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Toeholds, bid premiums and bid success in public takeovers, Sweden 1997-2012

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Abstract

This thesis focuses on public takeovers and aim to disclose the revealing effects on a bid contest caused by a bidder's initial ownership in the target company, the so-called toehold. We analyse the toehold's impact on contest characteristics and focus on its ability to determine (i) the bid premium required to acquire the target and (ii) the expected probability of a successful outcome in the bid contest.

We apply financial theory to outline bidding behaviour as well as observable dynamics in a takeover contest with toehold bidders. We include a discussion on the competitive climate in a takeover contest in relation to the different toehold strategies available. Theories have historically been inconclusive on the direct effects of a toehold in a takeover contest. We argue that findings evident in research on the US markets could not singlehandedly explain the results for any given country and shareholder structure. Takeover contests are complex processes and the regulatory framework and shareholder structure in which the target operates could have a major influence on the result. By using quantitative methods, we therefore challenge current theoretical relationships on a sample of 202 takeovers attempts of publicly listed firms in Sweden in the period 1997-2012, a market known for a focused shareholder structure and strict disclosure of holdings.

The results shown in the thesis indicate a clear relationship and invigorate for new considerations on the subject. We provide firm evidence that toehold bidders have systematically acquired firms at a lower premium in relation to non-toehold bidders. In addition, even though the target is bought at a lower premium, toehold bidders have shown indications to have a higher probability to succeed in their takeover attempts. This perplex finding is discussed and it seems that deterring effects on rival bidders entrance is of high importance. Furthermore, the finding encourages an assessment of the historically evolved Swedish conditions for ownership in relation to the proposed inefficiency in the market for corporate control.

Key words: Public Takeover, Toehold, Bid Premium, Bid Success, Sweden

Words: 21,066

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2 Introduction

In this thesis, we focus on public takeovers and a bidder's initial ownership in the target company at the time of a bid's announcement, the so-called toehold. The focus is to reveal toeholds impact on the bid premium and the expected probability to win the bid contest. The topic has previously been addressed among researchers with inconclusive predictions on the theoretical effects of the bid contest. In addition, it appears that shareholder structure and regulations in relation to public takeovers across countries has not been accounted for. This study, performed on the Swedish market for public takeovers, could hence provide improved knowledge for academics, practitioners and regulators of the relationships in a country with strict takeover regulations and a focused ownership structure.

Two variables of specific importance will be addressed in the following chapters, the bid premium and the probability of a successful outcome for the initial bidder. In more detail, the bidder in a takeover is most often required to offer the tendering shareholders a price higher than the current unaffected share price for a takeover to succeed, a bid premium. This bid premium needs to compensate the current shareholders for not being able to take part in any future value enhancement (Haleblian, Devers, McNamara, Carpenter & Davison, 2009).

Prior research has attempted to determine the effects of toeholds on the bid premium in takeover attempts. Several articles have been performed on takeover contests on US data samples with contradicting theories about a toehold's impact on the bid premiums. Among those who argue for a positive relationship are Chowdry & Jegadeesh (1994) while Betton & Eckbo (2000) together with Hirshleifer and Titman (1990) and Shleifer & Vishny (1986) claim the opposite relationship. One common explanation of the lower premium found in Betton, Eckbo & Thorburn (2009) is the deterring effect on rival bidders entry caused by a toehold of the initial bidder. Their findings support that a toehold increases one's probability to win the contest, lower the threat of a rival bidder and in those cases a rival bidder enters the contest, it enters with an equally large toehold.

The toehold acquisition could hence come with some benefits to the bidder. If the purchase was part of a short-term strategy before announcing a bid on the target company, it would be preferred to purchase the toehold to an unaffected share price. However, it is common that other investors anticipate an upcoming bid when the acquirer has started his stake building. When investors begin to take positions in the stock to gain from a potential value increase, they put an upward pressure on the share price and create a run-up effect. This effect is one of the risks and costs of acquiring a toehold.

So, why would Sweden be an appropriate object to study for these relationships? In relation to prior studies made on the US market, the Swedish

market is justified to test empirically from a number of reasons. First, stricter regulations on disclosure of company holdings in Sweden could increase the markets perceived probability of an upcoming bid. This would lead to higher costs of acquiring the toehold in the form of higher run-up costs and information disclosure (Jarrell and Poulsen, 1989; King and Padalko, 2005; Schwert, 1996). Second, the shareholder structure in Sweden is historically made up of large controlling owners allowed to utilize controlling power through a system of dual-voting rights and pyramidal ownership. The ownership structure that this has facilitated is in stark contrast to the more dispersed structure evident internationally as in the example of US.

Given these two structural deviations, we attempt to challenge the current empirical discoveries obtained from research on the US market and test them on the Swedish market. This study therefore aims to clarify the strategic impact of toeholds on bid premiums and the probability of success in a Swedish public takeover setting. We intend to provide vital knowledge to structural perceptions an acquirer must assess before initiating a public takeover contest in Sweden. A number of relevant questions will hence be examined in this thesis: What would an acquirer have to pay in a Swedish public takeover in terms of bid premium? What impact does a toehold have on the premium? Would an initial holding affect the probability of success in the bid contest? In what way does a toehold affect the competitive environment in a bid contest? Is the toehold decision affected by an anticipated dismissal of the offer from the target's board of directors?

2.1 Organization of the thesis

The thesis proceeds as follows:

Chapter 3 introduces the reader to the essential terminology to enhance the understanding of the study in relation to takeovers, hostility and toeholds.

Chapter 4 presents the regulatory framework for a public takeover in a Swedish setting. Regulatory- and shareholder structures are covered as a frame of reference, later compared to international structures in UK and US.

Chapter 5 develops a theoretical foundation and discusses prior inconclusiveness of toehold relationships as well as potential benefits and limitations of toeholds in a public takeover

Chapter 6 outlines the tendencies among prior research and presents the two hypotheses for this study

C*hapter 7* constitutes the methodological chapter, outlining the quantitative methods used in the study as well as data collection, sampling and adequate adjustments of information

Chapter 8 consists of data description, analysis of patterns within the dataset and observations of possible relationships among bid contest characteristics

C*hapter 9* conclude and discuss the findings of this thesis, the two hypotheses are analysed and suggestion for future research is provided

3 Terminology

This chapter will introduce the reader to the necessary terminology required to fully understand this thesis. The below terms will play a central part and will be explained in general terms in this chapter. The reader can then expect to continuously enhance the understanding of the terms while reading this thesis, as they will be used extensively.

3.1 Takeovers

The main objective for this thesis is focused on corporate acquisitions. The structure of a corporate acquisition process is dependent on whether the target in question is privately held or publicly listed. The typical way of purchasing a privately owned company is through negotiations with the target company's owners or the board of directors (Betton, Eckbo & Thorburn, 2008c). During the process a mutual agreement can be reached between the involved parties and there are no requirements on announcing the bid publicly. The structure of a takeover process differs slightly when the target is a publicly listed firm. Discussions and negotiations can still have been held with the target's owners or management before a purchase attempt is made. However, the bidder is required to publicly announce a legally binding takeover offer when he approaches the target shareholder with a request to acquire the outstanding shares in the company. A takeover offer is hence the term used when a bidder company makes an offer to acquire the voting shares of an exchange listed target company. (Betton et al., 2008c)

Therefore, the term takeover in this thesis is used to describe a corporate acquisition of a firm that is publicly listed on a stock exchange. A takeover attempt is the term used when a bidder firm announces a public takeover offer directed to the target shareholders with a request to purchase all outstanding shares.

3.2 Hostile and friendly takeovers

A public takeover could be divided into two sub-types, as being considered friendly or hostile. Central to the definition is the target's board of director's action in relation to an incoming bid. As will be elaborated on in chapter 4, the

board of directors need to evaluate the announced takeover bid and present a recommendation to their shareholder regarding whether to reject or accept the bid (NasdaqOMX 2012).

The definition of what is considered a hostile bid varies widely between different authors. A central reason behind this is that the central stakeholders, like the target management, the board of directors and the shareholders, often have different views on the assessment of a bid. For example, in his (2000) paper, Schwert uses five mutually not exclusive definitions to determine hostility in a takeover attempts and includes disclosed intent of an non-negotiated bid as well as potential rumours in the market about an unsolicited bid coming up to more objective definitions. Others, like Auerbach (1988) agree on a broader view and define hostility through a combination of using different definitions.

In our thesis, we will use a less subjective definition that is commonly used in academic articles. We will classify a bid as hostile when the board of directors of the target company does not recommend its shareholders to accept the initial bid (Betton et al., 2009; Schoenberg & Thornton, 2006; Schwert, 2000). In other words, to classify the bid as hostile a physical action from the board of directors is required. Accordingly, a bid is considered as friendly if not explicitly expressed otherwise by the target board of directors.

3.3 Toehold

A central factor in this thesis is the bidder's ownership of votes in the target company. Before the bidder initiate the takeover process, he is legally allowed to stakebuild the ownership. By acquiring shares on the open market before the takeover offer is announced, this reduces the amount of shares that are required to be purchased at a premium. Differently put, shares can be purchased ex-ante the bid in order to have a target ownership when the bidder approaches other shareholders for the remaining shares. This ownership position in a takeover process is called a toehold (Betton & Eckbo, 2000; Ravid & Spiegel, 1999).

A toehold position can either be categorised as long term or short term dependent on when the position was acquired. If the target shares were held prior to six months before the bid was announced, it is considered to be a long-term toehold. This is usually the case for large controlling shareholders that have had ownership in the firm over several years. If the shares instead have been acquired during the six months leading up to the bid, the toehold position is defined as short term (Betton et al., 2009).

The different motives and implications of acquiring a toehold, as well as a more thorough presentation of the theory on the subject, will be further presented in chapter 5 of this thesis.

4 Regulatory framework

This chapter elaborates on the evolution of the Swedish shareholder structure and relates the evolving structure to international comparable, mainly UK and US. With understanding of the social development, one could more easily interpret conditions in the Swedish market for corporate control. The role of the market for corporate control is hence interpreted as to transfer resources to the person who values them the most, stated differently as to facilitate a change in control (Skog, 1997). To this, the British influenced model for Swedish takeover regulations is presented and two specific areas of importance are highlighted; the mandatory bid principle and the disclosure thresholds.

4.1 Evolution of the Swedish ownership model

The early 1900s in Sweden was a period of focused industrial ownership, where two men played an important role in the scope of this chapter; Marcus Wallenberg Sr. (1864-1943) and Ivar Kreuger (1880-1932). As a large shareholder, Marcus Wallenberg Sr. sought to control the management activities in a number of his listed companies without actively managing the company himself. By segregating the board from the management, the result was to form the Swedish model of three independent organs; Shareholders, Board of Directors and Management. The result was a clear separation of responsibilities between the shareholders, the board of directors and the executive management. Ivar Kreuger on the other hand, with his international conglomerate Swedish Match, introduced shares with different voting rights. His motivation was to warrant control to Swedish investors when he looked to London for raising capital to his listed companies. The dual class shares enable shareholders of the stronger voting power class more control of the company in relation to its capital invested compared to shareholders of the weaker class. These two conditions would come to influence the scene for any company active in mergers and acquisition in Sweden and could be argued to have led to (i) a significant blockholder structure and (ii) the frequent use of shares with multiple voting rights in Swedish listed companies (Nachemson-Ekwall, 2012).

The evolution could not be explained singlehandedly by formal events; also informal and socio-political factors have played an important role in the emergence of controlling shareholders. To name some, first the banks and their fully owned investment companies has historically had a close relationship to the firms' management compared to other shareholders since they emerged as controlling owners of many industries in the financial crisis in 1920s

(Nachemson-Ekwall, 2012). Second, there has been a political support for blockholdings facilitated by the dual voting rights and pyramidal ownership. Angblad, Berglöf, Högfeldt & Svancar (2002) supports this result and claim that there are two structural drivers that are allowed to be used in combination in Sweden, the pyramidal ownership of closed end funds such as Investor and Industrivärlden in combination with different voting rights. In the early 1990s, these two groups controlled more than 50% of the market capitalisation on the Stockholm Stock Exchange, but only two 2% of the dividend rights (Henrekson & Jacobsson, 2012). Högfeldt (2004) describes the situation in a way that the existing structure has politically been traded off by an indirect (direct) promise from the largest firms to invest in Sweden and not migrate. The essence and purpose of dual-voting rights could hence be seen as a tool in line with the Social Democratic model of corporate ownership and thus Swedish interests where promoted by the structure.

Moreover, the Swedish tax system has facilitated the emergence of blockholders. A progressive personal income tax and the taxation of dividends both at a corporate level and trough personal taxation on capital gains has drained private owners historically in favour of corporate owners such as the investment companies (Nachemson-Ekwall, 2012). It is noticeable that the emergence of the blockholder structure is argued to have facilitated sell-outs in Sweden. A change of control in this blockholder structure is difficult without the consent of the controlling party. If a controlling owner decides to sell his block through a block transfer or as a part of a takeover, the offer is more likely to succeed (Angblad et al., 2001).

If then discussing the use of dual class voting rights in specific, the effects in control concentration are high when comparing Sweden to other countries. A study made by La Porta, Lopez-De-Silanes & Shleifer (1999) calculate the Vote to Capital (V/C) ratio for 20 largest firms in 27 countries and conclude that Sweden has the highest ratio of all with a V/C-ratio of 1.58. Angblad et al. (2002) strongly argues that the main driver or the high V/C-ratio for Sweden is a result of the widely used multiple voting right shares. In the mid 90s, over 85% of all Swedish listed firms used the dual shares approach. In 2010, this had decreased but still amounted to 50% (Henrekson & Jacobsson, 2012). What is important is how this could affect the takeover setting later analysed in this paper. The presence of different voting rights can ease the negotiation with target shareholders of large blocks and simultaneously reduce the attractiveness of the remaining shares. In addition, dual-voting rights could reduce the free-rider problem of widely held firms and hence promote takeover activity in case of a single bidder (Burkart & Lee, 2008).

4.2 Swedish takeover regulations

To begin, the rules for takeovers generally emanate from on the one hand the takeover regulations, originated from civil law regulations for listed companies,

and on the other hand capital market regulations on liquidity and trading rights for financial instruments (Nachemson-Ekwall, 2012). We will look at how the British Takeover Code has inspired Swedish regulations and reflect on two dimensions affecting our later research; the *mandatory bid principle* (MBR) and the *disclosure thresholds*.

4.2.1 The British influences

Regulations of Swedish takeovers are often referred to as a combination of British common law and Swedish civil law (Nachemson-Ekwall, 2012). The most influential regulation on which Sweden has resembled upon is the *British City Code on Takeovers and Mergers,* which was first released in the 1950s. One of the fundamentals was that shareholders were given enough information about an offer to make an intelligent decision and enough time to digest it. From that point, shareholder primacy and board neutrality was established. Shareholder primacy claims that shareholders interests would be assigned first priority while board neutrality state that no actions would be taken by the board to frustrate a bid unless it had been previously authorized at target's general meeting (Nachemson-Ekwall, 2012).

The UK system was formed using a combination of legislation and self-regulation. The self-regulatory body of the Panel of Takeovers and Mergers was established in 1968 with the purpose to issue and administer the Code and to supervise and regulate takeovers. Sweden chose to adapt the same model. Consequently, in the very same year the self-regulatory body of the Commerce Stock Exchange Committee (*Sw:* "Näringslivets Börskommitté", NBK) was founded with a purpose to promote good practises on the Swedish stock market. Their first recommendations came in 1971 and were formed based on the UK Takeover Code. Two guiding principles were made central; (i) Enable shareholders properly evaluate a bid and (ii) secure equal treatment of shareholders of same shareholder class. Since 1986 up until today, there is a second more independent body in Sweden, The Swedish Securities Council (*Sw :* "Aktiemarknadsnämnden"). This body administer the rules issued by NBK and deal with individual cases of compliance against regulations. The separation between the two bodies was somewhat misleading; as the suggestion of directors were done by the same organizations and that there has been a personnel union between the two (Nachemson-Ekwall, 2012).

The two models share many similarities. One difference though that could be stressed between the NBK and the Takeover panel was in the individuals who were able to get a seat into the committees. While NBK included only representatives from the private sector, both politicians and members of the industry were included in the British Takeover panel. It was also said that NBK had more power than its comparison. With the mandate to dictate the rules and pricing mechanisms of takeovers, these two factors could have influenced the direction in favour of the large blockholders in Sweden (Nachemson-Ekwall, 2012).

4.2.2 The mandatory bid principle

Only two years after the creation of the UK Takeover Panels in 1968, the Mandatory Bid Principle (MBR) was introduced and has almost been left unchanged since. The principle states that in the event of an emerging controlling shareholder of more than 30% of the shares, a bid has to be made on all remaining shares in the company. Minority shareholders would then get the right to sell their shares to the same price as had been paid previously. In effect, the policy made it more costly to acquire the company and supported management of the target company who was confronted with a takeover attempt (Nachemson-Ekwall, 2012).

In Sweden, NBK, chose not to implement MBR at the time. Their rationale was that it was regarded as in conflict with the blockholder governance structure on the Swedish stock market. It was argued that the MBR would hinder the restructuring of the corporate sector, as it would be harder to sell large block of shares at a premium. The policy was left out until 1999 when MBR was introduced, though still with some opposition. In contrast to the threshold of 30% set in most European countries at the time, NBK set the controlling threshold at 40%. In addition, a shareholder already in control of 40% of the stocks or votes at the time of the introduction would be excluded (Nachemson-Ekwall, 2012). The position of large blockholder was hence not challenged and the introduction of the MBR would not enforce them to dispose, neither acquires new fractions to their large position. Nachemson-Ekwall (2012) further address that the introduction was seen as positive from a minority shareholder's perspective. The institutional investors, often in control of B-shares, thought they would increase in value. This addressed the issue of low valuations of low voting right shares. A common practise of 10% price difference between A and B shares was decided if noting else was agreed.

In 2003, MBR was amended to a 30% threshold to align Sweden with most other European countries. Shareholders with a controlling stake of 40% as of 1 July 1999 were still to be excluded. Another significant difference was that three representatives from institutional investors were to be included in the NBK board, prior only consisting of representatives from the industrial sector alone. This was a clear move away from the ability for the large blockholders to dictate the structure and price of a takeovers to instead strengthen the role of minority shareholders, often institutional investors (Nachemson-Ekwall, 2012). To our interpretation, the dealing with the MBR is a clear example on the ability for large shareholders to dictate the rules for the Swedish takeover market. By first avoiding the introduction and then permitting large shareholders exception from the newly introduced regulations, large shareholders interests has been assigned first priority, sometimes on the expense of small shareholders realisation of gains by allowing for more dynamics in the change of control.

Table 1
Table describes some of the revision made to Swedish takeover regulations

Year	Revision	Reason
1972	-	First takeover rules in Sweden
1999	3rd	Better prospectus and mandatory bid rule at 40%
2003	4th	Addressing all listed companies
2003	5th	Mandatory Bid Rule lowered to 30 %
2006	6th	EU Takeover Directive dealt with through Lagen om Offentliga Uppköpserbjudanden
2009	7th	Major update addressing bidding party, target board and technical issues

Source: Nachemson-Ekwall (2012)

4.2.3 Disclosure rules

The disclosure rules state that a shareholder is obliged to inform the market if his holding in a company meets or passes any of the pre-defined thresholds independent of the direction of the change. In Sweden, the thresholds are 5, 10, 15, 20, 25, 30, 50, 66 2/3 and 90% of the votes or number of shares in the company (SFS 1991:980).

In UK, a company that hold or cease to hold 3% of the target shares has to inform the market of this. In addition, each 1% above this 3% that is reached, passed or fallen below has to be reported (Herbert Smith LLP, Gleiss Lutz and Stibbe, 2010). In contrast to Sweden and UK, the US rules require a shareholder to disclose a change of ownership if the purchases mean he penetrates the 5% level of control in the firm (US Securities and Exchange Commission, 2013). US firms have to register its intention with the holding, no such equivalent is found either in UK or Sweden (Nachemson-Ekwall, 2012).

Differences in disclosure rules could have an impact on the takeover setting and thus the market for corporate control. Siems & Schouten (2009) states that higher disclosure help bidders to estimate the likelihood that their offer will succeed and identify parties who could be approached for different strategic reasons. In addition, the transparency enables other potential bidders to materialize an offer if they are alerted of a third parties stakebuilding in the target.

On the other hand, a high level of ownership disclosure could negatively affect the market for corporate control by several potential reasons. First, higher disclosure could deter a bidder from a takeover attempt in the first place, as they fear that possible competition would reduce its potential profits. Second, disclosure of this type could alert management to take on defensive actions to fence of any potential bidders and thus limit an effective market for corporate control (Siems & Schouten, 2009). Third, an initial bidder incurs search cost when attempting to identify a potential target. These search costs are part of the total profit that the bidder will generate from a potential purchase, and will therefore affect the offer price he is able to pay. When a target is found and the bidder discloses his toehold purchase, the potential target is revealed to all other potential

rival bidders. These bidders can free-ride on the search costs incurred by the initial bidder and benefit from the target screening, allowing them to pay a higher price than what would be possible for the first bidder (Bainbridge, 2008). This potential to free-ride on other bidders can be counterproductive for the takeover activity.

The most important element is though how these regulations impact the possible actions for an investor. The US regulation allows for some levels of investor exploitation of the rules, while the Swedish regulations are stricter. The Swedish Finansinspektionen requires the investor who penetrates a disclosure level to act fast. The investor needs to notify Finansinspektionen at latest the day after the purchase has been made. Moreover, Finansinspektionen will announce the change of ownership information to the market before noon the day after the message was received (SFS 1991:980). The regulation that is in place in US allows the investor more discretion. After a purchase is made that breaches the 5% level the investor is allowed 10 days before they are required to file the 13d form to disclose their holdings. During this period the investor is allowed to continue purchasing shares in the market, which can be done without notifying the market before ten days have passed since the initial penetration. This rule allows the investor to accumulate a shareholding and stakebuild his ownership during the 10-day window (Asquith & Kiescnick, 1999). A common takeover tactic is to purchase 4.9% in the market and keep the ownership at that level until everything for the takeover is prepared. Once the bidder is fully prepared to launch the bid, he will purchase shares in the market to penetrate the 5% level, trigger the 10-day window and buy aggressively once triggered. Once the 10-day window closes, the disclosure form will be announced to the market together with the takeover offer (Bainbridge, 2008). This enables investors looking at US targets to stakebuild large ownerships unnoticed and use a guerrilla tactic, while an investor on the Swedish market is unable to make such purchases below the radar and utilize such tactic.

