ACCOUNTING DISCLOSURE QUALITY AND SYNERGY GAINS: EVIDENCE FROM CROSS-BORDER MERGERS AND ACQUISITIONS

by

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In this dissertation, I investigate how cross-country differences in regulatory environments affect the value and distribution of gains in cross-border acquisitions. I focus on how pre-acquisition strategies to reduce the valuation discount arising from weak regulatory environments affect the value and distribution of gains between acquiring and target firms. The two specific strategies I examine are cross-listing and voluntarily adopting International Financial Reporting Standards (IFRS). I compare the value and distribution of synergy gains for target firms from weak regulatory environments that have cross-listed or adopted IFRS (i.e., "strategic firms") to (1) target firms in similar countries that have not done so (i.e., "non-strategic firms") and (2) target firms in strong regulatory environment countries.

For the first group, I expect lower total synergy gains and merger premia in acquisitions involving strategic target firms. However, I expect higher total valuation

gains (i.e., the merger premium plus the increase in value from the strategy) for strategic firms. For the second comparison group, I expect higher total synergy gains and merger premia in acquisitions involving strategic firms relative to firms from strong regulatory environments.

I test my predictions on a sample of cross-border acquisitions completed in 26 countries between 1995-2007. In acquisitions involving target firms from weak regulatory environments, I find no evidence that either the total synergy gain or merger premium are smaller for strategic firms. In fact, I find some evidence that the total synergy gains are higher for strategic firms relative to non-strategic firms. I find some evidence of higher total valuation gains for cross-listed firms, consistent with my hypothesis. For the second comparison group, I find no evidence that either the total synergy gain or merger premium are higher for strategic firms.

By examining cross-border acquisitions, my research provides evidence on an increasingly important and economically significant type of foreign direct investment. I relate literature investigating the determinants and distribution of merger synergies to literature analyzing methods to eliminate cross-country valuation discounts. Therefore, my research makes an important contribution by providing insights beyond identifying which party captures synergy gains in cross-border acquisitions.

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CHAPTER I

INTRODUCTION

In this dissertation, I examine how cross-country differences in regulatory environments affect the value and distribution of gains arising from cross-border mergers and acquisitions.[1] Rossi and Volpin (2004) find that merger premia (i.e., the increase in value of the target firm at the merger announcement) are lower in target countries with weaker regulatory environments. This suggests that the weak regulatory environment increases the information risk to the acquirer leading the acquirer to reduce the premium paid to the target shareholders. However, this explanation ignores two important details. First, managers of firms in countries with weak regulatory environments can take actions such as cross-listing or adopting International Financial Reporting Standards (IFRS) that improve transparency and reduce information risk. Second, these actions generally increase the target firm's value prior to the acquisition. In this dissertation, I examine whether the increase in value from these strategies is fully impounded in the target's stock price or whether such actions affect either the value or distribution of synergy gains in cross-border acquisitions.[2]

During 2006, the announced value of cross-border mergers and acquisitions accounted for nearly $1.3 trillion of the $4 trillion of global mergers and acquisitions

[1] For simplicity, I use the term "regulatory environment" to refer to both the level of shareholder protection and the transparency of disclosures in a given country.

[2] As I discuss in more detail shortly, I define synergy gains as the total change in value of the acquiring firm plus the change in value of the target firm. Additionally, unless otherwise explicitly stated, I refer to mergers and acquisitions as mergers or acquisitions and use these terms interchangeably.

(*Economist* 2007). Furthermore, the economic gains and the distribution of the gains from cross-border acquisitions affects not only the firms involved, but also the economies of the countries involved. Examining how the value and distribution of synergy gains are affected by strategies taken before an acquisition to improve transparency increases our understanding of the economic consequences of such decisions.

While taking actions such as cross-listing or adopting IFRS should reduce information risk and increase the value of the firm, the extent to which these strategies eliminate the valuation discount related to the target firm's regulatory environment is not clear. Furthermore, it is unclear what impact these strategies have on the value and distribution of synergy gains, and the total wealth of target firm shareholders. Doidge et al. (2004) provide evidence that managers of firms in weak regulatory environments can reduce or eliminate valuation discounts arising from weak regulatory environments by listing the firms' shares on an exchange with stronger regulatory protection. Similarly, Hail and Leuz (2008) find that firms in countries with more transparent financial reporting environments such as those with greater disclosure requirements have lower costs of capital. The evidence in these studies suggest that taking actions such as cross-listing the firm's stock or adopting IFRS reduces the valuation discount and increases the firm's share price. In this case, the increase in value from the strategy will be impounded in the target firm's share price prior to the acquisition. Since part of the synergy gain from the merger and the premium paid to the target shareholders includes the elimination of the valuation discount, the total synergy gains and the merger premium could be lower for strategic firms than for non-strategic firms. As a result, taking actions to offset the

valuation discount could actually result in target shareholders receiving a lower merger premium. Thus, I first predict that the total synergy gain and the merger premium received by target shareholders are lower for target firms from countries with weak regulatory environments that cross-list their securities or adopt IFRS.

While the merger premium is likely to be lower for these strategic firms, the decision to adopt cross-list or adopt IFRS should result in an overall increase in firm value. The ex-post total gain to target shareholders from cross-listing or adopting IFRS is equal to the sum of the gain in share price prior to the merger from the strategy (i.e., the "strategy premium") plus the merger premium. Thus, when the merger premium is combined with the strategy premium, I predict that the total valuation gains from the acquisition and cross-listing or adopting IFRS will be positive.

Assessing the impact of cross-listing or adopting IFRS on the merger premium is further complicated by the potential signal associated with these strategies. Coffee (2002) argues that cross-listing signals that a firm has valuable growth opportunities. Furthermore, cross-listing can provide a credible commitment by managers to take advantage of valuable growth opportunities rather than expropriate minority shareholders. Similar to cross-listing, voluntarily adopting IFRS could signal that a firm or its managers are of high quality. Davis-Friday and Skaife (2008) find that firms that voluntarily adopt IFRS are more likely to become cross-border takeover targets. Although actions taken to improve transparency increase firm value through a reduction in risk, it is not clear whether such actions serve as a signal of the quality of the firm or its managers and result in higher synergy gains or merger premia.

Therefore, for my second set of tests, I compare the value and distribution of the synergy gains for strategic target firms to target firms in strong regulatory environments. I expect higher total synergy gains and merger premia for strategic firms. That is, holding information risk constant, cross-listing or adopting IFRS should serve as a signaling mechanism about the target firm's managers or future growth opportunities, making the firm a more valuable takeover target. As a result, competition among bidders increases, driving the total synergy gain and the merger premium upward.

I test my predictions on a sample of cross-border acquisitions completed in 26 countries between 1995 and 2007. Specifically, I compare the total synergy gains and the merger premium for target firms from weak regulatory environments that have cross-listed or adopted IFRS (i.e., "strategic firms") to (1) target firms in similar countries that have not taken such actions (i.e., "non-strategic firms") and (2) target firms in countries with strong regulatory environments. For both comparison groups, I separately examine the total synergy gain and the portion of the synergy gain to the target firm (i.e., the merger premium). Next, to address the overall change in shareholder wealth from the acquisition and from cross-listing or adopting IFRS, I develop a proxy for the total valuation gains to target firms that is designed to incorporate both the strategy premium and the merger premium. This allows me to compare strategic to non-strategic target firms from weak regulatory environments.

My first set of tests provides evidence on whether strategies taken in advance of an acquisition to improve transparency result in lower total synergy gains and merger premia, but higher total valuation gains. I find no evidence that either the total synergy

gains or the merger premium are smaller for strategic firms. In fact, I find some evidence that the total synergy gains are higher for strategic target firms relative to non-strategic target firms in weak regulatory environments. This result suggests that the target firm's shareholders may not capture the valuation discount related to the weak regulatory environment of the target that should be eliminated in the acquisition. Additionally, I find only mixed support showing that the total valuation gains are higher for strategic firms relative to non-strategic firms. This result provides some evidence that strategies to improve transparency increase the overall wealth of shareholders if the firm is eventually acquired.

My second set of tests provides evidence on whether strategies such as cross-listing or adopting IFRS serve as signaling mechanisms that increases the total synergy gain and the merger premium. However, I find no evidence to support this hypothesis. This suggests that cross-listing or adopting IFRS may not serve as a signal, since when information risk is held constant, the total synergy gain and the merger premium do not differ across the type of firm acquired.

Despite the empirical evidence, my research makes contributions to several areas of literature. First, I contribute to the mergers and acquisitions literature, and specifically the cross-border mergers and acquisitions literature. Although prior research such as Starks and Wei (2004) and Bris and Cabolis (2008) has investigated how synergy gains are distributed when the acquirer and target are from different regulatory environments, the results of these studies are mixed.

I extend prior literature by examining how strategies taken before an acquisition by the target firm to improve transparency and increase firm value influence the value and distribution of synergy gains in cross-border acquisitions. Existing empirical research in cross-border acquisitions has largely ignored how these strategies affect the value and distribution of synergy gains. Furthermore, prior research does not examine the collective valuation gains (i.e., the strategy premium and the merger premium). Thus, the results of my research provide a potential explanation for the results of Rossi and Volpin (2004) and the mixed results related to the distribution of gains reported in Starks and Wei (2004) and Bris and Cabolis (2008).

I expand existing literature identifying and explaining strategies to eliminate valuation discounts, and specifically, the minority shareholder discount (i.e., Reese and Weisbach, 2002 and Doidge et al., 2004, among others) by mapping the relation between the cross-listing premium and the value and distribution of synergy gains in cross-border mergers. Similarly, I extend the research by Bushman et al. (2004) identifying the determinants of corporate transparency by documenting the consequences of corporate transparency in terms of the value and distribution of synergy gains.[3] As a result, my research bridges the literature investigating the sources and distribution of merger synergies to literature analyzing methods to eliminate cross-country valuation discounts. Thus, my research provides insights beyond simply identifying which party captures the

[3] Bushman, Piotroski, and Smith (2004) define corporate transparency based on the firm-specific information available to persons outside of publicly-traded firms based on financial transparency (i.e., financial information availability and dissemination) and governance transparency (i.e., the availability of governance disclosures).

synergy gains in cross-border acquisitions and separates signaling effects from reductions in information risk due to cross-listing or adopting IFRS.

My research examines an increasingly important and economically significant type of foreign direct investment, cross-border mergers and acquisitions. Although lack of power could partially explain the limited support for my hypotheses, an alternative explanation relates to the empirical models used in this study and in prior cross-border mergers and acquisitions research. Specifically, the empirical models in most cross-border acquisitions research draw heavily on domestic mergers and acquisitions research. Since there is significant cross-sectional variation in firm-specific characteristics, studies conducted in a purely domestic acquisition environment provide useful insights into the determinants of the distribution of synergy gains resulting from economies of scale or scope. However, these models may not explain the value and distribution of synergy gains in cross-border acquisitions. Therefore, one avenue for future research is to develop a separate and distinct model of the value and distribution of synergy gains in cross-border acquisitions. If the merger premium does not differ for strategic firms relative to non-strategic firms, it suggests that strategies to improve transparency and reduce information risk may not result in higher valuation gains if the company is eventually acquired.

CHAPTER II

LITERATURE REVIEW

An extensive body of research examines the relations among various components of the synergy gains from acquisitions. A complete review of the domestic and cross-border mergers and acquisitions literature is beyond the scope of this dissertation.[4] In this section, I focus my discussion on two important aspects of my research. First, to motivate the setting of cross-border mergers and acquisitions, I provide background on the cross-border environment. Second, I discuss the most relevant results of prior domestic and cross-border research on the magnitude and distribution of synergy gains.

Cross-Border Environment

The cross-border acquisition environment differs in many important ways from the domestic acquisition environment. Prior research shows that differences in legal environments (La Porta et al. 1997) are related to differences across countries in the development of capital markets, ownership structures, dividend policies, firm size, and firm value (La Porta et al. 2000). Additionally, differences in regulatory and disclosure environments increase the complexity, and potentially the costs of cross-border transactions relative to domestic transactions.

The legal environment, and more specifically, cross-country differences in the minority shareholder rights, is one dimension that makes the cross-border acquisition

[4] More complete reviews of the domestic mergers and acquisitions include Halpern (1983), Jensen and Ruback (1983), Jarrell et al. (1988), and Andrade et al. (2001). For cross-border mergers and acquisitions, Ghuari and Buckley (2003) and Shimizu et al. (2004) provide reviews of the literature.

environment distinct from the domestic acquisition environment. Mergers often involve a change in the control of the target firm and prior theoretical literature posits that the classic agency problem arises from the separation of ownership and control (Coase 1937; Fama and Jensen 1983; Shleifer and Vishny 1997). Regulations protecting investors can alleviate the agency problem. La Porta et al. (2002) find significant cross-country variation in the level of investor protection and that firm value is higher for firms located in countries with better regulations protecting minority shareholders.

Voting rights of shareholders also differ across countries. Shleifer and Vishny (1997) argue that voting rights on matters such as mergers are the single most important legal right of shareholders. A large body of prior research documents substantial differences in voting premia in countries such as Switzerland (20%) and Italy (82%) (Zingales 1994; Horner 1988). These differences in voting premia suggest that agency costs are significant and vary widely between countries.

Another way the cross-border acquisitions environment differs from the domestic environment relates to the regulations of mergers and acquisitions across countries. For example, some countries impose special rules regarding foreign investment. According to the United Nations Conference on Trade and Development (UNCTAD), for 2006, 93 countries introduced changes to their policies regarding foreign direct investment, and of the 184 regulatory changes, 20% of the changes were ranked as "less favorable" to foreign investment.

Although Brakman et al. (2006) argue that international de-regulation stimulated the most recent wave of cross-border mergers and acquisitions, consistent with the

evidence compiled by UNCTAD, some countries in more recent years have increased regulations preventing or severely limiting foreign companies from making acquisitions. Specifically, Japan implemented new regulations in September 2007 blocking acquisitions of Japanese companies involved in the production of technologies for use in weapons systems. The regulations also require investors to disclose plans to purchase a 10% or greater ownership stake 30 days in advance of the purchase (Sanchanta 2007). Regulations affecting cross-border acquisitions such as those in Japan increase the complexity of the acquisition.

In addition to increasing the complexity of the acquisition, regulations relating to cross-border acquisitions can also increase the transactions costs of the acquisition. For example, foreign acquirers in Japan have circumvented existing barriers to acquisitions through the use of "triangular mergers" where the acquirer sets up a Japanese subsidiary and the subsidiary completes the acquisition. Executing such complicated transactions likely requires consultations from external teams of lawyers and private consultants and thus, could cause firms to incur substantial costs.[5]

Although mergers can result in synergistic gains through a more efficient allocation of resources of the combined firm (Bradley et al. 1988), Das and Sengupta (2001) suggest that cross-border acquisitions can be hampered by information asymmetry. Consistent with this conjecture, Rossi and Volpin (2004) show that more

[5] Leland's (2007) model of financial synergies from mergers and acquisition provides a possible explanation for why managers might be willing to incur substantial transactions costs for a certain financial structuring. Leland (2007) shows that when default costs for both acquirers and targets are high, the financial synergies from a merger increase. Thus, firms with greater default costs before the merger will have higher financial synergies from the merger. This is because diversification reduces the risk of default and hence the probability of incurring default costs.

transparent accounting standards in a country are associated with higher levels of acquisition activity in a country. In cross-border transactions, it is possible for the financial reporting standards of the target and acquirer to differ. For example, the accounting system could be more conservative, emphasizing measurements of assets based on historical cost rather than estimates of fair value. Empirical evidence in Ball et al. (2000) documents cross-country variation in financial reporting such that accounting standards are more transparent in common-law countries relative to code-law countries.[6] Davis-Friday and Skaife (2008) find that firms using either IFRS or U.S. GAAP and firms that are audited by large audit firms (e.g., Big-6) are more likely to be takeover targets. These results suggest that more transparent reporting and better external monitoring by auditors reduces information asymmetry between multinational corporations.

