THE UNIVERSITY of ADELAIDE

Industry Specialization of Investment Banks in M&A Activities

Thesis for M.Phi. in Finance

Prepared

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Abstract

In recent years, industry specialization has been widely pursued by investment banks as a point of differentiation to attract new mergers and acquisitions (M&A) advisory business. This study is the first to examine the role of industry-specialized financial advisors in M&As. We use a comprehensive measure, the *Additive Revealed Comparative Advantage* (ARCA) index, to determine advisors' respective specialization levels in the acquirer and the target industry prior to the announcement date. We find that advisor industry specialization leads to lower fees, suggesting that specialized advisors pass some cost savings achieved through economies of industry specialization onto their bidder clients in order to compete for market share. We further find that industry specialization gives advisors superior capability to complete deals. Specialization, however, does not enable advisors to create additional value for their bidder clients, nor does it help them to work faster. The findings are robust to the control for endogeneity and imply that advisors' specialization effort is potentially distorted by the external rewarding system which encourages deal completion only. Contrary to the traditional perception on the superiority of industry specialists, this study suggests that such perception could be illusory in the M&A advisory market.

Declaration

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1. Introduction

Over the past decades, much work has been done in identifying investment banks capable of creating value for their clients through the provision of mergers and acquisitions (M&A) advisory service[1]. The main strand of literature has focused on top-tier investment banks, in the view that these reputable banks would possess M&A expertise necessary for delivering superior service[2]. Yet, a vast majority of prior empirical research fails to support this assertion and reports a negative association between advisors' reputation, measured by the league table rankings, and bidder abnormal returns (see e.g., Maclagulin 1992; Servaes and Zenner 1996; Rau 2000; Rau and Rodgers 2002; Hunter and Jagtiani 2003; Walter, Yawson and Yeung 2008)[3]. A recent study by Golubov, Petmezas and Travlos (2012) lends some support for bidding firms to use top-tier investment banks in public acquisitions. However, an important question remains as to whether there exist a group of advisors that are skilled unconditional upon target listing status. Given the overwhelming evidence on the poor performance of first-tier investment banks, answering this question seems beyond the reach of traditional analysis that focuses on advisor reputation only[4].

[1] The terms 'investment banks' and 'advisors' are used interchangeably in this study.

[2] It is a customary practice in the literature to group investment banks into three tiers based on the league table rankings on market share, where bank prestige is in a descending order (see e.g., Rau 2000; Hunter and Jagtiani 2003; Walter et al. 200; Golubov et al. 2012).

[3] The annual league table ranks investment banks based on the value (or volume) of deals completed by the bank during the last 12-month period. For this reason, the term 'league table rankings' is also referred to 'bank market share' in this study.

[4] To our knowledge, there are only two studies that deviate from the focus of top-tier investment banks. Allen, Jagtiani, Peristiani and Saunders (2004) investigate the performance of commercial investment banks compared with investment banks, and find that bidders do not earn higher abnormal returns when their own commercial banks are used as M&A advisors. Song and Wei (2010), on the other hand, examine whether the choice between boutique and full-service advisors affects deal outcomes, and show that the deal premium paid by bidders is lower if boutique advisor is used. Whether bidder clients could earn higher returns is however not examined in their study, and their sample includes M&A deals involving public targets and acquirers only.

Taking a new-fangled perspective, this study addresses the issue by examining the performance of industry specialist advisors in M&As. The idea that specialization enables productivity gains can be traced back to Adam Smith, a famous economist who coined the term 'the division of labour' in 1776. On a more focused level, research on industry specialization has yielded both theories and empirical evidence in a wide variety of fields other than M&A, suggesting that industry specialization fosters the development of core competencies and enhances firm performance. A large stream of literature in the auditing market, for example, shows that industry specialist auditors have superior ability of performing audits and developing effective disclosure strategies for their clients (see e.g., Dunn and Mayhew 2004; Balsam, Krishnan and Yang 2003). Evidence is also presented in the private equity (PE) field, where more industry specialized PE firms are associated with better investments and post-buyout performance compared with their less specialized counterparts (Cressy, Munari and Malipiero 2007).

At the same time, we note considerable anecdotal evidence indicating that industry specialist M&A advisors have gained popularity in recent years. Rather than using the traditional league tables as the sole criterion of selecting financial advisors, acquirer clients today are becoming more sophisticated and demanding industry specialist advisors who have a deep understanding of both their business and industrial environment. The Global Finance and InfoStrat, for example, investigates the largest publicly traded companies in North America and Europe, and reports that more than 70% of corporate financial executives declared industry expertise to be a *'very important'* factor in a particular financial service (Leander, 1996). Accompanying this increase in clients' demand has been a growing trend among investment banks to pursue industry specialization as a strategy of differentiation. The boutique advisor Lazard Group LLC, for instance, states in its 2009 annual report on form 10-K that, '*we seek to offer our service across*

most major industry groups', and one of its core strategies is '*expanding the breadth and depth of our industry expertise'*. Goldman Sachs, one of the 'bulge-bracket' advisors, also claims on its website that, '[*Our] professionals advise and assist clients across a number of industry ... In each of these areas, we provide a range of service designed to meet the specific industry and market dynamics our clients face*'.

Notwithstanding its growing popularity and important implications on deal performance, advisor industry specialization has been overlooked in the M&A literature. We are therefore motivated to explore the effect of advisor industry specialization by addressing two important questions. First, we examine how industry specialization by bidder advisors affects acquisition outcomes in terms of bidder abnormal returns, completion probability and deal duration. Drawing on the established theories of industry specialization and organization learning (see e.g., Argote 1999; Arrow 1962; Dierickx and Cool 1989; Barney 1991; Lei, Hitt and Bettis 1996; Jacobies and Winter 2005), we argue that industry specialization would enable specialized advisors to concentrate both resources and learning effort on a narrow range of industries, thereby accelerating the acquisition of industry-specific knowledge and skill. As this expertise evolves over time through the accumulation of specialized experience, specialized advisors' ability to generate strategic value for acquiring firms by, for example, identifying synergistic targets and executing deals effectively, should be improved. Bidder advisors' industry specialization is, therefore, expected to be associated with superior acquisition outcomes, irrespective of target types.

Second, we investigate how advisor industry specialization affects the pricing of M&A advisory service. The theoretical models of Klein and Leffler (1981) and Chemmanur and Fulghieri (1994) posit that firms offering high quality service will receive premium fees as a return for their increased costs of producing quality service. Accordingly, if industry specialization generates

expertise which helps investment banks to offer superior service, it would lead to higher advisory fees. On the other hand, industry-specialized advisors may be pressured by the fierce competition and therefore willing to pass some cost savings obtained from the economies of industry specialization onto bidder clients (Mayhew and Wilkins 2003; and Carson 2009). Reasoning along this pattern of thought, industry specialization would result in lower fees. Given these two conflicting theories, it becomes an empirical issue as to what effect advisor industry specialization would exert on the pricing of M&A advisory service.

We employ a comprehensive approach, namely, the *Additive Revealed Comparative Advantage* (ARCA) index, to determine advisors' respective specialization levels in the acquirer and the target industry. Using a large sample of M&A transactions announced between 1985 and 2010, we find consistent evidence contrasting the theory that industry specialization improves advisors' ability of providing superior advice to their bidder clients. Specifically, we find that bidder abnormal returns are negatively associated with advisor acquirer-industry specialization, and insignificantly related to advisor target-industry specialization. The results are robust when we include the industry specialization level of the opposing party's advisor as an additional control or examine acquisition subsamples partitioned by target listing status (i.e., public, private and subsidiary acquisitions).

Our empirical analysis on the pricing of M&A advisory service indicates that advisor industry specialization negatively and significantly affects advisory fees, suggesting that industry specialization allows cost efficiencies to be passed along to bidder clients. The negative association between advisor industry specialization and advisory fees continues to hold when we split the whole sample by target type. There is also strong evidence that the probability of bid success for acquisitions of public and subsidiary firms increases as a function of advisor industry

specialization level. This supports the proposition that superior knowledge and skill acquired through industry specialization enhance advisors' ability to complete transactions successfully. Finally, we find that advisor industry specialization leads to longer time to completion, indicating that industry-specialized advisors are more careful in handling deals from their focal industry due to its economic importance.

We also take into account the endogenous nature of the appointments of industry specialist advisors. Specifically, we show that bidding firms' decision of hiring industry specialist advisors is positively associated with characteristics such as deal relatedness, industry specialization level of the opposing party's advisor and whether the medium of payment involves stock. The evidence suggests that bidder-advisor matching could be non-random and that failing to control for this endogeneity may lead to biased OLS estimates and false conclusions. We therefore adopt the Heckman (1979) two-stage procedure to address this issue, where a *scope* variable that captures the extent of prior bidder-advisor relationship is constructed to serve as the model identification restriction. We find that all the results are qualitatively the same after controlling for this form of selectivity.

Overall, our empirical analyses yield mixed effects of industry specialization on deal outcomes: on the one hand, advisor industry specialization deteriorates bidder abnormal returns and elongates deal duration; on the other hand, it improves advisors' ability to complete public and subsidiary bids. We contend that while industry specialization theoretically offers advisors with equal opportunities to develop various competencies necessary for delivering superior service, advisors make trade-offs among the types of industry expertise to be acquired in accordance with the external rewarding system. In particular, since both current and future market share in the M&A context is rewarded for advisors' ability to complete larger and more deals and not for the

ability of generating superior returns (see e.g., Bao and Edmans 2011; Rau 2000), industry-specialized advisors have economic incentives to expend more resource and learning effort on developing completion expertise than on other unrewarded skills. Our findings, therefore, pose a challenge to the traditional view that industry specialization improves performance and suggest that the perception on the superiority of industry specialists could be illusory in the M&A advisory market.

The research contributes to the M&A literature in several ways. First, it is the first, to the best of our knowledge, that applies the ARCA index in specialization studies to the M&A advisory field. As a result, we provide a fresh and important characterization of M&A financial advisors and show how it relates to deal performance. Second, the research offers new insights on the determinants of M&A advisory fees. Specifically, we show that advisor industry specialization significantly reduces advisory fees, indicating that specialized advisors are able to pass some cost savings achieved through economies of scale along to their clients in order to compete for market share. Third, the study offers a practical slant for the selection of financial advisors in M&As. For instance, given that investment banks commonly advertise their specialized industries online, our findings help bidding firms to gain a better understanding of what capabilities are actually possessed by industry specialist advisors and therefore to make rational and informed choice of financial advisors.

The remainder of the thesis is organized as follows. Section 2 presents the theory and Section 3 outlines the primary methodologies used in the study. This is followed by the data description in the fourth section. Section 5 reports the results of our empirical analysis and section 6 concludes.

2. Theory

2.1 Industry Specialization

Industry specialization is commonly defined as the degree to which a firm concentrates on a single or group of related industries in order to gain a comparative advantage in these industries (Jacobides and Winter 2005; McTaggart, Findlay and Parkin 2007; and Hatfield, Liebeskind and Opler 1996). The notion that industry specialization improves performance has long been acknowledged among scholars (see e.g., Arrow 1962; Ethier 1982; Romer 1987). There are two main explanations put forward in the literature. First, industry specialization facilitates the development of specialized factors of production that is necessary for firms to compete at low cost or produce high quality products in their focal industries (Hatfield et al. 1996; and Montgomery and Wernerfelt 1988). A specialized industry, for instance, would receive naturally greater resources which can then be deployed to acquire advanced technologies, engage in specialized training that ensures the diffusion of best practice within the industry (Solomon, Shields and Whittington 1999; and Cason 2009), and attract or retain industry-specific talents by providing them with high remuneration package (Jacob, Lys and Neale 1999; and Moroney and Simnett 2009). These factors give firms a privileged position to produce superior products in their specialized industries relative to other non-specialized industries.

Second, industry specialization leads to more effective learning, accelerating the acquisition of industry-specific knowledge and skill that are important to the attainment of expert performance (Schilling, Vidal, Ployhart and Marangono 2003; Zello and Winter 2002; and Bonner and Lewis 1990). Specifically, specialized industries would have richer and more frequent task-related encounters, which can help firms to steadily gain industry-specific experience via continuous

'learning by doing' (Argote 1999; Levinthal and March 1993; and Zollo and Winter 2002)[5]. As such experience accumulates, specialized firms' knowledge of their focal industries, such as prevailing norms, regulation, technologies and competitions, would be deepened, As such these firms would likely become increasingly effective in executing the tasks within their specialized domain (see e.g., Jacobides and Winter 2005; Argote 1999; Arrow 1962). Non-specialized industries, on the other hand, are often not regularly contacted and therefore lack of sufficient opportunities for learning. While firms can possibly learn something about their non-specialized industries by doing even a single task, such knowledge is nonetheless more apt to 'organizational forgetting' because of the long 'production breaks' (Boone and Ganeshan 2000; Holan and Phillips 2004, Jaber and Bonney 1997; and Haward 2002)[6].

Furthermore, although most types of tasks from the same industry parallel to each other in some fundamental ways (see e.g., Spender 1989; Makadok and Barney 2001; Haleblian and Finkelstein 1999), they are not essentially the same. For example, mergers and acquisitions are often considered as heterogeneous even when taken place in the same industry, since they are usually target-specific and made for different strategic reasons (Hayward 2002). This task feature therefore makes it particularly important for firms to properly distinguish between deals and correctly make inference about the extent to which prior experience is relevant and applicable to the present task on hand (Zello and Winter 2002; and Mukherjee, Lapre and Wassenhove 1998). In this regard, industry specialization benefits firms by enabling them to develop superior cognitive skill which ensures correct inference to be drawn from previous knowledge. In

[5] Organizational 'learning by doing' refers to the phenomenon that firm performance improves as organizations gain experience in production (Argote 1999). It has been found in many organizations including banks (see e.g., Barnett, Greve and Park 1994).

[6] Organizational forgetting is typically positively associated with such factors as the number of dissimilar tasks performed during the break and the production break period. Also see Argote (1999).

particular, by constantly exploring a diverse range of tasks associated with a specific industry, specialized firms can adaptively learn what are the underlying differences and connections of previous tasks to a new task (Schilling et al. 2003), and accumulate insights of what works and what does not for this particular class of tasks (Hayward 2002). Over time, firms would become more skilled in generating and applying inference to the tasks from their specialized domain (Schilling et al. 2003; Sweller 1988; Bonner and Lewis 1990; and Von Hippel 1998). Such skill is, however, unlikely to be developed for those industries that are not specialized, given that there is only limited exposure for firms to learn and explore. The domain-specific nature of the skill also implies that superior skill acquired in the focal industry might not be relevant, applicable or transferrable to the execution of a task outside a firm's specialized domain, because tasks from unrelated industries are often fundamentally different from each other. Consequently, without having adequate skill in managing tasks from a non-focal industry, firms are prone to making inappropriate generalization of prior experience, which can lead to hazardous performance (Zello and Winter 2002; and Haleblian and Finkelstein 1999)[7].

2.2 Industry Specialization and M&A Advisors

Drawing on the above-mentioned theories, we define investment banks that are specializing in an industry as industry-specialized advisors and expect these advisors to generate better acquisition outcomes in their specialized industry, relative to their non-specialized counterparts. In particular, specialized advisors with greater resources are likely to have better ability to adopt superior facilities and develop specialized routines necessary for the effective execution of M&A transactions within their focal industries. Since specialized advisors would have more detailed

[7] Generalization refers to 'invoking the same behaviour in response to a variety of similar antecedent conditions' (Haleblian and Finkelstein 1999, p. 31).

knowledge of the industrial environment in which the bidder client or the target operates, they are more likely to provide valuable advice to their clients. This can be accomplished by, for example, identifying synergistic targets pertinent to the bidder clients' operating environment and evaluating the appropriateness of the offers (Spender 1989; Makadok and Barney 2001; and Cason 2009). While M&A deals taken place in the same industry are client-specific, specialized advisors' sophisticated skill acquired through practice is expected to help them accurately distinguish between deals and therefore avoid making inappropriate generalizations (Haleblian and Finkelstein 1999). Invariably, we expect that industry-specialized advisors would have better performance measured by bidder abnormal returns, completion probability and deal duration than their non-specialized counterparts.

Advisor industry specialization has important implications on M&A advisory fees as well. The Klein and Leffler (1981)'s early framework has modelled the relation between quality and price premium in a product market, where firms need to repeatedly sell their products to clients and the quality of the products can only be known after the purchase (i.e., not ex-ante observable). In this setting, price premium arises in order to compensate firms for the increased average costs incurred in producing quality. It also serves as an incentive to induce firms to continually supply high quality products. Although the Klein and Leffler (1981) model is developed within product markets, researchers in the field of M&A advisors commonly suggest that the model can be extended to the M&A advisory market, in the sense that investment banks also need to repeatedly sell their service whose quality is not ex-ante observable (Kale, Kini and Ryan 2003; Walter et al. 2008; and Golubov et al. 2012). Moreover, Chemmanur and Fulghieri (1994) model the relation among quality, reputation and fees specific to the investment banking industry and

reached similar predictions[8]. That is, compared with their counterparts, investment banks offering higher quality service will charge larger fees. Consequently, if industry specialization produces industry expertise that leads to high quality service, it would have a favourable impact on the advisory fees received by specialist advisors.

A countervailing factor is that industry specialization entails cost efficiencies. For instance, the cost of training can be lowered by economies of knowledge sharing, where investment banks only need to train one banker in one industry rather than every banker in all industries (Danos, Eichenseher and Holt 1989; and Cason 2009). In addition, although developing industry-specialized factors of production is costly, the costs can be nonetheless leveraged over a relatively large client base, since these factors are usually transferable and usable for all the clients within the same or related industries (Mayhew and Wilkins 2003). Consequently, it is plausible that industry-specialized advisors pressured by the fierce completion in the M&A advisory market may pass some cost savings onto their bidder clients in order to maximize market share (Mayhew and Wilkins 2003; and Deris and Giroux 1996). Following this line of reasoning, industry specialization would produce lower M&A advisory fees.

2.3 Prior Evidence on the Performance of M&A Advisors

Given the substantial advisory fees received by investment banks, there has been growing interest among academic researchers in examining whether investment banks provide clients with valuable advice so as to justify their fees. While there is no single metric to objectively evaluate the performance of M&A advisors, empirical studies commonly use the measure of

[8] While Chemmanur and Fulghieri (1994) model the relation in the setting where investment banks act as equity underwriters, they nevertheless suggest that the theoretical implications are applicable to the corporate takeover context (p.58).

wealth gains accruing to client shareholders, in the sense that this measure is in line with the corporate objective of shareholder wealth maximization (see e.g., Bowers and Miller 1990; Walter et al. 2008; Ismail 2010). Among these studies, great effort has been directed to investigate how the reputation of M&A advisors measured by the league table rankings affects the acquisition outcomes of bidding firms. The results, however, are conflicting. Bowers and Miller (1990), for instance, find that top-tier investment banks do not generate higher gains to their acquirer clients, although the total wealth gains accruing to both acquirer and target are larger when either party employs a top-tier bank. Maclauglin (1992) studies the relative importance of fee contract in resolving conflict of interests between clients and advisors. The author reports that lower-ranked advisors are associated with less acquisition premiums paid by acquiring firms and with higher acquirer abnormal returns. Maclauglin (1992) nevertheless notes that the results might be driven by top-tier banks being "*associated with more difficult transactions, requiring higher premiums and with lower benefits to bidding firms*" (p. 258).

Servaes and Zenner (1996) compare the performance of mergers and acquisitions completed with and without the use of investment banks from 1981 to 1992. They show that advisors are more likely used when deals are complex and when bidder clients have less previous acquisition experience. Surprisingly, the authors do not find difference in bidder abnormal returns between the deals executed 'in-house' and those advised by investment banks, even after controlling for various factors such as deal complexity and acquirer prior acquisition experience. The results remain unchanged when first-tier investment banks are instead used. Servaes and Zenner (1996) acknowledge that their sample consisting of the 100 largest transactions per year might not be representative of the underlying population.

Later studies by Rau (2000) and Rau and Rodgers (2002) document evidence similar to Maclaughlin (1992), where first-tier advisors underperform lower-ranked advisors in terms of bidder abnormal returns on a consistent basis. However, Kale, Kini and Ryan (2003) argue that the failure of previous studies to uncover a significant role of top-tier investment banks in bidder returns is likely a consequence of ignoring the adversarial nature of a takeover contest, in which both bidders and targets can hire advisors. In an attempt to control for the reputation of target advisor, the authors construct a relative measure of advisor reputation based on the advisor market share. It is reported that the wealth gain as well as the share of total wealth gain accruing to bidder clients is greater when the bidder advisor has relatively higher reputation than the target advisor. Nevertheless, it is noteworthy that their sample consists of 390 U.S. takeovers involving public targets only.

Walter et al. (2008), on the other hand, criticize the static system used in prior research, which usually assigns a constant ranking to each advisor over the sample period[9]. In particular, the authors point out that the static ranking methodology neglects the dynamics of the M&A advisory market and therefore may suffer from survivorship bias. To mitigate this problem, they advocate a new procedure which ranks advisors on the basis of contemporaneous market share over a three-year rolling window period. By doing so, the bank rankings are allowed to vary over time. However, using the new methodology does not yield positive evidence on the use of top-tier advisors in their full sample which consists of both private and public acquisitions. It is documented that top-tier investment banks are unable to deliver superior bidder abnormal returns

[9] For example, the methodology used in Rau (2000) first ranks each advisor every year on the basis of the value of announced deals advised during the year, and then assigns the averaged yearly rankings across the sample period to each advisor.

compared with their lower-ranked counterparts, even after controlling for the reputation of the target advisor.

In a departure from previous attempts, the most recent study by Golubov et al. (2012) examines separately the performance of top-tier investment banks in specific types of acquisitions classified by the listing status of targets. The authors find that deals involving public targets experience higher bidder abnormal returns when top-tier advisors are used. The evidence is, however, absent in acquisitions of private and subsidiary targets. In interpreting the results, Golubov et al. (2012) contend that advisors' concern over reputation varies depending on the acquisition type and that public acquisitions involving relatively greater reputational exposure give top-tier investment banks with stronger incentives to protect their reputational capital.

In addition to bidder abnormal returns, other measures of advisor performance, specifically, the likelihood of completing a deal and the completion speed, have also been examined in the extant literature. For example, Rau (2000) finds that top-tier banks complete more deals than do lower-ranked banks in tender offers, but the difference becomes insignificant in merger offers. Hunter and Jagtiani (2003) show that top-tier bidder advisors are more likely to get a deal completed and complete faster relative to their less prestigious counterparts. By contrast, both Walter et al. (2008) and Golubov et al. (2012) report that while top-tier investment banks are able to complete deals faster, they do not increase the likelihood of bid success.

Taken as a whole, the empirical evidence on the performance of M&A advisors suggests that top-tier investment banks ranked by the league tables do not always deliver superior acquisition outcomes to bidder clients.

2.4 Why Do Top-tier Advisors Fail to Create Value for Bidding Firms in General?

The inability of researchers to find a positive effect of top-tier advisors on M&A performance is intriguing, since intuitively these investment banks would have established reputation as experts and therefore be capable of providing superior advisory service. One explanation for this phenomenon is that the choice of advisors could be endogenously determined, in which case a self-selection bias may emerge, resulting in biased OLS estimates documented in prior research (see e.g., Servaes and Zenner 1996; Golubov et al. 2012). At least two previous studies have addressed this issue and reached inconsistent conclusions. The first study by Kale et al. (2003) correct the endogeneity bias using the Heckman (1979) procedure and conclude that the choice of advisor does not introduce self-selection bias in their wealth effect analyses. In contrast, Golubov et al. (2012) employ the same procedure and report that the self-selection bias is significantly positive in the acquisitions involving listed targets, indicating that certain factors, observable and unobservable, simultaneously increase both the likelihood of hiring a top-tier bank and the bidder return in public acquisitions.

A more widely adopted view is that the league table rankings may lack relevance to advisor expertise (see e.g., Bao and Edmans 2011; Ismail 2010). Building upon the Chemmanur and Fulghieri (1994) framework, which predicts that the selection of advisors is driven by their past performance, prior work generally assumes that an advisor would establish reputation as expert and attract more market share if it continually offers high quality M&A advisory service (see e.g., Kale et al. 2003; Walter et al. 2008; Golubov et al. 2012). Yet, Rau (2000) examines the determinants of advisors' market share and finds that past performance of advisors is independent of their market share. In a similar vein, Bao and Edmans (2011) show that bank market share negatively predicts acquirer abnormal returns. Da Silva Rosa, Skott and Walter (2004) point out that a bidder's choice of advisors is affected by many factors in practice, among

which the advisor's expertise in M&A and therefore service quality might not be an important concern. These factors may include, for example, obtaining favourable access to future acquisition-related financing (Allen, Jagtiani, Peristiani and Saunders 2004), seeking a safeguard against potential litigations (Servaes and Zenner 1996), or avoiding the leakage of confidential information that is acquired by the advisor through past service (Asker and Ljungqvist 2010). In these cases, since the advisor's expertise in M&A does not play a key role in bidders' selection decisions, the lack of linkage between advisor market share (i.e., the league table rankings) and its expertise is not surprising (Ismail 2010; and Da Silva Rosa et al. 2004).

2.5 Prior Evidence on Advisory Fees

The literature on pricing of M&A advisory service broadly suggests that the bank expertise, measured by the league table rankings, has a positive effect on the level of advisory fees. Maclaughlin (1990) first examines the structure of M&A advisory fee contract used in 195 tender offers during the period from 1978 to 1985. The author documents that the average advisory fee is about 1.29% of the value of a completed deal. Moreover, the payment of more than 80% of advisory fee is contingent upon deal completion in a typical contract. In a subsequent study, Maclaughlin (1992) investigates whether higher ranked advisors receive higher fees relative to less prestigious advisors. The study does not ´find any evidence in support of that. Rau (2000) extends Maclaughlin (1990, 1992) studies and examines the proportion of contingent fees charged by different tiers of investment banks in both tender offers and mergers from 1980 to 1994. The author finds that the payment of the total fees is 66% contingent upon the deal completion in tender offers and 39% in mergers, suggesting that the average investment bank faces stronger incentive to complete deals in tender offers than in mergers. In addition, first-tier advisors charge a greater proportion of contingent fees in both tender offers and mergers

compared with less prestigious advisors. The author argues that this is because top-tier advisors signal their expertise to the general market through the kind of fees charged. Consistent with Rau (2000), later studies also show that the first-tier advisors charge higher M&A advisory fees than lower ranked advisors (Hunter and Jagtiani 2003; Walter et al. 2008; and Golubov et al. 2012).

3. Methodology

3.1 Industry Specialization Proxy

Given that industry specialization is inherently unobservable, a wide array of statistical indicators is used in the literature. Five most common approaches are: *the market share* approach, *the portfolio share* approach, *the weighted market share* approach, *the revealed comparative advantage index* (RCA) and the *additive revealed comparative advantage index* (ARCA). We evaluate whether these metrics are pertinent to our research setting and then propose the most appropriate one.

3.1.1 The Market Share Approach

In the auditing literature, most researchers adopt the market share approach to measure auditor industry specialization (see e.g., Carson 2009; Craswell, Francis and Taylor 1995; Hogan and Jeter 1999). This approach assumes that a firm's industrial market share is an increasing function of industry specialization and as such, industry expertise can be deduced by observing the firm's relative market shares within a particular industry (Balsam et al. 2003). The underlying rational is that if firms have devoted significant investments in developing industry-specific knowledge base and skill in an industry, they would have been rewarded with market share for superior advice (see Dunn and Mayhew 2004; and Neal and Riley 2004). In the context of M&A, the

algebra of the market share approach can be written as:

$$MS_j^i = X^i X_j^A \quad (1)$$

Where:

MS_j^i - The market share of $investment\ bank_i$ in $industry_j$.

X_j^i - The number of M&A deals advised by $investment\ bank_i$ in $industry_j$.

X_j^A- The total number of M&A deals advised in $industry_j$ by $all\ investment\ banks$.

In light of its assumption, the selection of the market share cut-off should reflect whether the advisor has differentiated itself from others in terms of industrial market share (Palmrose 1986). There is, however, no widely agreed view of which cut-off is the most appropriate to capture the spirit of differentiation. Some studies follow the Palmrose (1986, p. 103) criterion, which defines industry specialists as '*the largest supplier in each industry, as well as the second and third largest suppliers in industries in which readily observable differences existed between the second and the third or between the third and the remaining suppliers*'. The '*readily observable differences'* was arbitrarily selected in the Palmrose (1986)'s study as 20% above the average market share, assuming that the industry were split evenly by all the audit firms. Using the following formula, the market share cut-off is determined as 15%[10]:

$$\text{MS Cut\_off} = \frac{1}{\text{N}_{\text{firms}}} \times (1 + \text{the '}readily\ observable\ differences\text{'})$$

[10] Since there were eight major audit firms at the time of Palmrose (1986)'s study, the cut-off is $\frac{1}{\text{N}_{\text{firms}}} \times (1 + 20\%) = \frac{1}{8} \times 1.2 = 15\%$, where 20% is the cut-off for 'the readily observable difference'.

Where:

N_{firms} -The number of firms incorporated in the study. The '$readily\ observable\ differences$'- 20% as selected in the Palmrose (1986)'s study.

Other thresholds such as 10% of the 'readily observable differences' (see e.g., Mayhew and Eilkins 2002; Balsam et al. 2003), or a simplified Top-3 cut-off (Carson 2009) are also widely used in the auditing literature.

The main drawback of the market share approach is that it is highly correlated with firm size (Krishnan 2001; and Neal and Riley 2004). Though this is not an issue for most studies examining only the Big 6 auditing firms whose sizes are considerably close (Balsam et al. 2003), it does raises an important concern in our research setting. Specifically, we attempt to investigate all, rather than a particular group of, investment banks. Given that the size varies significantly across investment banks, using this method may neglect those smaller banks that have invested substantial resources in developing industry expertise and yet been unable to become leading advisors due to the constraint on resources. Moreover, this approach is likely to inadequately designate specialist advisors in industries that are highly competitive and profitable (Neal and Riley 2004). In these cases, the vigorous competition may prevent any individual banks from being a dominant advisor, although most of them are likely to specialize because of the high profitability of the industry.

3.1.2 The Portfolio Share Approach

The portfolio approach assumes that by observing the relative distribution of the M&A advisory fee revenue across industries for each bank, those industries in which a bank has the largest

portfolio share are the industries in which the bank has made significant investment in developing industry-specific knowledge and skill (Neal and Riley 2004). As a result, an investment bank is considered as an industry specialist if its fee income generated from an industry is substantially larger than that from other industries, irrespective of whether the bank is a leading bank in that industry or not (Krishnan 2001). Mathematically, the portfolio share can be shown as:

$$PS_j^i = X_j^i / X^i \quad (2)$$

Where:

PS_j^i - The portfolio share of $investment\ bank_i$ in $industry_j$.

X_j^i - The number of M&A deals advised by $investment\ bank_i$ in $industry_j$.

X^i - The number of M&A deals advised by $investment\ bank_i$ across all the industries.