4.3 An international perspective

Up until now we have been introduced to the evolution of the Swedish ownership model and some regulatory differences among countries related to a takeover. Ultimately when later analysing the empirical findings related to the Swedish market for corporate control, we could build on this knowledge to bring depth and possible explanations to our results. A general perspective can now be made of Sweden in an international public takeovers setting.

To begin, the strong focus of family ownership in Sweden is very high compared to both UK and US. While the control of the 20 largest firms in the mid 90s was widely held in both UK and US, family's and state controlled a significant share of the largest Swedish firms (La Porta et al., 1999). Angblad et al. (2002) maps 304 Swedish listed firms by type of controlling owner according to the identity of the investor holding the largest fraction of votes. The study is

performed in the early stage of our analysed period, yet the results are significant. For the full sample, 61.8% of the firms have a family/private owner, such as the Wallenberg's, as the single largest owner. If we narrow the sample to the 20 largest firms by market cap, the figure amounts to 50%. The second and third largest owners for the full sample are other interest spheres (10.2%), such as Industrivärlden, and foreign owners (8.6%).

Moreover, to us the difference in ownership structure is also interrelated to the view of corporate control and regulations among Sweden, US and UK. Several sources for change has effected the direction of rules historically, and simultaneously encouraged different shareholder structures. First, country specific events such as the Great Depression and Enron Crash in the US or the Kreuger Crash in Sweden has driven reactions in the regulations, for example the Swedish separation of investment companies and banks by law. Second, the growth of institutional investors began earlier in UK than in US leading to the involving of market actors in forming the regulations in UK in contrast to the legal track in US. The choice of self-regulation and legislation distributes power among different actors on the market. Board neutrality rule, makes the large influential shareholders rather than management the ultimate decision makers during a bid process. In US, takeover regulations has granted the target's management with more bargaining power to counteract a bid. The risk is therefore that a US bidder end up paying a higher price than in a UK takeover. Only UK regulations have an expressed disfavouring of controlling shareholders in certain situations. As an example, shareholders in control of over 10% of the votes are not able to vote at the general meeting in a parent-subsidiary merger. The acquirer would not be able to merge the target into its own without the consent of a super-majority of the other minority shareholders, which could imply a lower interest in controlling a British publicly listed company. No such discrimination is found neither in US nor Swedish regulations. It could be noted though that ordinary shareholders inability to nominate candidates to the board of directors in US also makes it less attractive to become a large shareholder compared to Sweden (Nachemson-Ekwall, 2012).

To conclude, in order to understand the observations in the existence and size of toeholds in each country we have to study the corresponding view on corporate governance and takeover regulation. While UK has some regulations that disfavour blockholding, US have no such expressed preference. It could be noted though that the strong minority protection and power put in the hands of management in US could explain a more dispersed ownership structure in line with UK. It is more evident however that Sweden systematically has been in favour to facilitate blockholdings in stark contrast to the other two mentioned. With this knowledge in mind, it puts us in a position to analyse what previous research can say about the relationship between toeholds and bid premiums in a potential takeover.

5 Theoretical framework

The available literature on toeholds and bid premiums is indecisive of whether a toehold would imply a higher or lower premium in a takeover situation. For example, Hirshleifer & Titman (1990), Harrington & Prokop (1993) and Burkart (1995) claims that owning a toehold leads to a higher ability to pay high premiums, or overbid, partly since the toehold gives the bidder a lower average price for the shares acquired in the takeover. This is inconsistent with Betton et al. (2009) and Shleifer & Vishny (1986) who argue that toeholds are associated with lower offer premiums in winning bids due to deterring effect on competition and reduced issues with free-riding shareholders. In addition, Betton & Eckbo (2000) claim that toeholds increase the probability of a successful takeover, consistent with Grossman & Hart (1980), Walkling (1985) Hirshleifer & Titman (1990), and Eckbo & Langohr (1989). To conclude, this chapter will examine different aspects of toeholds and present the inconclusiveness of its effects among researchers in the field. After we have presented some of the, of us defined, benefits of toeholds they will be contrasted with some of the perceived limitations.

5.1 Bidder benefits of toeholds in takeovers

The following section will discuss historical theories as well as the current state of knowledge in relation to toeholds effect on bid premiums and probability of success in takeovers. In order to provide a structure to this chapter, these will be discussed in terms of benefits and limitations for the toehold bidder. A benefit is by us seen as an ability to behave in a certain manner conditional on possessing a toehold. We therefore see the size of the bid premium as a result of these additional alternatives of action and do not assess a high or low premium as good or bad. Such a label only assesses an isolated variable and does not account for long-term effects in terms of profitability among others. In similar, the later discussed limitations are aspects that affect the characteristics of a takeover contest where the initial bidder possess or attempt to stakebuild share prior to the offer announcement.

5.1.1 Reduced complication of free-riding shareholders

To begin with the benefits, Grossman & Hart conducted one of the first and most cited papers in the field in 1980 on acquisitions with toeholds. They considered a

takeover model where the target was owned by small atomistic shareholders who all faced the decision to accept the takeover bid or retain their shares. Each shareholders individual decision would not impact the probability for the offer to succeed; the offer would still be able to go through. Selling shareholders that settled for the bid premium hence expose themselves to a risk that this might be lower than the post-takeover value of their shares. For each shareholder, it therefore seemed rational to "free-ride" on her fellow shareholders to tender. The consequences of this framework are noticeable. First, the acquirer has to offer the full added value per share for the offer to succeed, often referred to as the free-rider condition for a successful offer. Second, the bidder has no incentive to incur the search and bid costs, as they will not be covered by a successful bid. If the free-rider condition would hold no takeovers would be made (Grossman & Hart, 1980).

Therefore, bidding with a toehold would solve this problem proposed by Grossman & Hart (1980). From the already owned shares, a bidder would now take part in the post-acquisition value from the already owned shares. The gain on this strategy had to be large enough to cover the search and bid expenses. The observation would hence increase the probability of successful offer by allowing a bidder to gain on the toehold while making zero profit of the share in the formal takeover offer (Eckbo, 2009; Grossman & Hart, 1980).

The above model does not account for blockholders in the target company. This was to be addressed in the free-riding model presented by Shleifer & Vishny (1986), also discussed in Eckbo (2009). The ownership structure now differed from the Grossman & Hart (1980) framework, as did the behaviour of the target shareholders. A large blockholder in the target company now affected the decision rule for each small shareholder. The author argued that a blockholder's decision to sell or retain affects the probability that the offer will succeed, anticipated by the small shareholders. In Eckbo (2009), small shareholders took the blockholder's expected actions into account and viewed a completion of the offer as more likely. As a result, they would be willing to tender at a lower price than the full value added as in Grossman & Hart (1980). By taking this view and adapt it to a Swedish setting with a focused ownership, a blockholder that initiates a bid would be able to pay a lower premium and reach a higher probability of success in the offer.

5.1.2 Toeholds enable overbidding

The models of Grossman & Hart (1980) and Shleifer & Vishny (1986) do not include the aspect that some transactions fail. To include this aspect, Hirshleifer & Titman (1990) created a model to determine the relationship between initial holdings and probability of winning based on rational bidders who bid according to their individual value improvements of the takeover. The costs of a failed bid was related to the alternative cost to the bidder, a bidder with a higher initial holding hence faced a higher incentive to bid high relative a low-valuation bidder. Since the higher premium level and probability of success was related according

to the author; the low initial holding bidder would have a lower probability to win the auction. Accordingly, the probability to win was therefore higher for the toehold bidder. The predictions of higher success were therefore consistent with prior research by Walkling (1985) and Shleifer & Vishny (1986). Similar findings were also evident in Bris (2002) where additional variables for stock liquidity and information disclosure were considered.

5.1.3 Aggressive toehold bidding – a win win situation?

If bidding high enabled through initial ownership, does it then promote an aggressive bidding behaviour? Loyola (2012) presents an intuitive argumentation on two reasons to why a toehold bidder could bid more aggressively. First, a toehold bidder can profit both from winning the auction and by losing to a rival bidder. Conditional on losing, it transforms the toehold bidder into a seller who sells their toehold to the winning bidder and hence gains on a more aggressive bidding behaviour. Every bid therefore also represent an ask on its own holdings, consistent with argument in Carroll & Griffith (2010). Second, conditional on winning, the toehold bidder has a lower costs of overbidding since a lower number of shares have to be acquired relative a non-toehold bidder consistent with Hirshleifer & Titman (1990), Bulow, Huang & Klemperer (1999), Dasgupta & Tsui (2000), Shleifer & Vishny (1986), Betton et al. (2009) and Loyola (2012).

The argument that a toehold bidder is able to bid in excess of his valuation is also indicated in Burkart (1995). In the context, the author argued that it was always optimal to bid over ones valuation of the target and that a bidder should strive for a maximum toehold. With this view, the bid could sometimes lead to a net-loss in the transaction with much of the profits accrued to selling shareholders. However, this was rational based on a strict profit maximising approach compared to management hubris and other working streams in the subject. Burkart pointed to the additional aspects of the overvalued bid; namely its ability to pre-empt competition from rival bidders. He argued that the level of the initial bid could deter competition. In addition, the bid level necessary to prevent rival bidders to enter the contest decreased with the size of the toehold. A maximum toehold was therefore always optimal; a discussion that will be further examined in the following section.

5.1.4 Deterring effect on rival bidders

As implied, the existence of toeholds could deter competition in a bid contest. Burkart (1995) states that researchers have found it hard to find direct evidence for this proposition. However, tentative support has been found in Stultz et al. (1990) who report much larger toeholds in uncontested competitions than in contested, a proxy for the deterring effects of toeholds. In similar, Betton & Eckbo (2000) found that when rival bidders entered a takeover contest with a positive toehold, the toehold size was on average of roughly the same size as of the initial

bidder. It therefore seems that rival bidders are aware of the toehold advantage and wants to even out the playing field before entering the contest. This is also supported by the argument that acquiring a toehold is a common and profitable strategy as it could help the bidder win the auction, and win cheaply. (Betton & Eckbo, 1997; Bulow et al., 1999; Jennings & Mazeo, 1993; Stultz, Walkling & Long, 1984).

As presented previously, competitions can be divided into the subtypes friendly and hostile. Dewatripont (1993) provides a model in a hostile takeover setting by analysing the 'leading shareholder' strategy as a way to acquire the company for a hostile bidder. The strategy amounts to an acquisition of shares in the open market prior to the takeover, sometimes up to 20-30% but less than a majority. By doing so, the hostile acquirer can deter competition of rival bidder and white knights. In this sense, the bidder can reduce the dependence on the relative management skills between bidders and the bid premium's level in relation to other incoming bids. Compared to prior models brought forward in this study, Dewatripont confirms the deterring benefits to the bidder in a contest that also accounts for parameters such as liquidity constraints and defensive actions of target management.

When dealt with different subtypes in a completion, one can also account for different type of bidders. Bulow et al. (1999) hence state that it is more to the story in auctions dependent on whether bidders are strategic, with a private-value of the target and auctions among financial actors with a common-value. *"A financial bidder should not generally compete with a strategic without a toehold or other financial inducement*" (Bulow et al., 1999, p.430). Moreover, these financial actors may differ in estimated required returns; still they are more similar in strategy. The deterring effects of toeholds are thus even more important in common value auctions. The author argues that the toehold decreases the bidder's winners curse and allows the bidder to be more aggressive. Simultaneously, the non-toehold bidder increases the risk of winner's curse and therefore bid more conservative. If all bidders have a toehold of equal size, they would be more aggressive resulting in a higher price than if none had a toehold. A competitive bidder would hence have to adapt its strategy to the toehold bidders aggressiveness. The conclusion is that the deterring effect is adaptive to both asymmetries in size and existence of toeholds. With this view, a toehold could fend off competing bids that would have raised the final premium. By looking at the deterring effects of a toehold, it also increases the chance to win consistent with prior arguments from Walkling (1985), Shleifer & Vishny (1986), Hirshleifer & Titman (1990) and Betton & Eckbo (1997).

5.2 Limitations of toeholds in takeovers

As presented above, there are a number of potential benefits of owning a toehold when initiating a takeover attempt. Intuitively we should expect to see a high frequency of toeholds in these processes. This is especially true considering a

large number of central papers, for example Grossman and Hart (1980) and Shleifer and Vishny (1986), who state that the gains made on toehold owning's are a major contributor to the total profits obtained in a takeover process.

In contrast to what could be expected, many articles point towards a low toehold frequency among bid contests. In their article, Jarrel and Poulsen (1989) find that around 40% of the bidders in their dataset of US targets had no toeholds prior to their takeover attempt. Bradley, Desai & Kim (1988) reached the conclusion by investigating their dataset of US companies that more than 50% of the bidder firms did not acquire a toehold position before executing their tender offer. Moreover, most US firms covered by Jennings and Mazeo (1993) did not acquire a toehold position either.

In a more recent article by Betton et al. (2009), the authors finds a distinct trend by examining over 10,000 control bids on US public targets. The presence of toeholds in takeover processes has been steadily declining since the early 1980s. During the time period 1973-2002 they find that toeholds were only visible in 13% of all control bids. Toeholds could differently put be considered a rarity in takeover attempts. Interestingly, when toehold positions actually do occur, they tend to be large with an average size of around 20%. The author finds that it seems to be a binary decision; their result indicates that one either initiate a process with a large toehold or without a toehold at all.

Of interest, in the same article Betton et al. find that within hostile takeover attempts, the presence of toeholds seem to be the norm with toeholds in 50% of the occasions. Betton et al. explain this trend by linking the results to structural developments within the takeover field. The peak of toeholds in the mid 80s coincides with an increase in the usage of takeover defences among target companies. The authors state that toehold bidding is optimal when the bidder is prepared to make a hostile offer and challenge initial target rejection or active defence actions. The high frequency of toeholds within hostile takeover attempts would support this notion.

Despite above empirical findings, consensus theory states that a bidder should accumulate the maximum amount of toehold ownership possible before initiating his takeover attempt. This is not what we see when reviewing empirical results. Along with the Betton and Eckbo results presented above, Jennings and Mazeo (1993) and Stultz et al. (1990) finds that when toeholds actually do exist in a takeover attempt, whether hostile or friendly, the bidders surprisingly hold well less than 5% of the target stock.

This particular area of toehold ownership, called the toehold puzzle, is a commonly debated subject among academics. If the consensus is that you make best use of your chances and your profits in a takeover by maximizing your toehold position, why do we not see more toehold positions among takeover initiators? There must be conditions that steer bidders away from acquiring a large toehold position before initiating a takeover attempt.

5.2.1 Information disclosure and price run-ups

One major complicating factor in the toehold puzzle is the existence of price run-ups. Takeover attempts are in most instances preceded by upwards-directed target stock price movements. These movements are generally called price run-ups and are caused by the market actors' anticipation an upcoming bid. The market values the target stock to reflect the expected probability of a takeover attempt as well as the potential synergies that will be realised if the bid succeeds (Bris, 2002). The view that large toehold positions could be acquired to an unaffected share price prior to the bid does therefore not seem to hold. As suggested by Schwert (1996) it is very costly to buy a large toehold position since increasing the size of one's position will push up the pre-bid price.

There is a number of ways to intentionally or unintentionally disclose information to the public regarding an upcoming bid. One common reason for price run-ups would be leakage to the market in the form of rumours. Meulbroek (1992) and Schwert (1996) finds higher run-ups in cases where SEC has been investigating insider trading, suggesting that illegal trading could be one of the price drivers before a tender offer. However, the illegal aspects of price run-ups are in minority. Jarrell and Poulsen (1989) conclude in their paper that there are a number of legitimate information sources that allow investors to anticipate takeover attempts. King and Padalko (2005) agree in their paper where they relate most run-up movements to public disclosures. Both of these papers suggest that the main driver behind price run-ups is the regulatory framework in place. As been presented in Chapter 4 of this paper, different legislation requires certain ownership and intention disclosure when penetrating certain control thresholds. For example, in US an investor needs to complete a 13d filing to the SEC when reaching a 5% ownership threshold, while the Swedish regulation requires ownership disclosure every time a 5% level is penetrated. These disclosures provide the market with information about possible upcoming bids, and positions are taken by investors to speculate on a bid premium to be realised within shortly.

There are more run-up related costs to acquiring a toehold than just the actual costs of the toehold transaction. The traditional view assumes that the final bid premium is independent of price run-ups before the offer is made (Betton et al. 2008b). The only cost of acquiring the toehold would then be the run-up effect on the stock. However, as presented in Schwert (1996) and Betton et al. (2008b) there is a strong relationship between price run-ups and increases in initial offer premium. Betton et al. (2008b) finds that a $1 increase in stock price as a run-up-movement results in a $0.8 increase in bid premium. Schwerts (1996) similar findings indicated a $0.67 increase in initial bid premium for the same stock movement.

Conclusively, owning a toehold provides the bidder with a very strong position when initiating a takeover attempt. It is however difficult and expensive to acquire a toehold position. If the bidder does not own a long-term toehold previously, it is (i) costly to acquire a large short-term toehold through multiple acquisitions on the market due to the price run-up. Moreover, (ii) acquiring a short term toehold will according to above empirical results lead to overpaying for the

remaining shares through the inflated bid premium that follows the price run-up. Schwert (1996) suggests that many bidders chose to not acquire target shares before a tender offer, from fear of raising the total costs of a successful takeover. Consistent with this, Betton et al. (2009) finds that only 3% of bidders in their dataset acquire short-term toeholds before bidding. Schwert's suggestion would provide explanatory power to the empirical results of zero or low toeholds in takeover situations.

5.2.2 Market liquidity

Ravid and Spiegel (1999) presents a model that according to theory explains an optimal toehold strategy in a takeover situation. They introduce the concept of market liquidity of the target stock. With high market liquidity, the authors state it becomes easier to acquire a toehold without impact on the stock price. Ravid and Spiegel argue that the optimal toehold hence becomes large when the liquidity is high. Accordingly, the reverse also holds. When the market for the target stock is characterized with low liquidity, the optimal toehold decreases towards zero, as the toehold acquisition would create a greater run-up impact on the target stock.

Their suggestion gives an additional dimension given the academic consensus that a toehold always should be acquired before initiating a takeover process. Moreover, they see toeholds as a deterrence tool only, and their model states that a toehold should only be purchased if the initial bidder is expecting any rival bidders to enter the process. An interesting demonstration in their paper is the finding that a large toehold is by no means a more efficient tool to deter competition than a small toehold. The actual toehold position as a binary categorization is the distinguishing factor when deterring rival bidders, a finding that could provide explanatory power to the presence of small toeholds when toeholds occur.

In his paper, Bris (2002) investigates why we do not see more open market purchases by bidders prior to announcing a tender offer. Through the expected increase in trading volume that follows short-term toehold building, Bris suggests that the bidder releases information to the market about a potential upcoming bid. The sizes of the trading orders allow shareholders to form an opinion about the quality of the potential bidder. Bris suggests that market liquidity might allow bidders to partially hide their trades in order to withhold this information from the market. He proposes that stock liquidity and toehold size are positively related. The articles suggests that the optimal toehold is, given stock liquidity, of a size that does not allow the market to determine if a bid is going to occur or not. Under low liquidity conditions, no toehold acquisition at all will therefore be the optimal strategy for a bidder before announcing a tender offer.

Other central articles provide additional views to the market liquidity aspect of toehold purchases. For example, Schwert (1996) presents that unusual patterns of price movements and higher trading volumes are a common way for investors to spot potential upcoming bids. In his paper, Qian (2001) presents his expectation that a bidder would purchase toeholds up to the size that the market liquidity

allows, i.e. maximizing the toehold position given market liquidity constraints. Others like Kyle and Vila (1991) provide the reader with an alternative solution for acquiring toehold positions. They suggest that it is possible to camouflage purchases in liquid market using noise traders. However, this notion fails to take into account local disclosure regulations that prohibit owners to acquire shares without disclosing their ownership when penetrating certain thresholds. Price run-ups are agreed among academics to be a significant cost when acquiring a toehold position.

5.2.3 Alternative explanations

Besides the run-up costs associated with information disclosure through public announcements or market liquidity, the academic literature provides a number of alternative explanations to the low frequency of toeholds in takeover situations.

Goldman and Qian (2005) agrees that a toehold increases the probability of success in the transaction and acknowledges the benefits of owning one. In their paper, they model the potential value of the target firm following a failed takeover attempt by the bidder. In line with academic consensus the authors agree that a larger toehold will increase the potential profits from a successful takeover attempt. However, inconsistent with important central publications like Hirshleifer and Titman (1990) or Chowdry and Jegadeesh (1994), Goldman and Qian argue that holding a toehold potentially could reduce the profits from their position given the takeover fails.

Goldman and Qian look at the targets managers' incentives to block a takeover attempt when modelling the failed takeover value of the company. They argue that target managers have larger incentive to block a takeover if they experiences private benefits of control. This is also true for the reverse situation. Managers have smaller incentives to block the trade if they hold equity ownership in the target and therefore would gain from the value-increasing takeover. Only if the gain of the value increase exceeds their experienced private benefit will they accept the takeover attempt, the managerial entrenchment. If a large toehold owner attempts to take over the firm and fails, the market perceives this as if a high level of entrenchment is present in the firm. High entrenchment reduces the market value and the toehold owner's position will be worth less, ex post, the failed takeover attempt when the market re-evaluates the firm. Their model predicts that a bidders optimal toehold should be negatively related with the size of the target management's equity ownership. Goldman and Qian hence puts forward a model that presents a cost of owning a toehold and an explanation on why you would enter a takeover contest without any prior, or a small, ownership stake in the target.

Asquith and Kiescnick (1999) examines toehold positions among bidders on the US market prior to initiating a takeover attempt. In accordance with the price run-up theory, they state that all stock purchases before a tender offer would incorporate market expectations about the coming takeover premium. They find significant evidence that the target firm size have an impact on the relationship

between toehold and market premium. They find that the larger the target firms the smaller toeholds could be expected. The intuition behind this is that it is more difficult to obtain a large position in a large target due to higher market awareness of the firm and the higher frequency of risk arbitrage investors speculating in takeover bids. This leads to higher costs of acquiring a toehold and by that reason we see smaller toeholds in takeover attempts on larger targets.

