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Introduction

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Foreign direct investment (FDI) has grown dramatically as a major form of international capital transfer over the past decade. Between 1980 and 1990, world flows of FDI—defined as cross-border expenditures to acquire or expand corporate control of productive assets—have approximately tripled. FDI has become a major form of net international borrowing for Japan and the United States (the world's largest international lender and borrower, respectively). Direct investment has grown even more rapidly of late within Europe.

To what extent is this sudden worldwide surge in FDI explained by traditional theories? These theories predict the scale and scope of multinational enterprises by looking to differences in competitive advantage, across firms or countries, that might lead to the extension of corporate control across borders. So, for example, better technology, management capability, and product design; stronger consumer allegiance; and greater complementarities in production or use of technology can allow a domestic firm to control foreign assets more productively than would a foreign firm and could therefore predicate direct investment. In many cases, these theories also explain why an enterprise's alternatives to FDI—domestically based production or licensing of foreign-based production—are less efficient than direct control of foreign-based operations (see, e.g., Caves 1982; Vernon 1966).

Traditional theories are very useful for explaining basic long-term patterns of FDI. For example, they help understand the behavior of U.S. firms during the post–World War II period (the experience on which these theories were honed). At that time, advanced U.S. firms were superior in technology and well established in foreign markets. U.S. firms tended to move overseas to retain competitive access (or to preempt competitors' access) to those markets and, in the process, met with relatively little competition.

These theories also help us understand why the tide of U.S. FDI flows has slowly turned. The evolution of the United States from a home for domestically based multinationals to a host for foreign-based multinationals is probably the single most obvious sign of change in FDI today. This development basically coincides with the waning (and even disappearance) of U.S. firms' former competitive advantages. It is obvious to today's consumer that European-, Japanese, and Canadian-based firms have developed advantages that allow them to control certain assets in the United States more efficiently than would U.S.-based firms.

In spite of their successes, however, the traditional theories leave many recent features of FDI unexplained. First, it is hard to believe that the tide of underlying competitive advantage followed closely (or at all) the behavior of total FDI flows over the last decade: very rapid increases from 1979 through 1981, strong declines from 1982 through 1985, and then increases of unprecedented size from 1986 through 1990. One would have expected changes in national competitive advantages to be reflected in more steady trends. Second, to the extent that any developments happen quickly, one might have expected that they would occur in a single industry at a time—say, the automobile producers of Japan—as shocks to competitive ability come to be reflected in world ownership patterns. Yet the surges of the past fifteen years take place across virtually all industries simultaneously.

The recent FDI surges in U.S. inflows and Japanese outflows illustrate these two features. Japanese FDI overall, which historically was small, exploded across all industries in the latest surge, experiencing in the aggregate a sevenfold increase from 1985 to 1989. During this surge, both U.S. inflows and Japanese outflows were particularly large and fast-growing in real estate and financial services. In these industries, however, there was little evidence of meaningful change in competitive advantage. Particularly puzzling is the case of Japanese banks, which during the latest surge went on a much-publicized binge in acquiring foreign affiliates. Many of the involved banks were actually noted for their apparently *in*efficient operations and low profitability in comparison with U.S. and European companies. These facts suggest that existing theories do a good job of explaining neither the timing or magnitude of surges nor their broad cross-industry composition.

Another group of theories, less well established, may help us understand the timing and cross-sectional behavior of surges. Tax changes may have had sudden, large (sometimes unintended) across-the-board effects on the relative (foreign versus domestic) profitability of asset control. Such effects are unlikely to be sustained for decades.

Changes in corporate borrowing capacity and availability of internal funds may also help explain why some firms can invest or purchase assets more "cheaply" than others can even without a perceptible change in competitive advantage. Follow-the-leader tendencies, even if not completely rational, may influence corporate location decisions in the short run (although in the long run such decisions will presumably be more consistent with the underlying economics of production). Strategically oriented location decisions (in goods and factor markets which display imperfect competition) might be driven by conjectures about other firms' propensity to invest abroad and might therefore lead to rational herdlike behavior. Actual or existing trade barriers are also an important consideration (and are also stressed by more traditional theories).