The selection of the cut-off for the portfolio share approach should capture the relative importance of an industry to an investment bank compared with its overall portfolio. Krishnan (2001) suggests a portfolio share cut-off of $1/N_{industries}$. The author argues that a firm's portfolio share would be equally distributed over all the industries if the firm does not specialize, or $1/N_{industries}$ share for each industry. However, when the firm has chosen to pursue an industry more aggressively (i.e., specialize), its portfolio share in that industry would then be greater than $1/N_{industries}$. Accordingly, the portfolio share cut-off is:

$$\text{PS cut\_off} = \frac{1}{\text{N}_{\text{industries}}}$$

Where:

$N_{industries}$ - The number of industries incorporated in the study.

Compared with the market share approach, the major merit of the portfolio share approach is that it recognizes bank size effect and considers each investment bank individually. Nevertheless, this approach gives little consideration to the potential effect of industry size on a bank's industrial fee income. Intuitively, investment banks are likely to derive significant fee revenue from large and highly profitable industries than from smaller industries. There is therefore a probability that the identification of industry specialists using the portfolio share approach simply captures the differences in industry size rather than investment banks' specialization effort (Neal and Riley 2004). Furthermore, the portfolio share approach may not accurately indicate the changes in the specialization level of a bank across time. For instance, one may observe a big jump in a bank's fee income from an industry compared with its revenue from other industries. Yet, it does not necessarily mirror a corresponding increase in the specialization level of the bank in that industry. Instead, it could be a consequence of an M&A boom in the industry. In this case, the bank experiences an increase in fee revenue from an industry because there are more M&A deals available in that industry and not because of its increased specialization effort.

3.1.3 The Weighted Market Share Approach

A better metric is the weighted market share approach proposed by Neal and Riley (2004), which takes into account the complementary effect of different attributes of industry specialization. In particular, this measure assumes that one can infer industry expertise by either observing whether the bank has differentiated itself in terms of market share within that industry (i.e., the market share attribute), or looking at whether it has devoted substantial resources in that industry to

develop knowledge base and skill (i.e., the portfolio share attribute) (Neal and Riley 2004). In effect, it is a combined measure, where the weighted market share is equal to the industrial market share weighted by the portfolio share:

$$WMS_j^i = MS_j^i \times PS_j^i = \left(X_j^i / X_j^A\right) \times \left(X_j^i / X^i\right) \quad (3)$$

Where:

WMS_j^i - The weighted market share of $investment\ bank_i$ in $industry_j$.

MS_j^i - The market share of $investment\ bank_i$ in $industry_j$.

PS_j^i -The portfolio share of $investment\ bank_i$ in $industry_j$.

X_j^i - The number of M&A deals advised by $investment\ bank_i$ in $industry_j$.

X_j^A - The total number of M&A deals advised in $industry_j$ by $all\ investment\ banks$.

X^i - The number of M&A deals advised by $investment\ bank_i$ across all the industries.

The weighted market share cut-off hinges on the selection of individual cut-offs for the industrial market share and the portfolio share. It is calculated as follows:

$$\text{WMS cut\_off} = \text{MS cut\_off} \times \text{PS cut\_off}$$

$$= \left(\frac{1}{\text{N}_{\text{firms}}} \times (1 + \text{the } `readily\ observable\ differences')\right) \times \left(\frac{1}{\text{N}_{\text{industries}}}\right)$$

Neal and Riley (2004) argue that the weighted market share approach is superior to the portfolio share and the market share measures. In their study of designating the Big 6 accounting firms as

industry specialists in 46 industries, Neal and Riley (2004) employ these three approaches and find that compared with the portfolio share and the market share approaches, industry specialists tend to be more adequately identified in both large and small industries when the weighted market share measure is used[11].

3.1.4 The Revealed Comparative Advantage Index

One problem with the weighted market share approach is that it is empirically rather than theoretically driven and also involves ambiguous selection of cut-offs. In this sense, the index of Revealed Comparative Advantage (RCA), adapted from the international trade and technological specialization literature, has more appealing features (see e.g., Archibugi and Pianta 1994)[12].

The RCA index has its roots in the neoclassical economic theory, with the underlying premise that firms specialize in industries in which they have a comparative advantage (Chamberlin 1933; Friedman 1953; MacTaggart et al. 2007; and Lado, Boyd and Wright 1992). It assumes that industry expertise can be inferred using the comparative advantage *'revealed'* through the real-world performance of each firm, in the sense that the performance reflects inter-firm differences in quality, capital cost and other factors as a result of industry specialisation (Balassa 1965). In the M&A sector, the RCA index can be written as:

[11] In the Neal and Riley (2004) study, it shows that in the 23 largest industries, only 37% of the audit firms are identified as specialists under the market share approach, compared with 76% under the portfolio share approach and 70% under the weighted market share approach. In the remaining smaller industries, however, the portfolio approach designates only 5% of audit firms as industry specialists, which is considerably lower than the percentage of designated industry specialists using the market share metric (44%) and the weighted market share approach (14%).

[12] The index of Revealed Comparative Advantage (RCA) was initially developed by Balassa (1965) in the context of trade (Jungmittag, Grupp and Hullmann 1998), and later widely adopted in many fields such as the Science & Technology (Archibugi and Pianta 1994; Cantwell 1991) and the Leverage Buyout by private equity firms (see e.g., Cressy et al. 2007) to detect specialization pattern.

$$RCA_j^i = \left(X_j^i / X_j^A\right) / \left(X^i / X^A\right) = \left(X_j^i / X^i\right) / \left(X_j^A / X^A\right) \quad (4)$$

Where:

RCA_j^i - The RCA value of $investment\ bank_i$ in $industry_j$.

X_j^i - The number of M&A deals advised by $investment\ bank_i$ in $industry_j$.

X_j^A - The total number of M&A deals advised in $industry_j$ by $all\ investment\ banks$.

X^i - The number of M&A deals advised by $investment\ bank_i$ across all the industries.

X^A - The total number of M&A deals advised by $all\ investment\ banks$ across all the industries.

One merit of the RCA index is that it explicitly considers both the bank and the industry size effects, and addresses the potential biases of the portfolio share and the market share measures through normalization. Specifically, the three methods discussed in the previous sections recognize only the relative market share or portfolio share of an industry for each investment bank. By comparison, the RCA index measures how large a bank's relative industrial market share is $\left(X_j^i / X_j^A\right)$, compared with the relative size of the bank in the aggregate M&A advisory market $\left(X^i / X^A\right)$; or alternatively, how important an industry is to a bank $\left(X_j^i / X^i\right)$, given the relative size of the industry in the M&A advisory market $\left(X_j^A / X^A\right)$. In effect, the RCA index measures the relative degree of a bank's specialization in an industry, holding the size of the bank and the industry constant. This feature is of particular importance in our research setting, because it makes the specialization level more comparable across investment banks and across industries, both of which vary significantly in size.

A further advantage of using the RCA measure is that it gives a clear cut-off with a meaningful economic interpretation. Applying the Vollrath (1991)'s interpretation to our context, when industry specialization is absent, the portfolio share of an industry in an investment bank is expected to be the same as the average portfolio share of the industry in the aggregated M&A advisory market. In this case, the RCA would be equal to 1. When a bank instead specializes in an industry, the actual portfolio share of the industry in a bank would deviate from the expected level to reflect its comparative advantage being acquired industry expertise. In such a case, the RCA value would be above the unity. Conversely, when a bank is unspecialized in an industry, the RCA value would be less than the unity. Mathematically, the relation between the RCA and industry specialization can be shown as:

$RCA_{ij} > 1$ If $investment\ bank_i$ is specialized in $industry_j$;

$RCA_{ij} = 1$ If the portfolio share of $industry_j$ in $investment\ bank_i$ is identical to the average share in all investment banks; and

$RCA_{ij} < 1$ If $investment\ bank_i$ is unspecialized in $industry_j$.

3.1.5 The Additive Revealed Comparative Advantage Index

Notwithstanding its apparent merits, the RCA index is not entirely free of critics. Hoen and Oosterhaven (2006), for example, point out that the multiplicative specification of the RCA index has caused the measure to have an instable mean which is greater than the theoretical value of one and an asymmetric distribution which is sensitive to the classifications of industries. These statistical properties make the economic interpretation of RCA values potentially

problematic. The authors therefore proposed an alternative measure, the Additive RCA, which takes the difference between the portfolio shares instead of the quotient as in the RCA index:

$$ARCA_j^i = \left(X_j^i / X^i\right) - \left(X_j^A / X^A\right) \quad (5)$$

Where:

$ARCA_j^i$ - The ARCA value of $investment\ bank_i$ in $industry_j$.

X_j^i - The number of M&A deals advised by $investment\ bank_i$ in $industry_j$.

X^i - The number of M&A deals advised by $investment\ bank_i$ across all the industries.

X_j^A - The total number of M&A deals advised in $industry_j$ by $all\ investment\ banks$ excluding$investment\ bank_i$[13] .

X^A - The total number of M&A deals advised by $all\ investment\ banks$ excluding $investment\ bank_i$ across all the industries.

Similar to the RCA index, the ARCA measure compares the actual portfolio share of $industry_j$ in $investment\ bank_i$ $\left(X_j^i / X^i\right)$ with the expected (average) portfolio share of the same industry in the rest of the investment banks $\left(X_j^A / X^A\right)$, assuming that $industry_j$ is not specialized on average. If the portfolio share of $industry_j$ in $investment\ bank_i$ is above that in the rest of investment banks, the ARCA value is greater than 0, indicating that $investment\ bank_i$ is relatively specialized in $industry_j$, compared with the reference banks. Conversely, an ARCA

[13] The investment bank under question is excluded from the reference group to ensure that the ARCA index is unbiased. The mathematical proof is provided on page 685 of Hoen and Oosterhaven (2006).

value less than 0 is interpreted as the investment bank being unspecialized in that industry relative to the rest of investment banks. Mathematically, the relations between the ARCA and industry specialization are shown as:

$ARCA_{ij} > 0$ If $investment\ bank_i$ is specialized in $industry_j$;

$ARCA_{ij} = 0$ If the portfolio share of $industry_j$ in $investment\ bank_i$ is identical to the average share in reference banks; and

$ARCA_{ij} < 0$ If $investment\ bank_i$ is unspecialized in $industry_j$.

Compared with the RCA index, the ARCA metric has more attractive statistical properties. For example, it has a symmetric distribution ranging from -1 to +1, which is empirically demonstrated to be more stable than that of the RCA index (Hoen and Oosterhaven 2006). The construction of the ARCA index also secures a stable mean of zero that is independent of the classification of industries. These features not only facilitate the interpretation of an ARCA value but also increase the reliability of our results. We therefore adopt the ARCA index to measure the degree of advisor industry specialization in our study[14].

3.2 Other Control Variables

To test our hypotheses, we also control for variables that may correlate with the industry specialization measure while simultaneously affect acquisition performance and advisory fees. Each control variable is discussed below.

[14] Although the ARCA index is selected as the primary measure of industry specialization for our analysis, we find it highly correlated with the other two measures, the weighted market share and the RCA index, where the coefficients are all significant at the 1% level (see Appendix B).

The *deal size* is an important indicator of deal complexity. Larger targets often have more business units to evaluate and also greater resources to resist a bid, increasing the difficulty in both valuation and completion of the deals (Zenner and Sevaes 1996). We therefore expect that larger deals would have lower completion probability and take longer time to complete, compared with smaller deals. However, since advisors would spend more effort and resources on handing these transactions, they are expected to charge higher fees. In regard to bidder abnormal return, we expect it to differ depending on the *size of the target relative to the bidder*. In particular, Fuller, Netter and Stegemoller (2002) find that the relative size of the target is positively associated with bidder abnormal returns in private and subsidiary acquisitions, but negatively correlated with bidder abnormal returns in public transactions.

In a situation where the target and the acquirer are both operating in the *same primary industry*[15], the potential synergies may be easier to evaluate in the sense that advisor can use the same set of techniques to value both firms (Kale et al. 2003; and Walter et al. 2008). Accordingly, these acquisitions are likely to require less time to complete and attract lower fees. In addition, since there is less information asymmetry in related acquisitions than in unrelated transactions (Servaes and Zenner 1996), the synergies may be more evident, resulting in higher probabilities of success (Walter et al. 2008). In terms of bidder abnormal returns, the empirical literature generally suggests that the market responds positively to related acquisitions and negatively to conglomerate mergers (Morck, Shleifer and Vishny 1990; and Maquieira, Megginson and Nail 1998).

[15] The same primary industry is classified by 2-digit SIC code in this study.

Compared with private targets, *listed targets* are usually harder to acquire, since advisors need to seek approval from all of the target shareholders rather than only a small group of owners in the case of private firms (Walter et al. 2008; and Golubov et al. 2012). Consequently, deals involving public targets would take longer time to complete and in lower probability of success. They nevertheless bring in higher advisory fees due to the increased level of effort exerted by advisors.

The *cash acquisitions* are usually easier to value than acquisitions involving stock. This is because bids involving stock requires more expertise in valuation and also in proper construction of the deals (Zenner and Sevaes 1996; and Hayward 2003). It is thus expected that cash bids would elicit lower fees, be completed faster and in greater likelihood of success than bids involving stock. Furthermore, cash bids have been shown to be more favourably perceived by investors compared with stock bids, as these deals signal positive private information to the market (see e.g., Myers and Majluf 1984; Eckbo, Giammarino and Heinkel 1990).

Lacking support from the target management may make transactions hostile and more difficult to succeed. As hostile deals typically involve a contest between the bidder and the target (Kale et al. 2003), longer time would be required to complete the deal. Nevertheless, the increased effort and resources expended in handling these transactions would allow advisors to charge higher fees as compensation. Servaes (1991) shows that bidding firms experience lower returns in hostile bids. The study by Carleton, Guilkey, Harris and Stewart (1983) also suggests that in the face of hostile takeovers, a cash offer that bypasses the target management and is made directly to target shareholders represents a more effective bargaining tool over the equity exchange. We therefore interact the 'hostile' indicator with two dummy variables indicating the payment method of all-

cash and including-stock, respectively, to capture the interaction effects of deal attitude and the medium of exchange.

Tender offers frequently involve bypassing the target management and seeking the acceptance directly from the target shareholders (Walter et al. 2008). These features may result in tender offers being more likely to be completed successfully and in less time than merger offers. Since advisors need to expend greater effort in seeking a wide acceptance from the target shareholders, they would charge higher fees as a return. Empirically, prior studies document bidder abnormal returns to be significantly positive in tender offers (Jensen and Ruback 1983), but negative or insignificantly positive in merger offers (Asquith 1983).

When there is more than one bidder competing for the target, bidder return is likely to fall since the successful acquirer has to pay more compared with the single-acquirer case (Lang, Stulz and Walking 1991; and Moeller, Schlingemann and Stulz 2004). Competition among bidders may also increase deal complexity, thereby calling for greater effort and time on the part of the advisor. Consequently, we expect that deals involving *multiple bidders* to be harder to succeed and yet, bring in more advisory fees than single-bidder transactions.

Bid premium is also related to M&A transaction performance. Jennings and Mazzeo (1993), for example, find that there is a lower likelihood of competition and target management resistance when premium offered is high. Thus, we expect deals with high bid premium to be easier to succeed and also require less time to complete. This, in turn, may lower the level of fees charged by financial advisors.

Prior research suggests that mergers do not take place evenly over time, but rather cluster by industry and tie to economic shocks (see e.g., Harford 2005; Mitchell and Mulherin 1996). In

this sense, firms engaging in M&A activities in order to react to shocks may gain value through efficient asset allocation (Mitchell and Mulherin 1996). Moreover, since industries with merger waves are likely characterized by intensified competition among investment banks, fees are expected to be lower in these industries. We therefore control for the effect of industry merger waves by measuring prior M&A activity in the industry of the bidder and the target, respectively. We construct these two variables using the prior instead of concurrent year data in order to avoid any look-ahead bias, similar to Masulis, Wang and Xie (2007).

Bidder characteristics are also included in our analyses in order to account for the component of CAR that is the responsibility of the bidder (Bao and Edmans 2011). In particular, Moeller, Schlingemann and Stulz (2004) document that *bidder size*, *Tobin's Q*, *free cash flow*, *sigma* and *run-up* are all negatively associated with bidder abnormal returns, while Maloney, McCormick and Mitchell (1993) show that acquirer's *leverage* has a positive effect on acquirer gains. All the variables are defined in the Appendix A.

4. Data and Sample Construction

The data on M&A transactions is drawn from *Thomson Financials Securities Data Collection Platinum (SDC)* database. While our sample covers the period between January 1985 and December 2010, the data is collected from 1980 because the industry specialization measure requires information for each advisor 5 years prior to the deal announcement. Both successful and unsuccessful deals announced from 1980 to 2010 are included if (1) the payment method is disclosed by SDC; (2) the transaction value is greater than $1 million; and (3) there is at least one

investment bank advising the acquirer (rumoured deals are excluded)[16]. The initial sample contains 19,060 transactions. Similar to Golubov et al. (2012), we exclude deals classified as bankruptcy acquisitions, liquidations, leveraged buyouts, privatizations, repurchases, restructurings, reverse takeovers and going private transactions. Applying this filter reduces the sample to 15,848 observations.

Since bidder returns are most likely affected when deals give rise to a transfer of control (Bao and Edmans 2011), we further restrict our sample to include only deals where the acquiring firms own less than 10% of initial stake in the targets and seek to own more than 50% after the transaction. Applying this criterion leaves us with 13,409 observations. We then use this sample to calculate industry specialization levels of financial advisors. Specifically, we use the ARCA methodology to measure an advisor's respective specialization level in the acquirer's industry (acquirer-industry focus) and the target's industry (target-industry focus) classified by the three-digit SIC code[17]. We define industry using the 3- rather than the 4-digit SIC code in order to account for the fluctuation in industry mix of M&As. In these circumstances, investment banks are likely to specialize in a relatively broader defined industry to maintain a stable market presence and also to maximize the benefits from economies of scale (Dunbar 2000). We calculate the bank's market share and the portfolio share in an industry based on the total number of M&A deals advised by the investment bank over the five years prior to the announcement date. Full credit is given if the advisor provides advisory service to the bidder or to the target, irrespective of the total number of advisors engaged in the deal. We choose the number basis

[16] We did not give consideration to whether the deal is completed or withdrawn because investment banks are expected to learn and accumulate industry-specific knowledge so long as they engage in the deals announced in their focal industries.

[17] We replicate all the empirical analyses using the WMS approach as an alternative measure of industry specialization. The results, as documented in Appendix C, remain qualitatively similar to that reported using the ARCA index.

rather than the value basis, because the former captures the situation where an investment bank has developed industry expertise through processing numerous small deals, which is not captured by the value basis (Krishnan 2003; Jong, Ongena and Poel 2010; and Benou, Gleason and Madura 2007). While the number basis may possibly neglect the greater potential of learning from executing larger and more complex tasks, we exclude deals whose value are smaller than $1 million as a control. A five-year rolling window is chosen to account for the dynamics in the M&A advisory market and also the fact that industry expertise requires time to develop and once acquired, is likely to last for a period of time into the future (Neal and Riley 2004). In all of the following empirical analyses, we use the continuous measure of industry specialization instead of the dichotomous measure because it gives most accurate and reliable estimates[18].

It is noteworthy that we made the following adjustments to ensure the accuracy of the industry specialization level for each advisor. First, because SDC occasionally uses different names for the same advising bank (e.g., deals advised by 'Citi' is regarded as different from those advised by "Citigroup"), advisor names in such cases are combined into one when measuring the industry specialization levels. Second, industry expertise from different investment banks is expected to be brought together through the M&As among advisors themselves. This would improve the performance of the deals advised by the newly merged banks. We therefore track all the mergers and acquisitions among investment banks across the sample period. For instance, Merrill Lynch and Banc of America Securities LLC merged to form Bank of America Merrill Lynch in 2008. Thus, if a deal advised by Merrill Lynch in an industry takes place before its merger with Banc of America Securities LLC, we account for all the deals advised by Merrill

[18] We find that our results are unaffected when the dichotomous measure of industry specialization is used in our analysis.

Lynch alone in that industry over 5 years prior to the announcement date. However, if the deal is advised by the newly merged bank, Bank of America Merrill Lynch, we take into account the deals advised by both Merrill Lynch and Banc of America Securities LLC in that industry during 5 years preceding the announcement date. In the case where a bidding firm hires multiple advisors, we assign the highest degree of industry specialization among these advisors to the deal. This treatment is consistent with prior studies such as Rau (2000) and Walter et al. (2008).

After obtaining the industry specialization level for each advisor, we exclude observations from 1980 to 1984. The final sample consists of 12,853 deals announced between 1985 and 2010[19]. Out of these, 8,267 deals involve a bidder that has sufficient data from CRSP database to measure abnormal returns at the announcement date, while only 1,886 deals have advisory fees disclosed by SDC.

5. Empirical Results

5.1 Sample Statistics

Figure 1 shows the distribution of advisory industry specialization based on our full sample. As illustrated in Figure 1a, a considerable proportion of bidder advisors have ARCA values in the acquirer industry being above zero, indicating that these advisors specialize in certain acquirer industries relative to the rest of investment banks. The distribution of the specialization levels in the acquirer industry is positively skewed, where the ARCAs in the 25th and the 75th quintile are

[19] It is noted that our sample period covers the introduction of the Sarbanes-Oxley Act and the GFC, both of which are found to have discouraged U.S. firms' risk-taking behaviour such as M&A (Bargeron, Lehn and Zutter 2010). Consequently, one may expect a shrinking pool of M&A activity which increases competition among investment banks post-events. We, however, do not create dummy variables to separate transactions taken place pre- and post-SOX/GFC as in Bargeron et al. (2010). This is because the acquirer- and target-industry M&A variables, which measure the intensity of M&A activity in the industry of the acquirer and the target for each prior year, are expected to capture the potential effect of SOX and GFC.

-0.005 and 0.039, respectively, with a mean (median) of 0.071 (0.002). While this seems to be inconsistent with construction of the ARCA measure which ensures a zero mean and symmetric distribution, we note that the results are probably driven by the adjustment that we assigned only the highest advisor's specialization level to a deal when there are multiple advisors engaged by an acquiring firm. A similar distribution of bidder advisors' specialization in the target industry is found in Figure 1b, except that advisors in the top quartile appear to have a lower specialization level of 0.025 in the target industry than the level of 0.039 in the acquirer industry.

[Insert Figure 1 here]

Table 1 summarizes the types of advisors used by the acquiring and the target firms over the sample period from 1985 to 2010. Using the cut-off of zero based on the ARCA index, we split advisors into four groups, namely, acquirer-industry focused advisors, target-industry focused advisors, advisors focusing on both acquirer and target industries and advisors focusing on neither of the industries ('non-industry specialists'). We find that compared with the use of non-industry specialists which is 36.19% on the bidder side and 40.01% on the target side, industry specialist advisors appear to dominate in the M&A advisory market. Specifically, advisors specializing in both acquirer and target industries are the most popular among the three groups of industry specialists, who are used in 35.34% of the transactions by acquirers and 32.86% by targets. Bidding firms also tend to use acquirer-industry focused advisor more often (16.77%) than target-industry focused advisors (11.71%). Target firms, on the other hand, do not show apparent preference for a particular category over another (13.81% vrs. 13.31%).

[Insert Table 1 here]

The Pearson correlation matrix of pairs of variables is presented in Table 2. Since the thrust of this thesis is to examine the role of financial advisors from a fresh angle,, an important concern is whether the industry specialization measure employed here captures attributes of investment banks other than reputation as measured by the traditional approach of league table rankings. We therefore download financial advisors league tables from *Thomson Financials SDC* database and rank advisors based on the value of deals they advised on. The following eight financial advisors are classified as the top-8 advisors: Goldman Sachs, Merrill Lynch (now Banc of America Merrill Lynch), Morgan Stanley, JP Morgan, Citi, Credit Suisse, Lehman Brothers (now Barclays Capital) and UBS. The top-tier specification is similar to Golubov et al. (2012), Fang (2005) and also earlier studies such as Rau (2000). Table 2 indicates that there are positive and yet very low correlations of the top-8 advisor dummy with the dummies of industry specialist advisor focusing on the acquirer (0.016) and the target industry (0.030), suggesting that the top-8 advisors do not constitute a significant proportion of industry specialist advisors. This is not unexpected, because larger, more established banks are more likely to diversify across industries than specialize compared with smaller investment banks. The correlations between other variables are low in most cases, except that (1) the two indicators of industry specialist advisors focusing on the acquirer and the target industry are positively correlated at 43.4%; and (2) deal value and bidder size are correlated with acquirer fee at 62.4% and 55.1%, respectively.

[Insert Table 2 here]

5.2 Univariate Analysis

Table 3 reports the descriptive statistics for the full sample as well as for the types of bidder advisors classified using the cut-off of zero ARCA value. We use the standard event study

methodology to compute the cumulative abnormal returns (CARs) made by the acquirer over the event windows (-1, +1) and (-2, +2) around the announcement date[20]. Specifically, the CARs are measured based on the market model with a benchmark of the CRSP value weighted index and parameters estimated over a period from 300 days to 91 days prior to the announcement date.

The mean (median) values of the 3-day and the 5-day bidder CARs in the full sample are 0.3% (0%) and 0.5% (-0.1%), respectively. Acquirer-industry focused advisors are on average associated with lower bidder CARs in both (-1, +1) and (-2, +2) windows, compared to their non-industry specialist counterparts. For example, the deals advised by acquirer-industry focused advisors have a mean (median) 3-day bidder CAR of -0.1% (-0.3%), while transactions advised by bidder advisors not specializing in the acquirer industry have a higher mean (median) CAR of 0.7% (0.2%). The differences in mean and median CARs between the two groups of advisors are significant at the 1% level.

One problem of using CAR to measure bidding firms' wealth gain is that it does not take into account the bidder size. That is, for a same percentage of abnormal return measured by CAR, the economic impact will be more significant if it is made by large firms than by small firms (Moeller et al. 2004; and Walter et al. 2008). We therefore compute the dollar-dominated gain which is defined as the product of the CAR (-1, +1) and the market capitalization of the individual bidding firms 4 weeks prior to the announcement date as in Golubov et al. (2012). The

[20] Whether the event study methodology is appropriate rests on three core assumptions: (1) the market is efficient or semi-strong efficient; (2) the event in question is not anticipated and (3) no confounding events happened during the event window (MacWilliams and Siegel 1997). For the purpose of this study, we assume the semi-strong form of market efficiency is held (i.e. Stock price is immediately adjusted for new public information) given that there is ample evidence in the literature supporting market efficiency (see e.g., Elton and Gruber 1987; Jensen 1988). We use relatively short event window of 3-days to ensure that there were no confounding event occurred during the window.

results, reported in Panel A of Table 3, reveal that the average bidder dollar gain is a loss of $58.38 million, irrespective of the types of advisors used. In contrast to the positive mean CAR observed in the full sample, the negative sign of bidder dollar gain suggests that there may be a greater loss made by large bidders than the gains obtained by small bidders (Moeller et al. 2004). In the case where the acquirer-industry focused advisors are used, the mean (median) level of loss for the bidders is $82.774 ($0.917) million, as opposed to $36.136 million loss ($0.634 gain) for the bidders who do not use acquirer-industry focused advisors. The differences in mean and median between the two types of advisors are significant at the 10% and 1%, respectively. Acquirer-industry focused advisors are also on average associated with longer deal duration (106.5 days vrs. 94.9 days) than their non-specialized counterparts, where the difference is significant at the level of 1%. We do not find the mean and median completion rates to be statistically different for these two categories of advisors. In regard to advisory fees, the mean (median) level of fees is $4.13 ($1.435) million for acquirer-industry focused advisors and $3.603 ($1.5) million for advisors who do not specialize in the acquirer industry. The difference between the two groups is only marginally significant at the 10% level in mean and insignificant in median. When we instead measure advisory fees as a percentage of transaction value, the pattern continues to hold.

Panel B of Table 3 presents statistics for deal characteristics and suggests that the acquirer-industry specialist advisors are more likely used if (1) the transaction is large; (2) the bid is made for a public or private target; or (3) the acquisition is financed by the bidding firm's stock. This is consistent with our conjecture that industry specialists with better knowledge and skill would be used more often in complex transactions. Interestingly, however, we find that compared to their non-industry specialist counterparts, acquirer-industry focused advisors are also less likely

hired in diversifying deals, where the acquirer and the target operate in different industries or countries. For instance, the average percentage of cross-border deals advised by acquirer-industry focused advisors is 11.5%, as opposed to 15.3% for advisors without specializing in the acquirer industry. A possible reason is that bidding firms undertaking diversifying acquisitions appreciate the diverse experience of larger investment banks more than the deep and yet narrow knowledge base possessed by industry specialists.

In terms of bidder characteristics, panel C of Table 3 indicates that acquirer-industry focused advisors are associated with bidders that exhibit higher run-up (8.7% vrs. 6.9%) or lower free cash flow ratios (4.8% vrs. 5.9%), when compared with the bidder clients of non-acquirer-industry specialists. There are, however, no significant differences in other bidder characteristics, namely, bidder size, Tobin's Q, leverage and sigma, between the two groups of advisors. As shown in the bottom of panel C, the mean and median values of the takeover premium in the full sample are 45.30% and 35.94%, respectively. Acquirer-industry focused advisors are on average related to lower premium (42.62%) than non-industry specialists (47.75%), with the difference being significant at the 5%. This suggests that acquirer-industry focused advisors are able to provide value for their bidder clients by negotiating better offer price.

Panels D, E and F of Table 3 provide the statistics for deals advised by target-industry specialists and those by advisors who are not specialized in the target industry. The relationships are similar to those observed for advisors with and without focus on the acquirer industry. There are two notable exceptions however. First, target-industry focused advisors are on average involved significantly less in hostile deals (1.5%) than their non-industry specialist counterparts (2.2%). The differences in mean and median between these two categories of advisors are significant at the 1% level. This is probably because target-industry focused advisors possess superior

relationships with targets operating in their specialized industry and as such, they are able to initiate or negotiate friendly deals. Second, target-industry focused advisors are related to bidding firms with higher Tobin's Q, lower free cash flow ratio, lower leverage or higher sigma, as compared to the bidder clients of advisors who do not specialize in the target industry. In addition, there are no differences in bidder run-ups or acquisition premium between these two groups of advisors.

[Insert Table 3 here]

While the univariate analysis sheds some light on the relative performance between industry specialist advisors and non-industry specialists, it could be misleading because it does not control for the effect of other factors. For example, Panel A of Table 3 suggests that acquirer-industry specialists underperform non-acquirer industry specialists in terms of bidder CARs. The results however could be driven by acquirer-industry specialists being associated with more complex transactions that are harder to complete and if complete, require lower benefits to bidding firms. Further multivariate analyses are therefore necessary before any conclusions about the net effect of industry specialization on acquisition outcomes are drawn. The tests are reported in the next section.

