

Premium, Merger Fees and the Choice of Investment Banks:

A simultaneous Analysis

Salim Chahine

American University of Beirut

Ahmad Ismail[✉]

American University of Beirut

November 2005

[✉] Corresponding author: Ahmad Ismail, Assistant Professor in Finance, The School of Business, American University of Beirut, P.O. Box 11-236, Beirut-Lebanon, Email: ai05@aub.edu.lb Tel +961 1 352700 Ext. 3732. Fax +961 1 750214

Premium, Merger Fees and the Choice of Investment Banks:

A simultaneous Analysis

Abstract

We study the effects of merger-related decisions for 635 U.S. M&A from 1985 to 2004. We find that the target's choice of the investment bank is driven by the earlier choice made by the acquirer. In contrast with prior research, this paper distinguishes between the target and acquirer fees, and shows their independent effects on the level of the merger premium. We confirm the existence of a positive (negative) association between target (acquirer) fees and the level of the premium. Our results confirm the conflict of interests between target and acquirer firms where the investment banks efforts are positively related to shareholders interest. Additionally, this study verifies the endogenous choice of investment banks and provides evidence about the effect of their reputation on the premium. While more reputable acquirer advisors lead to paying a significantly lower premium, which serves the best interest of the acquirer shareholders, employing more prestigious advisors by the target firm results in a surprisingly lower premium.

JEL Classification: G34

Premium, Merger Fees and the Choice of Investment Banks:

A simultaneous Analysis

I- Introduction

Worldwide completed mergers and acquisitions (M&A) volume climbed to over US\$1.44 trillion during the first three quarters of 2005, which is estimated to have generated over \$16.6 billion for financial advisors. These figures represent an average fee of 1.15% of the deal value¹. A key question of interest, though, is whether these massive fees are justifiable and result in economic benefits to the merging parties. In other words, if two firms have similar characteristics why would one pay a higher fee than the other? Furthermore, how does the decision to pay high fees and employ a more or less prestigious investment bank affect the level of the premium paid by the acquirer? To our knowledge, this is the first paper which examines the determinants of merger fees and their effect on the premium paid to target firms.

Most of prior research in mergers and acquisitions (M&A) focuses on the abnormal return earned by both acquirer and target firms at the M&A announcement date. The empirical evidence reached a consensus that there is a positive and significant abnormal return for target firms; however the findings regarding the acquirer firms gain is, generally, unsettled (see for example Jensen and Ruback, 1983; and Bruner, 2001 for a review of the evidence). This paper focuses on the premium paid to target firms, and supposes that a merger is a sequential process where an acquirer first chooses the target, and hires one or more investment banks to which they agree to pay a certain advisory fee. Then, the target firm selects its investment bank and negotiates the level of merger fees. Hence, this paper focuses on the relationship between the premium paid at the time of a merger and the investment banks efforts proxied by investment banks reputation and by the merger advisory fees that they charge to the merging

¹ Source: Thomson Financial SDC database, M&A and Advisors Summary Report, Third Quarter 2005.

firms. Within this framework, the paper considers the conflicting goals of acquirer and target firms. While acquirers pay a larger fee to reduce the premium paid, targets are willing to pay a larger fee to increase the premium received. More specifically, controlling for problems related to our truncated sample, which ignores unsuccessful deals, this study verifies the effect of merger fees on the premium, and controls for the endogenous choice of investment banks.

In this study we investigate the consequences of merger-related decisions made by both targets and acquirers for 635 U.S. M&As from 1985 to 2004. Our main contributions are two-fold. First, in contrast with prior research, this paper distinguishes between the target and acquirer fees, and shows their independent effects on the level of the merger premium. In this framework, our empirical findings confirm the existence of a positive and significant association between target fees and the level of the premium, whereas the acquirer fee is negatively and significantly related to the premium. Our results confirm the conflict of interests between target and acquirer firms where the investment banks efforts proxied by merger fees are positively related to shareholders interest.

Second, this study verifies the endogenous choice of investment banks, and provides evidence about the effect of the quality of investment banks on the premium. In this structure, our findings point at a negative and significant relationship between the acquirer investment bank reputation and the premium paid. This suggests that more reputable advisors act in the best interest of their client firms by reducing the premium. However, in contrast with our expectations, the more reputable the target investment banks, the lower the premium received. One explanation is that such advisors are induced by deal completion even if that led to paying a lower premium to their clients. Another justification could stem from target

managers acting in their own interests; such managers would, for instance, endorse a deal if it results in specific benefits for them such as job security.

The paper is organized as follows. Section II reviews the previous literature on M&A and presents the testable hypotheses. Section III describes the database, and discusses the empirical research design. Section IV presents descriptive statistics and the main findings. Section V presents the conclusion.

II- Review of Literature and Hypotheses Development

a) Merger fees and the choice of investment bank reputation

Investment banks play a significant role in the market for corporate control. First, they can improve the quality of the matches between acquirers and targets, and accelerate the matching process (Mortensen, 1982, Diamond and Maskin, 1979). Second, investment banks provide valuable anonymity in the preliminary stages before merger negotiations start (Grossman and Hart, 1980). Finally, they help reduce information asymmetry about both parties (Servaes and Zenner, 1996). For instance, investment banks may have specialized knowledge about specific firms and their characteristics such as financial and product market potential, and their industries. In fact, investment banks' experience may stem from their underwriting services enabling them to access private information beyond the reach of would-be acquirers or would-be targets. This in turn, helps in setting up the financial conditions of deals which results in lower merger-related costs for both parties, have they decided to effect mergers without the help of financial advisors². The ultimate benefit would be improving the effectiveness of the market for corporate control.

