.0
626	Mazda	Flat Rock, MI	65-70
MX-6	Mazda	Flat Rock, MI	65-70
Probe	Mazda (Ford)	Flat Rock, MI	65-70
Eclipse	Mutsubishi	Diamond Star, Normal, IL	60.0
Mirage	Mutsubishi	Diamond Star, Normal, IL	60.0
Rodeo	Isuzu	SIA, Lafayette, IN	73.0
Isuzu Pickup	Isuzu	SIA, Lafayette, IN	65.0
Legacy	Subaru	SIA, Lafayette, IN	53.0

SOURCE: *Automotive News* (March 4, 1991), p. 19.

TABLE A-10
MAJOR JAPANESE INVESTMENTS IN THE U.S. STEEL INDUSTRY, 1975-1993

Japanese Company	U.S. Partner	Joint Venture Name	Type of Operation	Location	Date	Employment	Investment	Percentage of Japanese Share
Nippon Steel	Inland Steel	I/N Tek	Cold rolling mill	New Carlisle, IN	1990	225	\$500 million	40
Nippon Steel	Inland Steel	I/N Kote	Galvanizing line	New Carlisle, IN	1991	100	\$600 million	50
Nippon Steel	Inland Steel		Integrated steel mill	Indiana Harbor, IN	1989	11,500	\$185 million	14 ^a
NKK	National Intergroup	National Steel	Integrated steel mill	Ecorse, MI; Granite, IL; Portage, IN	1984	12,000	\$2.2 billion ^b	70
Kawasaki Steel	ARMCO	ARMCO Steel Co., Ltd.	Integrated steel mill	Middletown, OH	1989	9,500	\$1.6 billion ^c	45
Kawasaki Steel	ARMCO	ARMCO Steel Co., Ltd.	Galvanizing line	Middletown, OH	1991	100	\$150 million	50
Kawasaki Steel	CVRD (Brazil)	California Steel	Rolling mill	Fontana, CA	1984	725	\$275 million	50
Kobe Steel	USX Corp.	USS Kobe Steel Co.	Integrated bar and pipe mill	Lorain, OH	1989	3,000	\$300 million	50
Kobe Steel	USX Corp.	Protec Coating Co.	Galvanizing line	Leipsic, OH	1992	100	\$200 million	50
Sumitomo Metal	LTV Corp.	LSE I	Galvanizing line	Cleveland, OH	1986	83	\$100 million	40
Sumitomo Metal	LTV Corp.	LSE II	Galvanizing line	Columbus, OH	1991	100	\$180 million	50
Nisshin Steel	Wheeling-Pittsburgh		Integrated steel mill	Steubenville, OH	1988	5,500	\$15 million	10 ^d
Nisshin Steel	Wheeling-Pittsburgh	Wheeling-Nisshin	Galvanizing and coating line	Follansbee, WV	1988	100	\$96 million	67
Nisshin Steel	Wheeling-Pittsburgh	Wheeling-Nisshin	Galvanizing line	Follansbee, WV	1993	100	\$120 million	100
Yamato Kogyo	Nucor	Nucor-Yamato	Mini-mill	Blytheville, AR	1988	320	\$210 million	50
Kyoei/Sumitomo Corp.		Auburn Steel	Mini-mill	Auburn, NY	1975	315	\$300 million	100

NOTE: This table does not include numerous Japanese investments in steel service centers and smaller steel processing facilities.

a. Purchase of 14 percent of Inland Steel stock.

b. \$439 million original investment plus \$1.8 billion in planned capital improvements.

c. \$525 million original investment plus \$1.1 billion in planned capital improvements.

d. Purchase of 10 percent Wheeling-Pittsburgh common stock.

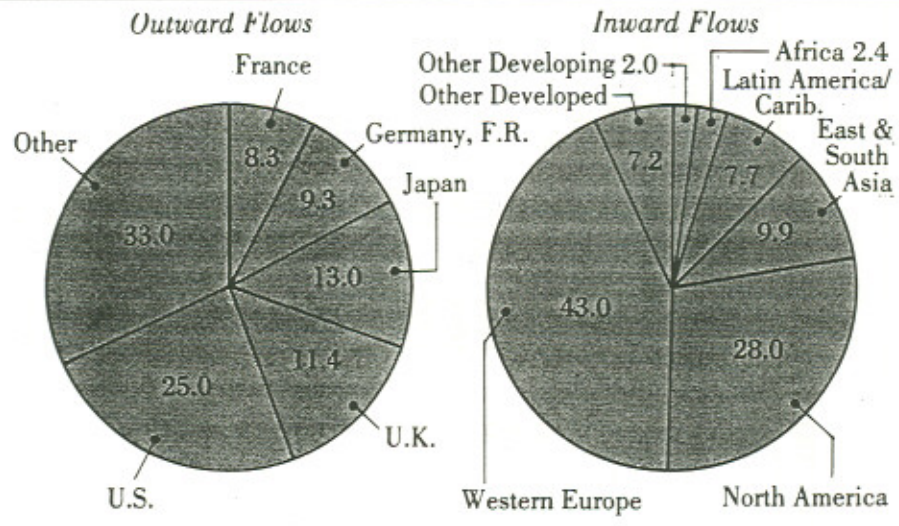
SOURCE: Richard Florida.

Kanano Nogyo Kyoceri/Sumitomo Corp. Nucor Nucor-Yamato Auburn Steel Mini-mill Mini-mill Blytheville, AR Auburn, NY 1988 1975 320 315 \$210 million \$300 million 50 100

NOTE: This table does not include numerous Japanese investments in steel service centers and smaller steel processing facilities.
 a. Purchase of 14 percent of Inland Steel stock.
 b. \$439 million original investment plus \$1.8 billion in planned capital improvements.
 c. \$525 million original investment plus \$1.1 billion in planned capital improvements.
 d. Purchase of 10 percent Wheeling-Pittsburgh common stock.
 SOURCE: Richard Florida.