Healy and Palepu (2001) suggest that information asymmetry and agency costs drive the demand for financial reporting. Under the capital markets transactions hypothesis, managers have an incentive to provide voluntary disclosures to mitigate information asymmetry between their firm and capital suppliers in order to lower the cost of capital. This leads to the empirical prediction of an inverse relation between the level of disclosure and the cost of capital and implies that one benefit of voluntary disclosure is a reduction in the cost of capital. One motivation for cross-listing the shares on a foreign exchange could be to pre-commit to a higher level of disclosure. Both Diamond and Verrecchia (1991) and Leuz and Verrecchia (2000) argue that pre-commitment is

[6] Ball et al. (2000) define transparency in terms of conservatism and timeliness.

necessary in order for disclosures to affect the cost of capital. Lang et al. (2003) contend that cross-listing provides a credible signal that mangers are committed to a higher level of disclosure.

Errunza and Miller (2000) find that the cost of capital is lower for cross-listed firms. Lang et al. (2003) find that analyst following and forecast accuracy are higher for firms that cross-list. Furthermore, they find that firm value is increasing in analyst following and forecast accuracy and that it is incrementally higher for firms that cross-list. Their results suggest that the increase in firm value following cross-listing is due to improvements in the firm's information environment.

Acquiring a target firm that uses different accounting standards could also increase the transaction costs. For example, a divergence in accounting standards between the target and acquiring firms could impose additional information processing costs, especially in efforts to perform due diligence.[7] Diaz (2002) suggests that even when U.S.-style disclosure practices have been adopted in a country, if the country lacks enforcement mechanisms, the due diligence team should utilize additional tests in assessing the quality and accuracy of financial information.

A 2006 global survey of 420 executives conducted by Accenture and The Economist Intelligence Unit found that 71% of executives "agreed" or "strongly-agreed" that cross-border acquisitions are "generally more difficult than acquisitions in our existing markets" (Economist Intelligence Unit 2006). However, only 17% of survey

[7] Consistent with this conjecture, each of the Big-4 accounting firms have a transaction advisory services division that provide due diligence services specifically designed for cross-border deals.

respondents were satisfied with "the rigor and accuracy of their company's due diligence on companies and markets". Thus, acquiring a firm in a country that utilizes different accounting standards than the acquirer can result in increased costs to the acquirer in the form of due diligence.

To summarize, the cross-border acquisition environment differs substantially from the domestic acquisition environment. Cross-country differences in regulations of cross-border acquisitions, financial reporting, and governance increase the complexity of these transactions. My research examines how these differences affect the value and distribution of gains in cross-border acquisitions. More specifically, I extend prior research by investigating how actions target firm managers take in advance of the acquisition, such as cross-listing, affect the overall wealth of their shareholders.

Synergy Gains

The synergy gain in a merger is the total change in value resulting from a merger. That is, the synergy gain represents the change in value of the acquiring firm plus the change in value of the target firm. Synergy gains can arise from numerous sources. For example, operational synergies are generated from economies of scale or scope, from a more efficient deployment of resources, from increased market power, or from reduced agency costs.

I refer to the portion of the synergy gain represented by the change in the value of acquiring firm as the "conglomerate gain" and the portion of the synergy gain represented by the change in the value of the target firm as the "merger premium". A conglomerate gain arises when the value of the acquiring firm increases following the announcement of

the acquisition. If the acquirer has overpaid for the acquisition, the conglomerate gain is negative, reflecting a "discount" to the acquirer for overpaying. The remaining portion of the synergy gain, the merger premium, arises in an acquisition when the price paid by an acquirer exceeds the pre-acquisition market value of the target.

Prior research on cross-border mergers and acquisitions has examined how the relation between the total synergy gains and the distribution of synergy gains is affected by factors such as investor protection (Rossi and Volpin 2004; Bris and Cabolis 2008; Starks and Wei 2004). Rossi and Volpin (2004) also find that the volume of merger activity in a country is positively related to both the level of shareholder protection and the quality of accounting standards. They also show that merger premia are increasing in the level of shareholder protection. This suggests that shareholders of target firms in weak regulatory environments are not able to fully capture the elimination of these discounts when the firm is acquired. That is, the acquiring firm appears to capture a portion of the discount by offering a lower acquisition price.[8] However, their results appear to be driven by U.S. and U.K. observations.

Starks and Wei (2004) find that for stock acquisitions, the market reaction for the target firm is lower when the acquirer is domiciled in a country with strong minority shareholder protection, but that the market reaction for the acquiring firm in these acquisitions is higher. They interpret their results as evidence that differences in the level

[8] Rossi and Volpin (2004) suggest an alternative explanation for why merger premia are higher when the target firm is from a country with strong shareholder protection. Specifically, they argue that disperse ownership is more common in countries with strong minority shareholder protection and that in the case of takeovers, this worsens the free-rider problem. Thus, as in Grossman and Hart (1980), the acquirer must pay a higher premium to give minority shareholders an incentive to tender their shares.

of minority shareholder protection between targets and acquirers affect the distribution of synergy gains, but not the total synergy gains. Although the results of Bris and Cabolis (2008) are mainly consistent with Starks and Wei (2004), Bris and Cabolis (2008) find that the market reaction to the merger announcement for target firms is higher when the acquirer is from a country with stronger protection of minority shareholder interests or when the accounting standards in the country are more transparent and that the reaction is not symmetric across acquiring and target firms. Thus, while prior research has shown that cross-country differences in minority shareholder protections and accounting standards affect merger premia, prior research has not found consistent results regarding whether the total synergy gains or the distribution of synergy gains is affected by these characteristics.

In addition to the inconclusive results in prior research regarding cross-country differences in regulatory environments and the distribution of synergy gains, existing empirical research in cross-border mergers and acquisitions has largely ignored how strategies employed preceding an acquisition to increase firm value affect the value and distribution of synergy gains. One exception is Starks and Wei (2004). They examine the relation between cross-listing in the U.S. and (i) a direct measure of the merger premium based on the ratio of the bid price to the target firm's stock price four weeks preceding the merger announcement and (ii) a proxy for the merger premium based on abnormal returns. They do not find an association with the first measure, but do find positive abnormal returns for target firms cross-listed in the U.S. from G-7 countries (Canada, France, Germany, Italy, Japan, the United Kingdom, excluding the United States).

However, they do not examine the collective valuation gains (i.e., the strategy premium and the merger premium) for their sample of cross-listed firms.

In the domestic mergers and acquisitions literature, Bradley et al. (1988) show that synergy gains are higher when there are multiple bidders involved and that changes in the U.S. regulatory environment affected the distribution of gains between acquirers and targets in domestic acquisitions, but not the total synergy gain. Prior research on domestic mergers and acquisitions has examined the relation between the conglomerate gain and factors such as the method of payment used by the acquirer (Travlos 1987), the pre-acquisition firm value of the acquirer (Dong et al. 2006), diversifying versus non-diversifying acquisitions (Morck, Shleifer, and Vishny 1990), whether there are multiple bidders (Bradley et al. 1988), whether the acquisition is considered to be hostile (Moeller et al. 2004; Schwert 2000) and the size of the acquiring firm (Moeller et al. 2004).

With respect to the conglomerate gain, prior research on domestic mergers and acquisitions has shown that certain deal-level characteristics are associated with lower gains to acquiring firms. Travlos (1987) finds that the method of payment used by the acquirer influences the conglomerate gain. Specifically, his results show that for publicly traded acquirers, there are lower abnormal returns to the acquirer around the announcement date for stock acquisitions.[9] Bradley et al. (1988) find that the conglomerate gain is lower when there are multiple bidders. This is consistent with the basic economic argument that as competition among potential acquirers increases, the

[9] One proxy for the gain to acquiring firms in mergers is the estimated abnormal stock return over an announcement interval.

target firm is able to extract a larger portion of the synergy gain from the acquirer, thus lowering the portion of the synergy gain attained by the acquirer. Finally, there is limited evidence that hostile acquisitions, i.e., those contested by the target firm's management, are also associated with lower conglomerate gains (Moeller et al. 2004; Schwert 2000).

Empirical evidence also exists on the relation between firm-specific characteristics and the size of the conglomerate gain in domestic acquisitions. Specifically, Moeller et al. (2004) find that smaller firms earn higher conglomerate gains. In a similar manner, Dong et al. (2006) show that acquirers with higher pre-acquisition valuations earn lower conglomerate gains. Finally, Morck et al. (1990) find that publicly traded acquirers earn lower conglomerate gains in diversifying acquisitions.

Although prior domestic mergers and acquisitions research suggests that target firms extract a majority of the synergy gains, leaving negative returns to acquiring firms, cross-border mergers and acquisitions research has not produced such a consistent finding. More specifically, Starks and Wei (2004) find evidence of small positive gains to U.S. acquirers involved in cross-border acquisitions. However, Bris and Cabolis (2005) examine how relative differences in shareholder protection affect abnormal returns to target and acquiring firms in cross-border mergers and acquisitions. They find significant negative buy and hold cumulative abnormal returns for acquiring firms ranging from -1% to -5% depending on the returns window utilized. Additionally, they find significant positive buy and hold cumulative abnormal returns to target firms ranging from 12% to 34% based on the returns window utilized.

Kuipers et al. (2009) find that on average, acquiring firms earn negative abnormal returns, target firms earn positive abnormal returns, and that the total synergy gains based on a weighted portfolio abnormal return of the acquiring and target firms are positive. Eun et al. (1996) find that the merger premium is positive, but that the conglomerate gain is either positive or negative depending on the country. While there appears to be consistent evidence of positive merger premia in cross-border mergers and acquisitions, the conglomerate gain can be either positive or negative, while total synergy gains are positive.

Thus, characteristics of both the target and acquirer as well as the structure of the acquisition influence the distribution of gains between firms in an acquisition. Prior research examining the determinants of the gains to cross-border mergers and acquisitions focuses on legal and institutional characteristics. I provide additional insights into the cross-border merger and acquisition literature by examining the role alternative courses of action managers take in advance to raise share price and improve disclosure play in determining the total synergy gain and the distribution of these gains among acquiring and target firms.

CHAPTER III

HYPOTHESIS DEVELOPMENT

To provide evidence on how cross-country differences in regulatory environments affect the value and distribution of synergy gains in cross-border acquisitions, I compare the value and distribution of synergy gains for firms from weak regulatory environments that cross-list or adopt IFRS (i.e., strategic firms) across two separate samples. The first comparison group consists of firms in weak regulatory environments that do not cross-list or adopt IFRS (i.e., non-strategic firms). The second comparison group consists of target firms domiciled in strong regulatory environments. For completeness, I develop separate hypotheses depending on the strategy employed (e.g., cross-listing or adopting IFRS). For simplicity, Table 1 summarizes my hypotheses.

Within Country Comparison

Cross-Listing

While prior research such as La Porta et al. (2002) shows that firm value is lower in countries with weak protection of minority shareholders, managers can reduce or eliminate this valuation discount by cross-listing the firm's stock on a stock exchange in a country with stronger protection of minority shareholders. Firms incur substantial costs to cross-list and these costs help bond managers to reduce their private benefits of control (Coffee 1999, 2002). Furthermore, Doidge et al. (2004) find that firms with growth opportunities are more likely to cross-list. Therefore, by lowering the private benefits of control, cross-listing reduces the likelihood of minority shareholder expropriation. Thus,

firm value generally increases following cross-listing (Doidge et al. 2004). Finally, because cross-listing reduces the cost of capital, it enables managers to finance valuable growth opportunities at a lower cost.

For the strategic firm, it is possible that the cross-listing premium fully captures any valuation discount arising from weak protection of minority shareholders. Therefore, the full gain from the elimination of the valuation discount could be impounded in the pre-acquisition share price. For example, Doidge et al. (2004) find an average cross-listing premium of 16.5%. To the extent cross-listing eliminates any discount for poor shareholder protection, the acquisition (and elimination of minority ownership) would have no incremental impact on the acquisition value of the target firm beyond that already reflected in the existing share price. As a result, the acquisition price and merger premium for the strategic firm will be unaffected.

Although cross-listing increases firm value, the value of the synergy gains and the distribution to the target firm in the form of the merger premium in cross-border acquisitions could be lower for strategic firms relative to non-strategic firms. Since the acquiring firm will control the target company after the acquisition, any pre-acquisition discount related to the weak protection of minority shareholders should be eliminated through the acquisition.[10] The elimination of this discount therefore results in a higher merger premium for the non-strategic firm.

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[10] Siegel (2005) suggests that because enforcement against cross-listed firms is infrequent, the popularity of cross-listings is better explained by reputational bonding through information intermediaries such as analysts. If there is less enforcement against cross-listed firms, then it is possible that cross-listing does not fully eliminate the valuation discount. It is important to note that Siegel examines a sample of Mexican

Even if cross-listing does not fully eliminate the valuation discount from weak minority shareholder protection, it is possible that the merger premium for strategic firms will be lower than non-strategic firms simply as a result of how the merger premium is measured. Consistent with prior research, the merger premium is measured as the change in price for the target firm relative to the target firm's pre-acquisition stock price. If the pre-acquisition stock price of cross-listed firms is higher relative to firms that have not cross-listed, an equal acquisition price across the two target firms will necessarily result in a relatively smaller merger premium (as a percent) for the cross-listed firm.[11] In other words, the acquisition price for the strategic firm would have to be much higher than for the non-strategic firm in order for the strategic firm to earn the same merger premium as the non-strategic firm.[12] As a result, for target firms from countries with weak regulatory environments, this leads to the following hypothesis:

H1a: *The total synergy gain and the merger premium are lower for firms with cross-listed stock relative to firms without cross-listed stock.*

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firms that are cross-listed in the United States and therefore, his results provide only one example of where legal bonding does not necessarily occur and his findings may not generalize to non-U.S. cross-listings.

[11] This outcome is similar to the effect large shareholders have on the likelihood of takeover and the merger premia discussed in Shleifer and Vishny (1986). Specifically, Shleifer and Vishny (1986) argue that as the percentage of shares held by a large shareholder increases, the likelihood of a value-increasing takeover increases and therefore, firm value increases. As a result, the premium decreases (see proposition 1, page 470).

[12] For example, suppose the price of the strategic firm before cross-listing is $100. If the strategic firm earns the average cross-listing premium as documented in Doidge et al. (2004), the stock price after cross-listing, but before the acquisition would be $116.50. The pre-acquisition price of a similar, non-strategic firm would be $100. Suppose that holding everything else constant across these two firms, the value to the acquirer of each firm is $125. Thus, for the strategic firm, the merger premium is 7.30% (i.e., ($125-116.50)/$116.50) while for the non-strategic firm, the merger premium is 25% (i.e., ($125-$100)/$100). The acquisition price of the strategic firm would have to be $145.63 in order for the strategic firm to have the *same* merger premium as a non-strategic firm. The acquisition price would need to be much larger than $145.63 for the merger premium of the strategic firm to be *significantly higher* than the non-strategic firm.

Finding that the total synergy gain and the merger premium for strategic firms are lower relative to the non-strategic firms suggests that at least a portion of the increase in value from cross-listing is impounded in the share price before the acquisition.

Target firms that cross-list generally realize an increase in value upon cross-listing (i.e., the cross-listing premium). If the merger premium for strategic firms is less than the merger premium for non-strategic firms, one possible explanation is that cross-listing changes the timing of the gains, but not the total gains to the target firm's shareholders. In this case, the total valuation gains (i.e., the merger premium plus the cross-listing premium) will not differ between strategic firms and non-strategic firms that should not theoretically earn a cross-listing premium.[13]

Alternatively, cross-listing in a country with stronger protection of minority shareholders could signal to potential acquirers the existence of valuable growth opportunities. Doidge et al. (2004) find that firms with growth opportunities are more likely to cross-list and this suggests that managers of these firms cross-list in order to finance growth opportunities at a lower cost of capital. These growth opportunities, along with the potential for increased market power, could result in increased competition among acquiring firms and drive the total synergy gain and the merger premium upward for strategic firms relative to non-strategic firms. Thus, the total valuation gains will be less for non-strategic firms than for strategic firms. This leads to the following hypothesis for target firms from countries with weak regulatory environments:

[13] This is consistent with the findings of Sarkissian and Schill (2009) who generally do not find evidence of permanent valuation gains to cross-listing.