In his paper Qian (2001) looks into the puzzling question on why bidders initiate takeover attempt with zero or low toeholds, despite the clear advantages of such ownership in the target. He comes to the conclusion that a toehold is very profitable in case of a successful takeover attempt. However, in case of a failed attempt the toehold will be a source of loss for the bidder. The logic behind his conclusion is that in a successful takeover attempt, a toehold is a source of gains since target shares were purchased at the open market to a price on discount compared to the premium inflated takeover bid. In the model a target is considered to be undervalued because of agency problems between owner and managers, as presented by Jensen (1986). His assumption is that if the target management rejects the takeover bid, the market will readjust their valuation of the target based on a view that the target is stuck with inefficient entrenched management with private benefits of control. He models the two possible scenarios and finds that the trade-off between possible gains versus possible losses trades each other out. In other words, managers consumption smoothing behavioural pattern drives them to acquiring a zero toehold before initiating a takeover attempt.

6 Hypotheses

Based on the literature presented in chapter 5, we expect toeholds to be a vital determinant of the dynamics in a takeover attempt. Our hypotheses will hence be aimed towards analysing its relation to the price of the acquisition and the probability of a successful outcome.

Toeholds, bid premiums and takeover probability

Hypothesis 1: There is a negative relationship in toehold size and bid premium

It has previously been argued that a toehold position leads to a lower offer premium. Based on the theoretical suggestions by Shleifer & Vishny (1986), Eckbo & Langohr (1989), Hirshleifer & Titman (1990), Betton & Eckbo (2000) and Goldman & Qian (2005) we expect to see a negative relationship between the toehold size and bid premium.

Hypothesis 2: The larger the toehold, the higher the probability of a successful bid

Furthermore, emphasize has been put into explaining the deterrence effects caused by toeholds and the bidding behaviour that is associated with toehold ownership. Based on the predictions of Walkling (1985), Shleifer & Vishny (1986), Hirshleifer & Titman (1990), Burkart (1995) as well as Betton & Eckbo (1997) we expect to see a higher probability to win for bidders with a toehold position.

The next chapter will present the quantitative methods used to test our hypotheses together with a detailed explanation of how the data has been collected and processed in order to fit our analysis.

7 Method

In this chapter, a presentation will be given on the methods used to perform this study. First, we will present the data collection process. We will then present the sampling of this data to finally discuss some of the adjustments that have been made in order to fit the purpose with respect to specific characteristics of the Swedish takeover market. The statistical techniques for analysing the dataset are influenced by the methods used in Betton & Eckbo (2000) of OLS estimations of initial bid premium as well as a logit regression model of contest outcome influenced by methods used in Walkling & Long (1984), Walkling (1985) and Jennings & Mazeo (1993).

The quantitative methods used in this study rely on systematic empirical investigations of social phenomena using statistical or mathematical techniques. The relationship between theory and research is of a deductive approach. The view on reality is objectivistic and intends to create a portrait of relationships often hard to observe in its purest form. The tests performed in this study hence use quantitative methods to test economics and finance theories (Bryman & Bell, 2003). In addition, a socioeconomic perspective is included in the regulatory framework on how takeover regulations have developed. This takes on a view of the takeover environment as being socially constructed. Human's actions are socially constructed and organizations are complex systems with agents organised into groups with sometimes seemingly irrational decision models (Nachemson-Ekwall, 2012). By adding a perspective of sociology and institutionalism, we intend to provide an explanation to how the ownership structure has emerged in Sweden.

We are aware of the possible limitations with a quantitative study based on secondary sources, such as (a) not familiar with data, (b) complexity of data material, (c) lack of control over the quality of data and (d) the availability of all key data (Bryman & Bell, 2005). These will be discussed and incorporated continuously in the appropriate sections of this chapter. We will now begin by discussing the data collection process.

7.1 Data collection

The full dataset of public takeovers has been extracted from the databases of NasdaqOMX, Zephyr and S&P CapitalIQ. No single database has been able to provide details on all transactions singlehandedly. Furthermore, notifications of certain characteristics such as hostility have sometimes been incorrectly notified and/or measured. The databases have therefore been used in combination and

allowed us to create an extensive sample on this specific matter and geographic market. The restraint of complete and available data was undertaken by crosschecking all transactions with press releases available through Affärsdata and CisionWire in combination with official offer documents available at time of announcement. Reuters Eikon and Reuters Datastream have been used to extract target tickers and historical share prices used to calculate bid premiums.

Researchers in this field have to be aware of some limitations in publicly available data. An acquisition of a public target is a complex process with a large amount of sensitive and undisclosed information. Discussions are also held among actors in the process without the awareness of the public. Only publicly available data can hence be collected and used in this study to not discriminate among bid contests with different media coverage and over time. No rumoured information is taken into consideration in the data collection. Given this condition, the discussions held among actors prior to filing an official bid could embrace effects in the competitive climate in the contest not visible to the public, nor in the result of this study. Any effects of toeholds on contest characteristics could therefore be deviating from what is possible to prove in this study.

7.2 Data sampling

When data has been extracted from the databases, a number of screening criteria have been used to serve the objective of the study. As mentioned, this thesis exclusively looks at public takeover bids, i.e. a bid directed towards the target shareholders to acquire 100% of the outstanding shares in a publicly listed company in Sweden. Transaction type has therefore been set to Public Takeover or Full Tender Offer and geographic location to Sweden. The time frame has been set to cover the 16-years period of transactions announced between 01/01/1997 and 12/31/2012. The analysed period provide available data from NasdaqOMX of takeover contests on the Stockholm Stock Exchange. Information prior to this faces a risk that correctness of data could be hard to validate. In 1999, a third revision of the takeover rules was implemented that included clearer prospectus requirements that has facilitated the data gathering process (Nachemson-Ekwall, 2012). In addition, this period covers two merger waves, the fifth in 1993-2000 and the sixth in 2004-2008 when Lehman Brothers crashed in September that year. These periods are influenced by high takeover activity and good access to funding of acquisitions. If narrowing the time frame of the analysed period, this cyclicality could possibly affect the outcome of premiums and takeover success (Nachemson-Ekwall, 2012).

By excluding rumoured bids, a total of 340 transactions have been identified. From these, a number of actions have been performed to identify the appropriate attributes. First, since this study identify control bids only, consistent with Betton et al. (2009), the data sample has been adjusted for transactions where the bidder already holds more than 50% of the votes in the company, hence already in control when the bid for remaining shares was announced. These transactions

have been removed and only bids where a bidder initiates a process with less than 50% of the votes in search for a position of more than 50% is used. Second, the sample is reduced in order to fit the model standard used in Betton and Eckbo (2000) where multiple bids on the target from the initial or a rival bidder are grouped into one contest. A takeover contest is constructed based on the initial bid compared to how data is presented in the databases where individual bids are sometimes viewed as separate contests. Instead, a contest is the result of a takeover attempt with successive bids either through a rival bidder entering the contest or by a bid jump from the initial bidder. New bids from the initial or rival bidder that occurs within six months after the last bid are considered belonging to the same contest. All bids on the target placed after six months of a prior are considered as a beginning of a new public takeover contest. Third, we have removed contests when the objective of the observed takeover attempts clearly has been to merge two firms into one, creating a new combined entity. These situations put the surrendering shareholders into a position where post-transaction value increases are to a large extent attributable to them as well. The dynamics of these takeover attempts are somewhat different than for full tender offer, which makes them deceptive for our analysis and have been removed. Fourth, takeover attempts that have failed to provide sufficient data to fit our analysis have been removed. We have observed no systematic errors in the removed bid contests.

Given the above criteria, the final dataset consists of 202 transactions. This could be argued as representative for the population of takeovers of publicly listed firms in Sweden. As presented earlier, to this sample only rumoured bids, bids with insufficient data and takeover bids where the initial bidder already controlled the target should be added to reach the full population. When speaking of takeovers in general terms, it also includes mergers and dependent on definition acquisitions of targets with private owners among other buyer- and contest-specific characteristics. Transferability of the knowledge from this study onto these transactions could probably be valuable, however additional variables such as merger negotiations and in what different ways one could buy shares pre-bid have to be accounted for. We would expect the result to be transferable to public takeovers in other countries of similar shareholder structure. However, since regulatory environment is country specific to a large extent, this would have to be included in relation to the results to make conclusions on findings across countries.

The final data set includes transactions that meet the following criteria:

- Takeover bid announced between 01/01/1997-31/12/2012 and contest outcome known at 23/03/2013.
- Targets listed on a Swedish stock exchange
- Bidder with less than 50% control of target company
- Bid on 100% of the remaining shares in the target company

7.3 Data processing

From the before mentioned databases, the sample has been processed to disclose the desired contest characteristics, bid premiums and final outcome. With a time horizon of announcement day t, t_{-6} and t_{+18} months the dynamics in each individual transaction have been mapped. The following areas in 7.3.1 an onwards are worth to stress since they are adjustments made to address essential areas for the analysis.

7.3.1 Toehold

According to the definition presented in section 3.3, the toehold is the ownership of a stake in the target company pre-announcement (Betton & Eckbo, 2000; Ravid & Spiegel, 1999). By default, this is presented as a bidders portion of the target's capital in the database Zephyr. Since this study is interested in the share of control synonymous with the share of the votes, this has to be corrected. Therefore, in those transactions where dual class shares are used, we have adjusted the toehold to account for the bidders share of the votes. Moreover, when premiums are calculated, this is done using the stronger voting power share's base price given that both share classes are included as part of the offer. This could bring some deviations from what is presented in the offering documents as an offer is placed on all outstanding shares, where premium calculations could be adjusted to relative weights of both share classes.

When information of size and existence of possible toeholds have been missing in the offering document and information has been unable to be sourced using other databases, the toehold has been classified as zero (Betton et al., 2009)

Moreover, a distinction has been made between short term and long term toeholds, which is defined dependent on when the toehold position was acquired. In line with Betton et al. (2009), a toehold is categorised as long term if target shares were held prior to six month before the bid was announced. If all shares were acquired in the six months leading up to the bid, we define the toehold position as short term without the benefits of long-term interests into the company.

The causality of variations in the toeholds and variations in the bid premium and probability of success should not be a concern for the validity of the results. Toeholds are per definition-acquired prior to announcement of offer. The opposite relationship of offer premiums leading to higher toeholds should not be an option. The conclusions should hence be based on a valid relationship (Bryman, 2003).

7.3.2 Contest winner

Each takeover contest has been addressed as successful or unsuccessful to the initial bidder. Whether a bid is considered successful or not is determined by the

offer's announced final acceptance from tendering shareholders. If the number of shareholders accepts a bid to enable the bidder to reach an outcome with more than 50% of the votes, the takeover bid is considered to be successful. The concept of transaction success is hence not synonymous with completion of the offer. In many occasions the bidder include a conditional offer that oblige the bidder to complete the offer only if 70%, 90% or another eligible amount of the shareholder accept the offer. If this condition is not fulfilled, the bidder can choose to withdraw their offer. The transaction does hence not require shares to physically change hands to be considered successful.

The above-mentioned treatment of success in transactions is in our view a correct way to determine the level of bid premium that would allow the bidder to obtain control of the company. An advantage with this view is that is does not discriminate among actors with different incentives and expressed conditions in a contest. A bidder with intent to buy any shares made available to him and a bidder who is only interested in buying if all shares are made available to him are treated equally. This adjustment is consistent with many existing studies that focuses on whether the bidder is able to purchase the target shares or not (De et al., 1996).

7.3.3 Hostility

A bid has been classified as hostile when the board of directors of the target company announced to their shareholder a recommendation not to accept the initial bid. Out of 202 takeovers in the complete dataset, 45 were categorised as hostile. The categorisation is a result of a process in which categorization from Zephyr and CapitalIQ have been manually controlled by public announcements during the event window.

A few aspects have to be stressed in these transactions. In some transactions with a toehold bidder, an influential part of the board in the target company has contained representatives from the bidder company. In these contest, the independent board representatives' recommendation has been used to determine the bid categorisation. Second, if the bidder has engaged in a bid jump after the initial bid and the board recommends the revised bid, the transaction is still considered hostile. As discussed earlier, the reaction to the first bid therefore sets the deal sub-type in a transaction. Third, only the board of directors' announcements are judged to determine hostility in transactions. Public announcements made by large shareholders or the Swedish Shareholders Association (*Sw:* Aktiespararna) in relation to a bid is not used to determine hostility. This is consistent with the NBK's recommendation, where the board of directors in the target company are obliged to present its view of the bid, and the reason for it, to the shareholders of the target company.[1] (Nyström & Sjöman, 2011).

[1] Found in NBK 2003, II.19. First addressed as a duty in 1999, action prior seen as appropriate of board of directors (Nyström & Sjöman, 2011).

7.4 Regression models

We will in the below section of this chapter outline the different regression models we have constructed in order to test our hypotheses presented in chapter 6.

7.4.1 Bid premium regression

The first regression will test hypothesis 1, if there exists a negative relationship between the possession of a toehold and the bid premium. The regressions aims to identify the explanatory variables impact on the initial and final bid premium of the takeover attempt. To provide additional explanatory power to our model and to avoid spurious relationships, a number of control variables are introduced and presented below.

As per Betton et al. (2009) the control premium is defined as the price offered at the announcement day, *t*, in relation to the unaffected share price 42 days prior to this date. This would hence reduce the impact of target price run-ups on the control premium, otherwise potentially included in the price at day of announcement. In our study, this imply $(p_{ini} - p_{-42}) / (p_{-42})$. After adjusting for splits and dividends, p_{ini} is the initial offered price per share at *t* to current shareholders and p_{-42} is the share price 42 trading days prior to offer announcement.

$$\text{Initial Premium}_{t-42} = \alpha_0 + \alpha_1 SZTOEHOLD + \alpha_2 HOSTILE + \alpha_3 CASH + \alpha_4 \ln(TARGETSIZE) + \alpha_5 BORIGIN + \varepsilon$$

$$\text{Final Premium}_{t-42} = \alpha_0 + \alpha_1 SZTOEHOLD + \alpha_2 HOSTILE + \alpha_3 CASH + \alpha_4 \ln(TARGETSIZE) + \alpha_5 BORIGIN + \alpha 6 MULTIBID + \varepsilon$$

SZTOEHOLD: Scale variable of toehold size

HOSTILE: Dummy variable with 1 if target response is hostile, 0 if not

CASH[2]: Dummy variable with 1 if form of payment is cash only, 0 if other

Ln (TARGETSIZE)[3]: Logarithmic scale variable of target market capitalisation

BORIGIN[4]: Dummy variable with 1 if bidder origin is domestic, 0 if foreign

MULTIBID[5]: Dummy variable with 1 if contest includes rival bidders or bid jumps, 0 if not

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[2] CASH (payment) variable used since (i) cash vs. stock decision as payment method signals the bidders true value to the market, and (ii) since cash opposed to stock is accompanied by an immediate tax burden that target shareholders requires compensation for. Cash bids would be expected to pay higher premiums (Stavlos, 1987).

[3] Ln (TARGETSIZE) used since bidders are likely to pay a higher premium for small firms given (i) it is harder to conduct a correct valuation due to higher information asymmetries, (ii) since small firms have higher growth prospects and (iii) since bidder firms can afford to pay high for smaller bolt on acquisitions (Danbolt, 2004).

[4] BORIGIN used since studies show foreign firms tend to pay higher premiums, partly based on thresholds to enter a new market is higher for a foreign firms relative domestic (Goergen & Renneboog, 2004).

[5] MULTIBID used since bids in excess of initial bid inflates the total consideration per share in a contest.

7.4.2 Robustness of premium regression

To test the robustness of our results, the premium regression will be run with an additional definition of initial and final premium commonly used among practitioners as evident in the offering documents. This takes the offer price in relation to the closing price at last day of trading before an announcement has been made, at $t_{-1.}$ The price at last trading day could include price run-ups and therefore result in deviations among transactions. It is therefore not frequently used among academic researchers on the subject. However, running these tests with the last trading day as the base share price component will also allow our results to be used to include this aspect as well as allow for a wider interpretation among practitioners in addition to academic purposes.

7.4.3 Probability of success regression

The second regression aims to clarify how the probability of success in a takeover contest is dependent on a set of independent variables. Consistent with Walkling (1985), Walkling & Long (1984) and Jennings & Mazeo (1993) we will use a binomial logistic regression model to estimate this probability. The dependent variable, probability of success, in the model can take on a value between a win (1) and a no win (0) for the initial bidder. The resulting measure will hence express the probability for the initiating bidder to win the contest.

$$\text{Pr. of success} = \alpha_0 + \alpha_1 SZTOEHOLD + \alpha_2 CASH + \alpha_3 MULTIBID + \alpha_4 FPREMIUM_{t-42} + \alpha_5 \ln(TARGETSIZE) + \alpha_6 HOSTILE\ \varepsilon$$

SZTOEHOLD: Scale variable of toehold size

CASH: Dummy variable with 1 if form of payment is cash only, 0 if other

MULTIBID: Dummy variable with 1 if contest includes rival bidders or bid jumps, 0 if else

$FPREMIUM_{t-42}$: Initial bidders final offer price in relation to unaffected share price at t_{-42}

Ln (TARGETSIZE): Logarithmic scale variable of target market capitalisation

HOSTILE: Dummy variable with 1 if target response is hostile, 0 if not

7.4.4 Robustness of probability of success regression

The robustness of the results when running the regression on the full sample will be challenged by a second run performed on the subsample of 45 hostile takeovers. This is done since previous research indicate that any relationships could be hard to prove for a full sample given an overall high success rate and that it has been a higher frequency of toehold bidders in hostile takeovers. (Walkling, 1985 and Betton et al., 2009).

8 Empirical findings

Chapter 8 contains a description of the dataset. We will present general patterns of bid contest characteristics and outcome across the sample in section 8.1. In section 8.2, we will use the outcome of the quantitative methods used to statistically challenge the hypotheses on bid premiums and success in the observed contests.

Table 2
Table presents the complete dataset of 202 takeover contests. The top panel of data contain figures in absolute numbers. The bottom panel presents the corresponding proportional values. Target value is expressed as firms Market Value at t_{-42} in millions of SEK. Variables are further defined in chapter 7, section 3.

	Number	Target Value		Target Response		Buyer Origin		Toehold			Payment Method		Contest Winners			Avg. Bid Premium		Median Bid Premium	
	of cases	Average	Median	Friendly	Hostile	Domestic	Foreign	Frequency	Avg. size	Med. Size	Cash	Other	Initial	Rival	None	Initial-42	Final-42	Initial-42	Final-42
All contests	202	2,373	424	157	45	136	66	76	11.20%	0%	152	50	171	10	21	29.8%	31.8%	27.8%	31.6%
Single Bidder	187	2,329	393	149	38	124	63	72	11.5%	0.0%	144	43	168	-	19	29.6%	31.2%	27.9%	30.8%
Rival bidders	15	2,967	1,577	8	7	12	3	4	7.3%	0.0%	8	7	3	10	2	31.9%	40.1%	27.3%	39.1%
Friendly	157	2,105	394	-	-	104	58	46	8.7%	0.0%	120	37	148	5	4	32.5%	33.9%	31.8%	32.6%
Hostile	45	3,300	493	-	-	35	10	30	20.4%	20.1%	32	13	23	5	17	21.2%	25.2%	21.4%	27.0%
Toehold	76	2,605	365	46	30	57	19	-	29.6%	33.0%	66	10	61	2	13	22.9%	25.6%	21.5%	26.0%
No Toehold	126	2,232	623	111	15	79	47	-	-	-	86	40	110	8	8	34.3%	35.9%	32.7%	33.3%
Cash	152	1,984	469	120	32	99	53	66	13.3%	0.0%	-	-	136	5	11	30.3%	32.3%	28.9%	32.0%
Stock / Mixed	50	3,574	377	37	13	37	13	10	4.8%	0.0%	-	-	35	5	10	28.3%	30.4%	25.6%	27.5%
All contests	100%	2373	424	78%	22%	67%	33%	38%	11%	0%	75%	25%	84.7%	5.0%	10.4%	29.8%	31.8%	27.8%	31.6%
Single Bidder	93%	2329	393	80%	20%	66%	34%	39%	12%	0%	77%	23%	89.8%	-	10.2%	29.6%	31.2%	27.9%	30.8%
Rival bidders	7%	2967	1577	53%	47%	80%	20%	27%	7%	0%	53%	47%	20.0%	66.7%	13.3%	31.9%	40.1%	27.3%	39.1%
Friendly	78%	2105	394	-	-	66%	37%	29%	9%	0%	76%	24%	94.3%	3.2%	2.5%	32.5%	33.9%	31.8%	32.6%
Hostile	22%	3300	493	-	-	78%	22%	67%	20%	20%	71%	29%	51.1%	11.1%	37.8%	21.2%	25.2%	21.4%	27.0%
Toehold	38%	2605	365	61%	39%	75%	25%	-	30%	33%	87%	13%	80.3%	2.6%	17.1%	22.9%	25.6%	21.5%	26.0%
No Toehold	62%	2232	623	88%	12%	63%	37%	-	-	-	68%	32%	87.3%	6.3%	6.3%	34.3%	35.9%	32.7%	33.3%
Cash	75%	1984	469	79%	21%	65%	35%	43%	13%	0%	-	-	89.5%	3.3%	7.2%	30.3%	32.3%	28.9%	32.0%
Stock / Mixed	25%	3574	377	74%	26%	74%	26%	20%	5%	0%	-	-	70.0%	10.0%	20.0%	28.3%	30.4%	25.6%	27.5%

8.1 Description of dataset

Out of the 202 contests, a winner was acknowledged in 181 of which the initial bidder won in 171 and a rival bidder in 10. The remaining 21 takeover attempts ended without a winner, primarily because of an insufficient target acceptance rate. An initial bidder that announced an offer would then have won in 84.5% of all attempts. When a bid was received at the targets board of directors, a majority of the contest were recommended onto its shareholders (78%). Still, approximately one in five initial bids (22%) was turned down by the target board of directors and categorized as hostile. The average price of the target shares was 29.8% above the unaffected share price in the initial bid. Since a high number of contests (93%) did not lead to an increased offer or a rival bidder entering the contest, the average final premium was only a bit higher at 31.8%. Based on the

data, one can state that a main driver behind a failed takeover bid was a hostile response, which reduced the initial bidders chance of winning to 51.1%. In the situation that a rival bidder entered a contest, friendly or hostile, not only would the initial bidder have to pay a higher premium, 40.1% compared to 31.9%, only one in five bid attempts led to a successful outcome. The two negative aspects of hostility and rival bidders combined meant terrible news for the initial bidder. When observed in the same contest, it led to an unsuccessful outcome for the initial bidder in all of the seven attempts during the analysed period. We will now look at the different aspects of the takeover contests in more detail.

