



Department of Business Administration BUSN79 - Degree Project in Accounting and Finance Spring 2024

# Unlocking Value: The Role of Top-Tier Financial Advisors in Generating Shareholder Value in M&As

Empirical evidence from the Swedish M&A market

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# Abstract

Title: Unlocking Value: The Role of Top-Tier Financial Advisors in Generating Shareholder Value in M&As Seminar date: 29th of May 2024 Course: BUSN79 - Degree Project in Accounting and Finance Authors: Gustav Andersson and August Flyning Supervisor: Diem Nguyen Examiner: Elias Bengtsson Key words: Top-tier financial advisor, cumulative abnormal return, cross-border, diversification, transaction

**Purpose:** This study aims to investigate the impact of M&A adviser reputation on acquirer's deal performance on the Swedish Market. We also investigate if top-tier financial advisors can have a positive influence in more complex deal situations, like cross-border and diversification transactions.

**Methodology:** This study uses regression models with robust standard errors to test our hypotheses. The main explanatory variable for our regression model is the top-tier financial advisor dummy. We also use two additional models where the main explanatory variables are the dummy for cross-border transactions and for diversification transactions.

**Theoretical perspective:** The theory in this paper consists of prior empirical research as well as theories like "Superior deal hypothesis", "Deal completion hypothesis", "Better merger hypothesis" and "Bargaining power hypothesis".

**Empirical foundation:** The league table of financial advisors is collected from Mergermarket and the data about the deals is collected from S&P Capital IQ which resulted in a sample of 293 transactions between 2014-01-01 to 2023-12-31.

**Conclusion:** We found that top-tier financial advisor involvement showed no significant positive impact on acquirer CAR. We neither found evidence that they add value in complex deals like cross-border or diversifying transactions.

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# Table of contents

1. Introduction	1
1.1 General background	1
1.2 Problematization	2
1.3 Purpose and research question	6
1.4 Empirical findings and contributions	
1.5 Outline	7
2. Literature review	8
2.1 Superior deal hypothesis	8
2.2 Deal completion hypothesis	8
2.3 Better merger hypothesis	9
2.4 Bargaining power hypothesis	
2.5 Empirical literature	
3. Data and Model description	14
3.1 Data collection	14
3.2 Main model and variable definition	15
3.2.1 Main variables	15
3.2.2 Control variables	16
3.3 Summary statistics	17
3.4 Top-tier financial advisors	
3.5 Models for research question 2	19
4. Methodology	
4.1 Estimating Cumulative Abnormal Return (CAR)	
4.2 Statistical tests	
4.2.1 Heteroscedasticity	
4.2.2 Multicollinearity	23
4.3 Robustness	
5. Empirical results and analysis	
5.1 Results - Main model	
5.2 Results - Models for research question 2	
6. Conclusion	
References	
Appendix	

### 1. Introduction

#### 1.1 General background

Between 2014 and 2023, over 4,500 transactions were completed in the Swedish M&A market (Mergermarket 2024). This deal activity emphasizes the critical role M&As play in enabling firms to fuel growth, make strategic investments, and divest businesses. In M&A transactions, both the acquirer and the target firm usually hire financial advisors to guide them through the process with their expertise and knowledge (Bauer, F. & Matzler, K, 2014). On the buy side of a transaction, which we focus on in this study, financial advisors can assist their clients with; structure of the deal, communication with counterparties, writing investment memorandum, valuation and due diligence of the target company (Gaughan 2017). Hence, M&A advisors act as a guide and navigate their client through the complex environment of the M&A landscape.

The top-tier financial advisors are examined as the advisors that control the largest market share in terms of deal value. With their position on the market, it is reasonable to assume they have superior knowledge, expertise and reputation when offering their services to the clients. Between 2014 and 2023, the top eight financial advisors in Sweden accounted for 51.20% of the total deal value and 12.93% of all transactions (Mergermarket, 2024). This shows that the top advisors get the largest deals, which further strengthens their reputation and brand as top-tier advisors.

Due to their strong reputation, the top-tier financial advisors can charge a 0,25% higher advisory fee compared to non top-tier advisors (Golubev et al., 2012). This means that they should deliver better services and expertise compared to the advisors that charge lower fees, all things equal. The financial advisors hold an important role in a M&A transaction, since for many firms, engaging in a M&A transaction is nothing that occurs on a daily basis and is therefore not structured inhouse. The expertise and network advisors offer is important to make the transaction work as intended and to gain the best results, both for the bidder and the target firm.

In a study conducted by Allen, Jagtiani, Peristiani, and Saunders (2003), the researchers explore the roles of bank and non-bank advisors in mergers and acquisitions (M&A). They discovered that banks exhibit a comparative advantage over investment banks when it comes to serving as M&A advisors, often playing a "certification role". However, the study did not address the potential influence of other factors apart from the advisor type that could contribute to the observed higher abnormal returns associated with the use of bank advisors. Among all the top-tier advisors in this report, all of them operate as traditional banks, whereas the advisors categorized as non top-tier, only have a very few transactions advised by traditional banks.

To our knowledge, there has not been conducted any research that investigates the advisor reputation and deal performance of M&A transactions in the Swedish market. Most of the previous work in this has been carried out in the US market where most of the investment banks are based (Bowers & Miller, 1990; Kale et al, 2003; Golubov et al., 2012). Hence, our findings have an impact for understanding how the market shapes the reputation of advisors within the Swedish context. Our study aims to address this gap by examining the distinct dynamics of the Swedish M&A market.

#### **1.2 Problematization**

A company's ultimate goal is to create value for its shareholders. This could be accomplished by either focusing on the operating margins or growing the business by acquiring another company or merging with other companies. There are three laws that need to be followed in the context of making business combinations work. The combination must have the potential to create more value than the parties can alone, the combination must be designed and managed to realize the joint value and the value earned by the parties must motivate them to contribute to the combination (Gomes-Casseres, 2015). A financial advisor has the potential to contribute to an increased value-creation in deal-making in all three of these aspects, by offering superior services and advice in a deal to their clients.

With the increase in M&A activity in recent years, the subject of M&A has been studied extensively and has attracted more research than other areas of finance (Gaughan, 2017). A common way to investigate potential effects of a M&A deal on shareholder value is through the event study methodology, which analyzes stock prices reactions around the announcement date to assess the impact on shareholder wealth.

With the increased research in the field, several hypotheses have tried to explain the impact of financial advisors in creating value in M&A deals. The superior deal hypothesis means that hiring a top-tier financial advisor should deliver a higher announcement return, compared to hiring a non top-tier advisor. Top-tier advisors also signal their quality to the market by structuring their fees to a larger extent as contingent on deal completion (Rau, 2000). The deal completion hypothesis means that, by making the advisory fee contingent on deal completion, the advisor has a larger incentive to complete the deal, and the valuation of the deal is of secondary importance (Rau, 2000). The better merger hypothesis means that hiring top-tier financial advisors should result in better value-creation since the advisors hold superior knowledge and skills that results in better synergies achieved in the transaction (Bowers & Miller, 1990). Lastly, the bargaining power hypothesis means that there should be a positive relationship between the negotiation skills of a financial advisor and the gain of wealth achieved in the deal by the acquiring firm (Bowers & Miller, 1990).

Various empirical papers have tried to examine the relationship between M&A performance and financial advisors. Bowers and Miller (1990) established a positive correlation between the choice of top-tier advisors and shareholder wealth. Michel et al (1991) found that clients of less prestigious banks, like Drexel Burnham Lambert, outperformed those that were more prestigious. However, their data was limited, and their findings contradicted Bowers and Miller's conclusions.

Kale et al (2003) found that the use of financial advisors with a high reputation resulted in better mergers and greater value creation. They also suggested that the higher the reputation of an acquirer's advisor, the more likely that a deal would be completed. Similarly, Hunter & Jagtiani (2003) showed that top-tier advisors were more likely to complete deals and do so more quickly than lower-tier advisors.

A study by Servaes and Zenner (1996) showed how investment banks can help to manage information asymmetry between parties in an M&A transaction, resulting in lower transaction costs. However, they found no evidence to suggest that the acquirer's returns were influenced by the use of any particular investment bank.

Ismail (2008) found that top-tier advisors destroyed more value than lower-tier ones. He suggested that advisor selection ought not to be based solely on market reputation or league tables. In contrast, Golubev (2012) found that the use of top-tier advisors led to improved returns and argued in favor of premium charges for their services.

The literature on this subject is divided with a slightly overweight for the positive relationship regarding the effect of using a top-tier financial advisor in a M&A transaction. Most of the prior research is conducted on the US market, with different samples ranging in mostly 10 to 15 year periods from 1980-2010.

While much of the existing research on mergers and acquisitions (M&A) focuses on the US market, a similar comprehensive examination of the Swedish M&A is to our extent not examined. The scarcity of research dedicated to the Swedish context creates a significant research gap that our thesis aims to examine.

Historically, the Swedish M&A landscape has exhibited distinctive characteristics compared to the US market. Unlike the US, where merger waves were prevalent before the 1960s, Sweden experienced a gradual increase in M&A activity, particularly following the integration of European economies and subsequent industry consolidation (Vancea, 2023). The surge in mergers and acquisitions (M&As) during the early 2000s, as outlined by Gaughan (2011), marked a significant period characterized by unprecedented deal volumes, particularly in Europe and to some extent in Asia, alongside the United States. This international merger wave contrasted with previous predominantly US-centric waves. The economic slowdown and recession in 2001 halted the fifth merger wave, following the record-setting fourth wave in the 1990s. While both European and US deal volumes peaked around 2006, the onset of the subprime crisis in 2008 precipitated a decline in US acquisitions, whereas European activity remained relatively resilient (Gaughan, 2011).