H1b: *The total valuation gains are greater for target firms with cross-listed stock than for target firms without cross-listed stock.*

Finding that the total valuations gains for strategic firms are higher than non-strategic firms suggests that either competition for strategic firms drives the total synergy gain and merger premium higher, or that the acquirer is able to extract a portion of the valuation discount by offering a lower acquisition price to the non-strategic firms.

Hypothesis 1b requires that cross-listing serve as a signal of the quality of a firm or its managers. Coffee (1999, 2002) argues that cross-listing serves as a credible signal both because it acts as a bonding mechanism that commits managers to not expropriate shareholders and because it signals the presence of growth opportunities. Additionally, prior research such as Doidge et al. (2004) and Lang et al. (2003) suggest that cross-listing is a credible signal. Ball (2001) argues that cross-listing in a common-law country imposes a positive cost on a company because it increases the firm's exposure to litigation risk and thus serves as a credible signal of the quality of information. If cross-listing does not serve as a credible signal of the quality of the firm or its managers, it would bias against finding support for hypothesis 1b.

Adopting IFRS

La Porta et al. (2002) also show that accounting standards affect firm value. To overcome information environment deficiencies, managers of firms located in countries with less transparent accounting standards can adopt a more transparent set of accounting standards such as IFRS. Adopting a more transparent set of accounting standards can reduce information asymmetry between managers and both existing shareholders and

potential acquirers. Leuz and Verrecchia (2000) find that for a sample of German firms voluntarily adopting either international accounting standards or U.S. GAAP, share turnover increases, while bid-ask spreads decrease. Similarly, Hail and Leuz (2008) find that firms in countries with more transparent financial reporting environments such as those with greater disclosure requirements have lower costs of capital.

However, as in the case of cross-listing, it is possible that adopting IFRS completely eliminates any valuation discount such that the price of the strategic firm before an acquisition will be greater than the price of the non-strategic firm. As a result, if a portion of the total synergy gain and merger premium in cross-border acquisitions is due to the elimination of valuation discounts related to the information environment of the target firm's country, the total synergy gain and merger premium for the strategic firm will be lower than for the non-strategic firm. When target firms are located in countries with less transparent information environments, this leads to the following hypothesis:

H2a: *The total synergy gain and the merger premium are lower for firms that have voluntarily adopted IFRS relative to firms that have not voluntarily adopted IFRS.*

Finding that the total synergy gain and the merger premium are lower for the strategic firms relative to the non-strategic firms suggests that at least a portion of the increase in value from the strategy is impounded in the pre-acquisition stock price of the target firm.

Prior research provides evidence that voluntarily adopting IFRS reduces the cost of capital (Leuz and Verrecchia 2000).[14] As in the case of cross-listing, voluntarily

[14] However, Daske et al. (2008) find that the reduction in the cost of capital is greater for more "serious" voluntary adopters of IFRS. More specifically, Daske et al. (2008) identify "serious" adopters based on (i)

adopting IFRS could alter the timing of the gains, but not the total gains to the target firm's shareholders. In this case, the merger premium for strategic firms will be less than the merger premium for non-strategic firms. Therefore, when the increase in value from adopting IFRS is added to the merger premium, the total valuation gains will not differ between strategic firms and non-strategic firms.

However, voluntarily adopting IFRS could signals that a firm or its managers are of high quality and increase competition among bidders. If this is the case, voluntarily adopting IFRS will drive the total synergy gain and merger premium upward. Thus, the total valuation gains to the shareholders of strategic firms will be higher relative to non-strategic firms utilizing local accounting standards. This leads to the following hypothesis for target firms from countries with less transparent information environments:

H2b: *The total valuations gains are greater for target firms that have voluntarily adopted IFRS relative to firms that have not voluntarily adopted IFRS.*

There are two potential explanations for finding that the total valuation gains for strategic firms are higher relative to non-strategic firms. Specifically, this result suggests that voluntarily adopting IFRS either increases competition among bidders or that the buyer extracts a portion of the target's valuation discount from the weak information environment of the country by paying a lower acquisition price for non-strategic firms.

As with cross-listing, hypothesis 2b requires that voluntarily adopting IFRS serve as a signal of the quality of a firm or its managers. Watts and Zimmerman (1986, Chapter

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the length of the annual report after adoption of IFRS, (ii) a compliance score, (iii) the magnitude of accruals relative to cash flows, and (iv) reporting incentives.

7) argue that information asymmetry provides managers with an incentive to signal when they believe the firm is undervalued. Therefore, undervalued firms commit added resources to explicitly signal their value while overvalued firms implicitly signal their value by not providing additional disclosures. Thus, if voluntarily adopting IFRS is costly because it increases the volume or transparency of disclosures, then firms voluntarily adopting IFRS should realize an increase in firm value.

However, Watts and Zimmerman (1986, Chapter 7) point out that for disclosures to serve as a signal, the costs incurred to produce additional disclosures should be to provide disclosures related to future performance. If the costs incurred produce additional disclosures related to historical rather than future performance, the social benefit of the disclosures is reduced. Furthermore, Spence (1973) shows that in order for a signal to be relevant, managers must have the flexibility to choose among different signaling options. Thus, the strength of the signal from voluntarily adopting IFRS may be lower for target firms in countries already on a roadmap to adopting IFRS. Finally, Ball (2001) argues that auditors and litigation significantly influence the effectiveness of the accounting system. Therefore, in order for voluntarily adopting IFRS to serve as a credible signal, adequate enforcement mechanisms must be in place. To the extent the countries in my sample of firms have insufficient enforcement mechanisms through auditors and litigation, voluntarily adopting IFRS will not serve as a signal of the quality of the firm or its managers and would bias against finding evidence in support of the first set of hypotheses. Figure 1 illustrates hypotheses 1a through 2b.

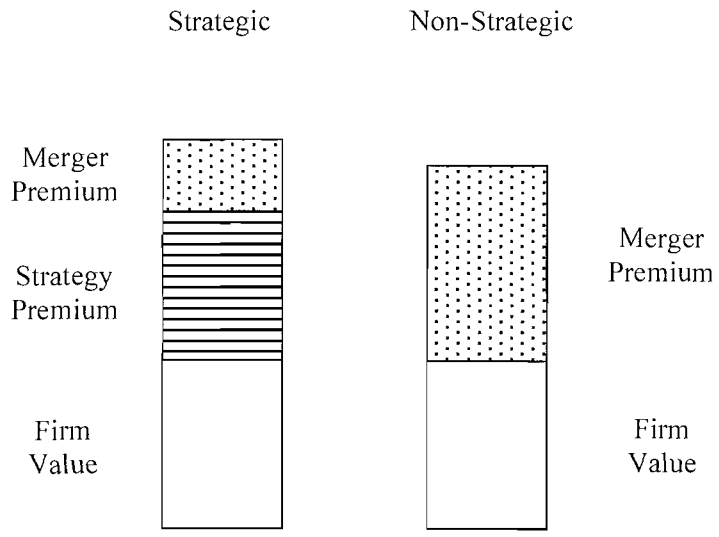

Figure 1: Within Country Comparison

Cross-Country Comparison

Results from my first set of hypotheses provide insights into whether managers of target firms in weak regulatory environments that have undertaken a strategy to improve transparency obtain lower total synergy gains and merger premia, but higher total valuation gains relative to firms in similar environments that have not undertaken such a strategy. To provide additional insights into how cross-listing and adopting IFRS affect the value and distribution of gains in cross-border acquisitions, I compare the value and distribution of synergy gains for firms in countries with weak regulatory environments that have undertaken a strategy to improve transparency (i.e., strategic firms) to target firms located in countries with strong regulatory environments. This comparison allows me to hold information risk constant and isolate the potential signaling effects from cross-listing or adopting IFRS. Figure 2 illustrates hypotheses 3 and 4.

Cross-Listing

Coffee (2002) argues that cross-listing signals valuable growth opportunities. Since firm value is lower in countries with weak minority shareholder right, the growth opportunities of firms in these countries are also discounted. Thus, cross-listing provides a signal of both firm and managerial quality by committing managers to take advantage of valuable growth opportunities instead of expropriating shareholders. If strategic firms have more growth opportunities, these growth opportunities and the potential for increased market power increase competition among bidders and drive the total synergy gain and the merger premium upward. Comparing target firms located in countries with strong shareholder protection to target firms from countries with weak protection of minority shareholders that have cross-listed stock, leads to the following hypothesis:

H3: *The total synergy gain and the merger premium are higher for firms from countries with weak protection of minority shareholders with cross-listed stock relative to target firms from countries with strong protection of minority shareholders.*

Adopting IFRS

Voluntarily adopting IFRS reduces the information risk of companies in less transparent information environments to the level of information risk in more transparent information environments. Thus, when information risk across target firms is comparable, voluntarily adopting IFRS can signal that a firm or its managers are of high quality. Thus, competition for firms that voluntarily adopt IFRS to improve transparency could be greater than for those firms from strong information environments, driving the total synergy gain and merger premium upward. This leads to the following hypothesis:

H4: *The total synergy gain and the merger premium are higher for firms from countries with weak information environments that have voluntarily adopted IFRS relative to target firms from countries with strong information environments.*

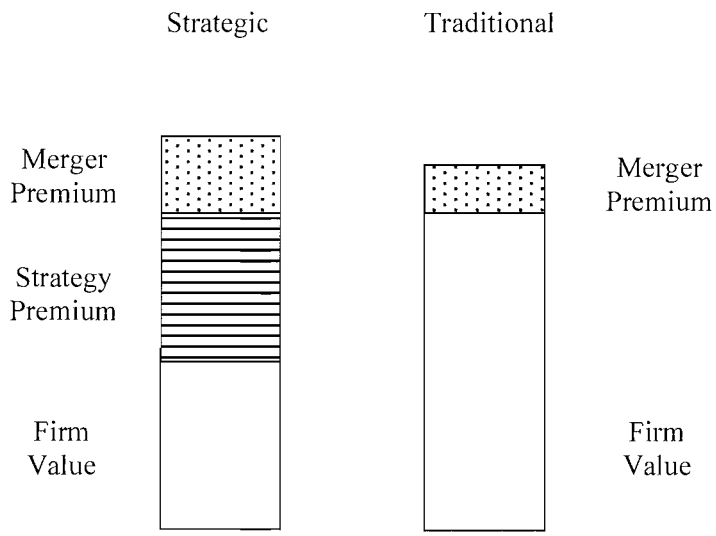

Figure 2: Cross-Country Comparison

Table 1
Summary of Hypotheses

Panel A: Within Country Comparison by Firm-Type (Both Weak)				
		Strategic		**Non-Strategic**
Total Synergy Gains & Merger Premia	*H1a & H2a*	$\Delta\Pi$ and *Premium*	<	$\Delta\Pi$ and *Premium*
Total Valuation Gains from Merger & Strategy	*H1b*	$Total\Delta V_{TXLIST}$	>	$Total\Delta V_{TXLIST}$
	H2b	$Total\Delta V_{TACTG}$	>	$Total\Delta V_{TACTG}$
Panel B: Cross-Country Comparison by Firm-Type (Weak vs. Strong)				
		Strategic		**Traditional**
Total Synergy Gains & Merger Premia	*H3 & H4*	$\Delta\Pi$ and *Premium*	>	$\Delta\Pi$ and *Premium*

CHAPTER IV

RESEARCH DESIGN

Synergy gains from a merger or acquisition can be a result of economies of scale, reallocation of assets or resources to exploit investment opportunities, and more efficient management. Consistent with prior research, I define the total synergy gain as the change in value of the acquiring firm plus the change in value of the target firm. More formally:

$$SynergyGain = \Delta V_A + \Delta V_T \quad (1)$$

where *SynergyGain* represents the total synergy gain from the cross-border acquisition and ΔV_A (ΔV_T) represents the change in value of the acquiring (target) firm following the acquisition. Thus, in equation (1), ΔV_A and ΔV_T represent the portion of the synergy gain captured by the acquiring and target firms, respectively. I refer to these respective values as the conglomerate gain and the merger premium.

While the theoretical constructs for the conglomerate gain, the merger premium, and the total synergy gain are relatively straightforward and intuitive, the empirical constructs are less obvious. Furthermore, determining the total valuation gains to strategic firms requires a measure of the "strategy premium" (i.e., the cross-listing premium or the premium from voluntarily adopting IFRS). In the next four subsections, I discuss how I measure the conglomerate gain, merger premium, total synergy gain, strategy premium, and total valuation gains for strategic firms. Table 2 provides a list of variables and their definitions.

Table 2
Variable Definitions

Variable Name	Description
Panel A: Total Synergy Gains and Components of Total Synergy Gains	
Source: SDC	
Acquirer	
APriceDay	Acquirer closing stock price on the announcement date.
APrice4Week	Acquirer closing stock price four weeks preceding the announcement date.
ConglomerateGain	Conglomerate gain calculated as (1) the difference between the closing stock price of the acquirer on the announcement date less the closing stock price of the acquirer four weeks preceding the announcement date, divided by (2) the closing stock price of the acquirer four weeks preceding the announcement date (i.e., (*APriceDay-APrice4Week*)/*APrice4Week*).
AShrout	Acquirer number of shares outstanding on date of announcement.
ΔMVE_A	Market value of equity of the acquirer on the announcement date, less the market value of equity of the acquirer four weeks preceding the announcement (*SDC variable name AMV*). The market value of equity of the acquirer on the announcement date is measured as *APriceDay* multiplied by the number of shares outstanding, *AShrout*.
Target	
PricePaid	Share price paid for the target firm.
TPrice4Week	Target closing stock price four weeks preceding the announcement date.
Premium	Merger premium calculated as (1) the difference between the price paid for the target less the closing stock price of the target four weeks preceding the announcement date, divided by (2) the closing stock price of the target four weeks preceding the announcement date (i.e., (*PricePaid-TPrice4Week*)/*TPrice4Week*). Natural log used in empirical analyses.
TShrout	Target number of shares outstanding on date of announcement.
ΔMVE_T	Market value of equity of the target on the announcement date, less the market value of equity of the acquirer four weeks preceding the announcement (*SDC variable name MV*). The market value of equity of the target on the announcement date is measured as *PricePaid* multiplied by the number of shares outstanding, *TShrout*.
Combined	
W	Market value of equity of the acquirer (*SDC variable name MV*) plus the market value of equity of the target (*SDC variable name AMV*), both measured four weeks preceding the announcement date.
$\Delta\Pi$	Total synergy gain calculated as $W\Delta MVE_A + W\Delta MVE_T$.

