

UNIVERSITY OF GOTHENBURG

# **Gothenburg University Publications**

# Board participation, toeholds and the cross-border effect

This is an author produced version of a paper published in:

International Business Review (ISSN: 0969-5931)

Citation for the published paper: Hamberg, M. ; Overland, C. ; Lantz, B. (2013) "Board participation, toeholds and the crossborder effect". International Business Review, vol. 22(5), pp. 868â882.

http://dx.doi.org/10.1016/j.ibusrev.2013.01.004

Downloaded from: http://gup.ub.gu.se/publication/174022

Notice: This paper has been peer reviewed but does not include the final publisher proofcorrections or pagination. When citing this work, please refer to the original publication.

# **Board Participation, Toeholds and the Cross-Border Effect**

Mattias Hamberg<sup>δ</sup> Conny Overland<sup>φ</sup> Björn Lantz<sup>ψ</sup>

# Abstract

Research shows that the bid announcement return (BAR) of the acquiring firm is lower for crossborder than domestic acquisition announcements. The current lack of economically based explanations for this effect, labeled the *cross-border effect* by Moeller and Schlingemann (2005), motivates our study. We use unique hand-collected corporate governance data to study how the relationships between acquiring and target firms prior to a bid announcement affect the cross-border effect. Our tests show that non-operating associations between the acquiring and target firms, in the form of board participation and toeholds, have a positive effect on the BAR. The cross-border effect disappears when we control for board participation and toeholds. Thus, we suggest that the cross-border effect is at least partly a consequence of information asymmetries and the adverse selection problem that they generate.

#### JEL classification: G34

*Keywords:* Cross-border acquisitions, Cross-border effect; Board participation, Toeholds Sweden

<sup>&</sup>lt;sup>δ</sup> Corresponding Author. Norwegian School of Economics, 5045 Bergen, Norway. Telephone: 004755959322, E-mail address: mattias.hamberg@nhh.no.

<sup>&</sup>lt;sup>(P)</sup> Department of Business Studies, University of Gothenburg. Box 610, 40530 Gothenburg, Sweden. E-mail address: conny.overland @handels.gu.se

<sup>&</sup>lt;sup>V</sup> School of Engineering, University of Borås, 50190 Borås, Sweden. E-mail address: bjorn.lantz@hb.se

## **1. Introduction**

Knowledge of cross-border acquisitions is important to society, not only because their volume and value have increased substantially in recent decades (UNCTAD, 2011) but also because they are an important element of industry restructuring and thus increase efficiency in the global economy. However, research shows that the bid announcement return (BAR) of the acquiring firm is lower for cross-border than domestic acquisition announcements (Eckbo & Thorburn, 2000; Moeller & Schlingemann, 2005; Conn, Cosh, Guest & Hughes, 2005; Martynova & Renneboog, 2006; Francis, Hasan & Sun, 2008; Mantecon, 2009). The current lack of economically based explanations for this effect, labeled the *cross-border effect* by Moeller and Schlingemann (2005), motivates our study. We use unique hand-collected corporate governance data to test if the cross-border effect is a consequence of information asymmetries and the adverse selection problem that they create.

When a publicly listed firm is acquired, a bid premium is typically paid in addition to the prebid share price. For publicly listed acquirers, the BAR is positive when the bid premium is perceived by the shareholders of the acquiring firm to be lower than their net gains (Eckbo, 2009). The gains will come from changes in the target firm's management and operations and from synergies associated with the acquisition process. An acquiring firm that overestimates these gains (or its own ability to capitalize on them) is likely to overpay and destroy value for its shareholders (Sirower, 1997). Because of asymmetric distributions of information between parties involved in the transaction, a corporate acquisition gives rise to various adverse selection problems (Myers and Majluf, 1984).

To reduce the uncertainty related to acquisition targets, an aspiring bidder can establish an association with the target firm prior to making a public bid offer. Mantecon (2009) shows

that joint ventures have a positive effect on the acquiring firm's BAR, presumably because investors perceive that such relationships decrease the information disadvantage of the acquirer (Reuer & Koza, 2000). However, for many acquirers, operating associations are simply not possible, and ownership is a simpler alternative. Research on such non-operating associations has been limited.

Several studies document differences between cross-border and domestic acquisitions (e.g., Conn et al., 2005; Moeller & Schlingemann, 2005; Mantecon, 2009). For example, foreign acquirers tend to be larger and more likely to make hostile bids and pay in cash (e.g., Moeller & Schlingemann, 2005). In addition, we suggest that there are fewer non-operating associations between foreign acquiring firms and their acquisition targets prior to public bid offers. As a consequence, foreign acquirers remain at an information disadvantage (c.f. Conn et al., 2005) that could make investors suspect that the acquirer has overpaid. We also suggest that foreign acquirers less frequently enter tender offer agreements with pre-bid shareholders. This puts the acquirer at an information disadvantage and diminishes positive signaling effects on the smaller shareholders of the target firm (Bargeron, 2012). To counter these drawbacks, the foreign acquirer might increase the bid and overpay.

We test the extent to which differences between the BARs associated with cross-border and domestic acquirers are explained by the acquiring firms' board participation and toeholds in the target firms. Toward this end, we hand-collect detailed ownership and board data on all public Swedish firms listed from 1985 to 2007. This step enables us to identify (i) the ultimate owners of each firm and (ii) both direct and indirect associations between acquiring and target firms. In fact, in 41% of the cases with such relationships between acquiring and target firms, the former are not registered as direct owners of the latter. Instead, either there is a dual owner (c.f. Holmén & Knopf, 2004) or the acquirer owns shares through a third party. Thus, we

evaluate whether the acquiring firm has access to the target firm's board of directors and if it established an incremental toehold<sup>1</sup> (henceforth, *toehold*) just prior to announcing the public bid.

Empirical analysis shows that cross-border acquisitions differ from domestic acquisitions in a number of ways; for example, they feature higher bid premiums, they are more frequently cash based and the acquiring firm is larger relative to the target firm. However, even when we control for these differences, we find support for Moeller & Schlingemann's (2005) claim that stock returns are comparatively lower for cross-border acquisitions. Indeed, in our sample foreign acquirers earn statistically significant negative BARs.

Next, we investigate how board participation and toeholds affect market reactions to bid announcements. In our sample, the BAR is higher when the acquiring firm has access to the target firm's board of directors prior to the bid and when the pre-bid shareholders commit to tender their shares at the offer price. These two pre-bid linkages (i) provide the acquirer with information on the target firm, (ii) signal to smaller shareholders of the target firm that the bid is acceptable, and (iii) improve the acquiring firm's bargaining position. These novel findings are consistent throughout the sample, but the cross-border effect disappears when we control for board participation and toeholds. Thus, we suggest that the cross-border effect is at least partly a consequence of information asymmetries and the adverse selection problem that they generate.

<sup>&</sup>lt;sup>1</sup> In the literature, a toehold is typically measured as the total ownership percentage at the time of the acquisition bid (see e.g. Betton & Eckbo, 2000). This variable captures two elements: (i) the acquiring firm's ability to access private information prior to the public bid announcement and (ii) the acquiring firm's ability to push the bid through by any means necessary. Because we use data on actual board participation, we have a better proxy for the first element. We suggest that the acquisition of voting rights just prior to a public bid announcement is incremental to the board participation variable. In our analysis, we further discuss these alternative measures.

The ownership and board structures of Swedish firms are uniquely transparent and this allows us to test hypotheses about pre-bid associations that are more difficult to test in other settings. For several reasons, however, we do not believe that the findings are unique to our institutional setting. First, the concentration of ownership in Sweden is not higher than in most other countries (see e.g., LaPorta, Lopez-de-Silanes, Shleifer & Vishny, 1998; Faccio & Lang, 2002). Second, board participation and toeholds better explain the BAR in recent years, when there have been somewhat fewer relationships between the acquiring and target firms; hence, it appears as if the statistical associations are unaffected by the actual level of board participation and toeholds. Third, board participation and toeholds also explain the BAR within a sample of exclusively domestic acquisitions. Thus, the proportion of cross-border acquisitions does not seem to determine how well board participation and toeholds explain the BAR.

The rest of the paper is structured as follows. Section 2 discusses previous research on crossborder acquisitions and indicates the expected associations between the BAR, board participation and toeholds. Section 3 outlines the study design and Sections 4 and 5 provide the empirical tests. Finally, Section 6 concludes the analysis.

#### 2. Literature review and hypotheses

#### 2.1. The cross-border effect

The literature on takeovers shows that target firm shareholders gain considerably more than acquiring firm shareholders (Martynova & Renneboog, 2008; Eckbo, 2009). Typically, the acquiring firm's bid announcement return (BAR) is close to zero, whereas bid premiums are

in the range of 25 to 50 percent. Studies that focus on cross-border acquisitions alone report similar findings. Seth et al. (2000) document how shareholders of foreign target firms gain 38.3%, whereas the corresponding figure is 0.1% for shareholders of acquiring firms engaging in foreign acquisitions. Both Doukas & Travlos (1988) and Kiymaz (2004) report similarly low BARs for shareholders of acquiring firms.

Several studies compare the BARs of cross-border and domestic acquisitions. Moeller & Schlingemann (2005) find that US firms earn lower BARs when they make cross-border acquisitions compared to domestic acquisitions, calling this the *cross-border effect*. Francis et al. (2008) obtain similar results for US firms' acquisitions in foreign countries with developed financial markets.<sup>2</sup> Mantecon (2009) confirms these findings but also finds that forming joint ventures is a good way to mitigate risk in cross-border acquisitions. Several studies conducted in the European context, primarily the UK, verify that cross-border acquisitions also yield lower returns (Aw & Chatterjee, 2004; Conn et al., 2005; Martynova & Renneboog, 2006) when one takes into account the characteristics of the acquiring and target firms.

The empirical finding that cross-border acquisitions yield lower returns necessitates an explanation of why and how cross-border acquisitions differ from domestic acquisitions. In our opinion, cross-border acquisitions will either have to be systematically different from domestic acquisitions in terms of some of the factors known to frequently affect the BAR, or else there will have to be factors that are truly unique to acquisitions in foreign countries.

