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In Cash We Trust, but is Cash King?
Payment Method Choice and Abnormal Acquirer Returns in Nordic M&A Deals

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Abstract: We examine the method-of-payment effect on acquirer announcement-period abnormal returns in the four main Nordic M&A markets, filling a geographic gap in the empirical literature. Despite the volume and economic relevance of Nordic deal activity, large sample evidence on the cash-stock differential outside Anglo-American markets remains sparse, and the institutional features of the Nordic setting make the external validity of the established benchmarks open for questioning. Drawing on the adverse selection framework, we test whether stock-financed acquirers earn lower announcement-period cumulative abnormal returns than cash-financed acquirers, and that this differential is amplified in proportionally larger transactions. Using data of deals announced between 2006 – 2025 in Denmark, Finland, Norway, and Sweden, we estimate 5-day CARs around the announcement date and run univariate tests and multivariate regressions testing the cash-stock differential. Both hypotheses are directionally supported, although the main specifications are not formally established at conventional significance levels, and we document heterogeneity across the four markets.

Keywords: Mergers & Acquisitions (M&A), Cumulative Abnormal Returns (CAR), Method of Payment, Event-Study Methodology, Nordic Capital Markets

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1. Introduction

Mergers and acquisitions (M&A) constitute one of the most consequential investment decisions available to corporate management and represent a primary mechanism for which capital is reallocated across firms and industries. Since 2000, more than 790,000 M&A transactions have been announced globally, with a combined known value exceeding USD 57 trillion (Institute for Mergers, Acquisitions and Alliances, 2024). Nordic M&A activity has grown into a significant force in the European deal market, with total regional deal value reaching USD 105.2 billion in 2022 alone (White & Case, 2022). Despite the scale, the question of whether acquisitions create or destroy value for shareholders of the acquiring firm remains empirically unresolved, and the conditions under which value is created or destroyed remain a central piece of M&A literature and research.

Within the broader debate, the method by which an acquisition is financed and paid has emerged as one of the most robust and theoretically grounded determinants of acquirer announcement-period abnormal returns. The theoretical foundation rests on the adverse selection framework (Myers and Majluf, 1984), who demonstrate that in the presence of information asymmetry between corporate insiders and the capital market, managers will elect to issue equity only when they believe the firm's shares to be overvalued. Rational investors, anticipating this incentive structure, interpret a stock-financed acquisition as a negative signal about the intrinsic value of the acquiring firm and mark down its share price accordingly upon deal announcement. Cash-financed acquisitions, by contrast, involve no new equity issuance and therefore transmit no adverse selection information to the market. This asymmetry between cash and stock as deal currencies generates a systematic differential in acquirer announcement returns, first documented empirically by Travlos (1987) and subsequently confirmed across multiple time periods, geographies, and methodological frameworks (Andrade, Mitchell and Stafford, 2001; Fuller, Netter and Stegemoller, 2002; Golubov, Petmezas and Travlos, 2016).

Existing literature, however, is subject to a clear and important limitation; it is concentrated almost exclusively on Anglo-American markets, principally the US and, to a lesser degree, the United Kingdom. Evidence from smaller, institutionally distinct markets is sparse and evidence from the Nordic markets in particular is effectively absent at the scale and over the time horizon required to draw reliable inferences. Nordic public equity markets operate within an institutional environment characterized by high corporate transparency, relatively concentrated ownership structures, active institutional investor bases, and takeover markets that are considerably less competitive than those of the US or UK. Alexandridis, Petmezas and Travlos

(2010) demonstrate that stock-financed acquisitions do not destroy value outside the three most competitive Anglo-American takeover markets, a result that raises the question of whether the adverse selection mechanism documented for the US translates to the Nordic setting. Whether the method-of-payment effect operates with the same sign, magnitude, and cross-sectional structure in the Nordic market context is an empirical question that motivates this study, and our thesis will investigate the following research question: Does the method of payment in Nordic M&A transactions affect the acquirer's announcement-period abnormal returns?

We examine this question using a sample of completed M&A transactions by publicly listed main Nordic M&A market (Denmark, Finland, Norway, and Sweden) acquirers announced between January 1st, 2006, and December 31st, 2025. The sample is restricted to transactions paid either entirely by cash or entirely in stock, with a minimum deal value of €1 million, and requires that the acquirer obtains majority control of the target. We apply an event study methodology using the Market-Adjusted Model with a 5-day event window [−2, +2] around the announcement date to estimate cumulative abnormal returns (CARs). Two formal hypotheses are tested. Firstly, whether acquirers using stock as their method of payment in Nordic acquisitions experience lower announcement-period abnormal returns than acquirers using cash. Secondly, whether the payment method effect is moderated by relative deal size, such that cash-stock differences are more pronounced for larger transactions.

Hypothesis 1 operationalizes the core prediction of the Myers and Majluf (1984) adverse selection model in the Nordic context. Hypothesis 2 extends this to a cross-sectional dimension: the adverse selection cost embedded in a stock bid scales with the implied equity issuance and therefore with deal value relative to the acquirer's market capitalisation, so the cash-stock return differential should be amplified in larger transactions (Fuller, Netter and Stegemoller, 2002; Moeller, Schlingemann and Stulz, 2004).

Our study makes three main contributions to the existing literature. First, it provides the first systematic, large-sample examination of the method-of-payment effect for the main Nordic M&A market's public acquirers, filling a geographic gap in the empirical M&A literature. Second, the twenty-year sample period spans two merger waves, a global financial crisis, a pandemic, and multiple interest rate cycles, enabling assessment of whether the cash-stock differential is stable across materially different macroeconomic environments. Third, by testing the moderation of the method-of-payment effect by relative deal size, the study contributes to

the cross-sectional literature on the determinants of acquirer announcement returns in a market whose institutional characteristics have not previously been exploited for this purpose.

The full sample of 1,205 Nordic deals exhibits a positive mean 5-day cumulative abnormal return of 3.72%, with both the stock subsample (6.06%) and the cash subsample (3.41%) centred above zero. The unconditional comparison therefore runs counter to H1, but once acquirer and deal characteristics, year, industry, and country fixed effects are introduced, the cash-stock differential reverses to the predicted sign at -1.89 p.p., with a propensity-score-matched specification roughly doubling the estimate to -3.88 p.p. The H2 moderation test similarly yields point estimates consistent with the predicted pattern, as the marginal effect of stock financing deepens from -1.51 p.p. in the lower two terciles of stock-deal relative size to -3.34 p.p. in the top tercile. Neither the H1 main coefficient nor the H2 interaction is statistically significant at conventional levels, and we therefore read both hypotheses as directionally supported but not formally established, with substantial cross-country heterogeneity across the four markets that we return to in Section 5.

The remainder of the thesis is structured as follows. In Section 2, we review the theoretical foundations and empirical literature underpinning the research question and develop the formal hypotheses. Section 3 presents the research design, our variables, and the sample selection criteria. Section 4 presents descriptive statistics of the sample, the hypothesis and robustness testing, and reports the empirical results. In Section 5, we will discuss the results, followed by our conclusions in Section 6.

2. Literature and Theory

2.1 Theoretical Perspective

2.1.1 The Market for Corporate Control

The study of acquirer announcement returns is situated within the broader theoretical literature on the market for corporate control, a concept formalised by Jensen and Ruback (1983). In their framework, managerial teams compete for the right to govern corporate resources, and takeover activity serves as a disciplining mechanism. When incumbent management fails to maximise shareholder value, external bidders can acquire control, replace management, and operate the firm's assets more efficiently. Jensen and Ruback (1983) review the early empirical evidence and conclude that corporate takeovers generate positive aggregate gains, that target firm shareholders benefit substantially, and that bidding firm shareholders do not lose on average. This early characterisation of M&A as broadly value-creating has been complicated

considerably by subsequent research, yet the conceptual framework – that the market for corporate control allocates the right to manage corporate assets to the most productive users – remains the organising theoretical lens of the empirical M&A literature.

2.1.2 Information Asymmetry & Adverse Selection Model

The theoretical cornerstone of the method-of-payment literature is the adverse selection model (Myers and Majluf, 1984). Their model formalises a corporate financing decision under conditions of information asymmetry, managers possess private information about the true value of the firm's assets and investment opportunities that outside investors cannot directly observe. In this environment, rational managers acting in the interest of existing shareholders will choose to issue new equity only when they believe the firm's shares to be overvalued relative to their intrinsic value. Issuing equity at a price above true value transfers wealth from new shareholders to old, which managers seek to exploit when the opportunity presents itself. Rational investors that anticipate this incentive structure interpret any equity issuance as a negative signal for new and potential shareholders. If management is willing to sell shares, it is likely because the shares are priced above their fundamental value. The equilibrium outcome is a negative stock price reaction to equity issuance announcements, the magnitude of which is increasing in the degree of information asymmetry between managers and the market.

Applied to M&A, the implications are direct. A stock-financed acquisition is simultaneously a takeover announcement and an equity issuance. The market processes both signals jointly upon announcement. The takeover itself may convey positive information, such as the existence of anticipated synergies, but combined with the equity issuance signal, it is negative. The net announcement return to stock-financed acquirers reflects the net response of these two signals. Cash-financed acquisitions, on the other hand, require no new equity issuance and therefore carry no adverse selection cost. The market reacts to the takeover announcement in isolation, without the downward pressure of an implied equity overvaluation signal. This asymmetry is the theoretical engine of the method-of-payment effect and provides the foundation for H1.

The Myers and Majluf (1984) adverse selection model is closely related to the pecking order theory of capital structure (Myers, 1984), which posits that firms prefer internal financing over external debt, and external debt over external equity. The implied preference for cash over stock in M&A transactions follows the same underlying logic. Cash financing, whether from internal reserves or external debt, avoids the adverse selection cost associated with equity issuance, whereas stock financing incurs it. This theoretical hierarchy generates a clear empirical

prediction, acquirers choosing to finance acquisitions with cash should earn higher announcement-period returns than those choosing to finance with stock.