² Benston and Smith (1976) argue that the lower transaction costs are mainly derived from economies of specialisation, scale economies in information acquisition and reduction in search costs.

The selection of financial advisors to provide M&A advice is mainly driven by their perceived quality (Walter, Yawson and Yeung, 2005). Shapiro (1983) argues that, in product markets, firms develop a good reputation if customers believe their products to be of high quality. In addition, those firms are induced to continue providing high quality products since they have the desire to build reputation (Klein and Leffler, 1981; Shapiro, 1983 and Allen, 1984). Consequently, firms that build good reputation by providing high quality products will be able to sell their products at a premium. On the one hand, the choice of advisors reflects the need for information (both private and public) to conduct a valuation of the equity of the target company. On the other hand, more reputable advisors would signal their superiority by charging higher fees.

Some M&A studies investigated the relationship between investment banks reputation and the advisory fees paid. In an early study and using the Carter and Manaster (1990) measure of advisor quality, McLaughlin (1992) finds no significant effect of the quality of the advisor or the type of contract between an advisor and its client on the level of merger fees paid by the target. Srinivasan (1999) found that more credible investment bank advisors (proxied by their tier) charged higher fees than did lower-tier advisors. In a similar vein, Hunter and Jagtiani (2003) document that top tier advisors receive a greater amount of fees than lower tier advisors for M&A transactions from January 1995 to June 2000. More recently, Walter, Yawson and Yeung (2005) document strong evidence about a quality premium in M&A advisory fees for a comprehensive sample of U.S. M&A transactions between January 1980 and December 2003. Specifically, they indicate that first tier and second tier advisors receive substantially greater levels of advisory fees than third tier advisors. Hence, we consider the following hypotheses:

Hypothesis 1: The choice of the target investment bank (target-IB) reputation is positively related to the choice of the acquirer investment bank (acquirer-IB) reputation.

Hypothesis 2a: The acquirer fee is positively related to IB reputation;

Hypothesis 2b: The target-fee is positively related to acquirer-IB and target-IB reputation;

This suggests a sequential decision-making in the relationship between merger fees and investment banks reputation: First, the acquirer pays a quality fee when selecting a more reputable investment banker. Second, the target pays a quality fee which is related to its choice of an advisor as well as the selection made by the acquiring firm. The more prestigious the acquirer advisor, the higher the incentives for target firms to hire a more reputable advisor, and thus the greater the fee paid by target firms.

However, the study of the choice of investment banks reputation by both acquirer and target firms should also control for firms and deal characteristics. Both parties may hire more prestigious advisors to benefit from their high quality services and specialized knowledge in more uncertain deals.

b) Merger premium, Merger fees and Investment Bank Reputation

Prior research investigating the performance of M&A advisors usually concentrates on the wealth gains an advisor's client earns as a measure of advisor performance³. These studies have reported mixed results. On the one hand, early research documents a greater wealth

³ Other research relates the performance of M&A advisors to their ability to complete a deal and the speed with which it is completed (Rau, 2000, Hunter and Jagtiani, 2003). Deals involving top tier investment banks are more likely to be completed and are completed faster than less prestigious investment banks (Hunter and Jagtiani, 2003).

gains for acquirers hiring more prestigious investment banks than those advised by less prestigious investment banks (Bowers and Miller, 1990 and Michel, Shaked and Lee, 1991). On the other hand, McLaughlin (1992) reports a lower abnormal return for acquirers with more prestigious investment banks. More recently Rau (2000), for merger deals, and Rau and Rodgers (2002) document a lower announcement return for deals involving top tier advisors; whereas, opposite findings were found by Rau (2000) in tender offer deals. Servaes and Zenner (1996), Da Silva et al. (2004), and Walter et al. (2005) fail to find support for a positive association between stock return and the quality of investment banks. In fact, Walter et al. (2005) find that more reputable advisors do deliver lower gains for targets.

The evidence on the association between merger premiums and advisor reputation is rare. In a multiple regression analysis, McLaughlin (1992) found that the quality of investment banks had no significant effect on the premium received by target firms; however, the author also reported that bidders using low-quality investment bankers offer substantially lower premiums. Rau (2000) found no evidence that acquisition premiums differ across the tier of the investment bank advising the acquirer in merger deals; nevertheless, in tender offers, Rau (2000) confirmed the findings of McLaughlin (1992) and showed that acquirers advised by third-tier investment banks pay a significantly lower premium than those advised by second and first-tier advisors. On the other hand, the premium paid by bidders using second-tier advisors was not significantly higher than that paid by acquirers advised by first-tier investment banks. These results are consistent with the deal completion hypothesis, that is, investment banks may induce their clients to pay high premiums to insure the success of the deal. The deal completion hypothesis, documented above, stems from the agency conflict between acquirers and their investment banks who may be purely motivated by fee income. However, McLaughlin (1990) argues that even if investment banks are goaded by fee income,

they may not want to increase the acquisition prices, because this type of behavior would reduce the value of their reputation capital. As a result, merger fees should compensate investment banks for their efforts, and induce them to behave optimally on behalf of their client firms. Ultimately, whatever the form of the merger fee contract is, fixed, conditional, or variable, fees paid to investment banks for their assistance in mergers and acquisitions should result in adequate gains to cover the cost paid by both target and bidding firms. Hunter and Walker (1990) find that merger gains are positively related to the investment banks fees and a proxy for their efforts⁴. In addition, seeking shareholders' value maximization, bidding firm management would rather offer the minimum price needed to consummate the acquisition, while target firm managers seek to extract the highest possible price.