Additionally, different legal systems and corporate governance norms is also a factor that separates the Swedish M&A market from other countries. Variations in institutional ownership levels can yield diverse outcomes across nations, as indicated by Chen et al. (2007). According to the institutional ownership index devised by Ferreira & Matos (2008), the United States

exhibits the highest levels of institutional ownership, with a proportion of 65,7% of total market capitalization, while Sweden has a corresponding 33,8%. This diversity in institutional ownership levels may significantly impact the dynamics of M&A activity within each respective market. Higher levels of institutional ownership, such as those observed in the United States, often correlate with increased shareholder activism and scrutiny of corporate actions, including mergers and acquisitions (Bernard, 1992).

Many types of risks emerge when engaging in M&A activities. Risks include estimating and capturing synergies, integration between the two firms and cultural differences (Patel, 2024). Some of these risks become greater when acquiring a firm in another industry than the primary industry of the acquirer. For example, estimating and capturing synergies for a target which primarily operates in another industry can be harder than for a target in the same industry as the acquirer.

A higher risk in M&A deals can also arise in cross-border transactions compared to domestic acquisitions (Morosini et al., 1998). These types of risks are for example cultural differences, legal and regulatory complexities and currency risk. Cultural differences can include language and culture barriers between firms located in different countries and regions. The legal and regulatory aspect means different legal and regulatory systems and environments between countries and regions that can have implications, both in terms of tax consequences and the deal structure. The currency risk includes currency fluctuations during the transaction process (GVP, 2024). With the expertise and knowledge of a top-tier advisor, one can expect to mitigate some of the increased risk that diversifying and cross-border M&A deals include.

Golubev (2012) found that top-tier advisors can charge a 0,25% higher advisory fee, which should mean that they deliver better services to their clients to justify this higher fee. In a context of a more complex situation, as is the case with cross-border and diversifying transactions, one should expect top-tier financial advisors to deliver value to their clients who can obtain an abnormal return on the market. The value brought by the top-tier financial advisor should be higher compared to less complex situations, which is the case in non cross-border and non diversifying M&A deals.

#### **1.3 Purpose and research question**

This study aims to investigate the impact of M&A adviser reputation on acquirer's deal performance on the Swedish Market. Building upon existing research conducted in the United States, our study seeks to analyze whether top-tier financial advisors influence acquirer gains for Swedish acquirers. We also investigate if top-tier financial advisors can have a positive influence in more complex transaction landscapes, like cross-border and diversification deals.

**Research question 1:** Does an acquirer advised by a top-tier financial advisor experience positive cumulative abnormal return?

**Research question 2:** Do acquirers advised by top-tier financial advisors earn a higher positive cumulative abnormal return in cross-border or diversifying acquisitions compared to domestic or intra-industry acquisitions?

#### 1.4 Empirical findings and contributions

The study's aim is to contribute to the M&A literature and how top-tier financial advisors can create value for their clients. Also, additional research questions include if top-tier financial advisors can create more value in complex deal situations like cross-border and diversifying transactions. Most of earlier research in these types of studies have focused on the US market, with less attention to the Swedish M&A market. With the distinct differences in institutional factors and characteristics of the M&A landscape between Sweden and USA, we aim to contribute to fill this gap with this study.

We examine the relationship between the involvement of a top-tier financial advisor and the cumulative abnormal return for a listed Swedish acquiring company in an M&A deal. We also investigate if top-tier financial advisors can provide value in more complex deal situations like a cross-border or diversification transaction. The top-tier financial advisors are categorized as the top-8 financial advisors in a league table from the Swedish market based on deal value, taken from Mergermarket. Firm performance is measured in terms of cumulative abnormal return (CAR) with an event window of four days [-1,+2] around the announcement date. Multiple event

windows are used to create additional robustness to the study. We use regression models to answer our research questions. The main model uses cumulative abnormal return as the dependent variable and top-tier financial advisor as the main explanatory variable. For our additional models, we divide the sample in two sub-samples based on if the transaction is a cross-border or diversification deal. The dependent variable and the main explanatory variable used in these models are the same as for the main model. We then compare the results between the sub-samples to see if top-tier financial advisors can provide more value in a context of more complex transactions.

Contrary to expectations, we found no significant positive relationship between top-tier advisor involvement and cumulative abnormal returns for acquirers in the Swedish market. Our findings serve as an indicator for the complexity of M&A dynamics and highlight the need for nuanced analysis when evaluating the impact of financial advisors. For our second research question, we did not find any positive or statistically significant relationship investigating if top-tier financial advisors can create value in more complex deal situations, like a cross-border or diversification transaction. Ultimately, our research contributes to a deeper understanding of the Swedish M&A landscape, emphasizing the importance of rigorous investigation and cautious interpretation in assessing advisor influence on deal performance.

#### 1.5 Outline

In section two, we start with summarizing the existing literature on the subject, both empirical and theoretical. With this summary, we get knowledge of what earlier research has found and what results to expect from our study. Based on this, we will formulate our hypotheses that we will test in the paper. In section three, we present summary statistics of our data and how the data is retrieved, as well as motivating our dependent and control variables. After that, we present our main model, and also a description of how the dependent variable is calculated. Section five presents and analyzes the results we have obtained. The results are analyzed in relation to earlier literature and our hypothesis. After that, we have a section of robustness tests, before we conclude the paper in section seven with a brief summary of our main findings, as well as a discussion of shortcomings of the paper and implications for future research.

### 2. Literature review

#### 2.1 Superior deal hypothesis

The superior deal hypothesis by Rau (2000), means that the acquiring company's performance in mergers and acquisitions offers advised by the investment bank significantly impacts the bank's market share. The acquirer performance strengthens or weakens the reputation of the investment bank, depending on the performance. It anticipates that acquirers guided by top-tier investment banks, with a large market share, should see higher average returns during the announcement period of the merger than acquirers guided by investment banks that's not included in the top-tier category (Rau 2000). The hypothesis also predicts that deals that are completed and earn a positive, value-adding return are more likely to be advised by top-tier investment banks, than deals that perform negative and value-destroying returns. Lastly, the hypothesis means that top-tier banks charge a higher portion of their advisory fees as contingent fees. Contingent fees are fees that are paid to the advisor if the deal is completed, otherwise not. The top-tier banks use this fee structure with a higher proportion of contingent fees to signal their quality to the market (Rau, 2000).

#### 2.2 Deal completion hypothesis

Rau (2000) also developed the deal completion hypothesis, which means that the valuation of a deal is of secondary importance and to get the completion of the deal is of higher importance. This is because of the fee structure of the advisory fee, where it is common that a large fraction is structured as a contingent fee. The investment bank thus faces strong incentive to complete the deal, which is easier to get done with a higher valuation of the target because the target shareholders gain is larger. Completing deals will also strengthen the market share of the investment bank. A higher market share will strengthen the reputation of the advisor, which is an important factor in the industry. The hypothesis thus means that the acquiring firm should not experience any excess return when being advised by a bank with a larger market share due to the strong incentives of deal completion and the secondary importance of valuation issues (Rau, 2000). The hypothesis does not explain if a bank is hired by the acquiring firm to complete a deal

for a target already chosen by the acquirer or whether the bank chooses targets that have a higher probability of succession in terms of deal completion.

#### 2.3 Better merger hypothesis

The better merger hypothesis, developed by Bowers and Miller (1990), investigates if choosing a reputable investment bank in M&A deals has a relationship with the performance of the deal, measured as the incremental shareholder wealth at the announcement of the acquisition. The process of M&A means incurring substantial search costs for the acquiring firm to identify the most suitable target firms. These costs include developing expertise and repetition in analyzing possible targets and the fit with the acquiring firm. For many firms, doing a M&A deal is not a repetitive task, hence the search costs can be reduced by hiring an investment bank that holds industry knowledge and expertise in finding suitable targets. Investment banks can reduce search costs with industry expertise due to extensive experience. They can also achieve economies of scale when they advise a large number of clients. An investment bank's reputational capital, the amount of reputational value it has in the industry, is very important and is linked to the bank's revenues. This means that bank's always strive to develop new and better methods of identifying possible target firms to find operational and financial synergies to the acquirer. Finding better targets in terms of economies of scale, economies of scope or debt capacity will increase the reputation of the bank, and allow the bank to charge their clients higher advisory fees. Bowers & Miller finds support for the hypothesis that top-tier investment banks, that have a high reputational capital, find better acquisition targets in terms of financial and operational synergies for their client which is measured by the change in shareholder wealth of the acquiring firm. Both the mean abnormal return and the total holding period return are significantly greater in M&A:s where the acquiring firm is advised by a top-tier investment bank (Bowers & Miller, 1990). The better merger hypothesis is an important theory when investigating if acquirers hiring highly reputable investment banks can create better value for the shareholders, and justify the higher advisory fees they pay for these services.

