Chapter 42

CROSS-BORDER MERGERS AND ACQUISITIONS

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Abstract

Cross-border mergers and acquisitions have shown tremendous growth over time primarily due to a desire to circumvent tariffs and nontariff barriers arising from arms-length international trade and taxes; to obtain new options for financing; to access technology; and to distribute research and development costs over a broader base. Several factors put in place to moderate this growth include protecting key industries, limiting controlling interest levels, and restricting remittances of profits and dividends. This paper focuses on cross-border mergers and acquisitions, and their financial and economic (both macro and micro) underpinnings, which affect their direction and magnitude. In general terms, empirical analysis supports the fact that both a host country's and the foreign country's stock and bond prices are major causal factors that influence cross-border mergers and acquisitions.

Keyword: acquisition; barriers; cross-border; diversification; international; mergers; multinational; synergy; takeovers; tariffs; undervaluation

One of the remarkable developments that accompanied the vigorous growth in international trade in the post-World War II era has been an unabated increase in international direct investment. This phenomenon, including its theoretical underpinnings, benefits and costs, has been the subject of voluminous research. In addition, many studies have examined the attendant questions of the host country attitudes toward international direct investment. Extant research suggests that some of the main benefits of international direct investment can be found in the avoidance of tariffs and nontariff barriers to arms-length international trade, in tax incentives usually associated with efforts to attract foreign investment to a particular country or region within a country, in the ability to tap different markets for short-term and long-term capital, and in the possibility of obtaining quicker and cheaper access to superior technology, as well as the ability to spread out the output of a multinational corporation's own research and development efforts over a broader market base. On the other hand, risks and constraints affecting international direct investment include closed sectors or industries, limitations on the acquisition of a controlling interest in a foreign company, limitations on remittances of profits and dividends, limitations on cross-border mergers and acquisitions and, in some extreme cases, the possibility of expropriation.

The countries affiliated with the Organization for Economic Cooperation and Development (which includes all the major advanced market economies) lead this impressive growth in international direct investment. The outward direct investment flows are in general larger than the inward flows.

The reason is that OECD countries invest in non-OECD countries, generally less developed ones. The inward flows of foreign direct investment (FDI) in OECD countries come almost exclusively from other OECD countries, that is to say, other major industrial countries. For example, during the 1980s, the United States was the major recipient of flows of international direct investment, followed by Europe and Canada in more modest terms. Japan was the main source of flows of international direct investment. This helps to explain why the United States gave up its position as the world's largest creditor nation to become the world's largest debtor in less than a decade. In the same period of time, Japan became one of the largest creditors. The direct investment flows, however, explain only one part of these transformations. The rest of the explanation is found in portfolio investments and their reallocations.

The acquisition of a foreign firm is one of the fastest methods of entering into a foreign market. In the late 1980s and the 1990s, this method seemed especially attractive to businesses wanting to become involved in the evolving European market. As a result, there was a surge of foreign takeovers in the European Union during this period. This demonstrated that businesses had confidence in the E.U., forming a single internal market in the long run. In fact, many of these acquisitions took place before national barriers came down. The rationale for this may be attributed in part to a growing concern that a unified Europe could translate into a more protectionist "Fortress Europe." Many foreign companies believed that the only way to participate in a unified Europe was to quickly become an insider. Acquisitions subsided after the initial surge that took place in the late 1980s, due to the creation of natural barriers to entry for outsiders. Many mergers and acquisitions were taking place within the E.U., creating larger, more efficient European businesses and effectively producing fewer opportunities for foreign companies. By the early 1990s, however, acquisitions of European firms were on the rise again due to two primary factors: (1) a need to complete the restructuring that had begun in the 1980s and that could not be done by European firms alone; and (2) regulatory changes that enabled hostile takeovers to occur more easily. But this rise in U.S. acquisitions of E.U. companies was followed by a rise in E.U. acquisitions of U.S. firms, a cycle that seem to exist within many areas of the world economy.