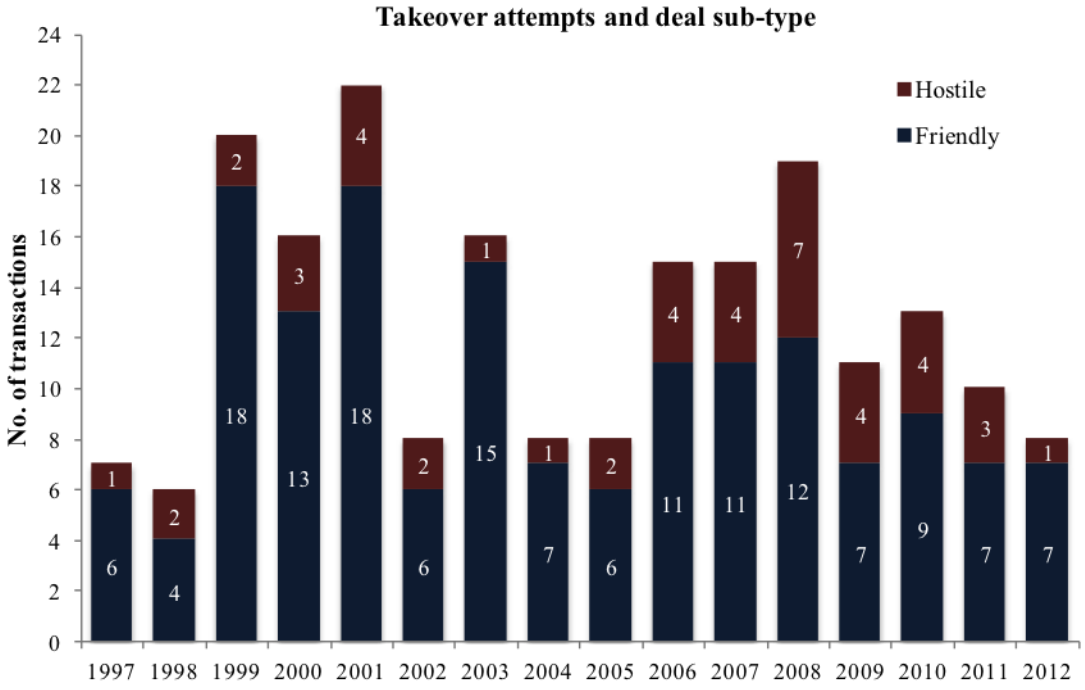

Fig. 1 Frequency distribution of hostile and friendly public takeover attempts in Sweden.

When separating our data into hostile and friendly takeover contests, out of all contests, 78% were friendly while the remaining 22% faced resistance by the target board. Columns 2 and 3 in table 2 indicate that hostile transactions were more common in large target companies with an average size 56.7% higher than for friendly targets, 3,300MSEK compared to 2,105MSEK. Consistent with the overall sample there is some skewness to these results indicated by a median value of 493MSEK for hostile contests, which is marginally higher than for the complete sample. These findings are consistent with the results obtained by Betton et al. (2009) in their paper on US targets of less large targets in public takeover attempts.

The percentage of friendly contests where the initial bidder won was high, amounting to 94.3%. In contrast, the success ratio of hostile bids was modest with a successful outcome for the initial bidder in only 51.1% of all contests. When comparing these figures to the findings of Betton et al. (2009) for US firms, their findings are lower, amounting to 68% and 34.4% respectively. This suggests that the probability for a successful bid contest for an initial bidder is higher in Sweden compared to US, independent of whether contest is friendly or hostile.

The separation of subtypes also allows us to observe deviations in premium levels. Accordingly, the initial bid premium for hostile takeover attempts was 21.2% compared to 32.5% for friendly contests, a substantial difference of 11.3%. One could argue that a low initial premium would cause a hostile response and that the observed lower premiums for hostile takeovers therefore would be self-fulfilling. The result is however unchanged when we test the result with two counter-arguments. First, when we account for the higher frequency of multiple bids in hostile takeovers one could say that this would be upwards adjusted in the final premium. Though, when comparing the difference in final bid premiums the result is unchanged, with 25.2% compared to 33.9% respectively. Second, since more hostile contests are unsuccessful compared to friendly, could that be an explanation to the observed lower premiums for hostile bid contests? If controlling for this argument and only comparing successful bid contests, the average final bid premium was still lower for hostile contests of 23.2% compared 33.94% for friendly. The results for the analysed sample therefore strongly suggest that premiums are lower in hostile competitions compared to friendly. The results contradict the results found by Betton et al. (2009) for US targets. While their findings indicate that the initial (final) bid premiums for hostile targets are 5% (15%) above friendly targets, the result for Sweden indicates the reverse relationship. Walkling and Long (1984) however found a similar but insignificant result as ours based on US competitions.

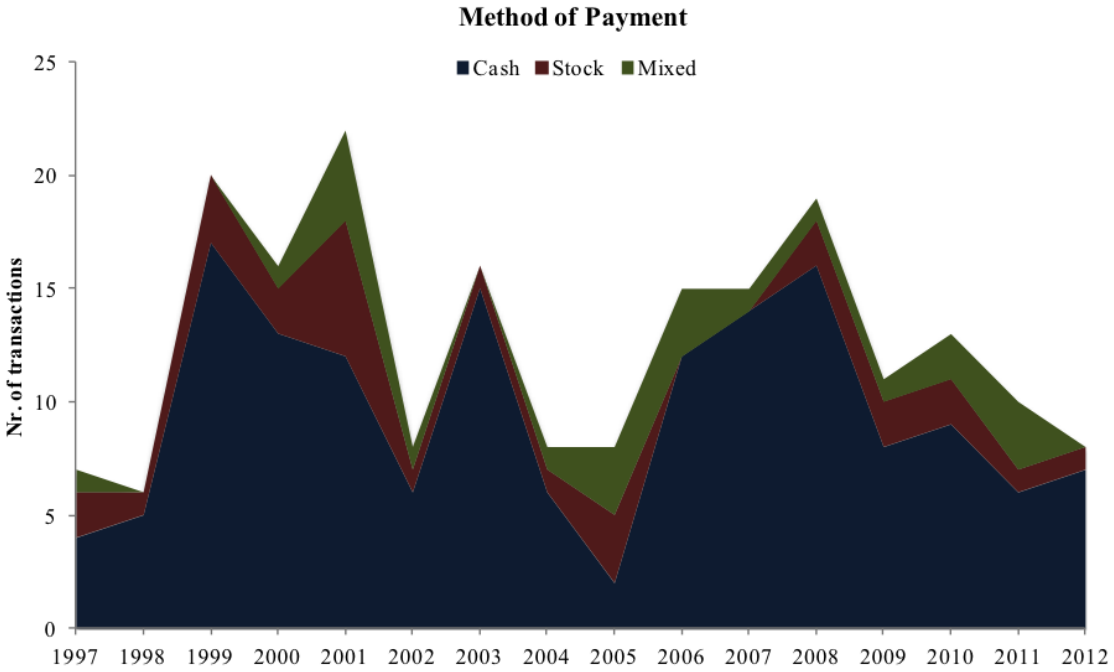

Fig. 2 Frequency distribution of method of payment in public takeover attempts in Sweden.

Among all transactions, cash has been the most frequent method of payment used in 75% of all contests. Initial bidders who made cash offers were successful in 89.5% of the competitions while bidders who used stock or mixed payments only succeeded in 70% of the cases. A possible explanation for this is the difference in initial (final) bid premiums present between cash of 30.3% (32.3%)

and other payment methods of 28.3% (30.4%). This is consistent with the predictions of Stavlos (1987) based on the immediate tax burden on cash payments that target shareholders require compensation for. A viable reason for the result could also be the potential bidder share price overvaluation that is signalled through the usage of stock as payment. Given that the premiums are of equal size in cash and stock offers, target shareholders devaluate the bid premium when stock is used and hence could reject a higher proportion of the stock bids due to an expected share price decline.

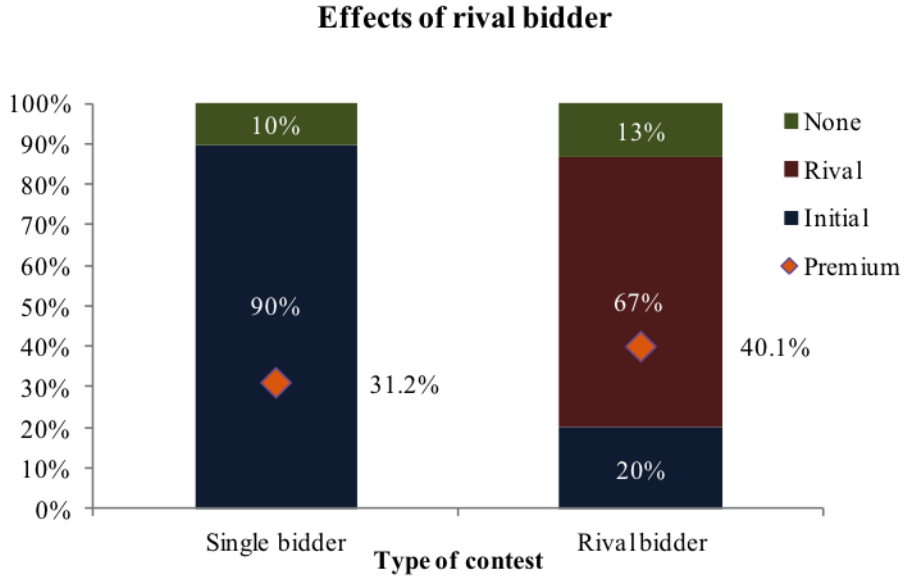

Fig. 3 Comparison of the winner in public takeovers among contests with a single bidder and contests with rival bidders. The premium definition used refers to the final offer in relation to the share price 42 days prior to announcement.

As for the competitive climate, by dividing our data sample into single and rival bidder contests a number of interesting findings emerge. By observing the complete contest sample, only 7.5% of the takeover bids have attracted rival bidders. The data shows that rival bidders occurred in 15.6% of the contests when the initial bid was met with a hostile response, while the proportion were only 5.1% in friendly attempts. This suggests that a rival bidder's entrance in the contest is attributable to initial target hostility. The initial bids that induce rival bids seem to have a lower median premium than the comparable for single bidder contests. As previously mentioned, this low premium is also the main driver for the hostility categorisation, suggesting the reason behind rival bidders entering a contest being simultaneously driven of low initial bids and target hostility.

By examining the competition aspect of a bid contest, we see that the implications of a rival bidder entering the process are considerable. The final bid premium in a rival contest has an average of 40.1% compared to 31.2% in single bidder contests. Despite the high final bid premium offered by the initial bidder, a rival bidder entering the contest largely reduces the probability of success. While a bidder in a single bid contest wins in 89.8% of the contests, the initial bidder in a rival process only obtains a successful outcome in 20% despite the high final bid premium of 40.1%. The no winner outcome increases marginally from 10% to

13% of the contests, so the winner distribution changes to a majority of rival bidders at the expense of initial bidders.

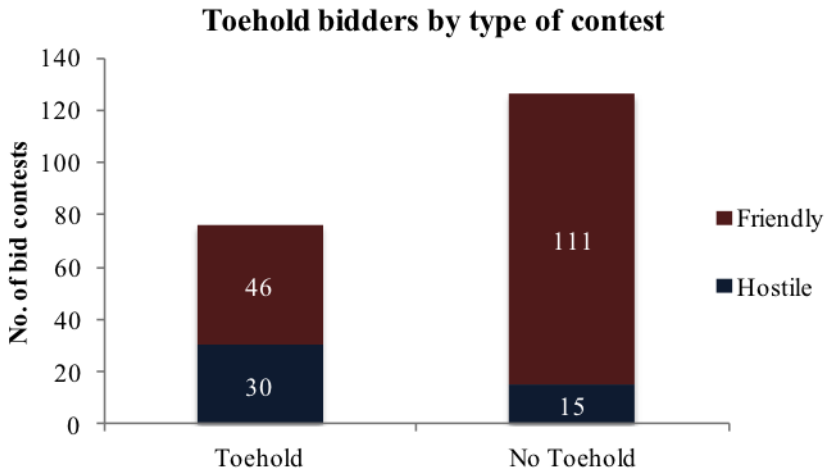

Fig. 4 Frequency distribution of toeholds in friendly and hostile takeovers.

We add the toehold variable into the table in order to illustrate its impact on our results. We see toeholds in 37.6% of our contests for the full sample, which substantially exceeds Betton et al. (2009) frequency of 12.6%. Consistent with their results, the toehold frequency in hostile takeovers is much higher than in friendly contests. Our sample witness of toeholds in 67% (29%) of the hostile (friendly) contests in our sample compared to the 50% (11%) frequency as seen in Betton et al. (2009). There is some skewness to the friendly toeholds, where the average size is 8.7% and the median is zero. When looking at the hostile toeholds, this skewness completely disappears and we see an average of 20.4% and a

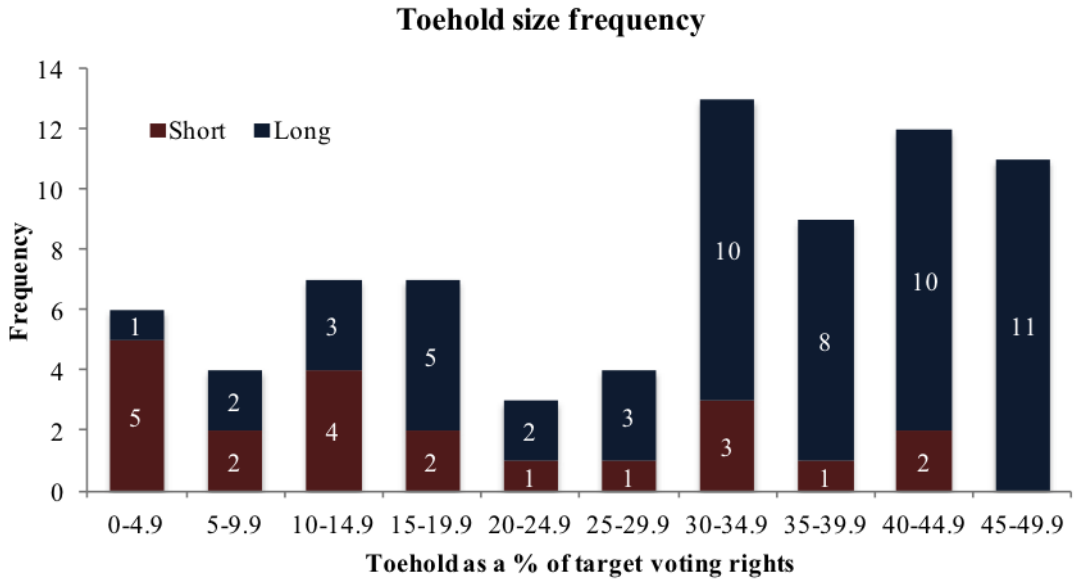

Fig 5. Presentation of the historical frequency distribution of toehold size measured in 5%-intervals. A toehold is considered long if some or all shares were held six months before bid was announced. In contrast, if all shares were acquired in the six months leading up to the bid, it is considered short term (Betton et al., 2009) .

median of 20.1%, suggesting an even distribution of toehold size in the hostile sample.

When only focusing on the bids where the initial bidder owned a toehold, we see that this was the case in 37.6% of the contests. As visible in figure 5, a majority of the toeholds were of large size. In more detail, 59.2% of the toehold owners controlled more than 30% of the votes in the target firm before the bid was announced. With only a few exceptions, these had been held more than six month before the takeover announcement date. When observing the toeholds of less than 30%, the distribution among long and short-term possessions is more evenly allocated. We have in this study argued that the Swedish market is characterised by large controlling blockholders. These results seem to support this condition. Accordingly, this indicates that the Swedish market for corporate control has encouraged long-term blockholders and discouraged bidders from building toeholds on a short-term basis due to strict disclosure rules.

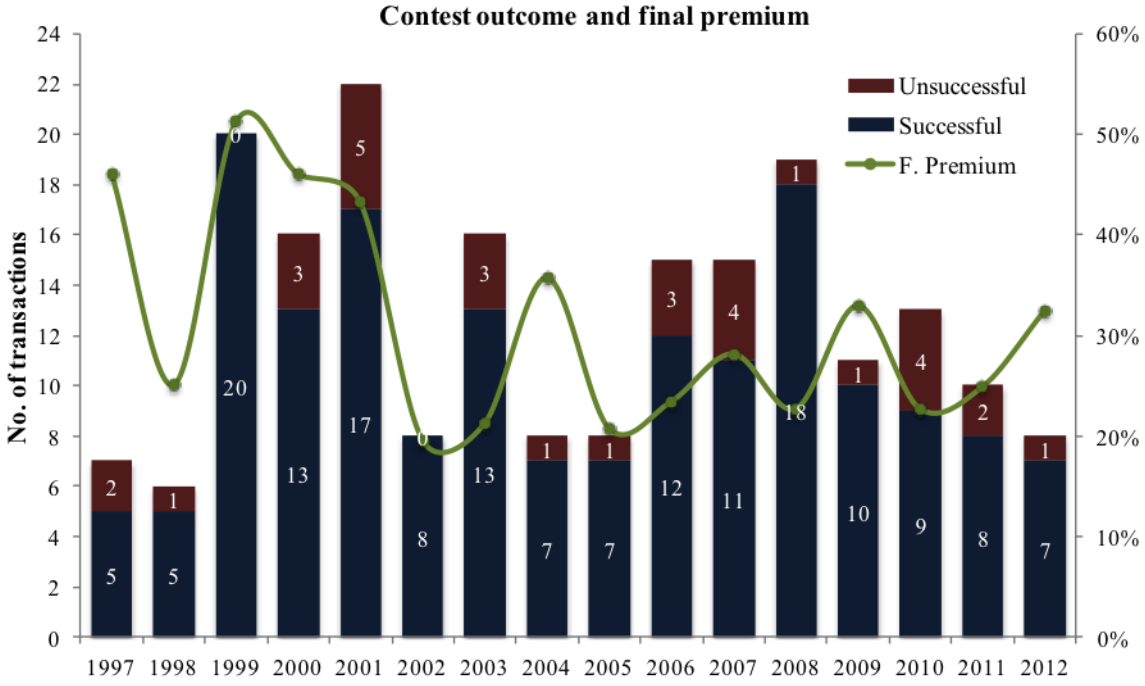

Fig. 6. The first axis presents a frequency distribution of successful and unsuccessful takeover attempts across the full sample. The second axis presents the average final premium, t_{42}, over time.

When relating our dataset to the hypotheses we can point out a number of important findings. First, the differences in the bid premiums in toehold contests and the no-toehold contests suggest that it could be a relationship in support of hypothesis 1. The relationship between toehold size and bid premium could be expected to be negative, with smaller premiums for larger toehold size. The premium difference between toehold and no-toehold contests visible in column 16 and 17 of Table 2, witness of 11.4% lower initial bid premiums and 10.3% lower final bid premiums. This result suggest support for the theoretical results of Shleifer & Vishny (1986), Eckbo & Langohr (1989), Hirshleifer & Titman (1990),

Betton & Eckbo (2000) as well as Goldman & Qian (2005). These findings also supports the empirical results by Asquith & Kieschnick (1999) and Betton Eckbo (2000), but fails to support the positive relationship suggested by Chowdry & Jegadeesh (1994) and Burkart (1995).

By observing the success rate it is clear that initial hostility has a major implication on the outcome probabilities. In our dataset, the percentage of positive outcomes is reduced from 94.3% to 51.1% when we move from friendly to hostile target response. Conditional on the bid turning hostile the aspect of rival bidders becomes even more important. If a rival bidder enters the contest, the percentage of positive outcomes drops sharply. Out of our hostile contest with rival bidders there is not a single occasion were the initial bidder won the competition, resulting in 0% positive outcomes. If the process was friendly and a rival bidder entered, the rival bidder's impact was still large with a 72.9% drop from 94.3% positive outcomes to a new success rate of 21.4%. Hence it seems vital to deter competitors from entering a contest, independent of whether the initial bid received a hostile target response or not.

In the theoretic chapter of this thesis, chapter 5, we have argued that a toehold position has a deterring effect on rival bidders entry in a competition. More importantly, when looking at the situation between toehold owners initiating a hostile bid contest and presence of rival bidders, we see that rival bidders only entered in 1 out of 30 (3.33%) of these contests. This was well below the no-toehold contests where rival bidders entered in 7.9%, adding support to the deterrence effect of toeholds suggested by Eckbo & Langohr (1989) and Betton & Eckbo (2000). Interestingly, consistent with the results of Betton & Eckbo (2000) we see that in 12 of 15 rival bid cases a rival bidder entered the contest with equally or better toehold state and size as of the initial bidder. This would provide additional proof of the benefits and the deterrence effect that follows with a toehold ownership, requiring a rival bidder to even out the playing field before entering the contest.

8.2 Regression results

In the previous section a number of clear tendencies became visible that allowed some preliminary conclusions to be drawn of toeholds relationship to premium and success. This section intends to test the tendencies visible in 8.1 and hence conclude if the hypotheses can be determined statistically significant or not.

8.2.1 Bid premium

Table 3
Table includes a presentation of the regression results of the determinants of the bid premium. *t* refers to the day of announcement. Premiums are calculated using offer price in relation to the share price at 1 and 42 days prior to this date dependent on definition. Hostility, cash payment, bidder origin and multiple bids in contest are dummy variables. Size of toehold and natural logarithm of target size are scale variables. All variables are further presented in chapter 7.