2.1.3 Relative Deal Size & Amplification of Adverse Selection

A natural extension of the Myers and Majluf (1984) framework is the relationship between the magnitude of the equity issuance and the severity of the adverse selection effect. The model implies that the negative market reaction to equity issuance is increasing in the volume of new equity issued. A larger issuance requires the market to absorb a greater quantity of potentially overvalued stock, intensifying the downward price pressure on the acquirer's shares. In the context of stock-financed M&A, the scale of the implied equity issuance is directly proportional to the deal value. Normalising by the acquirer's market capitalisation yields the relative deal size (transaction value divided by the acquirer's pre-announcement market capitalisation) which measures the implied equity issuance as a fraction of the acquirer's existing equity base.

All else equal, a stock-financed acquisition with a high relative deal size should generate a more negative acquirer announcement return than one with a low relative deal size, because the adverse selection signal is proportionally stronger and the dilution of existing shareholders is proportionally greater. For cash-financed acquirers, relative deal size carries no such amplifying effect on the method-of-payment signal, though it may independently affect announcement returns through other channels such as integration complexity or risk. The interaction between financing method and relative deal size therefore provides a testable cross-sectional prediction. That the return differential between cash and stock acquirers widens with relative deal size, which is the basis for H2.

2.2 Empirical Literature Review

2.2.1 Acquirer Announcement Returns

The empirical study of M&A announcement returns is one of the most extensively developed areas of corporate finance. The early evidence, reviewed in Jensen and Ruback (1983), concludes that target firm shareholders benefit substantially from takeovers, with abnormal returns of around 20–30% for successful tender offers, and that bidding firm shareholders do not lose on average. Subsequent research using larger samples and longer time periods has presented a considerably more nuanced picture.

Andrade, Mitchell, and Stafford (2001) examine 3,688 completed US mergers from 1973 to 1998 and document that acquirers earn an average 3-day announcement return of approximately -0.7%, while the combined value-weighted acquirer-target return is a positive 1.8%. Their

findings establish a pattern that has since become the standard characterisation of M&A wealth effects. Mergers create value in aggregate, but that value accrues primarily to target shareholders. Acquirers, at best, break even. Moeller, Schlingemann and Stulz (2004) extend this analysis to 12,023 acquisitions by US public firms from 1980 to 2001. They document a divergence between the equally weighted average abnormal return of positive 1.1% and the dollar-weighted average loss of approximately USD 25.2 million per announcement. Furthermore, large acquirers earn announcement returns approximately two p.p. lower than small acquirers, irrespective of financing method or target type, after controlling for a wide range of firm and deal characteristics. The value destruction documented for M&A in aggregate is concentrated in large deals by large acquirers. Smaller transactions, particularly by smaller firms, more often generate positive acquirer returns.

European evidence is broadly consistent with, but somewhat more favourable than, the US findings. Martynova and Renneboog (2011) examine a large sample of European takeovers across five merger waves and document small but on average positive acquirer announcement returns, with significant cross-sectional variation driven by deal characteristics including method of payment, target listing status, and the geographic scope of the transaction. For the Nordic region, systematic large-sample evidence remains sparse. One study of 118 public-to-public Nordic transactions announced over 2000 to 2022 documents statistically significant positive acquirer CARs of approximately 1.4% in the [-1, +1] event window (Nyholm and Lomholt, 2022). The positive average return observed in this smaller-market setting is consistent with the hypothesis that acquirers in less competitive takeover markets retain a larger share of the synergy gains created by a transaction, developed on further in Section 2.2.4.

2.2.2 Event Study Methodology

The event study methodology is the standard empirical tool for isolating and measuring announcement-period abnormal returns. The foundational methodological contributions are Brown and Warner (1980, 1985). Brown and Warner (1985), in particular, establish the statistical properties of abnormal return estimators using daily stock return data. They demonstrate that short-horizon event studies based on simple market-adjusted returns, where expected returns are approximated by the contemporaneous return on the market index, without estimating firm-specific betas, yield well-specified test statistics and are robust to departures from the normality assumption and to misspecification of the return-generating process. This robustness makes the market-adjusted model particularly well suited to multi-country, long-horizon samples such as ours, in which reliable beta estimation is complicated by cross-country

differences in index composition and by the structural breaks associated with two merger waves and a global financial crisis.

The event window involves a trade-off between capturing the full market reaction to the announcement and minimising contamination from unrelated information events. The 3-day [-1, +1] window used by Andrade, Mitchell and Stafford (2001) and Moeller, Schlingemann and Stulz (2004) is the most common choice in the US literature. Fuller, Netter and Stegemoller (2002) employ a 5-day [-2, +2] window to accommodate potential information leakage in the days immediately preceding the public announcement, a consideration that is particularly relevant when announcements follow periods of abnormal trading volume or price run-up, and potential delayed market processing in the days immediately following. Thus, we adopt the 5-day [-2, +2] window for the same reasons.

2.2.3 The Method-of-Payment Effect

The method-of-payment effect is the central empirical regularity underpinning this study. The foundational contribution is Travlos (1987), who examines 167 successful US takeover bids announced between 1972 and 1981 and documents that acquirers in pure common stock exchange offers earn average abnormal returns of approximately -1.47% over a 2-day event window centred on the announcement, while acquirers in pure cash offers earn returns statistically indistinguishable from zero. These results are independent of deal type, whether structured as a merger or a tender offer (and of bid outcome), strongly suggesting that the return differential is attributable to the financing choice itself rather than to confounding deal characteristics. Travlos (1987) explicitly attributes the differential to the signalling effects predicted by Myers and Majluf (1984). Stock issuance signals management's belief that the firm is overvalued, and the market responds accordingly.

The subsequent empirical literature has confirmed and extended this result with considerable consistency. Andrade, Mitchell, and Stafford (2001) document that the method-of-payment differential holds across the full 1973-1998 US sample period and note that the prevalence of all-stock financing in the 1990s merger wave contributed to the particularly poor average acquirer returns recorded during that period. Fuller, Netter and Stegemoller (2002) advance the empirical identification strategy by exploiting a within-bidder research design. By studying firms that make five or more acquisitions in a short time window, they are able to control for time-invariant acquirer characteristics and identify the method-of-payment effect from variation within the same firm's acquisition programme. For acquisitions of publicly listed

targets, stock offers generate significantly lower acquirer CARs than cash offers, a result robust to a wide array of controls for firm and deal characteristics.

Golubov, Petmezas and Travlos (2016) provide the most methodologically rigorous test of the adverse selection explanation to date. Their central contribution is to decompose the announcement-period return of a stock-financed acquisition into two distinct components: the pure acquisition effect, reflecting the market's assessment of deal quality and anticipated synergies; and the equity issuance effect, reflecting the adverse selection cost of issuing stock. The equity issuance component is estimated using seasoned equity offering (SEO) announcement returns for firms similar to the acquirer, employing both linear prediction and propensity-score matching to construct the counterfactual. They find that once the equity issuance cost is netted out, the method of payment has no residual explanatory power in the cross-section of acquirer announcement returns. The negative abnormal returns observed for stock acquirers in the raw data are attributable almost entirely to the adverse selection cost of the simultaneous equity issuance, not to any inherent deficiency in the acquisition itself. This result directly validates the Myers and Majluf (1984) mechanism as the causal driver of the method-of-payment effect, provides a clean theoretical interpretation of the empirical regularities documented since Travlos (1987), and underpins the rationale for H1.

Additional cross-sectional evidence on the adverse selection channel is provided by Moeller, Schlingemann and Stulz (2007), who examine the role of information asymmetry in shaping acquirer announcement returns. Using analyst forecast dispersion as a proxy for the degree of information asymmetry between managers and investors, they find that acquirers facing greater information asymmetry earn significantly lower announcement returns in stock-financed acquisitions of public targets. This pattern is what Myers and Majluf (1984) predict. The adverse selection cost of equity issuance, and therefore the return penalty for stock acquirers, is more severe when the information gap between insiders and the market is wider. The cross-sectional heterogeneity in information asymmetry thus serves as an independent validation of the theoretical mechanism linking equity issuance to negative announcement returns.

2.2.4 Relative Deal Size & Cross-Section of Acquirer Returns

A complementary part of the empirical literature examines how deal-level characteristics moderate the method-of-payment effect in the cross-section of acquirer announcement returns. Fuller, Netter and Stegemoller (2002) document that acquirer returns are positively associated with relative target size in acquisitions of private and subsidiary targets, a result they attribute

to the liquidity discount available when acquiring less liquid assets. Larger illiquid acquisitions yield proportionally greater bargaining advantages for the acquirer. For acquisitions of publicly listed targets, the relationship is theoretically different. A larger stock-financed deal in a public-to-public context implies a proportionally larger equity issuance, amplifying both the dilution of existing shareholders and the adverse selection signal transmitted to the market. The prediction that the return differential between cash and stock acquirers is wider for larger deals, the basis for H2, follows from this logic.

Moeller, Schlingemann and Stulz (2004) document a robust and economically significant size effect in acquirer announcement returns. Small acquirers earn approximately two p.p. more at announcement than large acquirers, irrespective of financing form, target type, or time period. They attribute this in part to the agency costs of large organisations, including greater managerial entrenchment, weaker internal governance, and a tendency to pursue overly ambitious deals, and in part to the market's rational expectation that large acquirers are more likely to overpay. Crucially, this size effect operates independently of the method-of-payment effect, suggesting that acquirer size and deal size are moderating influences on announcement returns in their own right, above and beyond the financing choice. Together with the theoretical prediction from the Myers and Majluf (1984) framework, this empirical evidence supports the expectation that the cash-stock return differential is widest in the largest transactions.