#### 2.4 Bargaining power hypothesis

The value of the acquisition offer is a critical determinant of success for the acquiring firm. This is measured as the premium of the tender offer over the current market value of the target firm. For the acquiring firm, they want to make an offer that contains a premium that is high enough for the offer to be accepted, but not too high to transfer wealth to the target shareholders. For the target firm shareholders, they want to extract the maximum amount possible for the assets of the firm in a deal. This creates a situation where the bidder firm's shareholders want the acquisition price to be as low as possible, and the target firm shareholders want the price to be as high as possible. The offer is a critical determination of success of the deal since the offer determines the benefits to both the bidding firm shareholders and the target firm shareholders. The benefits to the acquiring firm shareholders is the premium paid minus the synergies achieved in the deal, whereas the target firm shareholders gain is the premium paid in the deal. The range of acceptable offers for the target firms is also influenced by the degree of competition in the market for acquisitions. The bargaining power hypothesis means that the more negotiation skills an investment banker has, the greater the share of wealth the client shareholders receive in the deal. This is however limited by the degree of competition for the target firm. Both the acquiring firm and the target firm's shareholder can achieve a greater portion of the deal wealth by hiring investment bankers which have superior negotiation skills (Bowers & Miller, 1990). This hypothesis holds when one party is advised by a top-tier investment bank and the other party is not. It is expected that the superior bargaining power is canceled out if both of the parties are advised by top-tier banks. This hypothesis therefore means that there is a positive relationship between the client's share of the gain in the deal and the reputation of the bank hired compared to the other party's advisor reputation (Bowers & Miller, 1990).

#### 2.5 Empirical literature

Bowers and Miller (1990) are one of the first and most important papers examining the relationship between M&A performance and financial advisors. The authors found that the choice of financial advisor has wealth implications for shareholders of firms involved in the transaction. The authors found a positive relationship regarding if top-tier advisors possess better expertise in identifying targets which yields better synergies for the acquiring firm, and thus

creates value for the shareholders. The total incremental value created, measured by abnormal or total holding return, is higher when either the acquirer or target firm hires a top-tier investment bank compared to when neither of the parties do it, further showing the expertise and knowledge these advisors can bring to a M&A transaction (Bowers & Miller, 1990).

In direct contradiction to what Bowers & Miller concluded is Michel et al (1991) study where they examine the performance of the client's to six investment banks, with various degrees of prestige attached to the bank. The prestige ranking is taken from a study by Johnson & Miller in 1988. The results show that client's to Drexel Burnham Lambert, which was the least prestigious bank in the sample, performed better than more prestigious banks. The worst performance was that of clients to First Boston, which is one of the "bulge" category banks, according to the ranking (Michel et al, 1991). Due to the limitation of the data, the results should be considered preliminary, but are however interesting due to the contradicting conclusions compared to Bowers and Miller's study.

Supporting Bowers & Miller's findings is the study by Kale et al (2003) where they use a measured reputation of the financial advisor to the bidder firm relative to the reputation of the advisor for the target firm. Both the total as well as the proportional return for the bidder and the target increases when the reputation of their advisor increases. The study supports the perception that advisors with a higher reputation are associated with better mergers and greater value creation. Further, the study also finds that the greater reputation by the acquirer, the more likely it is that the deal is completed (Kale et al, 2003). This is consistent with maximizing the client welfare, as well as with the deal completion hypothesis developed by Rau in 2000. An important factor here is the fact that advisory fees are contingent upon the completion of the deal (Kale et al, 2003).

Investment banks can also function as intermediaries between the acquirer and the seller in terms of information asymmetry and the use of a financial advisor can lower these costs and certify information and quality of the different parties. Servaes and Zenner (1996) investigated this by comparing a sample of M&A transactions using a financial advisor versus a sample that didn't use an advisor and found that transaction costs, and in part contracting costs and information asymmetry costs could explain the choice of an investment bank. Acquirers use investment

banks more frequently when the acquisition is more complex, when they have less acquisition experience and when the acquiring firm has a lower insider ownership. The study does not find any evidence that the acquirer's returns depend on whether an investment bank is hired or not (Servaes and Zenner, 1996).

Another aspect is the extent to which a deal is completed after it is announced and if top-tier advisors are better at completing the deals. This relationship is examined by Hunter & Jagtiani (2003) that finds support for tier-one advisors are more capable of completing deals than tier-two or tier-three advisors. The number of advisors used in a deal also seem to have a positive relationship with the likelihood of completing the deal. The study also found support that tier-one advisors were faster in completing the deals, compared to their lower-tier counterparts. Even if tier-one advisors tend to complete the deals with a higher probability and faster, they also found that the return for the acquiring firm shareholders decline when hiring tier-one advisors. However, paying a larger total advisory fee as an acquiring firm was found to be associated with larger shareholder returns in relation to the deal (Hunter & Jagtiani, 2003).

Ismail (2008) has found that tier-one advisors destroy more value for their clients than tier-two advisors. Tier-one advisors destroyed more than \$42 billion of value, compared to tier-two advisors where the gain was more than \$13,5 billion. However, he also found that tier-one banks were more often part of the large loss deals, which could be an explanation for the results. If removing the large loss deals, tier-one advisors could outperform tier-two advisors, which is consistent with most of the literature. He means that advisor reputation based on league tables and market share could be misleading and that tier-one banks don't necessarily create the largest gain for clients. He means that the choice of advisor should not be based on reputation and league table, but instead on the fact which advisors create the largest gain for their shareholders (Ismail, 2008).

Golubev et al (2012) discusses the role of top-tier financial advisors in M&As, or "bulge bracket" firms as he calls them, and how they create value for their clients. The authors argue that top-tier financial advisors have a reputation for expertise in capital markets transactions, which should ensure superior services for their clients in return for higher advisory fees. The study finds that top-tier advisors are associated with higher acquiring firm returns. The use of a top-tier advisor is associated with an average 1,01% improvement in abnormal returns, which translates into a \$65,83 million shareholder value enhancement for a mean-sized acquirer. The study concludes that top-tier advisors provide superior services in M&A and charge premium prices for their work. This quality-premium is consistent with the product market literature and the model of information production by financial intermediaries. The author also argues that the current practice of constructing league tables of financial advisors is consistent with the notion that the position of the investment bank in these rankings signals the quality of its services.

Based on the existing literature on the subject and the hypothesis presented above, we will test the following hypothesis:

*Hypothesis: Acquirers using a top-tier financial advisor in an M&A transaction can earn a positive cumulative abnormal return* 

### 3. Data and Model description

#### 3.1 Data collection

Our data has been collected from Capital IQ where we have screened transactions between 2014-01-01 to 2023-12-31, with a requirement that the acquiring company is listed on OMX Stockholm (S&P Capital IQ, 2024). The total sample includes 4 227 deals, before screening for further deal criterias. Deals without data of the financial advisors to the acquirer are removed, which reduces the sample size substantially by 3 798 transactions. Further, we have removed transactions that were announced but later canceled (15 transactions). We have also removed 17 transactions where the percentage sought in the deal is below 50%. This is because when 50% or more of the target is acquired in a transaction, the target becomes a subsidiary to the acquiring firm, and the financial statements of the two companies need to be consolidated (PwC, 2020). Furthermore, we exclude transactions where the acquirer has not been listed for 120 trading days prior to the acquisition announcement. This requirement is necessary to be able to calculate the estimation window for the acquiring firm's stock. The last exclusion we have made is for transactions that are overlapping in terms of estimation windows for another transaction of the same acquirer. If a firm has made multiple acquisitions and one of them is announced during the estimation window of another acquisition, the transaction is removed. This is done to get a clean estimation window that doesn't include any M&A activity that will influence the calculation of the normal return of the stock. This resulted in 104 M&A transactions that were removed. Considering these adjustments, our final sample consists of 293 transactions that contain all our criterias that we examine.

#### 3.2 Main model and variable definition

Variable definition for the main regression model can be found in table 3. The main regression model that we use to test hypotheses is as follows:

 $CAR_i =$ 

 $\begin{array}{l} \beta_{1} Toptier financial advisor Bidd \ + \ \beta_{2} Full payment cash \ + \ \beta_{3} Full payment stock \ + \ \\ \beta_{4} Diversification \ + \ \\ \beta_{5} Private target \ + \ \\ \beta_{6} Crossborder \ + \ \\ \beta_{7} Deal value Total assets \ \\ \beta_{8} Total assets \ + \ \\ \beta_{9} Booktomarket \ + \ \\ \beta_{10} Debt Assets \ + \ \\ \epsilon \end{array}$ 

#### 3.2.1 Main variables

Our main explanatory variable is the *top tier financial advisor*. An extensive literature review on the subject can be found in section 2. Furthermore, Golubev finds a positive relationship between top-tier financial advisors and cumulative abnormal returns (Golubev et al., 2012). Type of payment in the transaction is measured with two variables, depending on if the deal payment is financed entirely with cash or stock. Top-tier advisors have shown to work with a slightly higher percentage of the cash deals, while working with a slightly lower percentage of the stock deals.

Our dependent variable, CAR, represents the Cumulative Abnormal Return of the acquirer's stock during the event period. CAR has been extensively utilized in academic literature to capture market reactions following M&A announcements (MacKinlay, 1997). By isolating abnormal returns from normal market fluctuations, CAR enables us to distinguish the impact of M&A events from general market trends. This facilitates a more accurate assessment of the event's impact on stock prices. Further details on the methods used to calculate CAR in the event study are provided in section 4.

*Diversification* occurs when expanding beyond a company's current industry category, often through the acquisition of companies operating in different industries (Gaughan, 2011). Previous research suggests that the market tends to react slightly positively to diversifying acquisitions, although the magnitude of this reaction varies depending on the type of transaction (Golubev et al., 2012).