Building on the above literature, one should expect:

Hypothesis 3a: The higher the acquirer-IB reputation, the lower the premium;

Hypothesis 3b: The higher the target-IB reputation, the higher the premium;

Hypothesis 4a: The higher the acquirer fee, the lower the premium;

Hypothesis 4b: The higher the target fee, the higher the premium;

On the one hand, investment banks would endeavor to protect their clients' interests in order to maintain their reputation capital. On the other hand, both acquirer and target firms act following two conflicting goals where the former, the acquirer, pays a higher fee to minimize the premium paid, and the target pays a higher fee to maximize the premium.

⁴ The bankers' effort was proxied by the ease with which merger negotiations were conducted.

III- Sample and Research Design

a) Sample selection

The sample we used in this study was extracted from Thomson Financial SDC Database for mergers and acquisitions. We searched all the M&A deals announced and completed by US public acquirers between Jan 1, 1985 and April 22, 2004⁵. Our selection criteria necessitate that all financial institutions' deals be excluded from our sample; in addition all deals with a disclosed dollar value of less than \$1 million were ignored as well. We also require the deal to result in a transfer of control where the acquirer's ownership in the target firm increases above 50% as a result of the acquisition. Our sample comprises deals where the target firm is publicly listed either in the US or elsewhere. To be included in our sample the acquirer and target must have share price data available on the Center for Research in Security Prices (CRSP) database and on Datastream (for non-US target firms). Most importantly, our sample is restricted to deals where the names of the financial advisors for targets and acquirers, and the fees paid by each party are disclosed. Our refinement procedures yielded a final sample of 635 completed deals between public firms.

b) Research Design

In this paper, we consider the existence of a sequential decision making between acquirer and target firms. The latter's decisions are mainly driven by the former's decision making. As a result, empirical investigations should control for the simultaneous relationships existing between both parties' decisions. For example, acquirer firms may hire a more prestigious investment bank when buying a larger firm seeking a better evaluation and advice on the deal. Then, target firms may react and hire, at least, an as reputable investment bank in order to

⁵ April 22 represented the last date on which the data was available when we were collecting the sample.

receive a greater quality service allowing negotiating a high premium. Hence, the choice of the target investment bank ranking depends on to the choice made by acquirer firms.

In addition, the level of fees paid by both acquirer and target firms should be related to the endogenous choice of investment banks reputation. Indeed, more reputable investment banks may require larger fees in exchange for the greater effort involved during the advising process. For example, hi-tech and cross-border deals may entail more specialized knowledge than non-hi-tech and local deals.

However, our sample contains only successful mergers, and ignores situations where the final bids did not meet the reservation price of the target. As investment banks also assist in failed mergers where they do not necessarily receive enough fees to cover the cost of their efforts, our results may be driven by sample selection bias. Hunter and Walker (1990) argue that empirical tests ignoring the selection bias which results from a truncated sample would, for instance, bias downwards simple correlation coefficients between merger gains and advisors' fees. In line with Hunter and Walker (1990), our empirical tests correct for this selection bias by adjusting for sample truncation during estimation.

Our analysis aims at providing evidence on the determinants of investment banks reputation, the determinants of merger advisory fees, and on the effect of those fees on the merger premium. To conduct our examination we utilize three main probit and tobit models as follows:

Investment bank reputation = f (deal value, acquirer size, pre-merger ownership, deal attitude, geographic scope, method of payment, industry scope) (1)

Merger advisory fee = f (acquirer-IB reputation, target-IB reputation, deal value, acquirer size, pre-merger ownership, deal attitude, geographic scope, method of payment, industry scope) (2)

Premium = f (acquirer fee, target fee, acquirer-IB reputation, target-IB reputation, deal value, acquirer size, acquirer wealth gain, pre-merger ownership, deal attitude, geographic scope, method of payment, industry scope) (3)

The dependent variable in equation (1) is a binary variable taking the value of 1 if the investment bank belongs to tier one and 0 otherwise. We run this regression twice, once using the acquirer-IB reputation and another using the target-IB reputation as the dependent variable. Previous research used various proxies for advisors reputation, for instance some studies inferred the reputation (tier one, two or three) from the advisors' position in tombstone advertisement (e.g. Bowers and Miller, 1990 and Carter and Manaster, 1990) while others classified advisors into various tiers (usually two or three) based on their market share in the takeover market every year (e.g. Rau, 2000; Saunders and Srinivasan, 2001; and Kale, Kini and Ryan, 2003).

We argue that advisors' reputation building is a continuous process driven by their permanent success in providing quality service to their clients. In the sense that when acquiring or target firms chose their advisors, they take into account not only the advisors performance during the previous or current year but also the reputation that had been built throughout the past years.

Consistent with other studies, we use the investment bank's market share as a proxy for its reputation. We compute each investment banks' share of all M&A transactions reported in the SDC database every year on a cumulative basis year after year from 1985 until 2004⁶. For example, the reputation of a certain financial advisor in 1995 reflects its market share of all the takeover deals that took place between 1985 and 1995, and its reputation in 1999 is derived from its market share between 1985 and 1999 and so on. Similar to Kale, Kini and Ryan (2003) the bidder and target advisors in each transaction are given credit for the full value of the deal. If any party uses more than one advisor, we assign that party the highest ranking of the multiple advisors. We rank advisors according to their respective market shares and divide them into two tiers: tier one for the top twenty in terms of market share and tier two for the rest.

Our dependent variable in equation (2) is the merger fee, which is used as a percentage of the deal value. Similar to equation (1) we also estimate this equation twice, once for each merger party, the acquirer and the target.

In equation (3) we use the merger premium as our dependent variable and this is measured as the percentage difference between the deal value and the target's equity value two months prior to the deal announcement date⁷.

