UNIVERSITY OF TURKU
Turku School of Economics

Acquisition Premiums and Acquirer Returns on the Helsinki Stock Exchange

Empirical Evidence from a Small Nordic Market, 2010–2025

Accounting and Finance
Bachelor's thesis

Author:
Viljami Takkunen

Supervisor:
Md Khaled Hossain Rafi

24.4.2026
Turku

Students statement regarding the use of Artificial Intelligence (AI) for preparing and/or writing the thesis

☐ **I have not used any AI-based tools.**

☒ **I have used AI-based tools**. Their use is documented in the Appendix. The AI tools were used in a way that complies with academic integrity guidelines.

The originality of this thesis has been checked in accordance with the University of Turku quality assurance system using the Turnitin Originality Check service.

Bachelor's thesis

Subject: Accounting and Finance
Author: Viljami Takkunen
Title: Acquisition Premiums and Acquirer Returns on the Helsinki Stock Exchange
Supervisors: Md Khaled Hossain Rafi
Number of pages: 38
Date: 24.4.2026

Abstract

Mergers and acquisitions represent one of the most consequential strategic decisions available to corporate management, reshaping competitive landscapes and reallocating capital on a significant scale. International research literature consistently demonstrates that the value created by acquisitions accrues primarily to target firm shareholders, while acquirer returns average close to zero or remains statistically insignificant. Despite the breadth of this literature, small European markets such as the Helsinki Stock Exchange have received comparatively little empirical attention. The Helsinki Stock Exchange differs structurally from large markets in terms of high ownership concentration and the substantial proportion of private BidCo acquirers, making it an interesting research setting.

This bachelor's thesis examines the short-term stock price effects of public acquisitions on acquiring firms listed on the Helsinki Stock Exchange, as well as the factors explaining variation in acquisition premiums, over the period 2010–2025. The data are sourced from the LSEG Workspace database and cover acquisitions in which the target is a company listed on the Helsinki Stock Exchange and which the acquirer sought at least 50 percent control. The premium regression sample comprises 55 transactions and the event study sample 9 transactions in which the acquirer is publicly listed.

The study employs a quantitative empirical approach combining two established methods. Short-term abnormal returns for acquiring firms are examined through event study methodology using the market model around announcement dates. Variation in acquisition premiums is analyzed through OLS cross-sectional regression, with payment method, percentage of shares sought, and target leverage as explanatory variables.

The results indicate that acquisitions do not generate statistically significant abnormal returns for acquiring firms in short term: the mean cumulative abnormal return is +0.91 percent in the event window CAR [−1, +1] ($p = 0.492$). Due to the small sample size ($N = 9$), this result is exploratory in nature. The premium analysis identifies cash payment and percentage of shares sought as statistically significant determinants of acquisition premiums, while target leverage has no significant effect. The model explains approximately 20 percent of the variation in premiums.

The thesis extends the empirical evidence on M&A to an institutionally distinct small market and provides reference points for corporate managers and investors engaged in valuation and acquisition pricing in small European markets. Future research with a larger sample could incorporate industry fixed effects and acquirer-specific variables into the model.

Key words: mergers and acquisitions, acquisition premium, event study, abnormal returns, Helsinki Stock Exchange

Kandidaatintutkielma

Oppiaine: Accounting and Finance
Tekijä: Viljami Takkunen
Otsikko: Acquisition Premiums and Acquirer Returns on the Helsinki Stock Exchange
Ohjaaja: Md Khaled Hossain Rafi
Sivumäärä: 38
Päivämäärä: 24.4.2026

Tiivistelmä

Yritysostot ovat yksi merkittävimmistä yritysjohdon strategisista päätöksistä, ne muokkaavat kilpailuasetelmia ja uudelleenkohdentavat pääomaa merkittävässä mittakaavassa. Kansainvälinen tutkimuskirjallisuus osoittaa, että yritysostojen tuottama arvo ohjautuu pääosin kohdeyritysten osakkeenomistajille, kun taas ostajayritysten tuotot jäävät keskimäärin nollaan tai tilastollisesti merkityksettömiksi. Laajasta tutkimuskirjallisuudesta huolimatta pienet eurooppalaiset markkinat, kuten Helsingin pörssi ovat jääneet empiirisessä tutkimuksessa vähälle huomiolle. Helsingin pörssi eroaa rakenteeltaan suurista markkinoista muun muassa korkean omistuskonsentraation ja yksityisten BidCo-ostajien suuren osuuden vuoksi, mikä tekee siitä kiinnostavan tutkimuskohteen.

Tässä kandidaatintutkielmassa tarkastellaan Helsingin pörssissä toteutettujen julkisten yritysostojen vaikutusta ostajayritysten osakekursseihin sekä yritysostopreemioiden vaihtelua selittäviä tekijöitä vuosina 2010–2025. Aineisto on kerätty LSEG Workspace tietokannasta ja käsittää yritysostot, joissa kohde on Helsingin pörssiin listattu yhtiö ja joissa tavoiteltiin vähintään 50 prosentin määräysvaltaa. Preemioanalyysin otos koostuu 55 kaupasta ja tapahtumatutkimuksen otos 9 kaupasta, joissa ostajayritys on julkisesti listattu.

Tutkimus toteutetaan kvantitatiivisena empiirisenä analyysinä kahdella vakiintuneella menetelmällä. Ostajayritysten lyhyen aikavälin epänormaaleja tuottoja tarkastellaan tapahtumatutkimuksella markkinamallin avulla julkistamispäivän ympärillä. Preemioiden vaihtelua analysoidaan OLS-poikkileikkausregressiolla, jonka selittävinä muuttujina käytetään maksumuotoa, haettua omistusosuutta ja kohteen velkaantuneisuutta.

Tulokset osoittavat, että yritysostot eivät tuota tilastollisesti merkitsevää epänormaalia tuottoa ostajayrityksille lyhyellä aikavälillä: ostajayritysten keskimääräinen kumulatiivinen epänormaali tuotto on +0,91 prosenttia tapahtumaikkunassa CAR [−1, +1] ($p = 0,492$). Otoskoon pienuuden vuoksi ($N = 9$) tulos on luonteeltaan eksploratiivinen. Preemioanalyysi osoittaa, että käteismaksu ja haettu omistusosuus ovat tilastollisesti merkitseviä preemion selittäjiä, kun taas kohteen velkaantuneisuudella ei ole merkitsevää vaikutusta. Malli selittää noin 20 prosenttia preemioiden vaihtelusta.

Tutkielma laajentaa M&A-tutkimuksen empiiristä näyttöä institutionaalisesti erilaiselle pienelle markkinalle ja tarjoaa viitearvoja yritysjohdon ja sijoittajien arvonmääritykseen pienillä eurooppalaisilla markkinoilla. Jatkotutkimuksessa suurempi otos mahdollistaisi toimialakohtaisten tekijöiden ja ostajakohtaisten muuttujien sisällyttämisen malliin.

Avainsanat: yritysostot, yritysostopreemio, tapahtumatutkimus, epänormaalit tuotot, Helsingin pörssi

CONTENTS

TABLES

1 Introduction

Mergers and acquisitions (M&A) represent one of the most consequential strategic decisions available to corporate management, reshaping competitive landscapes and reallocating capital on a global scale. When successful, acquisitions generate value for shareholders through synergies, improved resource allocation, and enhanced market positioning. However, the empirical record is decidedly mixed: international studies consistently show that gains from acquisitions flow predominantly to the shareholders of the acquired firm, while those of the acquiring company tend to earn near-zero or statistically insignificant returns (Jensen & Ruback, 1986; Andrade, Mitchell & Stafford, 2001). This divergence stems from several factors, among them the financing method chosen, the relative size of the acquirer, and opportunistic managerial behavior.

Most of the existing M&A research draws data from large and liquid markets, most notably the United States and the United Kingdom where transaction volumes are high and data are abundant. Empirical evidence from smaller European markets remains comparatively scarce. This is a meaningful gap: smaller markets differ structurally from their larger counterparts in ownership concentration, governance practices, and the relative prevalence of private acquirers – all of which can affect how acquisitions are priced and how value is distributed between the parties (Goergen & Renneboog, 2004). The Finnish market exemplifies these characteristics. The Helsinki Stock Exchange is limited in size, dominated by a high proportion of private BidCo acquirers, and has attracted limited systematic scrutiny in the M&A literature (Rose, Sørheim & Leckerød, 2017). Whether the patterns documented in large-market research generalize to this institutional setting is an open question.

1.1 Research question

The study examines M&A activity on the Helsinki Stock exchange by analyzing acquirer announcement returns and the determinants of acquisition premiums. The study addresses the following main research question:

> **RQ:** What characterizes M&A value creation and acquisition premium determinants on the Helsinki Stock Exchange during 2010-2025?