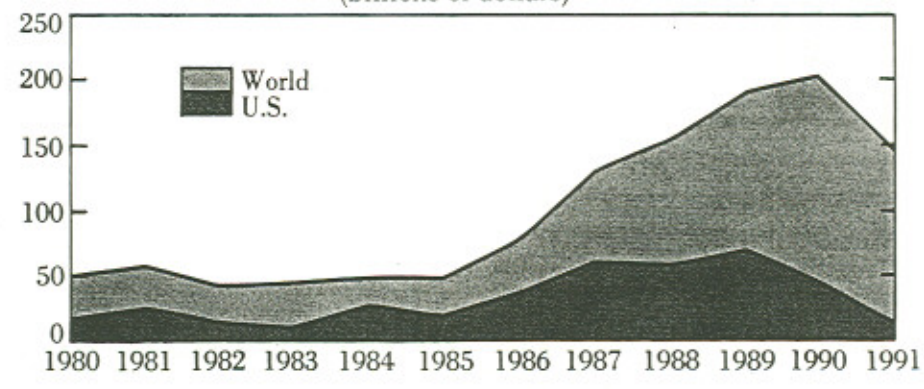
APPENDIX A

FIGURE A-1
 GLOBAL STOCK OF FOREIGN DIRECT INVESTMENT, BY COUNTRY AND REGION, 1992



SOURCE: United Nations, *World Investment Report, 1994: Transnational Corporations, Employment, and the Workforce* (New York: United Nations, 1994), table 1.8, p. 19.

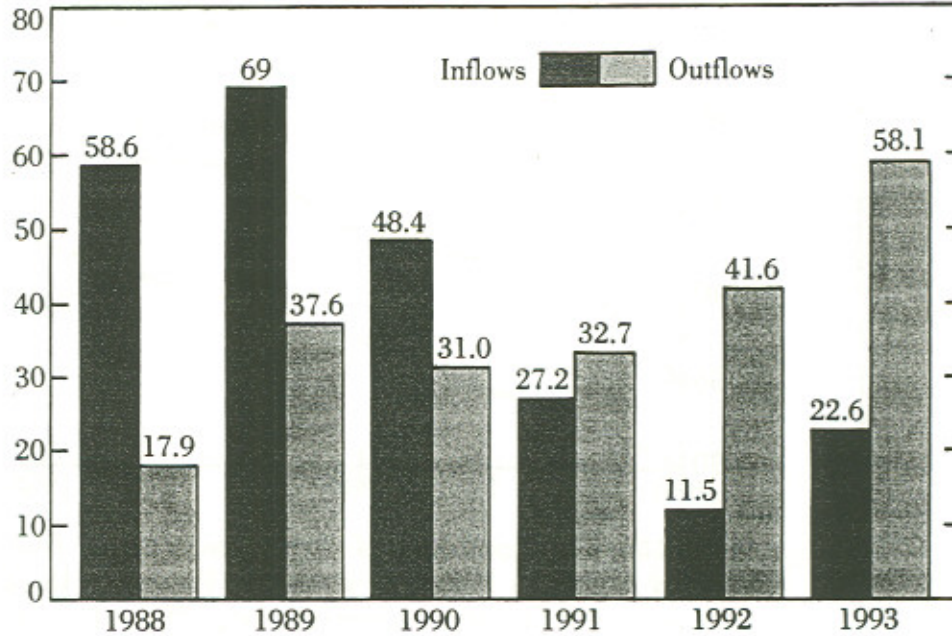
FIGURE A-2
 INFLOWS OF FOREIGN DIRECT INVESTMENT TO THE UNITED STATES, 1980-1991 (billions of dollars)



SOURCE: International Monetary Fund, *Balance of Payments Statistics Yearbook*, various issues, as presented in U.S. Department of Commerce, *Foreign Direct Investments in the United States: An Update* (Washington, D.C.: U.S. Department of Commerce, Economics & Statistics Administration, Office of the Chief Economist, June 1993): table 2-1.

FIGURE A-3

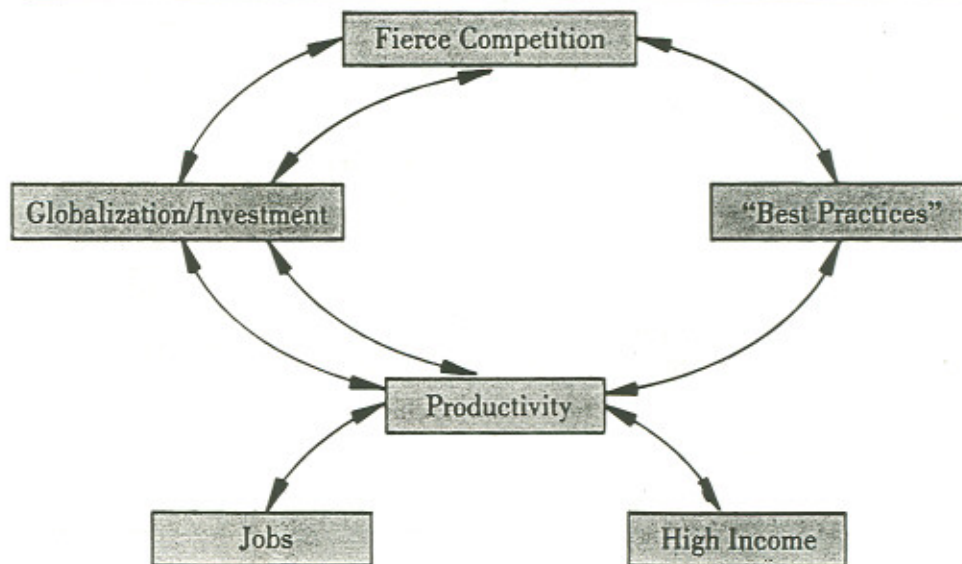
INTERNATIONAL INVESTMENT FLOWS FOR THE UNITED STATES, 1988-1993
(billions of dollars)



SOURCE: *Survey of Current Business*, August 1992, July 1993, and August 1994.