⁶ Carter, Dark, and Singh (1998) show that continuous market share, three-tier market share rankings, and tombstone rankings are highly correlated for the IPO market

⁷ In order to control for rumors or the leakage of information, it is customary in the M&A literature to calculate the merger premium as the percentage difference between offer price (deal value) and the target's equity value, where the pre-merger equity value of the target firm is taken one or two months prior to the deal announcement date see for example Officer (2003) and Moeller, Schlingemann and Stulz (2004).

The independent variables are as follows:

The deal value is the value of the consideration paid to the target firm as reported in SDC database. We use the natural logarithm of this value.

Pre-merger ownership is the percentage of stocks owned by the acquirer in the target firm prior to the merger announcement. This is also reported in SDC database.

The deal attitude is a dummy set equal to 1 if the deal is described as friendly in SDC database, 0 otherwise.

The geographic scope of the deal is a dummy equal 1 if the merger is a cross-border deal, 0 if it is national.

As for the method of payment we use two dummy variables to control for three payment methods, pure cash, pure equity, and mixed.

For the industry scope we use three variables. We use a dummy (industry dummy) set equal to 1 if the target and acquirer share the same two-digit SIC code, 0 otherwise. We also use two dummies, one for each party, set equal to 1 if that party is a high-tech firm.

By size we mean the market value of the acquirer's equity two months prior to the deal announcement date. Similar to the deal value, we use the natural logarithm of the acquirer size.

The acquirer wealth gain is the cumulative abnormal return in the (-2, +2) window where the expected returns are calculated using the market model calibrated on pre-announcement returns.

IV- Empirical Results

a) Descriptive Statistics

Consistent with McLaughlin (1992), average fees are higher for target firms than for bidding firms. There is an average acquirer fee of 0.7% and an average target fee of 0.8% of deal value. Although not mentioned in Table (1), the t-test for difference is significant at the 1% level. The larger target fees suggest that it pays more to represent a target firm.

Acquirers pay significantly more for deals with a “lower than median” premium ($p=1\%$), whereas targets pay almost the same fee for low and high premium deals.

Moreover, both acquirers and targets are more likely to choose highly reputable investment banks to manage their deals (77.8% and 70.9% of deals respectively). This suggests that M&A advising is dominated by some reputable investment banks who manage a large fraction of the completed deals.

Table (1) also indicates that the average deal value is \$2.221 billion and the acquirer market value is \$5.289 billion; both figures imply that the sample contains large deals completed by very large acquirers which should be expected when targets are publicly listed firms. In fact, this is consistent with prior research which shows that if targets are public, larger deals are completed by large acquirers (e.g. Fuller, Netter and Stegemoller, 2002 and Moeller et al. 2004). The acquirer’s average wealth gain is equal to -3.08% (a median value of -2%) this is

also in line with prior research on public firm acquisitions (Fuller et al. 2002; Moeller et al. 2004 and Conn, Cosh, Guest and Hughes, 2004).

Moreover, our data does not show significant differences in mean deal value and mean acquirer value between the high and low premium sub-samples. There is also a low Pre-deal ownership which suggests that bidding firms are not related to target firms.

PLEASE INSERT TABLE (1) HERE

Our database includes mainly friendly deals (95.4%). As expected, deals with a lower premium are more likely to be friendly ($p=5\%$). Moreover, the studied deals are mainly local (1.9% cross-border deals), and the high premium sub-sample includes more international deals ($p=5\%$).

Moreover, Table (1) indicates that 28.8% of deals are paid with cash only, whereas 41.9% are paid with equity, the remaining is settled with other means which could be a combination of cash, equity and loan notes. In the high premium sub-sample we have more cash deals and less equity deals than in the low premium sub-sample (both at the 1% level). Furthermore, Table (1) shows a low fraction of high-tech acquirer and target firms in the studied sample (15.3% and 15.9% respectively). A significantly larger percentage of High-tech acquirer firms pays a greater premium ($p=5\%$).

b) The Choice of the investment bank

Table (2) includes the results of our probit regression of the choice of investment bank reputation by both acquirer and target firms. We first investigate the choice made by the

acquiring firm in model (1), and find that the likelihood of choosing a tier one advisor is significantly positively related to the target size (proxied by the natural logarithm of the deal value). On the other hand, we find the coefficients on the equity deals dummy and the target high-tech dummy to be both negative and significant. This implies that the acquirer is less likely to choose a tier one advisor for high-tech target firms, and when paying with shares.

PLEASE INSERT TABLE (2) HERE

We conduct the analysis from the target's view point in model (2) and find that the larger the deal value, the higher the chance of employing a tier one advisor by the target firm. Most importantly, we find support for hypothesis (1) that the choice of the target investment bank reputation is significantly and positively related to the choice of the acquirer investment bank reputation. In other words, if the acquirer-IB is a tier one advisor then there is a high possibility that the target would employ a tier one advisor as well.

c) The determinants of Merger Fees

In Table (3) we report the results of our analyses of the factors that impact the advisory fees paid by acquirers or targets. Model (3) in the table includes the results of the regression run for acquirer fees on investment bank reputation, deals and firms characteristics. In line with hypothesis (2a), the coefficient on the acquirer-IB reputation is positive and significant at the 5% level, which indicates that acquiring firms pay higher fees (as a percentage of deal value) for advisors with high reputation (Tier one). This result is consistent with recent findings by Hunter and Jagtiani (2003) and Walter, Yawson and Yeung (2005). We also find that advisory fees are lower for large deals, which is expected since the percentage of fees would be lower when the deal value is larger. Moreover, the significantly negative coefficient on deal attitude

(friendly dummy) implies that friendly deals require lower acquirer advisory fees than hostile deals, which is probably due to the complexity of the offer and the efforts invested by the advisor in those deals. In contrast, when acquirers use cash as a method of settlement they pay higher advisory fees than if they use a mixed payment method. Other control variables which are found to be significant are the acquirer high-tech dummy, and the target high-tech dummy. The first signifies that acquirers pay higher fees if they belong to a high-tech industry while the second implies that they pay a lower fee if they acquire a high-tech target.

