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# 8 International Corporate Equity Acquisitions: Who, Where, and Why?

Paul M. Healy and Krishna G. Palepu

In this paper we provide evidence on international equity investments among eleven of the leading industrial nations during the period 1985 to 1990. Our purpose is to document which countries have been the largest target nations and which have been the most active acquirers. We also examine factors that restrict and encourage equity investments between countries.

We find that international equity investments grew tenfold between 1985 and 1990 and currently account for about 30 percent of all corporate equity investments. In dollar terms, the United States is by far the largest target country for international equity investments and accounted for 60 percent of all international investments between 1985 and 1990. However, when we control for differences in country size, the United States ranks only third among target countries (behind the United Kingdom and Canada). At the other extreme, the Japanese equity market is effectively off limits to foreign investors. There were few significant foreign equity investments in Japan in the study period.

The United Kingdom is the most active acquirer nation, both in dollar terms and adjusting for country size, and accounts for 26 percent of all international acquisitions. U.S. French, and Japanese companies are also large acquirers in dollar terms, and each country accounts for about 14 percent of worldwide equity investments. However, when we control for country size, the United States ranks tenth out of eleven countries in investments abroad.

International activity in target countries is explained in part by (1) regulations that seek to deter foreign investment, (2) differences across countries in

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ownership structure and corporate control markets, and (3) target countries' recent growth. Neither changes in real exchange rates between target and acquirer countries nor growth rates of acquirer countries are important factors explaining international investment patterns.

The chapter is organized as follows. Section 8.1 describes the data used in the study. International equity investment patterns among target countries and the factors explaining the level of investments in target countries are reported in section 8.2. In section 8.3 we present a summary of the most active acquirer nations, and in section 8.4 we present tests of factors that explain changes in international investments between the target and acquirer nations. Our conclusions are presented in section 8.5.

## 8.1 Data

The data for our analysis are from Securities Data Company's (SDC) database of intercorporate worldwide investments. SDC compiles a list of these transactions from U.S. and foreign news sources, including source documents from government agencies, surveys from foreign stock exchanges and investment banks, and reports from *Financial Times*, *International Financing Review*, *Reuters*, *Dow Jones News Services*, *The Wall Street Journal* (Asian and U.S. editions), and the *New York Times*. The database covers intercorporate equity investments, regardless of the percentage of ownership acquired. Portfolio investments by mutual funds are not reported.

To be included in our sample, transactions are required to be completed deals announced in the period January 1, 1985, through December 31, 1990. The transactions include investments by both public and private companies in other public or private companies. The investments range from acquisitions of noncontrolling equity interests to transactions that transfer complete control to the acquirer.<sup>1</sup>

The SDC database provides information on the country of the acquiring firm, the target firm country, and the dollar value of each acquisition at its completion date (expressed in U.S. dollars at that date). There is some question as to how to classify target and acquirer firms' nations when the entity considered is owned by another firm headquartered in a different nation. We identify

1. To corroborate the accuracy of the SDC data, international acquisitions of U.S. equity reported in the database from 1985 to 1990 are compared with the U.S. Bureau of Economic Analysis (BEA) data on international acquisitions of equity stakes exceeding 10 percent in U.S. firms. While there are some differences between BEA and SDC estimates for individual years, the aggregate acquisitions during these six years are remarkably close. The BEA reports acquisitions of \$266.8 billion, whereas SDC estimates for investments by eleven countries examined in this study are \$247.8 billion. There are two important differences between the databases. First, the BEA acquisitions are classified by year of completion, but we classify SDC acquisitions by announcement year. Second, the BEA covers all international equity investments in U.S. firms exceeding 10 percent ownership, whereas we examine all equity investments by ten industrialized countries.

**Table 8.1** International and Domestic Intercorporate Equity Investments, by Year, 1985 to 1990

Year	Equity Investments (U.S. \$ millions)			Percentage of Total	
	International	Domestic	Total	International	Domestic
1985	\$ 10,139	\$ 113,739	\$ 123,878	8%	92%
1986	36,121	245,185	281,306	13	87
1987	65,334	209,868	275,202	24	76
1988	86,987	305,302	392,289	22	78
1989	117,152	351,644	468,796	25	75
1990	98,421	237,842	336,263	29	71
1985 to 1990	414,155	1,463,580	1,877,735	22	78

such a transaction by the parent company's country rather than by the acquirer's or target firm's country. For example, the acquisition of Jaguar by Ford Europe, a company with a U.S. parent, is classified as a U.S. company investment in the United Kingdom.

In our analysis, we consider investments in or by firms in the following countries: Australia, Canada, France, West Germany, Italy, Japan, the Netherlands, Spain, Sweden, the United Kingdom, and the United States. These eleven countries account for the bulk of intercorporate investments worldwide. Table 8.1 reports data on aggregate international intercorporate investments in these countries during the period 1985 to 1990. To provide a benchmark, data on domestic intercorporate investments are also reported. International equity investments have steadily grown in importance throughout the sample period. In 1985, they were valued at about \$10 billion and increased tenfold to approximately \$98 billion in 1990.<sup>2</sup> In contrast, domestic intercorporate equity investments in the eleven countries studied increased only twofold during this same period. In 1985, only 8 percent of worldwide equity investments were international. This percentage increased steadily in the succeeding five years and reached 29 percent by 1990.

## 8.2 Target Countries

This section examines investment levels in target company countries in the period 1985 to 1990. We then investigate institutional factors that explain differences in intercorporate investments across these countries.

2. While we focus on both controlling and noncontrolling international equity acquisitions, the bulk of the acquisitions are for control, where control is defined as acquisition of ownership of 51 percent or more. During the 1985 to 1990 period, controlling acquisitions account for 86 percent of all international intercorporate investments.