FIGURE A-4

INTERNATIONAL INVESTMENT AND PRODUCTIVITY



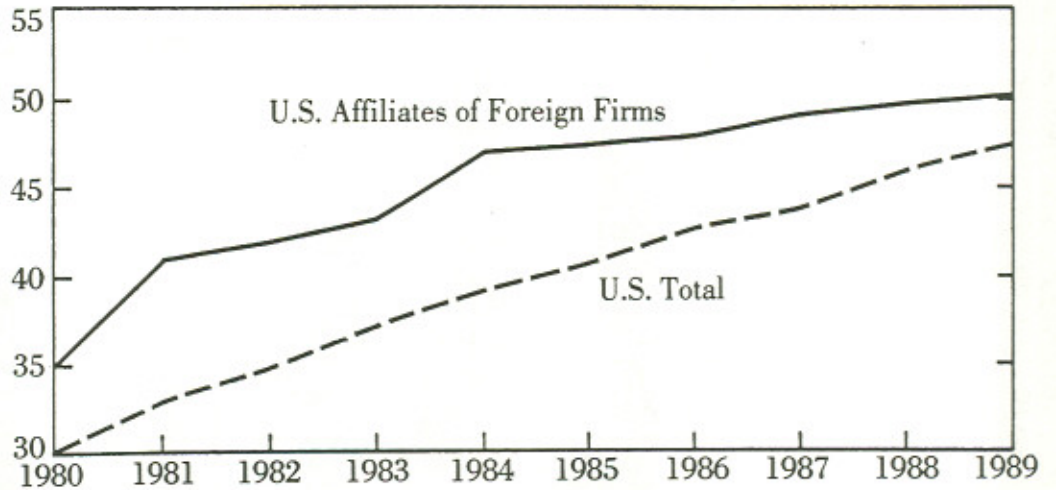
SOURCE: Richard Florida.

1988-1993



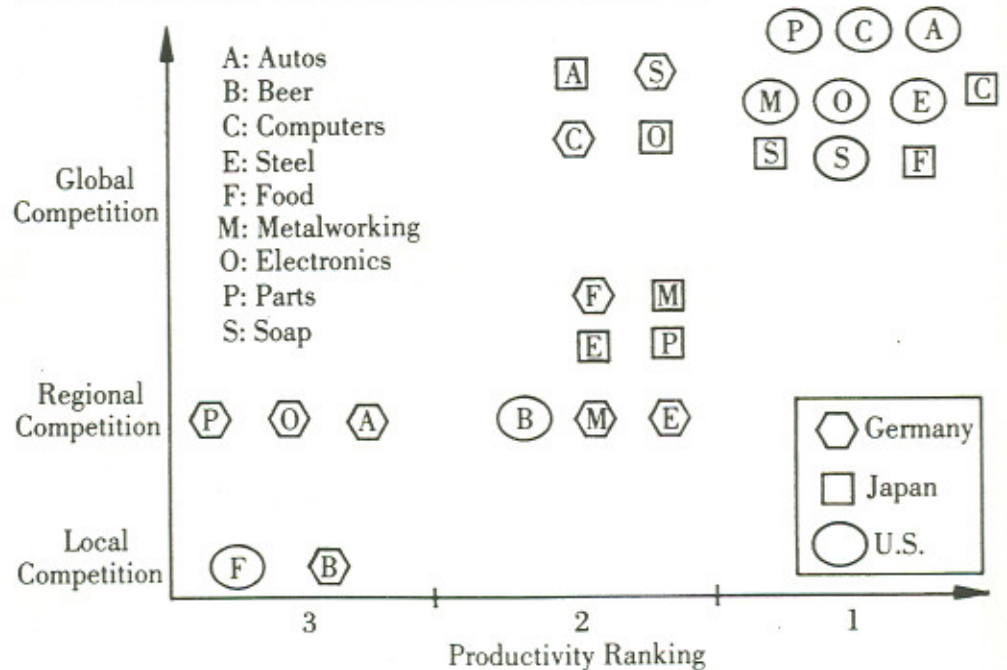
1993
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FIGURE A-5
AVERAGE VALUE ADDED PER EMPLOYEE, 1980-1991
(thousands of dollars)



SOURCE: U.S. Department of Commerce, *Foreign Direct Investments in the United States: An Update* (Washington, D.C.: U.S. Department of Commerce, Economics & Statistics Administration, Office of the Chief Economist, June 1993): figure 4A-5, p. 35.