We also searched for the determinants of merger fees paid by target firms and reported the results in model (3) - Table (3). Similar to acquirers, target firms pay a higher fee if they employ a Tier one advisor ($p=1\%$), which is consistent with hypothesis (2b). Target firms also pay a lower fee for larger deals. In addition, target fees seem to be lower for deals with high acquirer size. The latter results indicate that target firms pay an almost larger fee for a larger bidding firms ($p=10\%$). One explanation could be that the merger with a large acquirer entails possible complications during the integration process and the evaluation of potential synergies which requires careful and sophisticated pre-merger assessment by the advisor; this in turn induces target firms to pay larger fees for their advisors.

PLEASE INSERT TABLE (3) HERE

d) Merger Fees and their Effect on the Premium

Our analysis extends to examine the determinants of the merger premium and mainly the effect of the merger fees on the premium paid. We run a two-stage least square regression to control for the endogenous choice of the investment bank reputation and the levels of merger fees. The results are reported in model (5) of Table (3) and lend support to hypotheses (4a)

and (4b). That is, the merger premium is negatively related to the acquirer advisory fee while it is positively related to the target fee (at the 1% and 10% levels respectively). These results point at a conflict of interest between the bidder and the target. The former pays a high fee to his advisor to reduce the offered premium, whereas the target firm is inclined to pay a high fee to extract the highest possible premium.

We also find negative relationship between the investment bank reputation and the premium paid. This supports hypothesis (3a) but refutes hypothesis (3b), that is, acquirers employ highly reputed advisors in order to reduce the premium paid, while the expectation that targets would recruit highly reputed investment banks to reduce the premium is reversed. The latter result is consistent with the findings of Walter, Yawson and Yeung (2005) who reported that more prestigious advisors deliver low abnormal returns to target firms⁸. This result could be regarded as evidence that such advisors are induced by deal completion even if that led to receiving a low premium by the target firm. We also contend that the completion of such deals and their endorsement by targets could stem from target managers acting in their own interests. Such managers could select acquirers who offer them specific benefits such as job security. Seeking continued tenure, the target managers could bless a deal that may result in a loss of takeover premium. In fact, Hartzell et al. (2000) present evidence that there is a negative relation between the target premium and the value of pecuniary benefits negotiated by target CEOs who intend to remain employed in the merged entity.

⁸ Please note that target abnormal returns and merger premiums could be considered two sides for the same coin. That is, in an efficient market, if there is uncertainty about the success of the bid and no competing bids are expected, the target abnormal return should approach the bid premium level from below. If competing bids are a possibility, then the abnormal return could exceed the bid premium level (e.g Ismail and Davidson, 2005).

In terms of control variables, we find that the premium is higher for cross-border deals compared to national deals; this is probably driven by the acquirers' willingness to pay a high premium in the search for geographic diversification and risk reduction. The positive coefficient of the industry relatedness dummy signifies that industry focus deals attract a high premium as well. The significantly positive coefficient of the deal attitude dummy implies that targets attract higher premiums in friendly deals compared to hostile transactions. This is contrary to the norm that targets earn higher returns in hostile transactions (e.g. Huang and Walkling, 1987). Additionally, we find that share exchange deals result in a lower premium compared to mixed deals which confirms the results of Walter et al. (2005) that target abnormal returns are negatively associated with the percentage of stocks in the consideration offered. Furthermore, previous studies report lower target abnormal returns in equity deals compared to cash and mixed offers (see for example Wansley, Lane and Yang, 1983; Huang and Walkling, 1987; and Franks, Harris and Titman, 1991). These results are consistent with a tax explanation. That is, target shareholders are taxed immediately for capital gains in cash mergers, but the taxes are deferred in mergers involving equity exchange until the shareholders sell their shares in the newly merged firm. A cash offer, therefore, would have to be larger than a stock offer to offset the increased target shareholders' tax liability (Hansen, 1987; Huang and Walkling, 1987). Moreover, the results are also supportive of the Myers and Majluf (1984) signaling hypothesis that mergers financed with equity signal to the market that the equity is overvalued hence these merger deals earn lower returns.

Another significant coefficient is the acquirer hi-tech dummy (positive), which indicates that hi-tech acquirers are willing to pay high premiums; this could be driven by their high valuation and inclination to overpay for targets.

V- Conclusion

Prior research suggests that investment banks play a key role in the completion and the success of M&A transactions. However, there are mixed results about the implications of investment bank reputation and merger fees at the time of the deal announcement.

Using a sample of 635 M&A from 1985 to 2004, this study examines the effect of acquirer and target firms' decisions on the level of the premium. It considers a simultaneous analysis controlling for the endogenous choice of investment bank reputation and the level of merger fees. More specifically, the choice of a target advisor and the level of target fees depend on the decisions undertaken by acquirer firms. Both acquirer and target firms are supposed to follow a sequential decision making aiming to reach conflicting goals. While acquirers pay a larger fee to reduce the premium paid, targets pay a larger fee to increase the premium received.

Controlling for sample selection bias which results from a truncated sample, this study examines the effect of merger fees on the premium, and controls for the endogenous choice of investment banks. Our initial tests show that the choice made by the target firm for the investment bank is driven by the earlier choice made by the acquirer. We also document a positive association between the level of fees and the investment bank reputation for both targets and acquirers. Further empirical findings show a positive and significant association between target fee and the level of the premium, whereas the acquirer fee is negatively and significantly related to the premium.