International direct investment, therefore, takes place in basically two forms: *de novo* entry or mergers and acquisitions. This review focuses on cross-border mergers and acquisitions, their financial and economic underpinnings, and the factors, which affect their direction and magnitude. FDI is an integral part of the developed capital markets. The significant rise in the number of cross-border mergers and acquisitions across time warrants a better understanding of the factors affecting these activities. For example, the publicity in the 1980s surrounding foreign acquisition activity in the United States created public concern over American firms being acquired by foreign entities, leading to a significant number of studies examining the wealth effects of foreign acquisitions and capital markets factors that affect acquisition activity. Since the early 1980s, the direction of the flow of cross-border acquisitions has shifted many times. During one time period, U.S. companies were acquiring foreign firms at a higher rate than they were being acquired, but by the end of the 1990s, foreign companies reversed this direction to become the predominant acquirer again. The cycle continues to this day, although of different durations. Studies done on acquisition activity between the U.S. and Britain (Vasconcellos et al., 1990), between the U.S. and Japan (Kish and Vasconcellos, 1993), between Canada and the U.S. (Vasconcellos and Kish, 1996), and between the U.S. and Europe (Vasconcellos and Kish, 1998) explore macroeconomic variables that contributed to this phenomenon.

42.1. Macroeconomic Factors

42.1.1. Favorable Acquisition Factors

Although there are a number of factors favoring acquisition activity, we focus on four of these factors: (1) exchange rates; (2) diversification; (3) economic conditions in the host country; and (4) technology and human resources within the acquiring firm.

42.1.1.1. Exchange Rates

One view on exchange rates revolves around the fact that while there seems to exist a relationship between exchange rates and acquisition activity, there is no evidence that a change in the exchange rate improves the position of foreign acquirers relative to their host counterparts. The argument is that when the host country's currency depreciates, the host country becomes a cheaper place for any firm to do business – foreign or domestic. Thus, the relationship between foreign acquisitions and exchange rates, contending that improved capital mobility facilitates equalized, risk-adjusted returns on international investments, is minimized. Another line of argument is that a depreciated host country's currency increases FDI in the host country's businesses. The reverse also holds true, i.e. if the host currency is strong, there should be a pause in the foreign acquisition of host firms and an upward trend in the home country's acquisitions of foreign firms.

42.1.1.2. Diversification

Given a firm's preferred risk-return position, international diversification by way of acquisition improves the risk-return tradeoff. This reasoning is based on the assumption that the covariance of returns across economies, even within the same industries, is likely to be smaller than within a single economy. The prospective acquiring company must first decide on its desired levels of risk and return. Only then should it attempt to identify countries, industries, and specific firms, which fall within its risk class. In addition, by acquiring an ongoing foreign concern, companies may be able to circumvent tariff and nontariff barriers (i.e. quotas, voluntary restraint agreements, etc.), which attempt to protect the domestic industries and contribute to market segmentation. This action improves the risk-return tradeoff by lowering the level of unsystematic risk.

42.1.1.3. Current Economic Conditions in the Home Country

Adverse economic conditions in the home country, such as a slump, recession, or capital constraint may cause firms to concentrate on their domestic business while temporarily delaying strategic international moves. Once the economy rebounds, cross-border acquisitions are likely to again become a means for increasing demand and levels of diversification.

42.1.1.4. Acquisition of Technological and Human Resources

There are cases where a firm falls behind in the level of technological knowledge necessary to compete efficiently in its industry. If a firm is unable or unwilling to develop the required technology through research and development, it may attempt to acquire a foreign firm, which is technologically more advanced. Such an acquisition allows a firm to gain a foothold in a foreign country's market, and it may transfer the acquired technology back home, in order to strengthen its position in the domestic market. Some of the firms engaging in cross-border acquisitions are either transnational firms or striving to become one. Transnational firms are able to behave like a local company in foreign markets, tapping into human and technological resources, while possessing the leverage of a larger, diversified entity. Indeed, this strategy provides significant diversification and allows the company to realize competencies in many markets.

42.1.2. Unfavorable Acquisition Factors

The factors discussed thus far generally tend to encourage firms to make cross-border acquisitions. In contrast, other variables that often serve to restrain cross-border movement include unavailability of information, inefficient management, monopolistic power, and government restrictions and regulations.