5.3 Multivariate Analysis

5.3.1 Abnormal Returns

We empirically test whether industry specialization by bidder advisors positively affects bidder abnormal returns using the following ordinary least squares (OLS) model:

$$CAR_{i,t} = \beta_0 + \beta_1 Bidder\ advisor's\ industry\ specialization\ level_{ij,t-1} + \sum_{k=1}^{N} \beta_{2k} X_i + \sum_{y=1985}^{2010} \beta_{3y} Y_t + \varepsilon_{i,t} \quad (6)$$

Where $CAR_{i,t}$ is the cumulative abnormal return over the event window (-1, +1) for the deal advised by $Invstment\ bank_i$ at time *t*. β_0 is the intercept; $Bidder\ advisor's\ industry\ specialization\ level_{ij,t-1}$ is the variable of interest, which is measured using the ARCA index based on the number of deals advised by $Invstment\ bank_i$ in industry *j* 5 years prior to the announcement date *t*. If industry specialization enables investment banks to adopt advanced technologies and also develop superior industry-specific knowledge and skill, it should then lead to better bidder CARs. We therefore predict the coefficient β_1 to be positive. X_i denotes a vector of control variables which capture the deal and the bidder characteristics. Y_t is a dummy variable for the year of announcement between 1985 and 2010, whose coefficient is suppressed in all the tables of results. $\varepsilon_{i,t}$ is the disturbance term. In the full sample analysis, we also create 6 additional dummy variables, namely, *public targets* × *payment include stock, public targets* × *all-cash, private targets* × *payment include stock, private targets* × *all-cash, subsidiary targets* × *all-cash, and subsidiary targets* × *payment include stock* (the base group) as in Golubov et al. (2012). These variables are used to capture the interaction effects of target public status and payment methods on bidder abnormal returns (Fuller et al. 2002). In all of these regressions, bidder advisors' specialization level in the acquirer and the target industry are separately examined since these two variables are significantly correlated at 67.65% (see Appendix B).

Table 4 presents the results for the full sample analysis. Specifications (1) and (4) show our baseline estimates for bidder advisors' specialization in the industry of the acquirer and the

target, respectively. Contrary to our expectation, these two estimates are both significantly negative, indicating that advisor industry specialization destroys bidding firms' value. However, prior research suggests that bidder advisors and target advisors often have conflicting objectives (e.g., in setting offer prices) and as such, the presence of an industry specialist advisor on the target side may have offsetting effects on the effort of the bidder advisor (see Kale et al. 2003; and Golubov et al. 2012). Accordingly, one possibility for our finding is that the effect of the bidder advisor's industry specialization is an artefact of the negative influence of the target advisor's industry expertise. To control for this effect, we separately add two variables, the specialization level of the target advisor in the acquirer or the target industry, into specifications (2) and (3) and also into specifications of (5) and (6)[21]. If industry specialist advisor on the target side undermines the ability of specialized bidder advisor to generate better returns, the coefficient on these two new variables should be negative. Specifications (2) and (5) show that irrespective of the bidder advisors' focus, specialization by target advisors in the acquirer industry indeed has a negative and significant effect on bidder CARs. There is, however, no significant influence of target advisors' specialization in the target industry on bidder CARs, as indicated by the estimates in specifications (3) and (6). This is possible, since specialized knowledge of the acquirer industry is likely to enable target advisors to locate alternative bidders and therefore to aggressively negotiate favourable terms for their target clients. By contrast, while specialization in the target industry may help target advisors to passively demonstrate to the bidder that the value of the target firm justifies its asking price, it does not necessarily give these advisors with strong power position during the negotiation.

[21] We do not simultaneously control for target advisors' respective specialization levels in the acquirer and the target industry because these two variables are highly correlated at 67.28%.

It is noteworthy that when target advisors' industry specialization is considered, the coefficient on advisor acquirer-industry specialization drops from -0.015 in specification (1) to -0.012 in specification (2) and to -0.014 in specification (3), respectively.. We test whether the differences between the coefficients on industry specialization in specifications (1) and (2), (1) and (3), and (2) and (3) are significant. We perform a Zellner's seemingly unrelated regressions for each pair of models such that the estimation results are combined, and then do a simple test for the equality of each pair of coefficients. We find the differences between the coefficients to be all statistically insignificant at the conventional level (Prob > chi2 = 0.984, Prob > chi2 = 0.996 and Prob > chi2 = 0.989, respectively), suggesting that acquirer-industry specialization does not differ by the presence of target advisors.

Specifications (5) and (6) of Table 4 show that the estimates forbidder advisors' target-industry specialization continue to be negative but becomes insignificant after considering the opposing party's specialization level. This suggests that value destruction associated with bidder advisors' target-industry specialization is likely driven by the negative influence of target advisors' industry specialization.

The coefficients on other control variables are generally in line with the extant literature. For example, we find that bidder's market capitalization has a negative and significant (at the 1% level in all specifications) impact on bidder abnormal returns, a finding that is consistent with Moeller et al. (2004). The coefficient on bidder leverage is always positive and significant at the 5% level in Table 4. In a similar vein, Maloney et al. (1993) find that bidder leverage is positively associated with bidder gains in acquisitions. Consistent with Golubov et al. (2012), the two interaction terms, *public targets* × *payment include stock* and *public targets* × *all-cash,* as well as hostile bids negatively and significantly affect bidder abnormal returns.

[Insert Table 4 here]

As a robustness check, we repeat our analysis for the full sample using the dichotomous measure of industry specialization. Advisors are designated as industry specialists if their ARCA values in the acquirer or the target industry are greater than zero. To give a clear picture of the respective effects of industry specialization by bidder advisors, we consider three alternatives of advisor specialization: acquirer-industry focused, target-industry focused and both acquirer and target industries focused. The results are presented in Table 5. Overall, the re-estimation of Table 4 using the alternative measure generates consistent estimates for bidder advisors' industry specialization. When target advisors are absent, the bidder CARs is associated with 0.4%, 0.4% and 0.6% reduction for acquirer-industry focused, target-industry focused advisors and both acquirer and target industries focused bidder advisors, respectively (Specifications (1), (4) and (7)). When the models are extended to include the dummies of industry specialist target advisors, the results remain qualitatively similar to that reported in Table 4.

[Insert Table 5 here]

5.3.2 Abnormal Returns by Target Listing Status

As public acquisitions usually demand more expertise and effort of the financial advisors than do private and subsidiary deals (Fuller et al. 2002; and Golubov et al. 2012), we further partition the whole sample by target listing status and investigate whether the effect of industry specialization on acquirer CARs differs across public, private and subsidiary acquisitions. If industry specialization produces industry expertise, then its positive effect on bidder CARs should be more transparent as the deal complexity increases. We therefore expect the coefficient on bidder advisors' industry specialization to be positive at least for public bids. We control for the

presence of the Top 8 advisors in all of the regressions, since Golubov et al. (2012) find that these advisors are associated with superior bidder abnormal returns when deals involve public targets. Table 6 reports the regression results for the subsample analysis, where models (1) and (2), (3) and (4), and (5) and (6) document the effect of advisor industry specialization in public, private and subsidiary subsets, respectively.

Contrary to our prediction, we find negative estimates for bidder advisors' industry specialization in respective subsamples. In particular, both acquirer- and target-industry specialization by bidder advisors show a significantly negative effect on bidder returns when the bids are made for private firms, while insignificant impact in public subsample (models (1) and (2)). Where subsidiary targets are involved, only target-industry specialization is negative and statistically significant at the 5% level, as indicated by models (5) and (6)[22]. While the evidence does not give an empirical support to our baseline conjecture, the comparison of the magnitudes of the coefficient on advisor industry specialization across the three subsamples reveals that advisor industry specialization is associated with better bidder returns for public bids than for other two types of acquisitions. Given that public bids are more complex than private and subsidiary deals as Golubov et al. (2012) suggest, expertise in the acquirer industry appears to add more value to bidding firms as the deal complexity increases. We, however, do not find the

[22] An alternative explanation for our findings is that the negative effect of advisor industry specialization on bidder CARs might reflect higher fees charged by specialized investment banks, although they create the same value as their counterparts. In our analysis of advisory fees, however, we find that advisor industry specialization produces lower fees. The average fee in our full sample is $3.618 million, which is about 0.05% of the average bidder size. Compared with the average return of 0.3%, the fee seems too small to explain our results. We find similar arguments in prior work such as Bao and Edmans (2011) and Hunter and Jagtiani (2003).

coefficients to statistically significantly differ for both acquirer- and target-industry specialization variables (Prob > F = 0.8614 and 0.2679, respectively)[23].

[Insert Table 6 here]

5.3.3 Endogeneity Control

The above regressions implicitly assume that the selection of industry-specialized advisors is exogenous. As shown in the univariate analysis, however, industry specialist and non-industry specialist advisors are correlated with remarkably different deal and bidder characteristics. This non-random matching between bidders and advisors implies that self-selection might exist and as such, the OLS estimates are likely biased (Heckman 1979). We therefore perform a two-step procedure to control for the endogeneity[24]. Following Heckman (1979), we run a separate probit for the use of an industry specialist advisor at the first stage, from which an *Inverse Mills ratio* is computed. We then correct for self-selection bias by including this *Inverse Mills ratio* as an additional regressor to the second-stage regression mode. As it is desirable to have an identifying variable which affects the choice of advisors but not deal outcomes (Li and Prabhala 2007), we construct a *scope* variable that captures the extent to which the investment bank has rendered

[23] To be able to make claims about the differences among the regression coefficients on bidder advisors' industry specialization level across the three subsamples, we first interact the indicators of target listing status with all explanatory variables previously included in the model to allow parameters to vary across the groups. We then run the regression of CARs on both the existing and new independent variables and perform a simple Wald test to test the null hypothesis: Ho: $B_1 = B_2 = B_3$, where B_1, B_2 and B_3 represent the coefficients on industry specialization level of bidder advisors in public, private and subsidiary acquisitions, respectively (UCLA: Academic Technology Services, Statistical Consulting Group, n.d., Introduction to SAS, viewed 27 Jan, 2012, http://www.ats.ucla.edu/stat/stata/faq/compreg3.htm). The F-statistic is calculated using the formula: $F_{q,n-k-1} = \frac{(SSR_r - SSR_{ur})/q}{SSR_{ur}/(n-k-1)}$, where q and (n-k-1), respectively, denote the numerator and denominator degrees of freedom; SSR_{ur} and SSR_r denote the sum of squared residuals for unrestricted and restricted model, respectively. The numerator and denominator degrees of freedom are 2 and 2835, respectively, for acquirer-industry specialization, and 2 and 2834 for target-industry specialization.

[24] See Appendix C for detailed discussion on the Heckman two-step procedure.

various corporate services to the bidding firm in the past, similar to Fang (2005) and Golubov et al. (2012). To compute this variable, we download data on M&As, bond and equity underwriting from the *Thomson Financial SDC* database. We define the *scope* variable to be 3 if the bidding firm has hired the investment bank for all the three services over the 5-year period prior to the deal. It is equal to 2 if the investment bank has served the bidder in two of the three services, and 1 if one of these services was provided. The *scope* variable takes the value of 0 if the bidding firm has never used the investment bank for any of the three services in the 5 years prior to the announcement.

Table 7 provides the results of the two-stage procedure for bidder CARs for the whole sample. Consistent with Fang (2005) and Golubov et al. (2012), we find the *scope* variable to be positive and significant in all selection equations, suggesting that prior bidder-advisor relationship increases the likelihood of using an industry specialist advisor. Bidding firms are also more likely to hire industry specialist advisors if the consideration offered includes stock, or the opposing party uses an industry specialist advisor. Since these deals are usually more complex (see e.g., Song and Wei 2010), this finding supports the view that industry specialist advisors are more demanded as deal complexity increases. Nevertheless, we find that the likelihood of using industry specialist advisor is negatively affected by whether the target firm is operating in a different industry or country than the acquirer. This indicates that industry specialist advisors are less favoured by bidders for diversifying transactions.

[Insert Table 7 here]

The results for the second-stage bidder CAR equation are illustrated in the outcome columns of Table 7. The coefficient on the *Inverse Mills ratio* is both positive and significant for advisor

acquirer-industry specialization, suggesting that certain unobservable characteristics which increase the probability of employing an acquirer-industry specialist advisor further improve bidder CARs. If such unobservable component can be interpreted as advisors' private information, then this indicates that acquirer-industry specialist advisors possess superior private information that creates additional value for bidder clients. Consistent with this interpretation, we find the adverse effect of advisor acquirer-industry specialization to be less negative after controlling for the selection bias. On the other hand, the *Inverse Mills ratio* is insignificant in advisor target-industry specialization equations. Consequently, the two-stage procedure leaves our OLS results for advisor target-industry specialization in Table 4 unaffected.

Using the subsamples divided by target listing status, Table 8 presents the estimation results of the two-stage procedure for bidder CARs. In line with Golubov et al. (2012), the *scope* variable shows a significant influence on bidding firms' decision of using industry specialist advisors irrespective of target types. The *Inverse Mills ratio* is significantly positive but for public acquisitions and for advisor acquirer-industry specialization only. By adjusting for this positive selection bias, the coefficient on acquirer-industry specialization becoems less negative in the public subset, compared to that in Table 6. In addition, we find top-8 dummy to be positive and significant in this subsample, confirming the findings in Golubov et al. (2012). While the selection term is insignificant for both private and subsidiary acquisitions, the negative effect of advisor industry specialization loses its significance after we control for selectivity. A possible reason is that the significant reduction in sample size as a result of partitioning by target type increases the variance for the estimator of the coefficient on advisor industry specialization, leading to a less efficient estimate and lower significance.

[Insert Table 8 here]

Overall, the findings from this section show a negative association between advisor industry specialization and bidder abnormal returns. The results are robust to including the industry specialization level of the target advisor as an additional control, splitting the sample by target type, or controlling for endogeneity. A natural question arises here as to what justifies the use of industry-specialized advisors. We address the question by investigating the M&A advisory fees in the following section.

5.3.4 M&A Advisory Fees

Similar to Walter et al. (2008) and Golubov et al. (2012), we use the following OLS model to examine the effect of industry specialization on M&A advisory fees:

$$\log(Fees_{i,t}) = \beta_0 + \beta_1 Bidder\ advisor's\ industry\ specialization\ level_{ij,t-1} + \sum_{k=1}^{N} \beta_{2k} X_i + \sum_{y=1985}^{2010} \beta_{3y} Y_t + \varepsilon_{i,t} \quad (7)$$

The dependent variable is the natural logarithm of advisory fees paid by the bidding firm to $Invstment\ bank_i$ at the time t. The remaining variables have the same definitions as in $Equation$ (6) except that here we replace $\log(Bidder\ Size)$ with $\log(Deal\ Value)$, since prior research has found that deal size is an important determinant of advisory fees (see e.g., Maclaughlin 1990; Walter et al. 2008). The sample includes completed transactions only because the SDC database reports advisory fees only if the deal succeeds.

Table 9 documents the results for the full sample analysis. Columns (1) and (4) indicate an inverse association between advisor industry specialization and fees, with the coefficients highly significant at the 1% level. The results continue to hold when we take into account the effect of

industry specialization by target advisors. It should be noted that the magnitude of the coefficient on bidder advisors' acquirer-industry specialization increases from -0.754 in column (1) to -0.607 in column (2) and to -0.610 in column (3), indicating that industry-specialized bidder advisors charge relatively higher fees if target advisors are present. This is generally plausible since in such cases bidder advisors need to expend more time and effort. We, however, find that the difference between the coefficients in the first and second, first and third, or second and third columns is insignificant (Prob > chi2 = 0.932, Prob > chi2 = 0.923, and Prob > chi2 = 0.998, respectively). This suggests that fees charged by bidder advisors specializing in the acquirer industry do not differ by the presence of target advisors. A similar pattern is found for advisor target-industry specialization, as the estimates in columns (4), (5) and (6) of Table 9 indicate[25]. Overall, our findings lend strong empirical support to the proposition that advisors are able to pass some cost efficiencies achieved through economies of industry specialization onto their bidder clients.

We note many other interesting results shown in Table 9 as well. In addition to bidder advisors' industry specialization, for example, advisory fees are negatively affected by the degree of target advisors' industry specialization and bidder run-up, while positively by bidder sigma. Consistent with prior work (Walter et al. 2008; and Golubov et al. 2012), both deal size and tender offer are positively related to the level of advisory fees.

[Insert Table 9 here]

[25] The difference between the coefficients is also insignificant at the conventional level (Prob > chi2 = 0.937, Prob > chi2 = 0.926, and Prob > chi2 = 0.986, respectively).

We further divide the whole sample by target type and examine whether industry specialization affects advisory fees differently in public, private and subsidiary subsamples. Table 10 presents the results for this subsample analysis. We note that the findings based on a rather small sample of subsidiary targets (44 and 45 observations, respectively) may lack reliability and as such, they are omitted from the following discussions.

Consistent with our findings in the full sample, models (1) and (3) of Table 10 report a negative and significant estimate for bidder advisors' acquirer-industry specialization in the respective subsamples. The greater magnitude of the coefficient on acquirer-industry specialization in model (1) implies that industry-specialized advisors charge higher fees for public acquisitions than for other bids. The coefficients, however, do not differ across the subsamples (Prob > F = 0.697). On the other hand, bidder advisors' target-industry specialization shows a negative and significant (at the 1% level) impact on fees but for public bids only (model (2)). In all of these regressions, we find that top-8 dummy is positive and highly significant, suggesting that reputable investment banks charge higher M&A advisory fees, consistent with Rau (2000), Hunter and Jagtiani (2003) and Walter et al. (2008)[26].

[Insert Table 10 here]

We control for endogeneity to verify the robustness of our findings. Table 11 provides the results of the two-stage procedure for advisory fee for the whole sample. The coefficient on the *Inverse Mills ratio* is significantly negative for advisor acquirer-industry specialization in most cases, indicating that there exists a discount in acquirer-industry specialists' fees which cannot be

[26] We re-estimate our equations using Tobit model and find that our results are unaffected when alternative estimation method is used (see Appendix C).

explained by the observed characteristics. After accounting for this negative selection bias, advisor acquirer-industry specialization shows a consistently significant (at the 1% level) but more negative effect on advisory fees. By contrast, the endogeneity control variable is insignificant for advisor target-industry specialization, implying that the OLS estimates in Table 9 are unaffected by selection bias.

[Insert Table 11 here]

Table 12 presents the results of the two-stage procedure for the subsamples by target type. We omit the results for the subsidiary subset due to its small sample size. We find that the *Inverse Mills ratio* is negative and marginally significant for public acquisitions. Adjusting for this endogeneity, again, leads to more negative coefficients on advisor industry specialization. The selection term is insignificant in private subset. Accordingly, the results of the two-stage procedure remain qualitatively similar to the OLS estimates in Table 10 for deals involve private firm.

[Insert Table 12 here]

In sum, the above analyses demonstrate a consistently negative association of advisor industry specialization with advisory fees. This suggests that the economies of industry specialization help advisors to compete for market share by passing some cost savings onto their bidder clients.

5.3.5 Completion Probability

In this section, we explore the possibility that industry-specialized advisors serve as inexpensive 'execution houses' used by bidding firms principally to complete deals. The following probit model is used in our analysis as in Walter et al. (2008) and Golubov et al. (2012):

$$Completion_{i,t} = \beta_0 + \beta_1 Bidder\ advisor's\ industry\ specialization\ level_{ij,t-1} + \sum_{k=1}^{N} \beta_{2k} X_i + \sum_{y=1985}^{2010} \beta_{3y} Y_t + \varepsilon_{i,t} \quad (8)$$

The dependent variable is equal to 1 if a deal is completed by $Invstment\ bank_i$ at time *t*, and 0 otherwise. The denotation for each independent variable in the model is the same as in $Equation\ (6)$.

Table 13 provides the findings of the probit regression analysis and indicates that there is, on average, no relation between advisor industry specialization and deal completion. This is not surprising, given that prior research in the M&A advisory market generally fails to find any positive effect of bidder advisors on deal completion (see e.g., Walter et al. 2008; Song and Wei 2010; Golubov et al. 2012).

[Insert Table 13 here]

Models (1) and (2), (3) and (4), and (5) and (6) of Table 14 present the results for public, private and subsidiary acquisition, respectively. Contrary to our findings in the full sample, we find that acquirer-industry specialization by bidder advisors positively and significantly affects completion probability for acquisitions of public and subsidiary firms (models (1) and (5)), while negatively but insignificantly affects the completion of private deals (model (3)). This potentially explains why there is no impact of acquirer-industry specialization on bid success in the overall sample as shown in Table 13. That is, although acquirer-industry-specialization has a positive effect on deal success for public and subsidiary acquisitions, such effect is cancelled out by its negative influence on the completion of private transactions. On the other hand, We find advisor target-industry specialization to be positive and significant at the 5% level in the subsidiary subset (model (6)). Overall, the evidence suggests that industry specialization enhances bidder

advisors' ability to complete certain types of acquisitions. Consistent with Walter et al. (2008) and Golubov et al. (2012), top-8 indicator is insignificant across all the subsamples, indicating that hiring reputable investment banks does not lead to increased probability of bid success. Hence, compared with the use of top-tier advisors, hiring industry-specialized financial advisors does not necessarily make bidding firms worse off: not only specialized advisors charge significantly lower fees, but they also have better ability of completing deals. With respect to other control variables, Table 14 shows that hostile bids and deals involving bidders with multiple bidders or foreign targets are generally less likely to succeed, whereas tender offers and stock price run-up are associated with higher completion likelihood. In addition, while prior M&A activity in the acquirer industry generates a negative and significant impact on bid success for public and subsidiary transactions, such activity in the target industry leads to higher completion rate when the target is a private firm.

[Insert Table 14 here]

The results of the two-stage procedure for the full sample and for the subsamples are presented in Tables 15 and 16, respectively. In both tables, the *Inverse Mills ratio* is insignificant at the conventional levels, suggesting that the endogenous selection of industry specialist advisors does not bias the OLS estimates for advisor industry specialization in Tables 13 and 14[27].

[Insert Tables 15 here]

[Insert Tables 16 here]

[27] It should be noted that the coefficients on advisor industry specialization in the subsidiary subset remain positive but no longer significant.

In sum, our findings are consistent with the established industry specialization theories, which predict that better industry-specific knowledge and skill will improve industry-specialized advisors' ability to consummate deals successfully.

5.3.6 Time to Completion

In this section, we investigate how industry specialization by bidder advisors affects the time an advisor takes to complete a deal using the following OLS model:

$$Speed_{i,t} = \beta_0 + \beta_1 Bidder\ advisor's\ industry\ specialization\ level_{ij,t-1} + \sum_{k=1}^{N} \beta_{2k} X_i + \sum_{y=1985}^{2010} \beta_{3y} Y_t + \varepsilon_{i,t} \quad (9)$$

The dependent variable is measured as the time from the deal announcement date to its effective date in units of 100 days. The denotations for the rest of the variables are the same as in $Equation\ (6)$.

In light of the industry specialization theories, we expect that industry specialization would improve advisors' efficiency in handling deals from their specialized domain and therefore be associated with shorter bid durations. Table 17, however, indicates a significantly positive relation between advisor industry specialization and the time taken to close a deal across all columns. This suggests that industry-specialized advisors are probably more careful in handling deals from their specialized industry, since these industries often constitute their core business.

[Insert Table 17 here]

Table 18 documents the results for the public, private and subsidiary subsamples with the control for the top-8 advisor dummy. We find the advisor industry specialization variables to be positive

and highly significant at the 1% level in most cases for acquisitions of public or private firms (columns (1) to (4)), while insignificant for subsidiary acquisitions (columns (5) and (6)). In addition, we find that the coefficient on top-8 dummy is always positive irrespective of targe types, a finding that is contrary to Golubov et al. (2012) who report top-tier investment banks to be associated with shorter deal duration in the public subsample.

Overall, there is evidence that industry specialization elongates the time to completion. The results continue to hold when we control for the endogeneity of bidder-advisor matching, as indicated by the estimates in Tables 19 and 20.

[Insert Table 18 here]

[Insert Table 19 here]

[Insert Table 20 here]

5.3.7 Additional Robustness Check

As an additional check, we repeat our analyses on bidder CARs, advisory fees, completion probability and bid duration using the Weighted Market Share (WMS) approach as an alternative measure of advisor industry specialization. The WMS is calculated based on the total number of deals advised by an investment bank in the acquirer or the target industry over the 5 years prior to the announcement date. We find the results, as shown in Appendix E, to be qualitatively similar to that reported in the previous sections using the ARCA index.

5.4 Discussion

So far, we have shown mixed effect of industry specialization on deal outcomes: on the one hand, advisor industry specialization increases the probability of bid success for public and subsidiary acquisitions; on the other hand, it results in poorer bidder returns and longer time to completion. Our findings, therefore, do not give full support to the established theories of industry specialization, which predict that industry-specialized investment banks are unconditionally superior in every aspect. If industry specialization does create an ideal environment in which advisors can learn and develop virtually all advising skills, then the question arisen here is why industry-specialized advisors are competent in completing deals only. We contend that the external rewarding system likely induces M&A advisors to selectively promote a particular type of expertise (i.e., completion expertise), thereby leading to asymmetric performance benefits to be realized through industry specialization (Alchian and Demsetz 1972). Specifically, it has been widely acknowledged that the prevailing M&A fee structure encourages investment banks to complete more and larger M&A transactions, irrespective of value creation for bidding firms (Maclaughlin 1990; and Rau 2000). While such misaligned incentive can be mitigated if clients could rationally select advisors based on their past performance of generating returns, recent research by Bao and Edmans (2011) points out that clients in the M&A industry are often blinded by the entrenched practice of using advisors' market share as an indicator of expertise. Given the short-term-oriented fee contract coupled with clients' active chasing on market share, it then appears logical for profit-maximizing industry-specialized advisor to concentrate more resources and learning effort on developing completion expertise than on other skills. This is because completion expertise not only enables specialized advisors to boost market share today but also enhance their ability of winning future mandates (Bao and Edmans 2011; and Song and Wei 2010).

6. Conclusion

Inspired by the recent trend of investment banks' industry specialization, we seek to determine how advisor industry specialization affects deal performance and the level of M&A advisory fees. Using a large and comprehensive sample of 12,853 M&A transactions announced between 1985 and 2010, we show that advisor industry specialization deteriorates acquirer CARs. It, however, leads to increased completion probability for public and subsidiary acquisitions, suggesting that industry specialization improves bidder advisors' ability to consummate certain deals successfully. There is also evidence that bidder advisors' industry specialization is positively associated with bid duration, indicating that more time is spent by industry specialized advisors to evaluate offers carefully. In regard to the pricing of M&A advisory service, our analysis shows that industry specialization negatively affects advisory fees, a finding that corroborates the cost efficiencies achieved by bidder advisors through economies of industry specialization. Overall, the results suggest that while industry specialization enables bidder advisors to acquire superior knowledge and skill in completing deals, it does not enhance their ability of providing value to bidder clients, nor does it improve work efficiency. This is intriguing, given that industry specialization offers advisors with virtually equal opportunities to learn each aspect of advising. We argue that industry-specialized advisors' incentive to develop expertise necessary for value creation is weakened by the fee contract structure which encourages deal completion only, and also by clients' active selection of financial advisors based on market share. Our findings highlight the importance of environmental factors (e.g., external rewarding system) in the realization of performance benefits from industry specialization and suggest that the traditional perception on the superiority of industry specialists is potentially illusory in the M&A advisory market.

Appendix A Variable Definition

Variable	Definition
Panel A: Dependent Variables and Industry Specialization	
CAR (-1, 1) **CAR (--2, 2)**	Cumulative abnormal returns of the acquiring firm stock over the event window (-1, +1) and (-2, +2) respectively, surrounding the announcement date. The return is calculated using the market model with the benchmark being the CRSP value-weighted index. The model parameters are estimated over the (-300, -91) period prior to the announcement. The CAR over the window (-1, +1) is winsorized at 1% and 99% in our analyses.
Complete	A dummy variable set equal to 1 if the deal is completed and 0 otherwise.
Speed	The time from the deal announcement date to its effective date measured in units of 100 days.
Log (Fees)	The natural logarithm of advisory fees paid by the bidding firms (completed deals only)
Advisors' Specialization in the Acq. (Targ.) Industry	The relative degree of advisors' specialization in the acquirer (target) industry determined by the ARCA measure. It is calculated based on the total number of deals advised by an advisor in the acquirer (target) industry 5 years prior to the announcement date, where the industry is defined by the 3-digit SIC code.
Specialist Adv. in Acq. (Targ.) Industry	A dummy variable is equal to 1 if the advisor is classified as a specialist in the acquirer (target) industry based on its ARCA value. The cut-off is zero.
Panel B: Deal Characteristics	
Log (Deal Size)	The natural logarithm of the value of the transaction in millions of $US dollars (from Thomson Financial SDC)
Relative Size	The deal value divided by the market value of the bidding firm's equity one month prior to the announcement date (from CRSP)
Relatedness	A dummy variable setting to 1 if the bidder and the target are operating in the same industries with a common 2-digit SIC code and 0 otherwise (from Thomson Financial SDC).
Public Target	A dummy variable being 1 if the bid is for public target and 0 otherwise.
Private Target	A dummy variable being 1 if the bid is for private target and 0 otherwise.

Subsidiary Target	A dummy variable being 1 if the bid is for subsidiary target and 0 otherwise.
Foreign Target	A dummy variable being 1 if the bid is for foreign target and 0 otherwise.
All –Cash Deals	A dummy variable being 1 if the payment is pure cash and 0 otherwise.
Pmt. Incl. Stock	A dummy variable being 1 if the payment includes stock and 0 otherwise.
Tender Offer	A dummy variable equal to 1 if the deal is a tender offer and 0 otherwise.
Hostile	A dummy variable equal to 1 if the deal is classified as 'hostile' by Thomoson Financial SDC and 0 otherwise.
Acq. Industry M&A (Targ. Industry M&A)	A control variable for M&A waves in the industry of the acquirer (target) in the previous year, where industry is classified by 3-digit SIC code. It equals the total value of all M&A transactions reported by SDC for each prior year and 3-digit SIC code over the book value of total assets of all Computstat firms in the same year and 3-digit SIC code.
Multiple Bidders	A dummy variable being 1 if there are multiple bidders and 0 otherwise (Kale et al. 2003).
Premium Offered	Takeover premium being the difference between the offer price and the target market value 4 weeks prior to the announcement, expressed as a percentage, form SDC.
Panel C: Bidder Characteristics	
Bidder Size	The market value of the bidding firm's equity 1 month prior to the announcement date in millions of $US dollars. The data is obtained from CRSP.
Tobin's Q	Market value of assets divided by book value of assets for the fiscal year prior to the acquisition. The market value of assets is equal to book value of assets plus market value of common stock minus book value of common stock minus balance sheet deferred taxes. The data is obtained from both CRSP and Compustat.
Run-up	Market-adjusted buy-and-hold returns of the bidder's stock over a 200-day window (-205, -6) from CRSP.
Sigma	Standard deviation of the market-adjusted daily returns of the bidder's stock over a 200-day window (-205, -6) from CRSP.

Leverage	The sum of long-term debt and short-term debt divided by the market value of total assets measured at the end of the fiscal year prior to the acquisition. The data is obtained from both CRSP and Compustat.
Free Cash Flow	Operating income before depreciation minus interest expense minus income tax plus changes in deferred taxes and investment tax credits minus dividends on both preferred and common share divided by the book value of total assets at the fiscal year-end before the announcement date from Computstat.