Although excessive, our findings suggest that merger fees are fair compensation which plays a significant role in improving the benefits and the quality services provided to both acquirer

and target firms. Our empirical evidence confirm the existence of a conflict of interest between target and acquirer firms, and indicate that investment banks efforts, proxied by merger fees, are positively related to shareholders interest.

Surprisingly, our results point at a conflicting effect of the investment banks reputation on the merger premium. While more reputable acquirer investment banks lead to paying a significantly lower premium, employing more prestigious advisors by the target firm fails to increase the premium, rather it reduces it. Further research should control for the entrenchment of target managers who might negotiate some personal benefits at the expense of shareholders.

References

- Allen, F. 1984. Reputation and product quality. *RAND Journal of Economics* 15: 311-27.
- Benston, G. and C. W. Smith. 1976. A Transactions Costs Approach to the Theory of Financial Intermediation. *Journal of Finance* 31: 215-31.
- Bowers, H. M. and R. Miller. 1990. Choice of Investment Banker and Shareholders Wealth of Firms Involved in Acquisitions. *Financial Management* 19: 34-44.
- Carter, R. B. and S. Manaster. 1990. Initial Public Offerings and Underwriter Reputation. *Journal of Finance* 45: 1045-67.
- Carter, R. B. F. H. Dark and A. K. Singh. 1998. Underwrite Reputation, Initial Returns, and the Long-Run Performance of IPO Stocks. *Journal of Finance* 53: 285-311.
- Conn, R. L. Cosh A. Guest P. M. and A. Hughes. 2004. Why must all good things come to an end? The performance of Multiple acquirers. *Working Paper, Centre for Business Research, Judge Institute of Management, Univeristy of Cambridge, UK* .
- Da Silva Rosa, R. P. Lee M. Skott and T. Walter. 2004. Competition in the Market for Takeover Advisers. *Australian Journal of Management* 29: 61-92.
- Diamond, P. and E. Maskin. 1979. An equilibrium analysis of search and breach of contract, I: Steady, States. *Bell Journal of Economics* , no. Spring: 282-311.
- Franks, J. R. R. S. Harris and S. Titman. 1991. The Postmerger Share-price Performance of Acquiring Firms. *Journal of Financial Economics* 29: 81-96.
- Fuller, K. Netter J. and M. Stegemoller. 2002. What do returns to acquiring firms tell us? Evidence from firms that make many acquisitions. *Journal of Finance*, 57: 1763-94.
- Grossman, S. and O. Hart. 1980. Takeover bids, the Free-Rider problem and the theory of the corporation. *Bell Journal of Economics* , no. Spring: 42-64.
- Hansen, R. G. 1987. A theory of the choice of exchange medium in mergers and acquisitions. *Journal of Business* 60: 75-95.
- Hartzell, J. E. Ofek and D. Yermack. 2000. What's in it for me? Personal Benefits Obtained by CEOs whose Firms Are Acquired. *Unpublished Working Paper. New York University* .
- Huang, Y. S. and R. A. Walkling. 1987. Target abnormal returns associated with acquisition announcements: Payment, acquisition form, and managerial resistance. *Journal of Financial Economics* 19: 329-49.
- Hunter, W. C. and J. Jagtiani. 2003. An Analysis of Adviser Choice, Fees, and Effort in Mergers and Acquisitions. *Review of Financial Economics* 12: 65-81.
- Hunter, W. C. and M. B. Walker. 1990. An Empirical Examination of Invesmtent Banking Merger Fee Contracts. *Southern Economics Journal* 56: 1117-30.

- Ismail, A. K. and I. R. Davidson. 2005. Further Analysis of Mergers and Shareholder Wealth Effects in European Banking. *Applied Financial Economics* 15, no. 1: 13-30.
- Kale, J. R. O. Kini and H. E. Ryan. 2003. Financial Advisors and Shareholder Wealth Gains in Corporate Takeovers. *Journal of Financial and Quantitative Analysis* 38, no. 3: 475-501.
- Klein, B. and K. B. Leffler. 1981. The role of market forces in assuring contractual performance. *Journal of Political Economy* 89: 615-41.
- McLaughlin, R. M. 1992. Does the Form of Compensation Matter? *Journal of Financial Economics* 32: 223-60.
- . 1990. Investment Banking Contracts in Tender Offers: An Empirical Analysis. *Journal of Financial Economics* 28: 209-32.
- Michel, A. I. Shaked and Y. Lee. 1991. An Evaluation of Investment Banker Acquisition Advice: The Shareholders' Perspective. *Financial Management* 20: 40-49.
- Moeller, S. Schlingemann F. and R. Stulz. 2004. Firm size and the gains from acquisitions. *Journal of Financial Economics* 73: 201-28.
- Mortensen, D. 1982. Matching as a non-cooperative bargaining game. in *The Economics of Information and Uncertainty*, Edited by John J. McCall. Chicago: University of Chicago Press .
- Myers, S. and N. Majluf. 1984. Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics* 13: 187-221.
- Officer, M. 2003. Termination fees in mergers and acquisitions. *Journal of Financial Economics*, 69: 431-67.
- Rau, P. R. 2000. Investment Bank Market Share, Contingent Fee Payments, and the Performance of Acquiring Firms. *Journal of Financial Economics* 56: 293-324.
- Rau, P. R. and K. J. Rodgers. 2002. Do Bidders Hire Top-Tier Investment Banks to Certify Value? *Working Paper, Purdue University, And Penn State University*.
- Saunders, A. and A. Srinivasan. 2001. Investment Banking Relationships and Merger Fees. *Working Paper, University of Georgia, Terry College of Business*.
- Servaes, H. and M. Zenner. 1996. The role of investment banks in acquisition. *The Review of Financial Studies* 9, no. Fall: 787-815.
- Shapiro, C. 1983. Premiums for high quality products as returns to reputation. *Quarterly Journal of Economics* 98: 659-79.
- Srinivasan, A. 1999. Investment Banking Relationship: Theory and Evidence from Merger Fees. *NYU Working Paper* November.
- Walter, T. Yawson A. and C. Yeung. 2005. Does a quality premium exist in M&A advisory

fee. *Working Paper, The University of New South Wales.*

Wansley, J W. W. R Lane and H. C. Yang. 1983. Abnormal returns to acquired firms by type of acquisition and method of payment. *Financial Management* 12, no. Autumn: 16-22.

