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AN EXAMINATION OF BIDDER FEES AND THEIR EFFECT ON FIRM RETURNS

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ABSTRACT

Bidder fee use starts to increase in the mid-2000s and takes the private equity and legal landscape by storm during the Great Recession. Bidder fees were infrequently studied, but with their rise in use, finance and legal scholars have started to explore bidder fees. The study examines if bidder fees are used to transfer regulatory risk from the target firm to the bidding firm. The results do not indicate that this is the case, in fact the study results oppose that hypothesis. The study investigates if bidder fees increase target returns and decrease bidder firm returns at announcement. The findings indicate that a bidder fee decrease target returns and the effect on the bidder firm is indeterminable.

TABLE OF CONTENTS

LIST OF FIGURES	iv
LIST OF TABLES	v
ACKNOWLEDGEMENTS	vi
Chapter 1 Introduction	1
Chapter 2 Literature Review – Target Termination Fee	4
Chapter 3 Literature Review – Bidder Fee	8
Bidder Fee Data – Refined Sample Dataset	10
Chapter 4 Hypothesis & Methodology	13
Hypothesis	13
Methodology	14
Model I	15
Model II	16
Model III	17
Chapter 5 Data	19
Data Overview (<i>all values are in millions of dollars, unless otherwise noted</i>) ...	19
Data – Bidder and Target Fees	19
Refined Sample Data	21
Pulled Firm Characteristics	22
Cumulative Abnormal Returns	22
Regulatory – SIC, President	23
Note on the data	24
Chapter 6 Results	27
Refined Sample Data - <i>Firm Characteristics</i>	27
Refined Sample Data – <i>Firm & Deal Characteristics</i>	29
Refined Sample Data – <i>Bidder Cumulative Abnormal Returns</i>	31
Refined Sample Data – <i>Target Cumulative Abnormal Returns</i>	32
Full Sample - <i>Firm & Deal Characteristics</i>	33
Full Sample – <i>Cumulative Abnormal Returns</i>	33
Full Sample – <i>Event Study: Cumulative Abnormal Returns</i>	34

Chapter 7 Multitier Fees	42
Fee Triggers and Multi-Tiered Fees	42
Refined Sample Data Collection – 2015 – all trigger collection	42
2015 Trigger Sample	43
Multi-Tiered Fees	45
Chapter 8 Conclusion.....	48
Appendix A Data on the Data.....	50
BIBLIOGRAPHY.....	52

LIST OF FIGURES

Figure 3-1: Deal per Year and the Percentage of Deals that Include a Bidder Fee for 2006 – 2015	11
Figure 3-2: Bidder Fee Size as a Percentage of Deal Value for 2006 - 2015	12
Figure 5-1: Annual Percentage of Deals that include a Bidder or Target Termination Fee	25
Figure 5-2: Bidder Fee Size vs Target Termination Fee Size	25
Figure 6-1: Bidder Cumulative Abnormal Returns Relative to Deal Announcement .	41
Figure 6-2: Target Cumulative Abnormal Returns Relative to Deal Announcement .	41

LIST OF TABLES

Table 3-1: Bidder Fee use by Bidding Country between 2006 – 2015.....	12
Table 5-1: Deal Data based on Deal Size 1976 - 2015	25
Table 5-2: Bidder Country of Origin 1976 - 2015.....	26
Table 6-1 Refined Sample Data - Firm Characteristics	35
Table 6-2: Refined Sample Data - Firm & Deal Characteristics	36
Table 6-3: Refined Sample Data - Bidder CAR	37
Table 6-4: Refined Sample Data - Target CAR.....	38
Table 6-5: Full Sample Data - Firm & Deal Characteristics	39
Table 6-6: Full Sample Data - Bidder & Target CAR.....	40
Table 0-1: Refined Sample Data.....	50
Table 0-2: Full Sample Data.....	50

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Chapter 1

Introduction

In the first quarter of 2016 a hotel acquisition captivates the merger and acquisition (M&A) market as Starwood Hotels & Resorts Worldwide Inc was about to be involved in one of the most intriguing bidding wars of 2016. One of the most recognizable names in the hotel industry, Marriott International, offered 12.2 billion to purchase Starwood. (Karmin & Hoffman, 2015) Marriott's bid was followed by an unsolicited bid by a Chinese consortium led by Anbang Insurance Group Co. for 14 billion dollars. (Karmin & Jamerson, 2016) This would have been, at the time, the largest takeover of an American company by a Chinese company. A Chinese bidder would significantly increase regulatory scrutiny and Starwood would demand a large bidder fee to account for the additional regulatory risk (assuming a bidder fee around 6.6% which other Chinese firms had agreed to.) (Roumeliotis & Stone, 2016)

A bidder fee or reverse termination fee (RTF) is a payment made by a bidding firm if it is unable or does not finish the acquisition as stipulated in the agreement. (Afsharipour, 2010) In 2008 private equity groups (PEG) were stuck with deals made before the economic downturn and, with changing market conditions the PEGs wanted to exit their positions. The PEG attorneys began to exercise and pay bidder fees similar to a financial option and exit 'bad' deals. (Solomon, 2009) The rise in bidder fee use during and after the financial crisis is described as a major contractual innovation. (Afsharipour, 2010)

Bidder fees may not be extensively studied, but their counterpart – target termination fees – have been explored by financial and legal scholars. Target termination fees function in a

similar fashion as a bidder fee, but they are paid when the target breaks up the deal. Target termination fees differ from bidder fees in that they are heavily regulated in the court system because of fears that a target termination fee could artificially truncate the bidding process.

Part one of the study examines the literature associated with target termination fees. To fully understand bidder fees, it is important to understand target fees. Target termination fees are used more frequently than bidder fees in every year, that was examined in the study, and a strong understanding is integral when examining deal structure. The literatures two most frequently explored hypothesis for target fee use are explored. It is concluded that target fees, when used appropriately, increase efficiency in contracting agreements (measured by higher premiums paid on average.)

Part two of the study explores the literature surrounding bidder fees. The literature is not extensive for bidder fees and the literature that does exist focuses mostly on financial transactions. The hypotheses that bidder fees are used to transfer regulatory and financing risk are explored in this section.

Part three explores the hypothesis and the methodology, that are used to develop and complete the study. In the section three high level questions that are outlined: (1) what firms use bidder fees (2) why they use bidder fees and (3) the effect that bidder fees have on cumulative abnormal returns. The methodology is explained for the three different types of models that are used in the study: (1) a model that assesses if bidder fees are used in regulated transactions to transfer risk and accounts for firm characteristics, (2) a model that examines how bidder fees are used to transfer regulatory risk that accounts for deal characteristics and firm characteristics and (3) a model that examines the effect bidder fees have on bidder and target cumulative abnormal returns when accounting for deal characteristics and firm characteristics.

The fourth section of the study examines the dataset. The data is comprised of over 14,000 announced transactions pulled from the SDC database that included deals that are successful or withdrawn. The data is split into two different sets, the full data set and refined sample data, which included deals with a transaction value greater than a billion dollars and were announced between 2006 and 2015. For the study, the refined sample dataset is the primary sample because it has additional firm characteristics pulled and the SDC data is more accurate in more recent years.

The fifth section is the results section of the paper that answers the two hypotheses of the study: (1) are bidder fees used to transfer regulatory risk from the target to the bidder in M&A, and (2) do bidder fees increase abnormal returns for target firms and reduce returns for bidding firms at announcement because of the committed cost / compensation for the bidder and target respectively. The results contradict the first hypothesis and show evidence that bidder fees are less prevalent in deals with regulatory risk. It is determined that bidder fees reduce cumulative abnormal returns for target firms and their effect on bidder returns is null.

The sixth section explores a study completed on bidder fee triggers and multi-tiered bidder fees. A multi-tiered bidder fee is used when specific breakup triggers are priced differently in the agreement. The study is small in sample size, but the findings should encourage future research. In the small sample there is anecdotal evidence that bidder fee triggers for regulatory risk and financing are priced higher than triggers that a target termination fee could include.

Chapter 2

Literature Review – Target Termination Fee

To understand bidder fees, it is important to have a general understanding of their counterpart, target termination fees. Target termination fees are studied more frequently than bidder fees because of their greater prevalence in merger agreements and the numerous court rulings associated with the fees. A target fee in a merger agreement requires a contingent payment by the target firm to the bidding firm and is triggered when the target dissolves the agreement (under predefined stipulations in the contract.) (Bates & Lemmon, 2003) A target fee is just one form of a protection device; additional examples include, but are not limited to, lock-up options and no-shop provisions (Jeon & Ligon, 2011)

A target firm may not have to pay the breakup fee if they can prove that there was a material adverse change (MAC.) (Afsharipour, 2010) “In a MAC claim, a buyer has the right to terminate an acquisition if the company to be taken over experiences a material adverse change to its business. Such claims were common during the financial crisis, ending acquisitions of the Huntsman Corporation, Acxiom and the SLM Corporation, better known as Sallie Mae.” (Deal Book, 2012)

Two main hypothesis have been suggested that for the use of target termination fees. First, target managers act in their own self-interest and work with a friendly acquirer, an acquirer who is most likely to offer them job security or some other personal benefit at the expense of target firm’s shareholders. The shareholder concern with a self-interest manager is it would reduce target firm shareholder value by truncating the bidding process, implying a reduced

premium because of a reduction in competition. (Boone & Mulherin, 2006) An example of the self-interest manager hypothesis is if a firm agrees to a deal even though it significantly undervalues the target firm, and to dissuade a competing bidder the firms agree to attach a large target termination fee to the deal.