2.2.5 The Nordic M&A Market

The Nordic region offers a distinctive institutional setting in which to test the method-of-payment effect. Several structural features of Nordic capital markets and corporate governance may cause the effect to operate differently from the Anglo-American context in which the foundational evidence has been produced.

First, ownership in the Nordic economies is considerably more concentrated than in the US or the United Kingdom. Faccio and Lang (2002) document family control of approximately 47% of listed firms in Norway, 46% in Sweden, 39% in Finland, and 35% in Denmark, against only 24% in the UK. The governance model is further characterised by industrial foundations, dual-class shares, sphere-based block holding, and significant institutional and state ownership (Thomsen, 2016; Henrekson and Jakobsson, 2012). Concentrated ownership of this kind reduces the information gap between corporate insiders and the broader capital market through privileged board-level access, attenuating the adverse selection cost of equity issuance and therefore the return penalty for stock acquirers relative to the dispersed-ownership US context.

Second, Nordic takeover markets are considerably less competitive than those of the US or the UK. The universe of potential acquirers for any given target is smaller, bidding contests are uncommon, and the market for corporate control is less actively contested (Martynova and Renneboog, 2008). Alexandridis, Petmezas and Travlos (2010) provide direct comparative evidence on the implications of takeover-market competitiveness for acquirer returns. Examining M&A transactions across multiple countries, they find that stock mergers do not destroy value outside the three most competitive takeover markets, the US, the UK, and Canada. Their interpretation is that in less competitive markets, acquirers face less pressure to overbid and are therefore less likely to initiate the value-destroying overvaluation-driven stock deals that drive negative announcement returns in the US. This result directly motivates the question of whether H1 is confirmed in the Nordic M&A market setting, and whether the effect, if present, operates with the same magnitude as documented for major Anglo-American markets.

Third, the Nordic economies are characterised by high standards of corporate transparency, strong accounting disclosure norms, and well-developed institutional investor bases. Leuz, Nanda and Wysocki (2003) place the Nordic countries among the cluster of jurisdictions with the lowest levels of earnings management and the strongest investor protection in their 31-country comparison, attributing this to the combination of strong legal enforcement and outsider-oriented disclosure regimes. Thomsen (2016) similarly emphasises that the Nordic governance model combines concentrated ownership with comparatively strong minority protection, low levels of private benefits of control, and high transparency standards. These features compress the information gap between corporate insiders and the broader market, potentially dampening the adverse selection cost of stock issuance. At the same time, active institutional shareholders may impose greater scrutiny on large equity-financed transactions, potentially reinforcing the market's negative reaction to stock bids when they occur.

Fourth, M&A activity in the Nordic region has been substantial over the study period. Sweden has consistently dominated regional deal volumes, accounting for approximately half of all Nordic deal value (White & Case, 2022). Denmark, Norway, and Finland each contribute meaningfully, with activity concentrated in technology, media and telecommunications, life sciences and healthcare, industrials, and energy (White & Case, 2024, 2025). The study period of 2006 to 2025 encompasses the tail end of the sixth merger wave, the global financial crisis of 2007-2009, a prolonged post-crisis recovery characterised by low interest rates and rising equity valuations, the disruption associated with the COVID-19 pandemic in 2020, and the subsequent cycle of monetary tightening from 2022 onwards. This temporal heterogeneity

creates variation in financing conditions across the sample that enriches the empirical analysis and enables assessment of whether the method-of-payment effect is stable across materially different macroeconomic environments.

Fifth, and most directly relevant to the present study, stock as a method of payment is markedly less prevalent in European M&A than in the US, and the Nordic markets are no exception. Faccio and Masulis (2005) document that across thirteen Western European countries between 1997 and 2000, only 8.43% of M&A transactions were entirely stock-financed and 80.23% were entirely cash-financed, against the US benchmark of approximately 58% all-stock deals reported by Andrade, Mitchell and Stafford (2001) for the 1990s. The country-level statistics for the Nordic markets included in their sample are consistent with this pattern, with all-cash shares of 83.25% in Sweden, 68.97% in Norway, and 65.69% in Finland. Faccio and Masulis (2005) attribute the cross-Atlantic divergence to the corporate-control concerns of dominant shareholders, who under the concentrated ownership structures of European markets are reluctant to dilute their voting power through equity issuance. The mechanism applies with particular force in the Nordics, where the dual-class share structures, sphere-based block holding, and foundation ownership discussed above are especially pronounced. The implication for our research design is that the universe of stock-financed Nordic acquisitions is structurally smaller than the corresponding US universe, and any test of the method-of-payment effect in this market must contend with a stock-financed subsample whose size reflects the institutional environment rather than a sampling artefact.

Taken together, the first three features compress the information gap that drives the adverse selection cost in the Myers and Majluf (1984) framework, while the institutional reluctance to issue equity documented in the fifth narrows the empirical universe in which the effect can be detected. Our hypotheses are therefore stated in the same directional form as the US literature, but the institutional context predicts an attenuated magnitude rather than a null effect, and the available stock-financed subsample is correspondingly smaller than would be expected in a comparable US setting.

2.3 Hypotheses

The hypotheses of this thesis are derived from the theoretical framework and empirical evidence reviewed in Sections 2.1 and 2.2. Each hypothesis is grounded in theoretical mechanisms and generates a testable empirical prediction in the main Nordic M&A market context.

The adverse selection model of Myers and Majluf (1984) establishes that equity issuance transmits a negative signal about the intrinsic value of the issuing firm. When an acquisition is stock financed, adverse selection cost is embedded in the deal announcement, and the market infers from management's willingness to issue equity that the shares are priced above fundamental value and responds by marking down the acquirer's share price. Cash-financed acquisitions carry no such signal and are received more favourably. This prediction has been confirmed empirically with consistency in the US and internationally (Travlos, 1987; Andrade, Mitchell, and Stafford, 2001; Fuller, Netter and Stegemoller, 2002; and Golubov, Petmezas and Travlos, 2016). Whether the same mechanism operates with comparable force in the main Nordic M&A market, where information asymmetry may be lower and takeover competition less intense, is the empirical question addressed by the first hypothesis:

H1. Acquirers using stock as their method of payment in Nordic acquisitions experience lower announcement-period abnormal returns than acquirers using cash.

The second hypothesis concerns the cross-sectional variation in the financing effect across deals of different relative sizes. The Myers and Majluf (1984) framework implies that the adverse selection cost of equity issuance, and therefore the negative market reaction to a stock-financed announcement, is increasing in the scale of the implied equity issuance. In the M&A context, the implied issuance scales directly with deal value relative to the acquirer's market capitalisation. A larger relative deal size therefore intensifies both the dilution of existing shareholders and the overvaluation signal transmitted by the financing choice. As a consequence, the return differential between cash and stock acquirers should be more pronounced in proportionally larger transactions. This theoretical prediction is supported by the cross-sectional evidence on the interaction between relative target size and acquirer returns (Fuller, Netter and Stegemoller, 2002), and is consistent with the broader size effects documented by Moeller, Schlingemann and Stulz (2004):

H2. The effect of payment method on acquirer returns is moderated by relative deal size, such that differences between cash and stock deals are more pronounced for larger transactions.

Together, H1 and H2 provide a structured and theoretically grounded framework for examining the method-of-payment effect in Nordic M&A transactions. H1 tests the existence of the effect in this previously under-studied setting, while H2 tests a specific cross-sectional prediction about its structure, which follows from the adverse selection mechanism that underpins the

foundational theory. Confirmation of both hypotheses would constitute evidence that the method-of-payment effect operates in the Nordic market through the same theoretical channel as identified for the US market (Golubov, Petmezas and Travlos, 2016), notwithstanding the institutional differences that distinguish the Nordics from the Anglo-American markets, in which the majority of the existing evidence has been produced.

3. Method

3.1 Research Design

We measure the acquirer's announcement-period abnormal return using the Market-Adjusted Model (Brown and Warner, 1980, 1985). For acquirer *i* on trading day *t*, the abnormal return is defined as the difference between the acquirer's realised return and the contemporaneous return on the relevant national market index:

$$AR_{i,t} = R_{i,t} - R_{m,t} \quad (1)$$

where $R_{i,t}$ is the daily total return on the acquirer's stock and $R_{m,t}$ is the daily return on the value-weighted national market index for the country in which the acquirer is listed. The Market-Adjusted Model yields well-specified test statistics in short-horizon event studies and is robust to misspecification of the return-generating process (Brown and Warner, 1985), making it well suited to a multi-country, long-horizon sample in which reliable beta estimation is complicated by cross-country index heterogeneity and by the structural breaks associated with two merger waves and a global financial crisis. Cumulative abnormal returns over an event window $[\tau_1, \tau_2]$ are obtained by summing daily abnormal returns:

$$CAR_i[\tau_1, \tau_2] = \sum AR_{i,t} \ for \ t \in [\tau_1, \tau_2] \quad (2)$$

Our primary measure is the 5-day cumulative abnormal return, CAR2, computed over the event window [-2, +2], following Fuller, Netter and Stegemoller (2002). CAR1 [−1, +1], CAR3 [−3, +3], CAR10 [−10, +10] and CAR30 [−30, +30] are reserved for the robustness analysis.

3.1.1 Univariate Comparison of Cash and Stock Subsamples

We first compare CAR2 between the cash and stock subsamples using three complementary tests: Welch's two-sample t-test of equality of means, the Mann–Whitney U test of stochastic dominance, and Mood's median test of equality of medians. The latter two are non-parametric and provide a check on the t-test in the presence of skewness and heavy tails in the CAR distribution. Because firms that select into stock financing differ systematically from those that

select into cash financing, isolating the method-of-payment effect requires the multivariate framework specified below.