Appendix B Pearson Correlation Matrix of Industry Specialization Measures

This table presents the pair-wise correlation coefficients between different industry specialization measures including ARCA, Weighted Market Share (WMS) and RCA. The sample used to construct these three measures consists of 12,853 deals announced between January 1985 and December 2010, in which there is at least one investment bank advising the bidder. All the measures are calculated based on the number of deals advised by the investment bank in the industry of the bidder and the target, respectively, over a 5-year period prior to the announcement. The industry is classified by 3-digit SIC code. The formulas for each measure are provided in section 3.1 'Industry Specialization Proxy'. 'ARCA_AIF', 'WMS_AIF' and 'RCA_AIF' denote bidder advisors' industry specialization level in the acquirer industry using the ARCA, WMS and RCA measure, respectively. Similarly, 'ARCA_TIF', 'WMS_TIF' and 'RCA_TIF' stand for bidder advisors' industry specialization levels in the target industry measured by the ARCA, WMS and RCA approach, respectively. ***, ** and * denote significance at the 1%, 5% and 10% level, respectively.

		1	2	3	4	5	6
1	ARCA_AIF	1.000					
2	WMS_AIF	0.5675***	1.000				
3	RCA_AIF	0.314***	0.6529***	1.000			
4	ARCA_TIF	0.6765***	0.3766***	0.114***	1.000		
5	WMS_TIF	0.378***	0.6033***	0.2544***	0.5995***	1.000	
6	RCA_TIF	0.2036***	0.465***	0.7212***	0.3026***	0.4989***	1.000

Appendix C Heckman Two-stage Procedure for Endogeneity Control

In the spirit of Heckman (1979), we have the following two models:

$$Industry\ Specialist\ Advisor_i^* = \gamma Z_{1i} + v_i \quad (1)$$

$$Y_i = \beta Z_{2i} + \alpha Advisor\ Industry\ Specialization_i + \varepsilon_i \quad (2)$$

The first equation is the latent selection equation, where Z_{1i} denotes a vector of variables that might affect the selection, and v_i is the error term. The dependent variable, $Industry\ Specialist\ Advisor_i^*$, is a dummy variable, which indicates whether a deal is advised by an industry specialist advisor. Formally, it can be shown as follows:

$$Industry\ Specialist\ Advisor_i^* = 1\ if\ \gamma Z_{1i} + v_i > 0\ ; and\ Industry\ Specialist\ Advisor_i^* = 0\ if\ \gamma Z_{1i} + v_i \leq 0 \quad (3)$$

The second equation estimates the effect of advisor industry specialization on deal outcomes, where Y_i represents one of the deal outcomes (e.g., bidder CARs), and Z_{2i} denotes a vector of deal and firm characteristics. $Advisor\ Industry\ Specialization_i$ stands for the degree of industry specialization possessed by an advisor, and ε_i is the error.

In this setting, endogeneity arises because the realization of equation (2) depends on the outcome of $Industry\ Specialist\ Advisor_i^*$. In other words, the observed outcome is a conditional variable:

$$E(Y_i) = E(Y_i|Industry\ Specialist\ Advisor_i^* = 1) =$$
$$E(\beta Z_{2i} + \alpha Advisor\ Industry\ Specialization_i + \varepsilon_i|\gamma Z_{1i} + v_i > 0) =$$
$$\beta Z_{2i} + \alpha Advisor\ Industry\ Specialization_i + E(\varepsilon_i|v_i > -\gamma Z_{1i}) \quad (4)$$

Since ε_i and v_i are correlated, $E(\varepsilon_i|v_i > -\gamma Z_{1i})$ is not equal to zero. This makes OLS estimates of equation (2) to be biased. If, however, the right-side of equation (2) is augmented with a variable λ that can be used as a proxy for $E(\varepsilon_i|v_i > -\gamma Z_{1i})$, then OLS regression estimators of the following equation will be consistent:

$$Y_i = \beta Z_{2i} + \alpha Advisor\ Industry\ Specialization_i + \delta\lambda + \mu_i \quad (5)$$

Following Heckman (1979) and Fang (2005), under the assumption that v_i and ε_i are jointly normal, we have:

$$E(\varepsilon_i|v_i > -\gamma Z_{1i}) = \sigma_{v_i,\varepsilon_i}[\phi(-\gamma Z_{1i})/(1 - \Phi(-\gamma Z_{1i})] = \sigma_{v_i,\varepsilon_i}[\phi(\gamma Z_{1i})/\Phi(\gamma Z_{1i})] = \sigma_{v_i,\varepsilon_i}\lambda \quad (6)$$

Where $\sigma_{v_i,\varepsilon_i}$ donotes the covariance between v_i and ε_i. $\phi(.)$ and $\Phi(.)$ represent, respectively, normal density and distribution function. $\phi(\gamma Z_{1i})/\Phi(\gamma Z_{1i})$ or λ is referred as the *Inverse Mills Ratio*. It is computed using the probit estimates of equation (1), and then included in equation (2) as an additional regressor such that OLS can produce consistent estimates for equation (5).

Appendix D: Tobit Regression Results for Advisory Fees

One legitimate concern of using OLS specification in the analysis of advisory fees is that the dependent variable is censored and cannot be negative. We therefore re-estimate all the equations by Tobit model which is specifically designed to deal with constrained regressand. Our conclusion regarding the effect of advisor industry specialization on fees continues to hold when alternative estimation method is used.

Tobit Regression Results for Advisory Fee in the Full Sample – Continuous Measure of Industry Specialization

This table shows the results from Tobit regression of the acquirer fee on advisor industry specialization and other deal- and bidder- characteristics. Advisor industry specialization is measured continuously using the ARCA method and based on the number of deals advised by an advisor in either the acquirer's industry (acquirer-industry focus) or the target firm's industry (target-industry focus) over the 5-year period prior to the announcement date. Industry is classified by 3 digit SIC code. In all the Models, the dependent variable is the natural logarithm of fees. The description for each variable is shown in Appendix A. All regressions control for year fixed effects whose coefficients are suppressed. The t-statistics in parentheses are generated using Huber White sandwich robust standard errors. N denotes number of observations. ***, ** and * denote significance at the 1%, 5% and 10% level, respectively.

Full sample	**Acquirer-industry Focus**			**Target-industry Focus**		
	(1)	(2)	(3)	(4)	(5)	(6)
Acq. Adv.'s Specialization Level in Acq. Industry	-0.754***	-0.607***	-0.610***			
	(-4.650)	(-3.240)	(-3.390)			
Acq. Adv.'s Specialization Level in Targ. Industry				-0.779***	-0.807***	-0.777***
				(-4.600)	(-4.340)	(-4.160)
Target Adv.'s Specialization Level in Acq. Industry		-0.415**			-0.436***	
		(-2.530)			(-2.820)	
Target Adv.'s Specialization Level in Targ. Industry			-0.478***			-0.436***
			(-3.190)			(-2.940)
Ln(Deal Value)	0.720***	0.706***	0.704***	0.724***	0.701***	0.703***

	(36.200)	(31.990)	(31.680)	(36.420)	(32.290)	(32.190)
Tobin's Q	0.006	0.003	0.002	0.006	0.002	0.002
	(0.940)	(0.440)	(0.350)	(0.950)	(0.420)	(0.360)
Run-up	-0.126*	-0.201***	-0.215***	-0.121*	-0.199***	-0.212***
	(-1.960)	(-3.280)	(-3.550)	(-1.870)	(-3.240)	(-3.490)
Free Cash Flow	0.329**	0.253	0.240	0.305*	0.230	0.223
	(2.020)	(1.440)	(1.370)	(1.760)	(1.250)	(1.220)
Leverage	0.182	-0.170	-0.144	0.201	-0.176	-0.133
	(0.860)	(-0.780)	(-0.660)	(0.990)	(-0.830)	(-0.630)
Sigma	12.603***	13.094***	13.537***	12.624***	12.222***	12.957***
	(5.530)	(4.890)	(5.090)	(5.440)	(4.630)	(4.910)
Pmt. incl. Stock	-0.028	-0.010	0.005	-0.004	0.035	0.042
	(-0.260)	(-0.090)	(0.040)	(-0.040)	(0.300)	(0.360)
Relative Size	-0.091**	-0.028	-0.026	-0.097**	-0.029	-0.028
	(-2.070)	(-0.750)	(-0.710)	(-2.190)	(-0.780)	(-0.760)
Relatedness	-0.077	-0.083	-0.077	-0.072	-0.064	-0.066
	(-1.270)	(-1.340)	(-1.230)	(-1.190)	(-1.040)	(-1.050)
Tender Offer	0.330***	0.303**	0.314**	0.364***	0.345**	0.353***
	(2.600)	(2.150)	(2.220)	(2.960)	(2.520)	(2.570)

Hostile * All-Cash	0.026	0.008	0.014	0.016	0.008	0.009
	(0.140)	(0.040)	(0.070)	(0.090)	(0.040)	(0.050)
Hostile * Pmt. incl. Stock	-0.296	-0.309	-0.318	-0.335	-0.347	-0.352
	(-0.660)	(-0.720)	(-0.750)	(-0.760)	(-0.820)	(-0.840)
Foreign Targ.	0.306	0.322	0.334	0.301	0.320	0.339
	(1.280)	(1.160)	(1.190)	(1.240)	(1.130)	(1.190)
Multiple Bidders	0.092	0.111	0.122	0.099	0.117	0.128
	(0.830)	(1.030)	(1.130)	(0.890)	(1.100)	(1.200)
Acq. Industry M&A	-0.001	0.004	0.004	-0.001	0.004	0.004
	(-0.730)	(0.910)	(0.870)	(-1.010)	(0.850)	(0.840)
Targ. Industry M&A	0.003*	0.001	0.001	0.003*	0.001	0.001
	(1.810)	(0.800)	(0.740)	(1.930)	(1.010)	(0.940)
Intercept	-0.337	0.026	0.017	-0.465	0.084	-0.007
	(-0.720)	(0.050)	(0.030)	(-1.000)	(0.160)	(-0.010)
N	1040	895	893	1043	897	895
Pseudo R-squared	0.345	0.348	0.351	0.343	0.350	0.351

Tobit Results for Advisory Fee in the Subsamples – Continuous Measure of Industry Specialization

This table shows the results from Tobit regression of the acquirer fee on advisor industry specialization and other advisor-, deal- and bidder-characteristics for the subsamples divided by target listing status. The sample consists of M&A transactions announced from 1985 to 2010. Advisor industry specialization is measured continuously using the ARCA method and based on the number of deals advised by an advisor in either the acquirer's industry (acquirer-industry focus) or the target firm's industry (target-industry focus) 5 years prior to the announcement date. Industry is classified by 3 digit SIC code. In all the Models, the dependent variable is the natural logarithm of fees. The description for each variable is shown in Appendix A. All regressions control for year fixed effects whose coefficients are suppressed. The t-statistics in parentheses are generated using Huber White sandwich robust standard errors. N denotes number of observations. ***, ** and * denote significance at the 1%, 5% and 10% level, respectively.

	Public		**Private**	
	Acquirer-industry Focus (1)	Target-industry Focus (2)	Acquirer-industry Focus (3)	Target-industry Focus (4)
Acq. Adv.'s Specialization Level in Acq. Industry	-0.543***		-0.798**	
	(-3.030)		(-2.100)	
Acq. Adv.'s Specialization Level in Targ. Industry		-0.529***		-0.564
		(-2.770)		(-1.440)
Top 8	0.340***	0.341***	0.519**	0.474*
	(5.280)	(5.250)	(2.060)	(1.870)
Ln(Deal Value)	0.692***	0.694***	0.676***	0.736***
	(31.090)	(31.040)	(6.260)	(7.060)
Tobin's Q	-0.016	-0.014	0.049***	0.053***
	(-1.250)	(-1.090)	(3.970)	(4.140)
Run-up	-0.235***	-0.238***	0.092	0.084
	(-3.590)	(-3.660)	(1.630)	(1.440)

Free Cash Flow	0.371	0.324	1.540***	1.650***
	(1.640)	(1.320)	(3.700)	(3.830)
Leverage	-0.145	-0.107	2.409***	2.595***
	(-0.660)	(-0.500)	(3.280)	(3.480)
Sigma	14.761***	14.619***	24.612***	26.332***
	(5.400)	(5.240)	(4.620)	(4.890)
Pmt. incl. Stock	-0.082	-0.037	0.081	0.057
	(-0.710)	(-0.330)	(0.340)	(0.260)
Relative Size	-0.028	-0.032	-0.351*	-0.395**
	(-0.700)	(-0.790)	(-1.900)	(-2.400)
Relatedness	-0.098	-0.091	-0.349	-0.431*
	(-1.560)	(-1.460)	(-1.490)	(-1.770)
Tender Offer	0.322**	0.373***		
	(2.370)	(2.860)		
Hostile * All-Cash	-0.110	-0.114		
	(-0.620)	(-0.650)		
Hostile * Pmt. incl. Stock	-0.307	-0.343		
	(-0.730)	(-0.820)		
Foreign Targ.	0.269	0.277	0.222	0.273
	(0.800)	(0.810)	(0.890)	(1.110)
Multiple Bidders	0.114	0.119		
	(1.030)	(1.080)		

Acq. Industry M&A	0.003***	0.003***	-0.044	-0.030
	(2.750)	(2.670)	(-1.130)	(-0.750)
Targ. Industry M&A	0.001	0.001*	0.058	0.047
	(1.630)	(1.750)	(1.480)	(1.200)
Intercept	0.184	0.079	-0.548	-1.606
	(0.350)	(0.150)	(-0.300)	(-0.900)
N	883	885	112	112
Pseudo R-squared	0.355	0.353	0.401	0.393

Appendix E: Results for Alternative Industry Specialization Measure

The following tables show the regression results when the Weighted Market Share (WMS) approach is used as an alternative measure of industry specialization. The WMS is based on the number of deals advised by an investment bank in the acquirer or the target industry 5 years prior to the announcement date. Industry is classified by 3 digit SIC code. Only the estimates for advisor industry specialization are reported in order to save space. The terms, 'BAdv. Spec.' and 'TAdv. Spec.', denote the degree of industry specialization possessed by bidder advisor and by target advisor, respectively. Panel A presents the results for bidder CAR (-1, +1) using the full sample. As in Table 4, we control for deal and bidder characteristics in models (1) and (4), and further add the specialization level of target advisors in the acquirer and the target industry separately into models (2), (3), (5) and (6). The regression results for bidder CAR (-1, +1) in subsamples divided by target listing status are shown in Panel B, where the same variables are controlled for in the respective models as in Table 6. Similarly, Panels C and D, E and F, and G and H provide the results for the effect of advisor industry specialization on fees, completion probability and time to completion, respectively. The t- (z-) statistics in parentheses are generated using Huber White sandwich robust standard errors and also adjusted for bidder clustering. Overall, we find that our results continue to hold when the alternative measure of industry specialization is used.

Panel A: Results for Bidder CAR (-1, +1) in the Full Sample						
	Acquirer-Industry Focus			Target-Industry Focus		
	(1)	(2)	(3)	(4)	(5)	(6)
BAdv. Spec. in Acq. Industry	-0.063*	-0.087	-0.091			
	(-1.760)	(-1.560)	(-1.570)			
BAdv. Spec. in Targ. Industry				-0.073*	-0.069	-0.076
				(-1.870)	(-1.450)	(-1.310)
TAdv. Spec. in Acq. Industry		-0.104*			-0.103*	
		(-1.840)			(-1.820)	
TAdv. Spec. in Targ. Industry			-0.004			0.001
			(-0.050)			(0.020)

Panel B: Results for Bidder CAR (-1, +1) in the Subsamples						
	Public		Private		Subsidiary	
	Acq.-Industry Focus	Targ.-Industry Focus	Acq.-Industry Focus	Targ.-Industry Focus	Acq.-Industry Focus	Targ.-Industry Focus
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
BAdv. Spec. in Acq. Industry	-0.041		-0.068		-0.037	
	(-0.610)		(-1.150)		(-0.600)	
BAdv. Spec. in Targ. Industry		-0.026		-0.106		-0.070
		(-0.420)		(-1.320)		(-1.050)

Panel C: Results for Advisory Fees in the Full Sample						
	Acquirer-Industry Focus			Target-Industry Focus		
	(1)	(2)	(3)	(4)	(5)	(6)
BAdv. Spec. in Acq. Industry	-1.213	-1.857	-1.985			
	(-0.870)	(-1.160)	(-1.210)			
BAdv. Spec. in Targ. Industry				-2.349	-4.249**	-4.343**
				(-1.500)	(-2.450)	(-2.460)
TAdv. Spec. in Acq. Industry		-0.634			-0.657	
		(-0.350)			(-0.370)	
TAdv. Spec. in Targ. Industry			-1.482			-1.057
			(-0.920)			(-0.660)

Panel D: Results for Advisory Fees in the Subsamples

	Public		Private		Subsidiary	
	Acq.-Industry Focus	Targ.-Industry Focus	Acq.-Industry Focus	Targ.-Industry Focus	Acq.-Industry Focus	Targ.-Industry Focus
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
BAdv. Spec. in Acq. Industry	1.394		-0.639		31.708*	
	(0.990)		(-0.130)		(1.930)	
BAdv. Spec. in Targ. Industry		0.172		-2.595		-11.269*
		(0.100)		(-0.520)		(-1.680)

Panel E: Results for Completion Probability in the Full Sample

	Acquirer-Industry Focus			Target-Industry Focus		
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
BAdv. Spec. in Acq. Industry	0.268	-1.166	-1.268			
	(0.230)	(-0.780)	(-0.850)			
BAdv. Spec. in Targ. Industry				-0.491	-2.066	-2.606*
				(-0.370)	(-1.320)	(-1.670)
TAdv. Spec. in Acq. Industry		-0.603			-0.502	
		(-0.320)			(-0.270)	
TAdv. Spec. in Targ. Industry			-0.868			-0.216
			(-0.510)			(-0.120)

Panel F: Results for Completion Probability in the Subsamples

	Public		Private		Subsidiary	
	Acq.-Industry Focus	Targ.-Industry Focus	Acq.-Industry Focus	Targ.-Industry Focus	Acq.-Industry Focus	Targ.-Industry Focus
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
BAdv. Spec. in Acq. Industry	-0.475		-0.310		14.285	
	(-0.250)		(-0.140)		(1.600)	
BAdv. Spec. in Targ. Industry		-1.589		0.099		24.769**
		(-0.760)		(0.040)		(2.190)

Panel G: Results for Time to Complete in the Full Sample						
	Acquirer-Industry Focus			Target-Industry Focus		
	(1)	(2)	(3)	(4)	(5)	(6)
BAdv. Spec. in Acq. Industry	0.374	0.465	0.489			
	(0.800)	(0.650)	(0.660)			
BAdv. Spec. in Targ. Industry				1.477**	1.671**	2.105***
				(2.490)	(2.140)	(2.840)
TAdv. Spec. in Acq. Industry		1.396*			1.148	
		(1.920)			(1.580)	
TAdv. Spec. in Targ. Industry			1.705**			1.415**
			(2.360)			(2.060)

Panel G: Results for Time to Complete in the Subsamples						
	Public		Private		Subsidiary	
	Acq.-Industry Focus	Targ.-Industry Focus	Acq.-Industry Focus	Targ.-Industry Focus	Acq.-Industry Focus	Targ.-Industry Focus
	(1)	(2)	(3)	(4)	(5)	(6)
BAdv. Spec. in Acq. Industry	1.238		0.660		-0.607	
	(1.270)		(0.960)		(-0.540)	
BAdv. Spec. in Targ. Industry		3.032***		1.817**		-0.865
		(2.740)		(2.320)		(-0.600)

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Figure 1
Distribution of Bidder Advisors' Industry Specialization Levels

This figure shows the distribution of industry specialization levels by bidder advisors for a sample of 12,853 M&A transactions announced between January 1985 and December 2010. Industry specialization is measured using the ARCA measure based on the number of deals advised by an advisor in the acquirer or the target industry over 5 years prior to the announcement date. The industry is classified by 3-digit SIC code. Figures 1a and 1b study the mean, median ("Med"), standard deviation ("Std. Dev.") and the distribution of advisor specialization in the acquirer and the target industry, respectively. P25 (P75) denotes the 25th (75th) percentile. Max represents the maximum ARCA value in our sample, and Min stands for the minimum.

Figure 1a: Acquirer-industry Focus

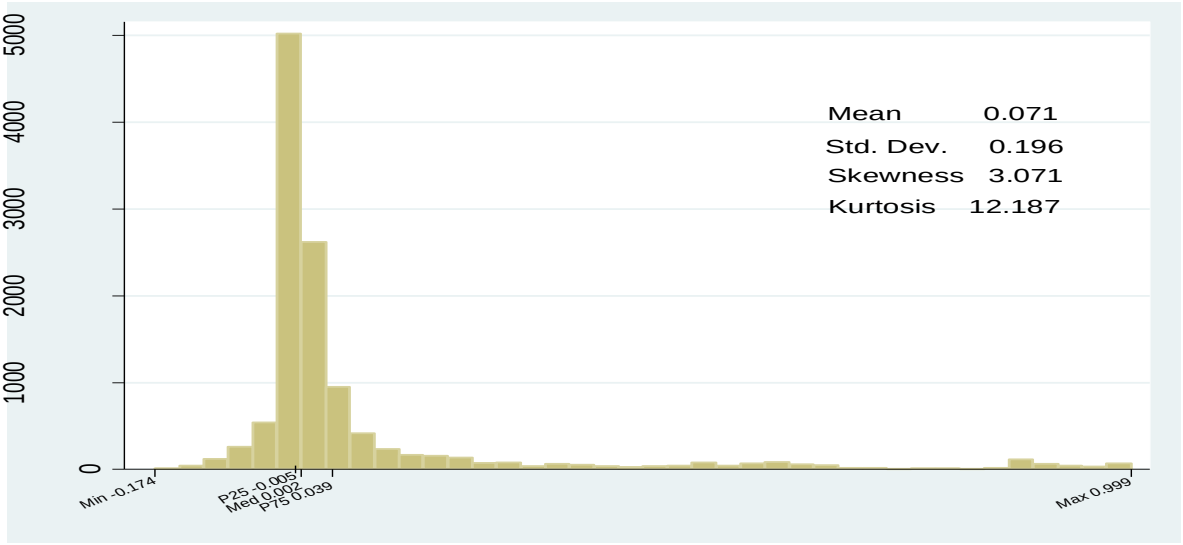

Figure 1b: Target-industry Focus

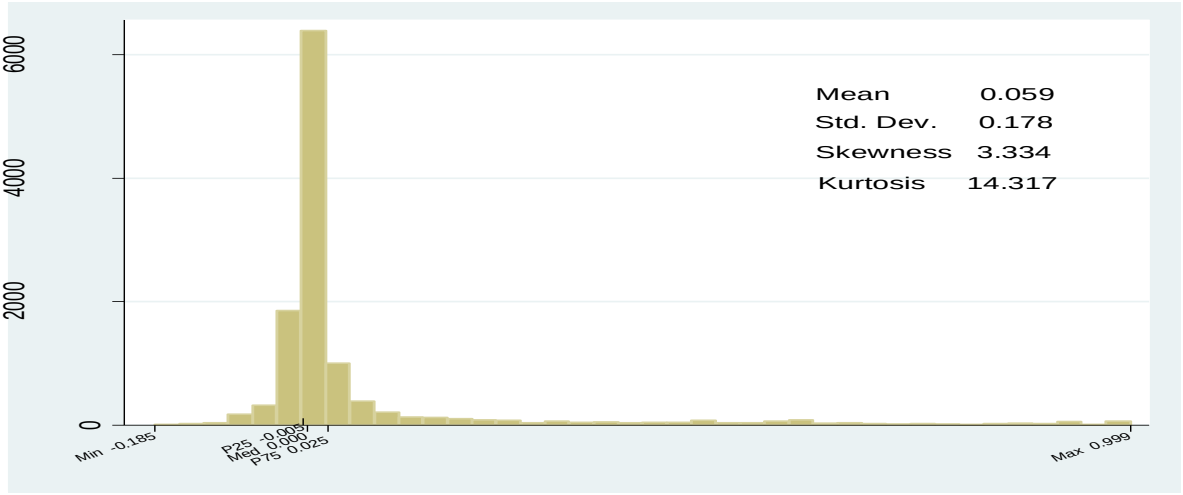

Table 1
The use of industry specialist and non-industry specialist advisors in M&A transactions

This table shows the use of industry specialist and non-industry specialist advisors for all the 12,853 M&A transactions announced between January 1985 and December 2010. Industry specialization is measured using the ARCA measure based on the number of deals advised by an advisor in the acquirer or the target industry over 5 years prior to the announcement date. The industry is classified by 3-digit SIC code. N denotes the number of observations.

	Acquiring Firms		Target Firms	
Acquirer-industry Focused Specialists	1989	16.77%	1100	13.81%
Target-industry Focused Specialists	1389	11.71%	1060	13.31%
Acquirer- and Target-industries Focused Specialists	4192	35.34%	2617	32.86%
Non-industry Specialists	4293	36.19%	3186	40.01%
N	11863	100%	7963	100%

Table 2
Pearson Correlation Matrix of Variables

This table shows the variables' correlation based on pair-wise samples. The sample consists of 12,853 deals announced between January 1985 and December 2010, in which there is at least one investment bank advising the acquirer. Industry specialist advisors are classified by their focuses on the target- and the acquirer-industry using the method of ARCA (i.e., ARCA_AIF, ARCA_TIF), based on the number of deals advised by an advisor in an industry over 5 years prior to the announcement date. The industry is defined by 3-digit SIC code. The definition of each variable is in Appendix A.

		1	2	3	4	5	6	7	8	9	10	11	12	13
1	**ARCA_AIF**	1.000												
2	**ARCA_TIF**	0.434	1.000											
3	**TOP8**	0.016	0.030	1.000										
4	**CAR1**	-0.049	-0.049	-0.042	1.000									
5	**CAR2**	-0.053	-0.039	-0.027	0.796	1.000								
6	**Acq. Fee**	0.040	0.043	0.382	-0.112	-0.115	1.000							
7	**Complete**	-0.005	0.006	-0.002	0.053	0.045	-0.030	1.000						
8	**Speed**	0.057	0.061	0.049	-0.054	-0.033	0.152	.	1.000					
9	**Deal Val.**	0.025	0.034	0.149	-0.085	-0.069	0.624	-0.049	0.135	1.000				
10	**Bidder Size**	-0.013	0.016	0.171	-0.040	-0.037	0.551	0.000	0.023	0.327	1.000			
11	**Tobin's Q**	0.016	0.031	0.019	-0.069	-0.070	0.038	0.015	-0.084	0.047	0.080	1.000		
12	**Sigma**	-0.005	0.024	-0.158	0.082	0.100	-0.173	-0.020	-0.093	-0.075	-0.142	0.301	1.000	
13	**Run-up**	0.018	0.011	0.020	-0.063	-0.066	0.042	0.032	-0.009	0.028	0.010	0.196	0.158	1.000
14	**Leverage**	-0.001	-0.020	0.077	0.061	0.053	0.084	-0.025	0.133	0.026	-0.026	-0.249	-0.173	-0.046
15	**FCF**	-0.028	-0.027	0.081	-0.054	-0.049	0.107	-0.001	-0.057	0.037	0.066	-0.219	-0.338	-0.047
16	**Foreign Target**	-0.056	-0.050	0.011	0.003	-0.001	-0.008	-0.008	-0.112	-0.026	0.087	0.023	-0.017	-0.007
17	**Hostile**	-0.006	-0.025	0.015	-0.029	-0.026	0.061	-0.291	0.059	0.079	0.000	-0.021	-0.041	-0.016
18	**Incl. Stock**	0.086	0.096	-0.025	-0.111	-0.082	0.083	-0.037	0.220	0.096	-0.078	0.120	0.218	0.103
19	**Premium Offered**	-0.039	-0.026	-0.013	0.000	0.006	-0.044	0.014	-0.027	-0.028	0.039	0.047	0.048	0.069
20	**Pubic Target**	0.032	0.037	0.089	-0.211	-0.173	0.134	-0.145	0.267	0.154	0.062	-0.043	-0.096	0.001
21	**Relatedness**	0.079	0.158	-0.014	-0.015	-0.013	0.008	0.009	0.103	0.022	-0.046	0.015	0.026	0.003
22	**Relative Size**	-0.045	-0.010	-0.030	0.086	0.221	0.064	-0.081	0.098	0.048	-0.067	-0.038	0.119	-0.030
23	**Tender Offer**	-0.038	-0.057	0.053	0.017	0.008	-0.038	-0.097	-0.018	0.019	0.053	-0.030	-0.069	-0.027
24	**Multiple Bidders**	-0.003	-0.025	0.053	0.001	-0.010	0.087	-0.285	0.088	0.084	0.001	-0.030	-0.046	0.001

25	**Acq. Ind. M&A**	0.009	0.005	0.006	0.007	0.003	-0.013	-0.019	-0.003	-0.003	-0.006	-0.005	-0.005	0.001
26	**Targ. Ind. M&A**	-0.011	-0.001	0.014	0.009	0.001	0.007	-0.012	0.003	0.000	-0.004	-0.007	0.001	0.004

Table 2 Continued

		14	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**
14	**Leverage**	1.000												
15	**FCF**	0.064	1.000											
16	**Foreign Target**	-0.047	0.048	1.000										
17	**Hostile**	0.048	0.029	-0.015	1.000									
18	**Incl. Stock**	-0.099	-0.168	-0.147	-0.042	1.000								
19	**Premium Offered**	-0.056	0.003	0.010	0.027	-0.082	1.000							
20	**Public Target**	0.017	0.004	-0.086	0.150	0.293	0.015	1.000						
21	**Relatedness**	-0.031	-0.021	-0.046	-0.017	0.125	-0.017	0.080	1.000					
22	**Relative Size**	0.116	-0.039	-0.056	0.085	0.051	0.014	0.056	-0.004	1.000				
23	**Tender Offer**	0.013	0.080	0.060	0.306	-0.167	0.104	0.383	-0.045	0.017	1.000			
24	**Multiple Bidders**	0.063	0.042	0.014	0.278	-0.018	0.083	0.202	-0.002	0.053	0.282	1.000		
25	**Acq. Ind. M&A**	0.032	-0.002	-0.001	-0.004	0.006	-0.011	-0.007	-0.020	0.006	-0.008	0.027	1.000	
26	**Targ. Ind. M&A**	0.028	-0.002	-0.007	-0.002	0.013	-0.009	0.015	0.004	0.002	-0.006	0.020	0.377	1.000

Table 3
Sample Descriptive Statistics by Type of Advisors

This table reports descriptive statistics of the key variables sorted by the type of advisors. The sample consists of 12,853 deals announced between January 1985 and December 2010, in which there is at least one investment bank advising either the acquirer or the target. The data is drawn from the Thomson Financial SDC database. Panels A to C illustrate the mean, median and number of observations ("N") for each variable for the full sample as well as for bidder advisors with and without acquirer-industry focus. The statistics for bidder advisors with and without target-industry focus are qualitatively similar to the results reported below but omitted for space consideration. Industry specialist advisors are designated using the ARCA measure and based on the number of deals advised by the advisor in the acquirer's industry over 5 years prior to the announcement date. The industry is defined by 3-digit SIC code. Share price data for the bidding firms is obtained from CRSP while accounting data is downloaded from Computstat. Two-sample Wilcoxon rank-sum test is used to test the significance of differences in means and equality of medians for each variable sorted by the type of financial advisors.