42.1.2.1. Unavailability of Information

The contention is that information about a prospective target firm is crucial in the decision-making process of an acquiring firm. Timely and accurate information include: current market share figures; comparisons with the competition; current sales; cash flow forecasts; and company specific strengths and weaknesses. However, foreign firms may not disclose these or other relevant figures. Thus, if the necessary information to make an accurate analysis is not available, the prospective acquiring firm may be forced to delay or discontinue its plans, even though the foreign firm appears to be an attractive target on the surface. Otherwise, failure to come up with an accurate analysis may prove harmful, or possibly devastating, to the acquiring firm. However, information effects are not always harmful, such as when the acquirer may be able to obtain information not available to other market participants.

42.1.2.2. Inefficient Management

The inefficiency argument centers on the acquiring firm being able to replace incompetent or inefficient management within the acquired firm in order to better utilize the firm's assets. The hope is that the new management will be able to increase the efficiency of the acquired firm and generate a higher return. A drawback of this action is the cost of replacing inefficient management. The negative aspects of the inefficiencies argument apply to the resistance that may materialize from the foreign managers who are left in place after the shake-up, emerging in the form of negative attitudes directed at the "outsiders" taking over the firm.

42.1.2.3. Monopolistic Power

Synergy arguments in defense of domestic or cross-border acquisitions are based on the economies of scale supposedly derived from horizontal mergers, economies of scope associated with vertical mergers, or the gains from acquiring monopolistic power. However, if monopolistic or even oligopolistic power is attained by a firm or a group of firms (a difficult position in most developed countries due to the threat of antitrust action), then entry to the industry becomes more difficult for any competitor, domestic or foreign. In addition, a monopolist is much more likely to resist a takeover. Some of the barriers to entry that make cross-border acquisitions difficult include: R&D outlays; capital expenditures necessary to establish a plant; and product differentiation, sometimes tied to large advertising expenditures.

42.1.2.4. Government Restrictions and Regulations

Most governments have some form of takeover regulations in place. In many instances, government approval is mandatory before acquisition by a foreign business can occur. In addition, government restrictions may exist on capital repatriations, dividend payouts, intra-company interest payments, and other remittances. Although these restrictions seem to be more prevalent in less developed countries, even in the developed markets, regulatory actions have been used to discourage acquisition activity. For example, the William's Amendment within the U.S. market increased the difficulty and costs of completing tender offers. The Tax Reform Act of 1986 has also been cited as a factor in the increased acquisition transactions between U.S. sellers and foreign buyers. However, foreign buyers from countries with tax treaties with the host country are not subject to home taxes in repatriated earnings and, therefore, should be on equal footing with their host counterparts. Research in this area shows that most of the tax effects are industry-specific.

42.2. Microeconomic Factors

New relationships between the economic agents of different countries have come into existence with the ever-increasing globalization of markets. For example, the volume of cross-border mergers and acquisitions (M&'s) involving U.S. companies has increased in both the number of transactions and the dollar value for both net bidders and net targets. The exact motivations for cross-border M& activity are many, including macroeconomic factors, firm-specific financial characteristics, corporate strategic moves, political motives, the possibility of a *good buy,* and/or the synergistic potential from the merged firms.

International merger and acquisition waves capture the attention of not only the business press but also of academia and policymakers. The effects of this merger-mania are felt by many (i.e. managers, stockholders, intermediaries, and consumers), and the dollar amounts are considerably high. To gain a better understanding of the characteristics of firms involved in the international market for corporate control, we now focus our attention on the firm-specific financial variables of both foreign companies and the host country's companies and the role that these variables have on the probability of the acquisition.

The composition of cross-border merger and acquisitions has changed over time. Contrary to the pattern in the 1970s, we have seen an increase in the relative proportion of U.S. targets and foreign acquirers in the 1980s and 1990s, with a slowdown in the first decade of the twentieth century. Among the most important factors in the past have attracted foreign firms to the U.S. market for corporate control are: (a) growth potential and accessibility to the U.S. market; (b) availability of high technology and highly skilled labor force; (c) relative easy access to financial markets; (d) undervaluation of some companies' stock; (e) relatively limited government intervention, and (f) currency fluctuations.