	Initial Premium		**Final Premium**	
	t-42	t-1	t-42	t-1
Constant	0.273	0.535	0.338	0.612
	(.050)	***(.000)***	***(.021)***	***(.000)***
SZTOEHOLD	-0.288	-0.32	-0.281	-0.322
	(.014)	***(.001)***	***(.021)***	***(.002)***
HOSTILE	-0.077	-0.042	-0.093	-0.049
	(.092)	*(.253)*	*(.064)*	*(.252)*
CASH	0.034	0.031	0.038	0.03
	(.436)	*(.385)*	*(.410)*	*(.429)*
ln(TARGETSIZE)	0.008	-0.017	0.002	-0.023
	(.438)	***(.033)***	*(.822)*	***(.010)***
BORIGIN	-0.07	-0.041	-0.072	-0.041
	(.083)	*(.201)*	*(.085)*	*(.237)*
MULTIBID	-	-	0.144	0.133
	-	-	***(.008)***	***(.004)***
R2	10.2%	10.9%	11.7%	11.7%

Table 3 presents the regression results of the initial and final premium that is conducted in order to examine hypothesis 1. Consistent with the primary definition used in our thesis we examine the relationship between the toehold size and the initial and final premium for the unaffected share price, $t\text{-}_{42}$. To test the robustness of our model as covered in section 7.4.2, we add the bid premium definition of $t\text{-}_{1}$. The discussion below will mainly be focused on the definition of the bid premium $t\text{-}_{42}$, while some reasoning regarding the results caused by the different definitions will be conducted when applicable.

To begin, the goodness of fit for our model according to R2-value is between 10.2% and 11.7%. This could intuitively be argued as a low value. However,

considering the fact that this study focus on a specific aspect of the takeover situation the result is rather expected. For example, the regression model used to determine this relationship disregards fundamentals like bidder synergies (Gujarati & Porter, 2009), economic value aspects (Varaiya, 1987), management hubris and free cash flow problems (Jensen, 1988; Lang & Walkling, 1991; Roll, 1986) and target financials that all are common determinants of the bid premium. When benchmarking the R2-value to Betton & Eckbo (2000) whom use a similar regression model to test the same dependent variable, our result of 10.2% for initial premiums is well above their 5.8%. It could therefore be argued that the fit of our model is rather good given the narrow scope of our analysis.

The constant in our regression shows a premium intercept of 27.3% for the initial premium and 33.8% for the final. This is close to the average premiums from the complete sample presented in 8.1 and indicates that the model provides a good and intuitive platform to commence our analysis.

Consistent with our prediction in hypothesis 1 the toehold size variable has a negative coefficient for the initial (final) premium of -0.288 (-0.281). The negative relationship between toehold size and bid premiums are highly significant, indifferent of the premium definition used. The given coefficients translate into a relationship where the larger the toehold size, the lower premium. By expressing this result as a marginal effect, a 1% increase in toehold size reduces the premium level with 0.288% of the initial bid premium and 0.281% of the final. These results provide significant evidence to the theoretical predictions of hypotheses 1.

When analysing the remaining variables, hostility, cash, target size, bidder origin and multiple bids, significant results are only detectable in one, namely the target size. In section 8.1, emphasis was put on payment methods and its impact on bid premiums. The dataset allowed us to see that cash payment resulted in higher premiums than other methods. However, the regression fails to provide any statistical significance to our results.

While one intuitively could expect hostility to show a negative relationship to the bid premium by observing Table 2, with premium levels substantially lower for hostile contests, the analysis of our dataset fails to find any statistical significance for this argument.

As said, the target size is a significant determinant for the bid premium, but not for all definitions. The variable hence fails to provide any significant results when looking at the t_{-42} definition of the premium. However, it is highly significant for the t_{-1} definition. This is a puzzling result, but it seems that larger targets reduces the premium when we look at t_{-1}. In the limitations of toeholds section in this thesis we presented arguments for price run-ups in target share price. A central aspect in these arguments was that the larger the firm size, the more brokers covered the company and the more public attention was drawn towards the firm. Our result could indicate that the price run up is more impactful for larger firms, and the bid premium is hence reduced to a higher degree for larger firms when comparing the share price at the last day of trading prior to the announcement. This result is consistent with the prediction of Asquith & Kieschnick (1999) who argues that toeholds should be smaller the larger the firm,

given the higher market awareness and the associated complications to build toeholds. Our result would support their notion that the price run up is higher for larger firms, which causes the base price for the bid premium to be inflated. With a higher unaffected share price used to calculate the premium, the premium level seems lower for larger firms than for smaller firms.

The variable multibid includes contests with rival bidders and revisions of initial bidder's offer. It is therefore by definition excluded from the initial premium regression. The relationship between this variable and the final premium was proven to be highly significant. Consequently, we see from the result that when multiple bids occurred in the contests, the final premium increased with 14.4% at the unaffected share price and 13.3% compared to the last day of trading.

8.2.2 Probability of success

Table 4
A presentation is given of the logit regression model used to define the determinants of the probability of success in public takeover contests. The regression model is used on the full (202) and hostile (45) samples separately. Size of toehold, final premium and the natural logarithm of target size are scale variables. Cash payment, multiple bids in a contest and hostility are dummy variables. All variables are further presented in chapter 7

	Full			**Hostile**		
	B	Sig.	Exp(B)	B	Sig.	Exp(B)
Constant	0.271	*(.869)*	1.312	-13.28	***(.012)***	0.000
SZTOEHOLD	-0.002	*(.918)*	0.998	0.108	***(.004)***	1.114
CASH	1.371	***(.020)***	3.938	1.784	*(.093)*	5.952
MULTIBID	-1.867	***(.002)***	0.155	0.088	*(.933)*	1.092
FPREMIUMt-42	0.006	*(.589)*	1.006	0.002	*(.942)*	1.002
ln(TARGETSIZE)	0.132	*(.302)*	1.141	0.731	***(.027)***	2.077
HOSTILE	-2.214	***(.000)***	0.109	-	-	-
Nagelkerke R Square		42.0%			57.9%	

Table 4 presents the results of the logit regression model on the estimated probability of success in the bid contests. As seen in column 2 and 5, the results are rather inconclusive of a toeholds determinacy in the full sample but significantly improved for the hostile sub-sample. For the full sample, hostility and competition in a bid contest decreases the probability of success as expected. The effect on the initial bidders worsened outlooks in the contest is significant at a 1% level. Hostility is a commonly used explanation against the initial bidders success.

It seems that cash as a payment method is a significant predictor of success. The hard currency aspect of cash relative to stock payment, as discussed in 8.1,

increases the probability of a positive outcome by its value robustness for target shareholders. This is an expected result given the previous discussion and the available literature on the subject (Stavlos, 1987). In contrast to the significant result of cash payment, the premium level and target size do not seem to determine the final outcome in a bid contest for the full sample. For a large sample of 202 contests of all sizes and firm fundamentals, these do not independently seem to be a determinant of the success in a takeover contest.

The fit of the model for the full sample is a medium satisfactory 42%. This could be attributed to the large amount of contests that were successful. A similar disturbance to the result was found in Walkling (1985) who neither managed to conclude on toehold relationships when hostile and friendly contests were studied combined. A study with separated samples therefore had to be done. To our study, we find two reasons for the insignificant effects in the regressions. First, the high frequency of success across the full sample (84.5%) in combination with the relatively low frequency of toeholds (37.6%) could be insufficient for relationships to become evident. Second the frequency of unsuccessful contests is higher in hostile takeovers in addition to a higher frequency of toeholds. The observed negative coefficient of toeholds for the full sample could be understood in this way and is therefore in a way slightly misleading. Subsequently, we cannot find evidence for hypothesis 2 by studying the full sample. In order to avoid this disruption, we attempt to run the logit regression model on the subsample of hostile takeovers as presented in the robustness of the regression model in section 7.4.4. Differences could be expected as this includes a more dispersed distribution of toeholds and success across the sample. In addition, bids in the sub-sample hostile contests have all been rejected by the target board, which has previously been stated as the most significant determinant of success in a takeover. In that sense, it does not discriminate between contests recommended vis-à-vis not recommended by the target board of directors.

Among the transactions that have been rejected by the board, the model manages to provide a better explanation of the relationships, with an R2-value of 57.9%. Now, we can see a significant effect of toeholds and the size of the company on the probability of success. Among the hostile contests, a revised bid from the initial bidder or a rival bid being placed does not seem to affect the probability of success in the model. Neither does the choice of payment method. Interestingly, the final premium fails to determine the success outcome in the contest. To us, this implies that firm characteristics or other fundamentals drives the premium level and should hence not be included in a discussion were the level of the bid premium is directly related to the probability of success. In essence, something other has been of more significance to our model in the observed takeovers, namely the possession of toeholds among the bidders.

To begin, the size of the toehold is significant in the way it determines the contest outcome. A larger toehold increases the probability of success for the initial bidder. This is consistent with hypothesis 2 and previous findings of (Betton & Eckbo, 2000; Hirshleifer & Titman, 1990; Jennings & Mazeo, 1993 and Walkling, 1985)

Figure 7 (A) shows that a bidder with no toehold in a hostile takeover has a probability to win of 12%. A toehold at the first level of disclosure (5%) increases that probability to 19%. It is estimated more likely to succeed than loose at a toehold level of 18%. For toeholds that triggers the mandatory bid principle in Sweden at 30%, these have an estimated probability to win of at least 78%. Intuitively, this means that all toeholds increase a bidders probability to win. If a bidder could acquire a large block of shares in a company, it would most likely lead to a successful takeover and subsequently the control of the company.

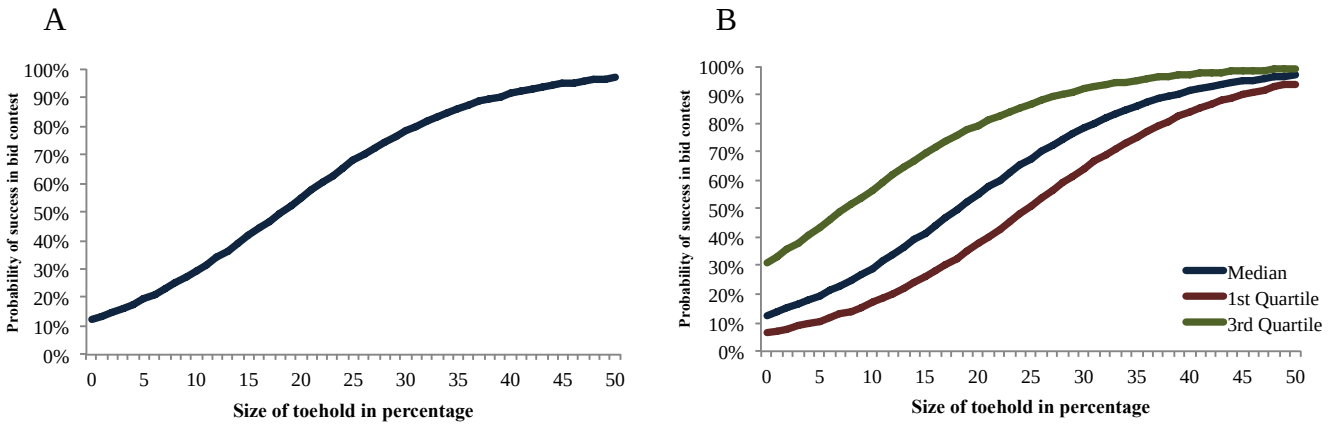

Fig. 7. A) Estimated probability of success among hostile takeovers. Assumptions based on median values from Table 2. Example based on cash payment, bid premium of 31.8%, target market value 424MSEK and a single bidder contest. B) Estimated probability of success among hostile takeovers of different sizes. Assumptions based on median values from Table 2. Example uses cash payment, bid premium of 31.8%, target market value of 1st – 3rd quartile (162; 424; 2046msek) and a single bidder contest.

If we return to Table 4, not only the toehold mattered in the studied contests, the other significant determinant was the market value of the target company. By studying the hostile sample, target companies with smaller market values at t_{-42} were more likely to lead to an unsuccessful outcome.

In figure 7 (B), the 1st and 3rd quartile of target companies are included. The first conclusion that could be made is that the relationship of toehold size on the increased probability of success is valid indifferent of the target firm's size. Second, the result indicates that it has been harder to push through a takeover of a smaller firm. While this suggest additional analysis on the significance of toeholds in relation to target firm's size, we are satisfied to conclude that the relationships are valid indifferent of target firm size. We are therefore in a position where the results of the regression models could be summarized, discussed and problematized in a wider scope related to the Swedish market for public takeovers. Accordingly, this is being done in chapter 9.

9 Conclusion

9.1 Summary and discussion

The focus of this thesis has been to analyse a bidder's initial ownership in the target firm, the toehold, and its ability to determine the bid premium and probability to succeed in a Swedish public takeover contest. The study is based on theories related to toeholds that currently seem unable to provide the reader with an aligned view of the toeholds impact on the contest characteristics and its outcome. Given the Swedish (i) disclosure rules and the (ii) shareholder structure that clearly deviates from the US conditions, we identified conditions that possibly could impact the applicability of the inconclusive theories. The purpose of this thesis was to clarify the toeholds impact on bid premiums and the expected bid success in Swedish public takeovers. The dataset collected for this thesis consists of a total of 202 bid contests spanning from 1997 to 2012.

Given the current state of knowledge of the toehold relationships we formulated two hypotheses, both covering two separated but interrelated areas of importance in the toehold field. First, we expected the bid premiums to decrease as the size of the toehold increased. Second, we expected that the larger the toehold size owned by the initial bidder, the higher probability to win the bid contest. Our hypotheses are based on the expectation that, with the regulatory framework in place and the shareholder structure that characterise the Swedish market, toeholds should be of larger size when present compared to previous findings in US samples.

When analysing hypothesis 1, we found strong evidence for its negative relationship to the bid premium. Already when separating contests into toehold bidders and non-toehold bidders, the result witnessed of a possible relationship between the groups where the average initial (final) premium was 11.4% (10.3%) lower for toehold bidders. This strongly suggested that a relationship could be proven. When then examining the full dataset using an OLS regression model, a significant negative relationship could be seen. As suggested by our hypothesis, the toehold coefficient turned out to be highly significant as a determinant of the bid premium across all contests. This was clear evidence to hypothesis 1 and consistent with the relationship predicted by Shleifer & Vishny (1986), Betton & Eckbo (2000) and Goldman & Qian (2005) among others, while concurrently not in support of the positive relationships suggested by Chowdry & Jegadeesh (1994) and Burkart (1995).

Hypothesis 2 could partially be supported by our test. When using a logit regression model to determine the probability of success for the initial bidder, the full sample did not provide any significant results of a relationship between the

two variables. However, since the occurrence of toeholds and failed takeover attempts has been unevenly distributed, with higher frequencies of both variables in hostile takeovers, this result was rather expected. This has also been an issue for previous researchers (Walkling, 1985). It was therefore reasonable to expect more valid results by analysing the hostile sample separately, where contest success was not disturbed by an overall high success rate. Consequently, when analysing the hostile sample, the relationship between toehold size and probability to win proved to be highly significant. The results confirmed our expectation that the toehold size has a positive relationship with a successful contest outcome. Therefore, if the bidder anticipated or experienced resistance from the target board of directors, a toehold seemed to be useful to push the bid through consistent with Betton et al. (2009). The results of hypothesis 2 hence support the predictions of Hirshleifer & Titman (1990) that contest success is increasing with the size of the toehold, independent of the bid premium level. This is also consistent with the empirical results of Walkling (1985), Jennings & Mazeo (1993) and Betton & Eckbo (2000). Our results however failed to support Chowdry & Jegadeesh (1994) prediction that the toehold leads to a higher probability of success, but only through the higher bid premium. This theory fails to find support in our result partly through the lack of significance for the bid premiums impact on the outcome, but also as toeholds bid premium relationship was negative as proven in hypothesis 1.

Consequently, what conclusions can be made from the results of hypothesis 1 and 2 compared to what is already known? To begin, by including a chapter of the regulatory deviations across countries, we presented arguments for why one cannot take the results obtained from previous research on the US market for granted when examining the situation in Sweden. We argue that one cannot fully understand the conditions on the market for public takeovers by only analysing differences in the shareholder structure. In order to explain toeholds presence and their importance in a bid contest, one also has to consider the regulatory conditions impacting, in our thesis focusing on how a toehold can be acquired or disposed. Since the regulations on takeovers and share acquisitions differ across the countries, the regulations would most likely affect the results. In addition, Sweden has a high vote to capital ratio compared to other countries, with regulations and market conditions that have facilitated the large shareholders. These conditions are, seen by us, arguably the most important reason for the large toeholds, seen on the Swedish market, consistent with our expectation. Moreover, the findings hence highlight that relationships found on a sample of US takeovers by (Betton et al., 2009) are valid for a market with a more concentrated shareholder structure and stricter disclosure rules.

Now, if we consider the findings in hypotheses 1 and 2 to be true, they indicate that toehold bidders can acquire firms cheaper, but still have a higher expected probability to succeed. How could it be possible that toehold bidders win more competitions but pay less in Swedish takeovers? One explanation for the high probability to win is the deterring effect on potential entry of rival bidders in a competition, as argued by Betton & Eckbo (2000), Hirshleifer & Titman (1990), Jennings & Mazeo (1993) and Walkling (1985). A rival bidder is aware of the

toehold bidders incentives for aggressive bidding behaviour and his behaviour to gain in the contest from the already owned shares in the target. Conditional on the rival bidder not possessing a toehold, he lacks the benefits that the toehold owner can utilize. We can based on above argue that there is less competition in a contest with a toehold bidder due to the deterrence effect. This argument is consistent with Stultz et al. (1990) and supported by our finding that less toehold bidders were challenged with rival bids. In addition, in the contests where a rival bidder entered the contest, they usually entered with an equal or better toehold state and size as of the initial bidder. This was evident in 12 of 15 rival bids in our sample, consistent with the findings in Betton & Eckbo (2000).

The uneven playing field caused by toeholds could hence be an explanation and this thesis provides tentative support for the argument. However more importantly, as discussed in the method chapter one should be aware of that a public takeover is a complex process with a significant amount of undisclosed information and discussions between actor without the public's awareness. We could expect, yet not conclude, that deterring effect in takeover contest could be even bigger than what is possible to provide evidence for in this thesis.

If we then accept that the relationships hold, how would market actors comply with it given that the Swedish shareholder structure is more focused than the US, with toeholds both higher in frequency and larger in size? It could be argued that the focused shareholder structure seen in Sweden cause impacts to amplify even further. With larger deviations in strategic abilities between toehold and non-toehold owners, a higher level of awareness among academics, practitioners and regulators is required. We hence believe that the evolved Swedish shareholder structure and regulations for takeovers and share acquisitions, to some extent, face a risk of creating frictions by discriminating among the market actors ability to compete in a takeover contest. It could be argued that the relationships and high frequency of large controlling blockholders hence disallows the market to fully function without inefficiencies.

Potential inefficiencies could be illustrated by two examples. In the first, we consider a situation when a large shareholder initiates a takeover contest and a rival bidder evaluates if to enter the competition or not. The first bidder's toehold position would work as a deterring tool against the rival bidder's entrance, which accordingly could refuse to enter the competition "naked" as he is aware of the competitive advantage of the toehold owner. The rival bidder would be forced to position him with an evenly large toehold position if he is determined to enter the contest, as reported by Stultz et al. (1990) and Betton & Eckbo (2000). However, it is hard for a rival bidder to match the toehold position held by a large owner by acquiring shares in the market as a short-term strategy. Even if he manages to acquire a desired block, it would most likely not be purchased to an unaffected price due to the run-up costs caused by the high level of transparency of holdings in Sweden. This reasoning will leave the large shareholder uncontested for the target, resulting in less bidders and target shareholders' loosing out on a potential value maximization that a rival bidder would cause.

Second, inefficiencies are also evident in a situation when a bidder with no toehold in the target consider bidding on a target, where the observed shareholder

contain one or several large shareholders. By applying the findings of Betton & Eckbo (2000), and possibly anticipate competition from existing shareholders, this initial bidder would want to enter the bid contest with an equally large toehold as the large shareholder. If the bidder enters the contest naked and the large shareholder decides to challenge as a rival bidder, our results shows that it is highly likely that the large shareholder with a strong toehold position would win. If bidding at all, a strategy of bidding with a toehold would hence be preferable. As we have argued, the Swedish disclosure rules and the associated run up costs prohibit the bidder to build a toehold unnoticed. Given the relationships found in Sweden, we hence suspect that situations occur where large shareholders systematically will benefit from their competitive advantage causing less takeovers and an inactive takeover market for firms of this type.

Conclusively, this thesis has shown evidence that toehold bidders has a substantial benefit when initiating a public takeover contest. The toehold bidder pays on average a lower premium in the takeover and could be expected to win more often. We have shown that the relationship is no different on the Swedish market for public takeovers compared to prior research on a US sample. The results therefore suggest that the abilities enabled through toeholds cause inefficiencies on the market Swedish for corporate control, making it an area suitable for further research.

9.2 Suggestion for future research

On the basis of the above-mentioned results, we find this subject to be of high interest to evaluate further. A couple of aspects has been identified that could be of interest to research more deeply. If beginning where our previous discussion ended, the current Swedish condition for takeovers is something we identified as ineffective in regards to toeholds impact on the competitive environment in a takeover situation. However, no attempts are made in this thesis to analyse potential amendments of the Swedish takeover regulations or other measures that could reduce the competitive advantage currently in possession of large shareholders. We are humble to the possibility that there might be certain aspects regarding the takeover situation that we have not considered, or other benefits that follows with the transparency in the current structure.

A study examining the consequences of different takeover regulations and shareholder structures could be of great interest. For example, the US regulation has been criticized for being poorly updated and unsuitable for a time period with the current rapid information flows. A suggestion could be to research the potential consequences of an updated set of regulations, with stricter disclosure rules, and how the introduction could impact the US takeover market. Moreover, by contrasting Sweden to markets with diverging takeover regulations, not necessarily US or UK, one could enhance the understanding of the area. Perhaps there is an optimal shareholder structure and takeover regulations that both protect

current owners from "corporate raiders", yet facilitates an active takeover market with emphasize on value maximization? Further research in this area is desirable.

If relating possible further research to the practical limitations that we have experienced in this thesis, we identify several areas to add knowledge. A central aspect in the argumentation throughout the thesis has been the price run-up costs that occur pre-bid and the consequences that accompany short-term toehold purchases. In the bid premium regression we indicated possible run-ups for large targets, were a substantial difference was observed for the bid premiums when comparing the values from different definitions. Our thesis would have been even more thorough and robust if we would have been able to investigate the target market movements before a bid announcement, and more closely examine the market rumours including their impact on the share price. By adding variables on target price run-ups and possible bid mark-ups for each contest, more of the dynamics of the takeover situation could have been mapped. An examination of the six months prior to bid announcement in relation to the toehold variables impact on contest outcomes could be an interesting area to research further.