	Full Sample (1)			Acq-industry Specialists (2)			Non-industry Specialists (3)			Difference (2) – (3)	
	Mean	Median	N	Mean	Median	N	Mean	Median	N	p-value Mean	p-value Median
Panel A: Dependent Variables											
CAR(-1, +1)	0.003	0.000	8267	-0.001	-0.003	4201	0.007	0.002	3608	0.000	0.000
CAR(-2, +2)	0.005	-0.001	8267	-0.001	-0.005	4201	0.010	0.002	3608	0.000	0.000
Dollar Gain (in $mil)	-58.384	-0.105	8267	-82.774	-0.917	4201	-36.136	0.634	3608	0.080	0.000
Advisory Fees	3.618	1.250	1886	4.130	1.435	906	3.603	1.500	829	0.098	0.507
Scaled Fees	0.009	0.005	1886	0.009	0.005	906	0.008	0.006	829	0.599	0.000
Completion Rate	0.928	1.000	12853	0.927	1.000	6203	0.930	1.000	5748	0.580	0.580
Time to Complete (in units of 100 days)	1.009	0.790	11922	1.065	0.860	5753	0.949	0.730	5346	0.000	0.000
Panel B: Deal Characteristics											
Deal Value (in $mil)	683.982	135.000	12853	804.916	150.425	6203	641.305	143.000	5748	0.007	0.096
Relative Size	0.451	0.192	9132	0.388	0.175	4620	0.479	0.211	3999	0.000	0.000
Public Targets	0.365	-	12853	0.382	-	6203	0.352	-	5748	0.001	-
Private Targets	0.304	-	12853	0.311	-	6203	0.287	-	5748	0.003	-
Subsidiary Targets	0.323	-	12853	0.298	-	6203	0.353	-	5748	0.000	-
Foreign Targets	0.142	-	12853	0.115	-	6203	0.153	-	5748	0.000	-
Relatedness	0.601	-	12853	0.640	-	6203	0.563	-	5748	0.000	-
Tender Offer	0.092	-	12853	0.082	-	6203	0.104	-	5748	0.000	-
Hostile Deal	0.018	-	12853	0.018	-	6203	0.019	-	5748	0.521	-

All-Cash	0.276	-	12853	0.258	-	6203	0.301	-	5748	0.000	-
All-Stock	0.211	-	12853	0.238	-	6203	0.182	-	5748	0.000	-
Mixed Deals	0.513	-	12853	0.504	-	6203	0.517	-	5748	0.163	-
Percentage of Stock	0.303	-	12853	0.340	-	6203	0.266	-	5748	0.000	-
Multiple Bidders	0.040	-	12843	0.041	-	6201	0.042	-	5742	0.708	-
Acq. Ind. M&A	18.588	0.113	12199	22.979	0.110	6016	11.340	0.115	5342	0.333	0.000
Targ. Ind. M&A	10.035	0.116	12180	5.846	0.110	5967	16.023	0.124	5362	0.264	0.000
Panel C: Bidder Characteristics											
Bidder Size (in $mil)	6860.313	786.995	9151	6847.483	922.887	4624	7530.428	769.193	4007	0.225	0.000
Tobin's Q	2.436	1.534	7841	2.513	1.511	3993	2.383	1.567	3428	0.157	0.039
Run-up	0.078	0.015	9202	0.087	0.026	4649	0.069	0.004	4026	0.089	0.001
Free Cash Flow	0.052	0.085	7813	0.048	0.080	3916	0.059	0.092	3470	0.016	0.000
Leverage	0.147	0.104	7828	0.148	0.106	3987	0.148	0.104	3425	0.915	0.457
Sigma	0.028	0.023	9203	0.028	0.023	4649	0.028	0.024	4027	0.657	0.052
Premium Offered	45.297	35.935	3892	42.618	35.330	1976	47.750	36.260	1689	0.019	0.385

Table 3 Continued

	Targ-industry focused specialist (4)			**Non-industry specialist (5)**			**Difference (4)-(5)**	
	Mean	**Median**	**N**	**Mean**	**Median**	**N**	**p-value Mean**	**p-value Median**
Panel D: Dependent Variables								
CAR(-1, +1)	-0.001	-0.003	3816	0.007	0.001	3989	0.000	0.000
CAR(-2, +2)	0.000	-0.005	3816	0.009	0.001	3989	0.001	0.000
Dollar Gain (in $mil)	-89.333	-0.729	3816	-35.144	0.412	3989	0.042	0.002
Advisory Fees (in $mil)	4.173	1.500	813	3.598	1.430	925	0.071	0.385
Fees scaled by Deal Value	0.006	0.005	813	0.010	0.006	925	0.042	0.000
Completion Rate	0.931	1.000	5604	0.927	1.000	6327	0.486	0.486
Time to Complete	1.076	0.880	5215	0.953	0.720	5867	0.000	0.000
Panel E: Deal Characteristics								
Deal Value (in $mil)	845.101	155.000	5604	619.934	140.275	6327	0.000	0.000
Relative Size	0.420	0.187	4196	0.441	0.193	4414	0.333	0.199

Public Targets	0.386	-	5604	0.350	-	6327	0.000	-
Private Targets	0.313	-	5604	0.287	-	6327	0.002	-
Subsidiary Targets	0.294	-	5604	0.354	-	6327	0.000	-
Foreign Targets	0.115	-	5604	0.149	-	6327	0.000	-
Relatedness	0.685	-	5604	0.531	-	6327	0.000	-
Tender Offer	0.074	-	5604	0.107	-	6327	0.000	-
Hostile Deal	0.015	-	5604	0.022	-	6327	0.006	-
All-Cash	0.256	-	5604	0.298	-	6327	0.000	-
All-Stock	0.246	-	5604	0.181	-	6327	0.000	-
Mixed Deals	0.499	-	5604	0.521	-	6327	0.018	-
Percentage of Stock	0.351	0.000	5604	0.264	0.000	6327	0.000	0.000
Multiple Bidders	0.036	-	5602	0.046	-	6321	0.006	0.006
Acq. Ind. M&A	20.558	0.104	5387	14.824	0.116	5949	0.634	0.000
Targ. Ind. M&A	10.352	0.110	5515	10.965	0.130	5797	0.946	0.000
Panel F: Bidder Characteristics								
Bidder Size (in $mil)	7582.054	926.639	4198	6731.531	784.228	4424	0.130	0.000
Tobin's Q	2.577	1.524	3623	2.337	1.555	3787	0.009	0.552
Run-up	0.084	0.018	4221	0.073	0.012	4445	0.288	0.424
Free Cash Flow	0.047	0.076	3579	0.058	0.093	3800	0.021	0.000
Leverage	0.144	0.099	3618	0.151	0.110	3783	0.080	0.009
Sigma	0.029	0.023	4221	0.028	0.023	4446	0.025	0.265
Premium	43.235	34.900	1821	46.723	36.580	1835	0.110	0.156

Table 4
OLS Regression Results for Bidder CARs in the Full Sample– Continuous Measure of Industry Specialization

This table illustrates the results from the OLS (ordinary least squares) regression of the bidder CARs on advisor industry specialization and on other advisor-, deal- and bidder- characteristics. Advisor industry specialization is continuously measured using the ARCA method and based on the number of deals advised by a bank in either the acquirer's industry (acquirer-industry focus) or the target firm's industry (target-industry focus) 5 years prior to the announcement date. Industry is classified by 3 digit SIC code. In all the Models, the dependent variables are the cumulative abnormal return (CAR) on the bidder's stock over the event window (-1, +1). CARs are measured using market model with a benchmark of the CRSP value weighted index and parameters estimated over a period from 300 days to 91 days prior to the announcement date. The description for each variable is shown in Appendix A. While the coefficients are suppressed, year fixed effects are controlled for in all regressions. The t-statistics in parentheses are generated using Huber White sandwich robust standard errors adjusted for bidder clustering. N denotes number of observations. ***, ** and * denote significance at the 1%, 5% and 10% level, respectively.

Full sample	**Acquirer-industry Focus**			**Target-industry Focus**		
	(1)	(2)	(3)	(4)	(5)	(6)
Acq. Adv.'s Specialization Level in Acq. Industry	-0.015***	-0.012	-0.014**			
	(-2.920)	(-1.630)	(-2.040)			
Acq. Adv.'s Specialization Level in Targ. Industry				-0.014**	-0.006	-0.010
				(-2.500)	(-0.820)	(-1.420)
Target Adv.'s Specialization Level in Acq. Industry		-0.014**			-0.016***	
		(-2.260)			(-2.690)	
Target Adv.'s Specialization Level in Targ. Industry			-0.008			-0.009
			(-1.330)			(-1.480)
Ln(Bidder Size)	-0.003***	-0.004***	-0.003***	-0.003***	-0.003***	-0.003***
	(-4.750)	(-4.200)	(-3.970)	(-4.510)	(-4.060)	(-3.830)
Tobin's Q	-0.001*	-0.001	-0.001*	-0.001*	-0.001	-0.001*
	(-1.690)	(-1.630)	(-1.700)	(-1.710)	(-1.600)	(-1.670)
Run-up	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005
	(-1.490)	(-1.170)	(-1.040)	(-1.460)	(-1.200)	(-1.090)
Free Cash Flow	-0.026**	0.000	-0.001	-0.026**	0.000	-0.001
	(-2.420)	(0.020)	(-0.100)	(-2.420)	(0.030)	(-0.100)
Leverage	0.020**	0.023**	0.023**	0.019**	0.022**	0.022**
	(2.210)	(2.190)	(2.170)	(2.140)	(2.150)	(2.160)
Sigma	0.237*	0.054	0.046	0.251**	0.062	0.054
	(1.880)	(0.330)	(0.280)	(2.040)	(0.380)	(0.330)

Pub. Targ. * All-Cash	-0.012***	-0.010**	-0.010**	-0.012***	-0.011***	-0.011***
	(-2.700)	(-2.470)	(-2.520)	(-2.920)	(-2.660)	(-2.730)
Pub. Targ. * Pmt. incl. Stock	-0.045***	-0.043***	-0.043***	-0.045***	-0.044***	-0.044***
	(-16.560)	(-13.280)	(-13.320)	(-16.650)	(-13.410)	(-13.480)
Priv. Targ. * All-Cash	0.001	0.012	0.013	0.001	0.012	0.013
	(0.160)	(1.200)	(1.250)	(0.190)	(1.200)	(1.240)
Priv. Targ. * Pmt. incl. Stock	-0.001	-0.003	-0.003	-0.002	-0.003	-0.003
	(-0.390)	(-0.610)	(-0.530)	(-0.480)	(-0.630)	(-0.540)
Sub. Targ. * All-Cash	0.005	0.003	0.003	0.004	0.003	0.003
	(1.300)	(0.820)	(0.780)	(1.250)	(0.770)	(0.730)
Relative Size	0.004***	0.002	0.003	0.004***	0.003	0.003
	(2.580)	(1.090)	(1.140)	(2.660)	(1.150)	(1.190)
Relatedness	0.002	0.001	0.001	0.003	0.001	0.001
	(1.000)	(0.390)	(0.470)	(1.160)	(0.400)	(0.500)
Tender Offer	0.010	0.007	0.007	0.010	0.007	0.007
	(1.480)	(1.190)	(1.150)	(1.580)	(1.250)	(1.230)
Hostile * All-Cash	-0.022*	-0.019	-0.019	-0.022*	-0.019	-0.019
	(-1.840)	(-1.590)	(-1.550)	(-1.830)	(-1.560)	(-1.520)
Hostile * Pmt. incl. Stock	-0.010	-0.007	-0.007	-0.011	-0.007	-0.007
	(-0.750)	(-0.460)	(-0.460)	(-0.750)	(-0.450)	(-0.450)
Foreign Targ.	-0.004	-0.006	-0.006*	-0.004	-0.006	-0.006*
	(-1.280)	(-1.570)	(-1.670)	(-1.330)	(-1.600)	(-1.690)
Multiple Bidders	0.005	0.004	0.005	0.005	0.004	0.005
	(0.490)	(0.530)	(0.620)	(0.470)	(0.510)	(0.600)
Acq. Industry M&A	0.000***	0.000	0.000	0.000***	0.000	0.000
	(11.360)	(0.080)	(-0.060)	(11.430)	(0.090)	(-0.010)
Targ. Industry M&A	0.000	0.000	0.000	0.000	0.000	0.000
	(-1.190)	(0.190)	(0.320)	(-1.150)	(0.170)	(0.270)
Intercept	0.066***	0.068***	0.063***	0.062***	0.066***	0.061***
	(4.020)	(3.410)	(3.200)	(3.780)	(3.310)	(3.090)
N	6246	4230	4233	6238	4226	4231
Adjusted R-squared	0.100	0.108	0.107	0.099	0.108	0.107

Table 5
OLS Results for Bidder CARs in the Full Sample – Binary Classification of Industry Specialization

This table describes the results from OLS regression of the bidder CARs on industry specialist bidder advisor and other advisor-, deal- and bidder- characteristics using the full sample of M&A deals announced from 1985 to 2010. Industry specialist is a dummy variable generated using the ARCA method and based on the number of deals advised by a bank in either the acquiring firm's (acquirer-industry focus) or the target firm's industry (target-industry focus) classified by 3 digit SIC code 5 years prior to the announcement date. The cut-off used to designate bidder advisors as industry specialists is zero. In all Models, the dependent variables are the cumulative abnormal return (CAR) on the bidder's stock over the event window (-1, +1). CARs are measured using market model with a benchmark of the CRSP value weighted index and parameters estimated over a period from 300 days to 91 days prior to the announcement date. The description for each variable is shown in Appendix A. While the coefficients are suppressed, year fixed effects are controlled for in all regressions. The t-statistics in parentheses are generated using Huber White sandwich robust standard errors adjusted for bidder clustering. N denotes number of observations. ***, ** and * denote significance at the 1%, 5% and 10% level, respectively.

Full sample	**Acquirer-industry Focus**			**Target-industry Focus**			**Acq. & Targ.-industry Focus**		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Acq. Adv. Specialist in Acq. Industry	-0.004*	-0.003	-0.003						
	(-1.930)	(-1.140)	(-1.190)						
Acq. Adv. Specialist in Targ. Industry				-0.004**	-0.005**	-0.005*			
				(-1.980)	(-1.990)	(-1.940)			
Acq. Adv. Specialist in both Acq. & Targ. Industry							-0.006***	-0.005*	-0.005**
							(-2.780)	(-1.950)	(-1.980)
Targ. Adv. Specialist in Acq. Industry		-0.009***			-0.008***			-0.009***	
		(-3.570)			(-3.490)			(-3.460)	
Targ. Adv. Specialist in Targ. Industry			-0.007**			-0.006**			-0.006**
			(-2.530)			(-2.320)			(-2.320)
Ln(Bidder Size)	-0.003***	-0.003***	-0.003***	-0.003***	-0.003***	-0.003***	-0.003***	-0.003***	-0.003***
	(-4.280)	(-3.620)	(-3.420)	(-4.220)	(-3.650)	(-3.450)	(-4.280)	(-3.630)	(-3.440)
Tobin's Q	-0.001	-0.001	-0.001	-0.001*	-0.001	-0.001	-0.001	-0.001	-0.001
	(-1.640)	(-1.600)	(-1.640)	(-1.670)	(-1.560)	(-1.600)	(-1.630)	(-1.550)	(-1.580)
Run-up	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005
	(-1.550)	(-1.200)	(-1.080)	(-1.500)	(-1.220)	(-1.110)	(-1.490)	(-1.210)	(-1.090)
Free Cash Flow	-0.026**	0.001	-0.001	-0.026**	0.001	-0.001	-0.026**	0.001	-0.001
	(-2.370)	(0.110)	(-0.060)	(-2.360)	(0.120)	(-0.060)	(-2.360)	(0.110)	(-0.060)
Leverage	0.022**	0.025**	0.025**	0.020**	0.024**	0.024**	0.021**	0.025**	0.025**

	(2.470)	(2.470)	(2.420)	(2.290)	(2.380)	(2.330)	(2.380)	(2.450)	(2.400)
Sigma	0.263**	0.094	0.079	0.271**	0.092	0.078	0.265**	0.092	0.077
	(2.100)	(0.580)	(0.490)	(2.230)	(0.570)	(0.480)	(2.120)	(0.570)	(0.480)
Pub. Targ. * All-Cash	-0.012***	-0.010**	-0.010***	-0.012***	-0.010***	-0.011***	-0.012***	-0.010**	-0.011***
	(-2.770)	(-2.500)	(-2.580)	(-2.940)	(-2.600)	(-2.690)	(-2.870)	(-2.550)	(-2.630)
Pub. Targ. * Pmt. incl. Stock	-0.045***	-0.043***	-0.044***	-0.045***	-0.044***	-0.044***	-0.045***	-0.043***	-0.044***
	(-16.630)	(-13.530)	(-13.520)	(-16.800)	(-13.640)	(-13.650)	(-16.620)	(-13.520)	(-13.530)
Priv. Targ. * All-Cash	0.001	0.012	0.013	0.001	0.012	0.013	0.001	0.012	0.013
	(0.160)	(1.240)	(1.260)	(0.190)	(1.240)	(1.260)	(0.190)	(1.250)	(1.270)
Priv. Targ. * Pmt. incl. Stock	-0.002	-0.004	-0.004	-0.002	-0.004	-0.003	-0.002	-0.004	-0.003
	(-0.500)	(-0.770)	(-0.700)	(-0.550)	(-0.710)	(-0.620)	(-0.490)	(-0.730)	(-0.660)
Sub. Targ. * All-Cash	0.005	0.004	0.003	0.004	0.003	0.003	0.004	0.004	0.003
	(1.330)	(0.870)	(0.740)	(1.250)	(0.770)	(0.640)	(1.270)	(0.830)	(0.690)
Relative Size	0.004***	0.003	0.003	0.004***	0.003	0.003	0.004***	0.003	0.003
	(2.630)	(1.250)	(1.290)	(2.760)	(1.300)	(1.340)	(2.650)	(1.260)	(1.290)
Relatedness	0.002	0.001	0.002	0.003	0.002	0.002	0.003	0.002	0.002
	(0.870)	(0.460)	(0.530)	(1.130)	(0.690)	(0.750)	(1.340)	(0.760)	(0.820)
Tender Offer	0.010	0.006	0.007	0.010	0.007	0.007	0.010	0.006	0.007
	(1.510)	(1.160)	(1.160)	(1.560)	(1.190)	(1.190)	(1.530)	(1.170)	(1.160)
Hostile * All-Cash	-0.022*	-0.018	-0.018	-0.022*	-0.018	-0.018	-0.022*	-0.018	-0.018
	(-1.830)	(-1.490)	(-1.500)	(-1.810)	(-1.460)	(-1.470)	(-1.800)	(-1.470)	(-1.480)
Hostile * Pmt. incl. Stock	-0.010	-0.006	-0.007	-0.010	-0.006	-0.007	-0.010	-0.006	-0.007
	(-0.710)	(-0.430)	(-0.510)	(-0.740)	(-0.440)	(-0.510)	(-0.730)	(-0.440)	(-0.510)
Foreign Targ.	-0.004	-0.007*	-0.007*	-0.004	-0.007*	-0.007*	-0.004	-0.007*	-0.007*
	(-1.310)	(-1.880)	(-1.870)	(-1.350)	(-1.920)	(-1.920)	(-1.300)	(-1.910)	(-1.890)
Multiple Bidders	0.005	0.005	0.006	0.005	0.005	0.006	0.005	0.005	0.006
	(0.510)	(0.580)	(0.720)	(0.500)	(0.550)	(0.700)	(0.500)	(0.560)	(0.700)
Acq. Industry M&A	0.000***	0.000	0.000	0.000***	0.000	0.000	0.000***	0.000	0.000
	(11.300)	(-0.120)	(-0.040)	(12.010)	(-0.010)	(0.070)	(11.490)	(-0.070)	(0.010)
Targ. Industry M&A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	(-1.210)	(0.360)	(0.290)	(-1.280)	(0.260)	(0.180)	(-1.340)	(0.320)	(0.250)
Intercept	0.058***	0.057***	0.053***	0.057***	0.058***	0.054***	0.057***	0.056***	0.053***

	(3.670)	(2.990)	(2.830)	(3.530)	(3.040)	(2.870)	(3.570)	(2.980)	(2.820)
N	6246	4230	4233	6238	4226	4231	6216	4217	4221
Adjusted R-squared	0.099	0.110	0.107	0.099	0.111	0.108	0.100	0.110	0.108

Table 6
OLS Results for Bidder CARs in the Subsamples – Continuous Measure of Industry Specialization

This table presents the results from the OLS (ordinary least squares) regression of the bidder CARs on the level of advisor industry specialization and on other advisor-, deal- and bidder- characteristics for the subsamples consisting of public, private, subsidiary acquisitions announced from 1985 to 2010. Advisor industry specialization is continuously measured using the ARCA method and based on the number of deals advised by a bank in either the acquirer's industry (acquirer-industry focus) or the target firm's industry (target-industry focus) 5 years prior to the announcement date. Industry is classified by 3 digit SIC code. In all the Models, the dependent variables are the cumulative abnormal return (CAR) on the bidder's stock over the event window (-1, +1). CARs are measured using market model with a benchmark of the CRSP value weighted index and parameters estimated over a period from 300 days to 91 days prior to the announcement date. The description for each variable is shown in Appendix A. While the coefficients are suppressed, year fixed effects are controlled for in all regressions. The t-statistics in parentheses are generated using Huber White sandwich robust standard errors adjusted for bidder clustering. N denotes number of observations. ***, ** and * denote significance at the 1%, 5% and 10% level, respectively.

	Public		**Private**		**Subsidiary**	
	Acquirer-industry Focus (1)	Target-industry Focus (2)	Acquirer-industry Focus (3)	Target-industry Focus (4)	Acquirer-industry Focus (5)	Target-industry Focus (6)
Acq. Adv.'s Specialization Level in Acq. Industry	-0.012		-0.019**		-0.021	
	(-1.510)		(-2.190)		(-1.570)	
Acq. Adv.'s Specialization Level in Targ. Industry		-0.001		-0.021**		-0.033**
		(-0.110)		(-2.040)		(-2.130)
Top 8	0.003	0.004	-0.001	-0.001	0.003	0.003
	(0.740)	(1.170)	(-0.320)	(-0.290)	(0.820)	(0.730)
Ln(Bidder Size)	-0.002**	-0.002*	-0.003*	-0.003*	-0.005***	-0.005***
	(-2.000)	(-1.730)	(-1.930)	(-1.760)	(-3.830)	(-3.960)
Tobin's Q	-0.001	-0.001	-0.001	-0.001	-0.003*	-0.003*
	(-1.100)	(-1.070)	(-0.690)	(-0.790)	(-1.790)	(-1.660)
Run-up	-0.010**	-0.011**	0.001	0.001	-0.012	-0.012
	(-2.120)	(-2.180)	(0.160)	(0.240)	(-1.190)	(-1.150)
Free Cash Flow	-0.040***	-0.040***	-0.018	-0.017	0.005	0.005
	(-2.740)	(-2.680)	(-1.100)	(-1.040)	(0.190)	(0.170)
Leverage	0.018	0.020	0.004	0.000	0.004	0.004
	(1.300)	(1.460)	(0.240)	(0.020)	(0.250)	(0.250)
Sigma	-0.184	-0.148	0.150	0.209	0.656***	0.589***

	(-0.860)	(-0.690)	(0.700)	(0.990)	(2.860)	(2.620)
Pmt. incl. Stock	-0.030***	-0.030***	0.001	0.000	0.009	0.009
	(-8.390)	(-8.320)	(0.300)	(0.110)	(1.460)	(1.480)
Relative Size	0.001	0.001	0.011	0.011	0.005***	0.006***
	(0.210)	(0.230)	(1.240)	(1.240)	(3.860)	(4.110)
Relatedness	0.002	0.002	0.006	0.007	0.003	0.004
	(0.590)	(0.470)	(1.370)	(1.550)	(0.860)	(1.020)
Tender Offer	0.010**	0.010**	0.067*	0.068*		
	(2.390)	(2.500)	(1.790)	(1.810)		
Hostile * All-Cash	-0.013	-0.014				
	(-1.140)	(-1.160)				
Hostile * Pmt. incl. Stock	-0.004	-0.004			0.012	0.013
	(-0.360)	(-0.350)			(0.770)	(0.800)
Foreign Targ.	-0.001	-0.001	-0.010*	-0.010*	-0.001	-0.002
	(-0.250)	(-0.190)	(-1.710)	(-1.810)	(-0.260)	(-0.310)
Multiple Bidders	-0.010*	-0.009*	0.066***	0.067***	0.001	0.001
	(-1.820)	(-1.770)	(2.600)	(2.650)	(0.080)	(0.070)
Acq. Industry M&A	0.000	0.000	0.000	0.000	0.000	0.000
	(-0.330)	(-0.340)	(0.300)	(0.270)	(0.090)	(-0.100)
Targ. Industry M&A	0.000	0.000	0.000	0.000	0.000	0.000
	(0.390)	(0.410)	(-0.510)	(-0.480)	(0.500)	(0.650)
Premium Offered	0.000***	0.000***				
	(-3.110)	(-3.080)				
Intercept	0.043*	0.030	0.062	0.055	0.089***	0.095***
	(1.680)	(1.080)	(1.530)	(1.310)	(2.970)	(3.160)
N	2255	2252	1916	1912	1648	1648
Adjusted R-squared	0.081	0.080	0.091	0.092	0.073	0.071

Table 7

Heckman Two-stage Procedure for Bidder CARs in the Full Sample – Continuous Measure of Industry Specialization

This table reports the estimation results of the Heckman two-stage procedure for the bidder CARs using the full sample of M&A deals announced from 1985 to 2010. For each model, the first column shows the probit regression results of the first-stage selection equation, where the dependent variable is a dummy variable equal to 1 if an industry specialist advisor is retained by the bidder, and 0 otherwise. The cut-off used to designate bidder advisor as industry specialist is zero based on the advisor's ARCA value. The results for the second-stage equation are shown in the second column for each model, where the dependent variable here is the bidder CARs. The 'Scope' variable serves as a proxy for prior bidder-advisor relationship, which is constructed using the data on M&A, bond and equity issuances over the 1980-2010 period. It takes the value of 0 if the bidding firm has never hired the M&A advisor in any of the following three services: M&A, bond or equity issue; the value of 1 if the M&A advisor has rendered the bidding firm one of the three services; the value of 2 if the bidding firm has employed the M&A advisor in two of the three services; and the value of 3 if the M&A advisor has been used for all of the three services during the 5-year period prior to the announcement date. The variable 'Inverse Mills Ratio' estimated from the first-stage equation is used as an additional regressor in the second-stage equation in order to adjust for self-selection bias. Other variables are defined in Appendix A. The t-statistics are in parentheses and ***, ** and * denote significance at the 1%, 5% and 10% level, respectively. N denotes the number of observations.

Full sample	**Acquirer-industry Focus**						**Target-industry Focus**					
	(1)		(2)		(3)		(4)		(5)		(6)	
	Selection	**Outcome**	**Selection**	**Outcome**	**Selection**	**Outcome**	**Selection**	**Outcome**	**Selection**	**Outcome**	**Selection**	**Outcome**
AcqAdv.'s Spec. in AcqInd.		-0.014**		-0.012		-0.012						
		(-2.410)		(-1.450)		(-1.590)						
AcqAdv.'s Spec. in TargInd.								-0.015**		-0.005		-0.009
								(-2.230)		(-0.610)		(-1.040)
TargAdv.'s Spec. in AcqInd.			0.886***	0.010					0.632***	0.004		
			(7.820)	(1.060)					(5.750)	(0.370)		
TargAdv.'s Spec. in TargInd.					0.873***	0.011					0.792***	0.009
					(7.920)	(1.240)					(7.390)	(0.890)
Ln(Bidder Size)	-0.009	-0.003***	0.005	-0.002*	0.005	-0.002*	0.006	-0.003***	0.009	-0.002*	0.016	-0.002*
	(-0.870)	(-2.800)	(0.370)	(-1.810)	(0.380)	(-1.800)	(0.610)	(-2.980)	(0.670)	(-1.890)	(1.190)	(-1.720)
Tobin's Q	-0.015**	-0.002***	-0.007	-0.001	-0.007	-0.001	-0.008	-0.001	0.002	0.000	0.001	0.000

	(-2.350)	(-2.680)	(-0.910)	(-1.050)	(-0.990)	(-1.140)	(-1.450)	(-1.390)	(0.220)	(-0.600)	(0.160)	(-0.610)
Run-up	0.033	-0.003	0.010	-0.001	0.019	0.000	0.023	-0.007**	-0.003	-0.004	-0.001	-0.004
	(0.880)	(-1.070)	(0.190)	(-0.200)	(0.370)	(-0.020)	(0.630)	(-2.280)	(-0.060)	(-1.080)	(-0.020)	(-1.080)
Free Cash Flow	-0.110	-0.039***	0.181	0.005	0.144	0.003	0.012	-0.043***	0.295*	0.021	0.286*	0.021
	(-1.120)	(-4.260)	(1.140)	(0.340)	(0.910)	(0.180)	(0.120)	(-4.500)	(1.910)	(1.350)	(1.850)	(1.360)
Leverage	-0.155	0.025**	0.078	0.031**	0.073	0.031**	-0.075	0.011	0.099	0.021*	0.117	0.021*
	(-1.280)	(2.470)	(0.510)	(2.540)	(0.480)	(2.540)	(-0.630)	(1.050)	(0.650)	(1.670)	(0.770)	(1.710)
Sigma	-4.115***	0.239**	-3.243*	-0.113	-3.289*	-0.118	-2.294*	0.145	-2.021	-0.126	-2.036	-0.122
	(-2.910)	(1.980)	(-1.710)	(-0.740)	(-1.740)	(-0.770)	(-1.700)	(1.200)	(-1.080)	(-0.810)	(-1.090)	(-0.790)
Pub. Targ. * All-Cash	0.043	-0.011**	0.072	-0.009	0.070	-0.009	0.127**	-0.006	0.167**	-0.006	0.148**	-0.006
	(0.700)	(-1.970)	(1.040)	(-1.430)	(1.010)	(-1.470)	(2.080)	(-1.080)	(2.390)	(-0.870)	(2.110)	(-0.990)
Pub. Targ. * Pmt. incl. Stock	0.212***	-0.040***	0.194***	-0.039***	0.200***	-0.040***	0.187***	-0.041***	0.180***	-0.039***	0.167***	-0.040***
	(4.770)	(-10.710)	(3.600)	(-8.770)	(3.720)	(-8.840)	(4.250)	(-10.000)	(3.360)	(-8.170)	(3.120)	(-8.340)
Priv. Targ. * All-Cash	0.087	0.011**	0.158*	0.021***	0.164*	0.022***	0.112	-0.005	0.098	-0.004	0.096	-0.004
	(1.250)	(1.980)	(1.650)	(2.790)	(1.700)	(2.830)	(1.630)	(-0.770)	(1.020)	(-0.520)	(1.000)	(-0.540)
Priv. Targ. * Pmt. incl. Stock	0.206***	0.004	0.194***	0.000	0.175**	0.000	0.229***	-0.002	0.219***	-0.003	0.217***	-0.003
	(3.910)	(0.840)	(2.570)	(0.020)	(2.320)	(0.020)	(4.380)	(-0.370)	(2.920)	(-0.430)	(2.890)	(-0.430)
Sub. Targ. * All-Cash	-0.070	0.005	-0.050	0.002	-0.050	0.002	-0.123**	-0.002	-0.146**	-0.003	-0.156**	-0.004
	(-1.170)	(0.990)	(-0.680)	(0.250)	(-0.670)	(0.360)	(-2.060)	(-0.340)	(-1.980)	(-0.510)	(-2.110)	(-0.550)
Relative Size	-0.061***	0.002	-0.022	0.003	-0.022	0.003	0.013	0.004***	0.011	0.002	0.015	0.002
	(-2.770)	(1.130)	(-0.910)	(1.200)	(-0.920)	(1.210)	(0.840)	(2.890)	(0.460)	(1.020)	(0.620)	(0.980)
Relatedness	0.255***	0.005	0.193***	0.002	0.203***	0.003	0.426***	0.006	0.406***	0.003	0.400***	0.004