42.2.1. Undervaluation

The growing web of interdependencies in the global economy has developed new relationships between economic agents of different countries. Some existing international mergers and acquisitions research focuses primarily on wealth transfers. For instance, Doukas and Travlos (1988), besides offering an excellent review of this literature, contrasts the returns to shareholders from U.S. and non-U.S.-based firms expanding into foreign markets. Conn and Connell (1990) also include an extensive literature review of mergers and acquisitions within their empirical study of wealth transfers between the U.S. and British firms, as they expand into each other's markets.

Undervaluation revolves from the existence of product and service market imperfections that cause frictions in the global market (such as transaction costs and costs associated with barriers to entry), contributing to favor the acquisition of a company already operating. This is because the amount paid for an existing company, as compared to the replacement cost of its assets, more than compensates for the costs that could have been incurred had the foreign firm started with brand new facilities. Thus, in order to minimize the acquisition costs, foreign firms attempt to follow the same pattern of analysis as their domestic counterparts and search for undervalued and/or mismanaged companies as targets for their acquisitions. This is the basic premise of the empirical study undertaken by Gonzalez et al. (1998a,b), among others.

From the target firm's viewpoint, undervaluation is described as the likelihood of a host country's firm becoming a target increasing when the firm is perceived as being undervalued. Assuming that the takeover decision is motivated by the same stimuli that encourage firms to grow internally, a number of research studies utilize Tobin's "q" ratio as a predictor of takeover targets. High abnormal returns, experienced by acquirers before the merger, are consistent with a high "q" ratio, signaling to the companies that it is time to expand. Nevertheless, the conclusion is that the effect of the "q" ratio is not always significant and that these effects vary over time and across countries.

Furthermore, under the assumption that the financial market rewards well-managed firms, it is commonly interpreted that a "q" greater than 1 is a proxy for good management. Conversely, a ratio less than one is viewed as evidence of poor management. Thus, well-managed bidders benefit substantially from tender offers, but more so when they take over poorly managed targets. Well-managed targets benefit less from tender offers than poorly managed targets. The total takeover gain is highest for tender offers by well-managed bidders, which acquire poorly managed targets. This target undervaluation implies that there is an inverse relationship between the probability of a host country's company being acquired and the Tobin's q. The empirical research provides support for this view.

From the bidding firm's viewpoint, undervaluation is shown as the likelihood of a foreign firm bidding for a host country's company increasing when the firm is perceived as being overvalued. Therefore, the relationship between the ratio of market value to replacement cost of assets of foreign firms to the likelihood of these companies acquiring a host country's companies is supported (i.e. there is a positive relationship between the likelihood of a foreign firm bidding for a host country's company and the ratio of market value to replacement cost of the foreign firm). Research results show the existence of direct relation between the possibility of a foreign firm bidding for a host country's firm and the Tobin's q of the overseas firm.

In sum, this research empirically validates undervaluation as a predictor of M& activity within the international setting. The results support the existence of an inverse relationship between the probability of a host country's firm becoming a target of a foreign company and the Tobin's q ratio (i.e. undervalued host country's companies are more likely to be targets of foreign companies). This is consistent with the domestic market for corporate control.

If we relate these findings to Lang et al.'s (1989) conclusions from the domestic marketplace, then we observe positive abnormal returns for foreign companies upon the announcement of the foreign firms taking over a poorly managed host country's firms. A firm's overvaluation is proxied by a Tobin's q greater than 1. Lang et al. (1989) found positive abnormal returns when a firm with a Tobin's q greater than 1 (well-managed firm) acquired an undervalued company. Furthermore, foreign acquirers and host country's targets typically belong to the same industrial sectors. This can be interpreted as foreign companies reducing acquisition costs by acquiring undervalued firms as foreign firms trying to use their business knowhow to enhance the efficiency of the host country's targets.

Management inefficiency implies that the more inefficient is a firm's management, the greater is the probability of the firm becoming a target. Examples of variables used (in addition to the Tobin's q) to gauge management efficiency are the return on equity and sales growth. When the management is inefficient, both variables tend to show a negative relationship with the probability of an acquisition. Management inefficiency complements undervaluation reasoning. This interpretation is based on the premise that management fails to use the resources of the company up to their full potential. Thus, management inefficiency implies the existence of an inverse relationship between the ratio return on equity and growth and also the probability of the host country's company becoming a target of foreign firm. Therefore, the low return on equity and growth are manifestations of low quality management and are supported in the literature, implying that the probability that a host country's company will be taken over by a foreign firm is higher in case of greater inefficiency of the management of the domestic company.