We have used quantitative methods in this thesis where the focus has been on hard information available in databases. Two areas regarding more soft values could be of interest to investigate. First, we noticed occasions where the toehold owner announced a bid on the target, while controlling a number of the seats in the board of directors. This complicates the boards procedure with their decision making regarding whether to recommend the bid or not, as a large fraction of the board is biased. Moreover, it could be assumed that aggressive takeover defences rarely are activated when the bidder to a large extent owns the target. Target board composition could hence be an important aspect that possibly impacts the outcomes more than we could observe. This could very likely be a central determinant for the probability of success when a toehold bidder initiates a takeover contest. Second, we have argued that large blockholders presence in a firm could have a deterring effect for bidders lacking toehold positions. An examination of the frequency of blockholders in a target and the associated characteristic of the takeover contest could provide valuable information. This is especially interesting in takeover contest where the bid is submitted conditional on a 90% acceptance rate. As an example, are we more likely to see takeover attempts on targets with dispersed ownership with many small owners, or with a low number of shareholders with corner positions that could block the takeover? Differently put, to what extent is the targets shareholder structure a determinant of takeover activity?

To conclude, we would like to analyse the bidding behaviour of toehold bidders in more detail. This is particularly related to its bidding strategy. With the finding in 8.1 of lower final bid premiums in hostile compared to friendly takeovers in mind, could it be that toehold bidders skim the target with a low price to take advantage of their bargaining power that the toehold brings? We would hence like to find out more of bidders individual decision-making models that accounts for both valuation metrics and contest characteristics. We therefore see several areas of interest to explore in this subject and we expect much more to be discovered on these puzzling relationships in the future.

10 Appendix

10.1 Correlation matrix of regression variables

	BORIGIN	HOSTILE	CASH	TOESIZE	RIVAL	SUCCESS	MULTIBID	TARG.SZ	FP42
BORIGIN	-	-	-	-	-	-	-	-	-
HOSTILE	0.119	-	-	-	-	-	-	-	-
CASH	-0.082	-0.051	-	-	-	-	-	-	-
TOESIZE	0.175	0.284	0.216	-	-	-	-	-	-
RIVAL	0.077	0.166	-0.144	-0.064	-	-	-	-	-
SUCCESS	-0.158	-0.485	0.222	-0.057	-0.498	-	-	-	-
MULTIBID	0.012	0.352	-0.071	0.037	0.619	-0.41	-	-	-
TARG.SZ	-0.214	0.072	0.076	-0.132	0.122	-0.022	0.23	-	-
FP42	-0.179	-0.139	0.03	-0.221	0.087	0.048	0.146	0.109	-

10.2 List of Swedish public takeovers, 1997-2012

Fundamentals					Deal Charachteristics							Bid Sequence in SEK			Toehold		Premium t-42		Premium t-1		Outcome	
Nr	Date of Offer	Target company	Buyer	Buyer Domicil	M&A Wave	Deal Type	Payment	Toehold	Rival	Winner	Target MV*	1st	2nd	Final	Type	Size	Initial	Final	Initial	Final	Acceptance	Successful**
1	1997-03-17	Östgöta Enskilda Bank	Den Danske Bank AS	Cross-border	Yes	Friendly	Cash	No Toehold	No	Initial	1474	50.5		50.5	No Toehold	0.0%	n/a	n/a	90.0%	90.0%	>50%	Yes
2	1997-05-15	Fabege AB	Hufvudstaden AB	Domestic	Yes	Friendly	Stock	No Toehold	Yes	Rival	n/a	76.95		76.95	No Toehold	0.0%	n/a	n/a	14.0%	14.0%	0.0%	No
3	1997-08-06	Hufvudstaden International	Diligentia Ab	Domestic	Yes	Friendly	Stock	No Toehold	No	Initial	4636	44.75		44.75	No Toehold	0.0%	24.0%	24.0%	25.0%	25.0%	96.5%	Yes
4	1997-08-08	GOTIC	Vasakronan	Domestic	Yes	Friendly	Cash	No Toehold	No	Initial	134	19.75		19.75	No Toehold	0.0%	16.2%	16.2%	12.9%	12.9%	97.0%	Yes
5	1997-09-01	ICB Shipping AB	Frontline Ltd	Cross-border	Yes	Hostile	Mixed	Toehold	No	None	212	113.6	115	130	Short	31.0%	33.6%	52.9%	17.1%	34.0%	<50%	No
6	1997-10-02	Trygg-Hansa	S-E-Banken AB	Domestic	Yes	Friendly	Cash	No Toehold	No	Initial	10329	244		244	No Toehold	0.0%	59.5%	59.5%	23.9%	23.9%	>50%	Yes
7	1997-12-09	Linjebuss	CGEA Transport SA	Domestic	Yes	Friendly	Cash	Toehold	No	Initial	806	112		112	Short	33.0%	77.8%	77.8%	22.4%	22.4%	>50%	Yes
8	1998-03-16	Peak Performance	Carli Gry International A/S	Cross-border	Yes	Friendly	Cash	No Toehold	No	Initial	261	125		125	No Toehold	0.0%	5.0%	5.0%	2.5%	2.5%	>50%	Yes
9	1998-03-30	NK Cityfastigheter	Hufvudstaden AB	Domestic	Yes	Friendly	Stock	No Toehold	No	Initial	1148	74		74	No Toehold	0.0%	25.4%	25.4%	10.4%	10.4%	98.3%	Yes
10	1998-09-01	Benima Ferator Engineering	Sigma Ab	Domestic	Yes	Friendly	Cash	No Toehold	No	Initial	188	34		34	No Toehold	0.0%	4.6%	4.6%	36.0%	36.0%	93.0%	Yes
11	1998-09-08	Näckebro AB	Drott AB	Domestic	Yes	Hostile	Cash	Toehold	No	Initial	3026	126	141	141	Short	10.3%	-0.8%	11.0%	18.3%	32.4%	97%	Yes
12	1998-11-30	Plm Ab	Rexam Plc	Cross-border	Yes	Friendly	Cash	No Toehold	No	Initial	3672	118		118	No Toehold	0.0%	39.6%	39.6%	38.0%	38.0%	>50%	Yes
13	1998-12-02	Liljeholmen AB	Duni	Domestic	Yes	Hostile	Cash	No Toehold	Yes	Rival	103	16		16	No Toehold	0.0%	64.9%	64.9%	52.4%	52.4%	<50%	No
14	1999-01-07	Spectra-Physics Ab	Thermo Instrument Systems Inc.	Cross-border	Yes	Friendly	Cash	No Toehold	No	Initial	1665	160		160	No Toehold	0.0%	69.3%	69.3%	67.5%	67.5%	93.6%	Yes
15	1999-02-01	BTL Bilspeditionen	Stinnes AG	Cross-border	Yes	Hostile	Cash	Toehold	No	Initial	1434	45		45	Short	49.9%	38.5%	38.5%	47.5%	47.5%	98%	Yes
16	1999-02-11	Dahl	DIAB (EQT & Ratos)	Domestic	Yes	Hostile	Cash	Toehold	No	Initial	1560	120		120	Long	28.0%	60.0%	60.0%	35.6%	35.6%	>50%	Yes
17	1999-03-01	Prifast AB	Balder	Domestic	Yes	Friendly	Cash	No Toehold	No	Initial	1082	75		75	No Toehold	0.0%	38.9%	38.9%	31.6%	31.6%	95.0%	Yes
18	1999-03-08	Asticus AB	IVG Immobilien AG	Cross-border	Yes	Friendly	Cash	No Toehold	No	Initial	2352	117		117	No Toehold	0.0%	56.0%	56.0%	37.6%	37.6%	98.70%	Yes
19	1999-04-26	Allmenna Svenska Gods.	Danzas Holding Ag	Cross-border	Yes	Friendly	Cash	No Toehold	No	Initial	2365	265		265	No Toehold	0.0%	28.0%	28.0%	23.8%	23.8%	>50%	Yes
20	1999-04-29	BPA	Procuritas Capital Partners ll	Domestic	Yes	Friendly	Cash	No Toehold	No	Initial	844	30.5		30.5	No Toehold	0.0%	33.8%	33.8%	27.1%	27.1%	>50%	Yes
21	1999-05-12	Sendit Ab	Microsoft Corporation	Cross-border	Yes	Friendly	Cash	No Toehold	No	Initial	564	325		325	No Toehold	0.0%	85.7%	85.7%	41.3%	41.3%	>50%	Yes
22	1999-05-12	Gibeck	Hudson RCI Inc.	Cross-border	Yes	Friendly	Cash	No Toehold	No	Initial	163	115		115	No Toehold	0.0%	85.5%	85.5%	33.7%	33.7%	>50%	Yes
23	1999-06-29	Sorb Industri AB	Carl Bennet AB	Domestic	Yes	Friendly	Cash	No Toehold	No	Initial	n/a	45		45	No Toehold	0.0%	n/a	n/a	1.1%	1.1%	>50%	Yes
24	1999-08-10	Eldon Ab	Thule Intressenter (EQT)	Domestic	Yes	Friendly	Cash	No Toehold	No	Initial	1223	205		205	No Toehold	0.0%	51.9%	51.9%	41.4%	41.4%	67.9%	Yes
25	1999-08-11	Meto	Checkpoint Inc.	Cross-border	Yes	Friendly	Cash	No Toehold	No	Initial	2059	65		65	No Toehold	0.0%	n/a	n/a	62.5%	62.5%	>50%	Yes
26	1999-08-16	Aga Ab	Linde Ag	Cross-border	Yes	Friendly	Cash	Toehold	No	Initial	10929	141		141	Short	7.0%	31.8%	31.8%	6.8%	6.8%	>50%	Yes
27	1999-10-04	Wilkenson Handskmakarn	Wedins Norden AB	Domestic	Yes	Friendly	Stock	No Toehold	No	Initial	108	66.15		66.15	No Toehold	0.0%	53.8%	53.8%	54.6%	54.6%	98.1%	Yes
28	1999-11-01	Humlegården	Länsförsäkringar	Domestic	Yes	Friendly	Cash	No Toehold	No	Initial	756	91.75		91.75	No Toehold	0.0%	56.8%	56.8%	39.0%	39.0%	>50%	Yes
29	1999-11-01	N&T Argonaut	Simbel Investment AB	Domestic	Yes	Friendly	Cash	Toehold	No	Initial	238	8.1		8.1	Long	19.3%	40.9%	40.9%	40.9%	40.9%	95.9%	Yes
30	1999-11-16	Celsius Ab	Saab Ab	Domestic	Yes	Friendly	Cash	No Toehold	No	Initial	2770	179		179	No Toehold	0.0%	62.0%	62.0%	31.1%	31.1%	99.0%	Yes
31	1999-11-26	Graningeverkens	Graninge	Domestic	Yes	Friendly	Stock	No Toehold	No	Initial	8839	132		132	No Toehold	0.0%	-0.8%	-0.8%	1.5%	1.5%	97.5%	Yes
32	1999-12-03	Guide Konsult Ab	Framfab Ab	Domestic	Yes	Friendly	Stock	No Toehold	No	Initial	768	209		209	No Toehold	0.0%	79.4%	79.4%	25.9%	25.9%	98.0%	Yes
33	1999-12-22	Althin Medical Ab	Baxter International Inc.	Cross-border	Yes	Friendly	Cash	Toehold	No	Initial	232	100		100	Short	1.7%	n/a	n/a	47.1%	47.1%	99.7%	Yes
34	2000-02-09	Fastighets Balder AB	Drott AB	Domestic	Yes	Hostile	Cash	No Toehold	No	Initial	371	135	140	140	No Toehold	0.0%	33.7%	38.6%	32.4%	37.3%	95%	Yes
35	2000-02-14	Kjessler & Mannerstråle	Traction	Domestic	Yes	Friendly	Cash	Toehold	Yes	Rival	171	65		65	Long	40.0%	54.8%	54.8%	20.4%	20.4%	<50%	No
36	2000-02-17	Evidentia	Claesson & Anderzen Invest	Domestic	Yes	Friendly	Cash	Toehold	No	Initial	622	91		91	Short	18.0%	12.3%	12.3%	13.8%	13.8%	98.0%	Yes
37	2000-04-04	Bt Industries Ab	Toyota Automatic Ltd	Cross-border	Yes	Friendly	Cash	No Toehold	No	Initial	4956	275		275	No Toehold	0.0%	55.4%	55.4%	35.5%	35.5%	>50%	Yes
38	2000-04-10	Perstorp Ab	Perstorp Intressenter Ab	Domestic	Yes	Friendly	Cash	Toehold	No	Initial	761	140		140	Long	5.4%	57.3%	57.3%	32.1%	32.1%	68.0%	Yes
39	2000-04-12	Provobis Hotel & Rest. Ab	Scandic Hotels Ab	Domestic	Yes	Friendly	Cash	No Toehold	No	Initial	352	37		37	No Toehold	0.0%	100.0%	100.0%	85.0%	85.0%	98.6%	Yes
40	2000-05-08	Folkebolagen	Lindab AB	Domestic	Yes	Friendly	Cash	No Toehold	No	Initial	33	43.5		43.5	No Toehold	0.0%	64.2%	64.2%	55.4%	55.4%	82%	Yes
41	2000-06-21	Svedala Industri Ab	Metso Oyj	Cross-border	Yes	Friendly	Cash	Toehold	No	Initial	6458	185.1		185.1	Short	0.5%	37.6%	37.6%	54.3%	54.3%	92.0%	Yes
42	2000-08-16	Iro Ab	Michel Van De Wiele Nv	Cross-border	Yes	Friendly	Cash	No Toehold	No	Initial	950	122.5		122.5	No Toehold	0.0%	61.2%	61.2%	30.3%	30.3%	99.8%	Yes
43	2000-08-21	Norrporten Fastighets Ab	Ns Holding Ab	Domestic	Yes	Friendly	Cash	Toehold	No	Initial	899	140		140	Short	23.4%	31.5%	31.5%	19.1%	19.1%	98.6%	Yes
44	2000-08-22	Allgon AB	LGP Telecom Holding AB	Domestic	Yes	Hostile	Stock	Toehold	Yes	None	3324	143.36		143.4	Short	1.0%	21.5%	21.5%	46.3%	46.3%	17%	No
45	2000-08-28	Gylling Optima Batteries AB	Johnson Controls Inc.	Cross-border	Yes	Friendly	Cash	No Toehold	No	Initial	322	20		20	No Toehold	0.0%	n/a	n/a	78.6%	78.6%	99.0%	Yes
46	2000-09-13	Arete Ab	Turnit Ab	Domestic	Yes	Friendly	Stock	No Toehold	No	Initial	293	214.5		214.5	No Toehold	0.0%	61.3%	61.3%	53.8%	53.8%	92.3%	Yes
47	2000-09-27	Dios-Anders Dios Ab	Ap Fastigheter Ab	Domestic	Yes	Friendly	Cash	No Toehold	No	Initial	1247	78		78	No Toehold	0.0%	47.2%	47.2%	32.2%	32.2%	91.0%	Yes
48	2000-10-06	Fb Industri Holding Ab	Bergman & Beving Ab	Domestic	Yes	Friendly	Cash	No Toehold	No	Initial	78	30		30	No Toehold	0.0%	42.9%	42.9%	46.3%	46.3%	71.0%	Yes
49	2000-11-27	Columna Fastigheter AB	Cellfabriken AB	Domestic	Yes	Hostile	Mixed	No Toehold	No	None	340	0.4		0.4	No Toehold	0.0%	5.3%	5.3%	17.6%	17.6%	17%	No
50	2001-01-10	Artema Medical Ab	Cardiac Science Inc.	Cross-border	No	Friendly	Stock	No Toehold	No	Initial	99	12.96		12.96	No Toehold	0.0%	97.9%	97.9%	n/a	n/a	95.0%	Yes
51	2001-01-26	Segerstrom & Svensson Ab	Sanmina Corporation	Cross-border	No	Friendly	Stock	No Toehold	No	Initial	2444	180		180	No Toehold	0.0%	59.3%	59.3%	72.2%	72.2%	97.8%	Yes
52	2001-02-12	IMG Ab	Vision Park Entertainment Ab	Domestic	No	Friendly	Stock	No Toehold	No	Initial	31	20.8		20.8	No Toehold	0.0%	70.5%	70.5%	22.4%	22.4%	98.0%	Yes
53	2001-02-19	Atle Ab	Woodrose Invest Ab	Domestic	No	Friendly	Cash	No Toehold	No	Initial	7228	153		153	No Toehold	0.0%	15.5%	15.5%	16.8%	16.8%	97.0%	Yes
54	2001-02-21	Sydkraft Ab	E On Scandinavia Ab	Domestic	No	Friendly	Cash	Toehold	No	Initial	16667	240		240	Short	42.8%	60.0%	60.0%	3.0%	3.0%	>50%	Yes