	(7.390)	(1.630)	(4.470)	(0.540)	(4.720)	(0.680)	(12.380)	(1.210)	(9.400)	(0.590)	(9.300)	(0.720)
Tender Offer		0.012**		0.007		0.007		-0.001		-0.003		-0.004
		(2.110)		(1.180)		(1.230)		(-0.130)		(-0.470)		(-0.610)
Hostile * All-Cash	0.140	-0.028	0.062	-0.029*	0.062	-0.029*	0.106	-0.018	0.092	-0.017	0.097	-0.016
	(0.680)	(-1.620)	(0.290)	(-1.680)	(0.290)	(-1.680)	(0.510)	(-1.010)	(0.440)	(-0.950)	(0.460)	(-0.890)
Hostile * Pmt. incl. Stock	0.052	0.001	-0.063	0.007	-0.055	0.006	-0.200	0.006	-0.149	0.008	-0.143	0.008
	(0.240)	(0.060)	(-0.280)	(0.370)	(-0.240)	(0.360)	(-0.930)	(0.280)	(-0.660)	(0.400)	(-0.630)	(0.410)
Foreign Targ.	-0.229***	-0.009**	-0.229***	-0.011*	-0.224***	-0.010*	-0.172***	-0.003	-0.165***	-0.003	-0.144**	-0.003
	(-4.670)	(-2.060)	(-3.560)	(-1.860)	(-3.470)	(-1.830)	(-3.530)	(-0.610)	(-2.570)	(-0.460)	(-2.240)	(-0.580)
Multiple Bidders	0.052	0.005	0.045	0.004	0.005	0.004	-0.096	-0.016**	-0.113	-0.016**	-0.123	-0.016**
	(0.630)	(0.780)	(0.510)	(0.610)	(0.060)	(0.600)	(-1.160)	(-2.090)	(-1.280)	(-2.080)	(-1.400)	(-2.030)
Acq. Industry M&A	0.000	0.000	-0.001	0.000	-0.001	0.000	0.001	0.000	0.001	0.000	0.001	0.000
	(0.050)	(0.930)	(-0.630)	(-0.090)	(-0.870)	(-0.150)	(1.040)	(-0.520)	(0.870)	(-0.230)	(0.620)	(-0.250)
Targ. Industry M&A	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	0.000	-0.001	0.000	0.000	0.000
	(-0.440)	(1.060)	(0.250)	(0.550)	(0.440)	(0.600)	(-0.930)	(0.620)	(-0.760)	(0.310)	(-0.520)	(0.330)
Scope	0.529***		0.457***		0.460***		0.286***		0.281***		0.282***	
	(17.370)		(12.720)		(12.760)		(10.220)		(8.250)		(8.270)	
Invers Mills Ratio		0.013*		0.019*		0.020**		0.014		0.014		0.015
		(1.780)		(1.950)		(2.000)		(1.140)		(0.930)		(0.960)
Intercept	-0.340	0.032	-0.830**	0.011	-0.824**	0.010	-0.718***	0.052*	-1.001***	0.034	-1.142***	0.030
	(-1.200)	(1.260)	(-2.360)	(0.330)	(-2.350)	(0.320)	(-2.600)	(1.730)	(-2.880)	(0.900)	(-3.280)	(0.780)
N	6426	6426	4333	4333	4337	4337	6429	6429	4331	4331	4337	4337

Table 8
Heckman Two-stage Procedure for Bidder CARs in the Subsamples – Continuous Measure of Industry Specialization

This table provides the estimation results of the Heckman two-stage procedure for the bidder CARs using the subsamples consisting of public, private, subsidiary acquisitions announced from 1985 to 2010. In the respective subsamples, the first column for each model presents the probit regression results of the first-stage selection equation, where the dependent variable is a dummy variable equal to 1 if an industry specialist advisor is retained by the bidder and 0 otherwise. The cut-off used to designate bidder advisor as industry specialist is zero based on the advisor's ARCA value. The results of the second-stage equation are shown in the second column, where the dependent variable here is the bidder CARs. The Scope variable serves as a proxy for prior bidder-advisor relationship, which is constructed using the data on M&A, bond and equity issuance over the 1980-2010 period. It takes the value of 0 if the bidding firm has never hired the M&A advisor in any of the following three services: M&A, bond or equity issue; the value of 1 if the M&A advisor has rendered the bidding firm one of the three services; the value of 2 if the bidding firm has employed the M&A advisor in two of the three services; and the value of 3 if the M&A advisor has been used for all of the three services during the 5-year period prior to the announcement date. The variable Inverse Mills Ratio estimated from the first-stage equation is used as an additional regressor in the second-stage equation in order to adjust for self-selection bias. Other variables are defined in Appendix A. The t-statistics are in parentheses and ***, ** and * denote significance at the 1%, 5% and 10% level, respectively. N denotes the number of observations.

	Public				**Private**				**Subsidiary**			
	Acquirer-industry Focus		Target-industry Focus		Acquirer-industry Focus		Target-industry Focus		Acquirer-industry Focus		Target-industry Focus	
	(1)		(2)		(3)		(4)		(5)		(6)	
	Selection	**Outcome**	**Selection**	**Outcome**	**Selection**	**Outcome**	**Selection**	**Outcome**	**Selection**	**Outcome**	**Selection**	**Outcome**
AcqAdv.'s Spec. in AcqInd.		-0.002				-0.014				-0.003		
		(-0.230)				(-1.350)				(-0.180)		
AcqAdv.'s Spec. in TargInd.				0.005				-0.011				-0.033*
				(0.480)				(-0.960)				(-1.670)
Top 8		0.012**		0.011**		-0.002		-0.007		0.005		0.001
		(2.550)		(2.200)		(-0.260)		(-1.090)		(0.770)		(0.190)
Ln(Bidder Size)	-0.025	-0.002*	-0.012	-0.002	-0.018	0.000	0.024	0.003	0.025	-0.003	0.018	-0.005**
	(-1.450)	(-1.650)	(-0.720)	(-1.560)	(-0.820)	(0.180)	(1.120)	(1.390)	(1.180)	(-1.350)	(0.880)	(-2.420)
Tobin's Q	0.009	-0.001	0.011	0.000	-0.027**	-0.002	-0.021**	-0.002	0.006	-0.002	0.007	0.002

	(0.700)	(-0.650)	(0.920)	(-0.070)	(-2.560)	(-1.580)	(-2.170)	(-1.430)	(0.280)	(-0.940)	(0.330)	(0.790)
Run-up	0.099	-0.002	0.081	-0.007	0.006	0.006	0.006	-0.004	-0.020	-0.031***	-0.054	-0.019**
	(1.520)	(-0.370)	(1.260)	(-1.430)	(0.100)	(1.320)	(0.110)	(-0.810)	(-0.210)	(-3.960)	(-0.550)	(-2.040)
Free Cash Flow	-0.114	-0.048***	0.206	-0.052***	-0.082	-0.038***	0.017	-0.025	-0.169	0.022	-0.235	-0.058**
	(-0.700)	(-3.110)	(1.130)	(-3.060)	(-0.500)	(-2.570)	(0.110)	(-1.570)	(-0.650)	(1.010)	(-0.900)	(-2.380)
Leverage	-0.220	0.015	-0.347*	0.005	-0.255	0.013	-0.315	-0.025	0.165	-0.007	0.579***	0.013
	(-1.070)	(0.930)	(-1.710)	(0.310)	(-1.050)	(0.660)	(-1.320)	(-1.050)	(0.740)	(-0.360)	(2.640)	(0.590)
Sigma	-11.789***	-0.607***	-8.420***	-0.292	-1.053	0.526***	-0.932	0.264	3.480	0.642**	1.128	0.180
	(-4.830)	(-2.910)	(-3.470)	(-1.370)	(-0.440)	(2.600)	(-0.400)	(1.260)	(1.190)	(2.310)	(0.430)	(0.650)
Pmt. incl. Stock	0.187***	-0.028***	0.109*	-0.030***	0.216***	0.000	0.158**	0.002	-0.034	-0.001	0.098	0.009
	(3.080)	(-5.080)	(1.790)	(-5.200)	(3.350)	(-0.010)	(2.510)	(0.250)	(-0.420)	(-0.080)	(1.200)	(1.270)
Relative Size	0.004	-0.001	0.030	0.000	-0.500***	0.039***	-0.159*	0.058***	-0.068*	0.016***	0.016	0.005***
	(0.140)	(-0.600)	(1.110)	(0.170)	(-4.630)	(3.470)	(-1.830)	(5.500)	(-1.710)	(3.960)	(0.690)	(2.960)
Relatedness	0.254***	0.004	0.431***	0.001	0.260***	0.017***	0.441***	0.017	0.232***	0.000	0.340***	0.001
	(4.350)	(0.890)	(7.370)	(0.190)	(4.200)	(3.060)	(7.210)	(1.240)	(3.500)	(-0.080)	(5.130)	(0.070)
Tender Offer		0.006		0.010		0.032		-0.129**				
		(1.040)		(1.440)		(0.950)		(-2.150)				
Hostile * All-Cash	0.247	-0.020	0.117	-0.014								
	(1.150)	(-1.180)	(0.530)	(-0.770)								
Hostile * Pmt. incl. Stock	0.125	0.006	-0.171	0.005								
	(0.560)	(0.350)	(-0.770)	(0.260)								
Foreign Targ.	-0.383***	-0.003	-0.321***	0.005	-0.346***	-0.010	-0.226***	-0.013	-0.191**	-0.012*	-0.186**	-0.003

	(-3.820)	(-0.350)	(-3.220)	(0.520)	(-3.950)	(-1.250)	(-2.610)	(-1.300)	(-2.340)	(-1.710)	(-2.300)	(-0.430)
Multiple Bidders	0.028	-0.016**	0.045	-0.017**	1.043***	0.100***	-0.333	0.010	-0.602	0.016	0.116	0.002
	(0.290)	(-2.140)	(0.470)	(-2.140)	(3.560)	(3.060)	(-1.060)	(0.300)	(-1.200)	(0.290)	(0.260)	(0.040)
Acq. Industry M&A	0.002	-0.001	0.002	-0.002***	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.000
	(0.880)	(-1.600)	(0.640)	(-2.870)	(1.200)	(-0.680)	(0.160)	(-1.340)	(0.610)	(-0.180)	(-0.260)	(-0.220)
Targ. Industry M&A	-0.002	0.001**	-0.001	0.002***	0.001	0.000	-0.002	0.000	0.001	0.000	0.002	0.001
	(-0.940)	(2.410)	(-0.600)	(2.880)	(0.160)	(0.220)	(-0.580)	(0.470)	(0.180)	(-0.100)	(0.620)	(1.120)
Premium Offered		0.000**		0.000**								
		(-2.320)		(-2.190)								
Scope	0.434***		0.335***		0.628***		0.178***		0.559***		0.318***	
	(9.140)		(7.340)		(9.870)		(3.190)		(9.960)		(6.310)	
Inverse Mills Ratio		0.024*		0.006		0.006		0.038		0.004		-0.003
		(1.790)		(0.350)		(0.490)		(0.880)		(0.310)		(-0.160)
Intercept	-7.400***	0.070*	-6.097	0.079**	-0.096	-0.040	-0.716	-0.066	-1.070*	0.043	-0.882*	0.112*
	(-15.240)	(1.950)	-	(2.020)	(-0.160)	(-0.690)	(-1.200)	(-0.820)	(-1.920)	(0.830)	(-1.670)	(1.910)
N	2470	2470	2488	2488	2011	2011	2012	2012	1693	1693	1698	1698

Table 9
OLS Results for Advisory Fee in the Full Sample – Continuous Measure of Industry Specialization

This table shows the results from OLS regression of the advisory fee paid by bidders on the level of industry specialization by bidder advisors and other advisor-, deal- and bidder- characteristics. Advisor industry specialization is continuously measured using the ARCA method and based on the number of deals advised by a bank in either the acquirer's industry (acquirer-industry focus) or the target firm's industry (target-industry focus) 5 years prior to the announcement date. Industry is classified by 3 digit SIC code. In all Models, the dependent variable is the natural logarithm of fees. The description for each variable is shown in Appendix A. All regressions control for year fixed effects whose coefficients are suppressed. The t-statistics in parentheses are generated using Huber White sandwich robust standard errors. N denotes number of observations. ***, ** and * denote significance at the 1%, 5% and 10% level, respectively.

Full sample	**Acquirer-industry Focus**			**Target-industry Focus**		
	(1)	(2)	(3)	(4)	(5)	(6)
Acq. Adv.'s Specialization Level in Acq. Industry	-0.754***	-0.607***	-0.610***			
	(-4.560)	(-3.160)	(-3.310)			
Acq. Adv.'s Specialization Level in Targ. Industry				-0.779***	-0.807***	-0.778***
				(-4.510)	(-4.240)	(-4.060)
Target Adv.'s Specialization Level in Acq. Industry		-0.416**			-0.437***	
		(-2.470)			(-2.760)	
Target Adv.'s Specialization Level in Targ. Industry			-0.479***			-0.436***
			(-3.120)			(-2.870)
Ln(Deal Value)	0.720***	0.706***	0.704***	0.724***	0.701***	0.703***
	(35.460)	(31.210)	(30.900)	(35.670)	(31.500)	(31.400)
Tobin's Q	0.006	0.003	0.002	0.006	0.002	0.002
	(0.920)	(0.420)	(0.340)	(0.930)	(0.400)	(0.350)
Run-up	-0.126*	-0.201***	-0.215***	-0.121*	-0.199***	-0.212***
	(-1.920)	(-3.200)	(-3.460)	(-1.830)	(-3.160)	(-3.400)
Free Cash Flow	0.328**	0.252	0.239	0.304*	0.229	0.223
	(1.980)	(1.400)	(1.340)	(1.720)	(1.220)	(1.190)
Leverage	0.181	-0.171	-0.145	0.201	-0.177	-0.133
	(0.840)	(-0.770)	(-0.650)	(0.970)	(-0.820)	(-0.620)
Sigma	12.594***	13.080***	13.523***	12.615***	12.209***	12.943***
	(5.420)	(4.770)	(4.970)	(5.330)	(4.520)	(4.790)
Pmt. incl. Stock	-0.028	-0.010	0.005	-0.004	0.035	0.042
	(-0.250)	(-0.080)	(0.040)	(-0.030)	(0.290)	(0.350)

Relative Size	-0.091**	-0.028	-0.026	-0.097**	-0.029	-0.028
	(-2.020)	(-0.730)	(-0.700)	(-2.150)	(-0.760)	(-0.740)
Relatedness	-0.076	-0.083	-0.077	-0.072	-0.064	-0.065
	(-1.250)	(-1.310)	(-1.200)	(-1.170)	(-1.010)	(-1.020)
Tender Offer	0.330**	0.303**	0.313**	0.364***	0.345**	0.353**
	(2.540)	(2.100)	(2.170)	(2.900)	(2.460)	(2.510)
Hostile * All-Cash	0.026	0.008	0.014	0.016	0.008	0.009
	(0.140)	(0.040)	(0.070)	(0.090)	(0.040)	(0.050)
Hostile * Pmt. incl. Stock	-0.296	-0.309	-0.319	-0.335	-0.347	-0.352
	(-0.650)	(-0.710)	(-0.730)	(-0.740)	(-0.800)	(-0.820)
Foreign Targ.	0.306	0.322	0.334	0.301	0.320	0.339
	(1.260)	(1.130)	(1.160)	(1.210)	(1.100)	(1.160)
Multiple Bidders	0.092	0.111	0.122	0.099	0.117	0.128
	(0.810)	(1.010)	(1.100)	(0.870)	(1.070)	(1.170)
Acq. Industry M&A	-0.001	0.004	0.004	-0.001	0.004	0.004
	(-0.710)	(0.890)	(0.850)	(-0.990)	(0.830)	(0.820)
Targ. Industry M&A	0.003*	0.001	0.001	0.003*	0.001	0.001
	(1.770)	(0.780)	(0.730)	(1.890)	(0.980)	(0.920)
Intercept	-0.337	0.026	0.018	-0.465	0.085	-0.006
	(-0.710)	(0.050)	(0.030)	(-0.980)	(0.160)	(-0.010)
N	1040	895	893	1043	897	895
Adjusted R-squared	0.715	0.709	0.712	0.713	0.710	0.712

Table 10
OLS Results for Advisory Fee in the Subsamples – Continuous Measure of Industry Specialization

This table shows the results from OLS regression of the advisory fee on the level of industry specialization by bidder advisors and other advisor-, deal- and bidder-characteristics for the subsamples consisting of public, private, subsidiary acquisitions announced from 1985 to 2010. Advisor industry specialization is continuously measured using the ARCA method and based on the number of deals advised by a bank in either the acquirer's industry (acquirer-industry focus) or the target firm's industry (target-industry focus) 5 years prior to the announcement date. Industry is classified by 3 digit SIC code. In all Models, the dependent variable is the natural logarithm of fees. The description for each variable is shown in Appendix A. All regressions control for year fixed effects whose coefficients are suppressed. The t-statistics in parentheses are generated using Huber White sandwich robust standard errors. N denotes number of observations. ***, ** and * denote significance at the 1%, 5% and 10% level, respectively.

	Public		**Private**		**Subsidiary**	
	Acquirer-industry Focus	Target-industry Focus	Acquirer-industry Focus	Target-industry Focus	Acquirer-industry Focus	Target-industry Focus
	(1)	(2)	(3)	(4)	(5)	(6)
Acq. Adv.'s Specialization Level in Acq. Industry	-0.543***		-0.772*		0.017	
	(-2.960)		(-1.720)		(0.010)	
Acq. Adv.'s Specialization Level in Targ. Industry		-0.529***		-0.579		-0.745
		(-2.700)		(-1.220)		(-0.680)
Top 8	0.340***	0.341***	0.527*	0.478	0.247	0.142
	(5.170)	(5.130)	(1.720)	(1.550)	(0.250)	(0.170)
Ln(Deal Value)	0.692***	0.693***	0.675***	0.732***	1.078***	1.088***
	(30.320)	(30.270)	(5.100)	(5.810)	(3.360)	(3.580)
Tobin's Q	-0.016	-0.014	0.048***	0.052***	0.135	0.135
	(-1.220)	(-1.070)	(3.230)	(3.380)	(1.370)	(1.440)
Run-up	-0.235***	-0.238***	0.093	0.086	-0.639	-0.830
	(-3.510)	(-3.570)	(1.370)	(1.230)	(-0.410)	(-0.580)
Free Cash Flow	0.371	0.323	1.530***	1.638***	-1.215	-1.137
	(1.600)	(1.290)	(3.010)	(3.130)	(-0.990)	(-0.930)
Leverage	-0.146	-0.108	2.391***	2.571***	1.580	1.658
	(-0.650)	(-0.490)	(2.660)	(2.840)	(0.650)	(0.810)
Sigma	14.751***	14.608***	24.416***	26.101***	7.789	9.625
	(5.270)	(5.110)	(3.790)	(4.040)	(0.350)	(0.520)
Pmt. incl. Stock	-0.081	-0.037	0.084	0.061	0.185	0.206

	(-0.690)	(-0.320)	(0.290)	(0.220)	(0.250)	(0.390)
Relative Size	-0.028	-0.032	-0.351	-0.395*	-0.345	-0.363
	(-0.690)	(-0.770)	(-1.560)	(-1.970)	(-1.200)	(-1.480)
Relatedness	-0.098	-0.091	-0.345	-0.421	0.666	0.718
	(-1.520)	(-1.430)	(-1.200)	(-1.440)	(1.160)	(1.280)
Tender Offer	0.322**	0.373***				
	(2.310)	(2.790)				
Hostile * All-Cash	-0.110	-0.114				
	(-0.600)	(-0.630)				
Hostile * Pmt. incl. Stock	-0.307	-0.343				
	(-0.710)	(-0.800)				
Foreign Targ.	0.269	0.277	0.227	0.274	0.742	0.789
	(0.780)	(0.790)	(0.750)	(0.900)	(0.860)	(1.160)
Multiple Bidders	0.115	0.119	0.000	0.000	0.000	0.000
	(1.010)	(1.050)				
Acq. Industry M&A	0.003***	0.003***	-0.045	-0.031	-0.001	-0.001
	(2.680)	(2.600)	(-0.940)	(-0.640)	(-0.370)	(-0.390)
Targ. Industry M&A	0.001	0.001*	0.058	0.048	0.164	0.164*
	(1.590)	(1.710)	(1.220)	(1.010)	(1.600)	(1.690)
Intercept	0.185	0.080	-1.437	-2.788	-8.940	-6.123
	(0.350)	(0.150)	(-0.630)	(-1.320)	(-1.270)	(-1.600)
N	883	885	112	112	44	45
Adjusted R-squared	0.719	0.717	0.636	0.628	0.698	0.726

Table 11
Heckman Two-stage Procedure for Advisory Fee in the Full Sample – Continuous Measure of Industry Specialization

This table illustrates the estimation results of the Heckman two-stage procedure for advisory fee paid by bidders for the full sample of M&A deals announced over the period from1985 to 2010. For each model, the first column shows the probit regression results of the first-stage selection equation, where the dependent variable is a dummy variable equal to 1 if an industry specialist advisor is retained by the bidder, and 0 otherwise. The cut-off used to designate bidder advisor as industry specialist is zero based on the advisor's ARCA value. The results of the second-stage equation are shown in the second column for each model, where the dependent variable here is the natural logarithm of fees. The Scope variable serves as a proxy for prior bidder-advisor relationship, which is constructed using the data on M&A, bond and equity issuance over the 1980-2010 period. It takes the value of 0 if the bidding firm has never hired the M&A advisor in any of the following three services: M&A, bond or equity issue; the value of 1 if the M&A advisor has rendered the bidding firm one of the three services; the value of 2 if the bidding firm has employed the M&A advisor in two of the three services; and the value of 3 if the M&A advisor has been used for all of the three services during the 5-year period prior to the announcement date. The variable Inverse Mills Ratio estimated from the first-stage equation is used as an additional regressor in the second-stage equation in order to adjust for self-selection bias. Other variables are defined in Appendix A. The t-statistics are in parentheses and ***, ** and * denote significance at the 1%, 5% and 10% level, respectively .N denotes the number of observations.

Full sample	**Acquirer-industry Focus**						**Target-industry Focus**					
	(1)		(2)		(3)		(4)		(5)		(6)	
	Selection	Outcome	Selection	Outcome	Selection	Outcome	Selection	Outcome	Selection	Outcome	Selection	Outcome
AcqAdv.'s Spec. in AcqInd.		-0.927***		-0.768***		-0.806***						
		(-6.140)		(-4.460)		(-4.850)						
AcqAdv.'s Spec. in TargInd.								-0.927***		-1.034***		-1.048***
								(-5.970)		(-5.690)		(-5.650)
TargAdv.'s Spec. in AcqInd.			0.906***	-0.607***					0.746***	-0.684**		
			(5.500)	(-2.630)					(4.650)	(-2.150)		
TargAdv.'s Spec. in TargInd.					0.943***	-0.571**					0.861***	-0.572*
					(5.660)	(-2.540)					(5.360)	(-1.670)
Ln(Deal Value)	0.104***	0.684***	0.097***	0.700***	0.105***	0.698***	0.125***	0.645***	0.109***	0.656***	0.119***	0.659***
	(5.300)	(19.520)	(4.000)	(19.240)	(4.300)	(18.840)	(6.340)	(10.510)	(4.560)	(12.360)	(4.970)	(11.930)
Tobin's Q	-0.049***	-0.016	-0.047**	-0.030	-0.050***	-0.029	-0.042**	-0.004	-0.047**	-0.010	-0.049**	-0.007
	(-2.940)	(-0.720)	(-2.530)	(-1.270)	(-2.680)	(-1.230)	(-2.510)	(-0.140)	(-2.350)	(-0.320)	(-2.450)	(-0.240)
Run-up	0.000	-0.071	-0.039	-0.122	-0.019	-0.142	0.023	-0.136*	0.002	-0.234**	0.012	-0.240**
	(0.000)	(-0.930)	(-0.480)	(-1.240)	(-0.240)	(-1.450)	(0.360)	(-1.650)	(0.030)	(-2.480)	(0.160)	(-2.530)
Free Cash Flow	-0.390***	0.521**	-0.368*	0.318	-0.421**	0.321	-0.173	0.787***	0.025	0.385	-0.011	0.396
	(-2.660)	(2.080)	(-1.740)	(1.200)	(-2.010)	(1.210)	(-1.070)	(2.580)	(0.110)	(1.240)	(-0.050)	(1.270)
Leverage	-0.186	0.138	0.043	-0.416	0.019	-0.376	-0.457**	0.344	-0.270	-0.262	-0.289	-0.192
	(-0.870)	(0.500)	(0.170)	(-1.400)	(0.080)	(-1.270)	(-2.050)	(0.960)	(-1.060)	(-0.810)	(-1.130)	(-0.590)
Sigma	-1.295	16.285***	4.517	15.149***	4.500	15.241***	0.130	18.246***	4.824*	13.202***	4.928*	13.606***
	(-0.570)	(5.130)	(1.630)	(4.270)	(1.630)	(4.330)	(0.060)	(5.280)	(1.700)	(3.210)	(1.740)	(3.320)
Pmt. incl. Stock	0.922***	-0.377	0.834***	-0.278	0.838***	-0.252	0.909***	-0.690	0.844***	-0.328	0.832***	-0.349
	(13.390)	(-1.540)	(10.430)	(-1.160)	(10.480)	(-1.060)	(13.010)	(-1.590)	(10.410)	(-0.860)	(10.270)	(-0.940)

Relative Size	0.003	-0.088	0.019	-0.030	0.015	-0.030	0.037	-0.147**	0.032	-0.032	0.029	-0.029
	(0.160)	(-1.620)	(0.590)	(-0.470)	(0.470)	(-0.490)	(1.420)	(-2.500)	(1.010)	(-0.520)	(0.930)	(-0.470)
Relatedness	0.380***	-0.329***	0.305***	-0.251**	0.308***	-0.246**	0.562***	-0.548**	0.518***	-0.315	0.500***	-0.330
	(5.840)	(-2.920)	(4.080)	(-2.320)	(4.140)	(-2.290)	(8.380)	(-2.130)	(6.840)	(-1.400)	(6.610)	(-1.540)
Tender Offer		0.333**		0.311*		0.326*		0.359**		0.329*		0.331*
		(2.050)		(1.800)		(1.890)		(2.330)		(1.930)		(1.930)
Hostile * All-Cash	1.098***	-0.595*	1.002***	-0.543*	0.999***	-0.517*	1.081***	-1.167**	1.013***	-0.771*	1.005***	-0.786*
	(4.480)	(-1.820)	(4.000)	(-1.770)	(3.990)	(-1.700)	(4.510)	(-2.170)	(4.140)	(-1.660)	(4.100)	(-1.740)
Hostile * Pmt. incl. Stock	0.064	-0.406	0.091	-0.503	0.085	-0.502	-0.085	-0.632*	0.029	-0.745***	0.037	-0.744***
	(0.230)	(-1.260)	(0.320)	(-1.630)	(0.300)	(-1.640)	(-0.330)	(-1.870)	(0.110)	(-2.590)	(0.140)	(-2.580)
Foreign Targ.	-0.915***	0.750**	-0.802***	0.689**	-0.810***	0.690**	-0.907***	1.400***	-0.792***	1.046**	-0.787***	1.077***
	(-5.760)	(2.210)	(-4.520)	(2.160)	(-4.550)	(2.170)	(-5.770)	(2.970)	(-4.490)	(2.550)	(-4.430)	(2.690)
Multiple Bidders	0.002	0.057	-0.047	0.140	-0.078	0.161	0.151	0.032	0.071	0.173	0.053	0.188
	(0.010)	(0.340)	(-0.330)	(0.860)	(-0.540)	(1.000)	(1.180)	(0.170)	(0.540)	(1.080)	(0.400)	(1.170)
Acq. Industry M&A	0.001	-0.001	-0.001	0.000	-0.003	0.001	0.001	-0.004**	-0.003	0.008	-0.004	0.009
	(1.210)	(-0.710)	(-0.270)	(-0.020)	(-0.550)	(0.050)	(0.710)	(-1.980)	(-0.540)	(0.830)	(-0.650)	(0.910)
Targ. Industry M&A	-0.002	0.005*	-0.005	0.009	-0.006	0.008	0.000	0.002	0.001	0.000	0.001	0.000
	(-1.250)	(1.910)	(-0.710)	(0.510)	(-0.780)	(0.490)	(-0.320)	(0.980)	(0.920)	(0.070)	(0.930)	(0.030)
Scope	0.326***		0.339***		0.338***		0.161***		0.166***		0.170***	
	(6.270)		(5.870)		(5.850)		(3.160)		(2.910)		(2.980)	
Inverse Mills Ratio		-0.503**		-0.419*		-0.391		-0.977*		-0.543		-0.553
		(-2.020)		(-1.660)		(-1.570)		(-1.790)		(-1.070)		(-1.120)
Intercept	-4.829***	1.626	-4.712***	1.290	-4.824***	1.173	-4.694***	3.295	-4.484***	2.206	-4.665***	2.101
	(-7.790)	(1.070)	(-6.610)	(0.870)	(-6.820)	(0.790)	(-9.300)	(1.280)	(-7.630)	(0.950)	(-7.900)	(0.900)
N	3595	3595	2477	2477	2478	2478	3835	3835	2654	2654	2659	2659

Table 12
Heckman Two-stage Procedure for Advisory Fee in the Subsamples – Continuous Measure of Industry Specialization

This table shows the results of the Heckman two-stage procedure for advisory fees using the subsamples consisting of public and private acquisitions announced from 1985 to 2010. The results for subsidiary subset are omitted because the sample size (47) is not large enough to perform the two-stage procedure. In the respective subsamples, the first column for each model presents the probit regression results of the first-stage selection equation, where the dependent variable is a dummy variable equal to 1 if an industry specialist advisor is retained by the bidder and 0 otherwise. The cut-off used to designate bidder advisor as industry specialist is zero based on the advisor's ARCA value. The results of the second-stage equation are shown in the second column, where the dependent variable here is the natural logarithm of fees. The Scope variable serves as a proxy for prior bidder-advisor relationship, which is constructed using the data on M&A, bond and equity issuance over the 1980-2010 period. It takes the value of 0 if the bidding firm has never hired the M&A advisor in any of the following three services: M&A, bond or equity issue; the value of 1 if the M&A advisor has rendered the bidding firm one of the three services; the value of 2 if the bidding firm has employed the M&A advisor in two of the three services; and the value of 3 if the M&A advisor has been used for all of the three services during the 5-year period prior to the announcement date. The variable Inverse Mills Ratio estimated from the first-stage equation is used as an additional regressor in the second-stage equation in order to adjust for self-selection bias. Other variables are defined in Appendix A. The t-statistics are in parentheses and ***, ** and * denote significance at the 1%, 5% and 10% level, respectively. N denotes the number of observations.