Table 2 (continued)

Panel B: Dependent Variables	
$ln(\Delta\Pi)$	Natural log of 100 + $\Delta\Pi$.
ln(Premium)	Natural log of 100 + *Premium*.
$ln(Total\Delta V_{TXLIST})$	Natural log of 100 + $Total\Delta V_{TXLIST}$.
$ln(Total\Delta V_{TACTG})$	Natural log of 100 + $Total\Delta V_{TACTG}$.
Panel C: Test Variables	
Source: Worldscope	
$Strategic_{XLIST}$	Indicator variable equal to one if the target firm had cross-listed stock and zero otherwise (based on *STK_EXCH_LISTED* variable in Worldscope). See Appendix A for more information.
$Strategic_{IFRS}$	Indicator variable equal to one if *EarlyVoluntary* or *LateVoluntary* equal one and zero otherwise (based on *ACTG_STANDARDS* variable in Worldscope). See Appendix A for more information.
Panel D: Tobin's Q and Cross-Listing Premium Variables	
Source: Worldscope	
Assets	Total assets.
BVE	Book value of equity.
MVE_Q	Market value of equity used to calculate Tobin's Q.
Sales	Total sales.
Q_{ACTG}	Tobin's Q for firms that voluntarily adopted IFRS, calculated as [(*Assets-BVE*)+MVE_Q] / *Assets*. Sample of target and non-target firms matched on (i) country, (ii) year, (iii) one-digit SIC, and (iv) sales.
$Q_{NONACTG}$	Tobin's Q for firms that did not voluntarily adopted IFRS, calculated as [(*Assets-BVE*)+MVE_Q] / *Assets*. Sample of target and non-target firms matched on (i) country, (ii) year, (iii) 1-digit SIC, and (iv) sales.
dQ_{ACTG}	Premium for voluntarily adopting IFRS, calculated as Q_{ACTG}- $Q_{NONACTG}$.
$IMVE_{XLIST}$	Implied market value of equity. Calculated for both cross-listed and non-cross-listed firms as (*Assets**$Q_{NONXLIST}$)-(*Assets-BVE*).
$IMVE_{ACTG}$	Implied market value of equity. Calculated for both for firms that voluntarily adopted IFRS and did not voluntarily adopt IFRS. Calculated as (*Assets**$Q_{NONACTG}$)-(*Assets-BVE*).
$Total\Delta V_{TXLIST}$	Total valuation gains. Calculated for both cross-listed and non-cross-listed firms as [(*PricePaid***TShrout*) - $IMVE_{XLIST}$] / $IMVE_{XLIST}$.
$Total\Delta V_{TACTG}$	Total valuation gains. Calculated for both for firms that voluntarily adopted IFRS and did not voluntarily adopt IFRS as [(*PricePaid***TShrout*)-$IMVE_{ACTG}$] / $IMVE_{ACTG}$.
Source: Doidge et al. (2004)	
Q_{XLIST}	Tobin's Q (cross-listed firms) equal to [(*Assets-BVE*)+MVE_Q]/*Assets*.
$Q_{NONXLIST}$	Tobin's Q (non-cross-listed firms) equal to [(*Assets-BVE*)+MVE_Q]/*Assets*.
dQ_{XLIST}	Cross-listing premium calculated as Q_{XLIST}- $Q_{NONXLIST}$.

Table 2 (continued)

Panel E: Control Variables	
Source: SDC	
TargetSize	The natural log of the target firm's market value of equity four weeks preceding the merger announcement.
TenderOffer	Indicator variable equal to one if the deal is a tender offer, zero otherwise.
Contested	Indicator variable equal to one if there is more than one bidder, zero otherwise.
Cash	Indicator variable equal to one for cash payment method, zero otherwise.
Stock	Indicator variable equal to one for stock payment method, zero otherwise.
Hostile	Indicator variable equal to one for hostile deal attitude, zero otherwise.
Source: La Porta et al. (1998)	
Rule of Law	Proxy for the law and order tradition in a country ranging between zero and ten. Measured by the International Country Risk rating agency. Calculated as an average of the monthly ratings from April and October of 1982-1995.
Anti-Director Rights	Equally weighted index that is formed by adding one when (i) the country allows shareholders to mail their proxy vote to the firm, (ii) shareholders are not required to deposit their shares prior to the general shareholders' meeting, (iii) cumulative voting or proportional representation of minorities in the board of directors is allowed, (iv) an oppressed minorities mechanism is in place, (v) the minimum percentage of share capital that entitles a shareholder to call for an extraordinary shareholders' meeting is less than or equal to ten percent (the sample median), or (vi) shareholders have preemptive rights that can be waived only by a shareholders' vote.
Protection	The level of shareholder protection in a country. Calculated as the product of Rule of Law and Anti-Director Rights divided by ten.

Measuring the Conglomerate Gain

I measure the conglomerate gain (*ConglomerateGain*) as the closing price of the acquiring firm on the announcement date (*APriceDay*) less the closing price of the acquiring firm four weeks prior to the announcement (*APrice4Week*), divided by the closing price of the acquiring firm four weeks prior to the announcement (*APrice4Week*). The data for these variables are obtained from SDC.

Measuring the Merger Premium

I obtain the merger premium (*Premium*) from SDC. Specifically, SDC measures the merger premium as the price paid for the target firm (*PricePaid*) less the stock price of the target firm four weeks prior to the announcement (*TPrice4Week*), divided by the stock price of the target firm four weeks prior to the announcement (*TPrice4Week*).

Measuring the Total Synergy Gain

Empirically, I measure the total synergy gain as the sum of the change in the market value of equity of the acquiring firm, plus the change in the market value of equity of the target firm, where each component is scaled by the sum of the acquirer and target firm market values of equity. Thus, the total synergy gain is:

$$\Delta\Pi_i = W_i\Delta MVE_A + W_i\Delta MVE_T \quad (2)$$

where W_i is equal to one divided by the sum of the market value of equity for the acquirer and target, both measured four weeks prior to the announcement. I measure the market value of equity four weeks prior to the announcement to be consistent with prior research such as Bradley et al. (1988) and Starks and Wei (2004) who match their measurement of market value of equity to coincide with the start date for measuring the merger premium.

More specifically, ΔMVE_A is the market value of equity of the acquiring firm on the date of the announcement, measured as the price of the acquiring firm on the date of the announcement multiplied by the shares outstanding on the date of the announcement (i.e., *APriceDay*AShrout*) less the market value of equity four weeks prior to the announcement (i.e., *AMV* per SDC). ΔMVE_T is the market value of equity of the target firm on the date of the announcement, measured as the price paid by the acquiring firm

multiplied by the shares outstanding on the date of the announcement (i.e., *PricePaid*TShrout*) less the market value of equity four weeks prior to the announcement (i.e., *MV* per SDC).

To illustrate the measurement of the total synergy gain, suppose the market value of equity of the acquirer on the date of the announcement (*APriceDay*AShrout*) is $1,200,000 and four weeks preceding the announcement date, the market value of equity of the acquirer (*AMV*) was $1,000,000. Further assume that for the target firm, the market value on the announcement date (*PricePaid*TShrout*) was $650,000 and four weeks prior it was $500,000 (*MV*). Thus, $W_i\Delta V_A$ equals (200,000)/(1,000,000+500,000) and $W_i\Delta V_T$ equals (150,000) / (1,000,000 + 500,000). As a result, $\Delta\Pi_i$ would be 0.23 (i.e., 0.13+0.10).[15]

Measuring the Strategy Premium and the Total Valuation Gains

Prior research such as Doidge et al. (2004), have typically measured the cross-listing premium using Tobin's Q. However, the mergers and acquisitions literature measures the total synergy gains and its components using changes in stock prices. Thus, Tobin's Q cannot easily be combined with the merger premium to determine the total valuation gains for strategic firms.

To circumvent this issue and compute total valuation gains, I convert the strategy premium from a Q-based measure to a price-based measure using the procedure I outline below. In general, for my sample of strategic target firms and for each strategy, I

[15] In my empirical analysis, I transform the dependent variables by first adding 100 to the variable and then taking the natural log. Thus, using this example, the dependent variable would be 4.61 (=ln(100.23)).

construct a proxy for the implied market value of equity as if the company had not undertaken a strategy. This procedure enables me to combine the merger premium with the respective strategy premium to determine the total valuation gains for strategic firms.

More specifically, to convert the strategy premium from a Q-based measure to a price-based measure, I utilize a country-specific measure of Tobin's Q for firms that have not cross-listed and another for firms that have not voluntarily adopted IFRS. Consistent with Doidge et al. (2004), I measure Tobin's Q as:

$$Q = [(Assets\text{-}BVE)+MVE_Q] \,/\, Assets \tag{3a}$$

Thus, the strategy premium for each strategy is calculated as the difference between Tobin's Q for strategic firms and Tobin's Q for non-strategic firms.

Next, for the sample of strategic firms, I substitute into equation (3a) firm-specific measures of total assets (*Assets*) and book value of equity (*BVE)*, and either a country-specific measure of Tobin's Q for firms that are not cross-listed ($Q_{NONXLIST}$) or a country-specific measure of Tobin's Q have not voluntarily adopted IFRS ($Q_{NONACTG}$).[16] Using this information, I solve for the implied pre-acquisition market value of equity for each target firm ($IMVE_{XLIST}$) as if the firm did not have cross-listed stock. Similarly, I solve for the implied pre-acquisition market value of equity for each target firm ($IMVE_{ACTG}$) as if the firm had not voluntarily adopted IFRS. Thus, I rearrange equation (3a) as follows:

$$IMVE_{XLIST} = (Q_{NONXLIST} * Assets) - (Assets\text{-}BVE) \tag{3b}$$

$$IMVE_{ACTG} = (Q_{NONACTG} * Assets) - (Assets\text{-}BVE) \tag{3c}$$

[16] As discussed below, due to data limitations, I use different methods for each strategy to calculate the total valuation gains.

For example, suppose a firm with cross-listed stock has assets of $100 million and book value of equity of $30 million. Further assume that $Q_{NONXLIST}$ in the country the firm is domiciled in equals 1.2. This means that the implied pre-acquisition market value of equity for this firm is $50 million (i.e., (1.2*$100)-($100-$30)).

Finally, to calculate the total valuation gains for cross-listed firms, I take the implied market value of equity (calculated above) subtracted from the market value of the target firm on the announcement date, divided by the implied market value of equity. I calculate these variables as $[(PricePaid*TShrout)-IMVE_{XLIST}]/IMVE_{XLIST}$ and $[(PricePaid*TShrout)-IMVE_{ACTG}]/IMVE_{ACTG}$, respectively and denote these variables as $Total\Delta V_{TXLIST}$ and $Total\Delta V_{TACTG}$. Suppose the market value of equity at the announcement date for the firm described above was $65 million. In this case, $Total\Delta V_{TXLIST}$ would equal 0.30 (i.e., (65-50)/50). Thus, the total valuation gains from the merger and the strategy for this firm would be 30%.

One limitation to the method described above is that Worldscope only provides cross-listing status for the most recent fiscal-year. Thus, for a company that was acquired in 2004, I can only identify whether it was cross-listed at that time, but cannot identify the cross-listing status in earlier years. Due to this data limitation, I utilize the country-specific measures of Tobin's Q from Doidge et al. (2004).[17] They measure Tobin's Q as of December 31, 1997. Therefore, in sensitivity analyses, I limit my sample to a five-year window of acquisitions announced between 1995-1999.

[17] See Doidge et al. (2004), Table 1, pages 219-220.

To calculate the implied market value of equity for firms that voluntarily adopted IFRS, I construct a sample of non-target and target firms from which I calculate Tobin's Q for the strategic and non-strategic firms. Specifically, I match my sample of strategic target firms to strategic non-target firms based on country, year, one-digit industry codes, and size. I use sales as my proxy for size and I require matched firms to have sales between 50% and 200% of the target firm's sales. I use a similar method to find a sample of non-strategic non-target firms. Each firm serves as a match only once. I use the matched non-target firms and target firms to calculate $IMVE_{ACTG}$. As in Doidge et al. (2004), the sample for which I calculate Tobin's Q must have complete data to calculate Tobin's Q.[18] I also require that book value of equity be positive. The variables used to calculate Tobin's Q are obtained from Thomson's Worldscope database.

Within Country Comparison: Research Design for Tests of H1a-H2b

Hypotheses 1a and 2a both contain two parts. To test each part of these hypotheses, I use two separate regressions. To test whether the total synergy gains are lower for strategic target firms relative to non-strategic target firms, I regress my proxy for the total synergy gain, $ln(\Delta\Pi)$ on an indicator variable equal to one if the target firm has undertaken a strategy in advance of the acquisition and a set of control variables. More specifically, my regression model is as follows:

$$ln(\Delta\Pi)_i = \alpha_i + \beta_1 Strategic_i + \beta_2 Protection_i + \beta_3 TargetSize_i + \beta_4 TenderOffer_i + \beta_5 Contested_i + \beta_6 Cash_i + \beta_7 Stock_i + \beta_8 Hostile_i + \varepsilon_i \quad (4)$$

[18] Note that Doidge et al. (2004) require that their sample include (1) only non-financial firms, (2) firms with total assets in excess of $100 million and (3) firms with complete data to calculate Tobin's Q. I do not make the first two requirements because I do not restrict my sample of acquisitions to only non-financial firms and also expect that some smaller firms will be targets in cross-border acquisitions.

For simplicity, the variable *Strategic* in equation (4) identifies either a firm that has cross-listed stock or has voluntarily adopted IFRS (i.e., $Strategic_{XLIST}$ or $Strategic_{ACTG}$ are equal to one). In all of my regression models, an acquisition constitutes an observation. I run separate regressions to test the relation between the dependent variable and each strategy. Finding a negative and statistically significant coefficient on β_1 provides support for hypotheses 1a and 2a.

To test whether the distribution of the gains to strategic target firms is lower relative to non-strategic target firms, I run the same regression as above, except I use *ln(Premium)* as the dependent variable. That is, I run the following regression:

$$ln(Premium)_i = \alpha_i + \beta_1 Strategic_i + \beta_2 Protection_i + \beta_3 TargetSize_i + \beta_4 TenderOffer_i + \beta_5 Contested_i + \beta_6 Cash_i + \beta_7 Stock_i + \beta_8 Hostile_i + \varepsilon_i \quad (5)$$

Again, finding a negative and statistically significant coefficient on β_1 provides support for hypotheses 1a and 2a.

To test hypotheses 1b and 2b, for each strategy, I regress the dependent variable $ln(Total\Delta V_T)$ on an indicator variable equal to one if the target firm is a strategic firm and a set of control variables.[19] Specifically, I run the following regression for each strategy:

$$ln(Total\Delta V_T)_i = \alpha_i + \beta_1 Strategic_i + \beta_2 Protection_i + \beta_3 TargetSize_i + \beta_4 TenderOffer_i + \beta_5 Contested_i + \beta_6 Cash_i + \beta_7 Stock_i + \beta_8 Hostile_i + \varepsilon_i \quad (6)$$

In equation (6) finding a positive and statistically significant coefficient on β_1 provides support for hypotheses 1b and 2b.

[19] For brevity, in equation (6) I refer to the dependent variable as $ln(Total\Delta V_T)$. However, I run separate regression for each dependent variable (i.e., $ln(Total\Delta V_{TXLIST})$ and $ln(Total\Delta V_{TACTG})$, respectively).

In addition to *Strategic*, my variable of interest, I include the same set of control variables in equations (4)-(6). The variable *Protection* controls for the level of shareholder protection in the target firm's country. *TargetSize*, *TenderOffer*, *Contested*, *Cash*, *Stock*, and *Hostile* all control for deal-specific characteristics and are obtained from SDC. *TargetSize* is the natural log of the target firm's market value of equity four weeks preceding the merger announcement. *TenderOffer* represents an indicator variable equal to one if the deal is a tender offer and zero otherwise. *Contested* is an indicator variable equal to one if there is more than one bidder and zero otherwise. *Cash* is an indicator variable equal to one if the method of payment is cash and zero otherwise. *Stock* is an indicator variable equal to one if the method of payment is stock and zero otherwise. Thus, acquisitions that are financed entirely with debt or use a mixture of payment methods serve as the base case. Finally, *Hostile* is an indicator variable equal to one if the deal attitude is hostile and zero otherwise.

The tests of hypotheses 1a through 2b rely on several assumptions and I restate them here for completeness. First, I assume that *Protection* proxies for country-specific transparency and that there is little variation in firm-specific transparency. Thus, I assume that $Strategic_{XLIST}$ and $Strategic_{IFRS}$ capture all the differences between the level of transparency in the firm and the level of transparency in the country. I also assume that target firms in weak regulatory environments with cross-listed stock have cross-listed on an exchange that provides stronger protection of minority shareholders. To the extent this assumption is incorrect, it should bias against finding evidence of my hypotheses, as cross-listing would not provide the requisite positive signal to acquiring firms.

Additionally, I assume that IFRS is more transparent than local GAAP. Again, to the extent this assumption is incorrect, it would bias against finding evidence supporting my hypotheses, because adopting IFRS would not serve as a positive signal to acquiring firms.

In addition to the assumptions outlined above, the research design for the tests of hypotheses 1a through 2b requires that non-strategic target firms in a country serve as a valid control group. Prior research suggests that such firms do serve as an appropriate control group. Specifically, Leuz and Wysocki (2008) suggest that in tests involving voluntary disclosure or cross-listing decisions, strategic firms (i.e., those cross-listing or voluntarily adopting IFRS) should be compared to non-strategic firms (i.e., those not cross-listing or not voluntarily adopting IFRS) within the same country.[20] Finally, I assume that the gains to the acquirer are constant for both acquisitions of strategic and non-strategic firms.