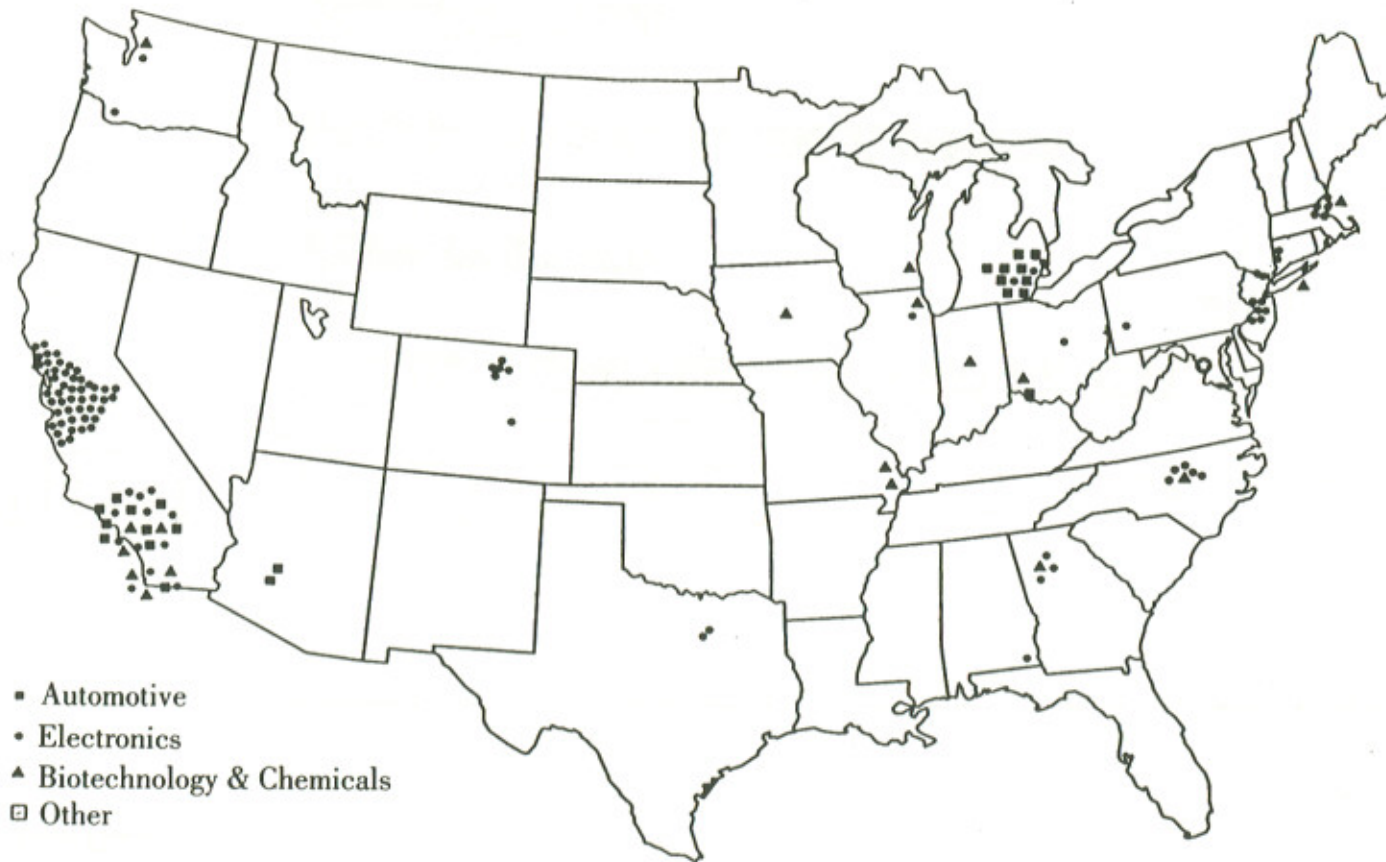
FIGURE A-6
PRODUCTIVITY AND GLOBAL EXPOSURE



SOURCE: McKinsey Global Institute, Exhibit 3-10, October 1993.

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FIGURE A-7
JAPANESE R & D FACILITIES IN THE UNITED STATES

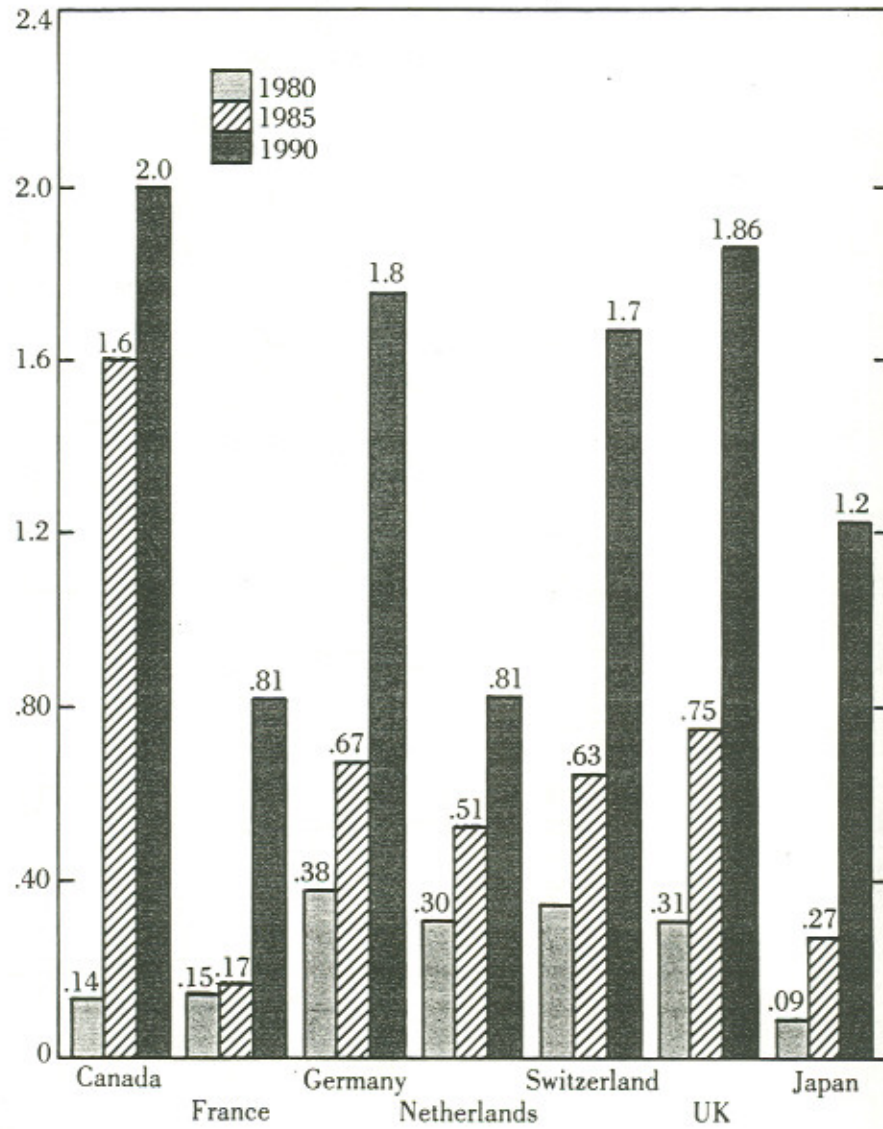


SOURCE: Richard Florida.

FIGURE A-8

FOREIGN R&D EXPENDITURES IN THE UNITED STATES BY COUNTRY,
1980-1990

(billions of dollars)



NOTES: Includes foreign direct investment of nonbank U.S. affiliates with 10 percent or more foreign ownership. Excludes expenditures for R&D conducted under a contract. German data are for the former West Germany only.