So far, the research on the cross-border effect has investigated the impact of at least twenty different deal and firm characteristics (Aw & Chatterjee, 2004; Conn et al., 2005; Moeller &

 $<sup>^{2}</sup>$  Francis et al. (2008) find that acquisitions in segmented foreign markets yield larger returns. It is possible that the acquirer helps the acquired firm to overcome constraints in its financial markets and thereby reduces capital costs while also increasing the acquired firm's value.

Schlingemann, 2005; Martynova & Renneboog, 2006; Francis et al., 2008; Mantecon, 2009). Essentially all of these studies control for factors such as the method of payment, bid hostility and whether the target firm is public or private. Other commonly used characteristics include the market-to-book ratio (e.g., Moeller & Schlingemann, 2005; Mantecon, 2009), the relative size of the target firm (Conn et al., 2005; Moeller & Schlingemann, 2005; Mantecon, 2009), and industry relatedness (e.g., Conn et al., 2005; Francis et al., 2008). Although some of these factors explain the differences between the BARs associated with cross-border and domestic acquisitions, these factors do not seem to be reasons for the cross-border effect.

Several previous studies examine cross-sectional variations in the BAR based on theories of legal origin (LaPorta et al., 1998; LaPorta, Lopez-de-Silanes & Shleifer 1999; 2008), national cultural distance (Hofstede, 1980) and managerial problems (Jensen & Meckling, 1976; Roll, 1986). For example, Conn et al. (2005) argue that uncertainty regarding trade, legal, cultural and accounting differences reduces the BAR for cross-border acquisitions (this point is also made by Aw & Chatterjee (2004)) but find only moderate support for an association between the BAR and differences in national culture. Additionally, none of the other factors are significant. Moeller & Schlingemann (2005) and Francis et al. (2008) control for legal and economic systems but do not find that these factors significantly affect the BAR. Seth et al. (2002) study the value effects of managerial self-dealing and hubris in cross-border acquisitions, but their findings only support that attempts at risk reduction can curb value creation.

Although there is some ambiguity in the earlier research, there are both theoretically grounded arguments and earlier empirical findings that make us expect bidder returns to be lower in cross-border deals. Previous studies, however, have mostly examined Anglo-Saxon countries; therefore, a study that puts less emphasis on Anglo-Saxon institutional settings will broaden

our understanding of how cross-border acquisitions create value. For the same reason – the varying institutional settings of different countries – we first examine whether the findings from previous research also apply to the setting of our study. To explain the cross-border effect, we first need to verify that there is one. Accordingly, we hypothesize that:

**Hypothesis 1.** The bid announcement returns associated with cross-border acquisitions are lower than the bid announcement returns associated with domestic acquisitions.

#### 2.2. Board participation and toeholds

Like other corporate decisions, the acquisition of a corporate entity requires the most accurate information possible. Corporate acquisitions are characterized by an asymmetric distribution of information between the buyer and seller, which causes an adverse selection problem (Myers & Majluf, 1984). Thus, with better information on its acquisition target, an acquiring firm can better determine the fair price and the synergies between the acquiring and target firms' resources (Sirower, 1997).

The acquiring firm's information disadvantage can potentially block the transfer of ownership. However, there are several studies that document how operating associations between acquiring and target firms can alleviate these problems. For instance, Allen & Phillips (2000) find that the operating performance of acquiring firms improves when equity ownership is combined with a strategic alliance, a joint venture or some other form of product market relationship. Reuer & Koza (2000) show that pre-bid joint ventures mitigate risks caused by information asymmetries. Similarly, Mantecon and Chatfield (2007) find that asset sales generate larger gains for the acquirer when they occur within a joint venture. All of the above studies implicitly suggest that operating associations create an opportunity for the

relationship-based exchange of information, which is particularly useful when there is considerable information asymmetry.

Strategic alliances and joint ventures are useful tools for reducing information asymmetries; however, their usage is restricted to certain type of industries and situations. In Mantecon (2009), only 2.0% of domestic and cross-border acquisitions are preceded by joint ventures. Operating associations are likely to work better for vertical integration in a high-tech industry such as software development than for horizontal integrations in a low-tech industry such as retailing. In the latter context, the acquirer can instead seek to develop an alternative nonoperating association. One way of establishing such an association is for the acquirer to obtain a seat on the target firm's board of directors.

An acquiring firm that is represented on the board of the target firm will have access to private information concerning the target firm's investment budget and strategic plans. According to Sirower (1997), such information will help the acquirer to understand the potential synergy gains associated with the acquisition and the challenges that it may encounter in attempting to capitalize on them. It is a well-established fact that managers and directors often trade successfully on the information advantage that is generated by their positions. For example, Ke, Hudart & Petroni (2003) show that insiders possess and successfully trade on knowledge regarding significant forthcoming disclosures for as long as two years before the disclosure.

Private information will also improve an acquiring firm's ability to identify temporary mispricing in the market (Jaffe, 1974). As argued by Baker & Wurgler (2002), management may be able to successfully use private information to time the firm's capital issuance. As

such, a position on the board of directors of the target firm can help the acquiring firm to understand when it is the right time to make the acquisition bid.

Surprisingly, the literature on bidders' insider information regarding target firms in relation to takeovers is scarce. Previous research has mainly analyzed the role of the bidder's inside information about *his own* firm (Myers & Majluf, 1984). There is also literature on the toeholds of acquiring firms in the target firm (e.g., Eckbo & Langohr, 1989; Betton & Eckbo, 2000), but this research centers on the acquiring firm's position in the takeover market relative to that of competitive bidders as well as the shareholders and managers of the target firm. In our analysis, the acquirer obtains private information by sitting on the board of the target firm. Any such participation reduces the information-based problems associated with corporate acquisitions and, as investors perceive the lowered information-based problems, increases the acquiring firm's BAR. These considerations yield the following hypothesis:

**Hypothesis 2a.** Bid announcement returns increase with an acquiring firm's participation on the target firm's board of directors.

A different type of non-operating association between the acquiring and target firms exists when the acquiring firm negotiates and anchors the bid offer among larger shareholders of the target firm prior to making the bid offer public. Bargeron (2012) documents that tender offer agreements frequently occur prior to bid announcements. In our analysis, such incremental toeholds<sup>3</sup> are expected to have a positive effect on the BAR not only because they alleviate

<sup>&</sup>lt;sup>3</sup> These pre-bid tender agreements with shareholders of the target firm can be irrevocable or conditioned on subsequent competitive bids (Bargeron, 2012). Typically, the effective toehold (Betton & Eckbo, 2000) is the sum of the percentage of voting rights controlled before negotiations with pre-bid shareholders and the outcome of these negotiations.

information asymmetries between the contracting parties but also because they improve the acquiring firm's position in the takeover market.

First, we expect that a tender agreement with large pre-bid shareholders of the target firm will signal to outsider shareholders that the bid price is acceptable. Such a signal is important because large shareholders of the target firm are likely not only to be better informed than the acquiring firm but also to be better informed than outsider shareholders (Attig, Fong, Gadhoum & Lang, 2006). In a study of irrevocable tender agreements, Bargeron (2012) finds that tender agreements indicate value to uninformed shareholders. He also finds that tender agreements decrease uncertainty, which, in turn, increases tender offer process efficiency.

Second, we expect that a tender agreement with large pre-bid shareholders of the target firm will provide the acquirer with further information regarding the target firm, potential synergies that may arise from the acquisition, and the willingness of other shareholders to tender their shares at a particular price. This information will enable the acquiring firm to reconsider the bid offer before making it public. A firm that makes a bid offer with this information at hand can better judge whether value is being created (Sirower, 1997), and reduce the acquisition's inherent adverse selection problem (Myers and Majluf, 1984).

Third, we expect that a tender agreement with large pre-bid shareholders will strengthen the acquiring firm's position in the takeover market in several ways. For example, Jennings & Mazzeo (1993) show that a reduced number of tradable shares decrease the extent of bidding contests and managerial resistance (c.f., Walkling, 1985; Bargeron, 2012). When a bidder controls its target, the bidder can choose to delist the firm and replace its management regardless of whether the bid goes through. This makes rejecting the offer unattractive to other investors, who risk becoming minorities without influence if they do so. Walkling

(1985) argues that the acquirer has to convince fewer pre-bid shareholders to tender their shares when there are fewer outstanding shares. Finally, Betton & Eckbo (2000) makes the point that if the bid is contested and won by another bidder, the first bidder will make a profit on its initial toehold.

In summary, we expect incremental toeholds that are established through shareholder tender agreements to be perceived as beneficial for shareholders of the acquiring firm for the following three reasons: (i) they indicate value to uninformed shareholders of the target firm, thereby increasing the efficiency of the tender offer process; (ii) they provide incremental information to the acquiring firm concerning the target firm and potential synergies between the acquiring and target firms; and (iii) they strengthen the acquiring firm's bargaining position in the takeover market. These considerations yield the following hypothesis:

Hypothesis 2b. Bid announcement returns increase with incremental toeholds.

#### 2.3. Board participation, toeholds and the cross-border effect

Information asymmetry creates adverse selection problems for all firms engaging in acquisitions, but there is reason to believe that foreign acquirers are comparatively more disadvantaged than domestic acquirers. Aw & Chatterjee (2004) and Conn et al. (2005) argue that cross-border acquisitions are associated with lower BARs because foreign acquirers confront incremental uncertainty in the form of accounting, cultural and legal differences. Although empirical tests show that these differences – possibly with the exception of national cultural differences (see Conn et al., 2005) – have a limited effect on cross-sectional

variations in the BAR (Conn et al., 2005; Moeller & Schlingemann, 2005), it is improbable that information asymmetries are *smaller* for cross-border acquisitions.<sup>4</sup>

To address adverse selection problems in acquisitions, an acquirer can establish an association with the target firm prior to a bid. As discussed earlier, joint ventures and other forms of operating associations between acquiring and target firms are used for this purpose (Allen & Phillips, 2000; Reuer & Koza, 2000; Mantecon & Chatfield, 2007; Mantecon, 2009). In particular, Mantecon (2009) shows that joint ventures have a positive effect on the BAR and that they reduce the cross-border effect. Additionally, non-operating associations (e.g., sitting on the target firm's board or having a toehold) may mitigate information asymmetries and promote value-increasing transfers of corporate control.