3.1.2 Multivariate Analysis of the Method-of-Payment Effect

The primary test of H1 is an OLS regression of CAR2 on a stock-financing indicator, vectors of acquirer and deal characteristics, and year, industry, and country fixed effects:

$$CAR2_i = \alpha + \beta_1 STOCK_i + \gamma' X_i + \delta' Z_i + \eta_t + \lambda_j + \mu_c + \varepsilon_i \quad (3)$$

where $STOCK_i$ equals 1 for transactions paid in stock and 0 for transactions paid in cash; X_i collects the acquirer characteristics (MARCAP, M/B, RUN-UP, LEVERAGE, CASH HOLD, OPER PERFORM, ASSET TANG, P/CF). Z_i collects the deal characteristics (DEAL VALUE, RELSIZE, DIVERSIFIC, HOSTILE, TENDER, MULTIBID, PURE PRIMARY, TPUBLIC, XBORDER); and η_t, λ_j, μ_c denote year, industry (LSEG Workspace's Macro Industry classification), and country fixed effects. All variables are defined in Section 3.2. The coefficient of interest is β_1, with H1 predicting $\beta_1 < 0$.

We present the specification as a four-column build-up: column (1) reports the unconditional difference (STOCK only); column (2) adds acquirer characteristics; column (3) adds deal characteristics; and column (4), the main specification, adds the fixed effects. Standard errors are two-way clustered by acquirer and announcement year, accommodating both within-acquirer correlation induced by serial acquirers and within-year correlation induced by merger waves and common macroeconomic shocks. Continuous variables are winsorized at the 1st and 99th percentiles on the pooled sample, with the cut-offs computed once and applied uniformly to both subsamples; indicator variables are left unwinsorized.

3.1.3 Relative Deal Size as a Moderator of the Method-of-Payment Effect

We test H2 by augmenting the H1 specification with a discretised indicator for relative deal size, $HIGH\_RELSIZE_i$, and its interaction with $STOCK_i$:

$$CAR2_i = \alpha + \beta_1 STOCK_i + \beta_2 HIGH\_RELSIZE_i + \beta_3 (STOCK \times HIGH\_RELSIZE)_i \quad (4a)$$

$$+ \gamma' X_i + \delta' Z_i + \eta_t + \lambda_j + \mu_c + \varepsilon_i \quad (4b)$$

where $HIGH\_RELSIZE_i$ equals 1 if RELSIZE (deal value divided by acquirer market capitalisation four weeks prior to announcement) is at or above the top-tercile cut-off of the stock-financed subsample's RELSIZE distribution, and 0 otherwise. The cut-off is computed

within the stock subsample to ensure a meaningful split given its small size (n = 139) and is then applied uniformly to the pooled sample. We prefer a discretised indicator to a continuous interaction because the RELSIZE distribution exhibits a long right tail in which a small number of high-leverage observations would otherwise dominate the estimated interaction; the continuous RELSIZE term is retained in Z_i to absorb any residual linear effect. The coefficient of interest is β_3, with H2 predicting $\beta_3 < 0$. We also report the marginal effect of $STOCK_i$ on $CAR2_i$ at $HIGH\_RELSIZE_i = 0$ (β_1) and $HIGH\_RELSIZE_i = 1$ $(\beta_1 + \beta_3)$, with delta-method standard errors. Controls, fixed effects, clustering, and winsorization are identical to those specified in 3.1.2.

3.1.4 Sensitivity Analysis

We assess the sensitivity of the H1 result along three dimensions. The robustness tests are conducted on H1 only, as H2 is conditional on its existence.

First, we re-estimate the H1 main specification with the dependent variable replaced in turn by CAR1, CAR3, CAR10, and CAR30, to assess sensitivity to the choice of event window. Second, we re-estimate it on subsamples defined by the acquirer's country of listing (Sweden, Finland, Norway, Denmark) and by the target's listing status (public vs. non-public), addressing the dominance of Swedish acquirers in the pooled sample and replicating the well-documented finding in Golubov, Petmezas and Travlos (2016) and Fuller, Netter and Stegemoller (2002) that the method-of-payment effect concentrates in acquisitions of publicly listed targets. Country fixed effects and TPUBLIC are dropped, respectively, as they are collinear with the subsample restriction. Third, we conduct a propensity-score-matching (PSM) check to address selection on observables: the propensity score is the predicted probability of stock financing from a logistic regression on the full set of characteristics and indicators, each stock-financed deal is matched 1:1 to its nearest-neighbour cash-financed deal with replacement on the region of common support, and the H1 specification is re-estimated on the matched sample. Covariate balance is assessed through the standardised mean difference (SMD) before and after matching, with |SMD| below 0.10 conventionally indicating adequate balance.

Before estimating the specifications above, we examine the joint behaviour of the regressors using two standard diagnostics, reported in Appendix A and Appendix B. The pairwise Pearson correlation matrix in Appendix A shows that the great majority of correlations among the regressors are modest in magnitude. The strongest pairwise correlations are between TPUBLIC and TENDER (0.63), MARCAP and DEAL VALUE (0.56), LEVERAGE and ASSET TANG

(0.52), and OPER PERFORM and MARCAP (0.43), each of which is below the conventional red flag threshold and should not show substantial issues with multicollinearity if all variables are entered jointly in the regressions. STOCK itself correlates most strongly with RELSIZE (0.38), OPER PERFORM (-0.35), and TPUBLIC (0.28), which is part of the cross-sectional pattern that motivates the controlled regressions in the first place. We complement the correlation matrix with variance inflation factors (VIFs) from an auxiliary regression of each regressor on the remaining substantive regressors, reported in Appendix B. The mean VIF is 1.45 and the maximum is 2.66 (MARCAP), well below the conventional threshold of 10 (O'Brien, 2007), and the VIF on STOCK is 1.50. Multicollinearity is therefore not a material concern for the specifications that follow, and the coefficient on STOCK is identified separately from the controls.

3.2 Variables

As we are investigating how the method of payment in Nordic M&A deals affects the returns of acquirers, our dependent variable is the cumulative abnormal return, and the independent variable is the method of payment (further explained in 3.2.1). These are followed by a series of control variables, including acquirer characteristics (3.2.2) and deal characteristics (3.2.3), similar to the ones used in previous literature, see Golubov, Petmezas and Travlos (2016) and Bessler, Kruizenga and Westerman (2020).

3.2.1 Dependent Variables and Method of Payment

CAR1, CAR2, CAR3, CAR10, CAR30: Cumulative abnormal (market-adjusted) return of the acquiring firm's stock over the following event windows; 3-day [-1, +1], 5-day [-2, +2], 7-day [-3, +3], 21-day [-10, +10], and 61-day [-30, +30], centred on the announcement date as reported by LSEG Workspace's Deals Screener, DSCREEN. The returns are sourced from Wharton Research Data Services (WRDS) Event Study tool.

STOCK: Indicator variable taking the value of 1 if the transaction method of payment is pure stock, and 0 if the transaction method of payment is pure cash, as reported by LSEG DSCREEN.

3.2.2 Acquirer Characteristics

MARCAP: Natural logarithm of the market capitalization of the acquirer 4 weeks prior to the acquisition announcement, sourced from LSEG Datastream (originally in € millions).

M/B: The latest reported Market-to-Book ratio of the acquirer as of the announcement date of the transaction, sourced from LSEG Datastream.

RUN-UP: Buy-and-hold excess market-adjusted return of the acquiring firm's stock over the period starting 205 days and ending 6 days prior to the deal announcement date, [-205, -6], sourced from Event Study by WRDS.

LEVERAGE: Total financial debt divided by the book value of total assets (latest reported values as of the deal announcement date for the acquirer), as reported by LSEG Datastream.

CASH HOLD: Total cash held divided by the book value of total assets (latest reported values as of the deal announcement date for the acquirer), as reported by LSEG Datastream.

OPER PERFORM: Earnings before interest, taxes, depreciation, and amortization (EBITDA), divided by the book value of total assets (latest reported values as of the deal announcement date for the acquirer), as reported by LSEG Datastream.

ASSET TANG: Net property, plant, and equipment (PP&E), divided by the book value of total assets (latest reported values as of the deal announcement date for the acquirer), as reported by LSEG Datastream.

P/CF: Price per share divided by the cash flow per share (latest reported values as of the deal announcement date for the acquirer), as reported by LSEG Datastream.

3.2.3 Deal Characteristics

DEAL VALUE: Natural logarithm of the total deal value, as reported by LSEG DSCREEN (originally in € millions).

RELSIZE: Total deal value (in € millions) as reported by LSEG DSCREEN, divided by the acquirer market capitalization (in € millions) 4 weeks prior to the acquisition announcement from LSEG Datastream.

HIGH_RELSIZE: Indicator variable - computed from the original sample - taking the value of 1 if RELSIZE is at or above the top-tercile cut-off of the stock-financed subsample's RELSIZE distribution (cut-off = 0.6960), and 0 otherwise. The cut-off is computed within the stock subsample, but the indicator is applied to all observations in the pooled sample.

HOSTILE: Indicator variable taking the value of 1 if the transaction is labelled as "hostile" by LSEG DSCREEN, and 0 otherwise.

DIVERSIFIC: Indicator variable taking the value of 1 if the deal was made cross-industry, as reported by LSEG DSCREEN, and 0 otherwise. Industries have been defined using LSEG Workspace's Macro Industry classification.

TENDER: Indicator variable taking the value of 1 if the deal has been flagged as a tender offer by LSEG DSCREEN, and 0 otherwise.

MULTIBID: Indicator variable taking the value of 1 if the deal had competing bidders, as reported by LSEG DSCREEN, and 0 otherwise.

PURE PRIMARY: Indicator variable taking the value of 1 if the transaction was financed solely via newly issued common shares, as reported by LSEG DSCREEN.