## 8.2.1 Investment Levels by Target Country

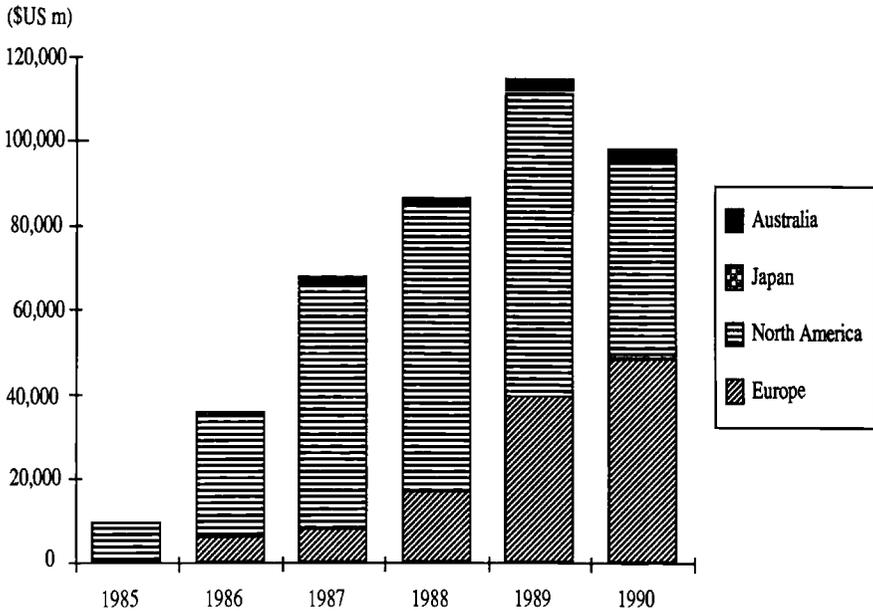
To analyze investment activity by target country, we compute the aggregate dollar value of international investments in each of the eleven industrialized countries in the period 1985 to 1990. Table 8.2 reports this aggregate amount, as well as international equity investments in each country as a percentage of the total for all countries. By far the largest target nation for intercorporate equity investments is the United States, which accounts for 60 percent of all international activity. The United Kingdom and Canada are also important target countries, with 16 percent and 8 percent of the total investments. Together, these three countries are targets of most of the international equity investments in the sample period. At the other extreme, there were few international equity acquisitions in Japan during this period.

To examine whether there has been a change in international investment activity by target market between 1985 and 1990, we estimate the value of international investments each year for four major regions (Europe, North America, Japan, and Australia). Figure 8.1 shows the annual international investments in these target regions. In 1985, North America (primarily the U.S.) made up 90 percent of the target market, with Europe the other 10 percent. The major trend over the following five years was a steady decline in the relative share of activity in North America and an increase in international acquisitions in Europe. By 1990, the target markets in the two regions were approximately equal in size.

The above findings do not control for differences in economy sizes across countries. We therefore deflate international equity acquisitions in each country during the period 1985 to 1990 by its total gross domestic product (GDP)

**Table 8.2 International Intercorporate Equity Investments, by Country of Target Firm, 1985 to 1990**

Target Country	International Equity Investments		
	Value (U.S. \$ millions)	Percentage of Total	Percentage of Gross Domestic Product
Australia	\$ 9,325	2.3%	0.6%
Canada	32,648	7.9	1.1
France	17,032	4.1	0.3
Italy	7,802	1.9	0.1
Japan	2,066	0.5	0.0
Netherlands	8,926	2.2	0.6
Spain	7,357	1.8	0.3
Sweden	3,764	0.9	0.3
United Kingdom	68,329	16.5	1.3
United States	247,789	59.8	0.9
West Germany	9,117	2.2	0.1
Total	414,155	100.0	



**Fig. 8.1** International intercorporate equity investments, by target market, 1985 to 1990

in the same period (translated to U.S. dollars using average exchange rates for the year, as reported by the International Monetary Fund [IMF]). These statistics also appear in table 8.2. Controlling for size reduces the disparity among countries in international activity. While the United States, the United Kingdom, and Canada remain the dominant target nations, their rankings change. The United Kingdom is the largest target market, with international activity of 1.3 percent of GDP. Activity in Canada is 1.1 percent of GDP; in the U.S., it is only 0.9 percent. Australia and the Netherlands also emerge as important target nations, with international investments of 0.6 percent of GDP. Once again, Japan is the lowest-ranked target nation.

The evidence in table 8.2 shows significant differences in international activity across target nations. Two factors potentially explain these differences. Differences in government regulations and tax policies on intercorporate investments and differences in equity ownership across countries affect the relative feasibility of intercorporate equity investments in general. Further, many of the eleven countries studied have regulations which favor domestic investments over international activity. Below, we discuss the impact of each of these factors on international equity investments.<sup>3</sup>

3. Even though we discuss these factors as exogenous, it is likely that corporate control market, regulation, and ownership structures are simultaneously determined in a corporate governance system.

### 8.2.2 Effect of Corporate Control Market in Target Countries

There are several important differences in the nature of the intercorporate investment market in each of the eleven countries studied. First, differences exist across countries in the regulation of intercorporate investments. For example, government antitrust regulations in some countries restrict intercorporate equity investments which are likely to reduce competition in the domestic market. There are differences in government and stock exchange regulations on the procedures required for tender offers for majority control contests. Also, there are important differences across countries in the way these antitrust and tender offer regulations are administered. Finally, tax law differences across countries are likely to affect the relative attractiveness of intercorporate investments. These regulations are likely to have a significant impact on both international and domestic equity investment activity.

A second factor that is likely to influence international equity investments is the nature of ownership structure of corporations. In some of the countries examined, ownership of equity is concentrated in the hands of long-term investors, such as banks, founding families, and the government. These investors typically are represented on the company's board of directors, enabling them to monitor current management directly. As a result, these investors are more likely to replace poorly performing management themselves, reducing the role for hostile acquisitions as a disciplining mechanism. Further, concentrated ownership which is friendly to incumbent management is likely to resist the attempts of outside investors to wrest control of a corporation in an unfriendly transaction. In contrast, in financial systems where stock ownership is dispersed, hostile acquisitions are likely to play an important role in changes in corporate control.