A *cross border* deal refers to one company that acquires another company that does not operate in the same country as the acquirer (Gaughan, 2011). Earlier studies have found a negative effect for both the announcement and long run returns for cross-border acquisitions, compared to domestic acquisitions (Conn et al, 2005). Cross-border acquisitions can involve cultural differences between the acquirer and the target that influence investors' reaction to the deal.

#### **3.2.2** Control variables

We use a number of measures to capture the characteristics of the bidder in the transaction. Total assets are used to measure the size of the bidder, and is a common variable used in this type of research. It's found that client's to top-tier banks are substantially larger than to non top-tier banks. Prior work has shown that size has a slightly negative relationship with the cumulative abnormal return obtained by the acquirer (Golubev et al., 2012).

Bidder's *book-to-market ratio*, as measured by the book value of equity divided by the market value of equity, have in previous research shown that client's to top-tier advisors, have lower book-to-market value than client's to non top-tier advisors. Earlier, the variable has shown a positive relationship to the acquirers cumulative abnormal return (Golubev, 2012).

*Debt/Total assets* is used to measure the leverage of the bidder, where earlier research has shown that higher leverage by the acquiring company is associated with using a top-tier advisor in the M&A transaction. Golubev (2012) found a negative relationship between leverage and the acquirers cumulative abnormal return. In terms of deal characteristics, it is expected that higher deal value is associated with top-tier advisors, as shown in our statistics presented in section 1 of the paper.

Relative size is assessed by comparing the *deal value to total assets* of the bidder. Bidder returns exhibit a positive correlation with the relative size of the deal. However, findings are inconsistent depending on whether the target is a subsidiary, public, or private company (Golubev et al., 2012). Therefore, by incorporating various company forms as control variables below, we aim to isolate the specific effects they may introduce.

The *payment method* could occur in various forms when acquiring a company. Often in cash or stock, or a mix of both. The relationship with bidder cumulative abnormal returns for both cash and stock deals are negative, except for payments including stocks for a subsidiary, which shows a slightly positive relationship (Golubev et al., 2012).

Whether the target is a *public or a private* company can have an impact on the M&A profits, where top-tier advisors to a larger extent advise in deals with a public target, compared to if the target is private. There is however a positive reaction associated with both the announcement of a public and a private deal. (Golubev et al., 2012).

#### **3.3 Summary statistics**

Table 1 provides summary statistics of various variables for every M&A deal in our sample. The table includes several variables, each with its own set of statistics, including the sum, count, average, median, maximum, and minimum values.

Our dependent variable used in our models is the cumulative abnormal return (CAR) achieved by the acquiring firm over different event windows. The median CAR is 2,63% and 2,06% for our different event windows. This means that the market has reacted positively for the transactions in our sample and the acquiring firms have been able to achieve an abnormal return. This is in line with findings from Kale et al (2003) of a bidder CAR of 0,14% but in contradiction to the findings made by Golubev (2012), which finds a five day median bidder CAR of 0,44%.

Our main explanatory variable, which is Top-tier Financial Advisor (bidder) is a dummy variable, with an average of 0,1365. This suggests that 13,65% of the deals have involvement of a top-tier financial advisor for the acquiring company. This is close to the numbers from the advisor league table, which indicated that top-tier advisors were involved in 12,93% of the deals. The difference probably relates to some deals involving more than one top-tier advisor. Then both advisors get credit for the deal in the advisor league table, but our dummy variable only takes the value of one or zero, hence, it does not depend on whether the deal involved one or multiple top-tier advisors.

The Deal Value variable has a total count of 217 deals, with an average deal value of 4 167 million SEK and a median value of 500 million SEK. The highest deal value recorded is 71 642 million SEK, while the lowest is just 1,29 million SEK.

The table also includes dummy variables for Full Payment Cash and Full Payment Stock. The average for Full Payment with cash is 0,491, indicating that nearly half of the deals were fully paid in cash. The Full Payment Stock average is significantly lower at 0,061, suggesting that full payment in stock is less common. The rest of the deals in our sample contain a mixed payment method, using both cash and stock.

The Diversification, Private Target, Public Target, and Cross-Border variables are also dummy variables. The Private Target variable has a sum of 265 and an average of 0,9, meaning that 265 or 9 out of 10 deals were for private targets and the rest is for public targets. The Cross-Border variable's sum is 89 deals and the average is 0.3, indicating that 30% of the deals in the samples are cross-border transactions.

The Deal Value/Total Assets variable has an average of 0.444, indicating that, on average, the deal value was approximately 44,4% of the total assets. The Total Assets variable has an average of 36 710 million SEK.

Finally, the Book-to-Market and Debt/Assets variables have averages of 0,4255 and 0,2371 respectively, indicating the average book-to-market ratio and debt-to-assets ratio for the deals in our sample.

#### 3.4 Top-tier financial advisors

The financial advisor league table contains data between 2014-01-01 to 2023-12-31 and is downloaded from Mergermarket. Table 2 illustrates the top 20 biggest financial advisors in terms of deal value, hired by an acquiring company that is based in Sweden. In total, there are 243 financial advisors that have been used during this period in at least one deal. Our classification of top-tier advisors follows the same approach as Golubev (2012), where the top-8 advisors are classified as top-tier and the rest are classified as non top-tier. Golubev (2012) also ranks the advisors in terms of deal value, instead of focusing on number of deals. Other research has

classified in a similar manner, but not exactly top-8. Michel et al (1991) uses a sample of six prestigious banks, Ismail (2009) classifies top-10 as top-tier and Hunter & Jagtiani (2003) uses top-15. The structure to classify advisors as top-tier or non top-tier is preferable in econometric terms, since using a continuous measure would require to capture advisor reputation in precision, and also to have a constant effect on our dependent variable Cumulative Abnormal Return. (Golubev et al., 2012). The top-8 advisors are Goldman Sachs, Morgan Stanley, Deutsche Bank, SEB, Nordea, JP Morgan, Bank of America and Rothschild. It is worth noting that we have included any deals advised by Merril Lynch as a top-tier advisor, since they merged with Bank of America in 2008 (Reuters, 2009). However, in our sample of deals, the brand Merrill Lynch was still used in some of the transactions after the merger was completed.

#### 3.5 Models for research question 2

To be able to answer research question 2, whether acquirers advised by top-tier financial advisors making a diversification or cross-border transaction can earn an abnormal return, we have conducted multiple additional regressions. We have divided the sample into subsamples based on our two variables of interest, diversification and cross-border transactions. One subsample consists of transactions which is a diversification, i.e. a cross-industry acquisition and the other with intra-industry acquisitions. The same is done for cross-border transactions, where one subsample consists of only cross-border transactions and the other of domestic transactions.

The regression model for diversification looks like this:

$$CAR_{i} =$$

 $+ \beta_{1} ToptierfinancialadvisorBidd + \beta_{2} Fullpaymentcash + \beta_{3} Fullpaymentstock + \\ \beta_{4} Privatetarget + \beta_{5} Crossborder + \beta_{6} DealvalueTotalassets \\ + \beta_{7} Totalassets + \beta_{8} Booktomarket + \beta_{9} DebtAssets + \epsilon$ 

The regression model for cross-border looks like this:  $CAR_{i} = + \beta_{1} Toptier financial advisor Bidd + \beta_{2} Full payment cash + \beta_{3} Full payment stock + \beta_{3} Full payment st$   $\begin{array}{l} \beta_{4} Diversification + \ \beta_{5} Privatetarget \ + \ \beta_{6} DealvalueTotalassets \\ + \ \beta_{7} Totalassets \ + \ \beta_{8} Booktomarket \ + \ \beta_{9} DebtAssets \ + \ \varepsilon \end{array}$ 

We have compared the results from our regression models and our subsamples with a focus on our main variables diversification and cross-border to be able to answer our research questions.

# 4. Methodology

#### 4.1 Estimating Cumulative Abnormal Return (CAR)

#### **Estimation & Event Window**

The event study methodology utilized in this thesis is in line with existing studies, measuring the value gain generated through M&A transactions by examining announcement abnormal returns, computed based on event study methodology. Information on the announcement date for each transaction is acquired from the S&P Capital IQ database. If the announcement date falls on a non-trading day, the event date is shifted to the next trading day after the announcement date.

The event window is designed to observe most of the announcement effect, considering uncertainties associated with the actual announcement date, such as announcements made during or after trading hours or information leakage. In our study, we have chosen to use an event window of [-1,+2] as our main event window.. To our knowledge, there is no general consensus within the literature regarding the optimal length of the event window. There are both studies that advocate for narrow windows to avoid biases and provide more precise results (Eckbo, 1986), while others suggest a longer window to account for information leakage and the delayed impact of the event (McWilliams and Siegel, 1997). Hence, in our study we have tested multiple windows; [-1,+2] and [-0,+3].

The estimation window, defined as the period before the event date in which the stock price is assumed to be unaffected by information about the planned transaction, is crucial for establishing baseline returns (MacKinley, 1997). The estimation window, as defined by MacKinley (1997), spans a period before the event, typically excluding the event day itself to prevent its influence on normal return calculations. We adopt a 110-day estimation window, beginning 120 trading days before the event date and ending precisely 10 trading days before the event date, a measure aimed at mitigating the potential impact of information leaks around the announcement date, which aligns with MacKinley's recommendations (1997).