Cross-Country Comparison: Research Design for Tests of Hypotheses 3 and 4

To test my third and fourth hypotheses, I use a similar research design to that used to test hypotheses 1a and 2a. For each hypothesis, I examine two regression models. The first model regresses my proxy for the total synergy gain, $ln(\Delta\Pi)$ on an indicator variable equal to one if the target firm is a strategic firm and the same set of control variables discussed above. In the second model, the dependent variable is my proxy for the merger premium, *ln(Premium).* More specifically, I run the following regressions:

[20] Leuz and Wysocki (2008) also suggest that another relevant comparison is to examine the *same* firm that has not cross-listed.

$$ln(\Delta\Pi)_i = \alpha_i + \beta_1 Strategic_i + \beta_2 Protection_i + \beta_3 TargetSize_i + \beta_4 TenderOffer_i + \beta_5 Contested_i + \beta_6 Cash_i + \beta_7 Stock_i + \beta_8 Hostile_i + \varepsilon_i \quad (7)$$

$$ln(Premium)_i = \alpha_i + \beta_1 Strategic_i + \beta_2 Protection_i + \beta_3 TargetSize_i + \beta_4 TenderOffer_i + \beta_5 Contested_i + \beta_6 Cash_i + \beta_7 Stock_i + \beta_8 Hostile_i + \varepsilon_i \quad (8)$$

In both equations, a significant positive coefficient on β_1 provides support for the third and fourth hypotheses. As in the within country comparison, I additionally assume that that the gains to the acquirer are constant for both acquisitions of strategic and traditional firms.

CHAPTER V

RESULTS

Descriptive Statistics and Regression Results

My empirical tests use the universe of cross-border mergers and acquisitions obtained from Thomson Reuters' SDC Platinum database completed between January 1, 1995 and December 31, 2007. I select 26 countries as the basis for my sample (Australia, Austria, Belgium, Brazil, Canada, Denmark, Finland, France, Germany, Hong Kong, India, Ireland, Italy, Japan, Malaysia, Mexico, the Netherlands, New Zealand, Norway, Portugal, Singapore, South Africa, Spain, Sweden, Switzerland, and the United Kingdom).[21] Of the 4,586 cross-border mergers and acquisitions for these countries during this time period, 1,071 cross-border acquisitions can be matched to Worldscope.

Panels A and B of Table 3 summarize cross-border acquisitions between acquirer-target country-pairs for the time period for each sub-sample used to test my hypotheses. Acquirers are listed in the column and targets are listed across the row. For the within country sample, the most frequent acquirer-target country-pair is between a target from South Africa and an acquirer from the United Kingdom (39 observations). For the cross-country sample, the most frequent acquirer-target country-pair is between a target from Australia and an acquirer from the United Kingdom (67 observations). In many cases, zero transactions occur between an acquirer-target country-pair in this time period.

[21] To avoid potentially biasing my results in favor of my hypotheses, I do not include the United States in my study since a significant number of the transactions in SDC involve U.S. targets or acquirers.

Table 4 provides correlations between the dependent variables and control variables. Table 4, panel A provides correlations for the within country sample and panel B reports correlations for the cross-country sample. Bold correlation coefficients indicate significance with a p-value of less than 0.01. In panel A, $ln(\Delta\Pi)$ is not significantly correlated with $Strategic_{XLIST}$ or $Strategic_{IFRS}$. *ln(Premium)* is also not significantly correlated with $Strategic_{XLIST}$ or $Strategic_{IFRS}$. Furthermore, $ln(Total\Delta V_{TXLIST})$ ($ln(Total\Delta V_{TACTG})$) is not significantly correlated with $Strategic_{XLIST}$ ($Strategic_{IFRS}$). In panel B, $ln(\Delta\Pi)$ is not significantly correlated with $Strategic_{XLIST}$ or $Strategic_{IFRS}$. *ln(Premium)* is also not significantly correlated with $Strategic_{XLIST}$ or $Strategic_{IFRS}$.

Hypotheses 1a through 2b examine firms in countries with weak regulatory environments by comparing the total synergy gains, merger premia, and total valuation gains of strategic firms to non-strategic firms. I use shareholder protection indices for 49 countries from La Porta et al. (1998) to classify the regulatory environment in a country as strong or weak. Similar to Rossi and Volpin (2004), I calculate *Protection* as the product of the rule of law and anti-director rights index, divided by ten. I classify a country as having a strong regulatory environment if *Protection* for a given country is in the top quintile for all 49 countries. All other countries are classified as having a weak regulatory environment. Thus, my classification of countries with weak regulatory environments includes countries with "average" regulatory environments as well those countries with below average regulatory environments. For my sample, this method classifies Australia, Canada, Hong Kong, Japan, Norway, New Zealand, and the United Kingdom as countries with strong regulatory environments.

Table 3
Cross-Border Mergers and Acquisitions Activity

Panel A: Within Country Sample

	AUT	BEL	BRA	CHE	DEU	DNK	ESP	FIN	FRA	IND	IRL	ITA	MEX	MYS	NLD	PRT	SGP	SWE	ZAF	Total
AUS	0	0	0	0	3	2	0	0	0	1	2	0	0	3	1	1	2	0	1	16
AUT	0	1	0	1	14	0	0	0	1	2	0	1	0	0	1	0	0	0	0	21
BEL	0	0	2	1	10	0	4	1	19	0	0	1	0	0	5	1	0	0	0	44
BRA	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	2
CAN	2	2	1	0	1	0	2	0	5	2	2	0	1	0	0	0	1	6	5	30
CHE	1	1	0	0	24	0	7	0	11	5	2	4	2	0	3	2	1	5	1	69
DEU	11	2	0	24	0	0	10	5	29	5	1	18	0	2	1	3	0	9	0	120
DNK	0	0	0	0	1	0	0	2	0	0	0	0	1	1	2	0	0	1	0	8
ESP	0	1	9	1	1	0	0	0	14	0	0	3	10	0	3	18	0	0	0	60
FIN	2	0	0	0	2	0	0	0	1	2	0	0	0	0	0	0	1	21	0	29
FRA	2	16	9	6	20	1	18	1	0	6	0	5	0	0	24	1	8	0	2	119
GBR	2	3	3	3	23	1	11	3	23	12	5	4	3	7	8	3	5	12	39	170
HKG	0	0	0	1	1	0	0	0	0	2	0	0	0	5	0	0	17	0	0	26
IND	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3
IRL	0	0	0	1	5	0	0	0	1	0	0	0	0	0	0	1	0	2	0	10
ITA	4	1	4	3	21	0	13	0	16	0	0	0	0	0	2	0	1	0	0	65
JPN	0	3	3	0	3	0	0	0	4	6	0	1	0	4	0	0	4	2	1	31
MEX	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
MYS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	12
NLD	2	5	5	2	14	0	2	0	7	6	0	3	0	0	0	2	1	2	3	54
NOR	1	2	3	0	0	5	0	1	0	0	0	0	0	0	0	0	1	18	0	31
PRT	0	0	17	0	1	0	14	0	0	0	0	0	0	0	0	0	0	0	0	32
SGP	0	0	0	1	0	0	0	0	0	5	0	0	0	15	0	0	0	0	0	21
SWE	0	0	4	1	10	7	0	16	4	7	0	0	0	0	2	0	0	0	2	53
ZAF	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	3
Total	*28*	*39*	*68*	*45*	*154*	*16*	*82*	*29*	*137*	*61*	*12*	*40*	*17*	*37*	*52*	*33*	*55*	*78*	*54*	*1,037*

Table 3 (continued)

Panel B: Cross-Country Sample

	AUS	AUT	BEL	CAN	CHE	DEU	DNK	ESP	FIN	FRA	GBR	HKG	IRL	ITA	JPN	MYS	NLD	NOR	NZL	PRT	SWE	ZAF	Total
AUS	0	0	0	2	0	1	2	0	0	0	15	6	0	0	0	0	0	0	31	1	0	0	58
AUT	1	0	1	0	0	6	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	11
BEL	0	0	0	0	0	0	0	0	0	3	4	1	0	1	3	0	2	0	0	0	0	0	14
BRA	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
CAN	34	0	0	0	0	0	0	0	0	0	5	2	0	0	1	0	0	4	1	0	0	1	48
CHE	5	0	0	4	0	14	0	0	0	1	12	2	2	4	2	0	2	1	0	0	1	0	50
DEU	12	5	1	2	12	0	0	2	0	7	20	2	1	12	2	0	0	1	0	0	0	0	79
DNK	1	0	0	1	0	1	0	0	0	0	3	0	0	0	0	1	0	1	0	0	0	0	8
ESP	2	0	0	0	0	1	0	0	0	2	9	1	0	1	0	0	0	2	0	6	0	0	24
FIN	0	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	2	0	0	0	0	5
FRA	4	0	5	5	4	8	0	3	1	0	23	3	0	5	7	0	12	3	2	0	0	0	85
GBR	67	2	2	19	2	5	0	4	2	4	0	7	0	4	13	2	2	2	7	1	1	7	153
HKG	7	0	0	0	1	1	0	0	0	0	6	0	0	0	3	1	0	0	0	0	0	0	19
IND	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	0	0	0	4
IRL	3	0	0	1	0	0	0	0	0	0	16	1	0	0	0	0	0	0	0	0	0	0	21
ITA	4	4	0	1	3	16	0	2	0	2	9	2	0	0	0	0	0	0	0	0	0	0	43
JPN	8	0	0	2	0	0	0	0	0	2	7	15	0	1	0	0	0	0	0	0	0	0	35
MEX	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
MYS	7	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	13
NLD	3	1	0	3	2	2	0	0	0	0	7	1	0	1	0	0	0	2	1	1	0	0	24
NOR	0	1	0	2	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	6
NZL	12	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	14
PRT	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
SGP	5	0	0	0	1	0	0	0	0	0	1	11	0	0	0	0	0	0	2	0	0	0	20
SWE	1	0	0	1	1	1	1	0	1	0	5	0	0	0	3	0	0	10	0	0	0	0	24
ZAF	25	0	0	2	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	39
Total	*202*	*13*	*9*	*49*	*26*	*56*	*4*	*12*	*4*	*21*	*164*	*58*	*3*	*30*	*35*	*4*	*18*	*30*	*45*	*9*	*2*	*8*	*802*

Table 4
Spearman Rank-Order (Upper) and Pearson's Product Moment (Lower) Correlation Matrix

Panel A: Within-Country Sample

	ln(ΔΠ)	*ln(Premium)*	*ln(TotalΔV$_{TXLIST}$)*	*ln(TotalΔV$_{TACTG}$)*	*Protection*	*TargetSize*	*Tender*	*Contested*	*Cash*	*Stock*	*Hostile*	*Strategic$_{XLIST}$*	*Strategic$_{IFRS}$*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1)		**0.384**	0.165	**0.157**	-0.099	**0.159**	0.052	**0.164**	**-0.174**	0.073	0.042	0.024	**0.190**
(2)	**0.749**		0.051	0.080	-0.010	-0.056	**0.161**	**0.138**	-0.008	-0.021	0.055	-0.077	-0.013
(3)	**0.256**	**0.220**		**0.928**	-0.018	**0.233**	0.039	-0.048	**-0.169**	**0.187**	-0.081	-0.003	**-0.127**
(4)	0.097	**0.119**	**0.971**		0.005	**0.122**	**0.099**	0.028	**-0.103**	**0.110**	-0.003	-0.074	-0.032
(5)	0.037	0.036	-0.023	-0.007		**-0.139**	-0.019	-0.022	**0.104**	0.027	0.024	**0.077**	**-0.323**
(6)	0.100	0.017	**0.309**	**0.169**	**-0.139**		-0.071	-0.003	**-0.191**	**0.114**	0.036	**0.328**	**0.249**
(7)	**-0.148**	0.056	0.045	**0.094**	-0.024	-0.056		**0.087**	**0.129**	0.033	**0.129**	**-0.079**	-0.027
(8)	0.036	0.049	-0.027	0.012	-0.008	-0.002	**0.087**		0.045	-0.032	**0.130**	-0.025	0.013
(9)	-0.056	0.016	**-0.174**	**-0.091**	**0.103**	**-0.189**	**0.129**	0.045		**-0.482**	-0.026	-0.064	**-0.068**
(10)	0.017	0.016	**0.195**	**0.110**	0.031	**0.105**	0.033	-0.032	**-0.482**		-0.026	-0.002	-0.024
(11)	0.010	0.023	-0.043	-0.016	0.024	0.036	**0.129**	**0.130**	-0.026	-0.026		-0.020	0.005
(12)	0.113	-0.002	0.016	**-0.123**	**0.069**	**0.349**	**-0.079**	-0.025	-0.064	-0.002	-0.020		0.047
(13)	0.051	0.011	**-0.164**	-0.069	**-0.306**	**0.248**	-0.027	0.013	**-0.068**	-0.024	0.005	0.047	

Table 4 (continued)

Panel B: Cross-Country Sample

	ln(ΔΠ)	*ln(Premium)*	*Protection*	*TargetSize*	*Tender*	*Contested*	*Cash*	*Stock*	*Hostile*	$Strategic_{XLIST}$	$Strategic_{IFRS}$
ln(ΔΠ)		**0.443**	0.027	0.051	0.105	0.080	0.041	0.018	**0.155**	-0.032	0.052
ln(Premium)	0.120		**0.212**	-0.037	**0.301**	**0.200**	**-0.087**	0.081	0.077	-0.053	-0.054
Protection	-0.015	0.071		**-0.200**	**0.139**	0.110	**0.120**	-0.005	0.056	**-0.684**	**-0.754**
TargetSize	0.078	0.032	**-0.307**		-0.009	0.025	-0.074	-0.012	0.034	**0.423**	**0.322**
Tender	0.046	**0.165**	0.058	0.012		**0.214**	-0.025	**0.144**	**0.208**	-0.057	-0.046
Contested	0.020	**0.134**	**0.095**	0.004	**0.214**		0.058	-0.021	**0.168**	-0.058	-0.058
Cash	0.050	-0.014	**0.153**	**-0.081**	-0.025	0.058		**-0.454**	0.034	**-0.175**	**-0.144**
Stock	-0.031	0.007	-0.001	-0.010	**0.144**	-0.021	**-0.454**		0.002	0.021	0.027
Hostile	0.024	0.044	**0.060**	0.034	**0.208**	**0.168**	0.034	0.002		-0.033	-0.045
$Strategic_{XLIST}$	0.142	-0.050	**-0.844**	**0.453**	-0.057	-0.058	**-0.175**	0.021	-0.033		**1.000**
$Strategic_{IFRS}$	0.015	-0.037	**-0.924**	**0.325**	-0.046	-0.058	**-0.144**	0.027	-0.045	**1.000**	

Table 5 summarizes the number of transactions with complete data to test each hypothesis. Panel A summarizes the observations for the within-country analyses by strategy type. As reported in panel A of Table 3, 1,037 transactions involve target firms in countries with weak regulatory environments. However, as shown in panel A of Table 5, only 103 transactions had the necessary information to determine the cross-listing status and compute the total synergy gains. This difference in the number of observations is driven primarily by a lack of available data in SDC on the acquiring firm's market value of equity at the announcement date and four weeks preceding the announcement. As reported in panel A of Table 5, 103 (162) observations have complete data to test the first part of hypothesis 1a (2a). Of these observations, 9 (38) transactions involved a target firm with cross-listed stock (voluntarily adopted IFRS).

Hypotheses 3 and 4 compare the total synergy gains and merger premia for strategic target firms from weak regulatory environments to target firms from strong regulatory environments. Panel B of Table 5 summarizes the observations for the cross-country analyses by strategy type. Of the 143 (380) transactions with complete data to analyze the merger premium, 18 (73) of those transactions involved a target firm with cross-listed stock (voluntarily adopted IFRS). Again, the data available from acquirers to compute the total synergy gains significantly limits the sample size.