Table 1 - Descriptive Statistics

Table 1 includes descriptive statistics for a sample of 635 M&A from 1985 to 2004. It shows mean and median values for the total sample as well as according to the level of the premium, lower or higher than the median value. *Premium* is the percentage difference between the deal value and the target's equity value two months prior to the deal announcement date. *Acquirer fee* and *Target fee* are calculated in percentage of the deal value. *Acq-IB Ranking dummy* and *Targ-IB Ranking dummy* reflect the investment bank reputation calculated based on their cumulative market share of all M&A transactions reported in the SDC database from 1985 to 2004. Both dummy variables are equal to 1 if the investment bank belongs to tier one (top 20 advisors) and 0 otherwise. *Deal value* is the value of the consideration paid to the target firm as reported in SDC database. *Acquirer size* is the market value of the acquirer's equity two months prior to the deal announcement date. *Acquirer wealth gain* is the cumulative abnormal return in the (-2,+2) window where the expected returns are calculated using the market model calibrated on pre-announcement returns. *Pre-merger ownership* is the percentage of stocks owned by the acquirer in the target firm prior to the merger announcement. This is also reported in SDC database. *Deal attitude* is a dummy set equal to 1 if the deal is described as friendly in SDC database, 0 otherwise. *Cross-border dummy* is a dummy equal 1 if the merger is a cross-border deal, 0 if it is national. *Cash (Equity) dummy* is equal to 1 if payment with cash (Equity), 0 otherwise. *Acquirer (Target) Hi-tech* dummy is equal to 1 if the acquirer (target) is a high-tech firm and 0 otherwise. *Same industry dummy* is equal to 1 if the target and acquirer share the same two-digit SIC code, 0 otherwise.

	Total Sample		Premium Lower than Median		Premium Higher than Median		T-test Difference (2) vs. (3)
	Mean (1)	Median	Mean (2)	Median	Mean (3)	Median	
Number	635		317		317		
Premium	0.850	0.602	0.273	0.308	1.425	1.008	***
<i>Acquirer vs. Target fees</i>							
Acquirer Fee (% of deal value)	0.007	0.005	0.008	0.006	0.006	0.005	***
Target Fee (% of deal value)	0.008	0.007	0.008	0.007	0.008	0.006	---
<i>Investment Banks Reputation</i>							
Acq-IB Ranking dummy	0.778	1.000	0.741	1.000	0.814	1.000	**
Targ-IB Ranking dummy	0.709	1.000	0.703	1.000	0.714	1.000	---
<i>Deals Characteristics</i>							
Deal Value (Million USD)	2,221	384	2,245	326	2,197	453	---
Acquirer Size (Million USD)	5,289	948	5,087	873	5,490	1,092	---
Acquirer Wealth Gain (%)	-3.08	-2.00	-2.35	-1.66	-3.81	-2.28	---
Pre-merger Ownership (%)	1.227	0.000	0.987	0.000	1.467	0.000	---
Deal attitude dummy	0.954	1.000	0.968	1.000	0.940	1.000	**
Cross-border dummy	0.019	0.000	0.009	0.000	0.028	0.000	**
Cash dummy	0.288	0.000	0.243	0.000	0.333	0.000	***
Shares payment dummy	0.419	0.000	0.571	1.000	0.267	0.000	***
<i>Firms Characteristics</i>							
Acquirer Hi-tech dummy	0.153	0.000	0.129	0.000	0.176	0.000	**
Target Hi-tech dummy	0.159	0.000	0.161	0.000	0.157	0.000	---
<u>Same industry dummy</u>	<u>0.641</u>	<u>1.000</u>	<u>0.644</u>	<u>1.000</u>	<u>0.638</u>	<u>1.000</u>	<u>---</u>

*, **, ***: significant at the 10%, 5% and 1% levels respectively.

Table 2 – The Choice of Investment Banks

Table 2 includes the Probit regressions of *Acq-IB Ranking* and *Targ-IB Ranking dummy* variables. It verifies the choice of the investment bank reputation by both acquirer and target firms. *Acq-IB Ranking dummy* and *Targ-IB Ranking dummy* reflect the investment bank reputation calculated based on their cumulative market share of all M&A transactions reported in the SDC database from 1985 to 2004. Both dummy variables are equal to 1 if the investment bank belongs to tier one (top 20 advisors) and 0 otherwise. *Log(Deal value)* is the natural logarithm of the value of the consideration paid to the target firm as reported in SDC database. *Log(Acquirer Size)* is the natural logarithm of the value of the consideration paid to the target firm as reported in SDC database. *Pre-merger ownership* is the percentage of stocks owned by the acquirer in the target firm prior to the merger announcement. This is also reported in SDC database. *Deal attitude* is a dummy set equal to 1 if the deal is described as friendly in SDC database, 0 otherwise. *Cross-border dummy* is a dummy equal 1 if the merger is a cross-border deal, 0 if it is national. *Cash (Equity) dummy* is equal to 1 if payment with cash (Equity), 0 otherwise. *Acquirer (Target) Hi-tech dummy* is equal to 1 if the acquirer (target) is a high-tech firm and 0 otherwise. *Same industry dummy* is equal to 1 if the target and acquirer share the same two-digit SIC code, 0 otherwise. Standard errors are between parentheses