The analysis focuses on short-term market reactions around announcement dates; questions of long-term value creation through synergy realization and post-merger integration fall outside the scope of the study. To answer the main research question, the thesis is structured around three interrelated sub-research questions:

SQ1: Can acquisitions by publicly listed acquirers generate statistically significant abnormal returns around the announcement date?

SQ2: What deal- and firm-specific factors explain the variation in acquisition premiums paid for Helsinki-listed targets?

SQ3: Is there a detectable relationship between the size of the acquisition premium and acquirer announcement returns?

The study adopts a quantitative empirical approach combining two established methods. Acquirer announcement returns are examined through event study methodology, in which abnormal returns are estimated using the market model around acquisition announcement dates. The determinants of acquisition premiums are analyzed through OLS cross-sectional regression, with deal- and target specific variables as explanatory factors. The data are sourced from LSEG Workspace and cover publicly available completed acquisitions of Helsinki-listed targets announced between 1 January 2010 and 31 December 2025.

It should be noted at the outset that the two empirical components differ considerably in scope. The premium regression draws on 55 transactions, while the event study is restricted to nine cases in which the acquirer is publicly listed with sufficient price history for market model estimation. The event study is therefore exploratory in nature and should be interpreted with caution, the premium regression constitutes the more statistically robust component of the analysis.

The study contributes to literature in two respects. Academically, it extends M&A research to a small and institutionally distinct market, adding empirical evidence from the Nordic region where systematic study remains limited. From a practical standpoint, the findings offer reference points for corporate managers, investors, and analysts engaged in M&A strategy and acquisition pricing in small European markets.

1.2 Structure

The structure of the thesis is as follows: Chapter 2 reviews the key literature on M&A value creation and premiums. Chapter 3 describes the research data and methodology. Chapter 4 presents empirical results. Chapter 5 contains the conclusions, the assessment of the results in relation to previous literature, as well as the limitations of the study and suggestions for future research.

2 Literature Review

This chapter reviews the key literature on M&A value creation and the determinants of acquisition premiums. The chapter proceeds as follows: Section 2.1 introduces the theoretical motives of acquisitions and the concept of synergy. Section 2.2 examines market efficiency as the theoretical foundation of the study. Section 2.3 addresses agency theory and the hubris hypothesis. Section 2.4 reviews the empirical evidence on value creation for the acquiring firm. Section 2.5 addresses the effect of the method of payment and section 2.6 the determinants of acquisition premiums. Section 2.7 addresses small markets and the Nordic countries.

2.1 Theoretical Background

Acquisitions are among the most significant strategic decisions available to corporate management, carrying out direct consequences for shareholder wealth. To understand why acquisitions occur and why acquirers pay a premium, it is necessary to first examine the theoretical motives underlying them.

Andrade, Mitchell and Stafford (2001) classify the motives behind acquisitions into several different categories. According to them, the key drivers of acquisitions are attempts to increase market power, to achieve efficiency and synergy benefits, to enforce market discipline and to address opportunistic management behavior. In addition, acquisitions can be related to benefits achievable through diversification. The significance of these motives varies over time and across market environments (Andrade et al., 2001). From a strategic perspective, acquisitions offer a more rapid path to growth compared with organic expansion, providing immediate access to customer bases, distribution channels, and established market positions. This strategic rationale provides a theoretical justification for the premium: the acquirer pays above market value because target's resources are worth more within the combined entity than as a standalone firm.

A central concept linking acquisition motives to premium formation is synergy. Synergies refer to the economic benefits arising from a combination, whereby the combined entity is worth more than the sum of its independently valued parts (Seth, 1990). Synergies arise when the combination of companies enables more efficient use of resources than if the companies were operating separately. When synergies are expected, the acquirer is willing to pay a price above the target's standalone market value and this surplus constitutes the acquisition premium.

Seth (1990) distinguishes between operational synergies including scale economies in procurement, marketing, research and development, and financial synergies, whereby imperfect cash flow correlation

between the combining firms reduces bankruptcy risk and enables more favorable financing (Seth, 1990, pp. 101, 104). Both synergy types justify a higher offer price and are therefore directly related to the premium determinants examined in this study. However, synergies are not guaranteed: they depend on successful post-merger integration and strategic execution, which may take years to materialize or fail entirely. This uncertainty is precisely why short-term announcement returns rather than long-term outcomes serve as the empirical measure of perceived value creation of this study.

Not all acquisitions, however, are motivated by value creation. According to Trautwein's (1990) empire-building theory, acquisitions can serve as a means for management to pursue their own interests. In this case, acquisitions enable management to increase, for example, power, status or financial incentives, even if the transaction does not generate value for shareholders (Trautwein 1990). This creates a wedge between the premium paid and the synergies expected: if management overpays due to self-interest or overconfidence, the market reaction at announcement should be negative or muted.

In summary, acquisition motives establish the theoretical basis for why premiums exist and why market reactions to announcements vary. If markets are efficient and the acquisition is perceived as value-creating, the announcement should produce a positive abnormal return for the acquirer. If the premium exceeds the expected synergy gains from a consequence of agency problems or managerial overconfidence, the market reaction should be neutral or negative. These competing predictions motivate the research questions examined empirically in chapters 3 and 4.

2.2 Market Efficiency as the theoretical foundation of the study

The methodological foundation of event study relies on the efficient markets hypothesis (EMH). Fama (1970) defines efficient markets as markets in which prices fully reflect all available information. He distinguishes three forms of market efficiency: the weak form, in which prices reflect historical price data; the semi-strong form, in which prices adjust immediately to all public information; and the strong form, in which prices also reflect insider information (Fama, 1970).

Central to the event study of this research is the semi-strong form: if markets are semi-strongly efficient, public information such as an acquisition announcement is priced into the stock immediately at the time of the announcement. MacKinlay (1997) states that the usefulness of event study is based precisely on the fact that, in informationally efficient markets, the effects of new information are reflected immediately in security prices. In this context, abnormal returns observed around announcement dates capture the market’s reaction to the information conveyed by the event (MacKinlay, 1997).

However, it is important to recognize that abnormal returns reflect market expectations rather than realized long-term value creation. Therefore, event study results should be interpreted as short-term market responses to new information, not as direct evidence of actual value creation.

Grossman and Stiglitz (1980), however, point out that perfect market efficiency is in practice an impossible state: if prices perfectly reflect all information, no one will have an incentive to acquire it. Markets are therefore inevitably partially efficient, and before a public announcement there may be information leakages that appear as abnormal returns already before the actual announcement date (Grossman & Stiglitz, 1980). This observation justifies the buffer zone [−30, −1], the purpose of which is to isolate possible prior information from the parameter estimates of the market model.

In this study, the assumption is that the Helsinki Stock Exchange is sufficiently semi-strongly efficient so that the effect of an acquisition announcement is reflected in the stock price within the event window [−1, +1]. This is an established starting point in event study research.

2.3 Agency theory and the hubris hypothesis

One of the central theoretical perspectives on acquisitions is agency theory, which holds that corporate management does not always prioritize the interests of shareholders. Agency theory is based on the premise that information asymmetry exists between management and shareholders, management can exploit its better knowledge of the company's situation to advance its own interests. According to Jensen (1986), the agency theory’s problem manifests in acquisitions when management pursues deals to serve its own interests, for example by seeking greater power, status, or personal compensation even when such transactions would not increase shareholder value. As a result, the firm can expand beyond its optimal scale and grow beyond at the expense of shareholders (Jensen, 1986).

Avery, Chevalier & Schaefer (1998) provide empirical evidence for the effects of agency problems in acquisitions. According to them, acquisitions do not increase CEO compensation but rather enhance their power and status within the broader business community. Their findings show that CEOs who complete acquisitions are significantly more likely to secure outside directorship positions compared with peers who do not (p. 27). Notably, this holds true even when the acquisition weakened company’s stock or accounting returns by as much as 10 percentage points – the likelihood of the manager gaining an outside board seat still increased by 12.6 percentage points. The probability that CEO would retain their position longer also increased following an acquisition (p. 41). These findings suggest that managerial incentives in acquisitions are not always aligned with value creation, which has direct implication for this study: if agency problems

drive acquisition decisions on the Helsinki Stock Exchange, acquirer announcement returns should be near zero or negative.

The agency problem is further amplified by free cash flow. Jensen (1986, p. 323) characterizes free cash flow as the portion of cash flow that exceeds the financing needs of all available investment opportunities with positive net present value. According to Jensen, acquisitions are one way in which management deploys excess cash rather than distributing them to shareholders (Jensen, 1986, p. 328). Considering the incentive of management acting as an agent to advance its own interest, management may undertake acquisitions that are of little benefit or value-destroying from the perspective of shareholders.