Table 5
Observations with Available Data by Sample

Panel A: Within Country Sample						
	Cross-Listing			*IFRS*		
	Full Sample	Not Cross-Listed	Cross-Listed	Full Sample	Local GAAP	IFRS
ln(ΔΠ)	103	94	9	162	124	38
ln(Premium)	193	175	18	398	325	73
ln(TotalΔV_T)	131	120	11	433	365	68

Panel B: Cross-Country Sample						
	Cross-Listing			*IFRS*		
	Full Sample	Traditional	Cross-Listed	Full Sample	Traditional	IFRS
ln(ΔΠ)	88	79	9	175	137	38
ln(Premium)	143	125	18	380	307	73

Table 6 provides summary statistics for each sub-sample analyzed. In my regression analyses, I compute the natural log of each dependent variable to control for heteroskedasticity.[22] Panel A provides summary statistics for firms with information available to determine cross-listing status. Three sub-samples are shown based on the dependent variable used in the analysis. As shown in panel A, the mean of *ln(ΔΠ)*, *ln(Premium)*, and *ln(TotalΔV_T)* are 4.625, 4.716, and 4.419, respectively. In all three sub-samples over 80% of the targets are acquired with cash. The percent of target firms that are cross-listed (i.e., $Strategic_{XLIST}$=1), ranges between 8.4% and 9.3%. A t-test of

[22] As in prior research, I restrict the dependent variables to be greater than -100 and less than 100 to control for outliers. Since the dependent variables are not bound to be greater than zero, I add 100 to each observation before I compute the natural log of each dependent variable. Before these transformations, the mean of *ΔΠ*, *Premium*, and *TotalΔV_T* is 4.51, 17.72, and 0.89, respectively. Thus, the average merger premium is 17.72%

differences in means suggests there is not a significant difference between the strategic and non-strategic firms for any of the dependent variables.[23]

Panel B of Table 6 reports similar findings to panel A with a few minor exceptions. First, a relatively lower (higher) percentage of acquisitions are paid for with cash (stock). Additionally, more firms are identified as strategic in panel B. Specifically, the percent of target firms that adopted IFRS (i.e., $Strategic_{IFRS}$=1), ranges between 15.7% and 23.5%. In panel B, a t-test of differences in means suggests there is not a significant difference in merger premia between the strategic and non-strategic firms. However, in contrast to panel A, the univariate evidence suggests that the total valuation gains for strategic firms are *lower* than the total valuation gains for non-strategic firms, contrary to hypothesis 2b.

Panels C and D of Table 6 report descriptive statistics for the cross-country sample. In panel C, the mean of $ln(\Delta\Pi)$ and $ln(Premium)$ are 4.594 and 4.729, respectively. The percent of target firms that are cross-listed (i.e., $Strategic_{XLIST}$=1), ranges between 10.2% and 12.6%. A t-test of differences in means suggests there is not a significant difference between the strategic and traditional firms for either of the dependent variables.

Panel D reports similar results to panel C with a few minor differences. First, stock offers are more prevalent in this group of acquisitions and encompass 10.3% to 11.6% of the sample. As in the within-country sample, there is a higher frequency of strategic firms in panel D than in panel C. Specifically, between 19.2% and 21.7%

[23] Two-sided p-values are reported.

percent of target firms adopted IFRS (i.e., $Strategic_{IFRS}$=1). However, as in panel C, a t-test of differences in means suggests there is not a significant difference between the strategic and traditional firms for either of the dependent variables. Thus, there is a lack of univariate evidence to support any of the hypotheses.

Table 7 presents the within country results.[24] Panel A provides results for hypotheses 1a. Hypothesis 1a predicts that the total synergy gains and merger premium will be lower for cross-listed firms relative to firms that are not cross-listed. The results in columns (1) and (2) of panel A are inconsistent with this hypothesis. Specifically, for both dependent variables, the coefficient on *Strategic* (i.e., $Strategic_{XLIST}$=1) is not significantly different from zero. Thus, hypotheses 1a is not supported.[25]

In column (1) of Table 7, *Protection* is negative and significant (coefficient -0.057, t-stat 2.08). A similar result appears in column (2) (coefficient -0.050, t-stat 1.66). This finding suggests that for target firms from countries with weak regulatory environments, those firms that have stronger shareholder protection earn lower merger premia. This finding contradicts the main results of Rossi and Volpin (2004). It is important to note that when they control for target firms from the United State and United Kingdom, the coefficient on their shareholder protection is negative and insignificant. Thus, one reason for the above finding is that while all of my analyses exclude U.S targets, the within-country analysis also excludes U.K targets.

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[24] All variables are defined in Table 2. t-statistics based on robust standard errors are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1 indicate significance at 1% percent, 5%, and 10% levels, respectively.

[25] *Hostile* is excluded from column (1) and *Contested* is excluded from columns (1) and (2) because there were no transactions for this group of observations involving these types of bids.

Table 6
Summary Statistics

Panel A: Within Country Comparison (Cross-listed versus Not Cross-listed)

Analysis of Total Synergy Gains *(N=103)*

	Mean	SD	Min	1%	5%	50%	95%	99%	Max
ln(ΔΠ)	4.63	0.29	2.00	4.09	4.49	4.64	4.82	5.14	5.14
Protection	2.15	0.94	0.00	0.00	0.54	2.08	3.43	3.43	3.43
TargetSize	6.55	2.18	1.70	1.70	3.17	6.37	10.19	10.9	10.91
Tender	47.57								
Contested	N/A								
Cash	81.55								
Stock	9.71								
Hostile	N/A								
$Strategic_{XLIST}$	8.74								

Analysis of Merger Premia *(N=193)*

	Mean	SD	Min	1%	5%	50%	95%	99%	Max
ln(Premium)	4.72	0.40	1.64	2.10	4.25	4.74	5.17	5.26	5.28
Protection	2.15	0.91	0.00	0.00	0.83	2.08	3.43	3.43	3.43
TargetSize	6.43	2.13	1.70	1.70	3.17	6.09	9.81	10.90	10.91
Tender	43.52								
Contested	N/A								
Cash	81.35								
Stock	10.88								
Hostile	1.04								
$Strategic_{XLIST}$	9.33								

Analysis of Total Valuation Gains *(N=131)*

	Mean	SD	Min	1%	5%	50%	95%	99%	Max
$ln(Total\Delta V_{TXLIST})$	4.42	0.93	-3.58	0.85	3.52	4.58	5.18	5.27	5.29
Protection	2.25	0.84	0.00	0.00	0.83	2.21	3.43	3.43	3.43
TargetSize	5.89	2.21	-0.69	1.70	2.16	5.61	9.46	10.90	10.91
Tender	38.93								
Contested	0.76								
Cash	88.55								
Stock	6.11								
Hostile	0.76								
$Strategic_{XLIST}$	8.40								

Tests of Differences in Means of Dependent Variables

	Strategic		Non-Strategic		t-statistic	p-value
ln(ΔΠ)	*(N=9)*	4.63	*(N=94)*	4.61	0.11	0.92
ln(Premium)	*(N=18)*	4.72	*(N=175)*	4.72	-0.02	0.99
$ln(Total\Delta V_{TXLIST})$	*(N=11)*	4.68	*(N=120)*	4.39	-0.98	0.33

Table 6 (continued)

Panel B: Within Country Comparison (Voluntarily Adopted IFRS versus Local GAAP)

Analysis of Total Synergy Gains *(N=162)*

	Mean	SD	Min	1%	5%	50%	95%	99%	Max
ln(ΔΠ)	4.62	0.41	0.47	2.00	4.49	4.65	4.83	5.14	5.14
Protection	2.12	0.97	0.00	0.00	0.00	2.08	3.42	3.43	3.43
TargetSize	6.43	2.08	1.09	1.70	3.17	6.30	9.81	10.90	10.91
Tender	51.85								
Contested	2.47								
Cash	79.63								
Stock	11.11								
Hostile	1.24								
$Strategic_{IFRS}$	23.46								

Analysis of Merger Premia *(N=398)*

	Mean	SD	Min	1%	5%	50%	95%	99%	Max
ln(Premium)	4.77	0.33	1.64	3.32	4.42	4.79	5.18	5.26	5.28
Protection	2.15	0.95	0.00	0.00	0.00	2.21	3.43	3.43	3.43
TargetSize	6.44	2.00	1.33	1.70	3.13	6.37	9.58	10.64	10.91
Tender	50.50								
Contested	1.26								
Cash	75.38								
Stock	16.58								
Hostile	1.01								
$Strategic_{IFRS}$	18.34								

Analysis of Total Valuation Gains *(N=433)*

	Mean	SD	Min	1%	5%	50%	95%	99%	Max
$ln(TotalΔV_{TIFRS})$	4.10	0.87	-3.86	1.65	2.60	4.28	5.13	5.26	5.29
Protection	2.20	0.93	0.00	0.00	0.00	2.21	3.43	3.43	3.43
TargetSize	6.23	2.02	-0.69	1.89	3.07	6.01	9.47	10.60	10.91
Tender	46.42								
Contested	1.62								
Cash	80.37								
Stock	12.70								
Hostile	1.16								
$Strategic_{IFRS}$	15.70								

Tests of Differences in Means of Dependent Variables

	Strategic		Non-Strategic		t-statistic	p-value
ln(ΔΠ)	*(N=38)*	4.71	*(N=124)*	4.59	-1.62	0.11
ln(Premium)	*(N=73)*	4.79	*(N=325)*	4.76	-0.63	0.53
$ln(TotalΔV_{TIFRS})$	*(N=68)*	3.92	*(N=365)*	4.13	1.88	0.06

Table 6 (continued)

Panel C: Cross-Country Comparison (Cross-listed versus Traditional)

Analysis of Total Synergy Gains *(N=88)*

	Mean	SD	Min	1%	5%	50%	95%	99%	Max
ln(ΔΠ)	4.59	0.53	0.25	0.25	4.40	4.68	4.89	5.10	5.10
Protection	3.90	0.85	0.00	0.00	2.61	4.00	5.00	5.00	5.00
TargetSize	5.96	2.44	0.65	0.65	2.22	5.42	10.26	10.91	10.91
Tender	37.50								
Contested	4.55								
Cash	79.55								
Stock	7.96								
Hostile	1.14								
$Strategic_{XLIST}$	10.23								

Analysis of Merger Premia *(N=143)*

	Mean	SD	Min	1%	5%	50%	95%	99%	Max
ln(Premium)	4.73	0.31	2.09	4.13	4.38	4.73	5.14	5.20	5.28
Protection	3.86	0.75	0.00	0.00	2.61	4.00	4.28	5.00	5.00
TargetSize	6.19	2.31	0.65	1.04	2.64	5.85	9.92	10.90	10.91
Tender	27.27								
Contested	4.20								
Cash	86.71								
Stock	4.90								
Hostile	1.40								
$Strategic_{XLIST}$	12.59								

Tests of Differences in Means of Dependent Variables

	Strategic		Traditional		t-statistic	p-value
ln(ΔΠ)	*(N=9)*	4.61	*(N=79)*	4.59	-0.13	0.90
ln(Premium)	*(N=18)*	4.72	*(N=125)*	4.73	0.17	0.86

Panel D: Cross-Country Comparison (Voluntarily Adopted IFRS versus Traditional)

Analysis of Total Synergy Gains *(N=175)*

	Mean	SD	Min	1%	5%	50%	95%	99%	Max
ln(ΔΠ)	4.65	0.39	0.25	2.80	4.48	4.67	4.90	5.14	5.22
Protection	3.59	1.21	0.00	0.83	0.83	4.00	5.00	5.00	5.00
TargetSize	5.98	2.06	0.65	1.75	2.78	5.68	9.56	10.37	10.64
Tender	46.29								
Contested	5.71								
Cash	78.29								
Stock	10.29								
Hostile	2.29								
$Strategic_{IFRS}$	21.71								

Table 6 (continued)

Analysis of Merger Premia *(N=380)*									
	Mean	SD	Min	1%	5%	50%	95%	99%	Max
ln(Premium)	4.79	0.28	2.09	3.57	4.46	4.80	5.15	5.26	5.28
Protection	3.64	1.11	0.00	0.83	0.92	4.00	5.00	5.00	5.00
TargetSize	6.17	1.99	0.65	1.85	3.01	6.05	9.56	10.37	10.64
Tender	44.47								
Contested	5.00								
Cash	77.63								
Stock	11.58								
Hostile	2.63								
$Strategic_{IFRS}$	19.21								

Tests of Differences in Means of Dependent Variables

	Strategic		Traditional		t-statistic	p-value
ln(ΔII)	*(N=38)*	4.71	*(N=137)*	4.63	-1.14	0.26
ln(Premium)	*(N=73)*	4.79	*(N=307)*	4.79	0.05	0.96

In Table 7, only two other control variables are significant in column (2). *Cash* is negative and significant (coefficient -0.147, t-stat 1.69) suggesting that merger premia are lower when the acquirer uses cash as the method of payment. *Hostile* is positive and significant (coefficient 0.314, t-stat 6.43) which suggests that target firms involved in hostile takeovers earn higher merger premia.[26] One reason for the lack of significance on many of the control variables in Table 7 is that there is insufficient variation in these variables across the observations. For example, cash acquisitions constitute a majority of the acquisitions. The size of the sample, particularly in column (1), also limits the power of my tests.

[26] Schwert (2000) finds mixed evidence of a relation between hostile acquisitions and merger premia using several different definitions of hostile takeover. However, it is important to note that when hostile is defined using the definition in SDC, he finds higher merger premia for hostile bids.

Hypothesis 2a predicts that the total synergy gains and the merger premium will be lower for firms that have voluntarily adopted IFRS relative to firms that have not voluntarily adopted IFRS. The results in columns (3) and (4) of panel A are inconsistent with this hypothesis. Specifically, when the dependent variable is the total synergy gains, $ln(\Delta\Pi)$, the coefficient on *Strategic* (i.e., $Strategic_{IFRS}$=1) is positive and significant (coefficient 0.107, t-stat 1.90). However, when the dependent variable is *ln(Premium)* the coefficient on *Strategic* is not significantly different from zero (coefficient 0.023, t-stat 0.63). It is important to note that when $ln(\Delta\Pi)$ is the dependent variable, the coefficient on *Strategic* is positive and significant, but the coefficient on *Strategic* is insignificant when *ln(Premium)* is the dependent variable. Taken together, these results suggest that *acquirers* earn higher gains from acquisitions of strategic firms.

Hypotheses 1b and 2b predict higher total valuation gains for strategic firms relative to non-strategic firms. The results are reported in panel B of Table 7. In columns (1) through (3), the dependent variable is $ln(Total\Delta V_{TXLIST})$.[27] The results in the first two columns of panel B do not support hypothesis 1b, as the coefficient on *Strategic* is not significantly different from zero. However, when I examine a potentially more powerful setting of only acquisitions involving target firms in countries with positive cross-listing premia (as reported in Doidge et al. 2004), I find some support for hypothesis 1b. Specifically, when I restrict the sample in this manner, the coefficient on *Strategic* (i.e., $Strategic_{XLIST}$=1) is positive and significant (coefficient 0.222, t-stat 1.94). Thus, there is

[27] Note that Doidge et al. (2004) require that their sample include only non-financial firms. Thus, I exclude non-financial firms from tests where the dependent variable is $ln(Total\Delta V_{TXLIST})$.

evidence that the total valuation gains to cross-listed firms (i.e., the cross-listing premium plus the merger premium) are higher relative to firms that are not cross-listed.

The results in panel B of Table 7 are inconsistent with hypothesis 2b. Specifically, in column (4), the coefficient on *Strategic* (i.e., $Strategic_{IFRS}$=1) is not significantly different from zero. One possible explanation for this result is that the firms in my sample are not "serious" IFRS adopters (Daske et al. 2008). That is, these firms do not significantly change their financial reporting and the quality of their financial disclosures does not improve after adopting IFRS. Taken together with the results in panel A of Table 7, one interpretation of these findings is that there are potential synergy gains to the acquiring firm by acquiring a target firm using IFRS, possibly because it is easier to integrate a company using IFRS into the acquirer's existing accounting system.