	Public				**Private**			
	Acquirer-industry Focus		Target-industry Focus		Acquirer-industry Focus		Target-industry Focus	
	(1)		(2)		(3)		(4)	
	Selection	**Outcome**	**Selection**	**Outcome**	**Selection**	**Outcome**	**Selection**	**Outcome**
AcqAdv.'s Spec. in AcqInd.		-0.743***				-0.825		
		(-4.570)				(-0.400)		
AcqAdv.'s Spec. in TargInd.				-0.777***				0.028
				(-4.370)				(0.040)
Top 8		0.277***		0.276***		0.124		1.092
		(3.180)		(3.140)		(0.070)		(1.330)
Ln(Deal Value)	0.031	0.707***	0.044*	0.667***	0.031	0.822	0.207***	0.935***
	(1.250)	(22.840)	(1.820)	(19.140)	(0.420)	(1.210)	(2.750)	(3.160)
Tobin's Q	-0.022	-0.038*	-0.021	-0.013	-0.192***	-0.611	-0.100*	-0.312
	(-1.130)	(-1.750)	(-1.070)	(-0.490)	(-2.810)	(-0.640)	(-1.830)	(-1.520)
Run-up	0.017	-0.204**	-0.032	-0.293***	0.101	0.371	0.197	0.320
	(0.200)	(-2.080)	(-0.360)	(-2.820)	(0.740)	(0.500)	(1.430)	(1.070)
Free Cash Flow	-0.225	0.221	0.153	0.335	-1.161***	-1.528	-0.283	2.388*
	(-1.210)	(0.860)	(0.620)	(1.050)	(-2.710)	(-0.250)	(-0.650)	(1.870)
Leverage	-0.041	-0.308	-0.310	0.054	-0.738	0.911	-1.212	-0.974

	(-0.150)	(-1.050)	(-1.170)	(0.170)	(-0.960)	(0.150)	(-1.550)	(-0.400)
Sigma	-1.832	17.822***	0.722	16.152***	2.889	37.517	4.282	36.091**
	(-0.630)	(5.190)	(0.240)	(4.250)	(0.490)	(0.920)	(0.710)	(2.260)
Pmt. incl. Stock	0.669***	-0.369*	0.618***	-0.446*	1.018***	4.206	1.151***	2.135
	(7.440)	(-1.700)	(6.750)	(-1.680)	(4.610)	(0.840)	(5.040)	(1.590)
Relative Size	0.027	-0.082	0.055*	-0.091	0.045	0.000	0.059	0.400
	(0.900)	(-1.480)	(1.730)	(-1.530)	(0.540)	(0.000)	(0.690)	(0.510)
Relatedness	0.363***	-0.274**	0.564***	-0.438**	0.379*	0.474	0.548***	0.080
	(4.540)	(-2.520)	(6.960)	(-2.160)	(1.930)	(0.200)	(2.820)	(0.110)
Tender Offer		0.198		0.299*				
		(1.130)		(1.810)				
Hostile * All-Cash	0.784***	-0.500*	0.725***	-0.870**				
	(3.120)	(-1.820)	(2.960)	(-2.550)				
Hostile * Pmt. incl. Stock	0.062	-0.406	-0.042	-0.591**				
	(0.220)	(-1.310)	(-0.160)	(-1.970)				
Foreign Targ.	-0.892***	0.713**	-0.906***	0.949**	-0.764*	-1.070	-0.583	1.633
	(-4.310)	(2.110)	(-4.490)	(2.340)	(-1.780)	(-0.220)	(-1.500)	(1.040)
Multiple Bidders	-0.205	0.143	-0.039	0.175				
	(-1.460)	(0.890)	(-0.300)	(1.100)				
Acq. Industry M&A	0.000	0.004	-0.003	0.016*	-0.448	-1.620	-0.347*	-0.343
	(0.260)	(0.220)	(-0.800)	(1.900)	(-1.360)	(-0.500)	(-1.720)	(-0.630)
Targ. Industry M&A	-0.001	0.000	0.000	0.001	0.003	0.073	0.004	0.116
	(-0.320)	(-0.030)	(-0.370)	(0.400)	(0.190)	(0.250)	(0.190)	(1.020)
Scope	0.364***		0.220***		-0.252		-0.567**	
	(5.970)		(3.630)		(-1.070)		(-2.490)	
Inverse Mills Ratio		-0.413*		-0.722*		4.441		1.889
		(-1.710)		(-1.720)		(0.770)		(1.500)
Intercept	-3.052***	0.928	-2.799***	2.227	-7.850	-14.049	-11.342***	-10.008
	(-4.410)	(0.750)	(-4.750)	(1.490)	-	(-0.630)	(-7.220)	(-1.240)
N	1684	1684	1761	1761	997	997	1071	1071

Table 13
Probit Regression Results for Completion Probability in the Full Sample – Continuous Measure of Industry Specialization

This table shows the results from probit regression of deal completion on the level of industry specialization by bidder advisors and other advisor-, deal- and bidder- characteristics. Advisor industry specialization is continuously measured using the ARCA method and based on the number of deals advised by a bank in either the acquirer's industry (acquirer-industry focus) or the target firm's industry (target-industry focus) 5 years prior to the announcement date. Industry is classified by 3 digit SIC code. In all Models, the dependent variable is completion which is a dummy variable being 1 if the deal is completed and 0 otherwise. The description for each variable is shown in Appendix A. All regressions control for year fixed effects whose coefficients are suppressed. The z-statistics in parentheses are adjusted for heteroskedasticity and bidder clustering. N denotes number of observations. ***, ** and * denote significance at the 1%, 5% and 10% level, respectively.

Full sample	**Acquirer-industry Focus**			**Target-industry Focus**		
	(1)	(2)	(3)	(4)	(5)	(6)
Acq. Adv.'s Specialization Level in Acq. Industry	0.170	0.167	0.130			
	(1.180)	(0.930)	(0.720)			
Acq. Adv.'s Specialization Level in Targ. Industry				0.109	0.025	-0.034
				(0.690)	(0.130)	(-0.180)
Target Adv.'s Specialization Level in Acq. Industry		-0.046			-0.009	
		(-0.260)			(-0.050)	
Target Adv.'s Specialization Level in Targ. Industry			0.031			0.064
			(0.190)			(0.380)
Ln(Bidder Size)	0.016	0.011	0.011	0.015	0.010	0.009
	(0.870)	(0.480)	(0.470)	(0.850)	(0.430)	(0.400)
Tobin's Q	0.005	0.008	0.008	0.004	0.008	0.008
	(0.610)	(0.790)	(0.760)	(0.560)	(0.790)	(0.760)
Run-up	0.104	0.092	0.093	0.103	0.090	0.091
	(1.430)	(1.090)	(1.090)	(1.420)	(1.060)	(1.080)
Free Cash Flow	-0.129	-0.590**	-0.583**	-0.139	-0.613**	-0.609**
	(-0.630)	(-2.330)	(-2.290)	(-0.680)	(-2.390)	(-2.370)
Leverage	0.055	0.025	0.023	0.052	0.028	0.025
	(0.280)	(0.110)	(0.100)	(0.270)	(0.120)	(0.110)
Sigma	-2.644	-6.529**	-6.477**	-2.720	-6.863**	-6.854**
	(-1.170)	(-2.220)	(-2.200)	(-1.230)	(-2.350)	(-2.350)
Pub. Targ. * All-Cash	-0.247**	-0.142	-0.150	-0.250**	-0.140	-0.148

	(-2.390)	(-1.220)	(-1.290)	(-2.410)	(-1.200)	(-1.270)
Pub. Targ. * Pmt. incl. Stock	-0.233***	-0.125	-0.128	-0.226***	-0.113	-0.116
	(-3.360)	(-1.510)	(-1.550)	(-3.260)	(-1.360)	(-1.400)
Priv. Targ. * All-Cash	0.334**	0.382*	0.376*	0.335**	0.388*	0.382*
	(2.260)	(1.820)	(1.780)	(2.250)	(1.840)	(1.800)
Priv. Targ. * Pmt. incl. Stock	0.313***	0.492***	0.484***	0.320***	0.505***	0.497***
	(3.310)	(3.460)	(3.460)	(3.380)	(3.530)	(3.520)
Sub. Targ. * All-Cash	0.425***	0.804***	0.797***	0.425***	0.808***	0.799***
	(3.580)	(4.390)	(4.360)	(3.580)	(4.420)	(4.380)
Relative Size	-0.046**	-0.098***	-0.099***	-0.046**	-0.097***	-0.099***
	(-2.430)	(-2.890)	(-2.950)	(-2.440)	(-2.860)	(-2.920)
Relatedness	0.014	0.000	0.000	0.016	0.006	0.007
	(0.230)	(0.000)	(-0.010)	(0.270)	(0.090)	(0.100)
Tender Offer	0.356***	0.473***	0.460***	0.356***	0.473***	0.458***
	(2.960)	(3.580)	(3.490)	(2.960)	(3.560)	(3.470)
Hostile * All-Cash	-1.255***	-1.271***	-1.283***	-1.250***	-1.273***	-1.284***
	(-5.420)	(-5.260)	(-5.330)	(-5.410)	(-5.260)	(-5.330)
Hostile * Pmt. incl. Stock	-1.282***	-1.220***	-1.207***	-1.288***	-1.232***	-1.219***
	(-4.810)	(-4.370)	(-4.310)	(-4.830)	(-4.410)	(-4.350)
Foreign Targ.	-0.113	-0.161*	-0.153	-0.117	-0.167*	-0.156
	(-1.440)	(-1.640)	(-1.550)	(-1.480)	(-1.700)	(-1.590)
Multiple Bidders	-1.428***	-1.426***	-1.439***	-1.433***	-1.433***	-1.449***
	(-14.620)	(-13.330)	(-13.440)	(-14.660)	(-13.360)	(-13.490)
Acq. Industry M&A	-0.003***	-0.002	-0.002	-0.003***	-0.002	-0.002
	(-2.580)	(-0.810)	(-0.840)	(-2.570)	(-0.790)	(-0.830)
Targ. Industry M&A	0.004	0.005	0.005	0.004	0.005	0.005
	(1.440)	(0.840)	(0.810)	(1.460)	(0.840)	(0.810)
Intercept	2.312***	6.299***	6.337***	2.319***	6.313***	6.372***
	(3.410)	(8.430)	(8.430)	(3.420)	(9.060)	(8.790)
N	6642	4448	4453	6634	4443	4450
Pseudo R-squared	0.180	0.206	0.207	0.180	0.207	0.208

Table 14
Probit Regression Results for Completion Probability in the Subsamples– Continuous Measure of Industry Specialization

This table shows the results from probit regression of deal completion on the level of industry specialization by bidder advisors and other advisor-, deal- and bidder- characteristics. Advisor industry specialization is continuously measured using the ARCA method and based on the number of deals advised by a bank in either the acquirer's industry (acquirer-industry focus) or the target firm's industry (target-industry focus) 5 years prior to the announcement date. Industry is classified by 3 digit SIC code. In all Models, the dependent variable is completion which is a dummy variable being 1 if the deal is completed and 0 otherwise. The description for each variable is shown in Appendix A. All regressions control for year fixed effects whose coefficients are suppressed. The z-statistics in parentheses are adjusted for heteroskedasticity and bidder clustering. N denotes number of observations. ***, ** and * denote significance at the 1%, 5% and 10% level, respectively.

	Public		**Private**		**Subsidiary**	
	Acquirer-industry Focus (1)	Target-industry Focus (2)	Acquirer-industry Focus (3)	Target-industry Focus (4)	Acquirer-industry Focus (5)	Target-industry Focus (6)
Acq. Adv.'s Specialization Level in Acq. Industry	0.361*		-0.153		1.232**	
	(1.720)		(-0.620)		(2.000)	
Acq. Adv.'s Specialization Level in Targ. Industry		0.305		-0.164		1.682**
		(1.200)		(-0.660)		(2.560)
Top 8	0.019	0.006	0.129	0.127	0.123	0.115
	(0.210)	(0.070)	(0.830)	(0.810)	(0.890)	(0.840)
Ln(Bidder Size)	0.045*	0.046*	-0.039	-0.037	-0.040	-0.040
	(1.650)	(1.670)	(-0.840)	(-0.790)	(-0.950)	(-0.940)
Tobin's Q	-0.002	-0.002	0.028	0.027	0.019	0.018
	(-0.230)	(-0.230)	(1.070)	(1.040)	(0.580)	(0.550)
Run-up	-0.004	-0.005	0.480**	0.481**	0.544**	0.561**
	(-0.040)	(-0.060)	(2.350)	(2.350)	(2.230)	(2.280)
Free Cash Flow	-0.302	-0.315	0.125	0.097	-0.041	-0.053
	(-0.780)	(-0.800)	(0.380)	(0.320)	(-0.100)	(-0.130)
Leverage	-0.151	-0.159	-0.066	-0.061	0.124	0.092
	(-0.530)	(-0.550)	(-0.130)	(-0.120)	(0.330)	(0.240)
Sigma	-6.882**	-7.299**	-5.694	-5.441	5.584	5.676
	(-2.140)	(-2.270)	(-1.210)	(-1.220)	(0.950)	(0.980)
Pmt. incl. Stock	0.175*	0.182*	0.096	0.093	-0.533***	-0.534***

	(1.680)	(1.740)	(0.790)	(0.770)	(-3.920)	(-3.940)
Relative Size	-0.086*	-0.085*	-0.033	-0.033	-0.039	-0.041
	(-1.910)	(-1.900)	(-0.710)	(-0.710)	(-1.450)	(-1.530)
Relatedness	0.120	0.126	-0.094	-0.098	0.056	0.055
	(1.380)	(1.440)	(-0.720)	(-0.760)	(0.440)	(0.430)
Tender Offer	0.454***	0.452***				
	(3.580)	(3.550)				
Hostile * All-Cash	-1.311***	-1.309***				
	(-5.360)	(-5.370)				
Hostile * Pmt. incl. Stock	-1.328***	-1.334***				
	(-4.830)	(-4.860)				
Foreign Targ.	-0.245*	-0.244*	0.222	0.218	-0.270**	-0.273**
	(-1.690)	(-1.670)	(1.200)	(1.180)	(-1.990)	(-2.010)
Multiple Bidders	-1.422***	-1.422***	-1.321**	-1.321**	-1.346***	-1.358***
	(-12.990)	(-12.970)	(-2.370)	(-2.380)	(-2.920)	(-2.940)
Acq. Industry M&A	-0.010***	-0.010***	0.169	0.175	-0.006***	-0.006***
	(-2.640)	(-2.640)	(0.840)	(0.870)	(-4.080)	(-3.590)
Targ. Industry M&A	0.024	0.024	0.584**	0.571**	0.001	0.001
	(1.460)	(1.440)	(2.060)	(2.040)	(0.080)	(0.070)
Premium Offered	0.002*	0.002*				
	(1.750)	(1.720)				
Intercept	-0.046	-0.029	6.391***	6.399***	5.885***	5.677***
	(-0.070)	(-0.040)	(6.770)	(6.750)	(6.560)	(6.350)
N	2333	2330	1865	1864	1597	1597
Adjusted R-squared	0.224	0.225	0.089	0.088	0.116	0.117

Table 15
Heckman Two-stage Procedure for Completion Probability in the Full Sample – Continuous Measure of Industry Specialization

This table reports the estimation results of the Heckman two-stage procedure for deal completion probability using the full sample of M&A deals announced from 1985 to 2010. For each model, the first column shows the probit regression results of the first-stage selection equation, where the dependent variable is a dummy variable equal to 1 if an industry specialist advisor is retained by the bidder and 0 otherwise. The cut-off used to designate bidder advisor as industry specialist is zero based on the advisor's ARCA value. The results of the second-stage equation are shown in the second column for each model, where the dependent variable here is completion equal to 1 if the deal is completed and 0 otherwise. The Scope variable serves as a proxy for prior bidder-advisor relationship, which is constructed using the data on M&A, bond and equity issuance over the 1980-2010 period. It takes the value of 0 if the bidding firm has never hired the M&A advisor in any of the following three services: M&A, bond or equity issue; the value of 1 if the M&A advisor has rendered the bidding firm one of the three services; the value of 2 if the bidding firm has employed the M&A advisor in two of the three services; and the value of 3 if the M&A advisor has been used for all of the three services during the 5-year period prior to the announcement date. The variable Inverse Mills Ratio estimated from the first-stage equation is used as an additional regressor in the second-stage equation in order to adjust for self-selection bias. Other variables are defined in Appendix A. The z-statistics are in parentheses and ***, ** and * denote significance at the 1%, 5% and 10% level, respectively. N denotes the number of observations.

Full sample	**Acquirer-industry Focus**						**Target-industry Focus**					
	(1)		(2)		(3)		(4)		(5)		(6)	
	Selection	**Outcome**	**Selection**	**Outcome**	**Selection**	**Outcome**	**Selection**	**Outcome**	**Selection**	**Outcome**	**Selection**	**Outcome**
AcqAdv.'s Spec. in AcqInd.		0.009		0.023		0.021						
		(0.520)		(0.930)		(0.880)						
AcqAdv.'s Spec. in TargInd.								0.023		0.006		0.004
								(1.210)		(0.240)		(0.140)
TargAdv.'s Spec. in AcqInd.			0.901***	-0.030					0.661***	-0.030		
			(8.080)	(-1.100)					(6.130)	(-0.970)		
TargAdv.'s Spec. in TargInd.					0.899***	-0.029					0.825***	-0.038
					(8.280)	(-1.110)					(7.810)	(-1.170)
Ln(Bidder Size)	-0.013	0.000	0.002	0.001	0.002	0.001	0.004	0.003	0.006	0.002	0.013	0.001
	(-1.230)	(0.190)	(0.120)	(0.280)	(0.140)	(0.200)	(0.360)	(0.930)	(0.490)	(0.420)	(1.010)	(0.210)
Tobin's Q	-0.002	0.001	0.001	0.001	0.000	0.001	0.002	0.000	0.007	0.001	0.007	0.001
	(-0.410)	(0.610)	(0.240)	(0.520)	(0.070)	(0.570)	(0.370)	(0.410)	(1.260)	(0.430)	(1.160)	(0.400)
Run-up	-0.002	0.012	-0.014	0.016	-0.002	0.016	-0.008	0.005	-0.026	-0.006	-0.022	-0.006
	(-0.040)	(1.470)	(-0.280)	(1.320)	(-0.050)	(1.350)	(-0.220)	(0.640)	(-0.530)	(-0.530)	(-0.450)	(-0.510)
Free Cash Flow	-0.146	-0.001	0.064	-0.059	0.030	-0.058	-0.019	0.004	0.258*	-0.069	0.248*	-0.072
	(-1.560)	(-0.040)	(0.440)	(-1.360)	(0.210)	(-1.340)	(-0.210)	(0.160)	(1.760)	(-1.450)	(1.700)	(-1.500)
Leverage	-0.153	-0.001	0.078	-0.002	0.071	0.000	-0.063	-0.054*	0.110	-0.057	0.126	-0.056

	(-1.300)	(-0.040)	(0.520)	(-0.050)	(0.470)	(0.010)	(-0.540)	(-1.840)	(0.740)	(-1.470)	(0.850)	(-1.420)
Sigma	-2.446*	-0.577*	-1.473	-1.076**	-1.557	-1.091**	-0.632	-0.607*	-0.308	-0.983**	-0.366	-0.972**
	(-1.830)	(-1.790)	(-0.820)	(-2.390)	(-0.870)	(-2.440)	(-0.490)	(-1.840)	(-0.170)	(-2.120)	(-0.200)	(-2.080)
Pub. Targ. * All-Cash	0.047	-0.059***	0.069	-0.044**	0.067	-0.044**	0.148**	-0.060***	0.186***	-0.053***	0.166**	-0.051**
	(0.780)	(-3.800)	(1.010)	(-2.370)	(0.970)	(-2.370)	(2.460)	(-3.520)	(2.700)	(-2.650)	(2.410)	(-2.530)
Pub. Targ. * Pmt. incl. Stock	0.203***	-0.036***	0.178***	-0.027**	0.183***	-0.026*	0.172***	-0.041***	0.161***	-0.033**	0.148***	-0.032**
	(4.620)	(-3.390)	(3.350)	(-1.970)	(3.460)	(-1.890)	(3.950)	(-3.440)	(3.050)	(-2.220)	(2.810)	(-2.120)
Priv. Targ. * All-Cash	0.108	0.033**	0.160*	0.047**	0.169*	0.047**	0.128*	-0.001	0.104	-0.015	0.104	-0.015
	(1.590)	(2.060)	(1.700)	(2.010)	(1.780)	(2.000)	(1.890)	(-0.070)	(1.100)	(-0.620)	(1.100)	(-0.580)
Priv. Targ. * Pmt. incl. Stock	0.233***	0.016	0.197***	0.029	0.183**	0.030*	0.260***	0.002	0.238***	0.015	0.239***	0.015
	(4.530)	(1.280)	(2.680)	(1.590)	(2.490)	(1.650)	(5.110)	(0.150)	(3.240)	(0.750)	(3.260)	(0.730)
Sub. Targ. * All-Cash	-0.072	0.036**	-0.051	0.054***	-0.050	0.054***	-0.115*	0.028*	-0.146**	0.044**	-0.155**	0.048**
	(-1.210)	(2.470)	(-0.690)	(2.800)	(-0.680)	(2.800)	(-1.950)	(1.760)	(-1.980)	(2.050)	(-2.110)	(2.220)
Relative Size	-0.063***	-0.019***	-0.021	-0.016**	-0.021	-0.016***	0.010	-0.007*	0.017	-0.019***	0.021	-0.019***
	(-2.930)	(-3.500)	(-0.860)	(-2.530)	(-0.870)	(-2.560)	(0.660)	(-1.760)	(0.730)	(-2.830)	(0.890)	(-2.840)
Relatedness	0.256***	-0.007	0.193***	-0.005	0.202***	-0.006	0.424***	-0.006	0.409***	-0.002	0.403***	-0.008
	(7.550)	(-0.850)	(4.530)	(-0.450)	(4.760)	(-0.500)	(12.550)	(-0.430)	(9.590)	(-0.110)	(9.480)	(-0.440)
Tender Offer		0.101***		0.109***		0.109***		0.073***		0.085***		0.083***
		(6.400)		(5.990)		(6.000)		(4.080)		(4.210)		(4.100)
Hostile * All-Cash	0.152	-0.366***	0.069	-0.356***	0.068	-0.355***	0.095	-0.449***	0.067	-0.464***	0.071	-0.463***
	(0.740)	(-7.530)	(0.330)	(-6.680)	(0.330)	(-6.670)	(0.470)	(-8.470)	(0.320)	(-8.340)	(0.340)	(-8.240)
Hostile * Pmt. incl. Stock	0.055	-0.406***	-0.061	-0.374***	-0.052	-0.374***	-0.189	-0.247***	-0.147	-0.231***	-0.139	-0.225***
	(0.250)	(-8.320)	(-0.270)	(-6.680)	(-0.230)	(-6.700)	(-0.880)	(-4.150)	(-0.650)	(-3.600)	(-0.620)	(-3.480)
Foreign Targ.	-0.239***	-0.034***	-0.240***	-0.041**	-0.235***	-0.036**	-0.185***	-0.015	-0.183***	-0.023	-0.163**	-0.023
	(-4.940)	(-2.780)	(-3.760)	(-2.350)	(-3.680)	(-2.080)	(-3.850)	(-1.090)	(-2.870)	(-1.240)	(-2.550)	(-1.240)
Multiple Bidders	0.032	-0.376***	0.029	-0.367***	-0.010	-0.366***	-0.126	-0.390***	-0.147*	-0.392***	-0.157*	-0.394***
	(0.390)	(-19.040)	(0.320)	(-16.430)	(-0.110)	(-16.440)	(-1.530)	(-17.510)	(-1.670)	(-15.780)	(-1.790)	(-15.780)
Acq. Industry M&A	0.000	0.000	0.000	0.000	-0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.000
	(0.090)	(-1.510)	(-0.310)	(0.280)	(-0.450)	(0.300)	(0.820)	(-1.630)	(0.590)	(0.080)	(0.320)	(0.090)
Targ. Industry M&A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000*	0.000	0.000	0.000	0.000
	(-0.310)	(0.760)	(0.150)	(0.170)	(0.330)	(0.160)	(-0.700)	(1.730)	(-0.470)	(-0.010)	(-0.200)	(-0.020)
Scope	0.521***		0.453***		0.455***		0.274***		0.273***		0.274***	

	(17.340)		(12.710)		(12.750)		(9.870)		(8.080)		(8.100)	
Invers Mills Ratio		-0.033		-0.048		-0.046		-0.038		-0.046		-0.062
		(-1.580)		(-1.550)		(-1.520)		(-0.960)		(-0.920)		(-1.240)
Intercept	-0.302	1.024***	-0.789**	1.040***	-0.787**	1.043***	-0.694**	1.027***	-0.980***	1.074***	-1.117***	1.109***
	(-1.090)	(14.090)	(-2.280)	(10.360)	(-2.270)	(10.410)	(-2.550)	(11.420)	(-2.860)	(8.880)	(-3.260)	(8.910)
N	6642	6642	4448	4448	4453	4453	6634	6634	4443	4443	4450	4450

Table 16
Heckman Two-stage Procedure for Completion Probability in the Subsamples– Continuous Measure of Industry Specialization

This table presents the results of the Heckman two-stage procedure for deal completion for the subsamples consisting of public, private, subsidiary acquisitions announced from 1985 to 2010. In the respective subsamples, the first column for each model presents the probit regression results of the first-stage selection equation, where the dependent variable is a dummy variable equal to 1 if an industry specialist advisor is retained by the bidder and 0 otherwise. The cut-off used to designate bidder advisor as industry specialist is zero based on the advisor's ARCA value. The results of the second-stage equation are shown in the second column, where the dependent variable here is completion equal to 1 if the deal is completed and 0 otherwise. The Scope variable serves as a proxy for prior bidder-advisor relationship, which is constructed using the data on M&A, bond and equity issuance over the 1980-2010 period. It takes the value of 0 if the bidding firm has never hired the M&A advisor in any of the following three services: M&A, bond or equity issue; the value of 1 if the M&A advisor has rendered the bidding firm one of the three services; the value of 2 if the bidding firm has employed the M&A advisor in two of the three services; and the value of 3 if the M&A advisor has been used for all of the three services during the 5-year period prior to the announcement date. The variable Inverse Mills Ratio estimated from the first-stage equation is used as an additional regressor in the second-stage equation in order to adjust for self-selection bias. Other variables are defined in Appendix A. The p z-statistics are in parentheses and ***, ** and * denote significance at the 1%, 5% and 10% level, respectively. N denotes the number of observations.

	Public				**Private**				**Subsidiary**			
	Acquirer-industry Focus		Target-industry Focus		Acquirer-industry Focus		Target-industry Focus		Acquirer-industry Focus		Target-industry Focus	
	(1)		(2)		(3)		(4)		(5)		(6)	
	Selection	**Outcome**	**Selection**	**Outcome**	**Selection**	**Outcome**	**Selection**	**Outcome**	**Selection**	**Outcome**	**Selection**	**Outcome**
AcqAdv.'s Spec. in AcqInd.		0.063*				-0.046**				0.041		
		(1.660)				(-2.420)				(1.130)		
AcqAdv.'s Spec. in TargInd.				0.034				-0.018				0.069
				(0.810)				(-0.720)				(1.530)
Top 8		0.015		0.004		-0.005		0.003		0.018		0.001
		(0.850)		(0.210)		(-0.450)		(0.190)		(1.260)		(0.070)
Ln(Bidder Size)	-0.026	0.010*	-0.014	0.005	-0.031	-0.006	0.017	-0.005	0.023	-0.007*	0.015	-0.005
	(-1.520)	(1.840)	(-0.830)	(0.830)	(-1.430)	(-1.580)	(0.840)	(-1.080)	(1.120)	(-1.660)	(0.750)	(-1.090)
Tobin's Q	0.019*	-0.001	0.016	-0.001	-0.007	0.001	-0.006	0.002	0.024	0.004	0.022	0.005

	(1.720)	(-0.330)	(1.610)	(-0.430)	(-1.080)	(1.180)	(-1.010)	(1.220)	(1.250)	(1.230)	(1.190)	(1.270)
Run-up	0.071	0.004	0.054	-0.010	-0.054	0.022**	-0.052	0.018*	-0.013	0.009	-0.052	0.029
	(1.100)	(0.230)	(0.850)	(-0.590)	(-1.040)	(2.460)	(-1.000)	(1.860)	(-0.140)	(0.510)	(-0.550)	(1.400)
Free Cash Flow	-0.191	-0.051	0.169	-0.007	-0.073	0.028	-0.012	0.033	-0.285	0.028	-0.317	-0.043
	(-1.220)	(-0.900)	(0.970)	(-0.110)	(-0.480)	(1.050)	(-0.080)	(1.040)	(-1.110)	(0.580)	(-1.240)	(-0.770)
Leverage	-0.169	-0.058	-0.308	-0.119*	-0.231	0.019	-0.283	-0.016	0.130	0.008	0.591***	-0.029
	(-0.840)	(-0.970)	(-1.540)	(-1.890)	(-0.990)	(0.480)	(-1.230)	(-0.320)	(0.590)	(0.180)	(2.750)	(-0.600)
Sigma	-10.350***	-1.230*	-7.115***	-1.640**	0.966	-0.822**	1.609	-0.655	3.811	0.218	1.421	-0.244
	(-4.350)	(-1.640)	(-3.020)	(-2.160)	(0.440)	(-2.270)	(0.750)	(-1.530)	(1.350)	(0.360)	(0.550)	(-0.380)
Pmt. incl. Stock	0.188***	0.031	0.088	0.022	0.223***	0.006	0.161***	-0.008	0.004	-0.038**	0.112	-0.051***
	(3.110)	(1.440)	(1.450)	(1.010)	(3.560)	(0.550)	(2.610)	(-0.480)	(0.040)	(-2.420)	(1.400)	(-2.950)
Relative Size	0.002	-0.011	0.028	-0.019**	-0.506***	-0.025	-0.170**	-0.007	-0.060*	-0.018**	0.020	-0.004
	(0.070)	(-1.300)	(1.040)	(-2.130)	(-4.880)	(-1.200)	(-2.020)	(-0.320)	(-1.650)	(-2.020)	(0.820)	(-0.870)
Relatedness	0.257***	0.013	0.430***	0.008	0.262***	-0.020*	0.425***	-0.025	0.232***	-0.012	0.354***	-0.019
	(4.450)	(0.690)	(7.460)	(0.300)	(4.360)	(-1.890)	(7.170)	(-0.790)	(3.540)	(-0.910)	(5.420)	(-1.020)
Tender Offer		0.106***		0.101***		0.260***		0.074				
		(4.370)		(3.990)		(3.910)		(0.550)				
Hostile * All-Cash	0.288	-0.392***	0.158	-0.532***								
	(1.360)	(-6.250)	(0.720)	(-7.560)								
Hostile * Pmt. incl. Stock	0.118	-0.407***	-0.172	-0.256***								
	(0.530)	(-6.470)	(-0.780)	(-3.500)								
Foreign Targ.	-0.385***	-0.093***	-0.331***	-0.097***	-0.363***	0.024	-0.246***	0.042*	-0.208***	-0.040**	-0.201**	-0.025

	(-3.880)	(-2.640)	(-3.360)	(-2.630)	(-4.260)	(1.510)	(-2.920)	(1.760)	(-2.560)	(-2.490)	(-2.500)	(-1.310)
Multiple Bidders	0.015	-0.391***	0.017	-0.383***	1.028***	-0.374***	-0.371	-0.297***	-0.632	-0.455***	0.057	-0.295***
	(0.160)	(-13.750)	(0.180)	(-12.710)	(3.540)	(-5.700)	(-1.180)	(-3.830)	(-1.250)	(-3.660)	(0.130)	(-2.720)
Acq. Industry M&A	0.002	-0.003	0.000	0.000	0.003	0.000	0.000	0.000	0.001	-0.002***	0.000	-0.002***
	(0.950)	(-1.130)	(0.620)	(-0.150)	(1.570)	(-0.070)	(0.130)	(0.330)	(0.480)	(-4.510)	(-0.300)	(-5.420)
Targ. Industry M&A	-0.002	0.003	0.000	0.000	0.000	0.000	-0.003	0.000	0.003	0.001	0.003	0.000
	(-1.000)	(1.210)	(-0.440)	(0.180)	(-0.010)	(0.070)	(-0.740)	(0.370)	(0.780)	(1.070)	(0.740)	(0.060)
Premium Offered		0.000*		0.000*								
		(1.850)		(1.670)								
Scope	0.427***		0.329***		0.600***		0.153***		0.559***		0.303***	
	(9.080)		(7.270)		(9.710)		(2.790)		(10.060)		(6.050)	
Inverse Mills Ratio		-0.028		-0.046		-0.040		-0.071		-0.021		-0.018
		(-0.550)		(-0.720)		(-1.540)		(-0.650)		(-0.760)		(-0.350)
Intercept	-7.538***	0.665***	-5.958	0.799***	0.072	1.127***	-0.645	1.191***	-1.058*	1.143***	-0.846	1.119***
	(-15.640)	(4.870)	-	(5.420)	(0.120)	(9.810)	(-1.100)	(6.480)	(-1.930)	(10.020)	(-1.610)	(8.030)
N	2512	2512	2529	2529	2132	2132	2129	2129	1734	1734	1733	1733

Table 17
OLS Results for Time to Complete in the Full Sample – Continuous Measure of Industry Specialization

This table illustrates the results from OLS regression of the time to complete on the level of industry specialization by bidder advisors and other advisor-, deal- and bidder- characteristics. Advisor industry specialization is continuously measured using the ARCA method and based on the number of deals advised by a bank in either the acquirer's industry (acquirer-industry focus) or the target firm's industry (target-industry focus) 5 years prior to the announcement date. Industry is classified by 3 digit SIC code. In all Models, the dependent variable is the time to complete which is measured as the time between the announcement and the effective dates in the unit of 100 days. The description for each variable is shown in Appendix A. All regressions control for year fixed effects whose coefficients are suppressed. The t-statistics in parentheses are generated using Huber White sandwich robust standard errors. N denotes number of observations. ***, ** and * denote significance at the 1%, 5% and 10% level, respectively.