A closely related theoretical model is Roll's (1986) hubris hypothesis, which provides a complementary but distinct account of value-destroying acquisitions. According to the hypothesis, decision-makers of acquiring companies may offer excessive prices for their targets due to excessive overconfidence. (Roll, 1986, pp. 197). Where agency theory assumes that management acts consciously against the interests of shareholders, the hubris hypothesis posits that overpayment is unintentional because managers genuinely believe the acquisition creates value but systematically overestimate the synergies available.

Roll (1986, p. 202) argues that in a hubris situation, the total benefit of the acquisition for the shareholders of both the acquirer and the target is at most zero: the compensation received by target shareholders comes directly at the expense of the acquirer's shareholders. Even if the acquisition is value-destroying, the stock price reaction of the acquiring firm is not necessarily clearly negative, because the takeover bid may simultaneously convey positive information about acquirer's cash flow strength, partially masking the economic cost of overpayment (Roll, 1986, pp. 201-202). Ultimately, Roll (1986, p 213) concludes that although acquirers act as though they believe in significant acquisition benefits, systematic empirical evidence in support of such beliefs is limited.

The hubris hypothesis is complemented by empirical research of Hayward and Hambrick (1997), who demonstrates how the overconfidence experienced by the CEO materializes in premiums. They find that the praise received by the CEO in the media and the recent success of the acquiring company cause management to believe in their own abilities in an exaggerated manner, resulting in higher premiums (Hayward & Hambrick, 1997, p. 120). In their data, each unit increase in media praise of the CEO is associated with a 1.6 percentage point increase in the acquisition premium paid (Hayward & Hambrick, 1997).

Together, agency theory and the hubris hypothesis establish competing but complementary explanations for why acquirers may overpay and why acquisitions do not always create value for acquiring firm shareholders. Both theories predict that acquirer announcement returns should be close to zero or negative – agency theory

because management prioritizes its own interests, and the hubris hypothesis because management overestimates synergies. These predictions are directly tested in the event study component of this study, and the premium regression examines whether deal characteristics associated with agency problems such as the method of payment and the degree of control sought systematically explain variation in premiums paid on the Helsinki Stock Exchange.

2.4 Value creation for the acquiring firm – Empirical evidence

Empirical findings on M&A value creation are contradictory, and results vary significantly depending on the data, period and methodology used. One of the more comprehensive studies is the study by Andrade, Mitchell and Stafford (2001), which analyzes over 4,000 acquisitions over the period 1973–1998. According to their results, target firm shareholders receive significant positive abnormal returns averaging 16 percent in a three-day event window. In contrast, acquiring firm shareholders tend to earn returns close to zero, and these are not statistically significant, indicating that the value created by transactions is directed mainly towards the shareholders of the acquired firm. In addition, the method of payment has a significant effect: in stock-financed deals the abnormal return of acquirers is -1.5 percent, whereas in deals carried out with other financing methods the return is close to zero (Andrade, Mitchell & Stafford 2001).

Similar results are also presented by Jensen and Ruback (1986), whose extensive literature review finds that acquisitions overall produce positive benefits that are directed mainly to the shareholders of the target company, while those of acquiring firm do not on average experience a loss. According to them, the benefits produced by acquisitions do not appear to arise from growth in market power, but rather from other factors such as improvements in efficiency (Jensen & Ruback 1986).

The findings of Campa and Hernando (2004) on European acquisitions are consistent with this pattern. Their results show that target firm shareholders receive on average a statistically significant positive abnormal return, whereas the returns of acquiring firms are close to zero, and 55 percent of them were negative. Campa and Hernando further demonstrate that in sectors previously characterized by heavy regulation or state ownership, value creation is weaker than in more open markets (Campa & Hernando, 2004, p. 78).

Moeller, Schlingemann and Stulz (2004) found that acquisitions undertaken by large companies systematically produce weaker returns than acquisitions made by small firms. According to their results, acquisitions by smaller firms outperformed those by larger counterparts by an average of 2.24 percentage points. In addition, large firms pay on average higher acquisition premiums and participate in acquisitions where the synergy benefit obtained is on average negative. The results suggest that management

overconfidence particularly affects the decision-making of large firms regarding acquisition decisions (Moeller et al., 2004).

Long-term studies challenge this picture. The research of Loughran and Vijh (1997) shows that five-year long-term returns differ significantly depending on the method of payment: stock-financed deals see acquirers lose on average 25 percent relative to benchmark firms, whereas in cash-financed tender offers yield an average positive excess return of 61.7 percent (Loughran & Vijh, 1997). This finding is in contradiction with the short-term zero returns and suggests that markets do not fully price long-term risks at the time of announcement.

Overall, empirical literature supports the view that acquisitions create value primarily for target firms, whereas the short-term returns of acquiring companies remain modest. Over longer horizons, returns diverge markedly depending on the payment method used. This study focuses on the short-term market reaction, so the event study results are benchmarked against the findings of the short-term literature.

2.5 The effect of the method of payment

Empirical research shows that the financing method of acquisition plays a central role in determining both the returns earned by the acquiring firm and the size of the acquisition premium. Travlos (1987) demonstrates that acquisition financed with stock consideration tend to produce negative abnormal returns for the acquirer, while cash-financed acquisitions produce on average returns close to the normal-level returns. The differences between these financing methods are statistically significant, establishing the method of payment as one of the most robust determinants of value creation in acquisitions (Travlos, 1987).

These findings are explained by the signaling effect, which is rooted in the information asymmetry between management and the market. According to Myers and Majluf (1984), managers issue equity only when they believe their own stock is overvalued. Markets anticipate this incentive and therefore interpret stock-financed offers as a negative signal about the acquirer's valuation – leading to a decline in the acquirers share price at announcement. Conversely, cash financing signals that management considers its stock fairly valued or undervalues, which the market interprets positively. This asymmetry in signaling has a direct implication for premium formation: because cash provides target shareholders with certain and immediate compensation without valuation risk, acquirers must typically offer a higher premium in cash deals to secure target shareholder approval (Myers & Majluf, 1984). This prediction is tested directly in the premium regression of this study, where cash payment is included as a dummy variable and is expected to carry a positive coefficient.

Martin (1996) complements this by showing that the payment method is not arbitrary but systematically linked to the acquirer's characteristics. Most relevantly, acquirers with abundant cash relative to deal size are less likely to employ stock financing, and those with substantial growth opportunities are more inclined to distribute valuation risk among target shareholders through stock (Martin, 1996). This suggests that the method of payment reflects both acquirer's valuation and financial position, reinforcing its role as a theoretically motivated control variable in the regression model.

Loughran & Vijh (1997) extend this evidence to longer time horizons, finding that stock-financed mergers produce on average -25 percent abnormal returns over five years, whereas cash-financed acquisitions produce an average excess return of 61.7 percent. Although these long-term findings fall outside of the short-term event study conducted here, they are significant in one respect: the consistent direction of the payment method effect across both short and long horizons strengthens the theoretical case for including it as a premium determinant. If cash deals are associated with better long-term outcomes, target shareholders may demand and acquirers may be willing to pay a higher upfront premium to compensate for surrendering that optionality.

2.6 Determinants of acquisition premiums

The acquisition premium represents the compensation that the acquirer pays to target firm shareholders in exchange for surrendering ownership and control. Premium levels are shaped by several firm- and deal-specific factors, of which the most empirically established are the method of payment, the degree of control sought, target size, and target leverage. This section reviews the theoretical and empirical basis for each factor and derives the hypotheses tested in the regression analysis of this study.

The method of payment is among the most robust determinants of premium size. As established in section 2.4, cash-financed offers are typically associated with higher premiums, because cash provides target shareholders with certain and immediate compensation without valuation risk (Travlos, 1987).

Schwert (1996) provides additional nuance by decomposing the total premium into two components: the pre-announcement price run-up and the announcement-day markup. This Premium = Runup + Markup framework demonstrates that a significant portion of the total premium is often embedded in pre-announcement price movements rather than the announcement-day jump alone, a pattern relevant to this study given the presence of negative measured premiums in the sample, which likely reflect substantial pre-announcement run-ups. On the basis of signaling theory and prior empirical evidence, cash payment is expected to carry a positive coefficient in the regression models. (Schwert, 1996).

The degree of control sought is a second theoretically motivated determinant. Acquiring full control requires a control premium that compensates target shareholders for relinquishing decision-making rights. Officer (2003) demonstrates that negotiating dynamics further affect premium levels: target management can improve its bargaining position and obtain on average approximately four percent points higher premium through termination fee clauses. This suggests that premiums are not determined solely by expected synergy benefits but also reflect the relative negotiating power of the parties. In this study, the percentage of shares sought is included as a continuous variable and is expected to carry a positive coefficient, as higher ownership targets require greater compensation to target shareholders (Officer, 2003).