Table 8 reports the results of tests of hypotheses 3 and 4. These hypotheses predict that the total synergy gains and the merger premium will be higher for strategic firms from weak regulatory environments relative to firms from strong regulatory environments. For cross-listed firms, the results in columns (1) and (2) are not consistent with hypothesis 3. Specifically, the coefficients on *Strategic* (i.e., $Strategic_{XLIST}$=1) are not significantly different from zero (coefficient -0.039, t-stat 0.27 and coefficient 0.013, t-stat 0.15, respectively). I also find that the coefficients on *Strategic* (i.e., $Strategic_{IFRS}$=1) in columns (3) and (4) are not significantly different from zero (coefficient 0.100, t-stat 1.21 and coefficient 0.129, t-stat 1.57, respectively). Thus, hypothesis 4 is not supported.

Table 7
Within Country Comparison

Panel A: Tests of Total Synergy Gains and Merger Premium					
Sample		*Cross-Listing*		*IFRS*	
Dependent Variable		*ln(ΔΠ)*	*ln(Premium)*	*ln(ΔΠ)*	*ln(Premium)*
	Prediction	(1)	(2)	(3)	(4)
Strategic	(-)	0.045	0.073	0.107*	0.023
		(0.31)	(0.76)	(1.90)	(0.63)
Protection		-0.057**	-0.050*	-0.018	-0.011
		(2.08)	(1.66)	(1.18)	(0.76)
TargetSize		-0.025	-0.022	-0.010	-0.006
		(0.71)	(0.82)	(0.59)	(0.46)
Tender		-0.059	0.046	-0.085	0.065*
		(0.88)	(0.68)	(1.24)	(1.87)
Contested				0.215***	0.233***
				(2.88)	(6.31)
Cash		-0.146	-0.147*	-0.129*	-0.046
		(1.45)	(1.69)	(1.75)	(0.82)
Stock		-0.083	-0.141	-0.032	-0.056
		(1.12)	(1.54)	(0.61)	(0.96)
Hostile			0.314***	-0.089	0.024
			(6.43)	(1.12)	(0.23)
Constant		5.064***	5.070***	4.840***	4.834***
		(14.16)	(18.37)	(30.56)	(37.73)
Observations		103	193	162	398
R-squared		0.05	0.04	0.04	0.02

Panel B: Tests of Total Valuation Gains					
Dependent Variable		*ln(TotalΔV_{TXLIST})*			*ln(TotalΔV_{TIFRS})*
		Full Sample	1995-1999	Cross-Listing Premium>0	Full Sample
	Prediction	(1)	(2)	(3)	(4)
Strategic	(+)	-0.041	-1.090	0.222*	-0.260
		(0.23)	(1.04)	(1.94)	(1.33)
Protection		0.101	-0.075	0.163**	0.031
		(1.53)	(0.26)	(2.19)	(0.70)
TargetSize		0.128*	0.449	0.129	0.051
		(1.77)	(1.29)	(1.30)	(1.43)
Tender		0.304	0.618	0.290	0.168*
		(1.63)	(0.66)	(1.20)	(1.90)
Contested		-0.093	0.232		0.386
		(1.07)	(0.47)		(1.12)

Table 7 (continued)

Cash	-0.192	-0.456	-0.173	0.134
	(1.41)	(0.78)	(1.24)	(0.73)
Stock	0.205		-0.068	0.156
	(0.70)		(0.19)	(0.71)
Hostile	-0.932***		-0.964***	-0.052
	(4.03)		(3.50)	(0.12)
Constant	3.487***	1.607	3.363***	3.545***
	(5.42)	(0.52)	(4.00)	(11.25)
Observations	131	29	86	433
R-squared	0.10	0.29	0.09	0.03

There are several potential explanations for the lack of evidence supporting my hypotheses. First, it is possible that multicollinearity confounds my tests. However, an analysis of the correlation matrix in Table 4 and an analysis of variance inflation factors (untabulated) suggests that this is not the case. Another possible explanation is that the power of my tests is low. The evidence in columns (3) and (4) of Table 8 suggests that this could be a valid concern. Specifically, in columns (3) and (4), many of the coefficients on my variable of interest, *Strategic*, are in the predicted direction.

One final explanation for the lack of evidence supporting my hypotheses is that the models most commonly used in prior research are not valid for my sample of firms. Most prior research on cross-border acquisitions relies on models developed to explain synergy gains and merger premia in domestic mergers and acquisitions. Thus, the implicit assumption is that such models are valid in cross-border mergers and acquisitions. An examination of prior research in this area suggests that such an assumption might not be valid.

Table 8
Cross-Country Comparison

Panel A: Tests of Total Synergy Gains and Merger Premium					
Sample		*Cross-Listing*		*IFRS*	
Dependent Variable		*ln(ΔΠ)*	*ln(Premium)*	*ln(ΔΠ)*	*ln(Premium)*
	Prediction	(1)	(2)	(3)	(4)
Strategic	(+)	-0.039	0.013	0.100	0.129
		(0.27)	(0.15)	(1.21)	(1.57)
Protection		0.063	0.033	0.023	0.056**
		(1.44)	(0.88)	(0.78)	(2.04)
TargetSize		0.043	0.012	0.025	0.012
		(0.94)	(0.89)	(1.08)	(1.32)
Tender		0.140**	0.092	0.067	0.073**
		(2.14)	(1.19)	(1.56)	(2.24)
Contested		0.108	0.162*	0.062	0.167***
		(0.85)	(1.79)	(0.92)	(4.03)
Cash		-0.002	-0.031	0.019	0.014
		(0.04)	(0.58)	(0.64)	(0.33)
Stock		0.012	-0.318	0.043	0.013
		(0.08)	(0.85)	(0.79)	(0.16)
Hostile		-0.257	0.044	-0.009	0.015
		(1.00)	(0.44)	(0.09)	(0.31)
Constant		4.045***	4.539***	4.337***	4.438***
		(8.39)	(26.32)	(16.13)	(29.73)
Observations		88	143	175	380
R-squared		0.05	0.10	0.04	0.06

For example, Rossi and Volpin (2004) use a sample of domestic and cross-border acquisitions. Thus, even though they find that many of their control variables are statistically significant, this could be driven by the domestic acquisitions in their sample. Furthermore, the R^2 in their regressions are relatively low, ranging from 0.03 to 0.06. Additionally, the results of Starks and Wei (2004) indicate that several control variables such as those for size, hostile bids, and cash bids are not statistically significant.[28] Taken

[28] Bris and Cabolis (2008) only indicate whether or not certain control variables are included in the model and do not provide the coefficient or significance level for these variables.

together with the results of my study, this suggests that the most commonly used models to explain the determinants of the size and distribution of synergy gains in domestic acquisitions may not perform as well in cross-border settings.

CHAPTER VI

SENSITIVITY ANALSYES

To further examine how cross-country differences in regulatory environments affect the value and distribution of synergy gains in cross-border mergers and acquisitions, I conduct additional sensitivity analyses. Each analysis and the results are discussed below.

Cross-Border Acquisition Experience

The value and distribution of synergy gains between acquiring and target firms could be affected by whether or not the acquiring firm has experience making cross-border acquisitions. I explore whether prior cross-border mergers and acquisitions experience influences the value and distribution of synergy gains by repeating my primary analyses on a sample of acquisitions by inexperienced acquirers. To test the sensitivity of my results to prior cross-border acquisition experience, I repeat my analyses and exclude all subsequent acquisitions involving acquiring firms completing more than one cross-border acquisition during the sample period.

The results from this sensitivity analysis are reported in Table 9 and Table 10. In general, my results remain unchanged when I repeat my analyses on the sub-sample of first-time cross-border acquisitions. Specifically, for the within-country analysis reported panels A and B of Table 9, *Strategic* is not statistically significant in any of the specifications. The lack of significance reported on column (3) of panel B suggests that

the limited evidence reported in panel B of Table 7 supporting hypothesis 1b seems to be sensitive to the inclusion of experienced acquirers.

Table 9
Sensitivity to Acquisition Experience: Within Country Comparison

Panel A: Tests of Total Synergy Gains and Merger Premium				
Sample	*Cross-Listing*		*IFRS*	
Dependent Variable	*ln(ΔΠ)*	*ln(Premium)*	*ln(ΔΠ)*	*ln(Premium)*
	(1)	(2)	(3)	(4)
Strategic	0.006	0.072	0.006	0.015
	(0.13)	(1.38)	(0.16)	(0.37)
Protection	-0.042**	-0.007	-0.035	0.006
	(2.06)	(0.22)	(1.43)	(0.33)
TargetSize	0.011	0.011	0.010	0.013
	(1.22)	(0.54)	(1.39)	(1.04)
Tender	0.022	0.228***	0.009	0.159***
	(0.70)	(3.45)	(0.33)	(4.09)
Contested			0.164**	0.237***
			(2.23)	(5.03)
Cash	-0.049	-0.084	-0.033	0.010
	(1.03)	(0.97)	(1.12)	(0.17)
Stock	-0.018	-0.231	0.016	-0.101
	(0.34)	(1.53)	(0.45)	(1.35)
Hostile		0.247***	-0.066	-0.143**
		(3.87)	(1.36)	(2.17)
Constant	4.709***	4.687***	4.689***	4.618***
	(51.24)	(21.48)	(53.30)	(37.08)
Observations	56	100	86	232
R-squared	0.20	0.18	0.21	0.12

Table 9 (continued)

Panel B: Tests of Total Valuation Gains				
Dependent Variable	$ln(Total\Delta V_{TXLIST})$			$ln(Total\Delta V_{TIFRS})$
	Full Sample (1)	1995-1999 (2)	Cross-Listing Premium>0 (3)	Full Sample (4)
Strategic	-0.269	-2.241	0.129	-0.213
	(1.07)	(1.51)	(0.68)	(0.62)
Protection	0.121	-0.219	0.172	0.001
	(1.28)	(0.50)	(1.39)	(0.02)
TargetSize	0.193*	0.733	0.204	0.115**
	(1.91)	(1.68)	(1.37)	(2.13)
Tender	0.305	0.805	0.107	0.279**
	(1.13)	(0.63)	(0.29)	(2.37)
Contested	-0.165	-0.002		0.645***
	(1.38)	(0.00)		(2.71)
Cash	-0.431***		-0.324*	0.210
	(3.07)		(1.78)	(0.83)
Stock	0.103		-0.111	0.124
	(0.26)		(0.21)	(0.43)
Hostile				-0.432
				(0.64)
Constant	3.375***	-0.158	3.117***	3.188***
	(4.70)	(0.05)	(2.83)	(8.46)
Observations	75	16	49	247
R-squared	0.15	0.51	0.12	0.09

I repeat the cross-country analyses to further examine how prior cross-border acquisition experience affects the value and distribution of synergy gains. In Table 10, when experienced cross-border acquirers are excluded, I find no evidence to support either hypothesis 3 or 4. The coefficients are in the predicted direction in all models, suggesting potential issues with the power of the tests. With one exception noted in panel B of Table 9, these tests are consistent with earlier results. It appears that cross-border acquisition experience does not affect the value and distribution of synergy gains.

Table 10
Sensitivity to Acquisition Experience: Cross-Country Comparison

Panel A: Tests of Total Synergy Gains and Merger Premium				
Sample	*Cross-listing*		*IFRS*	
Dependent Variable	*ln(ΔΠ)*	*ln(Premium)*	*ln(ΔΠ)*	*ln(Premium)*
	(1)	(2)	(3)	(4)
Strategic	0.078	0.085	0.151	0.155
	(0.40)	(0.68)	(1.28)	(1.44)
Protection	0.190	0.030	0.051	0.069*
	(1.36)	(0.31)	(1.11)	(1.73)
TargetSize	0.066	0.007	0.036	0.013
	(0.88)	(0.48)	(0.95)	(0.96)
Tender	0.201*	0.114	0.135*	0.084*
	(1.77)	(0.92)	(1.72)	(1.87)
Contested	0.251***	0.248**	0.196***	0.181***
	(3.01)	(2.09)	(2.63)	(3.81)
Cash	-0.029	0.007	-0.023	-0.028
	(0.41)	(0.09)	(0.47)	(0.67)
Stock	0.057	-0.508	0.046	-0.024
	(0.25)	(0.75)	(0.59)	(0.25)
Hostile	-0.603	-0.164	-0.231	0.000
	(1.39)	(1.36)	(1.47)	(0.00)
Constant	3.354***	4.548***	4.137***	4.412***
	(3.37)	(11.32)	(9.52)	(22.62)
Observations	57	93	105	239
R-squared	0.09	0.13	0.06	0.07

Relative Differences in Regulatory Environments

Bris and Cabolis (2008) examine how relative differences in shareholder protection affect abnormal returns to target and acquiring firms in cross-border mergers and acquisitions. They find significant positive abnormal returns to target firms when the acquiring firm is from a country with stronger shareholder protection. However, this result is limited to 100% acquisitions. In addition, they find significant positive abnormal returns to target firms when the acquiring firm is from a country with more transparent

accounting standards. Again, this result is limited to 100% acquisitions and is additionally sensitive to treatment effects to control for the decision to use cash as the method of payment.

For acquiring firms, Bris and Cabolis (2008) find no relation between differences in either shareholder protection or accounting transparency in the acquiring and target firm countries and abnormal returns to acquiring firms. Interestingly, they find that when the acquirer is from a more transparent reporting environment, there are negative abnormal returns to acquirers in acquisitions of more than 50% of the target firm.

To test the sensitivity of my results to relative differences in regulatory environments between acquiring and target firms, I repeat my analyses by replacing the level of shareholder protection in the target country, *Protection*, with the difference in shareholder protection between the acquiring country and the target country. I denote this variable *Protection(A-T)*. When I substitute this variable for *Protection* my results are generally unchanged.

Panel A of Table 11 reports the results from this sensitivity analysis for hypothesis 1a. I find that the coefficient on *Strategic* is still not significantly different from zero. It is possible that relative differences in regulatory environments might matter more when the acquirer is from a stronger regulatory environment. Thus, I include an indicator variable equal to one of the acquirer is from a country with stronger shareholder protection than the target and denote this variable $BetterProtection_A$. I also include an interaction term between $BetterProtection_A$ and $Strategic_{XLIST}$ to allow for the possibility that the value and distribution of synergy gains for strategic firms could differ in

acquisitions involving acquirers with relatively stronger regulatory environments. I find no evidence to support this conjecture. Specifically, the coefficient on $Strategic_{XLIST}$ is not significantly different from zero in any of the specifications.[29]

Panel B reports the results testing the sensitivity of hypothesis 2a to relative differences in regulatory environments. Similar to the findings in panel A of Table 7 and contrary to hypothesis 2a, in column (1), I find a *positive* relation between strategic firms and total synergy gains (coefficient 0.120, t-stat 2.23). However, this result appears to be affected by acquisitions involving acquiring firms from countries with relatively stronger shareholder protection as the coefficient on $Strategic_{IFRS}$ is insignificant in column (2) (coefficient 0.174, t-stat 1.54). In columns (3) and (4) of panel B, I find no evidence supporting the second part of hypothesis 2a. That is, the coefficient on $Strategic_{IFRS}$ is not significantly different from zero in either specification.

In panels C and D of Table 11, I examine how the total valuation gains are affected by relative differences in shareholder protection. In panel C, I generally find no evidence to support hypothesis 1b. The one exception is in column (5) of panel C. When I restrict the sample to only acquisitions involving target firms from countries with positive cross-listing premia per Doidge et al. (2004), I find that the total valuation gains are higher for strategic firms relative to non-strategic firms, consistent with hypothesis 1b (coefficient 0.298, t-stat 2.01) and earlier results in Table 7. However, this result also appears to be affected by acquisitions involving acquiring firms from countries with

[29] *Contested* is excluded from the regressions in panel A of Table 11 because there were no transactions for this group of observations involving multiple bidders.

relatively stronger shareholder protection as the coefficient on $Strategic_{XLIST}$ is insignificant in column (6) (coefficient 0.692, t-stat 1.42).