The essays in this volume assess these newer explanations as well as other, older theories. The chapters are grouped in order to attack the issue from a variety of perspectives. The first group comprises overview essays (by Paul Krugman and Monty Graham, Rachel McCulloch, and Raymond Vernon) that look at the broad FDI experience during the most recent period and contrast it with earlier trends. The papers define the main issues and areas of change in FDI patterns and assess the performance of macrotheories. The second group deals with specific-country experiences. There are essays on Japan (Robert Lawrence), on the United States (Robert Lipsey), and on East Asian developing countries (Louis Wells). One chapter analyzes the FDI experience along a different dimension, evaluating how the developments within a specific industry—semiconductors—match up with those seen on a country or worldwide basis (David Yoffie).

Another important characteristic of recent FDI is the mode by which it is accomplished. In the past, greenfield investment was the rule, but today the vast majority of FDI is done through mergers and acquisitions (M&A). Why the sudden change? Older theories say little about the mechanics of FDI transactions; perhaps changes in financing technologies made acquisitions easier and resulted in a surge in M&A (domestic as well as foreign).

The growth in international merger and acquisition transactions has led researchers to study M&A on its own terms. One advantage of looking at acquisitions data is that purchase prices are flexible and, because they often are the result of competitive bidding, are meaningful as well. By contrast, the "costs" of doing greenfield investment are rarely recorded and rarely reflect the investor's eagerness to proceed. By analyzing M&A transactions, we can learn something about foreign investors' reservation prices and can compare them with the reservation prices of domestic investors. This can give us another independent measure of the propensity of foreigners to gain control of domestic assets.

The last group of papers (Paul Healy and Krishna Palepu, and Deborah Swenson) investigates developments in international M&A. The authors focus on both the size of cross-border flows and the price that foreigners tend to pay in such transactions.

Overview Papers

Graham and Krugman provide an overview of the late-1980s surge in worldwide foreign direct investment and survey the conceptual issues that it raises.

During the 1985–1989 period, they estimate, FDI grew at a rate of 27 percent per year, amounting to $3.6 trillion of business assets acquired or built by foreign owners during that time. While Graham and Krugman discuss the ambiguities in these overall numbers, all measures of FDI paint a generally similar story for the period. Furthermore, there is little disagreement that this period was characterized by the rapid emergence of Japan into the process of investment abroad (although not into that of investment at home), a diminution in the importance of U.S. FDI outflows and a shift toward the United States as a dominant recipient for FDI, a decline in the relative magnitude of North-South flows compared to North-North flows, and a dramatic shift in the nature of FDI away from greenfield and toward merger and acquisition.

What do we understand about the causes and effects of this late-1980s surge in FDI? The first issue concerns the most fundamental determinants of FDI, which almost by definition involve the determinants of the boundaries of the firm. Perhaps the growth in the importance of FDI may be interpreted as a widening of the boundaries of the firm. Graham and Krugman look at two basic approaches for thinking about this question. The first suggests that the boundaries of the firm are defined by the tension between costs of transacting and costs of institutional rigidities. While this view is intriguing, its ability to predict the large increase in FDI during the 1980s seems questionable. Factors such as improvement in communication and information technology probably help improve the flexibility of large organizations and hence may help to explain the surge in FDI. But these factors probably also help firms economize on arm's length transaction costs, which predicts a tendency toward more-restrictive firm boundaries.

A second view focuses on the behavior of enterprise scale rather than scope. For example, a firm might grow "too" big as a result of the incentives of managers (agents), which differ from those of owners (principals). Using these views, Graham and Krugman go on to suggest four reasons that multinational enterprises might be growing: increasing integration of world markets, growing similarity of national markets, improved communications and control technology, and growing symmetry in international technological capabilities.

Even if economists were in complete agreement about the factors governing long-run growth of multinationals, there still would be a need to explain the surge of FDI in the 1980s. Graham and Krugman discuss three theories that might help explain the timing of FDI: valuation effects, tax changes, and trade barriers. They stress the first (the valuation story originally discussed by Froot and Stein 1991), in which internally generated funds are cheaper than those raised externally, so that fluctuations in internal funds can help explain fluctuations in FDI. The behavior of exchange rates and stock prices over the late 1980s seems to help explain the surge in Japanese outward and U.S. inward investment. Graham and Krugman also propose that agency problems similar to those that U.S. savings and loans experienced during this period led to a more aggressive corporate attitude toward risk and to heightened levels of FDI.