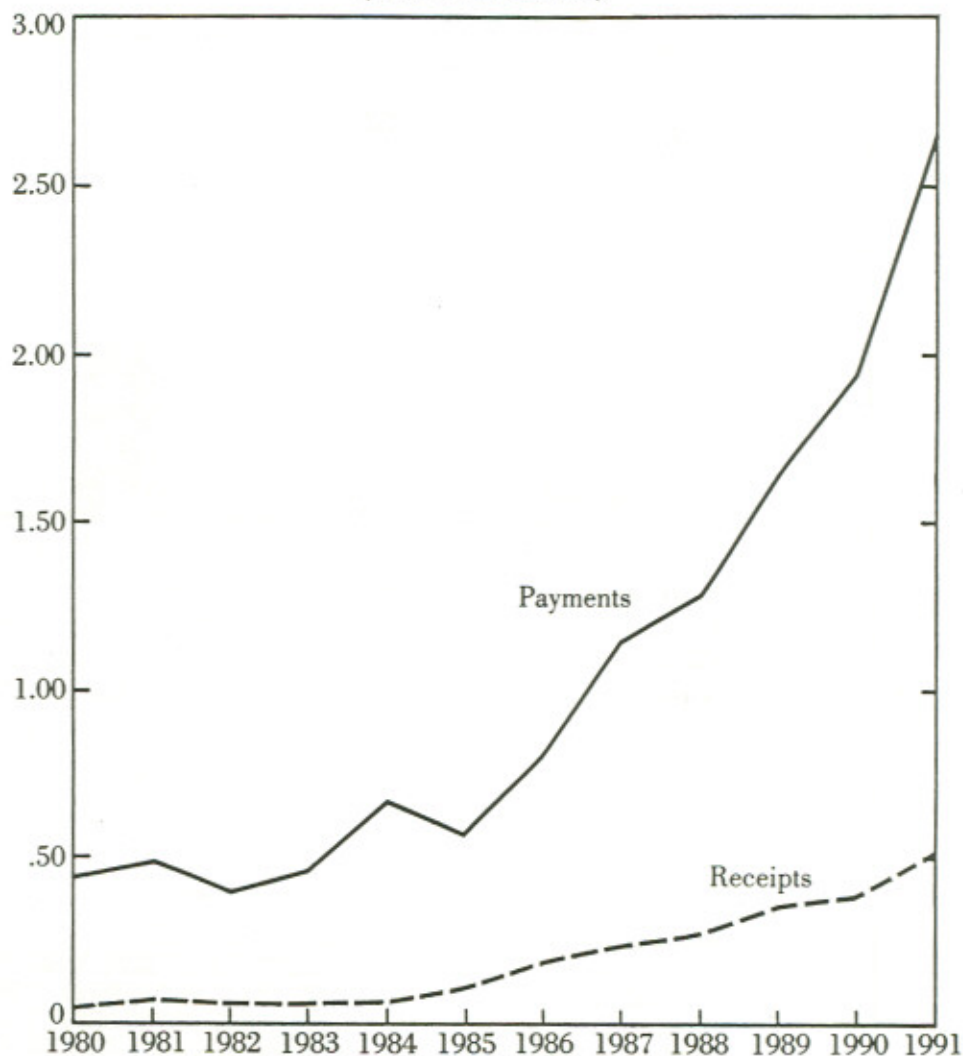
SOURCE: Bureau of Economic Analysis, "Foreign Direct Investment in the United States," as presented in National Science Foundation, "Science & Engineering Indicators." 1993.

SOURCE: Richard Florida.

▲ Biotechnology & Chemicals
□ Other

APPENDIX A

FIGURE A-9
 ROYALTY AND LICENSING FEE PAYMENTS AND RECEIPTS BETWEEN U.S.
 AFFILIATES AND FOREIGN PARENTS, 1980-1991
 (billions of dollars)



NOTES: Inflows are payments of royalties and license fees by U.S. affiliates to their foreign parents. Outflows are receipts of royalties and license fees by U.S. affiliates from their parent firms. Receipts and payments are before deductions of withholding tax.

SOURCE: Bureau of Economic Analysis, Survey of Current Business, various issues, as presented in U.S. Department of Commerce, *Foreign Direct Investments in the United States: An Update* (Washington, D.C.: U.S. Department of Commerce, Economics & Statistics Administration, Office of the Chief Economist, June 1993): table 6-9, p. 74.

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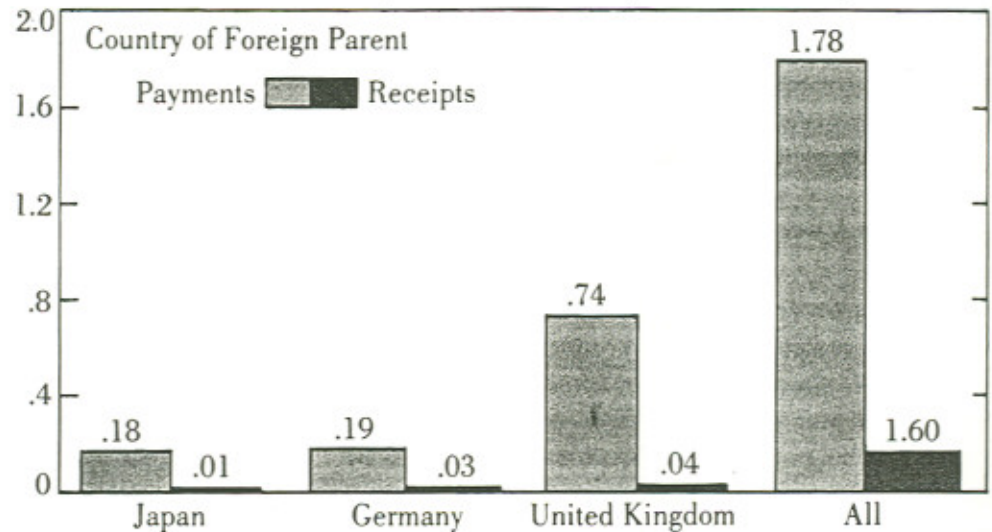