The Delaware Chancery Courts are taking an active role by limiting the size of the target fee in a merger agreement, to contest managers who do not uphold their fiduciary responsibility to their shareholders. If there is a large target fee associated with the deal, it may receive additional judicial scrutiny if the courts view it as a coercive measure to block a competing bid (Block, 2007) Jeon and Ligon (2011) propose that a target fee ranging from 1% - 5%, of transaction value, are reasonable and have been upheld by the courts. It should be noted that the Delaware courts have not provided a 'bright line' as for what is an acceptable or unacceptable size for a target fee. (Wolf, Kirkland & Ellis, 2012) Wolf and Kirkland & Ellis (2012) explain that an upheld target fee usually falls between 3%-4% of the transaction value. The literature frequently references how each deal is a unique situation and, the size of an acceptable target termination fee varies from deal to deal. As noted in "Breakup Fees – Picking Your Number" the authors reference the Caremark case in which Chancellor Chandler of the Delaware Chancery Courts provides numerous factors that are considered when ruling on this case "The overall size of the termination fee, as well as its percentage value; the benefit to shareholders, including a premium (if any) that directors seek to protect; the absolute size of the transaction, as well as the relative size of the partners to the merger; the degree to which a counterparty found such protections to be crucial to the deal, bearing in mind differences in bargaining power; and the preclusive or coercive power of all deal protections included in a transaction, taken as a whole." (Wolf & Feirstein, 2012)

Officer (2003) indicates that Delaware Chancery Courts have enforced a target termination fee that is not ‘auction-ending’, implying that the target termination fee does not reduce the opportunity for a competing bidder. The literature that was examined inferred that a target termination fee in excess of what is deemed reasonable could artificially truncate the bidding process reducing shareholder value. Bate and Lemmon (2003) state “While target fees do empirically make [breaking up hard] our evidence is largely inconsistent with the notion that, on average, such fees reduce target shareholder welfare or are a byproduct of agency problems between target shareholders and incumbent managers.”

The second hypothesis, which the literature is in support, is that target managers use target termination fees to efficiently solve a contracting problem between the bidder and the target and increase or do not materially affect shareholder value. After a merger is agreed upon there is a delay between the merger being announced and the merger closing, this delay is created when the firms have to wait to gain regulatory approval or obtaining financing. (Anderson, 2010) The delay can allow additional bidders to ‘free ride’ on information that was uncovered during the negotiation and bidding process of the initial bidder. (Boone & Mulherin 2006) The target fee acts as a contractual security measure to help induce companies to participate in the bidding process. For a bidder firm to fully understand the synergies that could be created with a target firm they need to commit extensive capital to research and to the proposed financing option. The target termination fee is a security measure for the bidding firm when the research is made public that another firm won’t be able to bid more on the deal because they did not have to use capital on research. Officer (2003) states that the target termination fee on average results in an increase in the premium paid to the target company because it compensates the bidding firm for the resources that they had to invest to fully understand the

value of the firm. Bates and Lemmon empirically prove that deals that have a target termination fee attached to the deal have larger premiums and are more likely to be completed. The literature is in support of the second hypothesis; target termination fees are used to increase contracting efficiency between bidder and target firms.

Appropriate fee size has also been examined in the literature. It has been stated that target termination fee size is examined closely by the courts and they tend to accept deals in the range of 3% - 4% of deal size. Firms need to make sure that the fee that is negotiated will be upheld in the Delaware Chancery Courts. Secondly, firms must ensure that target fees will compensate the bidder firm for the research costs and synergies expressed to make sure that the contract is efficient. If the fee is too low the initial bidder will not be protected from competing bidders that could free ride on publicized information; reducing a bidder's willingness to spend the additional funds to adequately value a firm and choose to skimp on resources for the merger process. (Jeon & Ligon 2011) If the fee is too large then it will artificially truncate the bidding process and a firm may not receive the maximum premium. Officer (2003) agrees with Jeon and Ligon in that a target fee can help reduce the free riding problem.

Chapter 3 Literature Review – Bidder Fee

Afsharipour (2010) defines a bidder fee as a payment made by the bidder if the bidder cannot or does not complete the deal as defined in the merger agreement. A bidder fee cannot simply be described as the opposite of target termination fees. Bidder fee use is different than the use of target termination fees, which Bate and Lemmon (2003) prove is used to increase contracting efficiency in merger and acquisition agreements. The rationale for bidder fee use is sparsely examined and is yet to be determined in empirical studies. Bates and Lemmon (2003) propose that the initial use of a bidder fee provision was to counteract regulatory risk and to create a provision in the case of third party interest (buyer finds another company they are more interested in or a third party bidder makes a bid for the firm that is trying to purchase the initial target.) Sekhon (2010) proposes that bidder fees are representative of ‘insurance’ to target firms because the fee guarantees a fraction of target gains when a deal has expensive negotiation and failure costs. The literature has yet to come to a consensus as to what bidder fees are used for and who they benefit.

Studies completed on bidder fees have focused on financial transactions and the optionality trigger that has been used in these transactions. Pure optionality in a bidder fee exists when a bidding firm can exercise their option to exit a deal for any reason, similar to option contracts that are bought and sold on the financial markets. The traditional way for a buyer to exit a deal was to argue that the target had experienced a material adverse change (MAC) and break off the deal. This inevitably led to a legal battle where damages were determined based on the facts presented. Conversely, option triggers in bidder fees are used in financial transactions and some strategic transactions to allow the target firm to collect a predefined specific

performance, the bidder fee, should the bidder not obtain financing. Financing uncertainty is created because of the delay to obtain regulatory approval. Once regulatory approval is granted there is no guarantee that the financing plan will still be available because of changing market conditions. If financing is no longer available, the PEG is forced to provide their own financing; to counteract this possibility the bidder fee is included with an option trigger. (Cain, Macias & Solomon, 2015) This form of deal structure was widely used by PEGs in 2007, before the financial crisis, 46% of publicly disclosed PEG agreements in the United States contained a bidder fee structure. (Sekhon, 2010) The highly levered deal structure that PEGs use are conducive to this fee structure. Whereas a typical strategic transaction typically finance's by leveraging their balance sheet and therefore the structure is different and the leverage is significantly lower.

Bidder fees have not been subject to a high level of legal scrutiny, whereas target termination fees have been heavily regulated. The legal history of bidder fees is terse, with few prominent legal cases (Afsharipour, 2010) (until the Great Recession of 2007 and 2008 when PEG use and the corresponding legal battles that ensued, prompted additional examination— see Quinn's "Optionality in Merger Agreements") The increasing use of bidder fees with an option structure, may force the courts to reconsider how bidder fees are currently interpreted. Currently, the courts interpret bidder fees as a defensive measure, but Quinn (2010) argues that a bidder fee that provides an option to exit a contract is not a defensive measure for the target firm. This theory has forced scholars to question how bidder fees are priced, and if bidder fees are accurately priced for their possible effect on a deals outcome. Additional research is required to determine if a bidder fee benefits a target or a bidding firm and if the fee is accurately priced.

Bidder Fee Data – Refined Sample Dataset

The study examines a 10-year sample, 2006 – 2015, of mergers and acquisitions that have a transaction value greater than one billion dollars. This section explores how bidder fees have been used over the past 10 years: (1) when the fee was used, (2) where the fee was used and (3) the size of the fee.

The refined sample dataset is composed of 758 announced deals, and 279 of the deals include a bidder fee, slightly less than 37% of deals. On a percentage basis, 2013 (47%) and 2014 (51%) had the highest level of bidder fee use. In fact, 2014 was the only year in the sample when bidder fees were used more than 50% of the time. The years 2008 and 2009 had the lowest number of deals annually, as this was during the financial crisis and a notably bad M&A market. Figure 3-1 shows the percentage of deals that include bidder fees on an annual basis. Over the 10-year sample, bidder fee use increased every year except for 2009, 2012 and 2015.

The average fee size, measured as a percentage of transaction value, averaged 4% for the refined sample data. Bidder fee size increased every year from 2006 to 2012 and then rebounded in 2015. Bidder fee size growth could be attributed to managers getting a better understating as to the actual value of the bidder fee to the merger agreement. A graphical representation of the growth of bidder fee size is represented in Figure 3-2.

The refined sample dataset includes merger announcements from 27 different bidding countries (the data was limited to US target firms only.) Table 3-1 lists the 10 bidding countries that use bidder fees the most in the sample. The United States had 229 (38%) deals that include a bidder fee and is the largest contributor to the sample, in number of transactions and transactions with a bidder fee. The United States' 38% use rate was slightly higher than the

entire sample and one can conclude that on average non-US bidding firms in the sample use a bidder fee less frequently.

Figure 3-1: Deal per Year and the Percentage of Deals that Include a Bidder Fee for 2006 – 2015

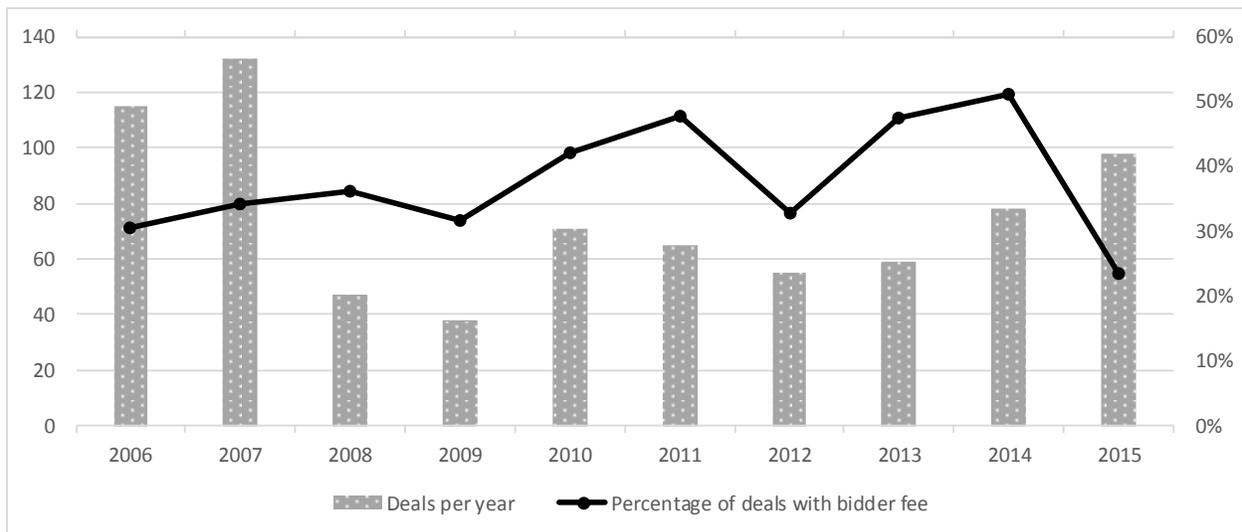
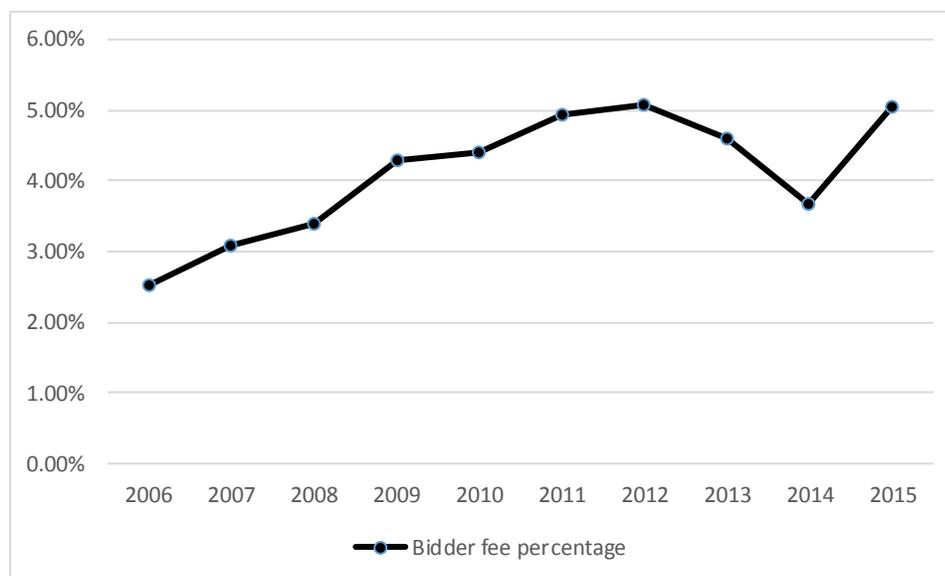