XBORDER: Indicator variable taking the value of 1 if the transaction was made cross-border, as reported by LSEG DSCREEN, and 0 otherwise.

TPUBLIC: Indicator variable taking the value of 1 if the target is public, reported by LSEG DSCREEN, and 0 otherwise.

3.3 Sample Selection

Our sample of M&A transactions has been sourced from LSEG Workspace's Deals Screener, DSCREEN (SDC Platinum M&A Data), and covers deals announced in the period from January 1st, 2006, to December 31st, 2025. The transactions have to meet the following criteria to be included in the sample:

1. The acquirer is a public firm headquartered, and stock exchange listed in one of the four main Nordic M&A markets (Denmark, Finland, Norway, and Sweden).
2. The deal has been completed (as of April 9th, 2026), and excludes deal types classified as privatizations, repurchases, exchange offers, self-tenders, recapitalizations, stake purchases, spinoffs and leveraged buyouts.
3. The acquirer holds more than 50% of the target's shares after completion of the transaction, obtaining control over the target.
4. The acquirer is covered by LSEG Datastream and Wharton Research Data Services (WRDS) and satisfy the data requirements to calculate cumulative abnormal announcement period returns via the Event Study by WRDS tool.
5. The transaction value is at least €1 million, and the consideration structure of the deal is either 100% cash or 100% stock.

These criteria are in line with prior research and literature within M&A (Golubov, Petmezas and Travlos, 2016, and Masulis, Wang, and Xie, 2007). Applying the above selection criteria yields 1,584 deals, of which 1,339 are pure cash-financed and the remaining 245 are pure stock-financed transactions. After accounting for the availability of necessary control variables, the sample is reduced to 1,205 observations – 1,066 cash-financed and 139 stock-financed. The attrition is proportionally larger in the stock subsample (43.3%) than in the cash subsample (20.4%), and the resulting stock subsample of 139 deals is the binding constraint on the precision of the cash-stock differential estimated in Section 4. Summary statistics for the final sample of M&A deals are presented in Appendix C.

4. Findings and Analysis

4.1 Description of Data

Appendix C reports descriptive statistics for the 1,205 main Nordic M&A market transactions in the analytical sample, separately for the full sample (Panel A), the stock-financed subsample (Panel B), and the cash-financed subsample (Panel C). Panels D, E, and F report the distribution of deals across announcement years, acquirer macro industry (LSEG Workspace classification), and acquirers' country of incorporation, respectively. All continuous variables in the sample are winsorized at the 1st and 99th percentiles on the pooled sample, with cut-offs computed once and applied uniformly to both subsamples. Indicator variables are left unwinsorized.

Stock-financed acquirers are systematically smaller than their cash-financed counterparts. Median market capitalisation in the stock subsample is €85.1 million, against €698.5 million for cash deals, and the gap carries through to mean values (€1,850 million vs. €3,973 million). The stock subsample also exhibits weaker pre-deal operating performance (mean EBITDA-to-assets of -1.5% vs. 11.6%) and more negative pre-announcement run-up returns (-4.5% vs. +7.4%), patterns broadly consistent with the Myers and Majluf (1984) prediction that managers issue equity when they perceive their shares to be overvalued and that the market identifies these firms in advance. Stock-financed deals are also materially larger relative to the acquirer: the mean RELSIZE is 1.68 in the stock subsample against 0.17 in the cash subsample, with corresponding medians of 0.32 and 0.04. This is the cross-sectional dimension that H2 exploits, and it sets up the moderation test in 4.2 below.

Two preliminary observations are worth flagging before the formal tests in Section 4.2. First, the unconditional mean of CAR2 is positive in both subsamples (6.06% for stock, 3.41% for cash), so the cash vs. stock comparison is not between a value-destroying and a value-creating

subsample but between two distributions both centred above zero, where this comparison contradicts the first hypothesis at this stage. Second, the cross-sectional differences in size, prior performance, and deal characteristics make a controlled-regression framework essential: any unconditional comparison of CAR2 between the two subsamples confounds the method-of-payment effect with the documented systematic firm- and deal-level differences.

4.2 Hypotheses Testing

The two hypotheses developed in section 2.3 are tested with a univariate comparison of CAR2 between the cash and stock subsamples (Table 1), followed by the OLS specification of equation (3) for H1 (Table 2), and the moderation specification of equation (4) for H2 (Table 3).

Table 1. Univariate Comparison of CAR2 between Cash and Stock Subsamples

Panel A: Descriptive Statistics for CAR2 (%)

Subsample	N	Mean	Median	SD	Min	Max
All	1,205	3.720	1.343	11.547	-18.665	62.987
Stock	139	6.063	1.491	16.172	-18.665	62.987
Cash	1,066	3.414	1.342	10.772	-18.665	62.987

Panel B: Univariate Tests of CAR2 (Stock vs. Cash)

Test	Statistic	Difference (Stock − Cash, %)	p-value	Sig.
Welch's two-sample t-test (means)	1.8773	2.6485	0.0624	*
Mann-Whitney U (Wilcoxon rank-sum)	77,471	0.1493	0.3806	
Mood's median test	0.0364	0.1493	0.8487	

Notes: *Table 1 reports descriptive statistics and univariate tests of the 5-day cumulative abnormal return, CAR2 [-2, +2], for the sample of 1,205 Nordic M&A deals. The sample is split by method of payment: stock-financed deals (139) and cash-financed deals (1,066). CAR2 is winsorized at the 1st and 99th percentiles on the pooled sample. Panel A reports descriptive statistics by subsample. Panel B reports three univariate tests of the difference between the cash and stock subsamples: Welch's two-sample t-test on means, the Mann-Whitney U (Wilcoxon rank-sum) test on stochastic dominance, and Mood's median test on equality of medians. All values in percent, %. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.*

Panel A of Table 1 shows that the unconditional mean CAR2 is 6.06% for the stock subsample and 3.41% for the cash subsample, a 2.65 percentage-point difference that runs counter to the H1 prediction. The corresponding medians are essentially indistinguishable (1.49% vs. 1.34%), and the stock subsample is materially more dispersed (SD = 16.17%) than the cash subsample (SD = 10.77%). Panel B reports three formal tests of the difference. Welch's t-test rejects

equality of means at the 10% significance level (t = 1.88, p = 0.062). The two non-parametric tests, however, fail to reject. The Mann-Whitney U statistic implies a p-value of 0.381, and Mood's median test a p-value of 0.849. Read together, the three tests indicate that the unconditional mean difference is driven by the right tail of the stock distribution rather than by a uniform leftward shift of stock CARs relative to cash CARs. The wide stock-side standard deviation, the agreement of the two non-parametric tests with the null, and the visible compression of the stock and cash medians together suggest that any method-of-payment effect, if present, must be isolated by controlling for the systematic differences in section 4.1.

Table 2 reports the four-column build-up of equation (3). Column (1) replicates the unconditional comparison in a regression form. The STOCK coefficient is +2.65 p.p. and significant at the 10% level. Adding the acquirer controls in column (2) reverses the sign of the STOCK coefficient to -0.93 p.p. (p = 0.222), suggesting that the positive unconditional difference is accounted for by the systematic differences in firm size, operating performance, run-up, and the other acquirer-level controls between the two subsamples. The MARCAP coefficient is negative and significant at the 1% level (-1.07 p.p.), consistent with the size effect documented by Moeller, Schlingemann and Stulz (2004). Adding the deal-level controls in column (3) increases the magnitude of the STOCK coefficient to -2.53 p.p. (p = 0.099). The main specification in column (4), which adds year, industry, and country fixed effects, returns a STOCK coefficient of -1.89 p.p. with a clustered standard error of 1.47 p.p., yielding a p-value of 0.197. The coefficient is therefore directionally consistent with H1 but is not statistically distinguishable from zero at conventional levels. A 1.89 percentage-point reduction in 5-day announcement returns is on the same order as the US estimates in Travlos (1987) and Andrade, Mitchell, and Stafford (2001), but the precision is lower, which we attribute primarily to the size of the stock subsample (n = 139). The R^2 of 19.7% in column (4) is in the range typical of comparable studies (see, for instance, Golubov, Petmezas and Travlos, 2016). On the basis of column (4), we cannot reject the null that stock and cash acquirers earn the same announcement-period return; H1 is therefore not supported by the data, although the point estimate sits in the predicted region.

Table 2. Effect of Method of Payment on Acquirer Announcement-Period Returns

Regressions of CAR2 (%) on (1), (2), (3), and (4)

Variable	(1) STOCK only	(2) + Acquirer	(3) + Deal	(4) + FE [main]
INTERCEPT	0.0341***	0.0929***	0.0749***	0.0448
	(0.0069)	(0.0256)	(0.0247)	(0.0328)
STOCK	0.0265*	-0.0093	-0.0253*	-0.0189
	(0.0142)	(0.0076)	(0.0154)	(0.0147)
MARCAP		-0.0107***	-0.0093**	-0.0097**
		(0.0032)	(0.0041)	(0.0046)
M/B		0.0021	0.0019	0.0038*
		(0.0020)	(0.0020)	(0.0021)
RUN-UP		-0.0354	-0.0320	-0.0271
		(0.0291)	(0.0280)	(0.0268)
LEVERAGE		0.0634	0.0614	0.0605
		(0.0578)	(0.0543)	(0.0473)
CASH HOLD		0.1184*	0.1200*	0.1332*
		(0.0715)	(0.0675)	(0.0738)
OPER PERFORM		-0.0351	-0.0322	-0.0199
		(0.0484)	(0.0474)	(0.0494)
ASSET TANG		-0.0465*	-0.0420*	-0.0367
		(0.0256)	(0.0254)	(0.0301)
P/CF		-0.0003***	-0.0003***	-0.0003***
		(0.0001)	(0.0001)	(0.0001)
DEAL VALUE			0.0003	0.0012
			(0.0029)	(0.0029)
RELSIZE			0.0082*	0.0081
			(0.0049)	(0.0051)
DIVERSIFIC			0.0226*	0.0211**
			(0.0119)	(0.0100)
HOSTILE			0.1349***	0.1013***
			(0.0301)	(0.0307)
TENDER			0.0056	0.0056
			(0.0210)	(0.0167)
MULTIBID			-0.0113	-0.0003
			(0.0296)	(0.0273)
PURE PRIMARY			0.0681**	0.0629
			(0.0335)	(0.0389)
TPUBLIC			0.0051	0.0004
			(0.0184)	(0.0153)
XBORDER			-0.0054	-0.0015
			(0.0124)	(0.0122)
N	1,205	1,205	1,205	1,205
R^2	0.0054	0.1004	0.1215	0.1970
Adj. R^2	0.0045	0.0936	0.1081	0.1615
Year FE	No	No	No	Yes
Industry FE	No	No	No	Yes
Country FE	No	No	No	Yes
Cluster	Acq × Year	Acq × Year	Acq × Year	Acq × Year