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FIGURE A-10

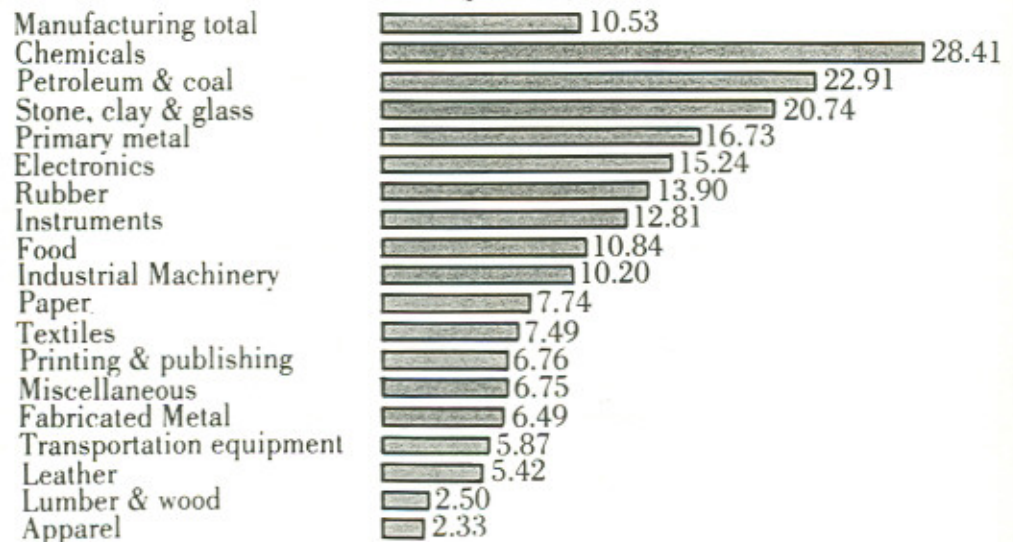
ROYALTY AND LICENSING FEE PAYMENTS AND RECEIPTS, BY SELECTED COUNTRY OF FOREIGN PARENT, 1991 MANUFACTURING INDUSTRY (billions of dollars)



SOURCE: Bureau of Economic Analysis, as presented in U.S. Department of Commerce, *Foreign Direct Investments in the United States: An Update* (Washington, D.C.: U.S. Department of Commerce, Economics & Statistics Administration, Office of the Chief Economist, June 1993), table 6-11.

FIGURE A-11

INTERNATIONAL AFFILIATES' SHARES OF TOTAL U.S. MANUFACTURING EMPLOYMENT, 1993 (percent)



SOURCE: U.S. Department of Commerce, "Survey of Current Business," January 1994, p. 34.

APPENDIX A

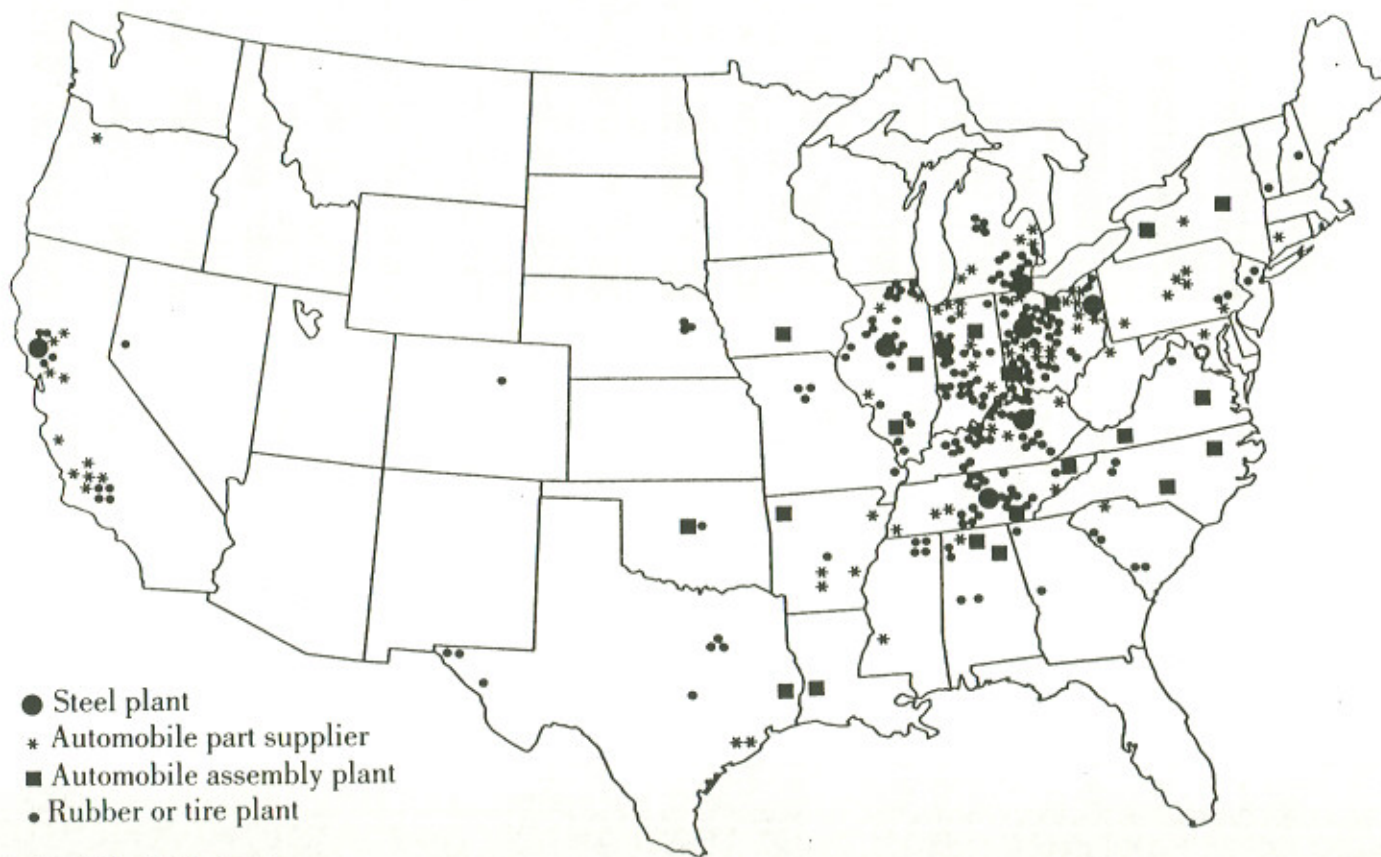
FIGURE A-12
PAYROLL PER EMPLOYEE BY INDUSTRY, 1987
(dollars)



SOURCE: U.S. Department of Commerce.