42.2.2. Synergy Hypothesis

Much of the finance and accounting literature analyzing merger and acquisition activity is focused on the existence of synergy as a source of takeover gains within the domestic marketplace. Examples of the synergy identified that can transcend international borders include economies of scale, improved production techniques, increased market share, and more profitable use of existing assets.

This suggests the existence of a direct relationship between the perceived degree of *ex-ante* synergy and the number of host country's firms acquired by foreign companies. The possibility of obtaining economies of scale, improving production techniques, increasing market share, and otherwise squeezing more profits out of existing assets are major assumptions made by the proponents of the effects from synergy. Before a merger, firms are assumed to be operating at levels of asset utilization that fall short of achieving their true potentials. Thus, the management of the bidding company could improve the performance of both the target and the expanded firm, whether on the domestic or international level.

In an extensive literature review of the sources of gains in mergers and acquisitions, Jensen and Ruback (1983) document support for the gains to the target firms' shareholders. The basic assumption within their review is that shareholders play a passive role in any takeover activity, relying on the existence of good management who, through sound investment decisions, will be able to maximize the shareholders' wealth. The consensus within their review of studies shows that the stock price of the target firm goes up at the time surrounding the announcement date. Moreover, the majority of the empirical studies of the takeover gains rely upon event study methodology to conclude that synergy is one of the main motives behind merger and acquisition activity. But event studies are primarily a measure of the reaction of a particular economic variable (e.g. stock prices) to the event of interest (e.g. the merger or acquisition announcement) measured *ex-post*. In addition, this methodology often impairs the distinction among alternative sources of gains. In other words, this methodology is not able to identify which components of the present value of net cash flows have changed.

The fact that these studies look at the efficiency gains from mergers and acquisitions (i.e. via synergy) *ex-post* might be impairing their ability to disentangle the true gains from synergy from the existence of market imperfections. Another limitation is that the event study methodology fails to account for the long-term effects of the takeover. Therefore, it is very difficult to distinguish the real sources of gains. An alternative *ex-ante* methodology is that synergy in mergers is measured by adding the acquisition premium to the difference between replacement costs and market value of the target firm (i.e. Tobin's q).

Relying on the relationship between the merger premium and the extent that replacement costs exceeds market value, a proxy successfully used the finance literature tests the effect of synergy. To measure the existence of *ex-ante* synergy, literature relies on the relationship between market value and replacement cost of the target assets. This difference is then related to the premium paid in the takeover transaction. Thus, synergy shows up as a direct relationship between the perceived degree of *ex-ante* synergy and the number of host country's targets of foreign acquisitions. Assuming that the market for corporate control is competitive, a change in value of the firm is equal to the difference between the replacement cost of the assets of the target firm and the market value of those assets, plus the premium paid in the acquisition or merger.

Although synergy is a factor in many but not all merger activities, it is only one of the many hypotheses used to explain all merger activity. Other related merger hypotheses include management inefficiency, goodwill, and barriers to entry. For example, foreign companies often acquire a host country's companies to get around market frictions that might increase the cost of doing business in the host country. Empirical studies document the relationship between merger and acquisition activity and the presence of frictions in the market as proxied by the existence of goodwill and barriers to entry in a particular industry. Typically, the degree of goodwill and barriers to entry show a direct relationship with the probability of acquisition. One factor used to proxy goodwill is advertising expenses. The documented trend is that the higher the proportion of advertising expenses to net sales, the larger the number of customers that have some knowledge about the product or service of the firm. Alternatively, the proportion of research and development expenses to net sales is used as a proxy for barriers to entry. The higher the proportion of research and development expenses to net sales in a particular industry, the more difficult it is to enter in the industry. Thus, there is a direct relationship between the ratio of research and development expenses to net sales of a host country's firms and the probability of these firms being a target of an overseas company. But the results are not conclusive as to what is the impact of barriers to entry and goodwill in the probability of a host country's company becoming a target. Thus, it appears that the foreign firms acquired undervalued host country's companies based on what these overseas acquirers think they can put in play to improve the operations of the host firms and not necessarily on what the host companies offer to these foreign companies in terms of reducing barriers to entry or the existence of an already established customer base.