Notes: *Table 2 reports OLS regressions of the 5-day cumulative abnormal return, CAR2 [-2, +2], on a stock-financing indicator (STOCK = 1 if the deal is stock-financed; 0 if cash-financed) for the sample of 1,205 Nordic M&A deals. Column (1) reports the unconditional difference. Columns (2) - (4) progressively add acquirer characteristics, deal characteristics, and year, industry (LSEG Macro), and country fixed effects. Continuous variables are winsorized at the 1st and 99th percentiles on the pooled sample. Standard errors are two-way clustered by acquirer and announcement year and reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.*

Table 3 expands on the main specification with HIGH_RELSIZE and STOCK × HIGH_RELSIZE. Panel A reports the regression. The coefficient on STOCK, which now identifies the cash-stock differential at HIGH_RELSIZE = 0, is -1.51 p.p. (p = 0.404). The coefficient on HIGH_RELSIZE alone is -0.30 p.p. but statistically zero (p = 0.906). The interaction coefficient is -1.84 p.p. (p = 0.668). Panel B reports the implied marginal effects of STOCK at the two values of HIGH_RELSIZE. At HIGH_RELSIZE = 0, the marginal effect of STOCK is -1.51 p.p. (SE = 1.80), while at HIGH_RELSIZE = 1, the marginal effect is -3.34 p.p. (SE = 3.57). Both effects sit in the direction predicted by H2, and the point estimate of the marginal effect approximately doubles in absolute magnitude when the deal is large relative to the acquirer, which is consistent with the prediction that the adverse-selection cost embedded in stock bids scales with the implied equity issuance. The point estimate of the moderation effect, a 1.84 percentage-point further widening of the cash-stock differential when the deal is in the top tercile of RELSIZE, is economically meaningful, but it is statistically insignificant. With 139 stock-financed deals, of which 46 fall in the HIGH_RELSIZE = 1 cell, the interaction is identified off a small number of large stock-financed transactions, and the sample variability is consequently high. We cannot reject the null on H2. Even though the data are consistent with the predicted moderation pattern, it does not establish it statistically.

Table 3. Relative Deal Size as a Moderator of the Method-of-Payment Effect

Panel A: Regression of CAR2 on STOCK, HIGH_RELSIZE, and STOCK × HIGH_RELSIZE

Variable	Coefficient
INTERCEPT	0.0463 (0.0328)
STOCK	-0.0151 (0.0180)
HIGH_RELSIZE	-0.0030 (0.0253)
STOCK × HIGH_RELSIZE	-0.0184 (0.0428)
MARCAP	-0.0099** (0.0047)
M/B	0.0038* (0.0020)
RUN-UP	-0.0272 (0.0267)
LEVERAGE	0.0598 (0.0473)
CASH HOLD	0.1330* (0.0742)
OPER PERFORM	-0.0200 (0.0492)
ASSET TANG	-0.0367 (0.0301)
P/CF	-0.0003*** (0.0001)
DEAL VALUE	0.0015 (0.0030)
RELSIZE	0.0098* (0.0052)
DIVERSIFIC	0.0210** (0.0099)
HOSTILE	0.1005*** (0.0322)
TENDER	0.0056 (0.0165)
MULTIBID	-0.0017 (0.0290)
PURE PRIMARY	0.0621* (0.0358)
TPUBLIC	0.0005 (0.0154)
XBORDER	-0.0017 (0.0122)
N	1,205
R^2	0.1976
Adj. R^2	0.1606
Year FE	Yes
Industry FE	Yes
Country FE	Yes
Cluster	Acq × Year

Panel B: Marginal Effect of STOCK on CAR2, by HIGH_RELSIZE

HIGH_RELSIZE	Marginal effect	SE	t	p-value	Sig.
0	-0.0151	0.0180	-0.8351	0.4038	
1	-0.0334	0.0357	-0.9365	0.3492	

Notes: *Table 3 reports the moderating effect of relative deal size on the method-of-payment-CAR relation. The dependent variable is the 5-day cumulative abnormal return, CAR2 [-2, +2]. STOCK = 1 if the deal is stock-financed; 0 if cash-financed. HIGH_RELSIZE = 1 if RELSIZE is at or above the top-tercile cut-off of the stock-financed subsample's RELSIZE distribution (cut-off = 0.6960); 0 otherwise. The cut-off is computed within the stock subsample, but the indicator is applied to all observations in the pooled sample. The specification includes acquirer and deal characteristics and year, industry (LSEG Macro), and country fixed effects. Continuous variables are winsorized at the 1st and 99th percentiles on the pooled sample. Standard errors are two-way clustered by acquirer and announcement year and reported in parentheses. Panel A reports the regression. Panel*

*B reports the marginal effect of STOCK at HIGH_RELSIZE = 0 and HIGH_RELSIZE = 1, with delta-method standard errors. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.*

4.3 Robustness Tests

We assess the sensitivity of the first hypothesis result along three dimensions: alternative event windows around the deal announcement date, subsample splits by acquirer country and target listing status, and a propensity-score-matching procedure to address selection on observables. Following the design choice set out in section 3.1.4, the robustness tests are run on H1 alone, since H2 is meaningful only conditional on the existence of a baseline method-of-payment effect.

Table 4. Robustness: Alternative Event Windows

Main Regression – Table 2. Column (4) – on Alternative Event Windows

Event window	STOCK β_1	p-value	N	R^2	Adj. R^2
CAR1 [-1, +1]	-0.0049	0.5314	1,205	0.2142	0.1794
	(0.0078)				
CAR2 [-2, +2]	-0.0189	0.1973	1,205	0.1970	0.1615
	(0.0147)				
CAR3 [-3, +3]	-0.0166	0.2867	1,205	0.1852	0.1492
	(0.0156)				
CAR10 [-10, +10]	-0.0143	0.5047	1,205	0.1291	0.0906
	(0.0214)				
CAR30 [-30, +30]	0.0114	0.7000	1,205	0.1429	0.1050
	(0.0295)				

Notes: *Table 4 reports the H1 main specification re-estimated on alternative event windows around the deal announcement date. Each row reports the coefficient on the stock-financing indicator, STOCK, from a separate OLS regression of the indicated cumulative abnormal return (CAR) on STOCK plus the full set of acquirer and deal characteristics, year, industry (LSEG Macro), and country fixed effects. The CAR2 [-2, +2] row corresponds to the main specification reported in Table 2 (column 4). Continuous variables are winsorized at the 1st and 99th percentiles on the pooled sample. Standard errors are two-way clustered by acquirer and announcement year and reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.*

Table 4 re-estimates the main specification with the dependent variable, CAR2, replaced in turn by CAR1, CAR3, CAR10, and CAR30. The STOCK coefficient is negative across CAR1 (-0.49 p.p.), CAR2 (-1.89 p.p.), CAR3 (-1.66 p.p.), and CAR10 (-1.43 p.p.), and turns marginally positive at CAR30 (+1.14 p.p.). None of the five estimates is statistically significant at conventional levels. CAR2 yields the smallest p-value of 0.197. Two readings are consistent with this pattern, although statistically insignificant. First, the directional stability across CAR1 through CAR10 indicates that the central tendency result in Table 2 is not exclusive to the [-2,

+2] 5-day window choice. Broadly, it is the same point estimate at different magnifications of the same announcement window. Second, the dilution at CAR30 is in line with the expectation that the announcement effect diminishes as the window widens to absorb post-announcement price discovery and unrelated news. The $Adj.R^2$ declines with window length, from 0.179 at CAR1 to 0.105 at CAR30, also consistent with the announcement-window concentration of the explanatory power of the firm- and deal-level controls.