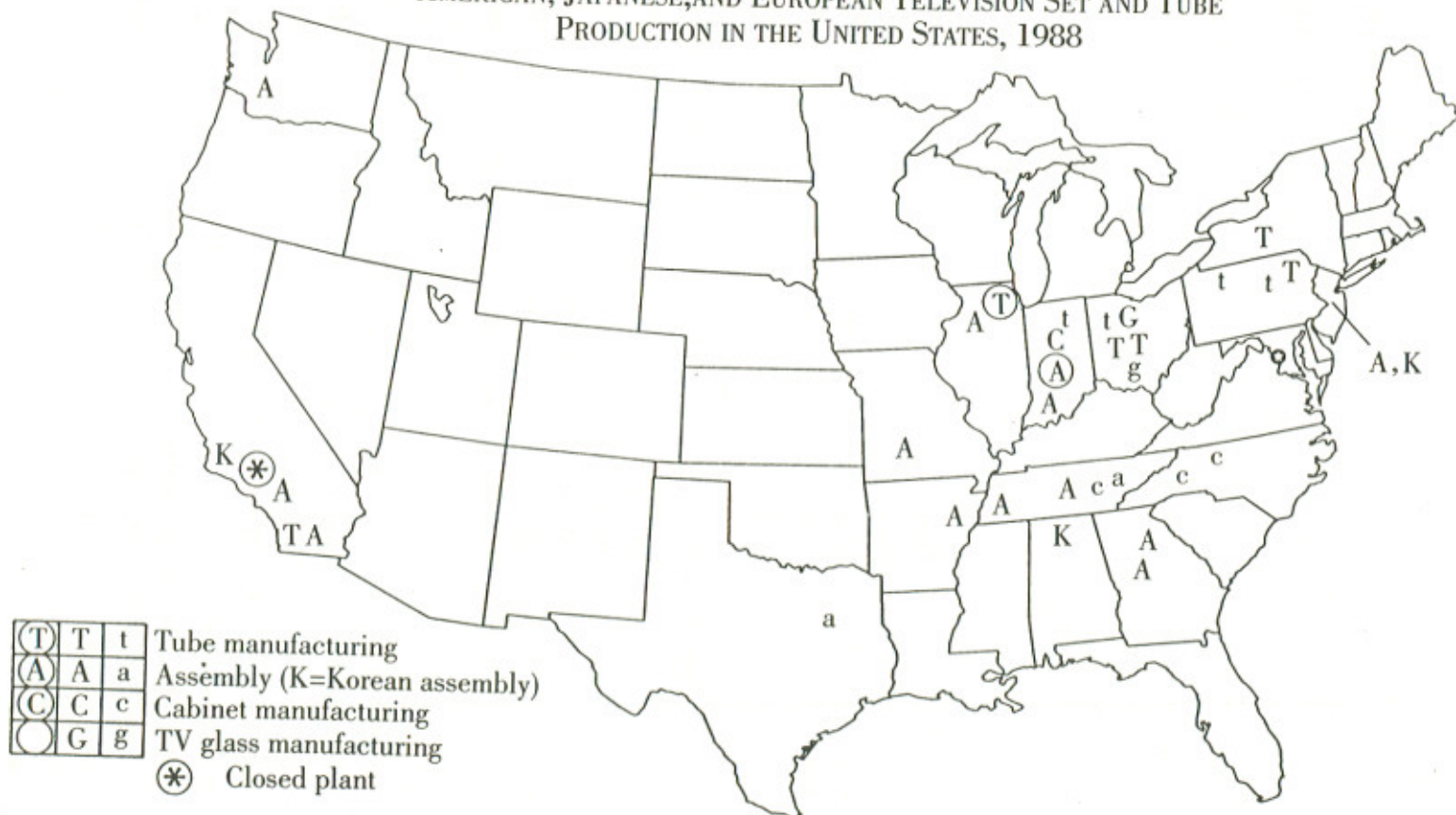
FIGURE A-13

JAPANESE AUTOMOTIVE-RELATED TRANSPLANTS IN THE UNITED STATES



SOURCE: Richard Florida's database.

FIGURE A-14
 AMERICAN, JAPANESE, AND EUROPEAN TELEVISION SET AND TUBE
 PRODUCTION IN THE UNITED STATES, 1988



SOURCE: "Consumer Electronics, HDTV, and the Competitiveness of the U.S. Economy," submitted by EIA's Advanced Television Committee, February 1, 1989.

□ C # TV glass manufacturing
⊛ Closed plant



SOURCE: "Consumer Electronics, HDTV, and the Competitiveness of the U.S. Economy," submitted by EIA's Advanced Television Committee, February 1, 1989.

APPENDIX B

Provisions in Existing Multilateral Instruments with Significant Impact on FDI

1) World Trade Organization (WTO) Instruments

General Agreement on Trade in Services (GATS). The GATS covers investments in the form of "commercial presence" for the purpose of supplying a service. The benefits of GATS are granted, *inter alia*, to "service suppliers" of another Member. Investment as such is protected to the extent that the service supplier is more than 50 percent owned or controlled by a natural or legal person of another Member. The GATS is the only agreement containing substantial obligations on FDI with potential worldwide coverage (over 100 signatories up to now). It covers all service sectors and its obligations extend to establishment and subsequent operations of the service suppliers of other Members. However, negotiations on important service sectors (financial services, basic telecommunications, maritime transport) are still continuing. Monopolies, government procurement, and subsidies are also covered, but specific disciplines still need to be negotiated.