42.2.3. Maximizing the value of the firm

Under the assumption that the goal of corporate managers is the maximization of shareholders' wealth, the process of cross-border mergers and acquisitions flows from the neoclassical theoretical framework of maximization of the value of the firm. If the acquisition of a host country's company is a project with a net present value larger than zero, then there is an increase in the shareholders' wealth of the acquiring company. For instance, the empirical analysis by Vasconcellos et al. (1990), using a capital budget framework, measures the feasibility of a proposed foreign acquisition. Although their research was carried out on the influence of financial variables (used in the capital budgeting process) on the difference between American acquisitions of British firms and British acquisitions of American firms, some of these findings can be generalized for all cross-border M&A activity. For example, the exchange rate has a significant positive impact on the acquisition differential. In other words, foreign firms may acquire a host country's firms because of the relatively lower foreign currency value of the host country's currency (the host country's currency was "cheap"). The Kish and Vasconcellos (1993) study of cross-border acquisitions between the United States and Japan conclude that the stock prices and the costs of debt financing are the major contemporaneous causal factors; whereas exchange rates only had significance as a predictor of trends in acquisitions. Thus, generalities to fit all situations do not appear to exist. Most of the companies involved in cross-border M&As establish a sort of acquisition screening. This screening process involves country-specific and firm-specific screening variables (i.e. per capita GDP, market share of the target, etc.). The general conclusion is that the internationalization of the firm is a value-enhancing phenomenon.

The net present value (NPV) analysis assumes that the managers of the foreign firms bidding for the host country's companies decide to make the acquisition only when the decision has a positive impact on the shareholders' wealth of the foreign company. The net present value criteria assume a positive relationship between the factors affecting the NPV criterion and the likelihood of a foreign firm acquiring a host country's company. Another frequently argued view is that a relatively large and stable ("mature") host country's companies are more likely to go overseas than the average host's firms. Thus, the mature firm argument states that a host country's bidders in the cross-border merger and acquisition market are more likely to be mature firms.

Cross border M&A research start from the assumption that in the international market for corporate control, firms decide about an acquisition project using essentially the same decision-making framework that the firms would use for internal projects. Research supports the net present value approach and the assumption that the management of the foreign firm will undertake projects that have a positive impact on the wealth of its shareholders. The empirical research shows the existence of a positive relationship between the factors affecting the NPV criterion and the likelihood of a foreign firm acquiring a host country's firms.

Foreign firms also seem to be more likely to acquire a host country's companies with high debt capacity. A substantial debt capacity can be utilized to reduce the cost of the acquisition through debt financing at relatively low cost, whereas a high debt to equity ratio could increase the cost of new debt financing. Foreign firms are more likely to acquire a host country's companies with relatively high liquidity, as evidenced by the importance of the current ratio in the literature. In addition, host country's companies with relatively low price of stock to earnings are more probable to be acquired, serving as evidence that the managers of foreign companies acquiring host country's companies make their merger and/or acquisition decisions pursuing the maximization of the foreign companies shareholders' wealth.

In addition to examining the financial characteristics of the host country's targets from cross-border M&, the same analysis for the host country's bidders in the global takeover market hes been summarized. The reasons for a host country's FDI have been widely discussed in the literature. The motivations leading to host country's FDI include product market imperfections, institutional imperfections (i.e. differentials in tax laws), and limitations of the domestic market.

Jensen (1988) argues that firms with free cash flows will be likely bidders in the takeover market. Thus, mature firms in a host country are more likely to be bidders in the cross-border M& market. Normally, a company follows a life cycle that is closely connected to product line development. A mature firm has a relatively stable financial profile and may face two options: to become "better" or to get "bigger" In order to become "bigger," these companies may attempt to go overseas.