Table 5. Robustness: Subsample Splits on H1

Panel A: By Acquirer Country

Subsample	STOCK β_1	p-value	N	N_STOCK	R^2
Sweden	-0.0229	0.1724	757	78	0.2599
	(0.0168)				
Finland	-0.0412**	0.0171	164	21	0.6199
	(0.0173)				
Norway	0.0231	0.2999	163	32	0.4672
	(0.0223)				
Denmark	0.0511*	0.0991	121	8	0.4964
	(0.0310)				

Panel B: By Target Listing Status

Subsample	STOCK β_1	p-value	N	N_STOCK	R^2
Public targets	-0.0315	0.2504	113	45	0.6450
(TPUBLIC=1)	(0.0274)				
Private/subsidiary	-0.0015	0.9107	1,092	94	0.2176
(TPUBLIC=0)	(0.0131)				

Notes: *Table 5 reports the H1 main specification re-estimated on subsamples of the data. Panel A splits the sample by acquirer country; the country fixed effects are dropped because they are collinear with the subsample restriction. Panel B splits by target listing status (TPUBLIC = 1 if the target is publicly listed; 0 otherwise); TPUBLIC is dropped from the deal controls in this panel. Each row reports the coefficient on the stock-financing indicator from a separate OLS regression of CAR2 [-2, +2] on STOCK plus the full set of acquirer and deal characteristics, year, industry (LSEG Macro), and country fixed effects (where included). N_STOCK denotes the number of stock-financed deals in the subsample. Continuous variables are winsorized at the 1st and 99th percentiles on the pooled sample. Standard errors are two-way clustered by acquirer and announcement year and reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.*

Panel A of Table 5 splits the sample by acquirer country. The Swedish subsample (n = 757) returns a STOCK coefficient of -2.29 p.p. (p = 0.172), close to and slightly larger in magnitude than the pooled estimate. The Finnish subsample (n = 164) yields a markedly larger and statistically significant effect of -4.12 p.p. (p = 0.017). The Norwegian subsample (n = 163) produces a positive coefficient of +2.31 p.p. (p = 0.300), and the Danish subsample (n = 121) a positive coefficient of +5.11 p.p. significant only at the 10% level (p = 0.099). The cross-

country pattern is therefore heterogeneous, and the predicted negative differential is concentrated in Finland and, more modestly, in Sweden, and is reversed in sign in Norway and Denmark. Panel B splits by target listing status. The public-target subsample (n = 112) returns a STOCK coefficient of -3.15 p.p. (p = 0.250), and the non-public subsample (n = 1,092) returns a coefficient of -0.15 p.p. (p = 0.911). The point estimate for public targets is roughly twice the magnitude of the pooled estimate, in the direction predicted by Fuller, Netter and Stegemoller (2002) and Golubov, Petmezas and Travlos (2016), who find that the method-of-payment effect concentrates in public-target acquisitions. The estimate is, however, statistically insignificant, and imprecise (standard error 2.74 p.p.), again reflecting the small number of observations in the relevant cell.

Table 6. Robustness: Propensity Score Matching

Panel A: Covariate Balance – Standardized Mean Differences (Stock – Cash)

Variable	Pre-match SMD	Post-match SMD
MARCAP	-0.8092	+0.2191
M/B	-0.0113	-0.3543
RUN-UP	-0.3119	+0.2259
LEVERAGE	-0.3743	+0.1046
CASH HOLD	+0.4462	+0.1519
OPER PERFORM	-0.8146	+0.2848
ASSET TANG	-0.2968	+0.0185
P/CF	-0.3731	+0.0623
DEAL VALUE	+0.0918	+0.2642
RELSIZE	+0.6588	+0.0547
DIVERSIFIC	+0.1918	+0.0498
HOSTILE	-0.0433	-0.1286
TENDER	+0.3889	+0.2008
MULTIBID	+0.0619	+0.1286
PURE PRIMARY	+0.0987	-0.1308
TPUBLIC	+0.6944	+0.2724
XBORDER	-0.8051	-0.0355
Mean |SMD|	**0.3807**	**0.1580**

Panel B: H1 Regression – Full sample vs. Matched sample

Sample	STOCK β_1	p-value	N	R^2
Full sample	-0.0189	0.1973	1,205	0.1970
	(0.0147)			
Matched sample	-0.0388	0.1147	241	0.4572
	(0.0246)			

Notes: *Table 6 reports a propensity-score-matching robustness check on H1. Each stock-financed deal is matched to its nearest-neighbour cash-financed deal by propensity score, with matching performed with replacement (control units may be matched to multiple treated units) and restricted to the region of common support. The*

*propensity score is the predicted probability of stock financing from a logistic regression on acquirer characteristics, deal characteristics, and year, country, and industry indicators. Continuous variables are winsorized at the 1st and 99th percentiles on the pooled sample. Panel A reports the standardised mean difference (SMD) for each covariate, computed as the difference in means between the stock and cash subsamples scaled by the pooled standard deviation, both before matching (full sample) and after matching. |SMD| below 0.10 conventionally indicates adequate balance. Panel B reports the H1 main specification re-estimated on the matched sample alongside the full-sample result. Standard errors are two-way clustered by acquirer and announcement year and reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.*

Panel A of Table 6 reports the standardised mean differences (SMDs) before and after 1:1 nearest-neighbour matching with replacement on common support. Pre-match, 8 of the 17 covariates exceed the conventional |SMD| = 0.10 balance threshold, including MARCAP (-0.81), OPER PERFORM (-0.81), XBORDER (-0.81), TPUBLIC (+0.69), and RELSIZE (+0.66). After matching, balance improves substantially. Mean |SMD| falls from 0.381 to 0.158, RELSIZE balance is restored to +0.05, and XBORDER to -0.04. Several covariates remain above the 0.10 threshold post-match. MARCAP (+0.22), OPER PERFORM (+0.28), TPUBLIC (+0.27), and DEAL VALUE (+0.26), reflecting the intrinsic difficulty of finding cash-paid comparators for the smallest, weakest-performing, public-target stock-financed deals in the sample. Panel B re-estimates the H1 specification on the matched sample (n = 241). The STOCK coefficient is -3.88 p.p. with a clustered standard error of 2.46 p.p. (p = 0.115), against -1.89 p.p. (p = 0.197) in the full sample. The matched-sample coefficient is therefore roughly twice the magnitude of the full-sample estimate and noticeably closer to conventional significance, while the R^2 rises from 19.7% to 45.7%, reflecting the tighter covariate configuration of the matched comparator pool. Read together, the propensity-score-matched result indicates that the full-sample point estimate may understate the true cash-stock differential conditional on selection on observables, but it does not deliver formal rejection of the null.

4.4 Summary of Results

The empirical results can be summarised in four points. First, unconditionally, stock-financed acquirers do not earn lower 5-day cumulative abnormal announcement returns than cash-financed acquirers in our main Nordic M&A markets sample. The raw mean difference runs in the opposite direction and is driven by the right tail of the stock CAR distribution rather than by a leftward shift of the centre of the distribution. Second, the multivariate specification reverses the sign of the cash-stock differential to the predicted direction (-1.89 p.p. in the main specification), and the coefficient retains the predicted negative sign across all three controlled

specifications, but the main specification is not statistically significant at conventional levels. Hypothesis 1 is therefore directionally supported and economically non-trivial in magnitude, but it is not formally established by the data. Third, the moderation test for H2 yields point estimates consistent with the prediction – the cash-stock differential more than doubles in the top tercile of stock-deal RELSIZE – but the interaction is imprecisely estimated, and we cannot reject the null. Fourth, the robustness tests preserve the directional pattern across alternative event windows and across the public-target subsample and yields a larger and closer-to-significant point estimate in the propensity-score-matched sample (-3.88 p.p., p = 0.115). The country splits, however, reveal substantial heterogeneity across the four main Nordic M&A markets, with a significant negative effect in Finland, a directionally consistent but imprecisely estimated effect in Sweden, a positive but statistically insignificant coefficient in Norway, and a significant positive effect in Denmark. The previously established US method-of-payment effect is thus present in the data of the main Nordic M&A markets in attenuated form. The main tendency is consistent with the theoretical prediction, but the magnitude is muted, the precision is limited by the size of the stock subsample, and the cross-sectional structure is materially heterogeneous across the markets.

5. Discussion

5.1 Method-of-Payment Effect (H1)

The picture that emerges from section 4 is one of qualified support for the adverse-selection account of the method-of-payment effect in the Nordic setting. The headline coefficient on STOCK in the main specification is -1.89 p.p., economically of the same order as the US estimates in Travlos (1987) and the more recent evidence in Golubov, Petmezas and Travlos (2016), but statistically indistinguishable from zero at conventional levels. The coefficient retains the predicted negative sign across all three controlled specifications and tightens once year, industry, and country fixed effects are added, which together suggests that the cash-stock differential is a feature of the conditional structure of the data rather than an artefact of any single covariate or fixed effect. The pattern is, however, sufficiently muted that the central question becomes interpretive rather than statistical: why the Nordic estimate is roughly half of the established US benchmark, and how much weight the failure to reject the null can carry in a sample with 139 stock-financed deals.

The inferential weight of the central null result is bounded by the precision of the estimate. With 139 stock-financed deals against 1,066 cash-financed deals, the standard error on STOCK in

the main specification is 1.47 p.p., and a coefficient of approximately -2.9 p.p. or larger in absolute value would have been required for rejection at the 5% level on a two-sided test. The point estimate sits at roughly two-thirds of that magnitude.

A power calculation reinforces this reading. With a clustered standard error of 1.47 p.p., the smallest effect this sample can detect at 80% power on a two-sided 5% test is roughly 4.1 p.p. in absolute value. The Travlos (1987) US benchmark is -1.47 p.p., and Golubov, Petmezas and Travlos (2016) report estimates of similar order. Even if the true Nordic effect were equal to the US benchmark, the sample would have approximately 26% power to detect it, and the implied power is lower still if the Nordic effect is attenuated relative to the US, as the institutional features in Section 2.2.5 suggest. The failure to reject the null is therefore consistent with a structurally negative method-of-payment effect of the magnitude predicted by Nordic institutional theory, and the binding constraint on inference is the size of the stock-financed subsample rather than the absence of the underlying mechanism.

The propensity-score-matched estimate of -3.88 p.p. is consistent with the view that the full-sample estimate may understate the structural cash-stock differential, and the public-target subsample estimate of -3.15 p.p. moves in the same direction. The matched-sample R^2 of 45.7%, against 19.7% in the full sample, indicates that the matched comparator pool isolates a tighter covariate configuration around the stock-financed deals, and the larger coefficient that emerges in this configuration is consistent with the interpretation that selection on observables masks part of the cash-stock differential in the unmatched data.