In her paper, Rachel McCulloch relates the changing role of the United States in world FDI to changes in the firm-specific competitive advantages required for successful global expansion. McCulloch reminds us that the economics of comparative advantage is an unrefutable force for explaining country trade but that no similar force exists for explaining company trade. Firm-specific advantages and how they determine scope and scale of firm activities are still poorly understood.

McCulloch considers two economywide influences on FDI: exchange rates and trade barriers. Exchange rate movements have a clear effect on relative production costs; dollar depreciation, all else equal, makes producing traded goods in the United States more profitable. However, low production costs do not necessarily guarantee inward FDI; domestic firms may be the ones to grow and exploit the enhanced opportunity. McCulloch argues that when exchange rate fluctuations are large and unpredictable (as they were in the 1980s), multinational corporations (MNCs) may have an advantage over purely domestic firms because of their flexibility in shifting marginal production and sales in response to exchange rate changes. Import barriers ought also to have an important trade-substituting effect on FDI. However, the empirical evidence on the importance of trade barriers is much weaker than that for the exchange rate. It may be that domestic firms are better suited to take advantage of actual trade barriers through domestic investment.

McCulloch also argues that one can easily put too much emphasis on the importance of location per se. Even if all production locations are perfect substitutes, a firm with a good idea will expand rapidly and hence is likely to generate FDI. There are good reasons to think that FDI has an ambiguous impact on both trade, domestic employment, and industry competitiveness.

McCulloch notes that FDI often occurs in markets which display imperfect competition. As in the "new" trade literature, a government may find that it can exploit these imperfections to the advantage of its domestic residents. It can garner more of the world's taxable profits by encouraging the most profitable companies to locate domestically (especially those that can compete most profitably with a domestic location). McCulloch asks whether the United States will deviate from its former role of advocating limitless host country FDI. Now that the United States is the world's foremost FDI host, there will be pressures to change this policy.

Raymond Vernon explores the major changes in multinational corporations over the last forty years and then uses that history as a platform for forecasting future developments. Vernon first explores the reasons why U.S. firms early on took the multinational framework to heart. He suggests several motivations. The first—that MNCs were necessary for vertical integration—was an important factor before World War II for companies involved in extracting and processing raw materials. With relatively few players in the business, markets could not be counted on, and quantity or strategically induced rationing was a concern. A second motivation Vernon discusses is that of "animal spirits," in which presumably there is little economic gain (and perhaps some loss) for the foreign investment behavior of U.S. firms. Third comes the more rational desire of these firms to defend their export markets against foreign firms. During the late 1950s and the 1960s, foreign competitors gradually acquired the ability to compete effectively with U.S. leaders. These U.S. firms were then motivated to move abroad in order to better design their products for local markets and to avoid the protectionist pressures which can crop up when indigenous industries attempt to grow. Finally, firms moved abroad for purposes of risk management. Implicit collusion among competitors may be better facilitated if firms precommit to having similar sources of revenues and costs. Thus, once a single competitor moves abroad (regardless of the reasons), other firms have an incentive to follow.

Vernon also looks at the more recent period, in which European and Japanese firms have taken their place along with U.S. companies as innovators and leaders. These firms (Europeans first and now the Japanese) have experienced stages similar to those of U.S. firms. Vernon argues that much of their FDI can be interpreted as an attempt to prevent overseas markets from being competed away by local enterprises. Vernon also discusses the conflicts emerging in Europe as to whether local firms will retain their national character in the unified market. Japanese firms, he argues, are in an initial catch-up phase in the internationalization of their production. It is too early to tell whether differences in their practices (e.g., using Japanese managers to run foreign affiliates) will disappear as the affiliates age.

Vernon also speculates on the future of the MNC. He argues that past trends point toward continued growth in the importance of MNCs in world trade. He suggests that the influence of individual governments on MNCs is on the decline, as competition among governments and the substitutability of different locations of production grow.