Differences in the nature of equity markets across countries impact both international and domestic investment activity. We therefore analyze cross-country differences in domestic investment activity to measure the effect of differences in the general nature of the intercorporate investment market.

Table 8.3 reports domestic intercorporate equity investment activity for each of the sample countries in the period 1985 to 1990, including the aggregate dollar value of domestic investments and domestic equity investments for each country as a percentage of the total for all countries. As with international investments, domestic activity is largest in the United States, accounting for 75 percent of all domestic activity. The United Kingdom has the second most active domestic market. Japan, which as previously noted is the target of few international acquisitions, has domestic activity comparable in dollar value to that of Australia, France, Italy, and Canada.

To control for differences in economy sizes across countries, we again deflate domestic equity investments for each country during the period 1985 to 1990 by its total gross domestic product measured in U.S. dollars in the same period. These statistics are reported in table 8.3. Controlled for size, countries

**Table 8.3** Domestic Intercorporate Equity Investments, by Country of Target Firm, 1985 to 1990

Target Country	Domestic Equity Investments		
	Value (U.S. \$ millions)	Percentage of Total	Percentage of Gross Domestic Product
Australia	\$ 36,822	2.5%	2.6%
Canada	55,047	3.8	2.0
France	30,003	2.0	0.4
Italy	21,995	1.5	0.4
Japan	31,526	2.2	0.2
Netherlands	5,442	0.4	0.3
Spain	5,684	0.4	0.2
Sweden	15,812	1.1	1.2
United Kingdom	156,976	10.7	3.3
United States	1,096,159	74.9	3.9
West Germany	8,114	0.6	0.1
Total	1,463,580	100.0	

with the largest domestic investment markets are the United States, the United Kingdom, Australia, and Canada. As in the case of international activity, Japan and West Germany have very low levels of domestic intercorporate investments.

To examine whether differences in the intercorporate investment market explain both domestic and international investments equally, we estimate the correlation between the two types of investment in each country. The cross-country correlation between domestic and international investments as percentages of GDP is 0.81. The correlation between country ranks for international and domestic investment adjusted for GDP is 0.77. Both these correlations, which are highly statistically significant, support the hypothesis that the nature of the intercorporate investment market explains a significant proportion of the cross-country variation in international investments.

#### *Differences in Government Regulations*

As discussed above, the differences in the intercorporate investment market are potentially driven by differences in government regulations on corporate takeovers and investments. Table 8.4 presents a summary of takeover regulations for the sample countries in the period 1985 to 1990. The regulations examined include government antitrust regulations relevant to intercorporate investments, and government and exchange regulations of tender offers.<sup>4</sup>

Most nations have antitrust regulations that require government approval of

4. The primary sources of this information are manuals on mergers published by Westminster Management Consultants Limited (1990), and Economist Publications (1988).

**Table 8.4** Summary of Special Regulatory Restrictions on Takeovers and Equity Investments, by Country, 1985 to 1990

Country	Description
Australia	Mergers resulting in dominant market position must be approved by the government. A tender offer must be made once an investor acquires 20 percent of the voting stock.
Canada	Mergers are subject to antitrust regulations. Investors with more than 10 percent of the outstanding stock must publicly disclose their position. Tender offers must treat all shareholders and convertible holders equally. A tender offer must be made once an investor acquires 20 percent of the voting stock.
France	Mergers are subject to antitrust review if they result in specified market share and sales levels. Investors that own 5 percent of a listed company have five days to disclose their position. All shareholders and convertible holders must be treated equally, and public offers must be made once an investor acquires 33 percent of the voting stock of a listed company.
Italy	No significant antitrust restrictions on mergers. Investors with more than 2 percent of a listed company's stock have thirty days to disclose their position. Regulations of public offers are by the stock exchanges and are minimal.
Japan	Mergers must be approved by Fair Trade Commission under the Anti-Monopoly Law. Tender offers must be filed with and approved by Ministry of Finance.
Netherlands	Few antitrust restrictions on mergers exist. Investors with 10 percent of shares in a listed company must disclose their position in the next prospectus or interim report. Regulation of public offers is by the stock exchange and is minimal.
Spain	Mergers are subject to antitrust review if they result in specified market share and sales levels. Investors with 10 percent of a listed company's shares must disclose their position immediately. Public offers, which are regulated by a government commission, must treat all shareholders and convertible holders equally. A tender offer must be made once an investor acquires 50 percent of the voting stock.
Sweden	No significant regulations exist governing intercorporate investments, including corporate takeovers. Investors with 10 percent of a company's shares must disclose their position the next day.
United Kingdom	Mergers are subject to antitrust regulations. Investors with more than 3 percent of the outstanding stock must publicly disclose their position. Investors that own 3 percent of a public company's capital have two business days to disclose their position. Tender offers must treat all shareholders and convertible holders equally. A tender offer must be made once an investor acquires 30 percent of the voting stock.
United States	Mergers are subject to antitrust regulations, though enforcement has been rare in recent years. Tender offers

Table 8.4 (continued)

Country	Description
West Germany	<p>must be open for at least twenty days, and shareholders can withdraw tendered shares for fifteen days.</p> <p>Mergers are subject to antitrust review if they result in specified sales levels. Investors that own 25 percent of a company must disclose their position immediately. There are no significant government regulations on public offers.</p>

mergers between large companies or ones that lead to highly concentrated markets. In addition, although not reported in table 8.4, most countries have restrictions on mergers in certain sensitive industries, notably in the airline, banking, defense, insurance, and media industries. Most countries also have statutory or stock exchange regulations on disclosure of ownership when specified levels are exceeded and on tender offer procedures. The tender offer regulations typically include equal treatment of shareholders, required tenders once prespecified ownership levels are achieved, and mandatory periods during which offers must remain open. There is considerable overlap in the nature of regulations across countries, implying that differences in regulations are unlikely to explain differences in international equity investments across target nations. Indeed, if anything, it appears that regulations are more severe in countries where intercorporate equity investments are common. For example, there are fewer regulations governing intercorporate investments in West Germany, Italy, the Netherlands, and Sweden than in the United States, Canada, or the United Kingdom. This is not surprising, since the demand for regulation is likely to arise only when acquisition activity is high.