Figure 3-2: Bidder Fee Size as a Percentage of Deal Value for 2006 - 2015**Table 3-1: Bidder Fee use by Bidding Country between 2006 – 2015**

Bidder Country	Bidder Fee: No	Bidder Fee: Yes	
United States	378	229	37.73%
United Kingdom	15	10	40.00%
Canada	14	6	30.00%
Ireland-Rep	3	4	57.14%
Netherlands	6	4	40.00%
Spain	5	4	44.44%
France	11	3	21.43%
Germany	8	3	27.27%
Argentina	0	2	100.00%
China	0	2	100.00%

Chapter 4 Hypothesis & Methodology

Hypothesis

The study attempts to identify what firms use bidder fees, why they use bidder fees and the effect that bidder fees have on cumulative abnormal returns. Hypothesis one (1) is that bidder fees are used by firms in regulated industries to pass regulatory risk from the target firm to the bidding firm.

The literature proposes two uses for bidder fees (1) transfer regulatory risk or (2) compensate for financing risk. (Wolf, 2011) Sekhon (2010) proposes that bidder fees used to compensate for financing risk exist more frequently when the buyer is a PEG. In a financial transaction, the bidder fee acts as a risk transfer for the target firm should the deal not be completed because insufficient financing and the target is 'left at the altar.' Sekhon (2010) explains that a strategic buyer would be less likely to use a bidder fee to compensate for financing risk because they possess a strong balance sheet to back the transaction. If the bidding firm in a strategic transaction is unable to get financing and leaves the deal they would be sued and would have to use their assets to pay for damages. A PEG does not maintain high asset levels and uses bidder fees to set up a deal structure so the firm is not 'on the hook' if financing falls through. *Note: the study does not differentiate between financial and strategic transactions and will focus on the use of bidder fees as a regulatory risk transfer.*

The regulatory risk transfer is hypothesized to transfer the risk from the target firm to the bidding firm. Previously, a target firm would not be compensated if a bidder decided to make a

risky acquisition and the deal was broken up by regulatory agencies, then the target would be pressured by merger-arbitrage shareholders to quickly find another deal to compensate for their loss. The study aims to determine if the regulatory risk transfer is the main use of bidder fees.

The second part of the study examines firm returns to determine the effect bidder fees have on cumulative abnormal returns for bidder and target firms. The second hypothesis that the study tests is do bidder fees increase abnormal returns for target firms and reduce returns for bidding firms at announcement because of the committed cost / compensation. Bidder fee effect on abnormal returns has not been explored in the literature that was reviewed for the study. It is predicted that bidder fee use will decrease bidder firm returns because if the deal is broken up by the bidder, then the bidder is obligated to pay the target the breakup fee. The study anticipates that bidder fee presence will increase target firm returns because it guarantees payment if the deal is broken up, when the target firm previously would have had to go to court to get compensation for damages (bidder fee offers a clearer picture to shareholders.)

Methodology

The study determines the validity of the stated hypotheses as to what firms use bidder fees, why they use a bidder fee and how a bidder fee effects bidder and target returns. The hypothesized are tested by creating three different types of models: (1) a model that assesses if bidder fees are used in regulated transactions to transfer risk that accounts for firm characteristics, (2) a model that examines how bidder fees are used to transfer regulatory risk that accounts for deal characteristics and firm characteristics and (3) a model that examines the effect

bidder fees have on bidder and target cumulative abnormal returns when accounting for deal characteristics and firm characteristics.

Model I

The model examines the effect that regulatory risk has on the existence of a bidder fee when accounting for firm characteristics. (Firm characteristics include but are not limited to: size, leverage, performance, liquidity and country of origin for the bidding firm.)

$$Bf = \alpha + \beta_1 Br + \beta_2 Tr + \beta_3 Pr + \beta_4 Br \& Tr + \beta Fc + \varepsilon$$

- Bf – Bidder fee
- Br – Bidder industry regulatory risk
- Tr – Target industry regulatory risk
- Pr – Presidential control
- Br&Tr – Bidder and target firm regulatory risk
- Fc – Firm characteristics (various)

The model examines the effect that the various regulatory explanatory variables have on the existence of a bidder fee. Bidder industry regulatory risk and target regulatory risk are dummy variables denoting if a firm is in a regulatory risky industry (1 if risky.) The M&A denoted regulatory risky industries consist of energy, telecommunications and financial. This model aims to prove (or disprove) that bidder fees are used by firms in regulatory risky industries. The Presidential control variable is another way to examine regulatory risk not related to industry, but the overall market assuming a Democrat President is tougher on regulation than a Republic President. The bidder fee and target fee interaction variable is another way to examine regulatory risk in the model, a value of 1 means that both bidder and target are in a regulated industry. A beta greater than 0 for β_1 , β_2 , β_4 support the hypothesis that bidder fees are used as a regulatory risk transfer in a merger agreement. A beta less than 0 for β_3 supports

the hypothesis that bidder fees are used as a risk transfer, assuming a Democrat President is more aggressive than a Republican President pertaining to M&A regulation. These four variables (and a few adaptations) are what will be used to either prove or disprove the hypothesis. The goal of the different variables is to determine if a bidder fee is being used to pass regulatory risk.

The industry regulatory variable is consistent across time; it does not change for the entire dataset. The President regulatory variable has a chance to change every four to eight years when there is an election. The President regulatory variable goal is to examine regulation on a market condition basis.

Model II

The second model also seeks to explain if bidder fees are used by firms to transfer regulatory risk to the bidding firm. Model II includes deal characteristics along with firm characteristics, which differentiates it from model I. (Deal characteristics include but are not limited to: deal size, deal premium and all cash transactions.) The only difference between model I and model II is the addition of various deal characteristics.

$$Bf = \alpha + \beta_1 Br + \beta_2 Tr + \beta_3 Pr + \beta_4 Br \& Tr + \beta_5 Fc + \beta_6 Dc + \varepsilon$$

- Bf – Bidder fee
- Br – Bidder industry regulatory risk
- Tr – Target industry regulatory risk
- Pr – Presidential control
- Br&Tr – Bidder and target firm regulatory risk
- Fc – Firm characteristics (various)
- Dc – Deal characteristics (various)

Model III

Model III aims at answering the second hypothesis, do bidder fees increase abnormal returns for target firms and reduce returns for bidding firms at announcement because of the committed cost / compensation. The bidder fee dummy variable is the explanatory variable that will be able to prove or disprove the hypothesis when examined against bidder and target returns. The bidder fee and bidder industry risk variable register a value of 1 if the deal has a bidder fee and is regulatory risky. The regulatory and different deal / firm characterizes are included to be absorbing variables to try and reduce the noise on the bidder fee existence variable. A beta value greater (less) than 0 for β_1 and β_4 support the hypothesis that bidder fees increase abnormal returns for target firms (decrease for bidder firms.) If the model indicates that bidder fee existence increases target returns and decreases returns, then the study will be able to confirm the above stated hypothesis.

$$CAR = \alpha + \beta_1 Bf + \beta_2 Br + \beta_3 Tr + \beta_4 Pr + \beta_5 Bf\&Br + \beta Fc + \beta Dc + \varepsilon$$

- CAR – Cumulative abnormal return (indicated bidder or target)
- Bf – Bidder fee
- Br – Bidder industry regulatory risk
- Tr – Target industry regulatory risk
- Pr – Presidential control
- Fc – Firm characteristics (various)
- Dc – Deal characteristics (various)

The CAR data was compiled using an event study within WRDS; CARs for bidder and target firms are compiled using the Market Model risk model. An event study is an analysis of a statistically significant change in a firms daily returns compared to risk adjusted market returns, according to the CAPM. The risk free rate is a three month US Treasury Bill. The beta is

calculated using a 252-day estimation window, with a minimum of 25 valid returns, and a 30-day gap between the announcement date.

$$BCAR = Rb - (Rf + \alpha + \beta B (Rm - Rf))$$

- BCAR – Cumulative Abnormal Returns (bidder)
- Rb – Bidder Return
- Rf – Risk free rate
- βB – Beta of bidding firm
- Rm – Market Return

****Target CAR model uses the same methodology****

Chapter 5

Data

Data Overview

(all values are in millions of dollars, unless otherwise noted)

The sample data from the SDC database only contained full mergers; the buyer owned less than 50% of the company before the acquisition and owns 100% of the company after the acquisition. The dataset includes deals that were either successfully completed or withdrawn when the United States was the target nation and it was a publicly traded company. The initial dataset pulled from the SDC database contained over 14,119 announced transactions, and 4,140 of the announced transactions were withdrawn. The data compiled included deals from November 1976 to September 2016 although for the study the timeframe is limited to the end of December 2015. Included in the dataset are 2,103 deals without a transaction value listed, these deals are omitted in the modeling. When the deals lacking a transaction value are excluded; the mean deal value is \$999.43 and the median value is \$102.44.