Fundamentals					Deal Charachteristics							Bid Sequence in SEK			Toehold		Premium t-42		Premium t-1		Outcome	
Nr	Date of Offer	Target company	Buyer	Buyer Domicil	M&A Wave	Deal Type	Payment	Toehold	Rival	Winner	Target MV*	1st	2nd	Final	Type	Size	Initial	Final	Initial	Final	Acceptance	Successful**
55	2001-02-26	Svenska Brand	Länsförsäkringar Ab	Domestic	No	Friendly	Cash	Toehold	No	Initial	143	81		81	Short	0.8%	42.1%	42.1%	39.7%	39.7%	93.1%	Yes
56	2001-03-22	Perstorp AB	Sydsvenska Kemi AB (publ)	Domestic	No	Friendly	Cash	No Toehold	No	Initial	624	122.1		122.1	No Toehold	0.0%	67.3%	67.3%	45.4%	45.4%	98.6%	Yes
57	2001-04-10	Matteus Ab	Nh Nordiska Holding Ab	Domestic	No	Friendly	Stock	No Toehold	Yes	Initial	333	18		18	No Toehold	0.0%	12.5%	12.5%	44.0%	44.0%	97.0%	Yes
58	2001-04-23	Eniro Ab	Seat Pagine Gialle Spa	Cross-border	No	Friendly	Mixed	No Toehold	No	None	15,750	164.49		164.5	No Toehold	0.0%	56.7%	56.7%	35.9%	35.9%	<50%	No
59	2001-04-23	Scandic Hotels AB	Hilton Group PLC	Cross-border	No	Friendly	Mixed	No Toehold	No	Initial	7,590	144		144	No Toehold	0.0%	25.2%	25.2%	30.9%	30.9%	98.0%	Yes
60	2001-05-11	Jacobson & Widmark Ab	Wsp Group Plc	Cross-border	No	Friendly	Cash	No Toehold	No	Initial	775	200		200	No Toehold	0.0%	33.3%	33.3%	17.6%	17.6%	>50%	Yes
61	2001-05-17	Matteus AB	Aragon FK	Cross-border	No	Hostile	Mixed	No Toehold	Yes	Rival	277	16.85	18	18	No Toehold	0.0%	26.7%	35.3%	6.6%	13.9%	0%	No
62	2001-05-31	Friluftsbolaget E&S AB	Fjällräven AB	Domestic	No	Friendly	Cash	Toehold	No	Initial	75	10		10	Long	18.1%	17.6%	17.6%	5.3%	5.3%	96.0%	Yes
63	2001-06-15	Lindab Ab	Lindab Intressenter Ab	Domestic	No	Friendly	Cash	No Toehold	No	Initial	2,226	158		158	No Toehold	0.0%	50.5%	50.5%	17.0%	17.0%	99%	Yes
64	2001-06-21	Lundin Oil Ab	Talisman Energy Inc.	Cross-border	No	Friendly	Cash	No Toehold	No	Initial	209	36.5		36.5	No Toehold	0.0%	79.8%	79.8%	-0.3%	-0.3%	97.0%	Yes
65	2001-09-03	Vision Park Ent. Ab	Kf Media Ab	Domestic	No	Friendly	Cash	No Toehold	No	Initial	94	5		5	No Toehold	0.0%	-1.0%	-1.0%	19.0%	19.0%	93.3%	Yes
66	2001-09-24	Ångpannefören ingen AB	Sweco AB	Domestic	No	Hostile	Mixed	Toehold	No	None	786	185	195	195	Short	13.0%	25.9%	32.7%	32.1%	39.3%	<50%	No
67	2001-10-10	AssiDomän AB	Sveaskog	Domestic	No	Friendly	Cash	Toehold	No	Initial	22,409	360		360	Long	35.3%	52.9%	52.9%	35.8%	35.8%	95.0%	Yes
68	2001-10-25	Netwise AB	Trio AB	Domestic	No	Hostile	Stock	No Toehold	No	None	37	9.5	14	14.06	No Toehold	0.0%	5.6%	56.2%	58.3%	134.3%	26%	No
69	2001-11-19	Scandinavia Online	Eniro AB	Domestic	No	Friendly	Cash	No Toehold	No	Initial	136	11.5		11.5	No Toehold	0.0%	n/a	n/a	64.3%	64.3%	98.0%	Yes
70	2001-12-17	Kipling Holding Ab	Dimension Ab	Domestic	No	Friendly	Cash	No Toehold	No	Initial	23	7		7	No Toehold	0.0%	25.0%	25.0%	17.6%	17.6%	91.7%	Yes
71	2001-12-28	Mediteam Dental Ab	Meda Ab	Domestic	No	Hostile	Stock	No Toehold	No	None	42	7.125		7.125	No Toehold	0.0%	18.8%	18.8%	15.9%	15.9%	<50%	No
72	2002-01-17	Johnson Pump AB	TMT One AB	Domestic	No	Friendly	Cash	No Toehold	No	Initial	233	24		24	No Toehold	0.0%	14.3%	14.3%	0.0%	0.0%	99%	Yes
73	2002-01-29	Munksjö AB	Jefferson Smurfit Holdings	Cross-border	No	Hostile	Cash	Toehold	No	Initial	2,687	77	85	85	Long	33.0%	24.2%	37.1%	20.3%	32.8%	97%	Yes
74	2002-02-18	IMS Data AB	Martinsson Gruppen	Domestic	No	Friendly	Cash	No Toehold	No	Initial	91	4.05		4.05	No Toehold	0.0%	12.5%	12.5%	76.1%	76.1%	91.35%	Yes
75	2002-04-23	Realia Ab	Columna Fastigheter Ab	Domestic	No	Friendly	Mixed	Toehold	No	Initial	32	93.25		93.25	Long	47.0%	15.1%	15.1%	15.1%	15.1%	94.3%	Yes
76	2002-05-24	Esselte Ab	J.W. Childs Associates	Cross-border	No	Friendly	Cash	No Toehold	No	Initial	1,437	90		90	No Toehold	0.0%	40.6%	40.6%	10.4%	10.4%	97.0%	Yes
77	2002-07-05	Pronyx Ab	Teleca Ab	Domestic	No	Friendly	Cash	No Toehold	No	Initial	21	3.3		3.3	No Toehold	0.0%	3.1%	3.1%	15.4%	15.4%	95%	Yes
78	2002-08-01	Sapa Ab	Elkem Sverige Ab	Domestic	No	Friendly	Cash	Toehold	No	Initial	6,355	175		175	Long	43.0%	0.9%	0.9%	1.2%	1.2%	71.4%	Yes
79	2002-08-29	JP Nordiska AB	Kaupthing Bank hf.	Cross-border	No	Hostile	Stock	Toehold	No	Initial	393	12		12	Short	28.0%	33.3%	33.3%	41.2%	41.2%	86%	Yes
80	2003-01-09	Epsilon Holding Ab	Danir Ab	Domestic	Yes	Friendly	Cash	Toehold	No	Initial	192	22		22	Long	46.7%	7.3%	7.3%	27.9%	27.9%	94%	Yes
81	2003-01-21	Allgon Ab	Lgp Telecom Holding Ab	Domestic	Yes	Friendly	Stock	No Toehold	No	Initial	622	28.49		28.49	No Toehold	0.0%	29.5%	29.5%	78.1%	78.1%	75%	Yes
82	2003-02-17	Scandiaconsult Ab	Rambøll A/S	Cross-border	Yes	Friendly	Cash	Toehold	No	Initial	956	46	47	47	Short	34.0%	15.0%	17.5%	0.0%	2.2%	99.1%	Yes
83	2003-03-12	Realia Ab	Welkins Intressenter Ab	Domestic	Yes	Friendly	Cash	Toehold	No	Initial	292	38		38	Long	46.0%	26.7%	26.7%	15.2%	15.2%	79.0%	Yes
84	2003-03-20	Mandamus Fastigheter Ab	Lrf Fastigheter Ab	Domestic	Yes	Friendly	Cash	Toehold	Yes	Rival	1,551	84		84	Long	27.5%	11.3%	11.3%	13.5%	13.5%	40.7%	No
85	2003-04-06	Biora Ab	Straumann Holding Ag	Cross-border	Yes	Friendly	Cash	No Toehold	No	Initial	304	17		17	No Toehold	0.0%	32.8%	32.8%	40.5%	40.5%	87.0%	Yes
86	2003-06-13	Fastighets Ab Celtica	Ljungberggruppen Ab	Domestic	Yes	Friendly	Cash	Toehold	No	Initial	139	58		58	Short	15.2%	16.0%	16.0%	13.7%	13.7%	99.7%	Yes
87	2003-06-26	Perbio Science Ab	Fischer Scientific Sweden Ab	Domestic	Yes	Friendly	Cash	No Toehold	No	Initial	3,792	142.5	155	155	No Toehold	0.0%	37.7%	49.8%	14.0%	24.0%	98.7%	Yes
88	2003-09-19	Binar Elektronik AB	Pomona-gruppen	Domestic	Yes	Friendly	Cash	Toehold	No	Initial	18	10.75	14	14	Long	48.7%	21.3%	58.0%	22.9%	60.0%	0.6%	No
89	2003-10-20	Fastighets Ab Tornet	Lrt Acquisition Ab	Domestic	Yes	Friendly	Cash	No Toehold	No	Initial	4,648	190		190	No Toehold	0.0%	8.6%	8.6%	6.4%	6.4%	82.4%	Yes
90	2003-11-21	Pandox AB	APES Holding	Cross-border	Yes	Hostile	Cash	Toehold	No	Initial	2,042	105	108	108	Short	36.2%	28.0%	31.7%	-1.9%	0.9%	99%	Yes
91	2003-11-24	Dimension Ab	Proact It Group Ab	Domestic	Yes	Friendly	Cash	No Toehold	No	Initial	87	2.9		2.9	No Toehold	0.0%	3.6%	3.6%	76.8%	76.8%	94.6%	Yes
92	2003-11-30	LGP Allgon Holding AB	Powerwave Technologies Inc.	Cross-border	Yes	Friendly	Cash	No Toehold	No	Initial	1,469	61.89		61.89	No Toehold	0.0%	n/a	n/a	38.1%	38.1%	96.70%	Yes
93	2003-12-16	Utfors Ab	Telenor Asa	Cross-border	Yes	Friendly	Cash	No Toehold	No	Initial	1,018	0.99		0.99	No Toehold	0.0%	-15.4%	-15.4%	0.0%	0.0%	98.4%	Yes
94	2003-12-17	Karolin Machine Tool AB	Nordstjernan	Domestic	Yes	Friendly	Cash	Toehold	No	None	258	51		51	Long	40.1%	-1.0%	-1.0%	-15.0%	-15.0%	40.1%	No
95	2003-12-18	Hoist International AB	Hoist Intressenter	Domestic	Yes	Friendly	Cash	Toehold	Yes	Initial	228	18	21	21	Long	34.5%	22.4%	42.9%	29.5%	51.1%	51.0%	Yes
96	2004-06-29	Drott AB	Stena Fastighetsförvaltning Ab	Domestic	Yes	Friendly	Cash	Toehold	No	Initial	54	150		150	Long	37.9%	42.9%	42.9%	50.8%	50.8%	93.0%	Yes
97	2004-07-19	Fabege AB	Wihlborgs Fastigheter Ab	Domestic	Yes	Friendly	Mixed	Toehold	No	Initial	6,024	108		108	Long	41.1%	11.9%	11.9%	5.4%	5.4%	99%	Yes
98	2004-07-28	Brio Ab	Proventus Industrier Ab	Domestic	Yes	Hostile	Cash	Toehold	No	None	145	48		48	Short	42.0%	-2.0%	-2.0%	-12.7%	-12.7%	43%	No
99	2004-08-24	Frango Ab	Cognos Inc.	Cross-border	Yes	Friendly	Cash	No Toehold	No	Initial	232	85	86	85.5	No Toehold	0.0%	55.3%	56.2%	63.5%	64.4%	98%	Yes
100	2004-08-31	Vlt Ab	Mediaintressenter Plms Ab	Domestic	Yes	Friendly	Cash	Toehold	No	Initial	448	120		120	Long	47.0%	33.3%	33.3%	33.0%	33.0%	59%	Yes
101	2004-09-14	Song Networks Holding Ab	Tdc A/S	Cross-border	Yes	Friendly	Cash	No Toehold	Yes	Initial	2,330	70	83	95	No Toehold	0.0%	57.3%	113.5%	47.4%	100.0%	97%	Yes
102	2004-11-15	Finnveden AB	Nordic Capital	Domestic	Yes	Friendly	Cash	No Toehold	No	Initial	1,704	75		75	No Toehold	0.0%	16.7%	16.7%	35.1%	35.1%	70%	Yes
103	2004-11-19	Ainax Ab	Scania Ab	Domestic	Yes	Friendly	Stock	No Toehold	No	Initial	6,598	274		274	No Toehold	0.0%	13.5%	13.5%	-1.8%	-1.8%	96%	Yes
104	2005-04-13	Focal Point Ab	Telelogic Ab	Domestic	Yes	Friendly	Mixed	No Toehold	No	Initial	74	20.13		20.13	No Toehold	0.0%	33.3%	33.3%	0.6%	0.6%	92%	Yes
105	2005-04-20	Trio Ab	Netwise Ab	Domestic	Yes	Friendly	Stock	No Toehold	No	None	160	2.87		2.871	No Toehold	0.0%	14.9%	14.9%	14.9%	14.9%	0%	No
106	2005-05-12	Riddarhyttan Resources Ab	Agnico-Eagle Mines Ltd	Cross-border	Yes	Friendly	Stock	Toehold	No	Initial	772	10.25		10.25	Long	14.0%	40.4%	40.4%	27.3%	27.3%	97%	Yes
107	2005-06-29	Rörvik Timber Ab	Ittur Industrier Ab	Domestic	Yes	Hostile	Cash	Toehold	No	Initial	162	12		12	Long	37.0%	-11.1%	-11.1%	-3.2%	-3.2%	76%	Yes
108	2005-07-12	Karlshamns Ab	Bns Industrier Ab	Domestic	Yes	Friendly	Mixed	No Toehold	No	Initial	2,457	117		117	Long	30.9%	n/a	n/a	0.4%	0.4%	96%	Yes

Fundamentals					Deal Charachteristics							Bid Sequence in SEK			Toehold		Premium t-42		Premium t-1		Outcome	
Nr	Date of Offer	Target company	Buyer	Buyer Domicil	M&A Wave	Deal Type	Payment	Toehold	Rival	Winner	Target MV*	1st	2nd	Final	Type	Size	Initial	Final	Initial	Final	Acceptance	Successful**
109	2005-09-02	Skandia Ab	Old Mutual Plc	Cross-border	Yes	Hostile	Mixed	No Toehold	No	Initial	44,249	43.6		43.6	No Toehold	0.0%	0.9%	0.9%	4.6%	4.6%	72%	Yes
110	2005-10-17	Gamers Paradise Holding	Cisl Gruppen Ab	Domestic	Yes	Friendly	Stock	No Toehold	No	Initial	16	0.84		0.84	No Toehold	0.0%	37.7%	37.7%	86.7%	86.7%	98%	Yes
111	2005-11-22	Optimail Ab	Posten Norge As	Cross-border	Yes	Friendly	Cash	Toehold	No	Initial	183	18.75		18.75	Long	21.3%	29.3%	29.3%	36.9%	36.9%	92%	Yes
112	2006-01-23	Klippan Ab	Weland Ab	Domestic	Yes	Friendly	Cash	Toehold	No	Initial	127	8		8	Long	37.7%	-48.1%	-48.1%	23.1%	23.1%	95%	Yes
113	2006-03-14	Strålfors Ab	Posten Ab	Domestic	Yes	Friendly	Cash	No Toehold	No	Initial	1,439	95		95	No Toehold	0.0%	30.6%	30.6%	21.8%	21.8%	99%	Yes
114	2006-04-03	Gambro Ab	Indap AB	Domestic	Yes	Friendly	Cash	Toehold	No	Initial	39,078	111	114	113.7	Long	19.9%	23.0%	26.0%	19.4%	22.3%	95%	Yes
115	2006-05-09	Jc Ab	Rnb Retail And Brands Ab	Domestic	Yes	Friendly	Mixed	No Toehold	No	Initial	1,834	119.43		119.4	No Toehold	0.0%	20.9%	20.9%	25.4%	25.4%	98%	Yes
116	2006-06-08	Netwise AB	Ericsson AB	Domestic	Yes	Friendly	Cash	No Toehold	No	Initial	251	60		60	No Toehold	0.0%	12.7%	12.7%	1.3%	1.3%	98%	Yes
117	2006-06-20	Biacore International Ab	Ge Medical Holding Ab	Domestic	Yes	Friendly	Cash	No Toehold	No	Initial	2,642	330		330	No Toehold	0.0%	21.8%	21.8%	17.0%	17.0%	98%	Yes
118	2006-06-30	Medicover Holding S.A	Celox S.A	Cross-border	Yes	Friendly	Cash	Toehold	No	Initial	1,155	120		120	Long	35.0%	19.4%	19.4%	29.0%	29.0%	71%	Yes
119	2006-08-21	WM-data AB	LogicaCMG plc	Cross-border	Yes	Friendly	Mixed	No Toehold	No	Initial	8,507	27.75		27.75	No Toehold	0.0%	27.3%	27.3%	16.6%	16.6%	91%	Yes
120	2006-09-01	Capio Ab	Opica Ab	Domestic	Yes	Hostile	Cash	No Toehold	No	Initial	13,015	153	167	167	No Toehold	0.0%	19.5%	30.5%	24.9%	36.3%	99%	Yes
121	2006-09-11	Närkes Elektriska Ab	Segulah Alpha AB	Domestic	Yes	Friendly	Cash	Toehold	No	Initial	1,108	145		145	Long	4.4%	15.5%	15.5%	11.1%	11.1%	98%	Yes
122	2006-09-18	Scania Ab	Man Ag	Cross-border	Yes	Hostile	Mixed	Toehold	No	None	31,000	442	475	475	Short	5.2%	42.6%	53.2%	3.5%	11.2%	15%	No
123	2006-10-02	Semcon AB	JCE Group AB	Domestic	Yes	Hostile	Cash	No Toehold	No	None	852	65		65	No Toehold	n/a	32.7%	32.7%	12.6%	12.6%	42%	No
124	2006-10-02	Cybercom Group E. AB	JCE Group AB	Domestic	Yes	Hostile	Cash	Toehold	No	None	357	38		38	Long	14.5%	31.0%	31.0%	3.8%	3.8%	23%	No
125	2006-11-08	Custos Ab	Spx Corporation	Cross-border	Yes	Friendly	Cash	No Toehold	No	Initial	868	78		78	No Toehold	0.0%	28.4%	28.4%	12.2%	12.2%	96%	Yes
126	2006-11-20	Protect Data Ab	Check Point Software Tech.	Cross-border	Yes	Friendly	Cash	No Toehold	No	Initial	2,860	180	187	187	No Toehold	0.0%	44.0%	49.6%	2.6%	6.6%	87%	Yes
127	2007-01-15	Tradedoubler Ab	AOLS Holdings AB	Cross-border	Yes	Friendly	Cash	No Toehold	No	Initial	4,907	215		215	No Toehold	0.0%	19.8%	19.8%	8.6%	8.6%	20%	Yes
128	2007-01-15	Pergo (Europe) Ab	Pfleiderer Sweden Ab	Cross-border	Yes	Friendly	Cash	No Toehold	No	Initial	2,946	51		51	No Toehold	0.0%	-7.3%	-7.3%	9.9%	9.9%	96%	Yes
129	2007-03-27	inWarehouse AB	Komplett ASA	Cross-border	Yes	Friendly	Cash	No Toehold	No	Initial	115	2.4		2.4	No Toehold	0.0%	41.2%	41.2%	34.1%	34.1%	97%	Yes
130	2007-04-26	Invik & Co Ab	Milestone Ehf	Cross-border	Yes	Friendly	Cash	No Toehold	No	Initial	5,760	230		230	No Toehold	0.0%	n/a	n/a	23.0%	23.0%	80%	Yes
131	2007-05-25	OMX AB	Nasdaq Stock Market Inc.	Cross-border	Yes	Friendly	Mixed	No Toehold	Yes	Rival	16,890	210.81		210.8	No Toehold	0.0%	50.6%	50.6%	17.1%	17.1%	0%	No
132	2007-06-04	Telelogic Ab	IBM Corporation	Cross-border	Yes	Friendly	Cash	No Toehold	No	Initial	3,596	21		21	No Toehold	0.0%	44.3%	44.3%	15.4%	15.4%	97%	Yes
133	2007-08-13	Lindex AB	KappAhl Holding AB	Domestic	Yes	Hostile	Cash	No Toehold	Yes	None	5,775	102		102	No Toehold	0.0%	21.4%	21.4%	14.6%	14.6%	0%	No
134	2007-08-20	Salusansvar Ab	Dnb Nor Asa	Cross-border	Yes	Friendly	Cash	No Toehold	No	Initial	383	35		35	No Toehold	0.0%	48.3%	48.3%	57.0%	57.0%	94%	Yes
135	2007-09-25	Elverket Vallentuna Ab	E.On Sverige Ab	Domestic	Yes	Hostile	Cash	Toehold	No	None	268	55		55	Long	15.5%	33.2%	33.2%	34.1%	34.1%	41%	No
136	2007-10-08	Mandator Ab	Fujitsu Services Overseas Ltd	Cross-border	Yes	Friendly	Cash	No Toehold	No	Initial	384	3		3	No Toehold	0.0%	32.2%	32.2%	27.7%	27.7%	95%	Yes
138	2007-10-22	Academedia Ab	Bure Equity	Domestic	Yes	Friendly	Cash	Toehold	No	None	401	90		90	Long	41.9%	1.1%	1.1%	0.0%	0.0%	49%	No
137	2007-10-22	Ark Travel Ab	Carlson Wagonlit B.V.	Domestic	Yes	Friendly	Cash	No Toehold	No	Initial	190	67		67	No Toehold	0.0%	38.4%	38.4%	4.7%	4.7%	94%	Yes
139	2007-11-13	Securitas Direct	ESML Intressenter AB	Domestic	Yes	Hostile	Cash	Toehold	No	Initial	6,680	26	28	27.5	Long	40.5%	35.4%	43.2%	25.0%	32.2%	86%	Yes
140	2007-12-11	Gant Company AB	Procastor S.A.	Cross-border	Yes	Hostile	Cash	Toehold	No	Initial	4,226	310	320	320	Short	12.5%	23.0%	27.0%	31.1%	35.3%	96%	Yes
141	2007-12-14	Gymgrossisten Nordic AB	MTG AB	Domestic	Yes	Friendly	Cash	No Toehold	No	Initial	194	33.1		33.1	No Toehold	0.0%	0.9%	0.9%	31.3%	31.3%	98%	Yes
142	2008-01-14	Human Care Hc Ab	Garden Growth Capital, LLC	Cross-border	Yes	Friendly	Cash	Toehold	No	Initial	208	88		88	Long	29.8%	14.3%	14.3%	18.9%	18.9%	60%	Yes
143	2008-01-17	One Media Holding Ab	IMS Group Ltd	Cross-border	Yes	Friendly	Stock	No Toehold	No	Initial	181	14		14	No Toehold	0.0%	n/a	n/a	56.4%	56.4%	93%	Yes
144	2008-02-01	Boss Media Ab	Gemed Ab	Domestic	Yes	Friendly	Cash	Toehold	No	Initial	736	19	25	25	Long	12.6%	47.3%	93.8%	25.8%	65.6%	93%	Yes
145	2008-02-19	Xponcard Group Ab	Oberthur Technologies Sa	Cross-border	Yes	Friendly	Cash	No Toehold	No	Initial	523	157		157	No Toehold	0.0%	34.8%	34.8%	33.6%	33.6%	98%	Yes
146	2008-03-20	TietoEnator	Cidron Services Oy	Domestic	Yes	Hostile	Cash	Toehold	No	None	8,895	145.7		145.7	Short	4.4%	18.0%	18.0%	37.8%	37.8%	0%	No
147	2008-03-27	Sigma Ab	Askerö Utveckling Ab	Domestic	Yes	Hostile	Cash	Toehold	No	Initial	493	6.9	7.7	7.67	Long	30.9%	20.0%	33.4%	30.2%	44.7%	74%	Yes
148	2008-04-30	Cision AB	Triton Fund II	Domestic	Yes	Hostile	Cash	No Toehold	No	Initial	1,230	20		20	No Toehold	0.0%	21.2%	21.2%	66.0%	66.0%	65%	Yes
149	2008-05-16	Ballingslöv International AB	Stena Adactum AB	Domestic	Yes	Hostile	Cash	Toehold	No	Initial	1,727	185		185	Long	38.4%	14.9%	14.9%	22.1%	22.1%	80%	Yes
150	2008-05-26	Zodiak Television Ab	De Agostini Communications	Cross-border	Yes	Friendly	Cash	Toehold	No	Initial	608	40		40	Short	10.8%	67.4%	67.4%	33.8%	33.8%	97%	Yes
151	2008-06-30	IBS AB	Deccan Value Advisors Lp	Cross-border	Yes	Hostile	Cash	Toehold	No	Initial	877	9.64		9.64	Long	33.0%	-11.6%	-11.6%	2.6%	2.6%	77%	Yes
152	2008-07-22	Gunnebo Industrier Ab	Segulah Stellata Holding AB	Domestic	Yes	Friendly	Cash	No Toehold	No	Initial	1,039	185		185	No Toehold	0.0%	56.1%	56.1%	54.2%	54.2%	97%	Yes
153	2008-07-30	Myscoop International Ab	Mobispine Ab	Domestic	Yes	Friendly	Stock	No Toehold	No	Initial	5	0.41		0.41	No Toehold	0.0%	-45.3%	-45.3%	-12.8%	-12.8%	90%	Yes
154	2008-08-27	Broström Ab	Maersk Product Tankers Ab	Domestic	Yes	Friendly	Cash	No Toehold	No	Initial	2,646	57		57	No Toehold	0.0%	32.6%	32.6%	10.1%	10.1%	98%	Yes
155	2008-09-30	Arena Personal Ab	NorgesInvestor 4 AS	Cross-border	Yes	Friendly	Cash	No Toehold	No	Initial	95	6.25		6.25	No Toehold	0.0%	26.5%	26.5%	37.1%	37.1%	84%	Yes
156	2008-10-16	Strand Interconnect AB	Addnode Group AB	Domestic	Yes	Friendly	Mixed	No Toehold	No	Initial	9	0.629		0.629	No Toehold	0.0%	-7.5%	-7.5%	18.7%	18.7%	91%	Yes
157	2008-10-23	Enaco Sverige Ab	Mannerheim Invest Ab	Domestic	Yes	Hostile	Cash	Toehold	No	Initial	52	10		10	Long	43.4%	13.0%	13.0%	29.9%	29.9%	86%	Yes
158	2008-10-31	Teleca Ab	Symphony Tech. Group	Cross-border	Yes	Friendly	Cash	Toehold	No	Initial	374	3.25		3.25	Long	49.2%	-33.7%	-33.7%	23.6%	23.6%	89%	Yes
159	2008-11-03	Q-Med AB	Ivytan AB	Domestic	Yes	Hostile	Cash	Toehold	No	Initial	3,439	39		39	Long	47.5%	12.7%	12.7%	23.8%	23.8%	56%	Yes
160	2008-11-24	James Concepts Ab	Sodexo Sa	Cross-border	Yes	Friendly	Cash	No Toehold	No	Initial	18	4.88		4.88	No Toehold	0.0%	68.3%	68.3%	80.7%	80.7%	93%	Yes
161	2009-03-09	Nilörngruppen Ab	Traction Branding Ab	Domestic	No	Hostile	Cash	Toehold	No	Initial	65	29		29	Long	38.0%	7.4%	7.4%	0.0%	0.0%	57%	Yes
162	2009-03-12	Semcon Ab	Jce Group Ab	Domestic	No	Hostile	Cash	Toehold	No	None	224	14		14	Long	30.0%	11.1%	11.1%	-3.1%	-3.1%	30.5%	No