Differences in tax laws across countries could also explain differences in intercorporate investments. Scholes and Wolfson (1990) argue that in the United States the 1981 and 1986 Tax Acts had important effects on merger activity. The 1981 tax bill permitted very rapid depreciation under the accelerated cost recovery system, encouraging domestic activity and discouraging international investments. The 1986 act repealed the accelerated depreciation write-offs and thus eliminated the bias against foreign equity investors. While Scholes and Wolfson report evidence consistent with this prediction, cross-sectional evidence is less clear. Graham and Krugman (1989, 39) argue that "tax considerations alone would have led one to expect a decline in the relative share of Japan and the United Kingdom and a rise in the relative share of Canada and the Netherlands from 1981 to 1986, followed by a reversal; in fact no such clear pattern is visible." In this paper, we focus on nontax factors to explain differences in intercorporate investments across target markets.

#### *Differences in Corporate Governance*

Intercorporate investments could also be explained by differences in the way companies are financed. There are significant differences in ownership struc-

tures in the countries examined. In Australia, Canada, the United Kingdom, and the United States, ownership is dispersed. While financial institutions play a significant role in equity markets, they typically do not participate in corporate management. Financial institutions are also willing to trade their ownership positions, facilitating changes in corporate control through takeovers. In Japan, and for large publicly held companies in West Germany, corporations have established long-term interlocking ownership relations with banks and suppliers. These owners are reluctant to divest their stakes, presenting a barrier to new intercorporate equity investors, especially those seeking changes in corporate control, for both foreign and domestic companies. Public companies in the Netherlands typically separate the voting rights of stock from rights to receive dividends and return of capital. Voting rights are transferred to a foundation, which is friendly to management, and are usually not traded. Finally, in France, Italy, Spain, and Sweden, ownership is concentrated in the hands of founding families or government, again making corporate control transactions less likely.

Among the eleven countries examined, Australia, Canada, the United Kingdom, and the United States, which have diverse and liquid ownership, have the four highest ratios of domestic and international investments to GDP. The average levels of international and domestic equity investments as a percentage of GDP for this group of countries are 1 percent and 3 percent, respectively. In contrast, in France, West Germany, Italy, Japan, the Netherlands, Spain, and Sweden, where there are ownership impediments to takeovers, the average levels of international and domestic investments as a percentage of GDP are only 0.2 percent and 0.4 percent. This evidence suggests that the differences in corporate ownership structure across countries have an important influence on both domestic and foreign intercorporate investments.

In summary, variations in international equity investments are explained to some extent by the nature of the corporate control market. Differences in ownership structure, rather than general takeover regulations, appear to be the dominant factor influencing cross-country variation in domestic and international equity investments.

### 8.2.3 Effect of Discriminatory Restrictions against Foreign Acquisitions

As discussed earlier, a second force that influences international equity investments is regulatory barriers that favor domestic over foreign investments. Whereas differences in the nature of the corporate control market affect both foreign and domestic intercorporate investments, regulations on foreign investment affect only international activity. To explore whether there are regulatory barriers to international equity investments, we examine foreign equity investments laws for the eleven countries. A summary of these restrictions by country is presented in table 8.5.<sup>5</sup>

5. The primary sources of this information are manuals on mergers published by Westminster Management Consultants Limited (1990), and Economist Publications (1988). Our discussion is

**Table 8.5** Summary of Special Regulatory Restrictions on Foreign Intercorporate Equity Investments, by Country, 1985 to 1990

Country	Description
<b>Low Regulatory Barriers</b>	
Canada	The only significant restrictions on foreign investment involve acquisitions of companies in sensitive industries, notably defense, financial services, and oil and gas companies.
Italy	No significant restrictions exist except for investments in the aircraft and banking industries.
Netherlands	No significant legal restrictions on foreign investment exist.
Spain	No restrictions exist for noncontrolling investments. Controlling investments are subject to administrative review, which is generally a formality. Prior government approval is required for acquisitions in restricted industries, including defense, broadcasting, and air transportation.
United Kingdom	No significant restrictions exist except for investments in the media industry.
United States	No restrictions existed prior to 1988. After 1988, investments with national security implications are subject to administrative review.
West Germany	No significant legal restrictions to foreign investment exist.
<b>Regulatory Barriers</b>	
Australia	Administrative approval is required for foreign ownership exceeding 15 percent for a single investor and 40 percent for two or more foreign parties.
France	Government approval for non-EC members, and prior notification for EC members, is required for investments exceeding 20 percent voting control.
Japan	Government notification and approval is required for stakes exceeding 10 percent. Once approved, a transaction has to be completed within thirty days through a Japanese broker.
Sweden	Foreign investors can only buy nonrestricted, or "free," shares. Investments of up to 20 percent of voting shares can be made with government approval.

Canada, West Germany, Italy, the Netherlands, Spain, the United Kingdom, and the United States do not have any significant regulations that discriminate between domestic and foreign investments, except in those few industries deemed to have national security implications. The remaining countries have some form of discriminatory regulations. Australia requires administrative approval for foreign ownership exceeding 15 percent for a single investor and 40 percent for two or more parties. France distinguishes between investments by members of the European Community EC and other foreign investments and requires prior government approval for non-EC investments that exceed 20 per-

based on regulations in 1990. During 1991, new EC regulations were adopted by member countries, liberalizing acquisitions within the community.

cent of the voting control of a corporation. Japan requires government notification and approval for foreign acquirers of stakes exceeding 10 percent. Once approved, a transaction has to be completed within thirty days through a Japanese broker. Finally, Sweden permits foreign investors to freely purchase only nonvoting shares. Investments in voting shares can only be made with government approval.