Data – Bidder and Target Fees

The SDC data contains M&A deals starting in 1976, and the first fee (bidder or target termination) did not appear in the database until 1985 (there are two bidder fees and twelve target termination fees recorded in 1985.) A total of 1,641 (11.6%) deals had a bidder fee and 5,430 (38.5%) had a target termination fee of the 14,119 deals recorded. Figure 5-1 provides a visual representation of the percentage of deals that include either a bidder fee and or a target termination fee on an annual basis between 1976 and 2015. Figure 5-1 illustrates the increase in

bidder fee use as a percentage of deals in the past 10 years, similar finding to Afsharipour's (2010) claim that bidder fee use started to increase around 2005 and the first spike was in the mid-nineties. Additionally, Figure 5-1 shows that even with the increasing use of bidder fees, they have been used drastically less than target fees in deal structuring (a deal can have a bidder and a target fee.)

Fee size is not explicitly examined in this study's models, but is area of study in the literature. Bidder and target termination fees are to be paid when one firm breaches the contract (specific to a trigger); the fee size should correspond to the value / risk that the firm believes is associated with the individual trigger and deal. The SDC data provides fee size data (bidder and target) as a value in millions of dollars to be paid if the deal is broken up. For the study both bidder and target fees are measured as a percentage of transaction value. The percent of transaction value metric is the most frequently used measure in the literature and it is a simple measure to calculate. There are numerous deals that do not have a transaction value listed, and eight deals without a transaction value have a bidder fee and 16 deals have a target termination fee associated with the deal (these deal are excluded from analysis.) The average bidder fee size as a percentage of deal value is 3.94% and the average target termination fee size is 3.76% (this includes all deals, one deal could possibly have a bidder and a target fee associated with it.) Figure 5-2, bidder fee size versus target fee size, illustrates that in recent years bidder fees have been larger than target fees, but there are no definitive trends that can be drawn from the data.

The data is broken down into, five equally distributed sets based on deal size. The results are outline in Table 5-1 a note regarding this table, the first bucket 0% should be disregarded because it is composed of transactions that lack a transaction value. The largest 40% of deals

(based on transaction value) had the highest percentage of deals that contained a bidder fee or a target termination fee.

Another important area of the data was the location of the bidding companies. The models in the study incorporate bidding firm country of origin as an explanatory variable (the data collection search limited the deals to only US target firms.) The data includes mergers bidding firms located in 68 different countries (including the United States of America.) Of the 68 countries present in the data only 32 of the countries had completed or withdrawn a deal when a bidder fee was present. Whereas, target termination fees were associated with bidding firms from 41 different countries. In the data set, the majority of deals had both the target and bidding firm located in the United States. Table 5-2 lists the largest contributors to the dataset in terms of bidding firm country of origin.

Refined Sample Data

The refined sample data includes deals that occurred between 2006-2015 and have a transaction value greater than one billion dollars (as measured by the SDC.) These characteristics are used as to limit the data because 2006 is when bidder fee usage started to increase (as a percentage of total deals.) This data subset contains a high concentration of deals that include bidder fees and this 10-year sample has the highest prevalence of fees. Additionally, it excludes deals that do not have a transaction value listed and the allows for a sample with a higher concentration of deals that included a bidder fee because the deals are larger (Table 5-1). This reduces our sample data (to be referred to as *refined sample data*) to 758 deals of which 279 (37%) have a bidder fee and 629 (83%) have a target fee. Termination fee usage is more

prevalent in the refined sample data than the comprehensive data set where only 11% of deals include a bidder fee and 38% a target termination fee.

The refined sample data had a median transaction value of \$2,900 and a mean transaction value of \$5,855 (value in millions.) The smallest transaction included was one billion dollars and the largest was had a transaction value greater than 145 billion dollars.

Bidder fee size (measured as a percentage of deal value by taking the fee size and the transaction value both provided by SDC) is greater than the target termination fee size from 2007-2015 in the 10 year refined sample dataset. For the refined sample dataset, the average bidder fee size was 4.1%, greater than the comprehensive data set bidder fee size of 3.9%. In addition, the target termination fee size, 3%, was less than the target termination fee for the comprehensive data set 3.8%.

Pulled Firm Characteristics

There are 24 different firm characteristic variables pulled to further increase the firm characteristics that could be used as explanatory variables. The additional firm characteristics were only pulled for the refined sample dataset. The new characteristics included, but are not limited to: cash, retained earnings and revenue (all variables that could be easily found on a 10-K)

Cumulative Abnormal Returns

Cumulative abnormal returns are compiled for both bidding firms and target firms for the full sample data and refined sample dataset, using the Market Model risk model. Bidder CARs

were pulled for 44% of the deals and target CARs for 57% of the deals in the full sample because of an inability to match CUSIPS in WRDS.

The average CAR (market model) in the full sample for bidding firms with a bidder fee present equaled -2.9% whereas firms that did not have a bidder fee present had a CAR of -1.62%. In addition, target firms CARs with a bidder fee present are 25.41% whereas target firms that do not have a bidder fee present have an average CAR of 26.91%. At a high level, bidder fees do not seem to have a positive effect on bidder or target firm returns, this is explored further in the models.

Regulatory – SIC, President

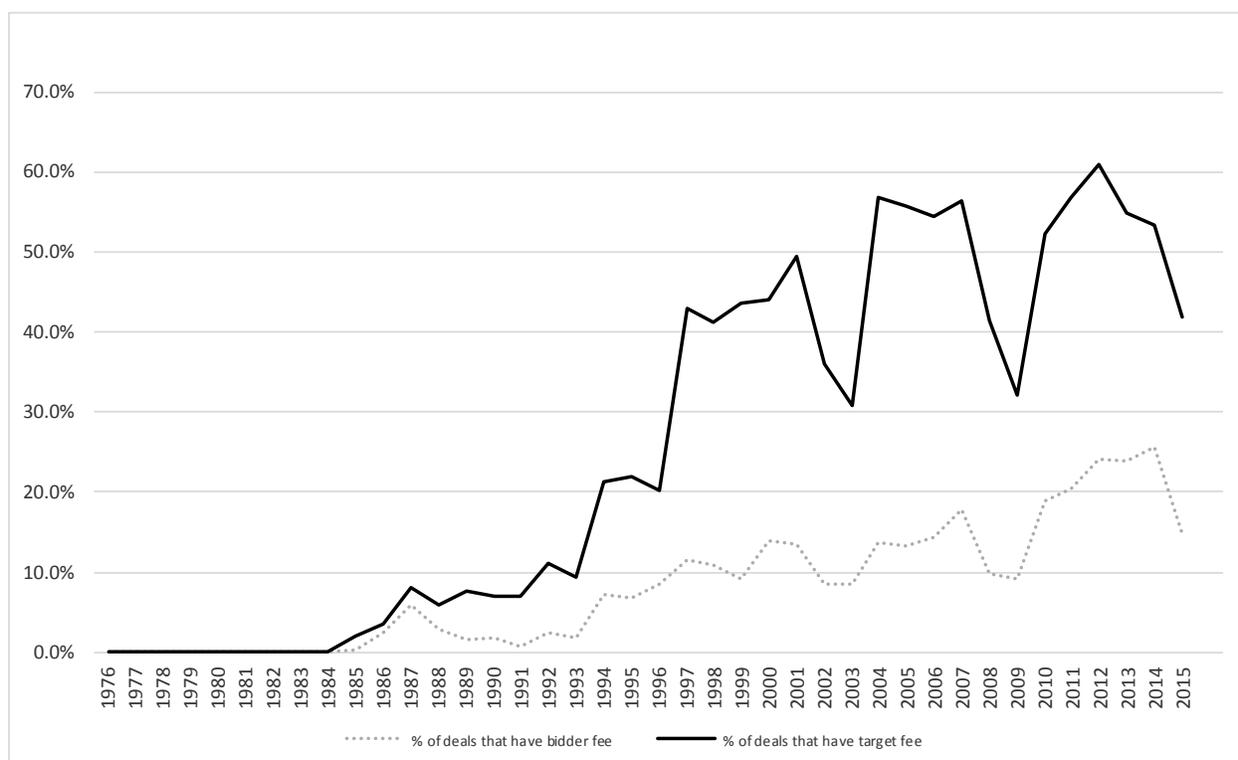
Regulation is examined by two different variables in the study, the first is industry specific and the second is political party control in the United States Government. The industry regulatory dummy variable indicates regulatory risk in three industries at a high level – energy (49, 13), telecommunications (36, 48) and financial (60) (SIC 2 digit codes.) After examining the literature these three industries are determined to be most impacted by regulatory risk in mergers and acquisitions. (Al-Ubaydli, McLaughlin, 2014) For the entire sample of over fourteen-thousand deals, slightly less than 30% were determined to be in an industry with regulatory risk.