Given that cross-border acquisitions carry incremental information costs, one could expect management engaging in cross-border acquisitions to take measures to overcome such costs. However, we suspect that foreign acquirers quite often are unable or are not sufficiently determined to reduce their information disadvantage: for example, by sitting on the target firm's board of directors or by negotiating a pre-bid tender agreement. The empirical evidence in this regard appears mixed: Moeller & Schlingemann (2005) find that hostile bids are more frequent in cross-border acquisitions, but Mantecon (2009) find that associations between target and acquiring firms are more common, albeit small, in cross-border acquisitions. In our opinion, it is an open empirical question whether pre-bid associations are more or less frequent in cross-border acquisitions.

<sup>&</sup>lt;sup>4</sup> However, although information asymmetries are greater for some type of acquisitions, it is possible that acquirers in more uncertain environments take steps to reduce uncertainty. These steps might include stipulating lower bid premiums or lower cash payments and establishing operating and non-operating associations with the target firm prior to the acquisition.

However, even if a foreign acquirer is at an information disadvantage, the acquirer should stand to gain at least as much as a domestic acquirer from incremental information regarding the target firm and from negotiating a pre-bid tender agreement. Thus, we expect that, when an acquiring firm is able to establish a non-operating association with a target firm, this association will have positive effects on the BAR. Consequently, we hypothesize that:

**Hypothesis 3**. Non-operating associations between the acquiring and target firms (i.e., participation on the board of the target firm and incremental toeholds) reduce the difference between the bid announcement returns for domestic and cross-border acquisitions.

## 3. Data and methodology

## 3.1. Sample construction and data sources

The empirical analysis is based on Swedish target firms listed on the OMX Nordic Exchange Stockholm, and official statistics are used to identify the acquisitions.<sup>5</sup> We start the analysis using data from 1985, the first year for which detailed ownership data are publicly available; the latest data we use are from 2007. Table 1 shows that 395 publicly listed Swedish firms were acquired between 1985 and 2007. In total, 86 of these acquisitions were made by foreign firms, and in 69 cases, the acquirer was publicly listed. None of the foreign acquirers were publicly listed in Sweden prior to the bid announcements. Swedish firms acquired the remaining 321 firms, and in 193 cases, the Swedish firms were publicly listed. We intended to

<sup>&</sup>lt;sup>5</sup> These are available in electronic format from 1999 onward. For the years prior to 1999, we hand-collect information from the Stockholm Stock Exchange's annual fact books.

study all of the acquisitions, but data limitations reduced the final sample to 240 observations.<sup>6</sup>

[Insert Table 1 about here]

Our primary sources for capital market and accounting data are the Thompson Datastream and SixTrust databases. The ownership data are primarily collected by hand from "Owners and Power", an annual booklet that covers all Swedish publicly listed firms (Sundqvist, 1985-1993; Sundin & Sundqvist, 1994-1999; Sundin & Sundqvist, 2000-2002a; Fristedt, Sundin & Sundqvist, 2003; Fristedt & Sundqvist, 2004-2007).<sup>7</sup> Swedish public firms have transparent ownership structures; therefore, the media always discuss bids using reliable ownership statistics. We use Affärsdata, a database that contains articles from Swedish business magazines and newspapers as well as press releases issued by Swedish firms, to identify (i) the exact time and date of each bid announcement, (ii) any ownership changes around the time of the announcement (including toeholds), and (iii) bid anticipation. Finally, when possible, we verify the association between the target firm's board members and the acquiring firm (and its owners) using the booklet "Directors and Auditors" (Sundin & Sundqvist, 1991-1999; Sundin & Sundqvist, 2000-2002b; Fristedt & Sundqvist, 2003-2007), which contains detailed information on all of the board members of publicly listed Swedish firms.

# 3.2. Research design

<sup>&</sup>lt;sup>6</sup> Some firms were acquired right after they were publicly listed. In these cases, the data used to estimate the bid announcement returns are insufficient. There are missing data for a few non-Swedish acquirers (usually share price data). We exclude nine acquisitions for which the bid premium or market-to-book ratio is more than three standard deviations from the mean.

<sup>&</sup>lt;sup>7</sup> Sundqvist reports the holdings of the 25 largest shareholders as of January each year. The data are collected from public records that include shareholders with more than 500 shares. In the booklet, family relationships and partnerships are outlined by the author. The format and methodology employed have not changed over the years.

The empirical analyses rely on multiple ordinary least squares (OLS) regressions in which the BAR is explained using a set of independent variables referred to as test and control variables.<sup>8</sup> This is a standard approach used in many of the studies we cite (e.g., Conn et al., 2005; Moeller & Schlingemann, 2005; Francis et al., 2008; Mantecon, 2009). In the regression analyses, we consistently employ double-sided t-tests and robust standard errors.

To estimate the dependent variable, the BAR, we calculate the cumulative average abnormal return in an event window using the market model, as have many other researchers working in this area (Brown & Warner, 1985; Campbell, Lo & MacKinlay, 1997).<sup>9,10</sup> Bid announcements tend to be made in separate press releases and to have few confounding events. The model parameters are estimated from  $t_{200}$  to  $t_{21}$  where *t* is the bid date. We end the estimation period 21 trading days prior to the bid announcement because some of the control variables (the bid premium, market-to-book ratio and bid anticipation) rely on data from days  $t_{20}$  to  $t_0$ . The bulk of the analysis is based on a three-day event window ( $t_1$  to  $t_{+1}$ ). Table 2 provides definitions of the dependent and independent variables and descriptive sample statistics.

# 3.3 The independent variables

<sup>&</sup>lt;sup>8</sup> The BAR is an approximation of the acquisition's long term value effect. The measure is based on aggregated investor perceptions at the time of the bid announcement, and given the available information at that time. <sup>9</sup> Based on the acquiring firm's country of origin, we use the following stock indices when estimating the beta: the AFGX index for Sweden; the OMXC index or its predecessor, the KFX index, for Denmark; the OMXH index for Finland; the CAC 40 or its predecessor, the SBF 250, for France; the CDAX index for Germany; the OMXI for Iceland; the ISEQ for Ireland; TOPIX for Japan; the AEX index for the Netherlands; the OBX index for Norway; the UBS 100 for Switzerland; the FTSE All Share for the U.K.; and the S&P 500 for the U.S.. <sup>10</sup> Moeller & Schlingemann (2005), Francis et al. (2008) and Mantecon (2009) use the same three-day window. Whereas the latter two studies use the market model when estimating abnormal returns, Moeller & Schlingemann (2005) use the market-adjusted return model (in which the expected return is measured as the daily market return). To ensure robustness, we alternatively test for market-adjusted returns and various longer event windows. In short, the findings and conclusions are robust to the use of either methodology to calculate abnormal returns and to the use of alternative event windows.

First, to compute the test variables, we identify the ownership relationships between the acquiring and target firms. Unlike the other studies we are aware of, we use more refined ownership measures, examining both direct ownership (i.e., when the acquiring firm is a registered owner of the target firm) and indirect ownership. The most common form of indirect ownership is dual ownership (c.f. Holmén & Knopf, 2004), but using the information in the "Ownership and Power" booklet, we also identify situations in which the acquiring firm owns shares of the target firm through a third party.

[Insert Table 2 about here]

The first test variable, *Board participation*, is expected to measure the acquiring firm's ability to understand the target firm's value and the net synergies that will result from the acquisition. We construct a dummy variable that takes a value of 1 when the board of the target firm contains at least one individual who is (i) employed by the acquiring firm, (ii) a board member of the acquiring firm, or (iii) a representative of the acquiring firm's main owner or of a corporate entity controlled by the acquiring firm. Because the "Ownership and Power" and "Directors and Auditors" booklets are published annually, we use the Affärsdata database and adjust for changes in the composition of the target firm's board that are announced in the 30 calendar days prior to the bid announcement.

The second test variable, incremental *Toehold*, mainly measures how credible the bid price will appear in the eyes of other target firm shareholders. Credibility can easily be established via a large bid premium; consequently, we are interested in credibility generated by other means than hefty bid premiums. We measure toehold as the voting rights that are publicly announced as tender offer agreements with pre-bid shareholders. Such an announcement is often made in the press release containing the bid offer, but we search for this information in

the Affärsdata database between days  $t_0$  and  $t_{+2}$ . When tender offer agreements are announced without reference to the exact percentage of voting rights, we use information from the most recent edition of "Owners and Power" to derive the seller's pre-bid ownership.

The third test variable, *Cross-border*, is a dummy variable that takes a value of 1 when the acquiring firm is not located in Sweden. In addition to using the test variables, we employ a number of controls for deal and firm characteristics that may be associated with the BAR. If these characteristics vary systematically for cross-border versus domestic acquisitions, they may cause an omitted variable problem. We employ seven control variables that were used in previous studies of the cross-border effect (Aw & Chatterjee, 2004; Moeller & Schlingemann, 2005; Conn et al., 2005; Martynova & Renneboog, 2006; Francis et al., 2008; Mantecon, 2009): Bid premium, Bid anticipation, Cash-in-payment, Market sentiment, Market-to-book, Relative size and Industry relatedness<sup>11</sup>. These variables are defined in Table 2.<sup>12</sup>

# 3.4. Differences in sample characteristics between cross-border and domestic acquisitions

Table 2 displays a number of differences between cross-border and domestic acquisitions. First, the BAR is lower for cross-border acquisitions (-0.83% versus +0.03%).<sup>13</sup> Foreign acquirers pay significantly higher bid premiums (33.5% versus 26.0%) in addition to higher pre-bid market-to-book ratios (2.81 versus 2.12). The partial use of cash for payments is more common in cross-border than domestic acquisitions (85.5% versus 58.4%), most likely

<sup>&</sup>lt;sup>11</sup> Some of the domestic acquisitions in Sweden are made to restructure industry groups and consequently appear to generate few synergistic gains (i.e., no vertical or horizontal integration).