As noted above, while international activity is influenced both by the nature of the corporate control market and by discriminatory foreign investment regulations, domestic activity is affected by the corporate control market alone. The ratio of international to domestic equity investments in each country thus provides a measure of the marginal effect of discriminatory regulations on international investments. In Canada, West Germany, Italy, the Netherlands, Spain, the United Kingdom, and the United States, countries with few discriminatory regulations, international investments average 81 percent of domestic investments. In contrast, the average ratio of international to domestic investments is only 28 percent for Australia, France, Japan, and Sweden, indicating that the discriminatory regulations in these countries succeed in discouraging foreign investment.

In summary, there is compelling evidence that cross-country variation in equity investments by target countries is driven by differences in corporate control markets and equity ownership that affect both domestic and international equity investments and by equity investment regulations that discriminate against foreign investors.

### **8.3 Acquirer Countries**

This section examines which countries have been the most active international acquirers in the period 1985 to 1990 and explores the role of domestic activity on countries' propensity to invest abroad.

We compute the aggregate dollar value of international investments made by each sample country in 1985 to 1990. The findings are reported in column (1) of table 8.6. Column (2) reports international equity investments by each country as a percentage of the total for all countries. The United Kingdom is the largest acquirer nation, representing 29 percent of all international acquisitions. France, the United States, and Japan account for approximately 14 percent each of all international acquisitions. Companies in Spain, Italy, Sweden, and the Netherlands undertake very few international acquisitions.

To examine whether there has been a change in international investment activity by acquirer market between 1985 and 1990, we estimate the value of international investments each year for the four major regions (Europe, North America, Japan, and Australia). Figure 8.2 shows the annual international investments by acquirer regions. Europe (primarily the United Kingdom) is consistently the largest acquirer region throughout the five years. There is a significant decline in the importance of North American and Australian acquirers

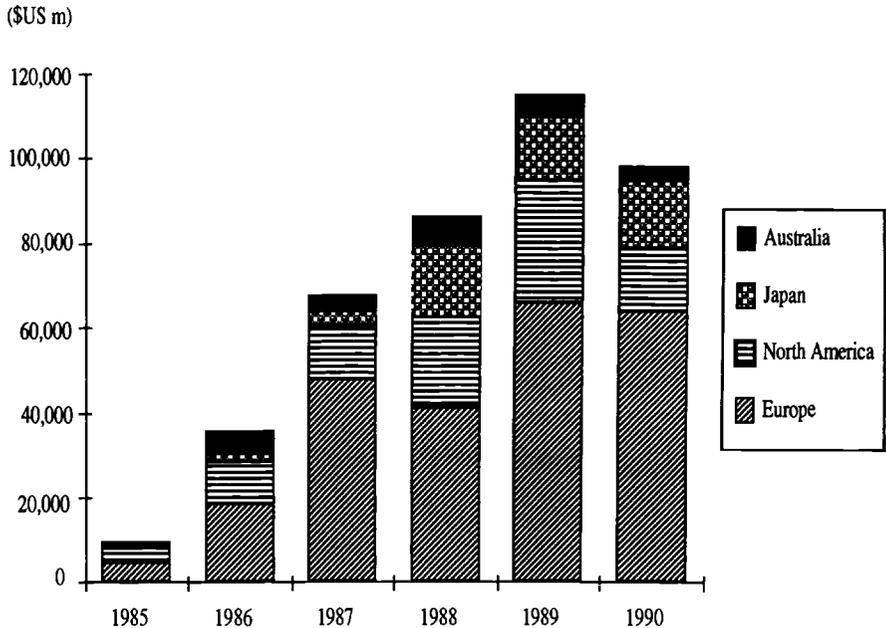
**Table 8.6 International Intercorporate Equity Investments, by Country of Acquirer Firm, 1985 to 1990**

Acquirer Country	International Intercorporate Equity Investments				International Equity
	Value (U.S. \$ millions)	Percentage of Total	Percentage of Gross Domestic Product	Percentage of Acquirer Country's Domestic Equity Investments	Investments in Country as Percentage of International Investments by Country
	(1)	(2)	(3)	(4)	(5)
Australia	\$ 27,700	6.7%	2.0%	75%	34%
Canada	34,801	8.4	1.2	63	94
France	57,884	14.0	0.9	193	29
Italy	8,599	2.1	0.2	39	91
Japan	51,462	12.4	0.3	163	4
Netherlands	14,350	3.5	1.0	264	62
Spain	1,288	0.3	0.1	23	571
Sweden	13,893	3.4	1.1	88	27
United Kingdom	120,674	29.1	2.5	77	57
United States	56,857	13.7	0.2	5	436
West Germany	26,647	6.4	0.4	328	34
Total	414,155	100.0			
Average			0.5	28	100

and a growth in Japanese and European acquirers. In 1985, Europe constituted 51 percent of the acquirers, North America had a 31 percent share, Japan 1 percent, and Australia 16 percent. By 1990, Europe's share increased to 65 percent, North America was only 15 percent of the acquisition market, Japan 16 percent, and Australia 4 percent.

Once again, we control for differences in economy sizes across countries by deflating international equity investments by each country during the period 1985 to 1990 by its total GDP expressed in U.S. dollars in the same period. These statistics appear in column (3) of table 8.6. Controlled for size, the United Kingdom, Australia, Canada, Sweden, and France are the most active international acquirers. Interestingly, the United States is one of the least active international acquirers once we control for the size of its economy.