Country Papers

Robert Lawrence's paper looks at FDI in Japan. He begins by noting that Japanese inbound FDI is an interesting topic because there is so little of it: the foreign-owned share of Japanese domestic production is approximately 1 percent of industrial assets, compared with an average of about 20 percent foreign controlled in other developed countries. Recently, net inflows of FDI into Japan have actually been negative. There is no sign that foreign acquisitions in the local market are picking up.

Most of Lawrence's chapter is devoted to examining the evidence for barriers to foreign acquisitions of Japanese firms. He argues that the low levels of inbound FDI point toward barriers to entry rather than toward low foreign demand.

Lawrence presents several kinds of evidence that supply rather than demand considerations have combined to keep FDI low. First, U.S. receipts from royalties and fees paid by unaffiliated foreigners worldwide come disproportionately from Japan. Because of high entry and market costs, foreigners choose to license in Japan rather than to invest directly. Second, in the presence of barriers to foreign entry, one would expect the percentage of majority foreign-owned FDI would be low and that an unusually large share of FDI would need to be devoted to wholesale trade. This implication seems to be borne out: the fraction of U.S. FDI in Japan that is majority owned by a U.S. parent (34 percent)is very low in comparison with comparable shares worldwide (76 percent). Also, the fraction of U.S. FDI in wholesale trade in Japan is unusually high compared to similar fractions worldwide.

These considerations suggest that distribution and entry into the Japanese market are more difficult than elsewhere and that, as a result, foreigners will have an unusually high demand to acquire (rather than build) enterprises in Japan. However, foreign acquisitions in Japan remain extremely low (in absolute terms and also relative to greenfield FDI activity). Cross-shareholding practices by Japanese firms and rules discriminating against foreign acquirers seem to explain this tendency. Evidence of liberalization is lacking: in recent years, Japanese firms have accelerated their acquisitions of both Japanese and non-Japanese firms, yet acquisitions of Japanese firms by foreigners have barely held constant. Lawrence finds that the low level of acquisitions relative to greenfield investment in Japan explains almost entirely the low absolute amount of total FDI into Japan. Finally, he finds that *keiretsu* affiliations in an industry have a dampening affect on FDI, even when controlling for both capital intensity and concentration. He concludes that many of these features of Japanese FDI support the conclusion that there remain substantial barriers to foreign entry and operation.

Robert Lipsey's paper studies the experience of the country that virtually defined FDI during most of the postwar period, the United States. Indeed, until the mid-1970s, the United States was responsible for more than half of the world's FDI outflows and owned more than half of the developed world's stock of direct investment. Only one other country accounted for more than 6 percent of the world's stock of FDI (the United Kingdom) with about 16 percent). On the inflow side, the United States absorbed on average only about 10 percent of inflows to developed countries through the mid-1960s. World FDI was pretty well characterized as the move of U.S. companies to produce abroad.

By the mid-1980s, of course, these figures had changed dramatically. U.S. outflows had fallen to about 15 percent of world FDI; at the same time, inflows into the United States accounted for 46 percent of world flows. By 1990, the FDI stock in the United States had already risen to a level about as large as the stock of U.S. FDI abroad. Lipsey argues that while these numbers overstate the relative size of the FDI stock in the United States (assets are carried at historical cost, which tends to understate the value of relatively older U.S. assets held abroad), they nonetheless provide a rough gauge for how rapidly foreign ownership in the United States has grown.

Lipsey shows that growth of foreign ownership has been particularly rapid in manufacturing, where the FDI stock has quadrupled over the past fifteen years and now accounts for over 10 percent of employment. Naturally this increase was led by the Japanese, who went from insignificant owners to the second-largest investor in the United States (after the British), accounting for 20 percent of the stock of U.S. FDI.

Lipsey points to another important change in inbound FDI: the means by which it is financed. Over half of the investment which took place in the 1950s and 1960s was financed through retained earnings. By the 1980s, this fraction had dropped to almost zero. It is well known that this increase was at least partly due to the increased viability of cross-border mergers and acquisitions. What is less well known is that the profitability of foreign affiliates in the United States declined dramatically in the 1980s, so that foreign investors had little to retain. These low returns may reflect increases in affiliates' financial leverage and/or poorer choices of investment targets.