<sup>&</sup>lt;sup>12</sup> Please refer to the following literature for details on the relationships between each control variable and the BAR: Travlos (1987): the bid premium; Betton & Eckbo (2000): bid anticipation; Travlos (1987): cash-in-payment; Andrade, Mitchell & Stafford (2001): market sentiment; Lang, Stulz & Walkling (1991): market-to-book ratios; Asquith, Bruner & Mullins (1983): relative size; and Bradley, Desai & Kim (1988): industry relatedness.

<sup>&</sup>lt;sup>13</sup> Untabulated tests show that domestic acquisitions yield a BAR that is not significantly different from zero (p-value: 0.893), whereas cross-border acquisitions yield a significantly negative BAR (p-value: 0.015). In total, 61% of the foreign acquirers examined here earn negative BARs.

because target firm shareholders will be reluctant to accept bids based on stock swaps unless the foreign acquirer takes the costly step of listing its shares on the local stock exchange.

Foreign acquirers are larger relative to their target firms. In cross-border acquisitions, the target firm's pre-bid market value is 13.4% of the combined market value, whereas the corresponding figure is 26.1% for domestic acquisitions. Many domestic acquisitions seem to be made without industry relatedness, but this is never the case for cross-border acquisitions (35.4% versus 0.0%). Domestic acquirers have access to the target firm's board in 49.4% of the cases examined, whereas foreign acquirers have access in 19.4% of the cases. This univariate analysis also shows that there are no statistically significant differences with regard to the (i) Bid anticipation, (ii) Market sentiment and (iii) Toehold variables.

#### 4. Results

Table 3 displays the findings from six model specifications; here, we explain the BAR using combinations of test and control variables. The models' adjusted R-squares are similar to, or higher than, those reported for models in other studies (Moeller & Schlingemann, 2005; Conn et al., 2005; Mantecon, 2009), and all models in Table 3 have statistically significant F-values, although models without the two test variables display somewhat smaller F-values.

[Insert Table 3 about here]

Model (1) displays the association between the BAR and the Cross-border test variable, which is negative and statistically significant (p-value: 0.032). The Cross-border coefficient remains significantly negative (p-value: 0.030) when, in model (2), we include our set of control

variables. Together with the Cross-border variable, the Cash-in-payment and Market sentiment variables are positively associated with the BAR (p-values: 0.051 and 0.054). The main reason why the coefficient of the Cross-border variable is more negative in model (2) is that 85.5% of the cross-border acquisitions have a cash component and the Cash-in-payment variable has a positive association with the BAR.

Next, we examine how well the Board participation and Toehold variables explain the BAR. As shown in model (3), both variables have positive coefficients (p-values: 0.001 and 0.000). Having access to the target firm's board increases the BAR of the acquiring firm by 1.45%. Similarly, if the acquiring firm is able to purchase 40% of the voting rights in a tender offer agreement, the BAR increases by 0.80%. In fact, these two variables explain more of the cross-sectional variation in the BAR than the eight variables presented in model (2) (an adjusted R-square of 0.060 compared to a value of 0.035 for model (2)). As previously mentioned, we are interested in controlling for bid premiums, which are an alternative way of pushing a deal through. Model (4) contains the two test variables and the set of control variables. The Board participation and Toehold variables retain their positive coefficients (pvalues: 0.003 and 0.000). In addition, the coefficient of Market sentiment is positive (p-value: 0.062). A comparison of model (4) and models (2) and (3) shows that both the test and control variables provide incremental explanatory power.

Using model (5) we determine whether there is a difference between cross-border and domestic acquisitions when the Board participation and Toehold variables are controlled for. Moving from model (3) to model (5) increases the adjusted R-square to some extent, but cross-border acquisitions are no longer significantly different from domestic acquisitions (p-value: 0.270). Therefore, most differences between the investor reactions to cross-border and domestic acquisitions are generated by the less frequent access of foreign acquirers to the

boards of target firms and their weaker ability to establish tender agreements prior to public announcements. Finally, in model (6), the control variables are included together with all of the test variables. The Cash-in-payment and Market sentiment variables have positive coefficients (p-values: 0.069 and 0.082) together with the two insider ownership variables (pvalues: 0.008 and 0.001). There is, however, no significant difference between cross-border and domestic acquisitions in this regard.

In summary, there is a significant difference between the BARs associated with foreign and domestic acquirers, particularly when we control for firm- and deal-specific characteristics. This result supports the first hypothesis, which is largely based on previous empirical studies of the cross-border effect. There is also support for the second hypothesis: that non-operating associations between the acquiring and target firms (i.e., board participation and toeholds) explain cross-sectional variations in the BAR. In accordance with the third hypothesis, when we control for board participation and toeholds, the cross-border effect disappears.

The most important finding so far is that the Board participation and Toehold variables explain differences between the BARs associated with cross-border and domestic acquisitions. However, the importance of this finding depends largely on whether board participation and toeholds explain the BAR in general. To further investigate this matter, we use three of the previous models (models 3, 5 and 6) but we test the independent variables with the Cross-border dummy variable. The results are shown in Table 4. This procedure allows us to investigate (i) the associations between the BAR and the independent variables within a sample of domestic firms and (ii) whether the associations between each independent variable and the BAR differ for cross-border and domestic acquisitions.

[Insert Table 4 about here]

All three of the model specifications in Table 4 provide statistically significant F-values. Additionally, the upper half of the table demonstrates that the associations between the BAR and the variables Board participation and Toeholds exist within a sample that includes data from domestic acquisitions only. We also find that for all of the model specifications, the coefficients of both test variables are positive; in addition, the p-values are consistently smaller than 0.012. In model 8, the coefficient of the Cross-border variable is not significant.

The bottom half of Table 4 displays the coefficients of the independent variables when they are tested with the Cross-border dummy variable. Model (9) shows that foreign acquirers pay in cash more often and make fewer conglomerate acquisitions. There is, however, no difference between cross-border and domestic acquisitions with regard to the Board participation and Toehold variables. Our conclusion is that cross-border acquisitions conform to the same pattern as domestic acquisitions; namely, fewer non-operating associations between the acquiring and target firms lead to lower BARs.

#### 5. Robustness tests

#### 5.1. Alternative methods of measuring bid announcement returns

The BAR can be measured in different ways and using different event windows. Our use of the market model (in which we calculate cumulative average abnormal returns and adjust for systematic risk) is driven by earlier finance literature that suggests that it is appropriate to use the market model when investigating market reactions (Campbell et al., 1997). The marketadjusted return model offers an alternative measure of the BAR that has been used in the past (e.g., Moeller & Schlingemann, 2005). To ensure robustness, we test whether the results are sensitive to the use of this alternative measure.

The event study methodology can yield biased results in the presence of market anticipation and confounding effects (McWilliams & Siegel, 1996). Our data are hand collected and thoroughly checked, and as a result, we know that bid announcements never occur prior to  $t_0$ and that all 240 bids are frequently discussed in the media (in days  $t_0$  and  $t_{+1}$ ). Typically, a short event window like ours ( $t_1$  to  $t_{+1}$ ) contains few confounding effects; however, market reactions can be somewhat gradual. Thus, it is appropriate to lengthen the event window to a number of days following the event. To ensure robustness, we measure the BAR using three alternative models: the market-adjusted model with a three-day event window ( $t_1$  to  $t_{+1}$ ) and the market model with five- and seven-day event windows.

Table 5 shows the results obtained by using models (2) and (6) when testing the three alternative measures of the BAR. All models have statistically significant F-values, but evidently a lengthening of the event window introduces noise and reduces the models' explanatory power. The previous results and conclusions are robust to the use of either methodology for calculating abnormal return and to the use of alternative event windows. In particular, we note that the Board participation and Toehold variables are always significantly associated with the BAR and that cross-border acquisitions consistently yield lower BARs when the Board participation and Toehold variables are excluded but never do so when they are included. In addition, the Cash-in-payment variable is consistently positively associated with the BAR.

[Insert Tables 5 and 6 about here]

#### 5.2. Analyzing insider ownership and bid announcement returns over time

Francis et al. (2008) suggest that the cross-border effect has dissipated in recent years, primarily because an increasing number of foreign acquisitions are made in segmented financial markets, which allows the acquirer to increase value via lower capital costs. In contrast, our study explores an integrated financial market in which financial constraints are unlikely to be severe. Francis et al. (2008: 1529) show that for acquisitions in integrated financial markets, there is only a minor decrease in the negative cross-border effect over time.<sup>14</sup> However, if the negative cross-border effect has disappeared over time, our results are no more than a historical anecdote. Thus, we test for differences over time in the ability of the test variables to explain the BAR.

Model (10) in Table 6 suggests a negative trend in the BAR (p-value: 0.079), but the Trend variable does not have a significantly negative coefficient when it is added to the main model (i.e., model (11)). Model (11) also suggests that trends in the BAR do not deteriorate the positive association of the Board participation and Toehold variables with the BAR (p-values: 0.008 and 0.001). In the aforementioned study, Francis et al. (2008) analyze BARs before and after 1995. Given that the takeover rules were made more stringent in the late 1990s (see Appendix A), this cut-off point also makes sense in a Swedish sample; consequently, models (12) to (15) are based on the same separation between time periods. According to model (12), acquirers have experienced a significantly lower BAR in recent years (p-value: 0.090). Model (13) shows that the Board participation and Toehold variables are positively associated with

<sup>&</sup>lt;sup>14</sup> The main reason is that the benchmark used by Francis et al (2008), the BAR for *domestic* acquisitions, decreases.

the BAR (p-values: 0.078 and 0.020). Most importantly, these associations are not significantly different for the two time periods.