Table 8.6 also reports two other summary statistics on equity investments abroad for the eleven countries. The first, shown in column (4), deflates international equity investments for acquirer countries by domestic investment. High values of this ratio for a particular country indicate that its firms are more active acquirers abroad than domestically. Controlling for domestic equity investments, France, West Germany, Japan, and the Netherlands are the most active equity investors abroad, and the United States, Spain, and Italy are the least active. As discussed earlier, corporate ownership structures in France,



**Fig. 8.2** International intercorporate equity investments, by acquirer market, 1985 to 1990

West Germany, Japan, and the Netherlands discourage intercorporate equity investments by domestic (and foreign) firms. Apparently, the lack of developed corporate control markets in these countries does not represent a significant barrier to intercorporate investment abroad. The experience that firms in countries with active domestic markets have in negotiating equity acquisitions and in integrating acquired companies does not appear to provide them with a comparative advantage over Dutch, French, West German, or Japanese companies (which have no such domestic experience) in investing abroad. Certainly, companies in France, Germany, Japan, and the Netherlands can obtain bidding expertise for equity investments abroad by hiring experienced investment bankers. There is also little evidence that United States acquirers, who operate in one of the most active domestic markets, have developed expertise in profitability integrating acquired companies.<sup>6</sup>

The second measure, reported in column (5) of table 8.6, deflates international equity investments into a country by its equity investments abroad. Values of this ratio that differ from 100 percent indicate a mismatch between

6. Jensen and Ruback (1983) surveyed studies of stock returns to acquiring firms at mergers. They concluded that, on average, acquiring firms only break even on mergers and acquisition investments.

equity investments into and out of the country. There is a relatively high inflow of equity investments into Spain and the United States. Companies in France, West Germany, Japan, and Sweden are active acquirers abroad relative to foreign investments in their domestic market. As noted earlier, Japan and Sweden both have restrictions on foreign equity investments by outsiders. In addition, France, West Germany, Japan, and Sweden all have ownership impediments to takeovers and intercorporate equity investments. Thus, the high equity investment outflows for these four countries arise because they have equity markets that are effectively off limits to foreign investors, but they impose few restrictions on international activity by their own investors. In contrast, the U.S. equity market is characterized by high liquidity and dispersed stockholders, making equity investments by outsiders relatively straightforward. However, it is less obvious why U.S. firms are so reluctant to invest abroad. Also, the high equity inflows into Spain and Italy cannot be explained by the market for corporate control or foreign investment regulations in these countries.

#### **8.4 Factors Explaining International Intercorporate Equity Investment Activity**

In this section we use a multivariate model to examine factors that influence intercorporate equity investments between countries. The dependent variable in our analysis is the annual level of international investment between pairs of countries, deflated by the GDP of the acquirer country to adjust for its size. We explain cross-country and time-series variation in this variable, using a number of independent variables drawn from our earlier discussion and prior literature.

Earlier discussion suggested that countries with closely held companies are expected to have low levels of foreign equity investments. We use two measures to test this hypothesis. The first is an indicator variable that takes the value of one for countries with dispersed ownership structure (Australia, Canada, United Kingdom, and United States), and zero for other countries (France, West Germany, Italy, Japan, Spain, and Sweden). The second variable is the level of domestic equity investment (deflated by target country GDP), which itself is influenced by corporate ownership structure within the target country. Of course, domestic equity investments are also affected by other factors, such as tax effects, antitrust regulations and enforcement, and tender offer regulations. Thus, domestic equity investments reflect a broader set of factors than the ownership dummy variable. Both the ownership dummy and domestic investment are expected to have a positive relationship with international investment levels.

To examine whether regulations that discriminate against foreign investors effectively reduce international equity investments into a country, we form a dummy variable that is one for target countries with severe discriminatory regulations against foreign acquisitions (Australia, France, Japan, and Sweden),

and zero for other countries. We expect this dummy variable to have a negative relationship with the level of foreign equity investments.

A third variable that we examine is the relative size of the target and acquirer countries. Purely as a result of scale difference, small target countries are likely to attract less acquirer investment than do large target nations. Consequently, this variable is expected to have a positive relationship with acquirer country international investments.

We also examine the effect of changes in real exchange rates on international equity investments. In an earlier study, Froot and Stein (1990) argue that, because of informational imperfections in global capital markets, external financing of intercorporate investments is more expensive than internal financing. Consequently, appreciation of a country's currency increases its companies' relative wealth, raising their internal financing capability and lowering their cost of acquiring foreign firms. We test this hypothesis by examining the relationship between annual levels of international investments between acquirer and target countries, and contemporaneous and lagged percentage changes in average real exchange rates for the target and acquirer countries. Annual real exchange rate changes are measured using the International Monetary Fund index of the value of the dollar relative to the target and acquirer countries' currencies and relative changes in consumer prices in the two countries. Froot and Stein's model suggests that foreign investment is positively related to changes in real exchange rates for acquirer countries relative to target nations.

Finally, we explore whether economic growth in the target and acquirer nations affects international investments. We estimate contemporaneous and lagged annual economic growth rates for acquirer and target countries, using annual percentage change in real GDP index, reported by the IMF.

There are several reasons why acquirer country growth rates are likely to be related to international acquisitions. First, countries with high economic growth may have developed a comparative advantage in managing certain assets. If this knowledge is transferable to other countries, companies in high-growth countries have incentives to make investments abroad.<sup>7</sup> Economic growth in the acquirer nation could also be relevant to international investment if companies face free cash flow problems. Jensen (1986) hypothesizes that moral hazard problems make managers reluctant to pay out free cash flows to stockholders. Instead, they prefer to invest in zero or even negatively valued projects, such as equity investments. Consequently, companies in countries with high economic growth, which are likely to have high levels of free cash flows, are more likely to make equity investments abroad (as well as domestically). Finally, if there are market imperfections that restrict firms' abilities to raise external capital for profitable new investments, companies in countries

7. See Graham and Krugman (1989) for a summary of the literature on industrial organization reasons for international investments.

with high economic growth, and high internal cash flows, will have access to cheaper funding for new investments, including those in other countries. Each of these hypotheses implies a positive relationship between acquirer country economic growth and changes in international equity investments. However, there are also factors that would cause the relationship to be negative. If high economic growth in a country provides significant new investment opportunities within the country for both domestic and foreign firms, domestic firms will tend to concentrate on home-country investments rather than investing abroad. Because these conflicting hypotheses are not mutually exclusive, it is difficult to make predictions on the sign of the acquirer growth coefficient.

Target country economic growth is included to test whether foreign equity investors are attracted to countries which have high growth prospects or whether they are more attracted to countries which have underperformed and where there may be opportunities to turn around poorly performing companies.