Target size is a theoretically relevant determinant that is not directly included in the regression model of this study. Alexandridis, Fuller, Terhaar and Travlos (2013) document a negative relationship between target size and premium: acquirers pay systematically lower premiums for larger targets, with the largest targets receiving premiums approximately 30 percentage points below those of smaller targets. They attribute this to the greater integration complexity associated with large acquisitions, which increases synergy uncertainty and leads to more conservative bids (Alexandridis et al., 2013). While target size is theoretically motivated, relative deal size was excluded from the regression model due to its mechanical relationship with the premium measure, which would introduce endogeneity bias. This represents a limitation of the current specification that future research with alternative size proxies could address.

Target leverage affects the premium through its implications for financial synergies. Seth (1990) argues that if the cash flows of the combining firms are imperfectly correlated, the optimal leverage of the combined entity increases, enabling greater tax benefits through the coinsurance effect. However, higher leverage also increases systematic risk and the required return on equity, meaning the net effect on premium size is theoretically ambiguous (Seth, 1990, pp. 434-436). Given this ambiguity, no directional hypothesis is imposed on the leverage coefficient; the variable is included to test whether target financial structure independently explains premium variation in the Finnish market, where ownership concentration and debt financing norms may differ from the large-market samples on which most prior evidence is based.

In sum, the regression model includes three variables with direct theoretical grounding in the literature reviewed above: cash payment dummy, percentage of shares sought, and target leverage. The following chapter describes the operationalization of these variables and the estimation strategy.

2.7 Small markets and the Nordic countries

Most of the empirical M&A research draws on data from large and liquid markets, particularly the United States and the United Kingdom, where transaction volumes are high and institutional frameworks are well-

documented. Smaller European markets differ structurally from these counterparts in ways that can materially affect how acquisitions are priced and how value is distributed between the parties. Despite the breadth of international M&A literature, systematic empirical evidence from Nordic markets remains scarce (Rose, Sørheim & Leckerød, 2017). This section reviews the structural characteristics that distinguish smaller European markets and establishes the specific features of the Finnish market that motivate this study.

Campa and Hernando (2004) provide a comprehensive examination of European M&A activity and document several structural differences from the United States market. The industrial structure of Europe is by nature small-firm-dominated and nationally oriented, and more than half of European acquisitions consist of domestic deals, suggesting that cross-border transactions still face significant legal, economic, and cultural barriers (Campa & Hernando, 2004, pp. 48-49). Importantly for this study, Campa and Hernando find that industries that have been state-owned or heavily regulated systematically produce weaker acquisition returns, and that industry structure and the regulatory environment explain more of the variation in target firm returns than country specific factors alone (Campa & Hernando, 2004, pp. 72, 78). This implies that sector composition of the sample rather than the Finnish market context per se may be meaningful driver of results, a limitation acknowledged in this study.

Goergen and Renneboog (2004) complement these findings by documenting that institutional differences across countries particularly ownership concentration, shareholder protection, and informational transparency systematically affect acquisition outcomes. They find that domestic acquisitions produce higher value creation than cross-border deals, consistent with the view that institutional barriers hinder synergy realization in cross-border transactions (Goergen & Renneboog, 2004, pp. 39). Given the sample of this study includes a substantial proportion of foreign acquirers targeting Finnish listed companies, this finding is directly relevant: cross-border deals in the sample may be associated with systematically different premium levels or acquirer returns than domestic transactions.

The Finnish market exhibits several structural characteristics that distinguish it from the large-market samples on which most prior evidence is based. Faccio and Lang (2002) demonstrate that Finnish listed companies have a high degree of family ownership 48.84 percent compared to the dispersed ownership structures typical of Anglo-Saxon markets (Faccio & Lang, pp 365-379, 2002). Concentrated ownership affects both negotiating power and control premium formation: a dominant shareholder can extract a higher premium by credibility threatening to withhold consent, while also making hostile takeovers effectively impossible. A further distinguishing feature of the Helsinki Stock Exchange is the high proportion of private BidCo acquirers 53 percent of the sample in this study which are shell companies established solely for the acquisition and for which no market data is available. This structural characteristic directly limits the event study sample to nine observations, as market model estimation requires a publicly listed acquirer with a continuous price history. A similar constraint has been reported in other small-market studies (Rose, Sørheim

& Leckerød, 2017), and it represents the binding sample restriction of the event study component of this thesis.

Taken together, these structural features – concentrated ownership, a high BidCo proportion, and an industry mix weighted toward technology and industrials suggests that the Finnish M&A market may produce systematically different results from those documented in large-market studies. Whether the near-zero acquirer returns and the premium determinants established in international literature generalize to this institutional setting is the central empirical question addressed in chapters 3 and 4.

3 Data and Methodology

This chapter describes the data and research methods used in the study. The chapter proceeds as follows: Section 3.1 introduces the data collection and sample selection criteria. Section 3.2 describes the event study methodology, including the market model, estimation and event windows, and the calculation of abnormal returns. Section 3.3 presents the regression model for acquisition premium determinants.

3.1 Data Collection and Sample Selection

The research data were collected from the LSEG Workspace database, a widely accepted source for academic finance research. Data on acquisitions in which the target company is listed on the Helsinki Stock Exchange were gathered from LSEG Workspace. Stock price data and market indices data were also downloaded from LSEG Workspace. Data processing and analyses were conducted using Microsoft Excel and Python.

The sample includes deals satisfying the following selection criteria:

Table 1. Selection criteria

	Selection Criterion
1	Target company is listed on Helsinki Stock Exchange (OMXH) on the announcement date
2	Announcement date falls within the period 1 January 2010 – 31 December 2025
3	Deal status is completed
4	Deal type is an acquisition or merger (M&A, Acquisition of Majority)
5	Percentage of shares sought is principally at least 50%; three exceptions (Purmo Group, Mandatum, DNA) were accepted based on multi-stage offer processes
6	Premium data or sufficient regression variables are available

Note: Selection criteria follow established practice in M&A research (cf. Andrade et al., 2001; Moeller et al., 2004).

After applying the selection criteria, the final premium regression sample comprises 55 acquisitions from 2011 to 2025. Deals lacking premium data or key regression variables were excluded from the sample. The event study sample is smaller (N = 9), as it is restricted to cases where the acquirer is also publicly listed and has sufficient price history for market model estimation.

Three initially identified listed acquirers were excluded from the event study due to insufficient price history. Evli Oyj was listed on the Helsinki Stock Exchange in April 2021; its acquisition announcement of February 2022 leaves only approximately 200 trading days of pre-announcement data, which is insufficient to fit the

estimation window [−250, -30] trading days required for the market model. Valmet Oyj was spun off and listed on the Helsinki Stock Exchange in January 2014; its acquisition announcement of Pöyry Oyj in December 2018 allows a sufficient long price history in principle, but the SDC database records Valmet as the acquirer of a subsequent deal announced in early 2022 for which the estimation window extends back into the pre-listing period, making market model estimation infeasible. Inission AB is listed on Nasdaq Stockholm and announced the acquisition of its Finnish target in a transaction for which LSEG Workspace did not provide a continuous daily price series for reliable market model estimation.

The large proportion of private Bidco acquirers in the sample (53 percent) is a characteristic feature of the Helsinki Stock Exchange that significantly limits the event study sample size. A similar phenomenon has been reported in other small-market studies (Rose, Sørheim & Leckerød, 2017)

Table 2 presents the distribution of the 55-deal premium regression sample across year, payment method, target industry, and degree of control sought.

Table 2. Sample composition: distribution by year, payment method, industry, and control

Panel A: By Year

Year	N	Total Deal Value (USD m)	Mean Deal Value (USD m)
2011	2	511	255
2012	1	2	2
2013	2	401	200
2014	6	4,316	719
2015	1	45	45
2016	4	1,374	344
2017	7	3,835	548
2018	4	7,056	1,764
2019	7	5,930	847
2020	2	4,196	2,098
2021	3	2,513	838
2022	3	796	235
2023	6	5,259	877
2024	6	637	106
2025	1	53	53
Total	**55**	**36,924**	**672**

Panel B: By Payment Method

Payment Method	N	% of Sample
Cash Only	44	80%
Stock Only	4	7.3%
Cash and Stock Combination	3	5.5%
Unknown / Other	4	7.3%
Total	**55**	**100%**

Panel C: By Target Industry

Target Industry (Macro)	N	% of Sample
High Technology	16	29.1%
Industrials	13	23.6%
Materials	6	10.9%
Real Estate	6	10.9%
Retail	4	7.3%
Telecommunications	3	5.5%
Consumer Products and Services	2	3.6%
Financials	2	3.6%
Healthcare	2	3.6%
Media and Entertainment	1	1.8%
Total	**55**	**100%**

Panel D: By Degree of Control Sought

Ownership Sought	N	% of Sample
Full control (≥ 90 % sought)	39	70.9%
Partial control (< 90 % sought)	16	29.1%
Total	**55**	**100%**

Note: Panel A: total deal value and mean value in USD millions; source: LSEG Workspace. Panel B-D: based on LSEG Workspace classifications. Unknown / Other includes deals with missing or non-standard payment classification.