#### Fama French Three-Factor Market Model

This model employs an analysis of a stock's returns to those of a market index, which in this study is the OMXS30 index. This index serves as a benchmark to evaluate market performance and to assess the correlation of the analyzed companies with the overall market index. Furthermore, alongside the market factor denoted by the OMXS30 index, the model adds two factors; size (market capitalization) and value (book-to-market ratio). By analyzing a stock's returns in relation to these three factors, investors can get insights into its performance relative to market expectations, accounting for its historical correlations and exposure to various risk factors. The Fama french model assists in evaluating how a stock performs compared to market expectations based on its historical correlation with the broader market index, the formula follows (MacKinley, 1997):

Equation 1: 
$$R_i = r_f + \beta_1(r_m - r_f) + \beta_2(SMB) + \beta_3(HML) + \epsilon$$

#### Abnormal return

Every day within the specified event window (t), the abnormal return is calculated for each company in the sample (i). The abnormal return is calculated as the difference between the normal return, as expected by the Fama French three-factor market model, and the actual return of the stock. The formula for abnormal return is: (MacKinley, 1997):

Equation 2: 
$$\widehat{AR}_{i,t} = R_{i,t} - E[R_{i,t}]$$

#### **Cumulative Abnormal Return (CAR)**

CAR is the aggregated abnormal returns for the firm i, over the specific event window. The abnormal return for every day of the event window is calculated and summarized to obtain the cumulative abnormal return for the event window. The formula for calculating cumulative abnormal return is as follows: (MacKinley, 1997):

Equation 3: 
$$CAR_{i}(t_1, t_2) = \sum_{t=t_1}^{t_2} AR_{i,t}$$

#### 4.2 Statistical tests

#### 4.2.1 Heteroscedasticity

Heteroscedasticity occurs when the variance of the error terms and the independent variables is not constant. One of the key assumptions in a regression is that the residuals are distributed with equal variance. This is known as homoscedasticity. If this is violated, there is a problem with heteroskedasticity among the variables. This makes the regression model less reliable (Statology, 2020). We will conduct the Breusch-Pagan test to know if there is a problem with heteroskedasticity with the existing data (Porter, Gujarati, 2010). We get a p-value of 0,00 and can thus conclude that there is heteroskedasticity with the data. To address this issue, we will add robust standard errors to the regression model. Robust standard errors correct for heteroscedasticity by adjusting the standard errors of the coefficient estimates, making them valid even when the error variance is not constant (Porter, Gujarati, 2010).

#### 4.2.2 Multicollinearity

Multicollinearity essentially shows whether there is a linear relationship between one or more of the independent variables in our regression model. In table 7, we test our variables for pairwise correlation. The highest correlation is between the two measures of CAR, with event window -1, 2 and 0, 3. However, they are not used in the same regression models and do not cause any problem for us. For our main variable, top tier financial advisor bidder, the correlation numbers are low. The highest correlation is with the variable private target that is -0,2765 and this is statistically significant at the 5% level. The variable cross border has the strongest correlation with *full payment cash*, *full payment stock* and *private target*, all significant at the 5% level. However, the correlation is at a fairly low level. *Diversification* lacks statistical significance with all of the other variables, and has the highest correlation with *full payment stock* that is at 0,0973. Among the other variables, the highest correlation is between *debt/assets* and *deal value/total* assets at -0,2573, with significance at the 5% level. Debt/assets is also significantly correlated with book to market at 0,2162. Full payment cash and full payment stock also shows a statistically significant high negative correlation at -0.2515, which is aligned with our expectations. We don't see any concern with multicollinearity and don't see any reasons for dropping or changing any variables.

We will also test our model for multicollinearity with a variance inflation factor test (VIF). This test shows how the variance of an independent variable is inflated by the presence of multicollinearity of the estimated regression coefficient to collinearity. The formula used is:

Equation 4: VIFi = 
$$\frac{1}{1-Ri^2}$$

As  $Ri^2$  increases and approaches one, the VIF goes toward infinity. This means that as the extent of collinearity increases, the variance of an estimator increases and can become infinite. If there is no collinearity, the VIF will be one. A VIF value of three or below indicates that there is no concern with multicollinearity (Porter, Gujarati, 2010). We tested our variables and the results can be seen in table 8. All variables have a VIF value of between 1,05 to 1,19, with an average of 1,13. This means that we do not have any problem with multicollinearity in our model.

#### 4.3 Robustness

To ensure the reliability and credibility of our result and analysis, we conducted a series of robustness tests throughout the paper. One critical aspect of our robustness analysis involved the exclusion of M&A transactions where the same acquirer engaged in secondary purchases within the estimation window of 110 days. This adjustment was made to mitigate potential distortions in the normal returns calculations that could arise from multiple acquisitions by the same entity within a short timeframe. This refinement aimed to mitigate potential distortions that might impact the normal return calculation, as it could blur the market's reaction, particularly concerning the primary acquisition under scrutiny. By excluding a number of transactions that occurred during the initial estimation window, we ensured that our analysis focused solely on the primary impact of advisor tier on abnormal returns in distinct M&A transactions.

To ensure accurate interpretation of our results, our analysis conducted robustness tests by using two event windows when calculating cumulative abnormal returns (CARs). The event window serves an important role in capturing market reactions to M&A. We explored diverse event window specifications to gauge the sensitivity of our findings to changes in market reaction timing. For instance, through adjustments in event window duration, we scrutinized whether our conclusions regarding the disparate impact of advisor tiers on abnormal returns remained steadfast across different market response intervals. As evidenced in Table 4, our findings exhibited minimal variance across the different CARs. As a result, we designated our main event window. In making this decision, we considered that a shorter event window might miss significant market movements following a transaction, potentially resulting in an incomplete depiction of abnormal returns. Conversely, extending the event window beyond a certain threshold could introduce unrelated news and events, undermining the accuracy of the abnormal return estimations.

### 5. Empirical results and analysis

#### 5.1 Results - Main model

Table 4 represents results from our main model, where we investigate whether top-tier M&A advisors generate greater abnormal returns in contrast to non top-tier advisors. Following the methodology of Golubov et al. (2012), we address this question through the utilization of an OLS regression model. In this model, our main explanatory variable serves as a dummy which assumes a value of one if at least one of the top eight advisors advises an acquiring firm on a deal, and zero otherwise. The cumulative abnormal return (CAR) serves as the dependent variable, capturing the profits from market reactions to the merger or acquisition announcement, thus reflecting the financial impact of the advisory services provided by top-tier M&A advisors.

Our main regression model in table 4 shows no statistical significance between the cumulative abnormal returns and acquirers using a top tier advisor. Contrary to our expectations, the coefficient for top-tier advisor shows a slightly negative relationship, indicating that the presence of a top-tier advisor is associated with a decrease in cumulative abnormal returns (CAR) with 2,4pp for our main model (1) and 0,89pp for CAR model (2). However, the coefficient is not statistically significant for any of the used CAR models. An interpretation of our findings suggests that advisors representing acquiring firms, consistent with the deal completion hypothesis (Rau, 2000), prioritize finalizing transactions, potentially at the expense of optimizing client wealth. The observed negative effect on Cumulative Abnormal Returns (CAR) may stem from the allocation of a larger portion of synergies to the target company or from executing deals that yield lower overall synergies.

Furthermore, alongside the assessment of advisor reputation, our regression analyses allow us to investigate the impact of specific deal and firm characteristics on acquirer and target announcement returns. The variable total asset has a negative relationship with CAR, through both regressions in the sample, although not significant at any level. Moreover, assets could be used as a proxy for size. As suggested by prior research, such as Kale et al. (2013), larger deals tend to exhibit lower overpayment potential, leading to a negative effect on premiums paid and subsequently on target CAR (cumulative abnormal returns). Therefore, the negative relationship

between the asset variable and CAR aligns with the idea that larger deals may result in diminished shareholder gains.

The source of payment (both cash only or stock only) has a positive relationship with CAR which is contrary to the findings of Golubev et al(2012). However, since there is a lack of statistical significance within the two models, the result should be interpreted with caution. There are mixed opinions about whether stock, cash or a mix of both generates the highest returns. A pure cash offer could signal that the acquiring firm is of high quality and has positive information about the deal, thus reducing information asymmetry whereas stock payment could indicate adverse selection costs due to overvaluation (Tanna, Yousef and Nnadi, 2021). Although, there are mixed ideas of which method yields the highest profits, additional factors such as the macro environment should also be considered. The excess cash position would likely vary based on their strategic priorities, financial policies, industry dynamics, and broader economic conditions. However, it's important to note that these factors are multifaceted, and the current analysis may not provide sufficient insight to accurately interpret the results.

The variable deal value to total assets shows a positive relationship with CAR, hence, when the ratio between deal value and total assets increases, CAR tends to increase as well. This coefficient is significant at the p < .05 level for CAR 1 and 2, indicating a fairly strong significance. This variable describes the relative size of the deal, in other words, it quantifies the size of the deal relative to the size of the target company's assets. This could indicate that investors may interpret higher deal values relative to total assets as indicative of greater synergies, since most of the value in M&A generates from synergies (Gaughan, 2017). However, the reasons for a higher ratio between deal value and total assets could occur due to higher confidence by the management which ultimately leads to increased market perception of potential synergies and value creation.