We test the above hypotheses using panel data to estimate the relationship of annual levels of international equity investments between a given acquirer and target country (deflated by acquirer country GDP) in the years 1985 to 1990 to the above independent variables. The findings are reported in table 8.7. Model 1 is estimated using the ownership dummy variable, whereas model 2 uses domestic equity investments in the target country instead of the ownership dummy.

The results are consistent across the two models. Model 1 has an adjusted  $R^2$  of 19 percent and statistically is highly significant. Four variables—the ownership dummy, the foreign regulation dummy, lagged acquirer growth, and the relative size of the target and acquirer nations—have statistically significant relations with international equity acquisitions.<sup>8</sup>

To understand the economic implications of the reported coefficients, we note that the average investment between a pair of countries in the sample is 0.09 percent of the acquirer country's GDP. The coefficient on the ownership variable implies that, at the margin, disperse equity ownership increases international equity investments by 0.16 percent of acquirer GDP. The dummy variable for discriminatory restrictions on foreign investment is  $-0.07$  percent, implying that countries with such restrictions are effective in dampening foreign investment. The coefficient on lagged target growth is positive, indicating that high-growth countries tend to attract foreign investment. A one percentage point increase in real GDP target growth increases international equity acquisitions by 0.02 percent of acquirer GDP. Finally, the relative size of the target and acquirer is important in determining the level of international investment between the two countries.

The coefficient on exchange rate changes is insignificant, suggesting that

8. Because the models have several contemporaneous and lagged independent variables, we examine whether our findings are influenced by multicollinearity. The results are unchanged when we reestimate the models, using contemporaneous and lagged variables in separate regressions.

**Table 8.7** Relationship of Annual Intercorporate Equity Investments between Acquirer and Target Countries, as a Percentage of Acquirer GDP in the period 1985 to 1990, to Target Domestic and Acquirer Country Characteristics

Independent Variable*	Coefficient	
	Model 1	Model 2
Target country GDP as a percentage of acquirer country GDP	2.24†	1.97†
Dummy variable for target countries with restrictions on foreign investments	-0.07†	-0.08†
Dummy variable for target countries with disperse equity ownership	0.16†	
Contemporaneous target country domestic equity investment as a percentage of target GDP		0.07†
Contemporaneous change in exchange rate between acquirer and target countries	-0.003	-0.03
Lagged change in exchange rate between acquirer and target countries	0.003	-0.06
Contemporaneous percentage change in real GDP growth for acquirer country	-0.80	-0.55
Lagged percentage change in real GDP growth for acquirer country	0.12	-0.74
Contemporaneous percentage change in real GDP growth for target country	-1.52	-0.88
Lagged percentage change in real GDP growth for target country	1.84‡	0.69
Intercept	0.01	0.02
Adjusted $R^2$	0.19†	0.24†
Number of observations	658	658

\*The dependent variable is the annual change in intercorporate equity investments between acquirer and target countries as a percentage of acquirer GDP in the period 1985 to 1990.

†Significantly different from zero at the 1 percent level, using a two-tailed test.

‡Significantly different from zero at the 6 percent level, using a two-tailed test.

there are not serious informational imperfections across countries for equity investments. These results differ somewhat from those in other studies (see Froot and Stein 1991; Caves 1989; Dewenter 1992). Differences in samples, variable definitions, and the scope of the countries studied make it difficult to directly compare our results with these studies. However, to assess the robustness of our results, we repeat our analysis by (1) allowing the exchange rate coefficient to vary by country, (2) introducing exchange rate changes with one more lag, (3) changing the dependent variable to changes in international investment rather than levels, and (4) changing the independent variable to an index representing the level of exchange rates between the acquirer and target countries. The exchange rate coefficient remains insignificant in these specifications.

Finally, there is no significant relationship between changes in international activity and contemporaneous and lagged acquirer country growth. There are two interpretations for this finding. One interpretation is that acquirer growth rates do not play an important role in determining international equity investment flows. Alternatively, as discussed above, the insignificant coefficients are a result of conflicting effects of acquirer growth on international investment.

Model 2, which replaces the ownership dummy with domestic equity investments in target nations, generally reinforces the above findings. The coefficient on domestic investments is positive and highly significant. This is consistent with the hypothesis that the nature of the corporate control market has an important effect on international equity investments. This coefficient probably also captures other factors, such as growth opportunities, that make target countries attractive to acquirers. There is some evidence of this. The adjusted  $R^2$  increases from 19 percent in model 1 to 24 percent in model 2, and the effect of lagged target growth, which no longer has a significant coefficient, appears to be subsumed by the domestic investment variable.

## 8.5 Conclusions

This paper examines international intercorporate equity investments among eleven of the leading industrial nations during the period 1985 to 1990. We find that these investments grew tenfold in the sample period and currently account for about 30 percent of all equity investments. In dollar terms, the United States is by far the largest target country for international equity investments and accounts for 60 percent of all international investments between 1985 and 1990. However, when we control for differences in country size, the United States ranks only third among target countries (behind the United Kingdom and Canada).

The United Kingdom is the most active acquirer nation, both in dollar terms and adjusting for country size, and accounts for 29 percent of all international acquisitions. U.S., French, and Japanese companies are also large acquirers in dollar terms, and each accounts for about 14 percent of worldwide equity investments. However, when we control for country size, the United States ranks tenth out of eleven countries in investments abroad.

International activity in target countries is in part explained by (1) regulations that seek to deter foreign investment, (2) differences across countries in ownership structure and corporate control markets, and (3) target countries' recent growth. Neither changes in real exchange rates between target and acquirer countries nor growth rates of acquirer countries is an important factor explaining international investments patterns.

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## Comment Michael Adler

Paul Healy and Krishna Palepu's paper makes a contribution by drawing attention to and confirming a point we have long suspected and possibly even known to be true: that regulatory or structural restrictions on takeovers and foreign ownership can significantly reduce foreign direct investment (FDI) into those countries that have them. The authors make this point, among others, in connection with data from a sample of developed, primarily (with the exception of Australia) Northern Hemisphere, nations.