Fundamentals					Deal Charachteristics							Bid Sequence in SEK			Toehold		Premium t-42		Premium t-1		Outcome	
Nr	Date of Offer	Target company	Buyer	Buyer Domicil	M&A Wave	Deal Type	Payment	Toehold	Rival	Winner	Target MV*	1st	2nd	Final	Type	Size	Initial	Final	Initial	Final	Acceptance	Successful**
163	2009-04-03	Technology Nexus Ab	Ponderus Technology Ab	Domestic	No	Hostile	Cash	Toehold	No	Initial	33	11		11	Long	48.8%	57.1%	57.1%	1.9%	1.9%	69%	Yes
164	2009-04-17	Carl Lamm Holding Ab	Ricoh Europe Holdings Plc	Cross-border	No	Friendly	Cash	No Toehold	No	Initial	360	37.25		37.25	No Toehold	0.0%	15.7%	15.7%	19.8%	19.8%	97%	Yes
165	2009-04-17	Annehem Fastigheter AB	Peab AB	Domestic	No	Friendly	Mixed	Toehold	No	Initial	245	21.65		21.65	Long	6.9%	5.6%	5.6%	3.1%	3.1%	98%	Yes
166	2009-04-28	Hemtex Ab	Hakon Invest Ab	Domestic	No	Hostile	Cash	Toehold	No	Initial	469	27		27	Long	34.6%	68.8%	68.8%	5.9%	5.9%	56%	Yes
167	2009-06-26	Din Bostad Sverige Ab	Fastighets Balder Ab	Domestic	No	Friendly	Stock	No Toehold	No	Initial	9	28.12		28.12	No Toehold	0.0%	48.0%	48.0%	51.2%	51.2%	99%	Yes
168	2009-09-02	Megacon Ab	Mannerheim Invest Ab	Domestic	No	Friendly	Cash	Toehold	No	Initial	31	23		23	Long	33.4%	20.4%	20.4%	5.0%	5.0%	5%	Yes
169	2009-10-01	Affärsstrategerna AB	Strategisk Holding Sver. AB	Domestic	No	Friendly	Cash	Toehold	No	Initial	58	2.2		2.2	Long	43.1%	70.5%	70.5%	61.8%	61.8%	91%	Yes
170	2009-11-24	BBAH Sweden AB	Alpcot Agro AB	Domestic	No	Friendly	Stock	No Toehold	No	Initial	11	2.769		2.769	No Toehold	0.0%	n/a	n/a	18.5%	18.5%	83%	Yes
171	2009-11-30	Ledstiernan Ab	Thuban Ab	Domestic	No	Friendly	Cash	Toehold	No	Initial	167	36.5		36.5	Long	39.5%	25.0%	25.0%	23.7%	23.7%	81%	Yes
172	2010-01-05	Ticket Travel Group Ab	Braganza As	Cross-border	No	Friendly	Cash	Toehold	No	Initial	161	7.6		7.6	Long	32.0%	-16.9%	-16.9%	31.0%	31.0%	96%	Yes
173	2010-01-12	Homemaid Ab	Betjänten Holding Ab	Domestic	No	Hostile	Cash	Toehold	No	Initial	32	2.1		2.1	Long	49.5%	1.4%	1.4%	7.7%	7.7%	52%	Yes
174	2010-01-25	Neonet Ab	Orc Software Ab	Domestic	No	Friendly	Mixed	No Toehold	No	Initial	1061	19.63		19.63	No Toehold	0.0%	20.4%	20.4%	21.9%	21.9%	98%	Yes
175	2010-02-10	Tricorona AB	Opcon AB	Domestic	No	Hostile	Stock	No Toehold	Yes	Rival	1049	7.54		7.54	No Toehold	0.0%	5.4%	5.4%	15.1%	15.1%	3%	No
176	2010-04-15	ICT Norden Fastigheter Ab	Fundior Ab	Domestic	No	Hostile	Stock	Toehold	No	None	20	0.605		0.61	Long	20.1%	16.3%	16.3%	21.0%	21.0%	32%	No
177	2010-04-22	Academedia Ab	Providence Education Int. Ab	Domestic	No	Hostile	Cash	No Toehold	Yes	Rival	1604	170	190	190	No Toehold	0.0%	27.8%	42.9%	3.0%	15.2%	0%	No
178	2010-05-05	A+ Science Holding Ab	Ve-N-Ve Intressenter Ab	Domestic	No	Friendly	Cash	Toehold	No	Initial	21	1.7		1.7	Long	44.5%	47.8%	47.8%	30.8%	30.8%	67%	Yes
179	2010-09-06	Munters Ab	Alfa Laval Ab	Domestic	No	Friendly	Cash	No Toehold	Yes	Rival	3735	68	75	75	No Toehold	0.0%	36.5%	50.6%	29.5%	42.9%	0%	No
180	2010-09-20	Scanworld TravelPartner	European Travel Interactive AB	Domestic	No	Friendly	Cash	No Toehold	No	Initial	192	28		28	No Toehold	0.0%	18.1%	18.1%	16.7%	16.7%	97%	Yes
181	2010-09-27	Modul 1 Data Ab	Softronic Ab	Domestic	No	Friendly	Mixed	No Toehold	No	Initial	61	0.83		0.83	No Toehold	0.0%	27.7%	27.7%	27.7%	27.7%	90%	Yes
182	2010-11-29	Biolin Scientific Ab	Ratos	Domestic	No	Friendly	Cash	No Toehold	No	Initial	229	11.5		11.5	No Toehold	0.0%	21.1%	21.1%	17.9%	17.9%	95%	Yes
184	2010-12-13	Q-Med Ab	Galderma Holding Ab	Domestic	No	Friendly	Cash	No Toehold	No	Initial	7478	75	79	79	No Toehold	0.0%	-0.3%	5.0%	13.2%	19.2%	94%	Yes
183	2010-12-13	Cardo AB	Assa Abloy AB	Domestic	No	Friendly	Cash	No Toehold	No	Initial	7290	420		420	No Toehold	0.0%	55.6%	55.6%	48.4%	48.4%	98%	Yes
185	2011-01-14	Netonnet Ab	Waldir Ab	Domestic	No	Hostile	Cash	Toehold	No	Initial	328	40.5		40.5	Long	30.2%	-25.3%	-25.3%	-12.1%	-12.1%	97%	Yes
186	2011-04-11	Biophausia AB	Medivir Ab	Domestic	No	Friendly	Mixed	No Toehold	No	Initial	377	1.65		1.65	No Toehold	0.0%	50.0%	50.0%	44.7%	44.7%	94%	Yes
187	2011-04-28	Tretti AB	CDON Group AB	Domestic	No	Friendly	Cash	No Toehold	No	Initial	276	67.25		67.25	No Toehold	0.0%	25.1%	25.1%	24.5%	24.5%	97%	Yes
188	2011-05-05	Entraction Holding AB	International Game Technology	Cross-border	No	Friendly	Cash	No Toehold	No	Initial	394	67.56		67.56	No Toehold	0.0%	71.5%	71.5%	33.8%	33.8%	93%	Yes
189	2011-05-16	Niscayah Group Ab	Securitas Ab	Domestic	No	Hostile	Stock	No Toehold	Yes	Rival	4175	16		16	No Toehold	0.0%	33.3%	33.3%	30.6%	30.6%	0%	No
190	2011-05-17	IBS AB	Symphony Technology Group	Cross-border	No	Friendly	Cash	No Toehold	No	Initial	234	1.82		1.82	No Toehold	0.0%	-5.2%	-5.2%	-4.2%	-4.2%	88%	Yes
191	2011-11-23	Allenex Ab	Xenella Holding Ab	Domestic	No	Hostile	Cash	Toehold	No	None	194	1.5		1.5	Long	32.3%	-6.8%	-6.8%	3.4%	3.4%	42%	No
192	2011-11-30	Resurs CNC AB	WISE Group AB	Domestic	No	Friendly	Mixed	No Toehold	No	Initial	36	3.29		3.29	No Toehold	0.0%	37.1%	37.1%	60.5%	60.5%	99%	Yes
193	2011-12-06	Dagon Ab	Klövern AB	Domestic	No	Friendly	Mixed	No Toehold	No	Initial	1227	62.5		62.5	No Toehold	0.0%	20.2%	20.2%	24.4%	24.4%	99%	Yes
194	2011-12-19	Orc Group AB	Cidron Delfi Intressenter Ab	Domestic	No	Friendly	Cash	No Toehold	No	Initial	1357	86		86	No Toehold	0.0%	48.9%	48.9%	32.8%	32.8%	96%	Yes
195	2012-01-12	Aspiro AB	Schibsted ASA	Domestic	No	Friendly	Cash	Toehold	No	Initial	299	1.65		1.65	Long	18.3%	13.8%	13.8%	33.1%	33.1%	74%	Yes
196	2012-02-06	Metro International S.A.	Investment AB Kinnevik	Domestic	No	Friendly	Cash	Toehold	No	Initial	153	0.9		0.9	Long	42.4%	55.2%	55.2%	20.0%	20.0%	90%	Yes
197	2012-02-17	Capilon AB	Verdane Capital	Cross-border	No	Friendly	Cash	No Toehold	No	Initial	72	29		29	No Toehold	0.0%	75.8%	75.8%	16.5%	16.5%	96%	Yes
198	2012-03-21	Adtail Ab	AdOperator AB	Domestic	No	Friendly	Stock	No Toehold	No	Initial	1	0.12		0.12	No Toehold	0.0%	17.9%	17.9%	-1.8%	-1.8%	87%	Yes
199	2012-03-23	Jeeves Information Sys.	Battery Ventures	Cross-border	No	Friendly	Cash	No Toehold	No	Initial	143	83		83	No Toehold	0.0%	65.2%	65.2%	50.9%	50.9%	97%	Yes
200	2012-07-06	Followit Holdings AB	Brohuvudet Ab	Domestic	No	Friendly	Cash	Toehold	No	Initial	3	0.24		0.24	Long	49.9%	-29.4%	-29.4%	33.3%	33.3%	57%	Yes
201	2012-10-15	Avonova Sverige Ab	Stamina HOT Helse AS	Cross-border	No	Friendly	Cash	No Toehold	No	Initial	140	34		34	No Toehold	0.0%	38.8%	38.8%	33.3%	33.3%	99%	Yes
202	2012-12-03	Note Ab	Lifco Ab	Domestic	No	Hostile	Cash	No Toehold	No	None	189	8		8	No Toehold	0.0%	22.1%	22.1%	37.9%	37.9%	15%	No
										Max.	44249	442		475	-	49.9%	100.0%	113.5%	90.0%	134.3%	99.8%	
										Average	2357	79		80	-	11.3%	29.8%	31.8%	26.5%	28.4%	79.5%	
										Median	398	48		48	-	0.0%	27.8%	31.6%	23.8%	25.0%	94.0%	
										Min.	1	0.12		0.118	-	0.0%	-48.1%	-48.1%	-15.0%	-15.0%	0.0%	

* Market value measured in millions of SEK

** Total acceptance of initial bidder's offer exceeds 50%, see "Contest Winner" in chapter 7

11 References

Angblad, J. Berglöf, E., Högfeldt, P. & Svancar, H. (2002). "Ownership and control in Sweden: Strong Owners, Weak Minorities, and Social Control", in Barco, F. & Brecht, M. (ends), *The control of corporate Europe.* Oxford: Oxford University Press

Asquith, D and Kieschnick, R (1999). "An Examination of Initial Shareholdings in Tender Offer Bids", *Review of Quantitative Finance and Accounting*, 12 (1999): 171-188

Auerbach, Alan, (1988), "Mergers and Acquisitions", *The University of Chicago Press*, Chicago

Bainbridge, Stephen (2008). *Mergers and Acquisitions (University Textbook Series) - 2nd Edition*, Foundation Press

Betton, Sandra and Espen Eckbo, (1997). "State-contingent payoffs in takeovers: New Structural Estimates", *Working Paper*, Tuck School at Dartmouth

Betton, Sandra, Eckbo, Espen & Thorburn, Karin (2009). "Merger negotiation and the toehold puzzle", *Journal of Financial Economics*, No. 01, 58-178

Betton, Sandra, Eckbo, Espen, Thorburn, Karin. (2008c). " Corporate Takeovers", *Handbook of Empirical Corporate Finance*, Volume 2 Elsevier B.V.

Betton, Sandra & Eckbo, Espen (2000). "Toeholds, Bid jumps and expected payoffs in takeovers", *Review of Financial Studies Winter 2000*, Vol. 13. No. 4, 841-882

Betton, Sandra, Eckbo, Espen and Thorburn, Karin S., (2008b). "Markup Pricing Revisited", *Tuck School of Business Working Paper* No. 2008-45.

Bradley, Michael, Anand Desai, and E. Han Kim, (1988). "Synergistic gains from corporate acquisitions and their division between the stockholders of target and acquiring firms", *Journal of Financial Economics 21*

Bris, Arturo (2002). "Toeholds, takeover premium, and the probability of being acquired", *Journal of Corporate Finance*, No. 8, 227-253

Bryman, Alan and Bell, Emma (2005). *Business Research Methods – 1st edition*, Malmö: Liber Ekonomi

Bulow, Jeremy, Huang, Ming & Klemperer, Paul (1999). "Toeholds and takeovers", *Journal of Political Economy*, Vol. 107, No. 5, 427-454

Burkart, Mike (1995), "Initial shareholdings and overbidding in takeover contests", *Journal of Finance*, Vol. L, No. 5, 1491-1515

Burkart, Mike and Lee, Samuel (2008). "One share – One vote: the theory", *Review of Finance*, Nr. 12, 1-49

Carroll, Carolyn & Griffith, John M. (2010). "Toeholds, rejected offers, and bidder gains: Do rebuffed bidders out targets in pay to profit from their toeholds?", *Quarterly Review of Economics and Finance*, No. 50, 214-221

Chowdry, Bhagran & Jegadeesh, Narashimhan (1994). “Pre-tender offer share acquisition strategy in takeovers”, *Journal of Financial and Quantitative Analysis*, No. 29, 117-129

Danbolt, J. (2004). *” Target company cross-border effects in acquisitions into the UK”,* European Financial Management 10:pp. 83-108.

Dasgupta, Sudipto & Tsui, Kevin (2000). “A matching auction for targets with heterogeneous bidders”, *Journal of Financial Intermediation”*, No.12, 331-364

De, S., Fedenia, M., Triantis, A., (1996). "Effects of competition on bidder returns", *Journal of Corporate Finance*, No. *2*, 261-282

Dewatripont, M. (1993). “The leading shareholder strategy, takeover contests and stock price dynamics”, *European Economic Review*, No. 37, 983-1004

Eckbo, Espen (2009). “Bidding strategies and takeover premiums: a review”, *Journal of Corporate Finance*, No. 15, 149-178

Eckbo, E.B & Langohr, H, (1989). " Information disclosure, method of payment, and takeover premiums: Public and private tender offers in France," Journal of Financial Economics, Elsevier, vol. 24(2), 363-403

Goergen & Renneboog, (2004). "Shareholder Wealth Effects of European Domestic and Cross-border Takeover Bids," European Financial Management, European Financial Management Association, vol. 10(1), 9-45

Goldman, Eitan & Qian, Jun (2005). “Optimal toeholds in takeover contests”, *Journal of Financial Economics*, No. 77, 321-346

Grossman, Sanford J. and Oliver D. Hart, (1980). “Takeover bids, the free-rider problem, and the theory of the corporation”, *Bell Journal of Economics 11*, 42264.

Gujarati, D. N., & Porter, D. C. (2009). ”Basic econometrics (5th ed.)”. New York: *McGraw-Hill/Irwin*.

Haleblian, J., Devers, C. E., McNamara, G., Carpenter, M. A., & Davison, R. B. (2009). “Taking Stock of What We Know About Merger and Acquisitions: A Review and Research Agenda”. *Journal of Management*, 35 (3), 469-502

Harrington, Joseph E, Jr & Prokop, Jacek, (1993). "The Dynamics of the Free-Rider Problem in Takeovers," *Review of Financial Studies, Society for Financial Studies*, vol. 6(4), 851-82.

Henrekson, Magnus & Jacobsson, Ulf, (2012), “The Swedish corporate control model: Convergence, Persistence or Decline?”, *Corporate Governance: An international Review*, 2012, Vol. 20, Nr. 2, 212-227

Herbert Smith LLP, Gleiss Lutz and Stibbe, (2010). ”Regulation of public M&A in Europe ” Retrieved from:http://www.arthurcox.com/uploadedFiles/ Publications/Publication_List/Arthur%20Cox%20-%20Regulation%20of%20 Public%20MandA%20in%20Europe,%20June%202010.pdf.

Hirshleifer, D., Titman, S., (1990). “Share tendering strategies and the success of hostile takeover bids”. *Journal of Political Economy 98*, 295–324

Högfeldt, Peter (2004). “The history and Politics of corporate ownership in Sweden”, in Randall K. Morck (2005), *A history of corporate governance around the world: family business groups to professional managers*, University of Chicago Press

Jarrell, Gregg A., and Annette B. Poulsen, (1989). "Stock trading before the announcement of tender offers: Insider trading or market anticipation?", *Journal of Law Economics and Organization 5*,225–248.

Jennings, Robert H. & Mazeo, Michael A. (1993). "Competing bids, target management resistance, and the structure of takeover bids", *Review of Financial Studies Winter*, Vol. 6, No. 4, 883-909

Jensen, M.C., (1986). "Agency costs of free cash flow, corporate finance, and takeovers", *American Economic Review 76*, 323–329.

Jensen, M.C. (1988). "The free cash flow theory of takeovers: A financial perspective on mergers and acquisitions and the economy". *The Merger Boom, Federal Reserve Bank of Boston*, 31

King and Padalko (2005). "Pre-bid run-ups ahead of Canadian takeovers: how big is the problem?" *Working paper. Bank of Canada.* No. 2005-3.

Kyle, Albert S. and Vila, Jean-Luc, (1991). "Noise Trading and Takeovers", The *RAND Journal of Economics*, Vol. 22, No. 1 (Spring, 1991), pp. 54-71

La Porta, Rafael, Lopez-de-Silanes, Florencio & Shleifer, Andrei (1999). "Corporate ownership around the World", *Journal of Finance*, Vol. LIV, No.2

Lang & Walkling, (1991). A test of the free cash flow hypothesis: The case of bidder returns. Journal of Financial Economics, 29(2), 315-335

Loyola, Gino (2012). "Optimal and efficient takeover contests with toeholds", *J. Finan. Intermediation*, No. 21, 203-216

Meulbroek, L., (1992). "An empirical analysis of illegal insider trading." *Journal of Finance*, 47, 1661–1699.

Nachemson-Ekwall, Sophie (2012). An Institutional Analysis of Cross-border Hostile Takeovers – Shareholder value, short-termism and regulator arbitrage on the Swedish stock market during the sixth takeover wave, (Doctoral Dissertation), SSE, ISBN 978-91-7258-875-2, Göteborg

NasdaqOMX, (2012). *"Regler rörande offentliga uppköpserbjudanden på Aktiemarknaden"*, Retrieved from: http://www.nasdaqomx.com/digital Assets/80/80375_to_regler_2012_07_01_se.pdf

Nyström & Sjöman (2011). "Den svenska takeover-regleringen, ett samspel mellan regelmakaren och Aktiemarknadsnämnden", Retrieved from: http://www.aktiemarknadsnamnden.se/UserFiles/ AMN25ar_kap07_medKOM_kap07-165x242.pdf

Qian, Jun (2001). "Toehold Acquisitions, Market Reaction and Corporate Control", paper based on chapter from Jun Qian, "Managerial compensation and agency problems in corporate governance and financial intermediation" (January 1, 2000). Dissertations available from ProQuest. Paper AAI9965549

Ravid, Abraham & Spiegel, Matthew (1999). "Toehold strategies, takeover laws and rival bidders", *Journal of Banking & Finance*, No. 23, 1219-1242

Roll, R. (1986). "The Hubris Hypothesis of Corporate Takeovers", *The Journal of Business*, Vol. 59, No. 2, Part 1 (Apr 1986) p 197-216

Schwert, William. G. (1996). "Markup pricing in mergers and acquisitions", *Journal of Financial Economics"*, No. 41, 154-192

Schwert, William. G. (2000). "Hostility in takeovers – in the eyes of the beholder?", *Journal of Finance"*, Vol. LV, No. 6, Dec 2000, 2599-2640

Schoenberg & Thornton. (2006). The Impact of Bid Defences in Hostile Acquisitions. European Management Journal, 24,142-150

Shleifer, A., Vishny, R.W., (1986). “Large shareholders and corporate control”. *Journal of Political Economy 94*, 461–488

Siems & Schouten, (2009). "The Evolution of Ownership Disclosure Rules across Countries," ESRC Centre for Business Research - Working Papers wp393, ESRC Centre for Business Research.

Skog, Rolf, (1997). *Does Sweden need a Mandatory Bid Rule; a Critical Analysis*, Amsterdam: SUERF Studies 2

Stavlos, Nickolaos (1987). *”Corporate Takeover Bids, Methods of Payment, and Bidding Firms' Stock Returns”,* The Journal of Finance, Vol. 42, No. 4 (Sep., 1987), pp. 943-963

Stultz, René M., Walkling, Ralph A. & Song, Moon H. (1990). “The distribution of target ownership and the division of gains in successful takeovers”, *Journal of Finance*, Vol. XLV, No. 3, 817-833

SFS 1991:980. ”*Lag (1991:980) om handel med finansiella instrument*”, Retrieved from: http://www.riksdagen.se/sv/DokumentLagar/Lagar/Svenskforfattningssamling/Lag-1991980-om-handel-med-f_sfs-1991-980/?bet=1991:980#K4

US Securities and Exchange Commission, (2013). ”Schedule 13D” Retrieved from: http://www.sec.gov/answers/sched13.htm

Varaiya, N. (1987). Determinants of premiums in acquisition transactions. *Managerial and Decision Economics, 8(3), 175-184.*

Walkling, Ralph A. (1985). “Predicting tender offer Success: A logistic analysis”, *Journal of Financial and Quantitative Analysis*, Vol. 20, No. 4, 461-478

Walkling, Ralph A. & Long, Michael S., (1984). ”Agency Theory, Managerial Welfare and Takeover Bid Resistance”, *The RAND Journal of Economics*, Vol. 15, No.1, 55-68