An untabulated analysis shows that the number of foreign acquisitions has increased with time, with 80% of the cross-border acquisitions occurring after 1995. The analysis also shows that the cross-border effect is 0.06% before 1995 (p-value: 0.475) and was -0.88% more recently (p-value: 0.058).<sup>15</sup> Consequently, there is no evidence that the cross-border effect is dissipating. Models (14) and (15) indicate changes in the previously observed relationships between the BAR and the three test variables. In short, the two regression models show that (i) the Board participation and Toehold variables determine the BAR throughout the time period examined, (ii) the Cross-border variable does not, and (iii) there are no significant inter-temporal changes in the relationship between the BAR and the test variables. Overall, introducing controls for Time does not increase the models' ability to explain the BAR and the adjusted R-squares are lower than those reported in Table 3.

#### 5.3. Ownership and bid announcement returns

The (direct and indirect) total pre-bid ownership of shares in the target firm is an alternative measure of the pre-bid association that exists between the acquiring and target firms. Although this measure is easily observable, it is only an indirect measure of board participation. To illustrate this principle, we turn to the empirical data. We first note that the correlation between pre-bid ownership and board participation is 0.844 and is statistically significant (p-value: 0.000). However, we also note that in essentially all cases in which the

<sup>&</sup>lt;sup>15</sup> Cross-border acquisitions yield negative announcement return after 1995 (p-value: 0.010) but not in the early period. Domestic acquisitions never yield announcement returns that are significantly different from zero.

pre-bid ownership level is greater than 10%, the pre-bid owner has access to the target firm's board. It should matter little whether the acquiring firm owns 10 or 70 percent of the target firm as long as it has access to the board. Because we are able to directly observe the acquiring firm's access to the target firm's board of directors and the high correlation between board participation and pre-bid ownership, we have excluded the latter variable from the empirical analysis. If board participation is substituted for pre-bid ownership, it exhibits a similar positive association with the BAR. If pre-bid ownership is included as an independent variable together with the Board participation and Toehold variables, it has no significant association with the BAR.

We note that Mantecon (2009) measures toeholds using a dummy variable that takes a value of 1 when the acquiring firm owns more than 5% of the target firm. Mantecon finds that, contrary to his expectation, toeholds do not seem to have a positive effect on the BAR. In our sample, the correlations between our two test variables and this dummy variable are high: they are 0.683 for board participation and -0.383 for toeholds (p-values < 0.010). The dummy variable, however, is not significantly associated with the BAR (p-value: 0.650 in model (4)). Additionally, if the dummy variable is substituted for the Board participation and Toehold variables in models (6) and (7), there remains a negative association between the Cross-border variable and the BAR (p-values: 0.029 and 0.035, respectively). It seems that the measure used by Mantecon (2009) is correlated with our test variables but that noise inhibits the ability of the measure to truly capture the non-operating associations we are interested in. It is quite possible that many of the acquirers that meet the 5% threshold did not have access to the board of the target firm.

#### 6. Conclusions

Positive reactions to a bid announcement depend on the ability of the acquiring firm to assess the value of the acquisition target and the synergies that will be created by the acquisition. Like a number of other studies (e.g., Moeller & Schlingemann, 2005; Francis et al., 2008; Mantecon, 2009), ours indicates that among the shareholders of an acquiring firm, the announcement of a cross-border acquisition will not be as well received as the announcement of a domestic acquisition. Adding to the earlier literature, we investigate whether the crossborder effect results from the existence of fewer non-operating pre-bid associations between acquiring and target firms (i.e., board participation and toeholds) in cross-border acquisitions.

Our empirical analysis shows that the BAR is significantly higher when the acquiring firm has a representative on the target firm's board of directors. One plausible reason for this finding is that investors see board participation as giving the acquiring firm information that improves the acquirer's ability to determine the value effects of the acquisition. We also find that the BAR is higher when large pre-bid shareholders of the target firm have agreed to tender their shares. We believe that investors will see a successful negotiation with the pre-bid owners as informative and as strengthening the acquirer's bargaining position.

Although there are systematic differences between cross-border and domestic acquisitions in terms of board participation and toeholds, we must emphasize that these two factors have the same positive association with the BAR when we exclude cross-border acquisitions. These are novel empirical findings that contribute to the growing body of literature on cross-border acquisitions. It appears that shareholders are not averse to cross-border acquisitions *per se* but they are reluctant to support any acquisition in which the acquirer is at an information disadvantage or has to push the deal through by offering more cash.

Our study has potential implications for international business management. First, we validate previous findings that indicated that cross-border acquisitions yield lower returns than domestic acquisitions (e.g., Eckbo & Thorburn, 2000; Moeller & Schlingemann, 2005; Mantecon, 2009). However, we also show that better knowledge of the target firm and its prebid ownership structure improves the ability of the acquiring firm to create value. Although this finding is equally important for domestic and cross-border acquisitions, the fact that cross-border acquisitions historically yield negative BARs should motivate managers who are engaged in cross-border acquisitions to establish better pre-bid associations with target firms. Collaborating with the target firm, entering its markets and competing with it, or acquiring a small stake in it can all potentially increase value creation for shareholders of the acquiring firm.

One important matter is the extent to which our findings hold outside of the Swedish institutional setting. Sensitivity tests show that board participation and toeholds have been somewhat *better* associated with the BAR in recent years, when there have been *fewer* associations between acquiring and targets firms. It thus appears that the statistical associations we identified are unaffected by the actual level of board participation and toeholds. We also note that the studied relationships exist within data that come entirely from domestic acquisitions. Thus, the proportion of cross-border acquisitions appears not to inhibit the effect of board participation and toeholds.

The lessening cross-border effect should not be interpreted as invalidating the results of earlier studies that argue that foreign acquirers have comparative disadvantages in understanding target firms. However, the results do suggest that acquirers are able to properly take these difficulties into account when making their bids. It could also be argued that in participating in the target board, a foreign acquirer becomes better prepared to address

cultural differences. Our study provides no support for this claim, however, as we cannot prove that board participation is more important for foreign acquirers. Finally, our results are not inconsistent with those of earlier studies that claim that managerial problems are more pronounced in cross-border acquisitions. On the contrary, that foreign acquirers are less inclined to establish pre-bid associations with targets is in itself an indication of more significant agency problems and/or issues with hubris in cross-border deals.

Although our results suggest that associations with target firms are perceived as beneficial by shareholders of acquiring firms, the role of these associations ought to be explored in greater depth. Both board participation and toeholds should be studied using a broader sample that includes acquiring and target firms from a wide variety of countries. In such a setting, it would be interesting to study the interaction effects of economic systems and national cultural distance on non-operating pre-bid associations.

# References

Afrell, L., Klahr, H., & Samuelsson, P. (1998). *Lärobok i Kapitalmarknadsrätt*, 2nd edition. Stockholm: Nordstedts Juridik.

Allen, J., & Phillips, G. (2000). Corporate equity ownership, strategic alliances, and product market relationships. *Journal of Finance*, 55, 2791-2816.

Andrade, G., Mitchell, M., & Stafford, E. (2001). New evidence and perspectives on mergers?. *Journal of Economic Perspectives*, 15, 103-120.

Asquith, P., Bruner, R., & Mullins, D. (1983). The gains to bidding firms from merger. *Journal of Financial Economics*, 11, 121-139.

Attig, N., Fong, W., Gadhoum, Y. & Lang, L. (2006). Effects of large shareholding on information asymmetry and stock liquidity. *Journal of Banking and Finance*, 30, 2875-2892.

Aw, M., & Chatterjee, R. (2004). The performance of UK firms acquiring large cross-border and domestic takeover targets. *Applied Financial Economics*, 14, 337-349.

Baker, M., & Wurgler, J. (2002). Market timing and capital structure. Journal of Finance, 57, 1-32.

Bargeron, L. (2012). Do shareholder tender agreements inform or expropriate shareholders?, *Journal of Corporate Finance*, 18, 373-388.

Berglöf, E., Burkhart, M., Boeri, T., & Franks, J. (2003). European takeover regulation. *Economic Policy*, 18, 171-213.

Betton, S., & Eckbo, B.E. (2000). Toeholds, bid jumps, and expected payoff in takeovers. *Review of Financial Studies*, 13, 841-882.

Bradley, M., Desai, A., & Kim, E. H. (1988). Synergistic gains from corporate acquisitions and their division between the stockholders of target and acquiring firms. *Journal of Financial Economics*, 21, 3-40.

Brown, S., & Warner, J. (1985). Using daily stock returns, the case of event studies. *Journal of Financial Economics*, 14, 3–31.

Campbell, J., Lo, A., & MacKinlay, A. (1997). *The econometrics of financial markets*. Princeton: Princeton University Press.

Conn, R., Cosh, A., Guest, P., & Hughes, A. (2005). The impact on UK acquirers of domestic, crossborder, public and private acquisitions. *Journal of Business, Finance & Accounting*, 32, 815–870.

Doukas, J., & Travlos, N. (1988). The effect of corporate multinationalism on shareholders wealth: Evidence from international acquisitions. *Journal of Finance*, 43, 1161-1175.

Doukas, J., Holmén, M., & Travlos, N. (2002). Diversification, ownership and control of Swedish corporations. *European Financial Management*, 8, 281-314.

Dyck, A., & Zingales, L. (2004). Private benefits of control: An international comparison. *Journal of Finance*, 59, 537-600.

Eckbo, E. (2009). Bidding strategies and takeover premiums: A review. *Journal of Corporate Finance*, 15, 149-178.

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

Eckbo, E., & Thorburn, S. (2000). Gains to bidder firms revisited: Domestic and foreign acquisitions in Canada. *Journal of Financial and Quantitative Analysis*, 35, 1-25.

Faccio, M. & Lang, L. H. P. (2002). The ultimate ownership of Western European corporations. *Journal of Financial Economics*, 65, 365-395.