The following financial variables proxy for identifying mature companies relative to the industry: net sales growth, size of total assets, price-earnings ratio, and free cash flow. There is an inverse relationship between both the growth and the price–earnings ratio of a host country's firm and the probability of this firm becoming a bidder in the global market for corporate control. Furthermore, there is direct association between both the size and free cash flow of a host country's company relative to the industry and the likelihood of this company becoming a bidder for a foreign firm. In addition, foreign firms with a "Tobin's q" greater than 1 are more likely to acquire a host country's companies. This is consistent with Jensen's (1988) conclusions. Relatively high "Tobin's q" firms may have enough resources to invest in the acquisition of other firms. The exchange rate does not have a strong impact on the probability of acquisition of a host country's company. For example, a very strong dollar during the first half of the 1980s and a weak dollar the second half failed to impact the number of U.S. companies acquired or acquiring in that they were on average the same. There are alternative (and not mutually exclusive) explanations for the difference on the importance attributed to the exchange rate. First, most of the studies found in the literature examining the difference between the number of host country's acquisitions of foreign companies versus the number of foreign acquisitions of host country's firms report inconsistent results. Second, the exchange rate could affect the timing of the acquisition but not the acquisition decision itself. The other possibility is that there are different time periods being studied. Also found was that the foreign firms have a relatively high return on equity when compared to the industry average. Since return on equity is used as a proxy for management efficiency, the conclusion is that foreign companies with above average efficiency in their countries have a higher likelihood of acquiring a host country's firms.

The combined results on "Tobin's q" for the host country's targets and foreign bidders mirror the domestic case of mergers and acquisitions. That is, high "Tobin's q" foreign bidders had positive abnormal returns when they acquired targets with "Tobin's q" < 1. Research supports the shareholders' wealth maximization theory as applied to the investment decision of whether or not to acquire a host country's companies. Finally, the host country's companies going overseas are "mature" companies with large amounts of assets, considerable free cash flows, and low growth. The fact that the host country's companies acquiring foreign companies have an average low price to earnings ratio may be interpreted as a move of the management of these host country's companies to attempt to maximize its shareholders' wealth by signaling to the market that the increase in globalization of the company's operations is a risk reduction event due to diversification.

42.3. An Analytical View of Cross-Border Mergers and Acquisitions

The feasibility of a foreign acquisition can be evaluated first like any other project, with specific attention to peculiar characteristics. Capital budgeting analysis can be applied to determine whether the NPVof the acquisition is positive. Consider the following capital budgeting framework, as applied to a foreign acquisition:

$$\mathrm{NPV}_{\mathrm{FA}} = -I_{\mathrm{FA}} + \sum_{t=1}^{n} \frac{\mathrm{CF}_{\mathrm{FA},t}}{(1+k_{\mathrm{FA}})^t} + \frac{\mathrm{SV}_{\mathrm{FA},n}}{(1+k_{\mathrm{FA}})^n} \tag{42.1}$$

where $\mathrm{NPV}_{\mathrm{FA}}$ is the net present value of a foreign acquisition; I_{FA} the initial outlay of a foreign acquisition; k_{FA} the required return on the foreign acquisition; $\mathrm{CF}_{\mathrm{FA}}$ the cash flows to the acquirer; SV the salvage value to the acquirer; t the = time period and n the number of periods in which the project is expected to exist.

As with any project, the variables above should incorporate any tax implications so that the net present value reflects after-tax cash flows. In addition, all cash flows should be measured from the acquirer's perspective and in the acquirer's home currency.

Breaking the general NPV equation into its components can identify the factors that influence a firm's attraction to a prospective foreign acquirer. The following discussion identifies the specific factors, which affect a foreign acquisition's initial outlay, periodic cash flows, and salvage value. The initial outlay (I_{FA}) can be broken down into three components, as shown below:

$$I_{\mathrm{FA}} = E_{\mathrm{h}} + D_{\mathrm{h}} + D_{\mathrm{f}}(ER_{\mathrm{f}}) \tag{42.2}$$

where E_{h} the equity in the home currency; D_{h} borrowed funds in the home currency; D_{f} the borrowed funds in the foreign currency; and $ER_{\mathrm{f},t}$ the exchange rate of foreign currency at the time the foreign funds were borrowed.

To measure the entire initial outlay in terms of the home currency, any foreign funds borrowed by the acquiring firm must be translated into the home currency. Moreover, some firms may cover the entire initial outlay from any one of the above components.