Louis Wells focuses on an important recent trend in world FDI, done by companies he calls "mobile exporters." Typically these are companies from relatively high-income developing countries seeking low-cost installations to access third-country markets. The rate of growth of mobile-export FDI in some developing countries is quite astonishing. Wells takes Indonesia as his primary example. There the FDI approved during the 1987–90 period is 150 percent of *all* the FDI which occurred in that country from 1967 to 1987. The lion's share of this growth is associated with an increase in the role of export-oriented FDI from other developing countries. For instance, from 1977 to 1985, the share of FDI into Indonesia that came from developing countries was only 6 percent. During this period, Japanese investment dominated. By the first half of 1991, however, other East Asian developing countries *alone* accounted for 56 percent of projects approved for FDI (in manufacturing alone, the fraction rises to 65 percent). Wells points out that while the Japanese are widely thought of as dominating FDI in Southeast Asia, other developing countries in the region have in fact invested 3.5 times as much in Indonesia.

Wells identifies three major rounds of developing-country to developing-country FDI. The first round was also export oriented, driven by the desire to avoid import quotas in third-country markets (common industries included textiles and shoes). The second round consisted of trade-substituting FDI—developing-country companies came to Indonesia fearing that present or future trade barriers would block their access to Indonesia's domestic markets. The third round has come from companies seeking lower-cost export bases for their products. Firms from South Korea, Taiwan, Singapore, and Hong Kong have faced currency appreciations, wage increases, and labor shortages. They have chosen Indonesia and Thailand over other low-cost locations such as Africa or other local developing countries (such as Vietnam, China, and the Philippines). Ease of doing business, input access, tax considerations, and assurances of property rights seem to promote investment when the investor is searching for a low-cost location. Wells suggests that countries such as Mexico are increasingly suitable hosts; he cites political considerations as well as Mexico's strengthening access to U.S. markets.

Industry Studies

David Yoffie investigates FDI in the semiconductor industry. Semiconductors are perhaps the world's most highly tradable manufactured product. Yoffie distinguishes three "waves" of FDI in semiconductors. In the first wave, which took place in the late 1960s and early 1970s, firms (most U.S.-based) moved assembly and test functions (the relatively labor-intensive portion of production) to take advantage of low overseas wage costs. Also during this time, U.S. firms invested in foreign fabrication facilities in order to avoid existing and likely future trade restrictions. Thus, the first wave included both trade-complementing and trade-substituting FDI.

During the mid-1970s, a second wave of FDI began. The mode shifted from greenfield investment *by* U.S. firms to mergers and acquisitions *of* U.S. firms. The motivation for this change was the need for technology transfer to another generation of both U.S. and non-U.S. firms.These firms were more capable of expending the large amounts of money needed to innovate in the face of the industry's rising capital intensity and scale economies. Indeed, as the labor share in costs plummeted, a motivation behind the first wave of FDI was undermined.

The third and most recent wave of FDI in semiconductors became prevalent around the time that the boom in U.S. mergers and acquisitions subsided. (The watershed event was the political intervention that blocked the purchase of Fairchild Semiconductor by Fujitsu.) This wave is a continuation of the first—active greenfield investment in fabrication facilities—but the investment is now being undertaken in Europe and the United States by firms from all three major country blocks (the United States, Europe, and Japan). Investment in Japan by non-Japanese companies is noticeably absent, reinforcing the trend which emerges in the macrodata. The third wave is distinguished from the first in that labor costs have become less important than other factors (tax breaks, local infrastructure, etc.).

In describing these waves, Yoffie notes three features which appear puzzling. The first is that history in location choice seems to matter, especially in the third wave. The increased capital intensity of all phases of production has made labor costs essentially irrelevant, yet new, trade-enhacing investment inflows continue in countries with low labor costs. This pattern suggests that accumulated knowledge or other specific factors at the plant or affiliate level are important economically. Second, new greenfield investments have not followed the Silicon Valley model, in which firms choose to invest near one another. Any agglomeration effects or externalities in the production and testing processes must therefore be difficult to realize across firms. Third, both greenfield and investment and acquisition activity in Japan remain limited, even though formal restrictions have been removed. Of the FDI that does take place, most comes in the form of joint ventures with Japanese partners.