The second regulatory variable, is a Presidential dummy variable (1 for Republican, 0 for Democrat.) (Renka, 2010) The President dummy variable is a proxy for additional regulatory pressure when the President is a Democrat. Stewart (2016) states that “[The Obama administration] has been more aggressive in opposing mergers [deemed] anti-competitive than ever before.” Recent administrations, regardless of political party affiliation have been

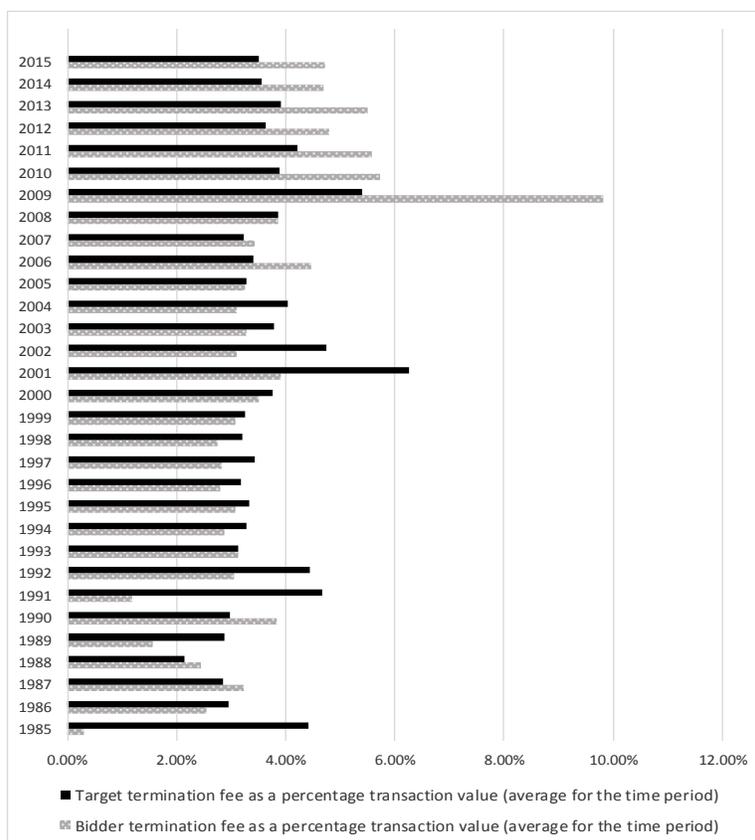
increasingly tough with M&A regulation. There is reason to believe that a Democrat President takes a more active role in regulating mergers using data from the Federal Trade Commission. The President variable is used to proxy for the additional regulatory pressure that M&A deals are subject to when a Democrat is President. Historically, a Democrat President puts more pressure on deals that are deemed competition reducing and theoretically there is higher chance that the deal will not pass through the additional regulatory scrutiny.

Note on the data

Some of the data being used is pulled from the SDC database. In “Do Termination Provisions Truncate the Takeover Bidding Process?” by Audra Boone and Harold Mulherin they state “the difference between the SEC filings and the SDC data is especially noticeable in the early years of the sample.” In addition, they went on to say that there is “evidence of the incompleteness in the SDC data.” They say that the SDC data completeness and quality improves for the more recent deals. (The worst quality data comes from the oldest data.) (Boone, Mulherin, 2007)

Figure 5-1: Annual Percentage of Deals that include a Bidder or Target Termination Fee**Table 5-1: Deal Data based on Deal Size 1976 - 2015**

Deal size (millions)	Deal Frequency	Deals that have bidder fees	Percentage with bidder fees	Deals with target fees	Percentage with target fees
0%	\$ -	2,031	8	16	0.8%
20%	4	758	16	50	6.6%
40%	38	2,780	200	721	25.9%
60%	131	2,784	292	1,163	41.8%
80%	518	2,784	395	1,528	54.9%
100%	164,747	2,982	730	1,952	65.5%
		<u>14,119</u>	<u>1,641</u>	<u>5,430</u>	

Figure 5-2: Bidder Fee Size vs Target Termination Fee Size**Table 5-2: Bidder Country of Origin 1976 - 2015**

Bidder Nation	Bidder Fee: No	Bidder Fee: Yes	Bidder Fee: Yes (%)	Total Deals
United States	10162	1461	12.57%	11623
Canada	266	34	11.33%	300
United Kingdom	234	49	17.31%	283
France	79	8	9.20%	87
Netherlands	68	13	16.05%	81
Japan	69	4	5.48%	73

Chapter 6

Results

The results section is broken down into two main sections: refined sample data and full sample data. The refined sample data models include two separate runs for each of the three main models. The first pass is a bare bones version with fewer explanatory regulatory variables. The second pass includes more regulatory variables to try increase the accuracy of the results when testing if bidder fees are included to pass regulatory risk from the target firm to the bidder firm. For the cumulative abnormal return models, a similar structure is used to determine if noise in the data is creating significance in the first pass models.

For the full sample dataset, only one pass is shown because in the study it was the secondary dataset because of the lower prevalence of bidder fees and the SDC's noted issues with early data. The full sample dataset includes model results for the deal and firm characteristics and the CAR model.

(Note: All the variables in the models are prima facie, at deal announcement. If the deal was consummated or withdrawn is not examined in the model, the models only examine data on announcement date.)

Refined Sample Data - *Firm Characteristics*

Table 6-1 contains the results of a regression run on the existence of bidder fees including firm characteristics. Model 1 has four explanatory variables present; all variables measure

bidder firm characteristics. The explanatory variables are proxies to measure size, leverage, performance and liquidity of the bidder firm. The size variable is the log of the bidder's total assets. The leverage variable is the bidder's liabilities to total assets. The performance indicator is EBITDA to sales and the liquidity variable is cash to the log of total assets. The dependent variable, bidder fee, is a dummy variable assigned a value of 1 for deals that indicate bidder fee presence and 0 if a bidder fee is not present.

The model 1 did not produce any explanatory variables with a significant predictive value. Model 1 did not include any regulatory variables as a test to see if using only high-level firm characteristics one would be able to predict a bidder fee, this was not true.

Model 2 includes additional variables to proxy more target and bidder firm characteristics including: bidder / target size and a debt ratio (debt to total assets.) Model 2 includes bidder and target industry regulatory variables and a President regulatory variable. Then new President regulatory variable is a dummy for what political party controlled the White House, 1 for Republican and 0 for Democrat. The final regulatory variable is a dummy variable that registers a 1 if both industries are regulated and a 0 if one or both industries are not in the regulated category. All of the regulatory variables test if bidder fees are used as a contracting mechanism to transfer regulatory risk.

Model 2 had a significant constant value of .78 which is indicative of a fee being included most of the time. The only significant explanatory variable was the President dummy variable which significantly predicted bidder fee existence when a Republican President controlled the White House with a magnitude of .25. A coefficient of .25 indicates that bidder fee presence is greater when there is a Republican President in office. The results for the President variable are different than anticipated because it is hypothesized that a Democratic

President would increase fee usage because of the increased regulation. Model 2's results directly contradict the hypothesis that bidder fees are used to transfer regulatory risk assuming a Republican President regulates M&A less.

On an annual basis Model 2 shows a statistically significant preference for bidder fee use between 2010 – 2013 with a magnitude ranging from .29-.41. The positive coefficient indicated that in these years there is a greater likelihood that a bidder fee will be included on a deal, when accounting for the explanatory variables.

Refined Sample Data – Firm & Deal Characteristics

Table 6-2 contains the results of regressions that include firm and deal characteristic explanatory variables that predict the existence of a bidder fee. The explanatory variables for model 3 include the variables from model 1, first pass firm characteristics, and a bidder regulatory dummy. The new explanatory variable, a deal characteristic, is the log value of the transaction (note that this is the refined sample and all transactions are greater than one billion dollars.)

The bidder regulatory dummy is nearly significant and displays a magnitude of -.67. The -.67 magnitude indicates that a firm in a regulated industry is substantially less likely to use a bidder fee than a firm in a non-regulated industry. Although the data is not significant, it is suggestive that a firm in a regulated industry does not indicate bidder fee presence. Model 3 results do not support the hypothesis that a bidder fee is used by firms in regulated industries to pass regulatory risk from a target to a bidder firm.

Model 4 is the second pass at creating a model that predicts the existence of a bidder fee using firm and deal characteristics. The explanatory variables for model 4 include additional firm and deal characteristics that can enhance the model's predictive ability (see table 6-2.) The explanatory variables include three new dummy variables: deal is paid for in all cash (1 all cash), bidder is from Asia (1 bidder is located in Asia) and the bidder is from Europe (1 bidder is located in Europe.) The final new explanatory variable is deal premium percentage; deal premium is defined as the price paid versus the price of the stock one day before the announcement.

Model 4 has four significant variables, target size, transaction value, President dummy and Asian bidder dummy. The President dummy variable is significant at the 1% level with a magnitude of .28. The positive magnitude indicates that a Republican President actually increases the odds that a bidder fee will be attached to a deal when a Republican is President. This result is consistent with model 2's result that a Republican President increases bidder fee use, which contradicts the proposed hypothesis. The other significant explanatory variable that could impact regulation is if the bidder is from Asia. The model says with 99% confidence and a magnitude of .29 that a bidder fee will be attached when the bidder is from Asia, which means that a bidder fee is more likely associated with an Asian bidder than a non-Asian bidder. The Asian dummy variable can be interpreted as an indirect regulatory variable because international deals, especially with some Asian countries are subject to high levels of regulatory scrutiny in the US and abroad. The Asian bidder variable shows support that a bidder fee will be attached in highly regulated deals. Unlike model 3, neither industry regulatory variable produces a significant result.

Finally, this model shows similar annual trends that model 2 shows; between 2010 – 2013 at a 1% confidence level, there is a higher likelihood that a bidder fee would be attached to a deal.

Refined Sample Data – *Bidder Cumulative Abnormal Returns*

Model 5 examines the effect that firm and deal characteristic, including if a bidder fee is present, has on cumulative abnormal returns. Cumulative abnormal returns are calculated using an event study that examines stock returns on the day of the merger announcement against the market accounting for risk. A new dummy variable created for the model measures if a firm had a bidder fee and is in a regulatory risky industry. The new variable has a value of 1 if the deal is in a regulated industry and has a bidder fee and 0 if either of the classifications are null.

Model 5 did not contain any statistically significant variables. The results did not indicate if a bidder fee reduced bidder firm cumulative abnormal returns as the study had anticipated.

Model 6 has the same explanatory variables as model 3, but it includes a dummy variable for bidder fee (1 is bidder fee is present.) The goal of this model, similar to model 5, is to show with some significance the magnitude that bidder fees effect bidder cumulative abnormal returns. The model results did not indicate that bidder fee presence had a significant effect on bidder CARs. In both model 5 and model 6 bidder fee presence is proven to have a null effect on bidder CARs. The complete model results can be found in Table 6-3.