In table 4, the target private dummy variable generates a positive relationship to CAR. This coefficient is fairly significant for both of the two CAR models. Given that the majority of our sample consisted of private targets (265 out of 293), these results largely reflect the overall sample's CAR.

In testing our hypotheses, we assessed the impact of employing top-tier financial advisors in M&A deals on cumulative abnormal returns (CAR). Contrary to our expectations, our analysis did not reveal a significant positive relationship between the use of top-tier advisors and CAR. This finding suggests that, in our sample, employing top-tier financial advisors did not lead to a statistically significant increase in cumulative abnormal returns. Therefore, we reject the hypothesis that the use of top-tier financial advisors in M&A deals would result in higher cumulative abnormal return.

#### 5.2 Results - Models for research question 2

The results shown in table 5 demonstrate firms that have executed a cross-border merger, i.e where the buyer acquires a firm whose headquarter is located in another country than the acquiring firm. This variable is mainly used as a proxy for examining the risk and potential uncertainty that could occur between the acquirer and the target, which can be large in a cross-border deal. The sample contains 89 firms that have conducted a cross-border deal and 204 deals examined as domestic.

In the -1 to 2 days event window for domestic transactions, the coefficient for top-tier financial advisor is negative (-0,0180) but lacks statistical significance, implying that for domestic M&A transactions, having a top-tier financial advisor for the bidder does not lead to a noticeable change in the CAR during a narrow window around the announcement date. In the 0, 3 days event window, the regression coefficient is also negative (-0,0049). The variable is less negative compared to the -1, 2 days event window, implying that the CAR is less negatively influenced with a top-tier financial advisor involved in the transaction in the 0, 3 days event window. However, it is not statistically significant, indicating that there is no discernible positive or negative CAR impact immediately following the announcement.

For cross-border transactions, there is a similar pattern across both of our event windows, which shows a negative relationship between a top-tier financial advisor and the cumulative abnormal return obtained by the target firm. For cross-border transactions, in the -1, 2 days event window,

the coefficient is negative (-0,0791), which indicates a negative relationship between the two variables, but the lack of statistical significance means there is no strong evidence to support this. A similar conclusion can be drawn for the 0, 3 days event window which shows a similar pattern with a negative coefficient (-0,0569), yet it is also not statistically significant, which suggests no clear market reaction attributable to the role of a top-tier advisor during this time frame.

Other interesting observations is the dummy variable payment with cash which shows a significant positive relationship with CAR for both event windows in the cross-border transactions. In domestic deals however, the relationship is negative. This indicates that if the full payment of a cross-border M&A deal is with cash, the acquirer can expect to earn a positive response by the market in the period surrounding the transaction. The dummy variable indicating if a full payment has been made with stock is also statistically significant for cross-border transactions, for both of our event windows. The coefficient has a positive sign with a value of 0,0988 for event window -1, 2 and 0,11 for event window 0, 3. This shows that executing a cross-border deal with the full payment made in stock has a large influence on the abnormal return of the acquirer. The sign is also positive for domestic deals, however not so strong and without statistical significance. The variable deal value to total assets, representing the relative size of the deal to the acquirer's size, is positive across all event windows and type of transactions, but has a stronger positive relationship for cross-border transactions. Another finding is that total assets have a significant negative impact on CAR for cross-border transactions in the 0, 3 days event window.

Overall, the interpretation of these results suggests that regardless of whether a transaction is cross-border or domestic, the involvement of a top-tier financial advisor to the bidder does not have a significant statistical impact on CAR in the immediate aftermath of the announcement. The lack of statistical significance for many of the variables indicates that there are many different factors influencing the return of an acquirer in relation to the announcement of an acquisition and not a few explanations can be found.

The results shown in table 6 demonstrate firms that have executed a diversification merger, i.e where the buyer acquires a firm that operates in another primary industry. This variable is mainly used as a proxy for examining the risk and potential uncertainty that could occur between the

acquirer and the target, which can be larger in a diversification deal. The sample contains 124 firms that have conducted a diversification merger and 169 deals examined as non-diversifying.

Our main explanatory variable, which is a dummy variable representing if a top-tier financial advisor is hired in the deal, mostly shows a negative relationship with CAR. For all of our event windows and both types of M&A deals, except the 0, 3 days event window for diversification deals, the relationship is negative between the involvement of a top-tier financial advisor and CAR for the acquirer. For diversification deals with the event window 0, 3 days the relationship is positive, indicating you can get an abnormal return using a top-tier financial advisor in a diversification deal. However, no one of the time frames or transaction types show a statistically significant result.

For our control variables, deal value to total assets shows a positive and significant relationship with CAR for non-diversification deals. This means that the larger the deal is in relation to the size of the acquirer, the bigger CAR the acquirer can expect to get. This variable shows a weak, but mostly negative relationship with CAR in diversification deals. This means that larger deals in the same industry, which could remove some uncertainty for investors, get a more positive response by the market than for acquisitions outside of the acquirers core industry. If the full payment is made with stock, all of our event windows and transaction types show a positive relationship with CAR. For intra-industry acquisitions with event window 0, 3 and diversifying acquisitions with event window -1, 2, the results are statistically significant at the lowest level. The private target dummy, indicating if the target firm is private is positive relationship (0,0586 and 0,0622) for diversification deals than for intra-industry acquisitions (0,0263 and 0,0279). For event window -1, 2 in diversification transactions, the result is significant.

By hiring a top-tier financial advisor to assist in the deal process for a diversifying or cross-border transaction, the acquiring firm can't expect to earn a positive cumulative abnormal return. This is somewhat contrary to previous literature on the subject. Bowers & Miller (1990) finds that top-tier financial advisors can assist in finding targets with better synergies, which is one of the areas with a higher risk when conducting diversifying M&A deals. Golubev et al (2012) mean that top-tier advisors have an expertise in capital market transactions and thus can

offer superior services and charge higher advisory fees. If the top-tier financial advisors have this expertise in capital market transactions and can find targets with better synergies, one could expect to find a positive relationship between the CAR in a diversification transaction and the involvement of a top-tier advisor, which we didn't do. Servaes & Zenner (1996) present that acquirers use investment banks more frequently when the acquisition is more complex, which is the case in both cross-border and diversifying transactions that contain more risk factors than domestic and intra-industry deals. However, similar to us, they don't find any evidence that the return depends on if an investment bank is hired or not. This result is in contradiction to Bowers & Millers (1990) and Golubev et al (2012) findings. To conclude, we can answer our second research question that an acquirer can't expect to obtain a positive abnormal return when hiring top-tier financial advisors in a cross-border or diversifying M&A deal.

# 6. Conclusion

In conclusion, our study challenges the common assumption that top-tier financial advisors invariably enhance M&A outcomes. Contrary to expectations, we found no significant positive relationship between top-tier advisor involvement and cumulative abnormal returns for acquirers in the Swedish market. Our findings serve as an indicator for the complexity of M&A dynamics and highlight the need for nuanced analysis when evaluating the impact of financial advisors. For our second research question, we didn't find any positive or statistically significant relationship investigating if top-tier financial advisors can create value in more complex deal situations, like a cross-border or diversification transaction. Ultimately, our research contributes to a deeper understanding of the Swedish M&A landscape, emphasizing the importance of rigorous investigation and cautious interpretation in assessing advisor influence on deal performance.

Much of the existing literature on the subject uses financial advisor league tables for determining the top-tier financial advisors. However, for future research, exploring industry perceptions of top-tier financial advisors would offer interesting insights. This could be done by sending out surveys to people in the industry and in this way, determine which advisors are classified as top-tier. This would get a more subjective view of what people think instead of solely based on the classic league table approach, hence, categorize by deal value.

We believe it would be interesting to further look into in which situations a top-tier financial advisor can add more value than a lower-tier advisor. For example, one could examine if top-tier advisors can add more value in different sectors and geographies. This could enhance the research by providing insights into when and how top-tier advisors contribute the most value to their clients and thereby justifying their higher advisory fees

We believe that limitations for this type of study mostly relate to the type of data that is available for research. There is certainly a lot of data on M&A available, but many of the databases lack information of the financial advisor that is involved in the deal. This lack of information could be both because the deal is done without a financial advisor or that the information is missing. Obtaining more information about financial advisors, possibly by searching through multiple databases for information about a single deal is a possibility and would higher the sample size. The sample is also reduced much when the acquirer must be listed on an exchange to be able to capture the announcement effect in terms of calculating the cumulative abnormal return. Future research could possibly look at other measures of post-deal performance to include samples of private companies as well. Obtaining more information about financial advisors used and including private companies as well would higher the sample size much in this type of study.