The central obligations of the GATS are to accord most favored nation treatment for market access (exceptions possible) and national treatment (subject to limitations set out in each Member's schedule of commitments).

The GATS extends obligations to subnational measures, although exceptions regarding state or provincial measures can be inscribed in the schedule. The GATS requires Members to make transparent the measures relating to trade in services. The Agreement provides for compensation in case a liberalization commitment is withdrawn.

APPENDIX B

One of the most important features of the GATS is the access to the strong state-to-state dispute settlement procedures, including retaliation, agreed upon in the Uruguay Round.

Agreement on Trade-Related Investment Measures (TRIMs). The TRIMs Agreement addresses a number of investment matters from a trade angle, i.e., TRIMs are subject to disciplines because their application distorts trade flows.

The TRIMs Agreement outlaws such TRIMs which are violating Art. III and XI of the General Agreement on Tariffs and Trade 1994. The illustrative list attached to the Agreement includes local content and purchase obligations as well as trade balancing requirements. Such illegal measures can on condition of proper notification be phased out, within two years for developed countries and within up to seven years for least developed countries.

Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs). The TRIPs Agreement does not address directly FDI issues, but the improved protection of intellectual property rights brought about by this Agreement will improve the investment climate in the countries concerned.

2) Organization for Economic Cooperation and Development (OECD) Instruments

In 1961, OECD Members have adopted a code of Liberalization of Capital Movements and a Code of Liberalization of Current Invisible Transactions, the so-called Codes of Liberalization, and in 1976 a National Treatment Instrument.

The Codes of Liberalization cover inward direct investment by nonresidents from other Member States, including establishment in services. The National Treatment Instrument comes into play once the foreign direct investment is made and obliges Members, on a non-binding basis, to accord foreign investors and investments national treatment. The OECD members also have adopted non-binding Guidelines for Multinational Enterprises which establish the standards of corporate citizenship for Multinational Enterprises abroad.

The sectoral coverage of the Codes of Liberalization, while comprehensive, is not complete. Countries can maintain individual lists of reservations, be it across the board or in specific sectors. Important

issues, such as government procurement, key personnel, subsidies, or monopolies are not covered. To certain commitments a standstill applies and there is a general obligation to reduce restrictions.

The OECD hold regular "country examinations" which amount to a close scrutiny by OECD Committees of the remaining restrictions on FDI maintained by the country concerned. These examinations are to create "peer pressure" aiming at the reduction or withdrawal of restrictions affecting FDI. Besides peer pressure, sanctions for alleged violation of the Codes of Liberalization obligations can only be obtained by referring the issue to the OECD Ministers which could take up the issue in a Council decision in the form of a recommendation. This is no real dispute settlement mechanism, and therefore it is often said that the OECD instruments lack teeth.

3) North American Free Trade Agreement (NAFTA)

The NAFTA contains extensive chapters relating to investment. As a general rule, investors and investments from other Parties are granted the best of most favored nations treatment and national treatment for their establishment and operation. NAFTA Parties are prohibited from applying performance requirements or nationality requirements for key personnel.

It is important to note that these far-reaching basic principles are subject to liberalization commitments and substantial reservations which appear in the Parties' schedules. Each country must also specify non-conforming sub-national measures within a certain time after the entry into force. Government procurement and subsidies are excluded from the general rule; monopolies and state enterprises remain permissible. Financial services are dealt with in a separate chapter. Major exceptions pertain to national security and to Canada's cultural industries.

The NAFTA investment chapter contains a detailed mechanism for the resolution of disputes involving the breach of the NAFTA investment rules by a host country. It provides for investor-to-state dispute settlement.

4) Asia-Pacific Economic Cooperation (APEC)

The APEC annual meeting held in November 1994 agreed on a set of non-binding principles on investment. These "best effort" commitments provide, *inter alia*, for transparency of laws and regulations

pertaining to investments; non-discrimination for establishment and operation of investments from any other economy, as well as national treatment, minimization of performance requirements distorting trade and investment; investment protection with regard to expropriation, transfers, and settlement of disputes. An interesting point is that the APEC principles forbid member economics to relax health, safety, and environmental regulations as an incentive to encourage FDI.

The rather general APEC principles are only a first step and work within APEC on more binding investment rules continues.

5) Energy Charter Treaty (ECT)

Signed at Lisbon on December 17, 1994, by almost all European countries, as well as some non-European industrialized countries, this most recent multilateral treaty, covering, *inter alia*, investment, is mainly aimed at Eastern Europe and the CIS. The ECT is a sectoral agreement covering only activities in the energy sector. Its main goal is to facilitate energy related investments in Central and Eastern Europe and to help the restructuring of the sector there. It contains comprehensive rules on investment protection and notably state-of-the-art provisions on trade-related investment measures, key personnel, transfer of funds, sub-national compliance, and an exception clause from the most favored nations obligations for regional integration agreements. It has a refined mechanism for dispute settlement. On pre-investment (market access, right of establishment), only a best-effort commitment for national treatment/most favored national treatment was agreed, but a second phase of negotiations addressing this issue has already started.

6) ACP-EEC Convention of Lomé (Lomé IV)

Lomé IV contains a separate extensive chapter on investments with different sections dealing notably with promotion, protection, financing, capital flows, and payments, as well as establishment. Lomé IV thus notably contains an MFN provision for establishment (unilateral derogations possible) and framework rules for the individual Member States and ACP-countries bilateral investment protection treaties. In addition, the Community in 1992 has elaborated a "Community position on investment protection principles in the ACP states." This detailed document sets out the salient principles which should govern the protection of foreign direct investment in ACP states.

7) United Nations Organization Sponsored Agreements

World Intellectual Property Organization (WIPO). As pointed out above for WTO/TRIPs, the numerous conventions in the area of the protection of intellectual property concluded under the auspices of WIPO do indirectly foster the investment climate in the countries member to these conventions.

International Labor Organization (ILO). The ILO rules on labor standards and labor relations can also be of some importance for international direct investment flows.

Source: Commission of the European Communities, *A Level Playing Field for Direct Investment Worldwide* (Brussels, March 1995).