Refined Sample Data – *Target Cumulative Abnormal Returns*

Model 7 examines the dependent variable, target firm cumulative abnormal returns measured by the market model. Model 7 has four significant variables, bidder size and deal premium have a positive effect on CARs. The two other significant variables, target size and if the bidder is in regulated industry and has a bidder fee have a negative effect on target CARs. Model 5, displays an inverse relationship between size and return because the larger the target the lower the return, although it had a small magnitude.

Although bidder fees alone are not significant in the model, when a deal in a regulated industry includes a bidder fee, the variable is significant with a magnitude of -.15. This result indicates that for regulated deals that include bidder fees, target CARs are reduced at deal announcement. Predicting that the abnormal returns are reduced when a bidder fee is included in a regulated industry, which does not fit the hypothesis that bidder fees increase target CARs. From the target firm shareholder's perspective, one could see a bidder fee connected to a deal as a signal that the deal may be broken up and bidder fee compensation is much smaller than the premium that shareholders would have received had the deal been completed.

Model 8 also examines target firm cumulative abnormal returns again did not have bidder fee presence as a significant variable in the model. Three of the five significant explanatory variables are related to deal characteristics: log value of the transaction, deal premium and if the deal was all cash. Specifically, if the deal was all cash had a magnitude of .11, suggests that target returns are greater for firms that finance a deal in all cash. The fact that cash deals have a stronger long run performance and on average stronger returns support this result. (Rappaport & Sirower, 1999) These results can be found in Table 6-4.

Full Sample - Firm & Deal Characteristics

Model 9 is an examination of the full dataset for bidder fee presence and increases the number of observations to 5,132, a tradeoff between explanatory variables and number of observations. The explanatory variables are various firm and deal characteristics similar to model 8. A bidding firm in a regulated industry is significant with a magnitude of -.04. This result is similar to the refined sample data's model 3. This is additional evidence that the proposed hypothesis that bidder fees are used by firms in regulated industries to transfer regulatory risk is proven empirically false.

The model produces results similar to the refined sample data models, and all cash deals have a lower probability of including a bidder fee. Bidder debt ratio and return on assets both signal that a firm that does not perform as well or is more highly levered, dissuades a firm from including a bidder fee in the deal. The results from model 9 are in Table 6-5.

Full Sample – Cumulative Abnormal Returns

Model 10 tests bidder firm CARs against explanatory variables that included firm and deal characteristics. After adjusting the model a few times, the bidder fee trigger remained insignificant to predicting a bidding firm's CAR. This is the same result that the refined sample had and one can conclude that bidder fee existence does not affect a bidding firm's cumulative abnormal return. The result does not provide enough information to reject or accept the hypothesis that bidder fees decrease CARs because they guarantee payment.

Model 11 examines target firm CARs, and it is the first model that bidder fee existence is significant. Contrary to the hypothesis proposed in the study, at the 99% confidence level, the

model predicts that target firms that have a bidder fee will have lower abnormal returns. This result confirms the preliminary result in model 7 and one can empirically reject the hypothesis that a target firm with a bidder fee will have higher returns because of the compensation that a bidder fee guarantees. The results for models 10 and 11 are in Table 6-6.

Full Sample – *Event Study: Cumulative Abnormal Returns*

The Event Study results for bidder and target firm cumulative abnormal returns are consistent with merger and acquisition literature. Bidder firm abnormal returns, Figure 6-1, show a -.12% return on the day of announcement, slightly negative, but typically there is not much reaction from bidder shareholders. The target CARs, Figure 6-2, showed leakage starting 30 days in advance of the deal announcement, which accounts for 10% of the abnormal returns (insider trading.) On announcement date, the target firm had a 21.04% CAR, in anticipation of the premium the firm will receive if the deal goes through.

Table 6-1 Refined Sample Data - Firm Characteristics

Dependent Variable: Bidder Fee *

Explanatory Variable	Model 1		Model 2	
	Coefficient	p Value	Coefficient	p Value
Bidder Total Assets **	-0.00783230	0.728	-0.00546060	0.759
Target Total Assets **	-0.09838280	0.391	-0.01383870	0.535
Bidder Liabilities / Total Assets	0.19230660	0.237	0.04817760	0.692
Bidder EBITDA / Net Sales	0.00003470	0.535	0.10738950	0.277
Bidder Cash / Total Assets	-	-	0.00000552	0.900
Bidder Debt Ratio	-	-	-0.05886900	0.613
Target Debt Ratio	-	-	-0.00439480	0.506
President *	-	-	0.24729050	0.010
Target Regulatory SIC *	-	-	-0.12923830	0.364
Bidder Regulatory SIC *	-	-	-0.13856750	0.249
Bidder & Target Regulatory SIC *	-	-	0.16401470	0.388
Year				
2007	-	-	0.03315110	0.651
2008	-	-	-0.04942160	0.643
2009	-	-	0.21834810	0.055
2010	-	-	0.35967970	0.001
2011	-	-	0.40663570	0.000
2012	-	-	0.36155730	0.000
2013	-	-	0.29176750	0.002
2014	-	-	0.14101360	0.193
2015	-	-	-	-
Constant	1.09118100	0.011	0.77943400	0.000
Observations	282		280	

* Dummy Variable

** Log of coefficient

Table 6-2: Refined Sample Data - Firm & Deal Characteristics

Dependent Variable: Bidder Fee *

Explanatory Variable	Model 3		Model 4	
	Coefficient	p Value	Coefficient	p Value
Bidder Total Assets **	-0.00889760	0.708	-0.01173020	0.540
Target Total Assets **	-	-	-0.06959670	0.030
Bidder Liabilities / Total Assets	0.14541850	0.320	0.12338550	0.363
Bidder EBITDA / Net Sales	0.28374150	0.080	0.07531420	0.464
Bidder Cash / Total Assets	0.00000695	0.901	-0.00000688	0.862
Bidder Debt Ratio	-	-	-0.09944870	0.423
Target Debt Ratio	-	-	-0.00952240	0.179
Transaction Value **	0.02815650	0.328	0.09299980	0.017
President *	-	-	0.28404030	0.003
Target Regulatory SIC *	-	-	-0.12816860	0.325
Bidder Regulatory SIC *	-0.66620500	0.072	-0.08261530	0.512
Bidder & Target Regulatory SIC *	-	-	0.13255390	0.471
All Cash Transaction *	-	-	0.01027620	0.844
Deal Premium (%)	-0.00101430	0.222	-0.00107100	0.306
Asian Bidder *	-	-	0.29896860	0.005
European Bidder *	-	-	0.08840480	0.100
Year				
2007	-	-	0.02874110	0.695
2008	-	-	-0.04340230	0.660
2009	-	-	0.29555470	0.013
2010	-	-	0.46811260	0.000
2011	-	-	0.45593060	0.000
2012	-	-	0.43318280	0.000
2013	-	-	0.36233920	0.000
2014	-	-	0.18880040	0.095
2015	-	-	-	-
Constant	1.02111600	0.023	0.47286010	0.068
Observations	280		278	

* Dummy Variable

** Log of coefficient

Table 6-3: Refined Sample Data - Bidder CAR

Dependent Variable: Bidder Market Model CAR

Explanatory Variable	Model 5		Model 6	
	Coefficient	p Value	Coefficient	p Value
Bidder Fee *	-0.01224560	0.734	-0.00063140	0.984
Bidder Total Assets **	-0.01143920	0.052	-0.00199450	0.863
Target Total Assets **	0.00831130	0.299	0.01006560	0.528
Bidder Liabilities / Total Assets	-	-	0.18875920	0.016
Bidder EBITDA / Net Sales	-	-	0.12569750	0.013
Bidder Cash / Total Assets	-	-	-0.00001290	0.340
Bidder Debt Ratio	-	-	0.00193080	0.975
Target Debt Ratio	-	-	-0.00254560	0.313
Transaction Value **	-	-	-0.00504970	0.731
President *	-	-	0.03645340	0.430
Target Regulatory SIC *	-	-	0.02133780	0.444
Bidder Regulatory SIC *	0.04522460	0.389	-0.01152360	0.856
Bidder Fee & Regulatory SIC *	-0.05648030	0.301	-0.05829120	0.410
All Cash Transaction *	-	-	0.02720960	0.337
Deal Premium (%)	0.00009410	0.783	0.00027440	0.545
Asian Bidder *	-	-	-0.10199540	0.119
European Bidder *	-	-	-0.03300730	0.264
Year				
2007	-	-	0.02170300	0.623
2008	-	-	0.00576630	0.920
2009	-	-	0.02285170	0.658
2010	-	-	0.10390610	0.108
2011	-	-	0.09682090	0.026
2012	-	-	0.08491020	0.048
2013	-	-	0.07258530	0.049
2014	-	-	0.11096990	0.006
2015	-	-	-	-
Constant	0.01584670	0.838	-0.22019840	0.047
Observations	334		262	

* Dummy Variable

** Log of coefficient

Table 6-4: Refined Sample Data - Target CAR

Dependent Variable: Target Market Model CAR

Explanatory Variable	Model 7		Model 8	
	Coefficient	p Value	Coefficient	p Value
Bidder Fee *	-0.00617660	0.894	-0.05602340	0.411
Bidder Total Assets **	0.04080700	0.000	0.02795270	0.195
Target Total Assets **	-0.04106820	0.000	0.04382680	0.181
Bidder Liabilities / Total Assets	-	-	0.04224280	0.747
Bidder EBITDA / Net Sales	-	-	-0.00741210	0.944
Bidder Cash / Total Assets	-	-	-0.00001350	0.604
Bidder Debt Ratio	-	-	0.11711770	0.451
Target Debt Ratio	-	-	0.01170190	0.045
Transaction Value **	-	-	-0.07778210	0.016
President *	-	-	-0.09301860	0.140
Target Regulatory SIC *	-	-	-0.05246870	0.279
Bidder Regulatory SIC *	0.06846460	0.343	0.06409870	0.615
Bidder Fee & Regulatory SIC *	-0.15816010	0.040	-0.15466920	0.227
All Cash Transaction *	-	-	0.10877290	0.005
Deal Premium (%)	0.00339420	0.000	0.00314560	0.005
Asian Bidder *	-	-	-0.04350950	0.721
European Bidder *	-	-	0.17131270	0.040
Year				
2007	-	-	0.09541600	0.021
2008	-	-	0.50189210	0.000
2009	-	-	-0.05769690	0.579
2010	-	-	-0.05274830	0.647
2011	-	-	0.02854610	0.805
2012	-	-	0.03334430	0.643
2013	-	-	-0.05945540	0.484
2014	-	-	-0.05547520	0.505
2015	-	-	-	-
Constant	0.04120500	0.714	0.15297660	0.525
Observations	393		207.00000000	