3.2 Event Study Methodology

The event study is an established method for measuring the short-term effects of acquisitions. The basic idea is to compare the actual return on a stock with its expected return, under the assumption that the event under study had not occurred. The difference between the actual and expected return is called the abnormal return, which is considered to reflect the impact of the event on the stock's value (MacKinlay, 1997; Brown & Warner, 1985).

Confounding events such as earnings announcements, dividend decision, or other firm-specific news occurring within the event window were not systematically filtered. Given the small sample size (N = 9), excluding observations based on potential confounding events would have further reduced statistical power. Therefore, a formal filtering procedure was not implemented, and this limitation should be taken into account when interpreting the results.

3.2.1 Market Model

In this study, abnormal returns are estimated using the market model. The market model is the most used approach in event studies because it accounts for general market fluctuations, thereby reducing the variance of residuals compared to the simpler mean-adjusted return model (MacKinlay, 1997).

The market model is specified as follows:

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it}, \quad (1)$$

where R_{it} is the return on stock i on day t, R_{mt} is the return on the market index on day t, α_i is a firm-specific intercept, β_i is the market beta reflecting the stock's sensitivity to market movements, and ε_{it} is a zero-mean error term. The market model parameters α_i and β_i are estimated using OLS in the estimation window.

The abnormal return on day t is calculated using the estimated parameters:

$$AR_{it} = R_{it} - (\hat{\alpha}_i + \hat{\beta}_i R_{mt}), \quad (2)$$

where AR_{it} is the abnormal return of stock i on day t, and $\hat{\alpha}_i$ and $\hat{\beta}_i$ are the parameter estimates from the estimation window. The cumulative abnormal return (CAR) over the event window $[\tau_1, \tau_2]$ is calculated by summing the daily abnormal returns:

$$CAR_i[\tau_1, \tau_2] = \Sigma AR_{it}, \quad (3)$$

Benchmark indices are assigned by acquirer home exchange to improve the accuracy of expected-return estimation. Finnish acquirers (YIT, Alma Media) use the OMX Helsinki All-Share Index (OMXHPI). Swedish acquirers (SSAB, AF AB) use the OMX Stockholm All-Share Index (OMXSPI). Orkla uses the Oslo Børs Benchmark Index (OSEBX). Swiss acquirers (Georg Fischer, Geberit) use the Swiss Market Index (SSMI). US acquirers (Netflix, PPG) use the S&P 500 Total Return Index (SPXTR). The use of SPXTR introduces a minor methodological inconsistency relative to the precise return indexes used for other acquirers, as it includes dividend reinvestment; this is noted as a limitation due to data access constraints. Table 3 lists the event study sample with benchmark assignments.

Table 3. Event study sample: acquirers, targets, announcement dates, and market model inputs

Acquirer	Target	Ann. Date	RIC	Benchmark	β	R^2
YIT Oyj	Lemminkäinen Oyj	19 Jun 2017	YIT.HE	OMXH	1.205	0.312
Alma Media Oyj	Talentun Oyj	29 Sep 2015	ALN1V.HE	OMXH	0.411	0.090
SSAB AB	Rautaruukki Oyj	22 Jan 2014	SSAB-A.ST	OMXSPI	0.518	0.055
AF AB (AFRY)	Pöyry Oyj	10 Dec 2018	AF-B.ST	OMXSPI	-0.038	0.001
Orkla ASA	Kotipizza Group Oyj	22 Nov 2018	ORK.OL	OSEBX	0.102	0.004
Georg Fischer AG	Uponor Oyj	12 Jun 2023	GEORGN.S	SSMI	0.087	0.001
Geberit AG	Sanitec Abp	14 Oct 2014	GEBN.S	SSMI	0.127	0.005
Netflix Inc	Next Games Oyj	2 Mar 2022	NFLX	SPXTR	-0.135	0.004
PPG Industries	Tikkurila Oyj	18 Dec 2020	PPG	SPXTR	-0.051	0.002

Note: Benchmark indices by acquirer home exchange: OMXHPI = OMX Helsinki All-Share (Finland); OMXSPI = OMX Stockholm All-Share (Sweden); OSEBX = Oslo Børs Benchmark Index (Norway); SSMI = Swiss Market Index (Switzerland); SPXTR = S&P 500 Total Return Index (United States). β and R^2 are estimated over the estimation window [−250, -30] trading days before the announcement date.

3.2.2 Estimation Window and Event Window

The event study timeline consists of three parts: the estimation window, the event window, and the buffer period between them. In the estimation window, the market model parameters α_i and β_i are estimated to characterize the stock's normal performance prior to the announcement. In the event window, abnormal returns around the announcement are calculated.

In this study, the estimation window is [−250, −30] trading days before the announcement date. The window length is 220 trading days, equivalent to approximately one trading year. This is standard practice in event study research (MacKinlay, 1997).

The buffer period [−30, −1] is intended to prevent the influence of potential information leakage on the parameter estimates: if information about the deal leaked before the announcement, it would appear as abnormal returns immediately before the announcement date, which should not affect the baseline parameters.

The primary event window is [−1, +1], covering the day before the announcement, the announcement day itself, and the following day. The three-day window is widely used because it accounts for possible uncertainty about the exact timing of announcements: some announcements are made after market close, meaning the market reaction is not observed until the following day. In addition, windows [−2, +2] and [0, +1] are examined to verify the robustness of the results.

3.2.3 Statistical Testing

The statistical significance of the event study results is tested using a one-sample t-test, with the null hypothesis that the mean CAR equals zero. The statistic test is:

$$t = CAAR / (s / \sqrt{N}), \quad (4)$$

Where CAAR is the cross-sectional mean CAR, s is the cross-sectional standard deviation of individual CARs, and N is the number of observations. The t-statistic follows a t-distribution with N – 1 degree of freedom under the null hypothesis. A limitation of this test is that it assumes normality of the CAR values, which is not guaranteed in a small sample (N = 9). This should be considered when interpreting the results.

3.3 Premium Regression Model

The determinants of acquisition premiums are examined using OLS regression analysis (Ordinary Least Squares). The regression model is a standard approach in research on premium determinants (Alexandridis et al., 2010; Officer, 2003). Given the sample size of 52-54 usable observations, the specification is intentionally parsimonious: a richer model with additional controls such as target industry dummies, cross-border indicators, or acquirer characteristics would require more degrees of freedom than the sample can reliably support.

The baseline model (Model 1) takes the form:

$$Premium = \alpha + \beta 1\ CashPayment + \beta 2\ SharesSought + \varepsilon i, \quad (5)$$

Where Premium is the acquisition premium as a percentage four weeks before the announcement date, CashPayment is a dummy variable taking the value 1 for cash deals and 0 otherwise, SharesSought is the percentage of target shares sought in the offer, α is the intercept, β1 and β2 are regression coefficients, and εi is the error term.

The extended model (Model 2) adds target leverage as an additional explanatory variable:

$$\text{Premium} = \alpha + \beta 1\ \text{CashPayment} + \beta 2\ \text{SharesSought} + \beta 3\ \text{Leverage} + \varepsilon i, \quad (6)$$

Leverage is measured as the ratio of total liabilities to total assets (TL/TA) one year before the announcement. Relative deal size (deal value / target market value) is not included in the model because it is mechanically related to the premium measure: both variables incorporate the offer price relative to market price, which would introduce endogeneity bias. Acquirer-side variables were excluded because data were missing for 53 percent of the sample due to private BidCo acquirers; this is a data constraint rather than a theoretical choice.

Table 4 presents all regression variables, their roles in the models, and operational definitions.

Table 4. Regression variables: definitions, roles, and sources

Variable	Role in Model	Definition and Source
Premium 4w before (%)	Dependent (main)	Percentage difference between offer price and market price 4 weeks before announcement. Source: LSEG Workspace.
Premium 1d before (%)	Dependent (robustness)	Percentage difference between offer price and market price 1 day before announcement. Robustness check.
Cash payment (dummy)	Independent	Take value 1 if payment structure is Cash Only; 0 otherwise. Source: LSEG Workspace.
Percentage of shares sought (%)	Independent	Percentage of target company shares sought in the offer. Source LSEG Workspace.
Leverage (TL/TA)	Independent	Total liabilities divided by total assets 1 year before announcement. Source: LSEG Workspace.
CAR [−1, +1]	Dependent (RQ3)	Acquirer cumulative abnormal return in event window [−1, +1]. Estimated in event study.