Francis, B., Hasan, I., & Sun, X. (2008). Financial market integration and the value of global diversification: Evidence for US acquirers in cross-border mergers and acquisitions, *Journal of Banking and Finance*, 32, 1522-1540.

Fristedt, D., Sundin, A., & Sundqvist, S.-I. (2003). Owners and power in Sweden's listed companies 2003. Stockholm: SIS Ägarservice.

Fristedt, D., & Sundqvist, S.-I. (2003-2007). Directors and auditors in Sweden's listed companies. Stockholm: SIS Ägarservice.

Fristedt, D., & Sundqvist, S.-I. (2004-2007). Owners and power in Sweden's listed companies. Stockholm: SIS Ägarservice.

Hofstede, G. (1980). *Culture's consequence: International differences in work-related values*. Beverly Hills, CA: Sage Publications.

Holmén, M., & Knopf, J. (2004). Minority shareholder protections and the private benefits of control for Swedish mergers. *Journal of Financial and Quantitative Analysis*, 39, 167-191.

Högfeldt, P. (2005). The history and politics of corporate ownership in Sweden. In R. Morck, (Ed.), *A history of corporate governance around the world – Family business groups to professional managers*. London: University of Chicago Press.

Jaffe, J. F. (1974). Special information and insider trading, Journal of Business, 47, 410-428.

Jennings, R., & Mazzeo, M. (1993). Competing bids, target management resistance, and the structure of takeover bids. *Review of Financial Studies*, 6, 883-909.

Jensen, M., & Meckling, W. (1976). Theory of the firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3, 303-431.

Ke, B., Huddart, S., & Petroni, K. (2003). What insiders know about future earnings and how they use it: Evidence from insider trades. *Journal of Accounting and Economics*, 35, 315-346.

Kiymaz, H. (2004). Cross-border acquisitions of US financial institutions: Impact of macroeconomic factors. *Journal of Banking and Finance*, 28, 1413-1439.

Lang, L., Stulz, R., & Walkling, R. (1991). A test of free cash flow hypothesis: The case of bidder returns. *Journal of Financial Economics*, 29, 315–336.

LaPorta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (1998). Law and finance. *Journal of Political Economy*, 106, 1113-1155.

LaPorta, R., Lopez-de-Silanes, F., & Shleifer, A. (1999). Corporate ownership around the world. *Journal of Finance*, 54, 471-517.

LaPorta, R., Lopez-de-Silanes, F., & Shleifer, A. (2008). The economic consequences of legal origins. *Journal of Economic Literature*, 46, 285-332.

Mantecon, T. (2009). Mitigating risks in cross-border acquisitions. *Journal of Banking and Finance*, 33, 640-651.

Mantecon, T., & Chatfield, R. (2007). An analysis of the disposition of assets in a joint venture. *Journal of Banking and Finance*, 31, 2591-2611.

Martynova, M., & Renneboog, L. (2006). Mergers and acquisitions in Europe. In: L. Renneboog, (Ed.), *Advances in corporate finance and asset pricing*. Amsterdam: Elsevier.

Martynova, M., & Renneboog, L. (2008). A century of corporate takeovers: What have we learned and where do we stand?. *Journal of Banking and Finance*, 32, 2148-2177.

McWilliams, A., & Siegel, D. (1996). Event studies in management research: Theoretical and empirical issues. *Academy of Management Journal*, 40, 626-657.

Moeller, S., & Schlingemann, F. (2005). Global diversification and bidder gains: A comparison between cross-border and domestic acquisitions. *Journal of Banking and Finance*, 29, 533-564.

Myers, S., & Majluf, N. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, 13, 187–221.

Overland, C. (2008). *Corporate ownership: A study of controlling and institutional ownership in Swedish listed firms 1985-2005.* Gothenburg: University of Gothenburg.

Reuer, J.J., & Koza, M. (2000). Asymmetric information and joint venture performance: theory and evidence for domestic and international joint ventures. *Strategic Management Journal*, 21, 81–88.

Seth, A., Song, K. & Petit, R. (2000). Synergy, managerialism or hubris? An empirical examination of motives for foreign acquisitions of U.S. firms. *Journal of International Business Studies*, 31, 387-405.

Seth, A., Song, K. & Petit, R. (2002). Value creation and destruction in cross-border acquisitions: An empirical analysis of foreign acquisitions of U.S. firms. *Strategic Management Journal*, 23, 921-940.

Shleifer, A., & Vishny, R. (1986). Large shareholders and corporate control, *Journal of Political Economy*, 94, 461-488.

Sirower, M. L. (1997). The Synergy Trap. New York: The Free Press.

Sundin, A., & Sundqvist, S.-I. (1991-1999). *Directors and auditors in Sweden's listed companies*. Dagens Nyheters Förlag, Stockholm.

Sundin, A., & Sundqvist, S.-I. (1994-1999). *Owners and power in Sweden's listed companies*. Stockholm: Dagens Nyheters Förlag.

Sundin, A., & Sundqvist, S.-I. (2000-2002a). *Owners and power in Sweden's listed companies*. Stockholm: SIS Ägarservice.

Sundin, A., & Sundqvist, S.-I. (2000-2002b). *Directors and auditors in Sweden's listed companies*, Stockholm: SIS Ägarservice.

Sundqvist, S.-I. (1985-1993). *Owners and power in Sweden's listed companies*. Stockholm: Dagens Nyheters Förlag.

Travlos, N. G. (1987). Corporate takeover bids, method of payment, and bidding firms' stock returns. *Journal of Finance*, 42, 943-963.

UNCTAD (2011). *Non-Equity Modes of International Production and Development*, New York and Geneva: United Nations.

Walkling, R. (1985). Predicting tender offer success: A logistic analysis. *Journal of Financial and Quantitative Analysis*, 20, 461-478.

#### **Appendix A: Swedish Takeover Regulation**

The Swedish corporate governance system differs from the Anglo-American system in several respects. Unlike the common law systems of the U.S. and the U.K., the Swedish legal system has its roots in Roman law, although the Scandinavian systems are commonly regarded as different from the French and German legal systems (LaPorta et al., 1998). Most Swedish firms are controlled by blockholders (Overland, 2008), and several dominant owner spheres control groups of firms, usually through mechanisms such as dual-class shares, pyramids and cross-ownership (Doukas, Holmén & Travlos, 2002; Holmén & Knopf, 2004; Högfeldt, 2005).

The Swedish governance system provides weaker legal protection for investors than is available in Anglo-Saxon countries (LaPorta et al., 1999). Although Sweden has somewhat weak minority shareholder protection, Dyck & Zingales (2004) find that it scores highly in terms of its extralegal institutions (e.g., tax compliance and newspaper circulation). Holmén & Knopf (2004) find that firms that acquire targets that they indirectly control are unable to earn abnormal returns and suggest that strong extralegal institutions offset weaker legal protection. This concept is consistent with the findings of Doukas et al. (2002), who identify no evidence that intra-conglomerate takeovers are associated with minority shareholder expropriation.

Before, takeovers were regulated through bylaws stipulated by the industry itself. Influenced by the UK City Code of 1968, the *Swedish Industry and Commerce Stock Exchange Committee* issued its first takeover recommendations in 1971 (Berglöf, Burkhart, Boeri & Franks, 2003). This step made Sweden one of the first European countries to adopt a special takeover code.<sup>16</sup> As ruled in a 1985 Supreme Court case (NJA 1985: 343), bidders had to comply with the recommendations, which were revised and expanded in 1988 (Afrell, Klahr & Samuelsson, 1998). Formal takeover legislation (SFS 2006:451) was not generated until 2006, when the EU's Takeover Directive (2004/25/EC) was enacted.

The abovementioned recommendations ensure pre-bid integration; a public offer may not be lower than the highest price given by the bidder for an identical security six months prior to the public bid announcement. Furthermore, if a bidder makes additional and more beneficial bids less than nine months after a public bid offer, the initial bid must be adjusted accordingly. In practice, however, there has been legal room to buy out blockholders prior to a bid. The rules did not forbid differences between dual-class shares for the same firm (Afrell et al, 1998); therefore, in the time period under study, a bidder could offer blockholders more for shares with higher voting power (A-shares). There are cases in which bids are different for dual-class shares. For instance, in 2008, Volkswagen purchased A-shares in Scania for SEK 200 and then made a public offer of SEK 140. However, this is not the norm, and as documented by Holmén & Knopf (2004), there are few signs of the expropriation of minority shareholders in takeovers despite the lack of legal barriers.

Despite the U.K. influence, the 30% mandatory bid rules of the 1968 City Code (Berglöf et al., 2003) were not appropriated by the Swedish in 1971. Rules on mandatory bids were introduced in 1999. Under these rules, when the acquisition of shares leads to control of more than 40% of the votes, a public offer for the remaining shares must be made. In 2003, the threshold was lowered to 30% of the votes. Such bids are regulated in the same way as ordinary public bids.

<sup>&</sup>lt;sup>16</sup> Typically, national takeover regulations in Europe were devised in the 1980s; in France, full takeover regulations were implemented in 1989, and in Germany, a voluntary code was put in place in 1995 (Berglöf et al., 2003).

Minority squeeze-outs were first regulated by the 1975 Companies Act (SFS 1975:1385) [subsequently updated in 2005 (SFS 2005:551)], which stipulates that an owner with 90% of the shares of a firm can redeem the shares from the remaining owners. Correspondingly, minority owners can also oblige a majority owner to redeem their shares. When shares are redeemed in conjunction with the takeover of a publicly traded firm, the valuation principles may be complicated, but typically, the compensation equals the price paid to other target shareholders.

Sample selection.

| Publicly announced successful bids | 395        |
|------------------------------------|------------|
| of which domestic acquisitions     | 309        |
| of which cross-border acquisitions | 86         |
| Non-public acquirer                | 140        |
| of which domestic acquisitions     | 123        |
| of which cross-border acquisitions | 17         |
| Public acquirer                    | 255        |
| of which domestic acquisitions     | 186        |
| of which cross-border acquisitions | 69         |
| Our sample                         | <u>240</u> |
| of which domestic acquisitions     | 178        |
| of which cross-border acquisitions | 62         |

#### Notes:

The initial sample includes all publicly announced bids at the OMX Nordic Exchange Stockholm (formerly known as the Stockholm Stock Exchange) between 1985 and 2007. Bids are identified using OMX Nordic Exchange Stockholm's fact books (1985 to 1998) and OMX Nordic Exchange Stockholm's online databases (1999 to 2007).