* Dummy Variable

** Log of coefficient

Table 6-5: Full Sample Data - Firm & Deal Characteristics

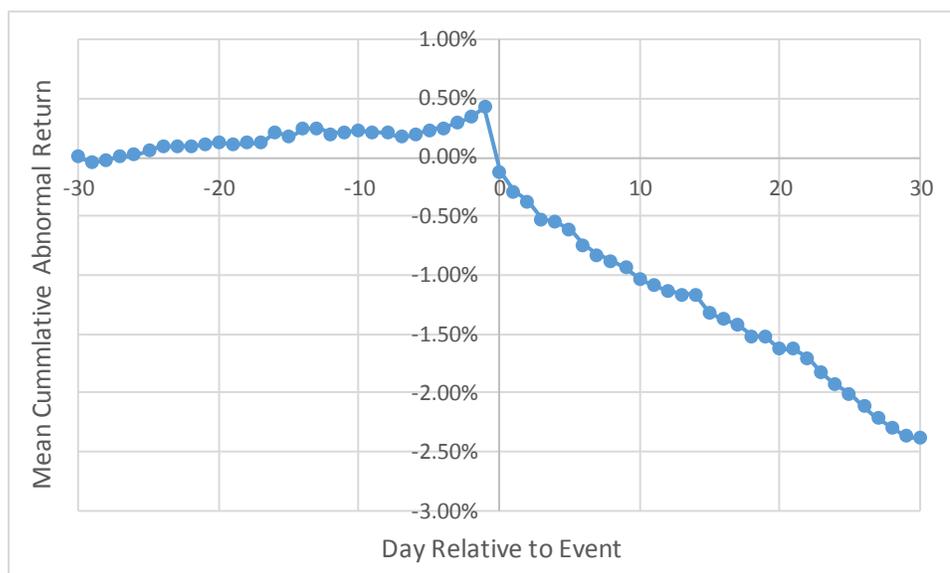
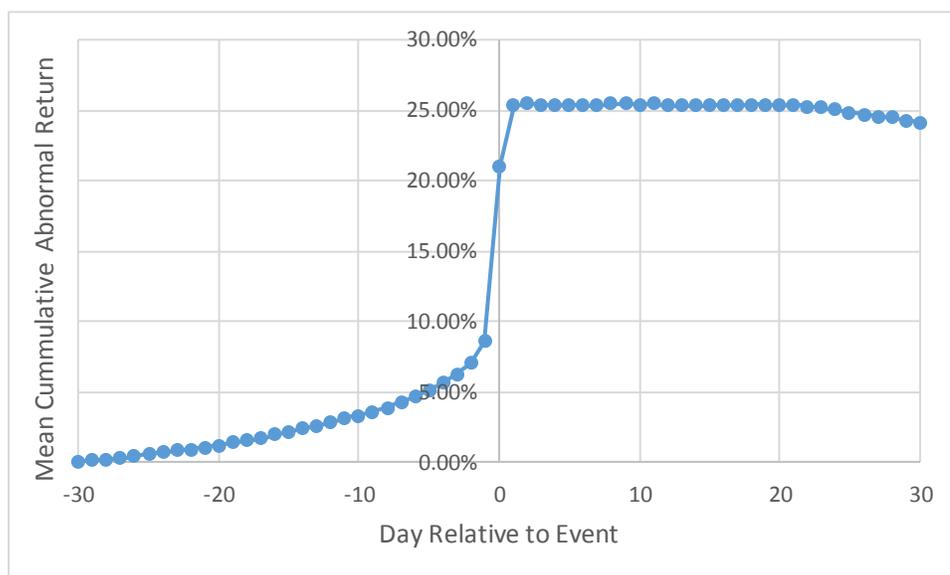
Dependent Variable: Bidder Fee *		
	Model 10	
Explanatory Variable	Coefficient	p Value
Asian Bidder *	0.01606280	0.713
European Bidder *	0.00416520	0.840
All Cash Transaction *	-0.05608450	0.000
Deal Premium (%)	-0.00008630	0.000
Bidder Regulatory SIC *	-0.04423500	0.024
Target Regulatory SIC *	-0.04018410	0.086
Bidder & Target Regulatory SIC *	0.04817930	0.119
President *	-0.01060330	0.330
Bidder Debt Ratio	-0.03836720	0.000
Target Debt Ratio	0.00028970	0.260
Target Total Assets **	0.05795180	0.000
Target ROA	0.00541090	0.482
Bidder Total Assets **	-0.04607070	0.000
Bidder ROA	-0.03389690	0.010
Constant	0.26835800	0.000
<i>Observations</i>	<i>5132</i>	
* Dummy Variable		
** Log of coefficient		

Table 6-6: Full Sample Data - Bidder & Target CAR**Dependent Variable: Bidder Market Model CAR (10)****Dependent Variable: Target Market Model CAR (11)**

<u>Explanatory Variable</u>	Model 10 (B CAR)		Model 11 (T CAR)	
	Coefficient	p Value	Coefficient	p Value
Bidder Fee *	-0.00442660	0.756	-0.05367630	0.003
Bidder Fee & Regulatory SIC *	-0.00991260	0.619	0.01726450	0.521
Asian Bidder *	-0.29307230	0.170	0.04741810	0.259
European Bidder *	-0.02374410	0.520	0.07811650	0.004
All Cash Transaction *	0.01525410	0.062	0.05862700	0.000
Bidder Debt Ratio	0.03438400	0.080	0.01090820	0.515
Target Debt Ratio	-0.00103920	0.010	-0.00471700	0.000
Bidder Regulatory SIC *	0.01783840	0.352	0.01076770	0.728
Target Regulatory SIC *	0.00389040	0.814	-0.05089100	0.030
Bidder & Target Regulatory SIC *	-0.01011620	0.681	-0.02157780	0.570
President *	0.00659920	0.367	-0.01119520	0.328
Target Total Assets **	0.00172780	0.485	-0.03762100	0.000
Target ROA	-0.03071450	0.009	-0.13147710	0.000
Bidder Total Assets **	-0.00046330	0.859	0.02090130	0.000
Bidder ROA	0.12700310	0.000	0.03377740	0.101
Deal Premium (%)	0.00004140	0.000	0.04228390	0.328
Constant	-0.04492520	0.047	0.35492630	0.000
<i>Observations</i>	3773		3922	

* Dummy Variable

** Log of coefficient

Figure 6-1: Bidder Cumulative Abnormal Returns Relative to Deal Announcement**Figure 6-2: Target Cumulative Abnormal Returns Relative to Deal Announcement**

Chapter 7 Multitier Fees

Fee Triggers and Multi-Tiered Fees

One of the goals of the research is to determine why companies used bidder fees in their transactions. The study establishes five main reasons that a merger agreement would include a bidder fee. (1) Incurable breach of representation, warranties and covenants of the buyer (not related to a competing offer for the buyer) and the optionality of the firm (2) Termination in relation to a competing transaction for the buyer (3) Change in the buyer's board recommendation (not related to a competing offer) or failure to obtain shareholder approval (4) Failure to obtain financing in a timely manner (5) Failure to obtain regulatory approval (or comply with regulatory agency requests.) (Adapted from Afsharipour, see below)

Refined Sample Data Collection – 2015 – all trigger collection

The five characteristics are determined by reviewing SEC merger documents and reviewing the literature. In Afra Afsharipour paper in the Vanderbilt Law Review she laid out an argument for seven reasons that a bidder fee was triggered. (1) Termination in connection with a competing buyer (2) Change in board recommendation (3) Failure to obtain a shareholder vote / failure to hold a shareholder meeting (4) buyer's incurable breach of covenants and agreements (5) Failure to obtain regulatory approval (6) Financing failure (7) Merger not consummated for any reason. (Afsharipour, 2010)

The study's data collection is an adaptation off of what Afsharipour completed in her study, but for the study the triggers are updated to be what is determined to be most relevant and feasible to collect. In addition, the data collection is not limited to one trigger per merger agreement like she did because when examined, merger agreements allowed for multiple triggers to occur. Next, the individual SEC merger documents are pulled for deals that the SDC data had indicated included a bidder fee. The merger agreements are examined to determine the way(s) that a bidder fee could be triggered and thus the bidder would have to pay the fee.

Due to time and resource constraints the data collection is limited to a very specific set of deals that are included in the new sample. The sample of deals is limited to ones that are announced in 2015, have a deal value greater than one billion dollars and include a bidder fee. The 2015 deals are examined because this explains what is happening currently in the merger market and will allow a better understanding of what bidder fees currently contain. The data collection is limited to deals greater than one billion dollars for two major reasons. First, the mergers that had a large transaction value more frequently included a bidder fee. Second, the deal size provides an easy way to limit the number of deals that are examined. The SEC filings (8K, EX:2.1) are examined and the triggers in the merger agreement are recorded to create the data set.

2015 Trigger Sample

The sample includes 27 deals that were agreed upon in 2015 that met the collection criteria. After examining the merger documents it the *PMC-Sierra Inc.* and *Microsemi Corp* are listed as having a bidder fee but do not have a bidder fee listed in the merger document.

Therefore, the above mentioned deal is excluded from the sample and it now contains 26 mergers. The 26 deals have a median deal size of 5.85 billion dollars and an average deal size of just over 15 billion dollars. The largest deal is the *Allergan* and *Pfizer* deal that is valued over 145 billion dollars, and the smallest deal in the sample is the *Hyperion Therapeutics Inc* and *Horizon Pharma PLC* deal that is valued just over a billion dollars.