Note: CAR [−1, +1] is used as a dependent variable only in the premium-value-creation analysis (RQ3).

Model assumptions are verified following standard practice. For heteroskedasticity, White's test is applied; if heteroskedasticity is detected, HC3-robust standard errors are reported (MacKinnon & White, 1985). To assess multicollinearity, a correlation matrix of the explanatory variables is calculated.
Robustness of the results is verified using an alternative dependent variable: the premium one day before the announcement date. If both premium measures produce qualitatively similar results, this strengthens the reliability of the findings.

3.4 Reliability and Limitations

The internal validity of the study is supported by the fact that both the event study and the regression analysis rely on established and widely used methods. The data were collected from an internationally recognized database, and the operationalization of variables follows the practices of prior literature.

The study is subject to several limitations. First, the event study sample size (N = 9) is small, which substantially reduces statistical power and limits the generalizability of the results. This constraint arises from the structure of the Helsinki Stock Exchange: the majority of acquirers in the sample are private Bidco entities whose market data is unavailable. Second, for foreign acquirers seven of the nine observations the acquirer's home-market benchmark index is used rather than OMXHPI. While this improves conceptual accuracy relative to using a single Finnish index for all acquirers, it introduces potential imprecision when the acquirer and target home markets are imperfectly correlated. Third, confounding events such as earnings announcements or dividend decisions that may coincide with the event window have not been systematically filtered, which is a common limitation in event studies with small samples. Fourth, the premium regression sample, while larger, is restricted to publicly listed targets for which premium data are available; the results therefore apply to this sub-population and should not be generalized to the broader Finnish acquisition market without caution.

It is important to emphasize that the premium regression results do not generalize to the Finnish M&A market as a whole. The analysis is restricted to transactions involving publicly listed target firms for which reliable premium data is available. As a result, the findings apply only to this specific sub-sample and should not be interpreted as representative of all Finnish M&A transactions.

4 Results

This chapter presents the empirical results of the study. The chapter proceeds as follows: Section 4.1 describes the data characteristics using descriptive statistics. Section 4.2 reports the event study results for acquirer cumulative abnormal returns. Section 4.3 examines the robustness of the results across different event windows. Section 4.4 presents the OLS regression results for acquisition premium determinants. Section 4.5 examines the relationship between premium and acquirer value creation.

4.1 Descriptive Statistics

Table 5 presents descriptive statistics for the key variables in the premium regression sample. The sample consists of 55 acquisitions in which the target was a company listed on the Helsinki Stock Exchange during 2010–2025. The statistics reveal that the data represents a wide range of deal sizes and financing structures.

Table 5. Descriptive statistics of the premium regression sample

Variable	N	Mean	Median	SD	Min	Max
Premium, 4w before (%)	54	34.48	27.00	39.21	-94.93	143.20
Premium, 1d before (%)	55	33.96	25.98	39.62	-95.12	128.43
Shares sought (%)	55	87.47	100.00	21.24	6.63	100.00
Leverage (TL/TA)	55	0.54	0.56	0.23	0.00	0.97
Deal value (USD m)	55	671.4	307.1	919.9	0.1	5342.7
Target market cap (USD m)	54	613.1	312.2	829.9	7.5	3672.3

Note: All monetary values in USD millions. Premium variables have one fewer observation (N = 54) due to one missing SDC premium value. Target market cap has N = 54 due to one missing value.

The mean acquisition premium in the sample is 34.48 percent four weeks before the announcement date, and the median is 27.00 percent. Dispersion is considerable: the minimum is −94.93 percent and the maximum is 143.20 percent. Negative premiums reflect cases where the offer price was below the target market price shortly before the announcement, which can result from an exceptional run-up in the targets share price in the period before the offer. Several such cases in the sample involve staged acquisitions or multi-month negotiation periods during which the target price was appreciated substantially before the formal announcement. This pattern is consistent with Schwert's (1996) Premium = Runup + Markup decomposition, which shows that a significant portion of the total premium is often embedded in pre-announcement price movements rather than the announcement-day jump alone. The overall level of premium dispersion is in line with Schwert's (1996) observation that premiums vary widely across transactions.

The mean percentage of shares sought is 87.47 percent and the median is 100 percent, indicating that most deals aim for full control of the target company. The minimum of 6.63 percent reflects staged acquisitions in which the acquirer accumulated a majority stake in multiple tranches. Regarding payment structure, cash is by far the most common method: 44 deals (80.0 percent of the sample) were executed in cash, four as stock swaps, three as mixed financing, and four with unknown payment method. The median market capitalization of target companies is USD 312.2 million, reflecting the small scale of the Helsinki Stock Exchange compared to major international markets.

4.2 Event Study: Acquirer Cumulative Abnormal Returns

The first research question concerns whether acquisitions generate statistically significant shareholder value for acquiring firms. The event study sample comprises nine acquisition announcements by publicly listed acquirers. Abnormal returns were estimated using the market model with acquirer home-market benchmark indices and an estimation window of [−250, −30] trading days before the announcement date.

Table 6. Acquirer cumulative abnormal returns (CARs) around acquisition announcement dates

Acquirer	Target	Ann. Date	β	R^2	CAR [−1, +1]	CAR [−2, +2]
YIT Oyj	Lemminkäinen Oyj	19.6.2017	1.205	0.312	-1.08 %	-3.83 %
Alma Media Oyj	Talentum Oyj	29.9.2015	0.411	0.090	+1.00 %	+2.92 %
SSAB AB	Rautaruukki Oyj	22.1.2014	0.518	0.055	+9.60 %	+9.94 %
AF AB (AFRY)	Pöyry Oyj	10.12.2018	-0.038	0.001	-4.87 %	-5.10 %
Orkla ASA	Kotipizza Group Oyj	22.11.2018	0.102	0.004	+1.00 %	+1.19 %
Georg Fischer AG	Uponor Oyj	12.6.2023	0.087	0.001	+1.76 %	+2.77 %
Geberit AG	Sanitec Abp	14.10.2014	0.127	0.004	+0.41 %	-1.59 %
Netflix Inc	Next Games Oyj	2.3.2022	-0.135	0.004	-0.09 %	+1.15 %
PPG Industries	Tikkurila Oyj	18.12.2020	-0.051	0.002	+0.46 %	-1.88 %
Mean (N = 9)					**+0.91 %**	**+0.62 %**
t-statistic					0.720	0.414
p-value					0.492	0.690

*Note. β and R^2 are estimated over the estimation window [−250, −30] trading days. Benchmark indices assigned by acquirer home exchange (see Table 3). CARs are computed using the market model. t-statistic tests H0: mean CAR = 0 (one-sample t-test, N = 9, df = 8). *** p < 0.01, ** p < 0.05, * <0.10.*

The mean cumulative abnormal return for acquirers in the event window [−1, +1] is +0.91 percent. The result is not statistically significant (t = 0.720; p = 0.492). In the wider event window [−2, +2], the mean CAR is +0.62 percent, also statistically insignificant (t = 0.414; p = 0.690). There is considerable variation across

individual observations: the largest positive CAR was observed in SSAB's offer for Rautaruukki (+9.60 percent in window [−1, +1]), and the largest negative CAR in AF AB's acquisition of Pöyry (−4.87 percent).

The result is consistent with international literature. Jensen and Ruback (1986) and Andrade, Mitchell, and Stafford (2001) document in comprehensive reviews that acquirer cumulative abnormal returns are typically near zero or statistically insignificant.

The cross-sectional distribution of individual CARs warrants attention. SSAB acquisition of Rautaruukki produced the largest positive CAR in the sample (+9.60 percent), substantially exceeding all other observations. Excluding this single observation, the mean CAR across the remaining eight acquirer falls to approximately -0.18 percent, suggesting that the positive sample mean is driven largely by one outlier rather than a broad pattern of positive returns. This sensitivity is an inherent consequence of the small sample size and should be considered when interpreting the mean CAR.

Campa and Hernando (2004) report the same pattern for European markets. These results should, however, be interpreted with caution: with N = 9, the study is severely underpowered. A non-significant result with this sample size is essentially uninformative about the true population mean the confidence interval around the estimated mean CAR is very wide, and the study cannot distinguish between a true zero effect and a modest positive or negative effect. The result is best understood as a descriptively consistent with international literature rather than as confirmatory evidence.

4.3 Robustness of Event Study Results

To verify the robustness of the results, CAR was calculated for five different event windows. Table 7 presents results for windows [−1, +1], [−2, +2], [0, +1], [−3, +3], and [−5, +5].