Full sample	**Acquirer-industry Focus**			**Target-industry Focus**		
	(1)	(2)	(3)	(4)	(5)	(6)
Acq. Adv.'s Specialization Level in Acq. Industry	0.209***	0.223***	0.238***			
	(3.020)	(2.660)	(2.910)			
Acq. Adv.'s Specialization Level in Targ. Industry				0.323***	0.314***	0.330***
				(4.590)	(3.740)	(3.950)
Target Adv.'s Specialization Level in Acq. Industry		0.142**			0.123*	
		(2.140)			(1.890)	
Target Adv.'s Specialization Level in Targ. Industry			0.093			0.064
			(1.580)			(1.100)
Ln(Bidder Size)	0.022**	0.025**	0.024**	0.023**	0.026**	0.024**
	(2.220)	(2.140)	(2.040)	(2.350)	(2.190)	(2.080)
Tobin's Q	-0.013***	-0.015***	-0.015***	-0.014***	-0.015***	-0.016***
	(-4.430)	(-5.050)	(-5.110)	(-4.520)	(-5.130)	(-5.200)
Run-up	0.026	0.015	0.020	0.023	0.015	0.020
	(0.820)	(0.490)	(0.640)	(0.720)	(0.480)	(0.650)
Free Cash Flow	-0.579***	-0.601***	-0.600***	-0.561***	-0.608***	-0.609***
	(-4.780)	(-5.110)	(-5.100)	(-4.940)	(-5.220)	(-5.220)
Leverage	0.728***	0.604***	0.623***	0.740***	0.594***	0.611***
	(6.210)	(5.260)	(5.280)	(6.270)	(5.180)	(5.180)
Sigma	-8.430***	-8.796***	-8.593***	-8.055***	-8.723***	-8.528***
	(-7.770)	(-7.380)	(-7.150)	(-7.470)	(-7.340)	(-7.130)
Pub. Targ. * All-Cash	0.268***	0.146***	0.147***	0.267***	0.140***	0.143***

	(6.200)	(3.120)	(3.140)	(6.150)	(3.000)	(3.050)
Pub. Targ. * Pmt. incl. Stock	0.668***	0.520***	0.526***	0.662***	0.516***	0.524***
	(20.500)	(13.430)	(13.560)	(20.370)	(13.370)	(13.570)
Priv. Targ. * All-Cash	-0.066	-0.107	-0.107	-0.068	-0.108	-0.106
	(-1.250)	(-1.520)	(-1.510)	(-1.290)	(-1.520)	(-1.500)
Priv. Targ. * Pmt. incl. Stock	0.104***	0.075*	0.078*	0.106***	0.068	0.072
	(3.020)	(1.670)	(1.750)	(3.030)	(1.520)	(1.620)
Sub. Targ. * All-Cash	0.026	-0.114***	-0.113***	0.022	-0.116***	-0.113***
	(0.450)	(-2.790)	(-2.750)	(0.370)	(-2.830)	(-2.750)
Relative Size	0.084***	0.122***	0.121***	0.083***	0.122***	0.121***
	(4.400)	(5.480)	(5.420)	(4.340)	(5.460)	(5.410)
Relatedness	0.173***	0.207***	0.207***	0.167***	0.205***	0.206***
	(6.900)	(7.260)	(7.160)	(6.580)	(7.170)	(7.090)
Tender Offer	-0.280***	-0.310***	-0.309***	-0.286***	-0.309***	-0.307***
	(-5.650)	(-5.870)	(-5.790)	(-5.740)	(-5.840)	(-5.750)
Hostile * All-Cash	0.459	0.496	0.494	0.462	0.497	0.495
	(1.520)	(1.620)	(1.620)	(1.530)	(1.620)	(1.610)
Hostile * Pmt. incl. Stock	0.794***	0.815***	0.806***	0.795***	0.810***	0.800***
	(2.980)	(2.970)	(2.940)	(2.980)	(2.960)	(2.920)
Foreign Targ.	-0.064	-0.086**	-0.091**	-0.064	-0.087**	-0.095**
	(-1.510)	(-2.060)	(-2.160)	(-1.520)	(-2.090)	(-2.270)
Multiple Bidders	0.498***	0.520***	0.518***	0.509***	0.528***	0.526***
	(4.160)	(4.080)	(4.050)	(4.220)	(4.130)	(4.090)
Acq. Industry M&A	0.000***	0.000	0.000	0.000***	0.000	0.000
	(-2.620)	(-0.690)	(-0.510)	(-2.670)	(-0.700)	(-0.510)
Targ. Industry M&A	0.000***	0.000	0.000	0.000***	0.000	0.000
	(-2.980)	(0.630)	(0.450)	(-2.800)	(0.640)	(0.460)
Intercept	0.865***	0.993***	1.011***	0.834***	0.983***	1.004***
	(3.300)	(3.120)	(3.180)	(3.140)	(3.090)	(3.150)
N	6205	4112	4117	6198	4108	4115
Adjusted R-squared	0.199	0.228	0.228	0.199	0.229	0.229

Table 18
OLS Results for Time to Complete in the Subsamples – Continuous Measure of Industry Specialization

This table illustrates the results from OLS regression of the time to complete on the level of industry specialization by bidder advisors and other advisor-, deal- and bidder- characteristics for the subsamples consisting of public, private, subsidiary acquisitions announced from 1985 to 2010. Advisor industry specialization is continuously measured using the ARCA method and based on the number of deals advised by a bank in either the acquirer's industry (acquirer-industry focus) or the target firm's industry (target-industry focus) 5 years prior to the announcement date. Industry is classified by 3 digit SIC code. In all Models, the dependent variable is the time to complete which is measured as the time between the announcement and the effective dates in the unit of 100 days. The description for each variable is shown in Appendix A. All regressions control for year fixed effects whose coefficients are suppressed. The t-statistics in parentheses are generated using Huber White sandwich robust standard errors. N denotes number of observations. ***, ** and * denote significance at the 1%, 5% and 10% level, respectively.

	Public		Private		Subsidiary	
	Acquirer-industry Focus	Target-industry Focus	Acquirer-industry Focus	Target-industry Focus	Acquirer-industry Focus	Target-industry Focus
	(1)	(2)	(3)	(4)	(5)	(6)
Acq. Adv.'s Specialization Level in Acq. Industry	0.350***		0.191*		-0.106	
	(3.470)		(1.820)		(-0.670)	
Acq. Adv.'s Specialization Level in Targ. Industry		0.424***		0.382***		-0.153
		(3.620)		(3.920)		(-0.910)
Top 8	0.004	0.007	0.070*	0.089**	0.132**	0.131**
	(0.090)	(0.150)	(1.700)	(2.180)	(2.230)	(2.210)
Ln(Bidder Size)	0.014	0.015	-0.026*	-0.031**	0.070***	0.070***
	(0.960)	(1.050)	(-1.720)	(-2.020)	(3.380)	(3.410)
Tobin's Q	-0.010**	-0.011**	-0.011***	-0.011***	-0.019	-0.019
	(-2.390)	(-2.480)	(-3.070)	(-3.070)	(-1.290)	(-1.270)
Run-up	-0.028	-0.032	0.089**	0.088**	0.019	0.019
	(-0.680)	(-0.770)	(2.110)	(2.060)	(0.230)	(0.230)
Free Cash Flow	-0.344*	-0.344*	-0.662***	-0.602***	-0.192	-0.200
	(-1.880)	(-1.890)	(-4.690)	(-4.780)	(-1.240)	(-1.300)
Leverage	0.790***	0.791***	0.570***	0.653***	0.692***	0.680***
	(4.780)	(4.760)	(3.610)	(3.800)	(2.860)	(2.810)
Sigma	-9.109***	-8.929***	-10.554***	-9.960***	-3.059	-3.107
	(-6.020)	(-5.890)	(-7.890)	(-7.310)	(-1.300)	(-1.390)
Pmt. incl. Stock	0.308***	0.307***	0.225***	0.228***	0.318***	0.319***

	(5.830)	(5.790)	(5.870)	(5.860)	(4.900)	(4.910)
Relative Size	0.090***	0.090***	0.117*	0.116*	0.047**	0.047**
	(4.110)	(4.140)	(1.960)	(1.890)	(2.310)	(2.350)
Relatedness	0.211***	0.210***	0.196***	0.172***	0.090	0.099*
	(5.570)	(5.520)	(5.650)	(4.870)	(1.560)	(1.690)
Tender Offer	-0.472***	-0.478***	-0.525	-0.515		
	(-8.200)	(-8.310)	(-0.770)	(-0.750)		
Hostile * All-Cash	0.663**	0.672**				
	(1.980)	(2.000)				
Hostile * Pmt. incl. Stock	0.965***	0.964***				
	(3.470)	(3.460)				
Foreign Targ.	0.150**	0.145**	-0.141***	-0.133***	-0.025	-0.027
	(2.150)	(2.090)	(-2.950)	(-2.800)	(-0.290)	(-0.320)
Multiple Bidders	0.342***	0.350***	1.368	1.360	-0.249	-0.255
	(3.040)	(3.110)	(1.570)	(1.550)	(-1.410)	(-1.470)
Acq. Industry M&A	-0.001	-0.001	0.003***	0.003***	0.001	0.001
	(-0.830)	(-0.830)	(3.850)	(3.920)	(0.140)	(0.130)
Targ. Industry M&A	0.001	0.001	0.001	0.001	0.003	0.003
	(0.800)	(0.800)	(0.440)	(0.440)	(1.040)	(1.060)
Premium Offered	0.000	0.000				
	(-0.510)	(-0.440)				
Intercept	0.951**	0.918**	1.331***	1.479***	0.325	0.320
	(2.220)	(2.130)	(3.530)	(3.800)	(0.490)	(0.480)
N	2061	2059	2073	2070	1667	1666
Adjusted R-squared	0.210	0.212	0.202	0.204	0.070	0.070

Table 19
Heckman Two-stage Procedure for Time to Complete in the Full Sample – Continuous Measure of Industry Specialization

This table provides the estimation results of the Heckman two-stage procedure for the time to complete using the full sample of M&A deals announced from 1985 to 2010. For each model, the first column shows the probit regression results of the first-stage selection equation, where the dependent variable is a dummy variable equal to 1 if an industry specialist advisor is retained by the bidder and 0 otherwise. The cut-off used to designate bidder advisor as industry specialist is zero based on the advisor's ARCA value. The results of the second-stage equation are shown in the second column for each model. The dependent variable here is the time to complete measured as the time between the announcement and the effective dates in the unit of 100 days. The Scope variable serves as a proxy for prior bidder-advisor relationship. It is constructed using the data on M&A, bond and equity issuance over the 1980-2010 period. It takes the value of 0 if the bidding firm has never hired the M&A advisor in any of the three services including M&A, bond or equity issue; the value of 1 if the M&A advisor has rendered the bidding firm one of the three services; the value of 2 if the bidding firm has employed the M&A advisor in two of the three services; and the value of 3 if the M&A advisor has been used for all of the three services during the 5-year period prior to the announcement date. The variable Inverse Mills Ratio estimated from the first-stage equation is an additional regressor in the second-stage equation in order to adjust for self-selection bias. Other variables are defined in Appendix A. The t-statistics are in parentheses and ***, ** and * denote significance at the 1%, 5% and 10% level, respectively. N denotes the number of observations.

Full sample	**Acquirer-industry Focus**						**Target-industry Focus**					
	(1)		(2)		(3)		(4)		(5)		(6)	
	Selection	**Outcome**	**Selection**	**Outcome**	**Selection**	**Outcome**	**Selection**	**Outcome**	**Selection**	**Outcome**	**Selection**	**Outcome**
AcqAdv.'s Spec. in AcqInd.		0.247***		0.230***		0.243***						
		(3.510)		(2.570)		(2.790)						
AcqAdv.'s Spec. in TargInd.								0.282***		0.337***		0.367***
								(3.800)		(3.620)		(3.930)
TargAdv.'s Spec. in AcqInd.			0.897***	0.149					0.652***	0.065		
			(7.910)	(1.460)					(5.940)	(0.600)		
TargAdv.'s Spec. in TargInd.					0.900***	0.127					0.826***	-0.017
					(8.130)	(1.330)					(7.660)	(-0.160)
Ln(Bidder Size)	-0.013	0.034***	0.001	0.034***	0.002	0.035***	0.005	0.017	0.008	0.029**	0.015	0.028**
	(-1.240)	(3.140)	(0.070)	(2.730)	(0.130)	(2.820)	(0.460)	(1.560)	(0.630)	(2.280)	(1.130)	(2.160)
Tobin's Q	-0.002	-0.015***	0.001	-0.014***	0.000	-0.014***	0.002	-0.012***	0.007	-0.016***	0.007	-0.016***
	(-0.370)	(-3.180)	(0.210)	(-2.690)	(0.060)	(-2.750)	(0.400)	(-2.790)	(1.230)	(-3.030)	(1.140)	(-3.020)
Run-up	0.004	0.026	-0.004	0.018	0.007	0.020	-0.007	0.024	-0.037	-0.001	-0.034	0.001
	(0.100)	(0.730)	(-0.090)	(0.420)	(0.140)	(0.450)	(-0.190)	(0.760)	(-0.730)	(-0.020)	(-0.670)	(0.030)
Free Cash Flow	-0.141	-0.755***	0.047	-0.872***	0.016	-0.878***	-0.019	-0.838***	0.224	-0.961***	0.218	-0.977***
	(-1.460)	(-6.830)	(0.320)	(-5.550)	(0.110)	(-5.610)	(-0.200)	(-7.690)	(1.530)	(-5.870)	(1.480)	(-5.980)
Leverage	-0.147	0.804***	0.075	0.601***	0.070	0.598***	-0.082	0.613***	0.090	0.599***	0.110	0.592***

	(-1.230)	(6.700)	(0.490)	(4.340)	(0.460)	(4.340)	(-0.690)	(5.310)	(0.590)	(4.390)	(0.720)	(4.310)
Sigma	-2.684**	-10.679***	-2.100	-10.808***	-2.087	-10.744***	-0.866	-9.578***	-0.604	-10.318***	-0.594	-10.435***
	(-1.960)	(-7.690)	(-1.130)	(-6.400)	(-1.130)	(-6.390)	(-0.660)	(-7.400)	(-0.330)	(-6.250)	(-0.320)	(-6.320)
Pub. Targ. * All-Cash	0.031	0.228***	0.069	0.109	0.065	0.107	0.137**	0.307***	0.184***	0.158**	0.168**	0.156**
	(0.500)	(3.350)	(0.980)	(1.570)	(0.920)	(1.530)	(2.210)	(4.540)	(2.600)	(2.200)	(2.370)	(2.180)
Pub. Targ. * Pmt. incl. Stock	0.179***	0.694***	0.159***	0.538***	0.164***	0.535***	0.147***	0.695***	0.138***	0.513***	0.127**	0.512***
	(3.990)	(15.410)	(2.920)	(10.650)	(3.030)	(10.610)	(3.310)	(15.280)	(2.560)	(9.900)	(2.350)	(9.970)
Priv. Targ. * All-Cash	0.128*	0.017	0.191**	-0.079	0.198**	-0.080	0.142**	0.015	0.120	-0.080	0.123	-0.079
	(1.870)	(0.250)	(2.000)	(-0.920)	(2.070)	(-0.930)	(2.080)	(0.220)	(1.250)	(-0.910)	(1.270)	(-0.900)
Priv. Targ. * Pmt. incl. Stock	0.244***	0.149***	0.220***	0.081	0.207***	0.079	0.267***	0.114**	0.258***	0.029	0.263***	0.022
	(4.710)	(2.910)	(2.950)	(1.230)	(2.790)	(1.200)	(5.190)	(2.100)	(3.480)	(0.430)	(3.550)	(0.320)
Sub. Targ. * All-Cash	-0.053	0.051	-0.022	-0.077	-0.022	-0.077	-0.098*	0.075	-0.118	-0.030	-0.125*	-0.023
	(-0.890)	(0.840)	(-0.300)	(-1.110)	(-0.300)	(-1.110)	(-1.650)	(1.230)	(-1.590)	(-0.420)	(-1.690)	(-0.320)
Relative Size	-0.079***	0.093***	-0.031	0.098***	-0.032	0.099***	0.007	0.077***	0.011	0.122***	0.015	0.120***
	(-3.390)	(3.790)	(-1.210)	(4.110)	(-1.240)	(4.120)	(0.440)	(5.320)	(0.440)	(5.120)	(0.580)	(5.040)
Relatedness	0.253***	0.253***	0.191***	0.261***	0.199***	0.256***	0.424***	0.237***	0.415***	0.190***	0.407***	0.187***
	(7.320)	(6.810)	(4.410)	(6.170)	(4.610)	(6.040)	(12.300)	(4.380)	(9.510)	(3.050)	(9.350)	(3.070)
Tender Offer		-0.250***		-0.288***		-0.288***		-0.284***		-0.345***		-0.341***
		(-3.580)		(-4.120)		(-4.110)		(-3.980)		(-4.720)		(-4.640)
Hostile * All-Cash	-0.115	0.553**	-0.168	0.661***	-0.168	0.665***	-0.384	-0.088	-0.416	0.030	-0.418	0.037
	(-0.480)	(2.030)	(-0.690)	(2.630)	(-0.690)	(2.650)	(-1.480)	(-0.280)	(-1.580)	(0.100)	(-1.580)	(0.130)
Hostile * Pmt. incl. Stock	-0.377	0.562*	-0.367	0.669**	-0.358	0.673**	-0.389	0.900***	-0.311	0.999***	-0.292	1.002***
	(-1.350)	(1.710)	(-1.320)	(2.200)	(-1.290)	(2.220)	(-1.530)	(2.870)	(-1.190)	(3.380)	(-1.110)	(3.390)
Foreign Targ.	-0.267***	-0.042	-0.271***	-0.078	-0.262***	-0.081	-0.198***	-0.095*	-0.206***	-0.050	-0.188***	-0.058
	(-5.390)	(-0.770)	(-4.140)	(-1.170)	(-3.990)	(-1.210)	(-4.040)	(-1.760)	(-3.140)	(-0.750)	(-2.870)	(-0.880)
Multiple Bidders	-0.248***	0.613***	-0.256**	0.633***	-0.299***	0.632***	-0.458***	0.481***	-0.486***	0.550***	-0.509***	0.554***
	(-2.620)	(5.670)	(-2.540)	(6.070)	(-2.980)	(6.060)	(-4.770)	(4.030)	(-4.740)	(4.500)	(-4.950)	(4.510)
Acq. Industry M&A	0.000	0.001	0.000	0.002	-0.001	0.002	0.000	-0.001	0.000	-0.001	0.000	-0.001
	(0.050)	(1.220)	(-0.340)	(1.150)	(-0.530)	(1.140)	(0.540)	(-0.770)	(0.590)	(-1.150)	(0.330)	(-1.170)
Targ. Industry M&A	0.000	-0.001	0.000	-0.001	0.000	-0.001	0.000	0.001	0.000	0.001	0.000	0.001
	(-0.550)	(-0.640)	(0.200)	(-1.140)	(0.410)	(-1.110)	(-0.400)	(0.730)	(-0.450)	(1.110)	(-0.190)	(1.130)
Scope	0.523***		0.454***		0.456***		0.276***		0.276***		0.278***	

	(17.170)		(12.570)		(12.580)		(9.800)		(8.040)		(8.070)	
Inverse Mills Ratio		0.261***		0.136		0.113		0.144		-0.086		-0.107
		(2.990)		(1.230)		(1.020)		(0.970)		(-0.510)		(-0.640)
Intercept	-0.257	0.691**	-0.730**	1.232***	-0.739**	1.239***	-0.674**	0.759**	-0.968***	0.928**	-1.107***	0.984**
	(-0.910)	(2.260)	(-2.070)	(3.390)	(-2.100)	(3.410)	(-2.450)	(2.220)	(-2.780)	(2.230)	(-3.170)	(2.320)
N	6418	6418	4273	4273	4278	4278	6416	6416	4277	4277	4282	4282

Table 20

Heckman Two-stage Procedure for Time to Complete in the Subsamples – Continuous Measure of Industry Specialization

This table provides the estimation results of the Heckman two-stage procedure for the time to complete for the subsamples consisting of public, private, subsidiary acquisitions announced from 1985 to 2010. In the respective subsamples, the first column for each model presents the probit regression results of the first-stage selection equation, where the dependent variable is a dummy variable equal to 1 if an industry specialist advisor is retained by the bidder and 0 otherwise. The cut-off used to designate bidder advisor as industry specialist is zero based on the advisor's ARCA value. The results of the second-stage equation are shown in the second column. The dependent variable here is the time to complete measured as the time between the announcement and the effective dates in the unit of 100 days. The Scope variable serves as a proxy for prior bidder-advisor relationship. It is constructed using the data on M&A, bond and equity issuance over the 1980-2010 period. It takes the value of 0 if the bidding firm has never hired the M&A advisor in any of the three services including M&A, bond or equity issue; the value of 1 if the M&A advisor has rendered the bidding firm one of the three services; the value of 2 if the bidding firm has employed the M&A advisor in two of the three services; and the value of 3 if the M&A advisor has been used for all of the three services during the 5-year period prior to the announcement date. The variable Inverse Mills Ratio estimated from the first-stage equation is an additional regressor in the second-stage equation in order to adjust for self-selection bias. Other variables are defined in Appendix A. The p-values are in parentheses. N denotes the number of observations, and ***, ** and * denote significance at the 1%, 5% and 10% level, respectively.

	Public				**Private**				**Subsidiary**			
	Acquirer-industry Focus		Target-industry Focus		Acquirer-industry Focus		Target-industry Focus		Acquirer-industry Focus		Target-industry Focus	
	(1)		(2)		(3)		(4)		(5)		(6)	
	Selection	**Outcome**	**Selection**	**Outcome**	**Selection**	**Outcome**	**Selection**	**Outcome**	**Selection**	**Outcome**	**Selection**	**Outcome**
AcqAdv.'s Spec. in AcqInd.		0.379***				0.270***				0.029		
		(3.160)				(3.190)				(0.120)		
AcqAdv.'s Spec. in TargInd.				0.511***				0.425***				-0.122
				(4.060)				(4.080)				(-0.510)
Top 8		0.068		0.050		0.040		0.172***		0.043		0.215***
		(1.180)		(0.860)		(0.740)		(2.890)		(0.430)		(2.600)
Ln(Bidder Size)	-0.019	0.016	-0.009	0.040**	-0.032	-0.004	0.015	-0.044**	0.019	0.141***	0.011	0.036
	(-1.080)	(0.910)	(-0.530)	(2.360)	(-1.490)	(-0.210)	(0.720)	(-2.180)	(0.900)	(4.500)	(0.540)	(1.380)
Tobin's Q	0.017	-0.007	0.015	-0.009	-0.006	-0.008	-0.006	-0.005	0.025	-0.034	0.025	0.012
	(1.570)	(-1.060)	(1.500)	(-1.350)	(-0.990)	(-1.630)	(-0.900)	(-0.800)	(1.330)	(-1.420)	(1.310)	(0.570)

Run-up	0.068	-0.026	0.038	-0.013	-0.042	0.068*	-0.043	0.139***	-0.006	0.134	-0.037	-0.073
	(1.030)	(-0.460)	(0.580)	(-0.230)	(-0.800)	(1.730)	(-0.820)	(3.430)	(-0.060)	(1.120)	(-0.390)	(-0.660)
Free Cash Flow	-0.216	-0.713***	0.170	-0.968***	-0.058	-0.711***	0.001	-0.611***	-0.278	-0.345	-0.334	-0.265
	(-1.320)	(-3.520)	(0.880)	(-4.170)	(-0.380)	(-5.840)	(0.010)	(-4.440)	(-1.080)	(-1.000)	(-1.300)	(-0.890)
Leverage	-0.211	0.753***	-0.421**	1.033***	-0.226	0.783***	-0.302	0.683***	0.126	0.880***	0.588***	0.313
	(-1.000)	(3.870)	(-2.000)	(5.080)	(-0.970)	(4.660)	(-1.300)	(3.210)	(0.570)	(2.970)	(2.710)	(1.200)
Sigma	-11.190***	-12.474***	-8.256***	-10.013***	0.630	-11.282***	1.437	-10.936***	4.134	-2.740	1.302	-7.307**
	(-4.520)	(-5.100)	(-3.360)	(-4.130)	(0.280)	(-6.960)	(0.660)	(-5.950)	(1.440)	(-0.640)	(0.490)	(-2.170)
Pmt. incl. Stock	0.181***	0.351***	0.074	0.330***	0.232***	0.184***	0.156**	0.104	-0.022	0.267**	0.086	0.123
	(2.910)	(5.080)	(1.200)	(4.890)	(3.670)	(4.030)	(2.520)	(1.580)	(-0.270)	(2.360)	(1.060)	(1.340)
Relative Size	0.000	0.103***	0.021	0.105***	-0.516***	0.451***	-0.172**	0.366***	-0.073*	0.086	0.018	0.043**
	(-0.010)	(3.680)	(0.730)	(3.870)	(-4.930)	(4.850)	(-2.040)	(3.730)	(-1.870)	(1.360)	(0.750)	(2.040)
Relatedness	0.275***	0.250***	0.449***	0.245***	0.248***	0.236***	0.416***	0.158	0.224***	0.266***	0.353***	0.179*
	(4.590)	(3.930)	(7.500)	(2.980)	(4.100)	(5.230)	(6.970)	(1.250)	(3.390)	(2.910)	(5.340)	(1.830)
Tender Offer		-0.461***		-0.442***		0.336		0.826				
		(-5.840)		(-5.600)		(1.030)		(1.470)				
Hostile * All-Cash	0.020	0.852***	-0.339	0.142								
	(0.080)	(3.270)	(-1.190)	(0.410)								
Hostile * Pmt. incl. Stock	-0.313	0.784***	-0.400	0.970***								
	(-1.100)	(2.570)	(-1.510)	(3.200)								
Foreign Targ.	-0.472***	0.139	-0.410***	0.113	-0.354***	-0.090	-0.222***	-0.024	-0.236***	-0.074	-0.213***	-0.138
	(-4.430)	(1.120)	(-3.890)	(0.910)	(-4.130)	(-1.300)	(-2.630)	(-0.250)	(-2.860)	(-0.640)	(-2.620)	(-1.350)

Multiple Bidders	-0.348***	0.371***	-0.318***	0.330***	0.988***	0.713**	-0.539	2.841***	-0.894	-0.013	-0.139	-0.178
	(-3.120)	(3.110)	(-2.900)	(2.710)	(3.320)	(2.040)	(-1.560)	(6.990)	(-1.500)	(-0.010)	(-0.280)	(-0.260)
Acq. Industry M&A	0.002	-0.024***	0.000	-0.001	0.003	0.002**	0.000	0.001	0.000	-0.001	-0.005	0.006
	(0.770)	(-3.110)	(0.720)	(-0.550)	(1.580)	(2.240)	(0.170)	(0.910)	(-0.100)	(-0.260)	(-1.210)	(0.670)
Targ. Industry M&A	-0.002	0.022***	0.000	0.001	0.000	0.005*	-0.003	0.007	0.003	0.002	0.003	0.011**
	(-0.820)	(2.970)	(-0.490)	(0.540)	(0.000)	(1.880)	(-0.700)	(1.520)	(0.880)	(0.410)	(0.880)	(2.070)
Premium Offered		-0.001		-0.001								
		(-1.070)		(-0.830)								
Scope	0.417***		0.321***		0.607***		0.161***		0.561***		0.306***	
	(8.620)		(6.900)		(9.800)		(2.920)		(10.040)		(6.070)	
Inverse Mills Ratio		0.218		0.205		0.116		-0.332		0.459**		0.281
		(1.330)		(1.040)		(1.060)		(-0.760)		(2.390)		(1.050)
Intercept	-7.337***	0.626	-5.989	-0.025	0.114	0.485	-0.588	1.742**	-0.974*	-1.106	-0.761	0.026
	(-14.420)	(1.420)	-	(-0.060)	(0.190)	(0.970)	(-1.000)	(2.330)	(-1.750)	(-1.370)	(-1.440)	(0.040)
N	2368	2368	2395	2395	2102	2102	2093	2093	1706	1706	1705	1705