Investigations of Mergers and Acquisitions

Paul Healy and Krishna Palepu examine international mergers and acquisitions among eleven major industrialized countries for the period 1985 to 1990. These cross-border M&A deals account for fully 30 percent of all cross-border equity purchases (direct plus portfolio investment). The worldwide patterns are similar to those seen in balance-of-payments measures of FDI (of which cross-border M&A is but one component): the United States now accounts for a large portion of world inflows, with over 60 percent on average during the period; Japan's foreign acquisitions account for 14 percent of such flows over the period, with a large increase in the final few years; foreign acquisitions done in Japan are essentially zero over the period; the United Kingdom is the most active acquirer nation (controlling 26 percent of world M&A expenditures) and also one of the most aggressive; and Spain appears to have witnessed rapid growth in inflows (as has Europe overall) during the sample period.

Healy and Palepu look at two possible determinants of the level of cross-border M&A: the regulation of intercorporate investments, and the typical ownership structure of corporations. The authors find that regulations of intercorporate investment (particularly those regulations which discriminate against foreigners) reduce cross-border flows. For example, Australia, France, Sweden, and Japan (Japan requires government notification and approval) all have relatively low levels of international M&A and restrictions on foreign investment.

The authors also examine some possible determinants of the recent changes in cross-border acquisitions. These changes do not appear to be explained well by regulation and ownership structure, which evolve only slowly over time. Healy and Palepu find little explanatory power in lagged real exchange rate changes, changes in economic growth in the target and acquirer countries, and changes in the level of domestic M&A activity in the target country. Only the latter of these factors is significant. The importance of changes in domestic M&A for explaining changes in international M&A suggests that some underlying causes—changes in the technology of doing acquisitions (such as in the United States in the late 1980s) or changes in the strategic importance of large scale operations in a country (such as Spain at the end of the 1980s)—may be driving both.

Deborah Swenson explores foreign-led mergers and acquisitions which took place in the United States between 1974 and 1990. She finds that foreign M&A activity in the United States has risen even faster than inward FDI and that it has become the most common form of FDI in the United States. Japan is the country which seems to do the least amount of acquisition (versus greenfield) FDI, although recently its acquisition share has risen dramatically. Swenson reports evidence that only a small fraction of foreign acquisitions can be explained by domestic M&A activity. Thus, domestic acquisitions, which

Healy and Palepu find useful for understanding cross-border M&A in the cross section, are not particularly useful for understanding foreign M&A over time.

Swenson also investigates a number of specific features of foreign-led M&A in the United States. She finds that, in acquiring U.S. companies, a foreigner tends to pay a premium of about 10 percent over what is typically paid when another U.S. company is the acquirer. This price differential remains when one controls for variables that have been found to influence the premium paid in domestic acquisitions (i.e., the method of payment, the degree of industry concentration, and the presence of government or target-management resistance).

The premium paid by foreigners has other interesting features. For example, foreigners tend to purchase firms with higher growth potential (as measured by price-earnings ratios) than domestics. When mounting an acquisition, foreigners are considerably less likely to face competition from other bidding firms or challenges from government agencies than are domestics. In addition, it appears that the premiums paid on foreign acquisitions are highly sensitive to the exchange rate (premiums paid by domestic acquirers are not exchange rate sensitive) and to foreign stock prices. This may be evidence to support theories of FDI that rely on wealth effects generated by imperfections in capital markets.

References

Caves, Richard E. 1982. *Multinational enterprise and economic analysis.* Cambridge: Cambridge University Press.

Froot, Kenneth A., and Jeremy Stein. 1991. Exchange rates and foreign direct investment: An imperfect capital markets approach. *Quarterly Journal of Economics* 106 (November): 1191–217.

Vernon, Raymond. 1966. International investment and international trade in the product cycle. *Quarterly Journal of Economics* 80 (May): 190–207.