Variables description and descriptive sample statistics.

| Variable                | Variable definitions  | Domestic           | Cross-border         | Difference |
|-------------------------|---|--------------------|----------------------|------------|
|                         |   | Mean<br>(median)   | Mean<br>(median)     | t-test     |
| Bid announcement return | The cumulative average abnormal return using the market model and an estimation period from dayt <sub>-200</sub> to day $t_{-21}$ ). The event window is from day $t_{-1}$ to day $t_{+1}$ ). | 0.0003<br>(0.0024) | -0.0083<br>(-0.0039) | -0.0086**  |
| Board participation     | Dummy taking the value 1 if the acquiring firm is directly or indirectly represented on the target firm's board of directors.   | 0.4944<br>(0.0000) | 0.1935<br>(0.0000)   | -0.3008*** |
| Toehold                 | The percentage of shares that the acquiring firm acquires from shareholders prior to making the public bid announcement and that are publicly announced at the time of the public bid offer.  | 0.2931<br>(0.1950) | 0.2848<br>(0.1900)   | -0.0083    |
| Bid premium             | Bid market value of equity divided by the average market value of equity in days t.20 to t.2.   | 0.2599<br>(0.2413) | 0.3354<br>(0.2705)   | 0.0756***  |
| Bid anticipation        | Dummy taking the value 1 if there is one or more newspaper articles discussing the bid in the 30 days prior to the bid announcement. Otherwise 0.   | 0.1742<br>(0.0000) | 0.1452<br>(0.0000)   | -0.0290    |
| Cash-in-payment         | Dummy taking the value 1 if the bid offer contains any cash element. Otherwise 0.   | 0.5843<br>(1.0000) | 0.8548<br>(1.0000)   | 0.2706***  |
| Market sentiment        | The number of firms being acquired in the last 12 months divided by the average number of listed firms at the SSE during the last twelve months.  | 0.0731<br>(0.0698) | 0.0593<br>(0.0530)   | -0.0138    |
| Market-to-book          | Target firm's average market value of equity in days $t_{20}$ to $t_2$ divided by its book value of equity from the latest annual report released prior to the bid announcement.              | 2.1244<br>(1.6740) | 2.8061<br>(2.3120)   | 0.6817***  |
| Relative size           | The target firm's pre-bid market value of equity divided by the sum of the acquiring and target firms pre-bid market value of equity.   | 0.2614<br>(0.2299) | 0.1335<br>(0.0000)   | -0.1279*** |
| Industry relatedness    | Dummy taking the value 1 if the acquisition does not create a horizontal or a vertical integration.   | 0.3539<br>(0.0000) | 0.0000<br>(0.0000)   | 0.6461***  |

#### Notes:

The sample consists of 240 acquisitions of publicly listed firms at the OMX Nordic Exchange Stockholm in the years 1985 to 2007 (178 domestic and 62 cross-border acquisitions). Differences are tested using standard t-tests, or the Mann-Whitney test for dummy variables. \* indicates statistical significance at the 10% level, \*\* indicates statistical significance at the 5% level, and \*\*\* indicates statistical significance at the 1% level.

-

Bid announcement effect in domestic and cross-border acquisitions.

|                      | Model 1   | Model 2   | Model 3    | Model 4   | Model 5    | Model 6   |
|----------------------|-----------|-----------|------------|-----------|------------|-----------|
| Cross-border         | -0.0086** | -0.0102** |            |           | -0.0045    | -0.0062   |
|                      | (0.032)   | (0.030)   |            |           | (0.270)    | (0.189)   |
| Board participation  |           |           | 0.0145***  | 0.0135*** | 0.0130***  | 0.0122*** |
|                      |           |           | (0.001)    | (0.003)   | (0.006)    | (0.008)   |
| Toehold              |           |           | 0.0002***  | 0.0002*** | 0.0002***  | 0.0002*** |
|                      |           |           | (0.000)    | (0.000)   | (0.000)    | (0.001)   |
| Bid premium          |           | -0.0045   |            | -0.0042   |            | -0.0026   |
|                      |           | (0.649)   |            | (0.669)   |            | (0.788)   |
| Bid anticipation     |           | -0.0049   |            | -0.0047   |            | -0.0044   |
|                      |           | (0.319)   |            | (0.331)   |            | (0.356)   |
| Cash-in-payment      |           | 0.0092*   |            | 0.0068    |            | 0.0080*   |
|                      |           | (0.051)   |            | (0.124)   |            | (0.069)   |
| Market sentiment     |           | 0.0123*   |            | 0.0111*   |            | 0.0105*   |
|                      |           | (0.054)   |            | (0.062)   |            | (0.082)   |
| Market-to-book       |           | -0.0011   |            | -0.0013   |            | -0.0010   |
|                      |           | (0.302)   |            | (0.228)   |            | (0.325)   |
| Relative size        |           | -0.0055   |            | 0.0012    |            | -0.0020   |
|                      |           | (0.682)   |            | (0.922)   |            | (0.878)   |
| Industry relatedness |           | 0.0011    |            | 0.0000    |            | 0.0018    |
|                      |           | (0.804)   |            | (0.982)   |            | (0.692)   |
| Constant             | 0.0003    | -0.0025   | -0.0152*** | -0.0157*  | -0.0131*** | -0.0154*  |
|                      | (0.893)   | (0.734)   | (0.000)    | (0.076)   | (0.005)    | (0.080)   |
| Obs.                 | 240       | 240       | 240        | 240       | 240        | 240       |
| Adj. R <sup>2</sup>  | 0.013     | 0.035     | 0.060      | 0.067     | 0.060      | 0.069     |
| F-value              | 4.64**    | 1.75*     | 8.25***    | 2.50***   | 5.85***    | 2.41***   |
| (p-value)            | (0.032)   | (0.088)   | (0.000)    | (0.009)   | (0.001)    | (0.009)   |

#### Notes:

The sample consists of 240 acquisitions of publicly listed firms at the OMX Nordic Exchange Stockholm in the years 1985 to 2007 (178 domestic and 62 cross-border acquisitions). The dependent variable is the cumulative average abnormal return estimated using the market model ( $t_{200}$  to  $t_{21}$ ) and measured between days  $t_{.1}$  and  $t_{+1}$ . The independent variables are defined in Table 2 except for Cross-border, a dummy taking the value of 1 when the acquiring firm is not domiciled in Sweden. For robustness reasons, all t-tests are double-sided and computed using the Huber-White-Sandwich estimator of variance that produces consistent standard errors. P-values are shown in parentheses. \* indicate statistical significance at the 10% level, \*\* indicate statistical significance at the 5% level, and \*\*\* indicate statistical significance at the 1% level.

Tests for differences between cross-border and domestic acquisitions.

|                                     | Model 7    | Model 8   | Model 9   |
|-------------------------------------|------------|-----------|-----------|
| Cross-border                        |            | -0.0031   |           |
|                                     |            | (0.761)   |           |
| Board participation                 | 0.0149***  | 0.0140**  | 0.0140*** |
|                                     | (0.002)    | (0.012)   | (0.010)   |
| Toehold                             | 0.0003***  | 0.0002*** | 0.0002*** |
|                                     | (0.000)    | (0.002)   | (0.004)   |
| Bid premium                         |            |           | -0.0095   |
|                                     |            |           | (0.525)   |
| Bid anticipation                    |            |           | -0.0030   |
|                                     |            |           | (0.592)   |
| Cash-in-payment                     |            |           | 0.0057    |
|                                     |            |           | (0.233)   |
| Market sentiment                    |            |           | 0.0125    |
|                                     |            |           | (0.107)   |
| Market-to-book                      |            |           | -0.0021   |
|                                     |            |           | (0.122)   |
| Relative size                       |            |           | -0.0034   |
|                                     |            |           | (0.821)   |
| Industry relatedness                |            |           | 0.0012    |
|                                     |            |           | (0.797)   |
| Board participation x Cross-border  | -0.0070    | -0.0049   | -0.0039   |
|                                     | (0.243)    | (0.625)   | (0.708)   |
| Toehold x Cross-border              | -0.0000    | -0.0000   | -0.0001   |
|                                     | (0.410)    | (0.870)   | (0.332)   |
| Bid premium x Cross-border          |            |           | 0.0202    |
|                                     |            |           | (0.347)   |
| Bid anticipation x Cross-border     |            |           | -0.0029   |
|                                     |            |           | (0.809)   |
| Cash-in-payment x Cross-border      |            |           | 0.0220*   |
|                                     |            |           | (0.089)   |
| Market sentiment x Cross-border     |            |           | -0.0113   |
|                                     |            |           | (0.338)   |
| Market-to-book x Cross-border       |            |           | 0.0031    |
|                                     |            |           | (0.126)   |
| Relative size x Cross-border        |            |           | 0.0027    |
|                                     |            |           | (0.927)   |
| Industry relatedness x Cross-border |            |           | -0.0320*  |
| ~                                   |            |           | (0.077)   |
| Constant                            | -0.0147*** | -0.0137** | -0.0098   |
|                                     | (0.000)    | (0.011)   | (0.323)   |
| Obs.                                | 240        | 240       | 240       |
| Adj. $R^2$                          | 0.057      | 0.049     | 0.063     |
| F-value                             | 4.60***    | 3.67***   | 1.77**    |
| (p-value)                           | (0.001)    | (0.003)   | (0.029)   |

#### Notes:

The sample consists of 240 acquisitions of publicly listed firms at the OMX Nordic Exchange Stockholm in the years 1985 to 2007 (178 domestic and 62 cross-border acquisitions). The dependent variable is the cumulative average abnormal return estimated using the market model ( $t_{.200}$  to  $t_{.21}$ ) and measured between days  $t_{.1}$  and  $t_{+1}$ . The independent variables are defined in Table 2 except for Cross-border, a dummy taking the value of 1 when the acquiring firm is not domiciled in Sweden. For robustness reasons, all t-tests are double-sided and computed using the Huber-White-Sandwich estimator of variance that produces consistent standard errors. P-values are shown in parentheses. \* indicate statistical significance at the 10% level, \*\* indicate statistical significance at the 5% level, and \*\*\* indicate statistical significance at the 1% level.