In column (1) of panel D, $Strategic_{IFRS}$ is not significantly different from zero. However, in column (2), I find evidence contrary to hypothesis 2a. Specifically, the coefficient on $Strategic_{IFRS}$ is negative and significant (coefficient -0.845, t-stat 1.78). However, the coefficient on the interaction term $BetterProtection_A$*$Strategic_{IFRS}$ is positive and significant (coefficient 0.818, t-stat 1.79). Thus, it appears that in acquisitions involving acquiring firms with relatively stronger shareholder protection, there is limited evidence to suggest that the total valuation gains are higher in acquisitions of strategic firms.

I repeat the cross-country analyses to further examine how relative differences in regulatory environments affect the value and distribution of synergy gains. The results are reported in Table 12. After repeating the analyses, I still do not find evidence to support either hypothesis 3 or 4. That is, in both panel A and panel B, the coefficient on *Strategic* is not significantly different from zero.

Overall, these tests are generally consistent with previously reported results. Specifically, relative differences in shareholder protection of the acquiring and target countries do not appear to affect the value and distribution of synergy gains.

Table 11
Sensitivity to Differences in Shareholder Protection: Within Country Comparison

Panel A: Tests of Total Synergy Gains and Merger Premium (Cross-listing Sample)				
Dependent Variable	*ln(ΔΠ)*		*ln(Premium)*	
	(1)	(2)	(3)	(4)
$Strategic_{XLIST}$	0.056	0.112	0.058	0.140
	(0.35)	(0.57)	(0.63)	(0.90)
Protection(A-T)	0.046	0.030	0.031	0.012
	(1.34)	(0.61)	(1.04)	(0.28)
TargetSize	-0.011	-0.007	-0.013	-0.011
	(0.40)	(0.22)	(0.56)	(0.43)
Tender	-0.054	-0.060	0.060	0.062
	(0.78)	(0.81)	(0.90)	(0.82)
Cash	-0.152	-0.135	-0.149	-0.124
	(1.41)	(1.00)	(1.65)	(1.13)
Stock	-0.092	-0.089	-0.137	-0.103
	(1.04)	(0.79)	(1.44)	(0.94)
Hostile			0.257***	0.286***
			(4.42)	(4.15)
$BetterProtection_A$		0.098		0.096
		(1.18)		(0.65)
$BetterProtection_A$* $Strategic_{XLIST}$		-0.126		-0.168
		(0.83)		(1.34)
Constant	4.821***	4.712***	4.881***	4.782***
	(19.48)	(15.55)	(23.17)	(16.75)
Observations	103	97	193	186
R-squared	0.07	0.09	0.04	0.04
Panel B: Tests of Total Synergy Gains and Merger Premium (IFRS Sample)				
Dependent Variable	*ln(ΔΠ)*		*ln(Premium)*	
	(1)	(2)	(3)	(4)
$Strategic_{IFRS}$	0.120**	0.174	0.030	0.106
	(2.23)	(1.54)	(0.84)	(1.49)
Protection(A-T)	0.006	-0.022	0.009	0.006
	(0.22)	(0.65)	(0.74)	(0.30)
TargetSize	-0.008	-0.005	-0.005	-0.005
	(0.51)	(0.28)	(0.40)	(0.36)
Tender	-0.083	-0.093	0.067*	0.069*
	(1.22)	(1.26)	(1.92)	(1.85)
Contested	0.209***	0.235***	0.232***	0.246***
	(2.82)	(3.04)	(6.38)	(6.90)
Cash	-0.127*	-0.111	-0.045	-0.042
	(1.71)	(1.33)	(0.81)	(0.66)

Table 11 (continued)

Stock	-0.035	-0.015	-0.055	-0.043
	(0.64)	(0.23)	(0.93)	(0.65)
Hostile	-0.101	-0.115	0.007	0.011
	(1.39)	(1.34)	(0.07)	(0.11)
$BetterProtection_A$		0.133**		0.035
		(2.17)		(0.43)
$BetterProtection_A$* $Strategic_{IFRS}$		-0.054		-0.105
		(0.47)		(1.38)
Constant	4.777***	4.663***	4.796***	4.762***
	(35.10)	(32.00)	(40.45)	(33.35)
Observations	162	151	398	372
R-squared	0.04	0.05	0.03	0.03

Panel C: Tests of Total Valuation Gains (Cross-listing Sample)

Dependent Variable	$ln(Total\Delta V_{TXLIST})$					
	Full Sample		1995-1999		Cross-Listing Premium>0	
	(1)	(2)	(3)	(4)	(5)	(6)
$Strategic_{XLIST}$	0.014	0.246	-1.035	-0.936	0.298**	0.692
	(0.08)	(0.84)	(1.21)	(1.00)	(2.01)	(1.42)
Protection(A-T)	0.075	-0.075	0.313	0.273	0.057	-0.064
	(1.16)	(1.09)	(1.33)	(1.01)	(0.64)	(0.64)
TargetSize	0.123*	0.116*	0.499	0.490	0.115	0.103
	(1.70)	(1.71)	(1.47)	(1.54)	(1.16)	(1.19)
Tender	0.238	0.331*	0.447	0.472	0.215	0.324
	(1.39)	(1.70)	(0.74)	(0.67)	(0.95)	(1.24)
Contested	-0.233	-0.118	-0.319	-0.289		
	(1.40)	(0.91)	(0.54)	(0.54)		
Cash	-0.156	-0.057		-0.498	-0.155	-0.234
	(0.81)	(0.21)		(0.91)	(1.06)	(0.95)
Stock	0.259	0.466	0.559		0.031	0.144
	(0.84)	(1.40)	(1.56)		(0.09)	(0.43)
Hostile	-0.916***	-0.773**			-0.870**	-0.917**
	(2.98)	(2.55)			(2.23)	(2.35)
BetterProtectionA		0.578		0.143		0.482
		(1.45)		(0.13)		(0.70)
BetterProtectionA		-0.321				-0.520
**StrategicXLIST*		(0.87)				(1.00)
Constant	3.676***	3.273***	0.511	0.980	3.765***	3.601***
	(5.68)	(3.86)	(0.20)	(0.33)	(4.42)	(3.21)
Observations	131	125	29	29	86	83
R-squared	0.11	0.14	0.36	0.36	0.08	0.10

Table 11 (continued)

Panel D: Tests of Total Valuation Gains (IFRS Sample)		
Dependent Variable	*ln(TotalΔV_{IFRS})*	
	(1)	(2)
Strategic$_{IFRS}$	-0.279	-0.845*
	(1.51)	(1.78)
Protection(A-T)	0.032	-0.008
	(1.16)	(0.18)
TargetSize	0.052	0.042
	(1.43)	(1.11)
Tender	0.160*	0.143
	(1.78)	(1.50)
Contested	0.386	0.335
	(1.14)	(1.04)
Cash	0.163	0.201
	(0.89)	(0.97)
Stock	0.179	0.269
	(0.82)	(1.07)
Hostile	-0.047	-0.017
	(0.11)	(0.04)
BetterProtection$_A$		0.047
		(0.29)
BetterProtection$_A$ Strategic$_{IFRS}$*		0.818*
		(1.79)
Constant	3.566***	3.590***
	(10.54)	(9.02)
Observations	433	399
R-squared	0.03	0.06

Table 12
Sensitivity to Differences in Shareholder Protection: Cross-Country Comparison

Panel A: Tests of Total Synergy Gains and Merger Premium				
Sample	*Cross-listing*			
Dependent Variable	*ln(ΔΠ)*		*ln(Premium)*	
	(1)	(2)	(3)	(4)
$Strategic_{XLIST}$	-0.173	-0.258	-0.035	-0.055
	(1.20)	(1.11)	(0.55)	(0.63)
Protection(A-T)	-0.008	0.060	-0.006	-0.001
	(0.35)	(1.38)	(0.36)	(0.03)
TargetSize	0.043	0.038	0.011	0.017
	(0.99)	(1.00)	(0.79)	(1.24)
Tender	0.125**	0.134*	0.085	0.089
	(2.13)	(1.82)	(1.17)	(1.07)
Contested	0.118	0.009	0.169*	0.159*
	(0.87)	(0.07)	(1.94)	(1.78)
Cash	-0.002	-0.064	-0.030	-0.024
	(0.05)	(0.86)	(0.57)	(0.43)
Stock	0.007	0.022	-0.319	-0.325
	(0.05)	(0.10)	(0.86)	(0.88)
Hostile	-0.220	-0.047	0.053	0.045
	(0.82)	(0.33)	(0.58)	(0.45)
$BetterProtection_A$		-0.337		0.015
		(1.00)		(0.17)
$BetterProtection_A$		0.061		-0.078
$*Strategic_{XLIST}$		(0.30)		(0.76)
Constant	4.300***	4.546***	4.674***	4.640***
	(12.48)	(24.67)	(51.85)	(49.75)
Observations	88	75	143	126
R-squared	0.05	0.08	0.09	0.10

Table 12 (continued)

Panel B: Tests of Total Synergy Gains and Merger Premium				
Sample	*IFRS*			
Dependent Variable	*ln(ΔΠ)*		*ln(Premium)*	
	(1)	(2)	(3)	(4)
$Strategic_{IFRS}$	0.037	-0.057	-0.035	-0.055
	(0.97)	(0.68)	(0.55)	(0.63)
Protection(A-T)	0.000	0.017	-0.006	-0.001
	(0.02)	(1.06)	(0.36)	(0.03)
TargetSize	0.025	0.023	0.011	0.017
	(1.17)	(1.34)	(0.79)	(1.24)
Tender	0.070	0.075	0.085	0.089
	(1.60)	(1.43)	(1.17)	(1.07)
Contested	0.063	0.036	0.169*	0.159*
	(0.91)	(0.53)	(1.94)	(1.78)
Cash	0.017	0.029	-0.030	-0.024
	(0.56)	(0.90)	(0.57)	(0.43)
Stock	0.040	0.089	-0.319	-0.325
	(0.72)	(0.89)	(0.86)	(0.88)
Hostile	0.003	0.016	0.053	0.045
	(0.03)	(0.22)	(0.58)	(0.45)
$BetterProtection_A$		-0.139		0.015
		(0.76)		(0.17)
$BetterProtection_A$		0.188		-0.078
$* Strategic_{IFRS}$		(1.01)		(0.76)
Constant	4.434***	4.478***	4.674***	4.640***
	(25.59)	(41.38)	(51.85)	(49.75)
	0.04	0.05	0.09	0.10
Observations	175	157	143	126
R-squared				

CHAPTER VII

CONCLUSIONS AND FUTURE RESEARCH

In conclusion, I examine how strategies to eliminate valuation discounts due to regulatory environments of a country affect the total synergy gain and the distribution of synergy gains between acquirers and targets. My results are subject to several limitations. One limitation is the size of my sample. Thus, despite testing my hypotheses in a setting that allows me to exploit cross-country differences in regulatory environments, my tests could lack power due to the size of the samples. In many cases, there is insufficient data in SDC on the market values of acquiring firms that are central to my analysis of the total synergy gains. This is also true to a lesser extent for target firms in the sample.

By examining cross-border mergers and acquisitions, my research provides evidence on an increasingly important and economically significant type of foreign direct investment. Although prior research such as Rossi and Volpin (2004) has examined how cross-country differences in the regulatory environment affect merger premia, little attention has been given in the literature to actions target firm managers take in advance of the acquisition to improve transparency and reduce information risk. I examine two types of strategies managers of firms in countries with weak regulatory environments can take in advance of an acquisition — cross-listing or adopting IFRS.

In general, I find no evidence that the total synergy gains or the merger premium are lower for strategic firms. In fact, I find some evidence that in acquisitions of firms from weak regulatory environments, the total synergy gains are higher for firms that

voluntarily adopt IFRS relative to firms using local GAAP. This suggests that *acquirers* potentially benefit through easier integration of a target firm using IFRS. Additionally, I find some evidence that the total valuation gains for cross-listed firms are higher than firms in weak regulatory environments that are not cross-listed. However, I find no evidence that either the total synergy gains or the merger premium for target firms from weak regulatory environments are higher relative to target firms from strong regulatory environments.

Although the power of my tests could be a confounding factor, another potential avenue for future research rests in deriving a model separate and distinct from those used in domestic mergers and acquisitions research. Ideally, such a model will better fit the value and distribution of synergy gains in cross-border acquisitions. However, if the merger premium does not differ for strategic firms relative to non-strategic firms, it suggests that acquirers pay a similar premium, regardless of the type of target acquired. Exploring this idea further could improve our understanding of how the value and distribution of synergy gains are determined in cross-border mergers and acquisitions.

APPENDIX

CLASSIFICATION OF STRATEGIC FIRMS

In this appendix, I describe methods used to classify observations as strategic firms, based on a strategy of cross-listing or adopting IFRS. I use data from Worldscope, supplemented with information from Daske et al. (2007) and Daske et al. (2008). Table A1 outlines the classification procedures used for strategic firms.

It is important to note that prior research such as Daske et al. (2007) and Daske et al. (2008) document inconsistencies and errors in Worldscope's classifications of firms' accounting standards. Daske et al. (2007) and Daske et al. (2008) supplement accounting standards data obtained from Worldscope with an extensive hand-collected dataset and find results that are generally consistent across the two samples. Per Daske et al. (2007), on average, Worldscope classified firms as using IFRS too frequently. To the extent such a misclassification is present in my sample, I would expect it to bias against my hypotheses.

Cross-Listing

I use the variable *STK_EXCH_LISTED* to determine whether a company is cross-listed on a stock exchange outside of their country of domicile. The variable *STK_EXCH_LISTED* is an 80-byte variable where each byte corresponds with a stock exchange. I match the stock exchanges up with the corresponding countries to determine whether or not a company is listed on a stock exchange outside of their country of

domicile. Using this information, I create a variable $Strategic_{XLIST}$ set equal to one if the company has stock listed on a non-domestic stock exchange and zero otherwise.

It is important to note that I use the 2007 version of Worldscope for my analyses. The *STK_EXCH_LISTED* variable is updated each year. Ideally, I would be able to obtain this variable on an annual basis. To the extent a company is acquired or liquidates, the information in this variable is for the last fiscal-year included in the database. Therefore, the $Strategic_{XLIST}$ should be accurate for my sample of target firms.

Adopting IFRS

Consistent with Daske et al. (2007), I classify firms as using either U.S. GAAP, IFRS, or local GAAP based on the "Accounting Standards Followed" field in Worldscope.[30] Also consistent with Daske et al. (2007), I further classify firm-year observations into three categories depending on the timing of IFRS adoption. Specifically, I classify firms as (1) first-time mandatory, (2) early voluntary, and (3) late voluntary IFRS adopters. As in Daske et al. (2008) I code the variable *Mandatory* equal to one for firm-year observations with fiscal years ending on or after the date a country required adoption of IFRS (per Daske et al., 2008) and zero otherwise. For most countries, the mandatory adoption date is December 31, 2005.

[30] A more detailed explanation of the classifications used is provided in Table A1.

Table A1
Classification of Strategic Firms

Panel A: Classification of Cross-Listed Firms	
$Strategic_{XLIST}$	Indicator variable set equal to one if (i) a company is listed on more than one exchange (i.e., has multiple items in the variable field) and (ii) one of those exchanges is outside of their country of domicile (i.e., the country the exchange is located in is not the same as the country of domicile for the firm), and zero otherwise. *Source: Worldscope "Stock Exchange(s) Listed".*
Panel B: Classification of Accounting Standards	
IFRS	*The following firm-year observations are coded as IFRS:* IFRS International standards International standards and some EU guidelines Local standards with EU and IASC guidelines Local standards with some IASC guidelines *Source: Worldscope "Accounting Standards Followed".*
U.S. GAAP	*The following firm-year observations are coded as U.S. GAAP:* U.S. standards (GAAP) U.S. standards – inconsistency problems U.S. GAAP reclassified from local standards *Source: Worldscope "Accounting Standards Followed".*
LOCAL	*The following firm-year observations are coded as LOCAL:* Local standards EU standards Specific standards set by the group Not disclosed Local standards with some EU guidelines Commonwealth countries standards Local standards with a certain reclassification for foreign companies Other *Source: Worldscope "Accounting Standards Followed".*

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