Table 7. Acquirer cumulative abnormal returns across event windows

Event Window	N	Mean CAR	SD	t-stat	p-value
[−1, +1]	9	+0.91 %	3.79 %	0.720	0.492
[−2, +2]	9	+0.62 %	4.49 %	0.414	0.690
[0, +1]	9	+0.79 %	3.34 %	0.713	0.496
[−3, +3]	9	+0.50 %	4.28 %	0.350	0.735
[−5, +5]	9	+0.42 %	5.78 %	0.217	0.833

Note: None of the event windows produce statistically significant results at conventional levels. N = 9 for all windows. One-sample t-test, H0: mean 0, df = 8. p values are two-tailed. SD = cross-sectional standard deviation.

Cumulative abnormal returns are positive across all five event windows. In none of the cases does the result reach statistical significance, which is a consistent finding given the small sample size. The consistently positive direction of results across all window specifications is nonetheless a reassuring pattern: it suggests that the near-zero result is not an artefact of a particular window choice. Brown and Warner (1985) note that directional consistency across window specifications is an important qualitative indicator of result stability in small samples.

4.4 Determinants of Acquisition Premiums

The second research question concerns which factors explain the size of acquisition premiums. Table 8 presents OLS regression results for two models. Model 1 includes payment structure and percentage of shares sought. Model 2 extends Model 1 by adding target leverage. The robustness column repeats the Model 1 analysis using an alternative dependent variable: the acquisition premium one day before the announcement date.

Relative deal size (deal value / target market value) was not included because it is mechanically related to the premium measure. Acquirer size variables were also excluded, as data was missing for 53 percent of the sample due to private Bidco acquirers. The model is therefore intentionally parsimonious, constrained by the sample structure rather than theoretical preference.

Table 8. OLS regression results: determinants of acquisition premiums

	Model 1 (N = 54)				Model 2 (N = 52)			
Variable	**β**	**SE**	**t**	**p**	**β**	**SE**	**t**	**p**
Intercept	-46.717*	23.587	-1.981	0.053	-36.988	25.723	-1.438	0.150
Cash payment (dummy)	30.963**	12.523	2.473	0.017	31.720**	12.559	2.526	0.014
Shares sought (%)	0.641***	0.230	2.791	0.007	0.654***	0.230	2.839	0.006
Leverage (TL/TA)	-	-	-	-	-20.854	21.894	-0.952	0.345
R^2	0.204				0.218			
Adj. R^2	0.173				0.171			
F-statistic (p-value)	6.53 (0.003)				4.65 (0.006)			

Robustness	**β (1d before)**	SE	t	p	**R^2**	0.209
Intercept	-49.313**	23.109	-2.134	0.037	**Adj. R^2**	0.179
Cash payment	31.161**	12.486	2.495	0.015	**F-statistic (p-value)**	6.89 (0.002)
Shares sought	0.667***	0.228	2.926	0.005		

Note: Dependent variable (Models 1 and 2): acquisition premium 4 weeks before the announcement (%). *, **, *** denote statistical significance at the 10%, 5%, and 1% levels, respectively. HC3-robust standard errors reported. Robustness column uses premium one day before announcement as dependent variable.

Although the estimated coefficients are statistically significant and economically meaningful, the results should be interpreted with caution due to the relatively small sample size. The regression analysis is based on approximately 52-54 observations, which limits the precision of the estimated coefficients and the generalizability of the findings. Therefore, the results should be interpreted as indicative relationship rather than precise estimates of economic effects.

In Model 1, both explanatory variables are statistically significant. Cash payment increases the premium by an average of 30.96 percentage points compared with other payment methods ($t = 2.473$; $p = 0.017$). This result is consistent with Travlos (1987) and Martin (1996): cash-financed offers are typically associated with higher premiums because cash provides target shareholders with certain immediate compensation without valuation risk. In stock-financed deals, target shareholders bear the risk that the value of the combined entity may not meet expectations.

The percentage of shares sought is also a statistically significant determinant: each additional percentage point in the sought ownership stake increases the premium by 0.641 percentage points ($t = 2.791$; $p = 0.007$). This is theoretically well-founded: acquiring full control requires a so-called control premium that compensates target shareholders for relinquishing control (Officer, 2003). Leverage (Model 2), in contrast, is not a statistically significant determinant ($\beta = -20.854$; $t = -0.952$; $p = 0.345$), suggesting that the target's financial structure does not independently affect the premium in this sample.

The R-squared of Model 1 is 0.204 and the adjusted R-squared is 0.173. The model is statistically significant overall ($F = 6.53$; $p = 0.003$). The explanatory power is reasonable given the parsimonious specification; in comparable premium regressions in literature, R-squared typically ranges between 0.10 and 0.30 (Alexandridis et al., 2010). The robustness check results are qualitatively similar: both variables retain their significance when the alternative premium measure is used (cash payment: $\beta = 31.161$, $p = 0.015$; shares sought: $\beta = 0.667$, $p = 0.007$). It should be noted that these findings apply specifically to acquisitions of

publicly listed target firms for which SDC premium data were available and should not be interpreted as representative of acquisition premium determinants in the Finnish M&A market as a whole.

4.5 Relationship Between Acquisition Premium and Value Creation

The third research question examines whether there is a detectable relationship between the size of the premium and acquirer value creation. The analysis examines the Pearson correlation between the acquisition premium and the acquirer's cumulative abnormal return CAR [−1, +1] for the nine cases for which both price and premium data are available. This analysis enables an empirical examination of Roll's (1986) hubris hypothesis: if acquirers pay excessive premiums due to managerial overconfidence, a negative relationship between premium size and the acquirer's stock price reaction would be expected.

The Pearson correlation coefficient between the premium and CAR [−1, +1] is r = −0.184 (p = 0.635). The relationship is slightly negative in direction, which is directionally consistent with the hubris hypothesis. However, with N = 9, this result is entirely uninformative statistically: the confidence interval around r is extremely wide, and no meaningful inference can be drawn. The finding should be presented purely as a descriptive pattern – the negative direction is consistent with theory, but the study is far too underpowered to treat this as evidence in favor of hubris.

4.6 Summary

The results of the study can be summarized as follows. First, the event study does not demonstrate statistically significant value creation for acquiring firms: the mean acquirer CAR [−1, +1] is +0.91 percent (t = 0.720; p = 0.492), and the results are consistently positive but insignificant across all five event windows. Given the sample size of nine, no strong inference is possible; the result is descriptively consistent with the international literature showing near-zero average acquirer returns. Second, the premium analysis identifies two statistically significant determinants: cash payment (β = 30.963, p = 0.017), and shares sought (β= 0.641, p = 0.007)**,** while leverage is not significant. The model explains 20.4 percent of the variation in premiums and is robust to the alternative premium measure. Third, the premium– CAR correlation is weakly negative (r= -0.184) and statistically insignificant; it is presented as a descriptive pattern consistent with the direction implied by the hubris hypothesis, not as confirmatory evidence.

5 Conclusion

The event study results indicate that acquisitions do not generate statistically significant abnormal returns for acquiring firms in the short term. The mean cumulative abnormal return in the primary event window CAR [−1, +1] is 0.91 percent (t = 0.720; p = 0.492), and the result remains statistically insignificant across all five event windows examined. It should be noted that this positive mean is sensitive to a single outlier observation: excluding SSAB acquisition of Rautaruukki (+9.60 percent), the mean CAR across the remaining eight acquirers is approximately -0.18 percent. The result is therefore better characterized as statistically and economically indistinguishable from zero.

These findings are consistent with international literature, particularly Andrade, Mitchell and Stafford (2001) and Jensen and Ruback (1986), which documented near-zero average acquirer returns around acquisition announcements, and Campa and Hernando (2004), who report the same pattern for European markets. It must be emphasized, however, that with a sample size of nine observations the event study is severely underpowered. The absence of statistical significance does not constitute evidence of a true zero effect; the confidence interval around estimated mean CAR is too wide to permit meaningful inference. The result should therefore be interpreted as descriptively consistent with international evidence rather than as confirmatory.

Premium regression constitutes the more statistically robust component of the study. Two variables emerge as statistically significant determinants of acquisition premiums. Cash payment increases the premium by an average of 30.96 percentage points relative to other payment methods (p = 0.017). This is consistent with the signaling theory of Myers and Majluf (1984) and the empirical evidence of Travlos (1987): cash-financed offers provide target shareholders with certain and immediate compensation, requiring acquirers to offer a higher premium to secure approval. The percentage of shares sought is also a significant determinant, with each additional percentage point associated with a 0.64 percentage point increase in the premium (p = 0.007), consistent with Officer 's (2003) argument that acquiring full control requires compensation for the relinquishment of decision-making rights. Target leverage, in contrast, is not statistically significant determinant, suggesting that the target’s financial structure does not independently explain variation in the sample. The model explains approximately 20 percent of variation in premiums, which is in line with comparable premium regressions in the literature (Alexandridis, Fuller, Terhaar & Travlos 2010). The robustness check using the alternative premium measure one day before announcement produces qualitatively similar results, strengthening the reliability of the findings.