### References

Allen, L., Jagtiani, J., Peristiani, S., & Saunders, A. (2003). The Role of Bank Advisors in Mergers and Acquisitions, *Journal of Money Credit and banking*, Vol 36, no 2, pp. 197-224, Available online:

https://www.researchgate.net/publication/236587085\_The\_Role\_of\_Bank\_Advisors\_in\_Mergers\_and\_Ac quisitions [Accessed 21 April 2024]

Bauer, F. & Matzler, K. (2014). Antecedents of M&A success: the role of strategic complementarity, cultural fit, and degree and speed of integration. *Strategic management journal*, Vol 35, issue 2, pp. 269-291. Available online: <u>https://www.jstor.org/stable/24037157</u> [Accessed 1 April 2024]

Bernard, S, B. (1992). Institutional Investors and Corporate Governance: The Case for Institutional Voice. *Journal of Applied Corporate Finance*. Fall 1992, Vol. 3, Issue 5, pp. 19–32. Available online: <u>https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1745-6622.1992.tb00223.x</u> [Accessed 21 April 2024]

Bowers, H. M. & Miller, R. E., (1990). Choice of Investment Banker and Shareholders' Wealth of Firms Involved in Acquisitions. *Financial Management*, Vol. 19, No. 4, pp.34-44. Available online: <u>Choice of Investment Banker and Shareholders' Wealth of Firms Involved in Acquisitions</u> on JSTOR (lu.se) [Accessed 29 April 2024]

Chen, X., Harford, J., & Li, K. (2007). Monitoring: Which institutions matter? *Journal of Financial Economics*, Vol 86, pp. 279–305. Available online: https://www.sciencedirect.com/science/article/pii/S0304405X07001171 [Accessed 2 May 2024]

Conn, R., Cosh, A., Guest, P. & Hughes, A., (2005). The Impact on UK Acquirers of Domestic, Cross-border, Public and Private Acquisitions. *Journal of Business Finance & Accounting*, Vol. 32, pp. 815-870. Available online: <u>The Impact on UK Acquirers of Domestic, Cross-border</u>, <u>Public and Private Ac...: Lund University Libraries</u> [Accessed 2 May 2024]

Eckbo, B. E. (1986). Mergers and the market for corporate control: The Canadian evidence. *Canadian Journal of Economics, Canadian Economics Association*, Vol. 19, pp. 236–260. Available online: <u>https://www.jstor.org/stable/135282</u> [Accessed 10 April 2024]

Ferreira, M. A. & Matos, P. The colors of investors' money: The role of institutional investors around the world. *Journal of Financial Economics*, Vol. 88, pp. 499–533. Available online: <u>https://www.sciencedirect.com/science/article/pii/S0304405X08000263</u> [Accessed 20 April 2024]

Gaughan, P, A. (2017). Mergers, Acquisitions, and Corporate Restructurings, Hoboken: Wiley.

Gaughan, P, A. (2011). Mergers, Acquisitions, and Corporate Restructurings, Hoboken: Wiley.

Golubev, A., Petmezas, D., & Travlos, N. G. (2012). When It Pays to Pay Your Investment Banker: New Evidence on the Role of Financial Advisors in M&As. *The Journal of Finance*, Vol. 67(1), pp. 271-311. Available online: <u>When It Pays to Pay Your Investment Banker: New</u> <u>Evidence on the Role of Financial Advisors in M&As on JSTOR (lu.se)</u> [Accessed 20 April 2024]

Gomes-Casseres, B. (2015). Making Mergers, Acquisitions, and Other Business Combinations Work. *Harvard Business Review Digital Articles*, Vol 8, pp. 2-8. Available online: <u>Making Mergers</u>, <u>Acquisitions</u>, and <u>Other Business Combinations Work</u>.: <u>Lund University Libraries</u> [Accessed 10 April 2024]

Guharati, D.N. & Porter, D.C., (2009). Basic Econometrics. McGraw-Hill Irwin.

GVP. (n.d.). The Pros and Cons of Cross-Border M&A Transactions, <u>The Pros and Cons of</u> <u>Cross-Border M&A Transactions | GVP</u> [Accessed 2 May 2024]

Hunter, W. C. & Jagtiani, J., (2003). An Analysis of advisor choice, fees, and effort in mergers and acquisitions. *Review of Financial Economics*, Vol 12, issue 1, pp. 65-81. Available online: An analysis of advisor choice, fees, and effort in mergers and acquisitions - Hunter - 2003 - Review of Financial Economics - Wiley Online Library [Accessed 10 May 2024]

Ismail, A., (2008). Are Good Financial Advisors Really Good? The Performance of Investment Banks in the M&A Market. *Review of Quantitative Finance & Accounting*, Vol. 35 Issue 4, pp. 411-429. Available online: <u>Are good financial advisors really good? The performance of</u> <u>investment bank...: Lund University Libraries</u> [Accessed 29 April 2024]

Johnson, J. M. & Miller, R. M., (1988). Investment Banker Prestige and the Underpricing of Initial Public Offerings. *Financial Management*, Vol 17, pp. 19-29. Available online: <u>Investment</u> <u>Banker Prestige and the Underpricing of Initial Public Offerings: Lund University Libraries</u> [Accessed 2 April 2024]

Kale, J. R., Kini, O. & Ryan, H.E., (2003). Financial Advisors and Shareholder Wealth Gains in Corporate Takeovers. *The Journal of Financial and Quantitative Analysis*, Vol 38, pp. 475-501. Available online: <u>Financial Advisors and Shareholder Wealth Gains in Corporate Takeovers:</u> <u>Lund University Libraries</u>. [Accessed 2 May 2024]

MacKinlay, C. (1997). Event Studies in Economics and Finance. *Journal of Economic Litterature*, Vol, 35, pp. 13-39. Available online: <u>https://www.jstor.org/stable/2729691</u> [Accessed 17 april 2024]

McWilliams, A. & Siegel, D. (1997) Event studies in management research: theoretical and empirical issues'. *The Academy of Management Journal*, Vol, 40 issue 3, pp. 626-657. Available online:<u>https://www.researchgate.net/publication/234075703\_Event\_Studies\_in\_Management\_Research\_Theoretical\_and\_Empirical\_Issues</u> [Accessed 22 april 2024]

Mergermarket, Deals Search. *Mergermarket*. Available online: <u>https://www.mergermarket.com</u> [Accessed 17 april 2024]

Michel, A., Shaked, I. & Stout, R., (1991). An Evaluation of Investment Banker Acquisition Advice: The Shareholders' Perspective. *Financial Management*, Vol 20 issue 2, pp. 40-49. Available online: <u>An Evaluation of Investment Banker Acquisition Advice: The Shareholders'</u> <u>Pe...: Lund University Libraries</u> [Accessed 10 april 2024] Morosini, P., Shane, S., & Singh, H. (1998). National cultural distance and cross-border acquisition performance. *Journal of International Business Studies*, Vol 29 issue 1, pp. 137-158. Available online: <u>https://www.jstor.org/stable/155592</u> [Accessed 15 april 2024]

Patel, K. (2024). 10 Most Common M&A Risks and Ways to Mitigate Them. Deal. *DealRoom*. Available online: <u>10 Most Common M&A Risks and Ways to Mitigate Them (dealroom.net)</u> [Accessed 17 april 2024]

PwC. (2020). Företagarbloggen - För dig som äger och driver företag. Available online: Koncern, oäkta koncern eller intresseföretag - vi reder ut begreppen (pwc.se) [Accessed 20 May 2024]

Rau, P. R., (2000). Investment bank market share, contingent fee payments, and the performance of acquiring firms. *Journal of Financial Economics*, Vol 56, pp. 293–324. Available online: Investment bank market share, contingent fee payments, and the performance of acquiring firms - ScienceDirect [Accessed 4 May 2024]

Reuters, (2009). Merrill Lynch Bank of America Merger Finalised. *Reuters*. Available online: <u>https://www.reuters.com/article/idUSTRE5001EP</u> [Accessed 17 april 2024]

Servaes, H. & Zenner, M., (1996). The Role of Investment Banks in Acquisitions. *The Review of Financial Studies*, Vol 9 issue 3, pp. 787-815. Available online: <u>The Role of Investment Banks in Acquisitions: Lund University Libraries</u> [Accessed 29 april 2024]

S&P Capital IQ. S&P Capital IQ. Available online: <u>https://www.capitaliq.com</u> [Accessed 27 Mars 2024].

Tanna, S., Yousef, I., & Nnade, M. (2021). Probability of mergers and acquisitions deal failure. *Journal of Financial Economics Policy*, Vol 13 issue 1, pp. 1-30. Available online: <u>Probability of</u> <u>mergers and acquisitions deal failure | Emerald Insight</u> [Accessed 1 May 2024]

Vancena, M. (2013). Mergers and Acquisitions wave from the European Union perspective. Annals from the Faculty of Economics, Vol 1, issue 2, pp. 272-283. Available Online: <u>https://econpapers.repec.org/article/orajournl/v\_3a1\_3ay\_3a2013\_3ai\_3a2\_3ap\_3a272-283.htm</u> [Accessed 1 May 2024]

# Appendix

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Variable	Sum	Count	Average	Median	Maximum	Minimum
CAR (-1, 2)	13,85	293	0,0473	0,0263	1,02	-1,2882
CAR (0,3)	11,37	293	0,0388	0,0206	0,86	-1,2321
Top-tier financial advisor (Bidder)	40	293	0,1365	0	1	0
Deal value (mn SEK)	904 195	217	4 167	500	71 642	1,29
Full payment cash	144	293	0,491	0	1	0
Full payment stock	18	293	0,061	0	1	0
Diversification	124	293	0,42	0	1	0
Private target	265	293	0,9	1	1	0
Cross-border	89	293	0,3	0	1	0
Deal value/Total assets	130	293	0,444	0,0937	7,61	0
Total assets (mn SEK)	10 499 173	286	36 710	3 745	2 488 685	23,73
Book-to-market	125	293	0,4255	0,2952	5,71	-0,1782
Debt/Assets	69	293	0,2371	0,2234	0,7	0

# **Table 1 - Summary Statistics**

Source: S&P Capital IQ

	Total deal	
Adviser	value	Number
	(mEUR)	of deals
Top-tier advisor		
1 Goldman Sachs & Co LLC	56 025	33
2 Morgan Stanley	44 577	24
3 Deutsche Bank AG	43 129	14
4 SEB	29 755	61
5 Nordea Markets	28 405	29
6 JP Morgan	24 247	21
7 Bank of America	23 279	14
8 Rothschild & Co	19 501	16
Non top-tier advisor		
9 PricewaterhouseCoopers LLP	16 493	109
10 Lazard	16 185	21
11 Handelsbanken Capital Markets	15 206	40
12 Citi	14 377	14
13 Carnegie Investment Bank AB	13 877	59
14 Jefferies LLC	13 473	10
15 ABG Sundal Collier Holding ASA	10 516	28
16 Barclays	9 956	8
17 Swedbank	8 406	18
18 Credit Suisse	8 066	6
19 Ernst & Young	7 340	138
20 Evercore Inc.	6 251	8

# Table 2 - Financial Advisor League Table

Source: Mergermarket

# Table 3 - Variable definition

This table presents the definition and derivation of each of the control variables used in our analysis.