	<u>Acq-IB Ranking dummy</u>	<u>Targ-IB Ranking dummy</u>
	ML - Binary Probit (Newton-Raphson)	
	Model (1)	Model (2)
Constant	5.050 (3.936)	-2.013*** (0.503)
<i>Investment Banks reputation</i>		
Acq-IB Ranking dummy		0.474*** (0.145)
<i>Deals Characteristics</i>		
Log (deal Value)	0.846*** (0.165)	1.015*** (0.158)
Log (Acquirer Size)	0.056 (0.060)	0.001 (0.053)
Pre-merger Ownership	0.009 (0.013)	0.018 (0.012)
Deal attitude dummy	-6.379 (3.936)	-0.256 (0.380)
Cross-border dummy	0.230 (0.474)	-0.108 (0.392)
Cash payment dummy	0.212 (0.201)	0.147 (0.178)
Shares payment dummy	-0.454*** (0.158)	-0.062 (0.152)
<i>Firms Characteristics</i>		
Acquirer Hi-tech dummy	0.090 (0.248)	-0.303 (0.225)
Target Hi-tech dummy	-0.480** (0.242)	0.086 (0.225)
Same Industry dummy	-0.210 (0.138)	-0.078 (0.129)
McFadden R-squared	0.227	0.237
Obs with Dep=0	141	185
Obs with Dep=1	494	450

*, **, ***: significant at the 10%, 5% and 1% levels respectively.

Table 3 - Premium, Merger Fees and Investment Banks Reputation

Table 3 includes the Tobit regressions of *Acquirer fee* and *Target fee* variables and the 2SLS regression of the *premium*. Models (3) and (4) verify the choice of merger fees by both acquirer and target firms using the estimated investment bank ranking in Models (1) and (2). Model (5) includes the 2SLS regression of the premium using the estimated investment bank reputation and merger fees in Models (1) to (4). *Premium* is the percentage difference between the deal value and the target's equity value two months prior to the deal announcement date. *Acquirer (Target) fee* is calculated in percentage of the deal value. *Acq-IB (Targ-IB) Ranking dummy* reflects the investment bank reputation calculated based on their cumulative market share of all M&A transactions reported in the SDC database from 1985 to 2004. It is equal to 1 if the investment bank belongs to tier one (top 20 advisors) and 0 otherwise. *Log(Deal value)* is the natural logarithm of the value of the consideration paid to the target firm as reported in SDC database. *Log(Acquirer Size)* is the natural logarithm of the value of the consideration paid to the target firm as reported in SDC database. *Acquirer wealth gain* is the cumulative abnormal return in the (-2,+2) window where the expected returns are calculated using the market model calibrated on pre-announcement returns. *Pre-merger ownership* is the percentage of stocks owned by the acquirer in the target firm prior to the merger announcement. This is also reported in SDC database. *Deal attitude* is a dummy set equal to 1 if the deal is friendly, 0 otherwise. *Cross-border dummy* is a dummy equal 1 if the merger is a cross-border deal, 0 if it is national. *Cash (Equity) dummy* is equal to 1 if payment with cash (Equity), 0 otherwise. *Acquirer (Target) Hi-tech* dummy is equal to 1 if the acquirer (target) is a high-tech firm and 0 otherwise. *Same industry dummy* is equal to 1 if the target and acquirer share the same two-digit SIC code, 0 otherwise. White Heteroskedasticity-Consistent Standard Errors are between parentheses.

	Acquirer fee ML - TOBIT (Newton-Raphson) Model (3)	Target fee Model (4)	Premium 2SLS Model (5)
Constant	0.061*** (0.009)	0.030*** (0.007)	0.175 (0.252)
<i>Acquirer vs. Target fees</i>			
Acquirer Fee			-8.085*** (3.100)
Target Fee			4.824* (2.737)
<i>Investment Banks reputation</i>			
Acq-IB Ranking dummy	0.004** (0.002)	0.000 (0.001)	-0.093** (0.046)
Targ-IB Ranking dummy		0.004*** (0.001)	-0.068** (0.028)
<i>Deals Characteristics</i>			
Log (deal Value)	-0.016*** (0.002)	-0.011*** (0.002)	
Log (Acquirer Size)	0.000 (0.001)	0.001* (0.000)	-0.037* (0.020)
Acq-Wealth Gain (in %)			-0.163** (0.082)
Pre-merger Ownership	0.000 (0.000)	0.000 (0.000)	-0.002 (0.002)
Deal attitude dummy	-0.028*** (0.010)	-0.006 (0.008)	0.648** (0.322)
Cross-border dummy	0.001 (0.004)	-0.002 (0.003)	0.167* (0.095)
Cash payment dummy	0.005** (0.002)	0.002 (0.001)	-0.052 (0.047)
Shares payment dummy	0.001 (0.002)	0.000 (0.001)	-0.227*** (0.048)
<i>Firms Characteristics</i>			
Acquirer Hi-tech dummy	0.005** (0.002)	0.002 (0.002)	0.152*** (0.043)
Target Hi-tech dummy	-0.004* (0.002)	-0.002 (0.002)	-0.070 (0.044)
Same Industry dummy	0.000 (0.001)	0.000 (0.001)	0.091*** (0.034)
R ²	0.392	0.358	0.133
Adjusted R ²	0.380	0.344	0.113
F-statistic			6.770
P-Value (F-statistic)			0.000

*, **, ***: significant at the 10%, 5% and 1% levels respectively.