The relevant cash flows in the analysis of cross-border mergers and acquisitions are those received by the acquiring firm. These cash flows are determined by: (1) the after-tax foreign cash flows generated; (2) the percentage of those after-tax cash flows to be remitted to the acquirer; and (3) the exchange rates at the time the after-tax foreign cash flows are remitted. Then, the after-tax cash flows received by the acquiring firm can be described as:

$$\mathrm{CF}_{\mathrm{FA,t}} = (\mathrm{CF}_{\mathrm{f},t})(1 - \mathrm{R}_{\mathrm{f},t})(\mathrm{ER}_{\mathrm{f},t}) \tag{42.3}$$

where $\mathrm{CF}_{\mathrm{f},t}$ is the foreign cash flows generated during period t; $R_{\mathrm{f},t}$ the proportion of cash flows retained by the (then) foreign subsidiary to support future operations; and $ER_{\mathrm{f},t}$ the exchange rate of the foreign currency at the time cash flows are remitted to the acquiring firm.

The salvage value from the acquirer's perspective as of time $n(\mathrm{SV}_{\mathrm{FA},n})$ is determined by the anticipated foreign market value of the acquired business at time $n(\mathrm{MV}_{\mathrm{f}},\mathrm{n})$, and the prevailing exchange rate at the time of the planned sale, as described below:

$$\mathrm{SV}_{\mathrm{FA},n} = (\mathrm{MV}_{\mathrm{f},n})(\mathrm{ER}_{\mathrm{f},n}) \tag{42.4}$$

Note that the foreign value may represent a liquidation value or a going concern value, whichever is likely to be higher.

Integrating the detailed expressions for the initial outlay, periodic cash flows, and salvage value, a comprehensive expression for the NPV analysis of a foreign acquisition can be written as follows:

$$\begin{aligned}
\mathrm{NPV_{FA}} &= -I_{\mathrm{FA}} + \sum_{t=1}^{n} \frac{\mathrm{CF}_{\mathrm{FA},t}}{(1+k_{\mathrm{FA}})^t} + \frac{\mathrm{SV}_{\mathrm{FA},n}}{(1+k_{\mathrm{FA}})^n} \\
&= -\left[E_{\mathrm{h}} + D_{\mathrm{h}} + D_{\mathrm{f}}(ER_{\mathrm{f}})\right] \\
&\quad + \sum_{t=1}^{n} \frac{[\mathrm{CF}_{\mathrm{f},t})(1-\mathrm{R}_{\mathrm{f},t})(\mathrm{ER}_{\mathrm{f},t})]}{(1+k_{\mathrm{FA}})^t} \\
&\quad \frac{[\mathrm{MV}_{\mathrm{f},n})(\mathrm{ER}_{\mathrm{f},n})]}{(1+k_{\mathrm{FA}})^n}
\end{aligned} \tag{42.5}$$

When expressed as in Equation (42.5), the capital budgeting approach provides a valuable framework for explaining the influence of several factors regarding the feasibility of foreign acquisitions.

In conclusion, the phenomenon of cross-border mergers and acquisitions has shown vitality in the last two decades and the trend appears set to continue in the new century. For example, the UNCTAD's *World Investment Report, 2000* reported that the overall value of the flow of cross-border mergers and acquisitions was \$151 billion in 1991 and increased to \$720 billion in 1999. In addition, the annual growth rates of these flows are shown to be 26.4 percent for 1986–1990, 23.3 percent for 1991–1995, and 46.9 percent for 1996–1999. Moreover, the quickly evolving single European market in the late 1980s and early 1990s encouraged many non-European firms to establish a presence in Europe before the barriers to entry intensified. Consequently, by the mid-1990s U.S. FDIs in the European Union increased by approximately 200 percent from the early 1980s. In general terms, empirical analysis supports the fact that both a host country's and the foreign country's stock prices are a major causal factor that influence cross-border mergers and acquisitions. Bond yields are also shown to be major causal factors. This implies that bond yields may be one of the final negotiating points in the decision to consummate an acquisition. Finally, the exchange rate does not consistently acquire significance for all countries. Thus, the exchange rate can only serve as a predictor of trends in acquisitions.

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