Alternative measures of BAR.

|                      | MAR       | <u>MARM (-1;1)</u> |           | <u>MM (-1;3)</u> |           | <u>MM (-3;3)</u> |  |
|----------------------|-----------|--------------------|-----------|------------------|-----------|------------------|--|
|                      | Model 2   | Model 6            | Model 2   | Model 6          | Model 2   | Model 6          |  |
| Cross-border         | -0.0119** | -0.0078            | -0.0093** | -0.0068          | -0.0086** | -0.0063          |  |
|                      | (0.012)   | (0.103)            | (0.029)   | (0.118)          | (0.042)   | (0.220)          |  |
| Board participation  |           | 0.0121**           |           | 0.0084*          |           | 0.0073*          |  |
|                      |           | (0.011)            |           | (0.053)          |           | (0.093)          |  |
| Toehold              |           | 0.0002***          |           | 0.0001*          |           | 0.0001*          |  |
|                      |           | (0.001)            |           | (0.090)          |           | (0.075)          |  |
| Bid premium          | -0.0026   | -0.0008            | -0.0057   | -0.0068          | -0.0061   | -0.0049          |  |
|                      | (0.806)   | (0.942)            | (0.542)   | (0.644)          | (0.528)   | (0.609)          |  |
| Bid anticipation     | -0.0043   | -0.0037            | -0.0055   | -0.0055          | -0.0026   | -0.0025          |  |
|                      | (0.406)   | (0.464)            | (0.281)   | (0.270)          | (0.623)   | (0.635)          |  |
| Cash-in-payment      | 0.0102**  | 0.0091**           | 0.0139*** | 0.0132***        | 0.0097**  | 0.0090**         |  |
|                      | (0.034)   | (0.044)            | (0.001)   | (0.002)          | (0.028)   | (0.038)          |  |
| Market sentiment     | 0.0118*   | 0.0097             | 0.0085    | 0.0078           | 0.0118*   | 0.0110*          |  |
|                      | (0.079)   | (0.121)            | (0.162)   | (0.181)          | (0.065)   | (0.077)          |  |
| Market-to-book       | -0.0011   | -0.0011            | -0.0007   | -0.0006          | 0.0002    | 0.0003           |  |
|                      | (0.276)   | (0.297)            | (0.495)   | (0.523)          | (0.798)   | (0.775)          |  |
| Relative size        | -0.0080   | -0.0041            | 0.0045    | 0.0058           | 0.0086    | 0.0102           |  |
|                      | (0.580)   | (0.769)            | (0.711)   | (0.626)          | (0.510)   | (0.432)          |  |
| Industry relatedness | -0.0001   | 0.0004             | 0.0026    | 0.0034           | 0.0015    | 0.0021           |  |
|                      | (0.978)   | (0.934)            | (0.551)   | (0.439)          | (0.730)   | (0.646)          |  |
| Constant             | -0.0004   | -0.0136            | -0.0098   | -0.0177**        | -0.0084   | -0.0157**        |  |
|                      | (0.956)   | (0.138)            | (0.155)   | (0.023)          | (0.211)   | (0.046)          |  |
| Obs.                 | 240       | 240                | 240       | 240              | 240       | 240              |  |
| Adi. $R^2$           | 0.041     | 0.076              | 0.028     | 0.037            | 0.032     | 0.038            |  |
| F-value              | 2.16**    | 2.78***            | 2.26**    | 2.12**           | 1.79*     | 1.70*            |  |
| (p-value)            | (0.032)   | (0.003)            | (0.024)   | (0.024)          | (0.080)   | (0.083)          |  |

#### Notes:

The sample consists of 240 acquisitions of publicly listed firms at the OMX Nordic Exchange Stockholm in the years 1985 to 2007 (178 domestic and 62 cross-border acquisitions). Models (2) and (6) from Table 3 are tested using alternative measures of the dependent variable: bid announcement return. MARM (-1;1) is the market adjusted return model using a three-day event window (days  $t_1$  to  $t_{+1}$ ). MM (-1;3) is the market model using a five-day event window (days  $t_1$  to  $t_{+3}$ ). MM (-3;3) is the market model using a seven-day event window (days  $t_{-3}$  to  $t_{+3}$ ). The independent variables are defined in Table 2 except for Cross-border, a dummy taking the value of 1 when the acquiring firm is not domiciled in Sweden. For robustness reasons, all t-tests are double-sided and computed using the Huber-White-Sandwich estimator of variance that produces consistent standard errors. P-values are shown in parentheses. \* indicate statistical significance at the 10% level, \*\* indicate statistical significance at the 5% level, and \*\*\* indicate statistical significance at the 1% level.

Variations over time.

|                            | Model 10         | Model 11        | Model 12       | Model 13                 | Model 14     | Model 15                  |
|----------------------------|------------------|-----------------|----------------|--------------------------|--------------|---------------------------|
| Cross-border               |                  | -0.0063         |                |                          | 0.0019       | -0.0012                   |
|                            |                  | (0.229)         |                |                          | (0.736)      | (0.865)                   |
| Board participation        |                  | 0.0123***       |                | 0.0121*                  | 0.125*       | 0.0111*                   |
|                            |                  | (0.008)         |                | (0.078)                  | (0.085)      | (0.096)                   |
| Toehold                    |                  | 0.0002***       |                | 0.0002**                 | 0.0002**     | 0.0002**                  |
|                            |                  | (0.001)         |                | (0.020)                  | (0.022)      | (0.028)                   |
| Bid premium                |                  | -0.0025         |                |                          |              | -0.0031                   |
|                            |                  | (0.798)         |                |                          |              | (0.771)                   |
| Bid anticipation           |                  | -0.0044         |                |                          |              | -0.0047                   |
|                            |                  | (0.356)         |                |                          |              | (0.330)                   |
| Cash-in-payment            |                  | 0.0081*         |                |                          |              | 0.0080*                   |
|                            |                  | (0.062)         |                |                          |              | (0.067)                   |
| Market sentiment           |                  | 0.0105*         |                |                          |              | 0.0105*                   |
|                            |                  | (0.083)         |                |                          |              | (0.089)                   |
| Market-to-book             |                  | -0.0010         |                |                          |              | -0.0009                   |
|                            |                  | (0.333)         |                |                          |              | (0.403)                   |
| Relative size              |                  | -0.0018         |                |                          |              | -0.0011                   |
|                            |                  | (0.885)         |                |                          |              | (0.930)                   |
| Industry relatedness       |                  | 0.0017          |                |                          |              | 0.0014                    |
|                            |                  | (0.701)         |                |                          |              | (0.753)                   |
| Trend                      | -0.0000*         | 0.0000          |                |                          |              |                           |
|                            | (0.079)          | (0.950)         |                |                          |              |                           |
| Time                       |                  |                 | -0.0062*       | -0.0031                  | 0.0009       | 0.0004                    |
|                            |                  |                 | (0.090)        | (0.722)                  | (0.920)      | (0.970)                   |
| Cross-border x Time        |                  |                 |                |                          | -0.0086      | -0.0065                   |
|                            |                  |                 |                |                          | (0.272)      | (0.562)                   |
| Toehold x Time             |                  |                 |                | 0.0000                   | 0.0000       | 0.0000                    |
|                            |                  |                 |                | (0.849)                  | (0.955)      | (0.948)                   |
| Board participation x Time |                  |                 |                | 0.0039                   | 0.0025       | 0.0031                    |
|                            |                  |                 |                | (0.679)                  | (0.798)      | (0.753)                   |
| Constant                   | 1.0503*          | -0.058          | 0.0012         | -0.0129*                 | -0.0133*     | -0.0154                   |
|                            | (0.079)          | (0.931)         | (0.607)        | (0.064)                  | (0.075)      | (0.124)                   |
| Observations               | 240              | 240             | 240            | 240                      | 240          | 240                       |
| $Adi R^2$                  | 0.015            | 240<br>0.108    | 0.012          | +0<br>0.060              | 2+0<br>0.075 | 2 <del>4</del> 0<br>0 111 |
| F.value                    | 0.015            | 0.100<br>2 10** | 0.012<br>2.00* | 0.009<br>2 <b>0</b> 7*** | 0.075        | 1 70*                     |
|                            | 3.12*<br>(0.070) | 2.19***         | 2.90**         | 5.27°°°*                 | 2.31***      | 1.70*                     |
| (p-value)                  | (0.079)          | (0.016)         | (0.090)        | (0.007)                  | (0.017)      | (0.057)                   |

#### Notes:

The sample consists of 240 acquisitions of publicly listed firms at the OMX Nordic Exchange Stockholm in the years 1985 to 2007 (178 domestic and 62 cross-border acquisitions). The dependent variable is the cumulative average abnormal return estimated using the market model ( $t_{.200}$  to  $t_{.21}$ ) and measured between days  $t_{.1}$  and  $t_{+1}$ . The independent variables are defined in Table 2 except for Cross-border, a dummy taking the value of 1 when the acquiring firm is not domiciled in Sweden; Trend, a series of numbers (1-23) corresponding to years 1985 to 2007; Time, a dummy taking the value of 1 for years 1996 to 2007. For robustness reasons, all t-tests are double-sided and computed using the Huber-White-Sandwich estimator of variance that produces consistent standard errors. P-values are shown in parentheses. \* indicate statistical significance at the 10% level, \*\* indicate statistical significance at the 5% level, and \*\*\* indicate statistical significance at the 1% level.