Control variable	Variable definition
CAR <sub>i</sub>	$\mathrm{CAR}_{\mathrm{i}}$ is the cumulative abnormal return of the acquirer around announcement day.
Toptierfinancial -advisorBidd	This is a dummy variable that takes the value of 1 if a top-tier financial advisor has been advising the acquiring company in the deal, regardless of how many advisors that's been involved in the deal. The variable takes the value of 0 otherwise.
Fullpaymentcash	This is a dummy variable that takes the value of 1 if the full payment of the deal is made with cash, 0 otherwise.
Fullpaymentstock	This is a dummy variable that takes the value of 1 if the full payment of the deal is made with stock, 0 otherwise.
Diversification	This is a dummy variable that takes the value of 1 if the target's primary industry is other than the acquirer's, 0 otherwise.
Privatetarget	This is a dummy variable that takes the value of 1 if the target company is a private company, 0 otherwise.
Crossborder	This is a dummy variable that takes the value of 1 if the target company's primary location is other than the acquiring firm's, 0 otherwise.
DealvalueTotalassets	Total transaction value of the deal / Total assets of the bidder.
Totalassets	Total assets for the bidder, at the announcement of the deal.
Booktomarket	Book value of equity divided by the market value of equity.
DebtAssets	Debt / Total assets for the bidder, at the announcement of the deal.

	(1)	(2)
VARIABLES	CAR(-1, 2)	CAR(0, 3)
ToptierfinancialadvisorBidd	-0.0242	-0.0089
	(0.0205)	(0.0194)
Fullpaymentcash	0.0288	0.0074
	(0.0227)	(0.0216)
Fullpaymentstock	0.0564*	0.0584*
	(0.0329)	(0.0296)
Diversification	0.0267	-0.0065
	(0.0248)	(0.0202)
Privatetargetdummy	0.0374**	0.0403**
	(0.0173)	(0.0184)
Crossborder	0.0140	0.0290
	(0.0292)	(0.0229)
DealvalueTotalassets	0.0234**	0.0223**
	(0.0101)	(0.0094)
Totalassets	-2.21e-08	-2.71e-08
	(3.02e-08)	(2.03e-08)
Booktomarket	-0.0011	-0.0025
	(0.0194)	(0.0138)
DebtAssets	-0.0236	0.0075
	(0.1145)	(0.0671)
Constant	0.0199	-0.0193
	(0.0321)	(0.0294)
Observations	293	293
R-squared	0.0342	0.0381

# Table 4 - Results from the main model

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 5 - Results	from	cross-border	models
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	Dom	estic	Cros	s-border
VARIABLES	CAR(-1, 2)	CAR(0, 3)	CAR(-1, 2)	CAR(0, 3)
ToptierfinancialadvisorBidd	-0.0180	-0.0049	-0.0791	-0.0569
	(0.0199)	(0.0189)	(0.0749)	(0.0671)
Fullpaymentcash	-0.0018	-0.0320	0.1123*	0.1100**
	(0.0233)	(0.0223)	(0.0575)	(0.0532)
Fullpaymentstock	0.0418	0.0532	0.0988**	0.1100***
	(0.0612)	(0.0576)	(0.0414)	(0.0342)
Diversification	0.0232	-0.0203	0.0356	0.0293
	(0.0258)	(0.0224)	(0.0582)	(0.0419)
Privatetargetdummy	0.0238	0.0025	0.0369	0.0539*
	(0.0212)	(0.0186)	(0.0299)	(0.0295)
DealvalueTotalassets	0.0168	0.0184	0.0519	0.0382
	(0.0102)	(0.0087)	(0.0418)	(0.0434)
Totalassets	-4.72e-08	-3.28e-08	-5.03e-08	-6.11e-08*
	(9.42e-08)	(6.25e-08)	(4.92e-08)	(3.52e-08)
Booktomarket	-0.0053	0.0009	0.0265	-0.0049
	(0.0157)	(0.0147)	(0.0739)	(0.0372)
DebtAssets	-0.0903	-0.0517	0.0982	0.1236
	(0.1125)	(0.0655)	(0.2555)	(0.1439)
Constant	0.0309	0.0569**	0.0982	-0.0894
	(0.0315)	(0.0247)	(0.0578)	(0.0519)
Observations	204	204	89	89
R-squared	0.0418	0.0527	0.0786	0.1365

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

	Non dive	rsification	Diversification		
VARIABLES	CAR(-1, 2)	CAR(0, 3)	CAR(-1, 2)	CAR(0, 3)	
ToptierfinancialadvisorBidd	-0.0135	-0.0237	-0.0090	0.0127	
	(0.0277)	(0.0227)	(0.0295)	(0.0299)	
Fullpaymentcash	0.0257	0.0352	0.0230	-0.0320	
	(0.0291)	(0.0215)	(0.0375)	(0.0409)	
Fullpaymentstock	0.0336	0.0718*	0.0886*	0.0568	
	(0.0185)	(0.0406)	(0.0468)	(0.0471)	
Privatetargetdummy	0.0263	0.0279	0.0586*	0.0622	
	(0.0185)	(0.0210)	(0.0335)	(0.0388)	
Crossborder	0.0070	0.0060	0.0189	0.0586	
	(0.0409)	(0.0230)	(0.0452)	(0.0468)	
DealvalueTotalassets	0.0305*	0.0301***	-0.0016	0.0020	
	(0.0117)	(0.0099)	(0.0253)	(0.0258)	
Totalassets	-1.44e-08	-3.80e-08*	-5.78e-07*	-2.17e-07	
	(4.06e-08)	(2.29e-08)	(3.36e-07)	(2.91e-07)	
Booktomarket	0.0127	-0.0014	0.0054	0.0048	
	(0.0500)	(0.0224)	(0.0199)	(0.0210)	
DebtAssets	-0.0223	0.0825	-0.0366	-0.0983	
	(0.1861)	(0.0849)	(0.1176)	(0.1094)	
Constant	-0.0162	-0.0332	0.0057	-0.0010	
	(0.0465)	(0.0347)	(0.0501)	(0.0522)	
Observations	169	169	124	124	
R-squared	0.0384	0.0921	0.0364	0.0488	

# Table 6 - Results from diversification models

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

# Table 7 - Matrix of pairwise correlation

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) CAR12	1,0000											
(2) CAR03	0.6880***	1,0000										
(3) Fullpaymentcash	0,0352	-0,0313*	1,0000									
(4) Fullpaymentstock	0,0782	0,1088	-0.2515***	1,0000								
(5) Diversification	0,0747	-0,0089	0,0008	0,0973*	1,0000							
(6) Privatetargetdummy	0,0482	0,0471	0,0177	-0.1586*	-0,0035	1,0000						
(7) Crossborder	0,0150	0,0740	-0.1446**	0.2019**	-0,0250	-0.1640***	1,0000					
(8) ToptierfinancialadvisorBidd	-0,0320	-0,0221	0,0863	0,0639	0,0819	-0.2765***	-0,0681	1,0000				
(9) DealvalueTotalassets	0.1183**	0.1329**	-0,1100*	0.1746***	0,0229	-0,0533	-0,0906	0.1388**	1,0000			
(10) Totalassets	-0,0335	-0,0360	0.1252**	-0,0448	-0,0834	-0,0190	0,0791	0,0340	-0,0737	1,0000		
(11) Booktomarket	-0,0154	-0,0174	0.1322**	0,0041	-0,0124	-0,0380	0,1044*	0,0183	-0.1375*	0,0727**	1,0000	
(12) DebtAssets	-0,0554	-0,0353	-0,0222*	-0,1031	0,1093*	0,0452	0,0811	0,0666	-0.2573**	0.1474**	0.2162***	1,0000
*** p<.01, ** p<.05, * p<.1												

# Table 8 - VIF test

Variable	VIF	1/VIF
DebtAssets	1.19	0.837803
Fullpaymentstock	1.18	0.844934
DealvalueTotalassets	1.15	0.866235
ToptierfinancialadvisorBidd	1.15	0.867254
Fullpaymentcash	1.15	0.868053
Privatetargetdummy	1.15	0.873106
Crossborder	1.13	0.882587
Booktomarket	1.09	0.914090
Totalassets	1.06	0.943691
Diversification	1.05	0.956547
Mean VIF	1.13	

# **Figure 1 - Event Study Timeline**