Most northern policymakers, however, no longer view FDI as a policy problem, aside from national security concerns in specific industries and the challenge of leveling competitive conditions between Japan and the rest. Healy and Palepu's (H&P's) demonstration, in tables 8.2 and 8.3, that foreign and domestic intercorporate equity purchases are a much larger fraction of GDP in the English-speaking countries than in the more restrictive EC is therefore unlikely to raise either eyebrows or hackles in the North. Nor is their table 8.6 result that France, Germany, the Netherlands, and Japan have invested abroad proportionally much more than they have absorbed. North-North political-economic

relations are unlikely to be greatly affected by the revelation of these imbalances.

H&P's point matters much more in the context of the ongoing difficulties over resource transfers between North and South and between West and East. Debtor countries in Latin America, Eastern Europe, Asia, and even Africa currently are being encouraged by their creditors to reconstruct their economies to attract voluntary FDI as a substitute for aid. One implication of H&P's work is that removing barriers to intercorporate takeovers in the debtor nations can assist this process. A second, indirect, and more problematic implication follows from observing that Germany and Japan, the most successful postwar economies, are among those with the highest barriers to takeovers. One may wonder about cause and effect. Are the debtors being well advised?

Appropriately enough, H&P have nothing to say regarding these wider issues. Their technical concern is with the pattern of facts that can be obtained from exploiting Securities Data Company's new database on international acquisitions between January 1985 and December 1990. The model they estimate in table 8.7 is not a test of any theory of FDI. It seems instead to be a preliminary attempt to see whether barriers to FDI, modeled by dummy variables for ownership structure and the presence of discriminatory regulations, properly belong in the specification of such a theory. Their methodology is not described in detail. It seems to consist of a pooled time-series, cross-section regression analysis that stops short of being an event study.

Their results confirm, as noted above, that the FDI barrier variables have the right signs and are significant at the 1 percent level. Large target markets attract more FDI than do smaller markets. And, echoing Caves's (1989) investigation of FDI in the United States, FDI is positively related to GDP growth in the acquiring country but not to growth in the target. Perhaps what is missing here is a stock market or comparable relative wealth variable. Caves has the intuitively appealing result that FDI into the United States between 1979 and 1986 had a strong negative correlation with U.S. stock prices. This effect, one surmises, should be quite general: purchases of foreign firms should go down as their prices rise.

The chief surprise in the H&P paper is that the contemporaneous and lagged exchange rate variables turned out not to be significant. However, this may be less of a surprise than one might think. Keep in mind that the empirical evidence of a strong association between FDI and exchange rates pertains almost exclusively to FDI into the United States. This is true of Caves (1990), who was first to report a significant negative correlation between the strength of the dollar and inward FDI. It is equally true of Froot and Stein (1991), who offered an attractive, imperfect-markets explanation of why this result is to be expected, as well as of Harris and Ravenscraft (1991), Swenson (chap. 9 in this book), and Dewenter (1992). However, Froot and Stein could not find any association between outward U.S. FDI and the exchange rate. Neither could Dewenter, who found also that Japan and the United Kingdom were the only

countries whose FDI into the United States was negatively correlated with dollar strength. FDI outflows to the United States from Germany and the Netherlands were uncorrelated with the dollar exchange rate. They were, however, correlated with stock market measures of relative wealth.

The evidence, even in the case of the United States as target, seems somewhat mixed. The relationship between FDI and exchange rates (proxying imperfectly for shifts of relative wealth) may differ across acquiring countries and possibly also between time periods. The H&P sample, however, also includes FDI flows between non-U.S. country pairs. Whereas the dollar lost 50 percent of its value against other major currencies between 1985 and 1990, the cross-rates were much less volatile. The wave of intra-European mergers and acquisitions that began to form in the mid 1980s must therefore have been prompted less by exchange rate changes within the European Monetary System (or by U.S.-type buyout fever) than by other factors such as the EC's movement to a unified market and the resulting potential for scale economies. The inclusion of intra-European transactions could be expected to reduce the average sensitivity of FDI to exchange rates. In addition, effective structural and regulatory barriers to FDI into Europe from the English-speaking countries and Japan, or from all countries into Japan, would tend to have the same effect: effective barriers should reduce the average sample correlation between FDI and relative wealth changes. All told, the absence of significant exchange rate coefficients in H&P's results is no more than one would expect.

In summary, Healy and Palepu provide a necessary addition to the FDI literature. They contribute by showing that imperfections other than informational asymmetries in financial markets that produce wealth effects, also affect FDI takeovers. We are still far from a complete model of FDI. The work can usefully continue.

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## Discussion Summary

*Kathryn Dewenter* pointed out that she found foreign acquisitions in the United States were, on average, larger transactions than were U.S. domestic acquisitions. Would the results on the relative importance of foreign acquisitions be affected by taking size into account? *Dewenter* suggested that it would be easy enough to determine the answer, as it is possible to get data on the number of transactions.

*Bob Lipsey* suggested that *Healy* and *Palepu* attempt to compare their data on cross-border equity purchases with U.S. data on foreign acquisitions in the United States. This comparison might help determine how comprehensive SDC data are. In addition, *Lipsey* questioned the meaning of several of the explanatory variables in the *Healy-Palepu* regressions. For example, why should the GDP of the headquarters country of the acquirer be important? Why is the exchange rate of the headquarters country important? Presumably, if these firms earn profits in several other countries, then the GDPs and exchange rates of these other countries should be important, not those of the headquarters country.

*David Belli* noted that he had already examined the SDC data. He had found that it was good at picking up some of the transactions missing from the U.S. International Trade Commission data on foreign investment in the United States. However, the SDC data also omitted a number of important transactions.

*Michael Dooley* wondered whether the increase in FDI in the United States was somehow related to the leveraging process that a large portion of the corporate sector experienced in the late 1980s. If foreigners were randomly involved in these takeovers, that would lead to an increase in FDI.

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