The relationship between acquisition premium and acquirer value creation was examined through the Pearson correlation between the premium size and acquirer CAR [−1, +1]. The correlation coefficient is r = -0.184 (p = 0.635), which is directionally consistent with Roll's (1986) hubris hypothesis: if acquirers overpay

due to managerial overconfidence, larger premiums should be associated with weaker acquirer returns. However, with only nine observations, this result is entirely uninformative statistically and should be treated purely as a descriptive pattern. No meaningful inference regarding the hubris hypothesis can be drawn from a sample of this size.

Taken together, the findings suggest that the pattern documented in international M&A literature broadly generalizes to the Helsinki Stock Exchange. Acquirer announcement returns are near zero and statistically insignificant, and the two most robust premium determinants identified in large-market studies – payment method and degree of control sought – retain their explanatory power in the Finnish setting. This contributes empirical evidence from a small and institutionally distinct market where systematic research has previously been limited.

Several limitations of this study must be acknowledged. The event study sample of nine observations severely restricts statistical power and generalizability. Seven of the nine acquirers are foreign firms, and their abnormal returns are estimated using home-market benchmark indices rather than a Finnish index, which introduces residual measurement imprecision. Confounding events within the event window were not systematically filtered, which represents a further methodological constraint. The premium regression, while larger, is restricted to publicly listed targets for which SDC premium data are available, and the results should not be generalized to the broader Finnish acquisition market. Acquirer-side variables could not be included due to missing data of the majority of private BidCo acquirers.

Future research with larger sample could incorporate target industry fixed effects and acquirer domicile as additional controls, which the present sample size does not reliably support. A sample restricted to publicly listed acquirers would enable a richer model specification and more credible event study inference. Extending the analysis to longer post-merger performance windows would further illuminate whether the near-zero short-term returns genuinely reflect value neutrality or merely delayed market pricing.

References

Alexandridis, G., Fuller, K. P., Terhaar, L., & Travlos, N. G. (2013). Deal Size, Acquisition Premia and Shareholder Gains. *Journal of Corporate Finance*, *20*(1), 1–13. https://doi.org/10.1016/j.jcorpfin.2012.12.001

Andrade, G., Mitchell, M., & Stafford, E. (2001). The New Evidence and Perspectives on Mergers. *Journal of Economic Perspectives*, *15*(2), 103–120. https://doi.org/10.1257/jep.15.2.103

Avery, C., Chevalier, J. A., & Schaefer, S. (1998). Why Do Managers Undertake Acquisitions? An Analysis of Internal and External Rewards for Acquisitiveness. *The Journal of Law, Economics, and Organization*, *14*(1), 24–43. https://doi.org/10.1093/OXFORDJOURNALS.JLEO.A023398

Brown, S. J., & Warner, J. B. (1985). Using Daily Stock Returns: The Case of Event Studies. *Journal of Financial Economics*, *14*(1), 3–31. https://doi.org/10.1016/0304-405X(85)90042-X

Campa, M. J., & Hernando, I. (2004). Shareholder Value Creation in European M&As. *European Financial Management*, *10*(1), 47–81. https://doi.org/10.1111/j.1468-036X.2004.00243.x

Faccio, M., & Lang, L. H. P. (2002). The Ultimate Ownership of Western European Corporations. *Journal of Financial Economics*, *65*(3), 365–395. https://doi.org/10.1016/S0304-405X(02)00146-0

Fama, E. F. (1970). *Efficient Capital Markets:* A Review of Theory and Empirical Work. *Journal of Finance 25*(2), 383–417. https://doi.org/10.1111/j.1540-6261.1970.tb00518.x

Goergen, M., & Renneboog, L. (2004a). Shareholder Wealth Effects of European Domestic and Cross-border Takeover Bids. *European Financial Management*, *10*(1), 9–45. https://doi.org/10.1111/J.1468-036X.2004.00239.X

Grossman, S. J., & Stiglitz, J. E. (1980). On the Impossibility of Informationally Efficient Markets. *The American Economic Review*, *70*(3), 393–408. https://doi.org/10.2307/1803029

Hayward, M. L. A., & Hambrick, D. C. (1997). Explaining the Premiums Paid for Large Acquisitions: Evidence of CEO Hubris. *Administrative Science Quarterly*, *42*(1), 103–127. https://doi.org/10.2307/2393810

Jensen, M. C. (1986). Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers. *The American Economic Review*, *76*(2), 323–329. https://doi.org/10.2307/1816530

Loughran, T., & Vijh, A. M. (1997). Do Long-Term Shareholders Benefit From Corporate Acquisitions? *The Journal of Finance*, *52*(5), 1765–1790. https://doi.org/10.1111/j.1540-6261.1997.tb02741.x

MacKinlay, A. C. (1997). Event Studies in Economics and Finance. *Journal of Economic Literature*, *35*(1), 13–39. https://doi.org/10.1257/jel.35.1.13

MacKinnon, J. G., & White, H. (1985). Some Heteroskedasticity-Consistent Covariance Matrix Estimators with Improved Finite Sample Properties. *Journal of Econometrics*, *29*(3), 305–325. https://doi.org/10.1016/0304-4076(85)90158-7

Martin, K. J. (1996). The Method of Payment in Corporate Acquisitions, Investment Opportunities, and Management Ownership. *The Journal of Finance*, *51*(4), 1227–1246. https://doi.org/10.1111/j.1540-6261.1996.tb04068.x

Moeller, S. B., Schlingemann, F. P., & Stulz, R. M. (2004). Firm size and the gains from acquisitions. *Journal on Financial Economics*, *73*(1), 201–228. https://doi.org/10.1016/j.jfineco.2003.07.002

Myers, S. C., & Majluf, N. S. (1984). Corporate Financing and Investments Decisions When Firms Have Information That Investors Do Not Have. *Journal of Financial Economics*, *13*(2), 187–221. https://doi.org/10.1016/0304-405X(84)90023-0

Officer, M. S. (2003). Termination fees in mergers and acquisitions. *Journal of Financial Economics*, *69*(3), 431–467. https://doi.org/10.1016/S0304-405X(03)00084-2

Roll, R. (1986). The Hubris Hypothesis of Corporate Takeovers. *The Journal of Business*, *59*(2), 197–216. https://doi.org/10.2307/2327666

Rose, C., Sørheim, D., & Lerkerød, M. (2017a). In search of value drivers in mergers and acquisitions: The Nordic evidence. *International Journal of Business Science and Applied Management*, *12*(1), 1–28. https://doi.org/10.69864/IJBSAM.12-1.122

Schwert, G. W. (1996). Markup pricing in mergers and acquisitions. *Journal of Financial Economics* https://doi.org/10.1016/0304-405X(95)00838-G

Seth, A. (1990). Sources of Value Creation in Acquisitions: An Empirical Investigation. *Strategic Management Journal*, *11*, 431–446. https://doi.org/10.1002/smj.4250110603

Trautwein, F. (1990). Merger Motives and Merger Prescriptions. *Strategic Management Journal*, *11*(4), 283–295. https://doi.org/10.1002/smj.4250110404

Travlos, N. G. (1987). Corporate Takeover Bids, Methods of Payment, and Bidding Firms' Stock Returns. *The Journal of Finance*, *42*(4), 943–963. https://doi.org/10.1111/j.1540-6261.1987.tb03921.x

Appendix: Use of Artificial Intelligence

In the creation of this thesis, generative artificial intelligence was used as a support tool in the composition and editing stage of the writing process. The primary tool used was Claude Pro (Anthropic). All text submitted to the tool was written by the author first; the AI was used solely to refine and improve existing content. All analytical decisions, empirical choices, interpretations of results, and conclusions are solely the author's own. No AI-generated arguments, analyses, or conclusions were incorporated into the thesis.

1. Tool: Claude Pro (Anthropic)

Stage of Use: Claude was used to proofread the author's own written text for spelling, grammar, and to rephrase individual sentences and passages to improve clarity and academic tone.

Example Prompt: “Please check the following paragraph for spelling and grammar errors.”
Example Prompt: Please rephrase the following sentence in more academic tone.”

Verification: All AI-suggested changes were carefully reviewed by the author before acceptance. The revised text was compared against the original to ensure that the meaning, arguments, and interpretations remained unchanged throughout.