For the data collection an individual merger agreement is not limited to containing one bidder fee trigger. Instead the merger could technically be triggered by all five trigger options listed above. In the merger agreements examined, frequently more than one trigger was able to cause a bidder fee to have to be paid. In the sample, the maximum number of triggers in the agreement is three (and that only occurred once.) A trigger is something in the agreement that specifies why the fee has to be paid. For example, for the regulatory approval trigger, it would specify under what conditions failing to obtain regulatory approval would force the bidder to pay the breakup fee.

Afsharipour's sample took place between January 1, 2003 and December 31, 2004 (effectively double this study's sample time period) and included 102 transactions. Her sample is limited to only strategic transactions and is pulled using the SEC EDGAR database. Additionally, she did the same study using merger data from January 1, 2008 to June 30, 2009 and examined 75 deals. After examining Afsharipour's study the number of deals that failed to obtain regulatory approval only accounted for 8% in her 2003-2004 sample and nearly 15% in her 2008-2009 sample.

Multi-Tiered Fees

Bidder fees are sometimes multi-tiered; the bidder has to pay one of ‘X’ levels of fees that correlate to the reason that the deal is broken up. The initial investigation of bidder fees focused on a small sample of 26 merger agreements from 2015 of which two of the deals had in place a multi-tiered bidder fee structures (*Allergan PLC* and *Pfizer Inc*, *EMC Corp* and *Dell Inc.*) After finishing collecting data on the sample deals and collecting trigger information, it was decided to pivot and collect additional data in 2014 and 2013, but only collect the trigger fee data for multi-tiered bidder fees. The change was made for two main reasons, first this an area of fee structure that is not examined thoroughly in the literature that was reviewed for this study and, multi-tiered fees value what each trigger is worth in the eyes of the bidder and target firm. The multi-tiered fee puts a cost on the possible reasons that the bidder could break up the deal.

The new sample contained all deals between 2013 and 2015 that had a transaction value greater than one billion dollars and is designated as having a bidder fee by the SDC database. The three-year sample included 15 deals of 102 that have a multi-tiered bidder fee.

This is a very small sample and claims of statistical significance cannot be made, but there is important information that can be gleamed from the data. For example, the third trigger - *change in the buyer’s board recommendation (not related to a competing offer) or failure to obtain shareholder approval* –had twelve hits. If the research furthered, I would separate the third trigger into two separate triggers because it did not seem as if change in board recommendation and shareholder approval should be bucketed together as was initially anticipated. Whereas the fourth trigger – *failure to obtain financing* – had the least number of hits at 3. The two fee triggers that had the highest fee size as a percentage of transaction value were the financing (trigger 4) and regulatory (trigger 5) triggers. This results is hypothesized

because during the Obama administration, which is when this sample is pulled, there is heavy regulatory scrutiny on mergers and acquisitions. (Mufson & Merle, 2016) In addition, regulatory and deal financing are two areas that are specific to bidding firms and the fees seem to be much higher, I think this is because these are preventable risks. The day before the deal is agreed upon the firm should have a strong understanding if they can obtain financing or if the deal will fail because of regulatory scrutiny. This is what is characterized as a ‘make them pay’ fee that a target can request if they don’t think a bidder has done the appropriate due diligence. As a comparison to the data collection for different bidder fee triggers, not just multi-tier fees, there is a similar result in regards to the size of the fee as a percentage of transaction value for triggers relating to regulatory and financing risk.

One could start to draw some conclusions that the triggers - (1) *Incurable breach of representation, warranties and covenants of the buyer (not related to a competing offer for the buyer) and the optionality of the firm* (2) *Termination in relation to a competing transaction for the buyer* (3) *Change in the buyer’s board recommendation (not related to a competing offer) or failure to obtain shareholder approval* – are the most similar to target fees and therefore their fee size is near the average for target fee size. As previously noted, target fees tend to be 3% - 4% of transaction value. Triggers one, two and three all relate to actions that a target could take to exit a deal and therefore the similar fee size is expected. Since the sample is small, strong conclusions cannot be obtained, but this would be another area that I would like to explore.

The *Allergan Pfizer* deal had a four tiered bidder fee structure ranging from 400 million to 3.5 billion dollars. (SEC.gov) The largest fee (3.5 billion dollars) is if there is a *change in recommendation not related to a superior transaction*. This is defined as the optionality of the firm by Afsharipour in her paper. This means that a firm has the option to withdraw from the

agreement and just pay the fee and this is the exclusive remedy for the target firm (they would not have to go to court.) The second highest tiered fee (3 billion dollars) is in relation to a change in recommendation because of a superior proposal (ie: if they decide to pursue another deal) In the *EMC Dell* merger, there are three tiers to bidder fees and the largest bidder fee is a 6 billion dollar fee if Dell failed to get financing within the appropriate time. The second largest tier is a 4-billion-dollar fee if the deal failed because of an inability to gain regulatory approval.

Chapter 8

Conclusion

The goal of the study is to increase the reader's knowledge on bidder fees and target termination fees. The study added to the literature by examining deals that had bidder fees between 2010 – 2015, a timeframe that had yet to be explored. The study proved that bidder fees are not used by firms to pass regulatory risk from the target to the bidder. The study is able to state empirically that bidder fees reduce abnormal returns for target firms, but is unable to explain their effect on bidding firms.

Bidder fees, which started to be used more frequently in the mid 2000's, are examined in two different groups to isolate large deals within the past 10 years. The initial hypothesis that a firm in regulated industry would more likely have a bidder fee attached to the deal was proven incorrect. In fact, in many of the models, being in a regulated industry was a signal that a bidder fee would not be included.

The impact of bidder fees on cumulative abnormal returns is tested for bidder and target cumulative abnormal returns. Bidder fees are significant in reducing target firm CAR's, a result that is different than is hypothesized at the start of the study. The hypothesis that a bidder fee would guarantee a minimal return for a target company and investors would value that higher is debunked. Instead the presence of a bidder fee scares investors eager to take advantage of merger arbitrage because a bidder fee could be associated with a withdrawn deal.

Finally, there is an examination of special form of bidder fees, multi-tier bidder fees. The sample size is small, but intriguing enough to prompt additional exploration into the multi-tiered fee structure to further the literature. From the limited sample there was evidence that firms placed a higher price on breaking up when there was a fear of obtaining financing or regulatory

approval. My hypothesis, if I would continue to research multi-tiered fees, would be that bidder fee triggers that are similar to target termination fee triggers are priced similar, but when the trigger is specific to a foreseeable merger issue (financing or regulatory risk) the price is higher.

The open question that remains is who uses bidder fees and why. The research in this study illustrates that bidder fees are not used to transfer regulatory risk. Additional research needs to be completed to determine if bidder fees are in fact used when there is financing risk, this is the other hypothesis the literature offered. Until more research is completed, one will not be able to determine why bidder fees are used.

**Appendix A
Data on the Data**

Table 0-1: Refined Sample Data

Variable	Refined Sample Data				
	Observations	Mean	Std. Dev.	Min	Max
All Cash Transaction *	757	0.509908	0.500232	0	1
Asian Bidder *	757	0.034346	0.182237	0	1
Bidder & Target Regulatory SIC *	758	0.17942	0.383957	0	1
Bidder Debt Ratio	541	0.235022	0.195628	0.000883	1.807002
Bidder EBITDA / Net Sales	538	0.261355	0.183884	4.32E-05	1.59248
Bidder Fee *	758	0.182058	0.386147	0	1
Bidder Market Model CAR	351	-0.02486	0.167405	-0.60058	0.845796
Bidder Regulatory SIC *	758	0.222955	0.416503	0	1
Bidder ROA	541	0.068316	0.074932	0.000117	0.853601
Bidder Total Assets **	542	9.571269	1.643422	3.315639	14.51909
Deal Premium (%)	725	0.260818	0.284676	-0.9029	2.3887
European Bidder *	757	0.101717	0.302476	0	1
President *	757	0.387054	0.487398	0	1
Target Debt Ratio	746	2.572273	3.993782	0.00296	62.90261
Target Market Model CAR	562	0.252633	0.287424	-1.29636	2.285709
Target Regulatory SIC *	758	0.238786	0.426623	0	1
Target ROA	737	0.082764	0.126994	0.000186	1.794891
Target Total Assets **	746	7.755965	1.403975	4.02428	13.78114
Transaction Value **	758	8.141597	0.917837	6.907755	11.1937
* Dummy Variable					
** Log of coefficient					

Table 0-2: Full Sample Data

Variable	Full Sample Data				
	Observations	Mean	Std. Dev.	Min	Max
All Cash Transaction *	14047	0.32498	0.4683842	0	1
Asian Bidder *	14047	0.014594	0.1199246	0	1
Bidder & Target Regulatory SIC *	14047	0.246601	0.4310476	0	1
Bidder Debt Ratio	6901	0.233389	5.462385	-45.5	445
Bidder EBITDA / Net Sales	6873	-0.21714	8.175537	-374	85.94737
Bidder Fee *	14047	0.116822	0.3212196	0	1
Bidder Market Model CAR	6190	-0.01805	0.2552487	-6.62	3.23
Bidder Regulatory SIC *	14047	0.297074	0.4569857	0	1
Bidder ROA	7560	-0.27121	18.67359	-1604	80.11811
Bidder Total Assets **	7654	7.420192	2.405436	-4.60517	16.28146
Deal Premium (%)	8364	67.05102	2315.581	-99.75	209900
Deal Premium (%)	8364	0.67051	23.15581	-0.9975	2099
European Bidder *	14047	0.050545	0.2190736	0	1
President *	14047	0.496547	0.5000059	0	1
Target Debt Ratio	10763	4.053462	159.4201	0	16000
Target Market Model CAR	8049	0.26687	0.4207587	-3.41	7.62
Target Regulatory SIC *	14047	0.32555	0.4685966	0	1
Target ROA	11418	-2.90021	238.3694	-25237.7	43.25
Target Total Assets **	11699	5.108006	2.247982	-4.60517	13.85633
Transaction Value **	11990	4.713284	2.215739	-4.60517	12.01217
* Dummy Variable					
** Log of coefficient					

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