While no individual coefficient rejects the null, the configuration of point estimates is itself informative. The main specification, the shorter and medium-length event windows, the public-target subsample, the top tercile of the H2 moderation test, and the propensity-score-matched specification all return negative coefficients on STOCK, with the estimates in the cells where adverse-selection theory predicts the strongest effect — public targets, large relative deal size, the matched comparator pool — systematically larger in absolute magnitude than the headline. Read jointly, this pattern is more consistent with a structurally negative effect that the sample is underpowered to identify than with the absence of the underlying mechanism, though we do not treat it as a formal rejection of the null.

5.2 Relative Deal Size as a Moderator (H2)

The point estimate of the interaction is in the predicted direction and is statistically insignificant but economically meaningful. The marginal effect of stock financing falls from -1.51 p.p. in

the lower two terciles of stock-deal RELSIZE to -3.34 p.p. in the top tercile, approximately doubling the magnitude of the cash-stock differential as the relative size of the implied equity issuance rises, although with a wide standard error that does not support formal inference on the moderation pattern. The implied logic is the natural extension of the Myers and Majluf (1984) signal: a small stock-financed deal commits the acquirer to issuing a small block of new equity, and the wealth transfer from existing to new shareholders is proportionately small; a large stock-financed deal, by contrast, commits the acquirer to a substantial new equity issuance, and the adverse-selection cost scales with the size of the issue. The interaction is, however, identified off the 47 stock-financed deals in the HIGH_RELSIZE = 1 cell, and the resulting standard error of 4.28 p.p. on the interaction coefficient is too large to support rejection of the null. The most defensible inference is that H2 is consistent with the data but is not established by them, and that any future work in this market will need to expand the stock-financed subsample materially to obtain enough variation in RELSIZE among stock-paid deals to identify the moderation effect with conventional precision.

Two structural features of the Nordic stock-financed sub-sample reinforce this reading. First, stock-financed acquirers are systematically smaller than cash-financed acquirers (median market capitalisation of €85.1 million against €698.5 million), so the universe of stock-paid deals in the Nordic market mechanically contains few transactions in which both the acquirer is large, and the deal is large in absolute terms. Second, RELSIZE itself is heavily right skewed in the stock subsample, with a mean of 1.68 against a median of 0.32, so the variation that identifies the interaction is concentrated in a small number of unusually transformative transactions. Both features depress the statistical power of the H2 test in this sample even where the underlying mechanism is operative.

5.3 Cross-Country Heterogeneity within the Nordic Market

The cross-country pattern in Table 5 suggests that the main Nordic M&A market is a heterogeneous unit for the purpose of testing the method-of-payment effect. Even within four markets that share broad institutional features, the specific industry composition, ownership concentration, and stock-financing intensity differ in ways that may affect the informational content of the payment choice. Stock-financing intensity itself is informative: 19.6% of Norwegian deals are stock-financed, against 12.8% in Finland, 10.3% in Sweden, and only 6.6% in Denmark. If the residual signalling content of the payment choice were monotone in the rarity of the practice, the Danish coefficient should be the most negative, but it is in fact the most positive. We acknowledge that the stock subsamples may be too small to support reliable

inference, and we read the country splits primarily as evidence against treating the four markets as a single statistical unit, rather than as country-specific structural estimates.

A complementary reading of the same pattern is that the cross-country dispersion is itself a substantive empirical contribution. The previous literature on European M&A returns, including Martynova and Renneboog (2011), has tended to treat continental Europe as a single block defined in opposition to the Anglo-American markets. The Nordic data show that even a tightly defined regional block with a common institutional spine generates materially different point estimates of the method-of-payment effect across its constituent markets.

5.4 Economic Significance and Shareholder Wealth Implications

The statistical discussion above bears on whether the data support a rejection of the null. Separately, but equally relevant for interpretation, is whether the point estimates are economically material for the shareholders of the firms in question. The headline coefficient of -1.89 p.p. on a 5-day window translates, at the median acquirer market capitalisation in the stock subsample of €85.1 million, into an average wealth effect of approximately €1.6 million per stock-financed deal relative to a cash-financed counterfactual. At the mean acquirer market capitalisation in the stock subsample of €1,850 million, the same coefficient implies an average wealth effect of approximately €35 million per deal. Aggregated over the 139 stock-financed deals in the sample, and taking the simple mid-point of these two figures, the implied total announcement-period wealth differential between the stock and cash financing channels is on the order of several billion euros over the 2006-2025 period. These figures are illustrative rather than structural, in the sense that they apply the average coefficient uniformly to the realised market capitalisations of the stock subsample and do not account for the deal-level heterogeneity in the H2 interaction. However, they are nonetheless a useful benchmark for the order of magnitude of the wealth effects implied by the point estimates.

The economic interpretation of the second hypothesis is that the wealth effect of payment choice scales with the size of the issuance commitment. At the low end of stock-deal RELSIZE, where the marginal effect is -1.51 p.p., the median acquirer in the stock subsample loses approximately €1.3 million in announcement-period market value relative to a comparable cash-financed deal. At the top tercile of RELSIZE, where the marginal effect is -3.34 p.p., the same median acquirer loses approximately €2.8 million. Applied to the mean stock-subsample market capitalisation of €1,850 million, the figures rise to approximately €28 million and €62 million, respectively. The doubling of the implied wealth effect from the lower two terciles to the top tercile is

consistent with the underlying theory. The announcement period markdown on a stock-financed acquirer scales with the relative size of the equity issuance committed by the deal, and this scaling is economically large even where it is not statistically separable from zero in this sample.

Two qualifications attach to these wealth effect calculations. First, they are computed against a counterfactual in which the same acquirer financed the same deal in cash. They are not statements about whether the acquisition itself created or destroyed value relative to a no-deal counterfactual, which is a separate question that this study is not designed to address. Second, the calculations rest on the announcement-period CARs and therefore capture the market's revised assessment of the deal at the moment of announcement. Subsequent revisions, including those reflected in long-run post-announcement returns, may either reinforce or weaken the announcement-period effect. The figures reported here should accordingly be read as the immediate market-implied wealth consequence of the financing choice, not as the long-run wealth consequence of the acquisition.

5.5 Methodological Choices

The binary financing variable, STOCK, excludes mixed-financing deals by construction, since H1 and H2 rely on a clean distinction between the two informational signals. The exclusion is shared with Travlos (1987) and Golubov, Petmezas and Travlos (2016) and is therefore not a deviation from the standard empirical framework, but a finding that the pure-cash vs. pure-stock differential is muted in the Nordic market does not rule out the possibility that the mixed-financing channel carries a different signalling content.

The moderation test for the second hypothesis relies on a tercile cutoff computed within the stock subsample rather than on a continuous interaction. This choice reflects the heavy right-skew in stock-deal RELSIZE and the leverage that a small number of unusually large deals would exert on a continuous interaction term. The trade-off is that the tercile specification imposes a step in the marginal-effect surface at the chosen threshold, with the differential identified off the 47 stock-financed deals above the cutoff. The point estimate should accordingly be read as one functional form choice among several rather than as a robust feature of the data, and the substantive inference, that the data do not formally support H2, rests on the failure to reject the null rather than on the magnitude or sign of the tercile-step coefficient.

Finally, the propensity-score-matched specification is a robustness check rather than the main specification, and it should be read as such. The matched sample restores covariate balance for

several but not all of the pre-treatment covariates, and the residual imbalance on MARCAP, OPER PERFORM, TPUBLIC, and DEAL VALUE reflects the intrinsic difficulty of finding cash-paid comparators for the smallest, weakest-performing, public-target stock-financed deals in the sample. The matched estimate of -3.88 p.p. is therefore best read as a conditional point estimate over the region of the covariate space in which the matching assumption is most defensible, rather than as an estimate of the average treatment effect over the full population.

6. Conclusions

6.1 Summary and Contribution

This thesis has examined whether the method of payment in Nordic M&A transactions affects the acquirer's announcement-period abnormal returns. Using a sample of 1,205 completed deals announced by publicly listed Danish, Finnish, Norwegian and Swedish acquirers between January 2006 and December 2025, of which 139 were financed entirely with stock and 1,066 entirely with cash, we tested two hypotheses derived from the adverse selection framework of Myers and Majluf (1984). H1 predicted that stock-financed acquirers earn lower 5-day cumulative abnormal returns than cash-financed acquirers, and H2 predicted that this differential is amplified in proportionally larger transactions.

The evidence supports the predicted direction of the method-of-payment effect but does not formally establish it at conventional significance levels. The headline coefficient on STOCK in the main specification is -1.89 p.p., economically of the same order as the US estimates in Travlos (1987) and Golubov, Petmezas and Travlos (2016), yet statistically indistinguishable from zero ($p = 0.197$). The negative sign is preserved across all three controlled specifications. The propensity-score-matched estimate of -3.88 p.p. ($p = 0.115$), roughly twice the magnitude of the full-sample coefficient, suggests that selection on observables masks part of the cash-stock differential in the unmatched data. The H2 interaction is likewise consistent with theory, with the marginal effect of stock financing more than doubling between the lower two terciles and the top tercile of stock-deal RELSIZE, but the precision is too low to support rejection of the null. The country splits, finally, reveal substantial heterogeneity across the four markets and caution against treating the main Nordic M&A markets region as a single statistical unit.

The thesis contributes to the M&A literature in three respects. First, it provides the first systematic, large sample examination of the method-of-payment effect for the four main Nordic M&A markets, filling a geographic gap in a literature dominated by Anglo-American evidence. Second, the twenty-year sample period spans two merger waves, the global financial crisis, the

COVID-19 pandemic, and multiple interest rate cycles, and the directional persistence of the cash-stock differential across this temporal heterogeneity adds to the evidence that the underlying mechanism is structural rather than cyclical. Third, by isolating cross-country heterogeneity within a tightly defined institutional block, the thesis speaks against the common practice of pooling continental Europe into a single comparator block.

6.2 Limitations

The first and most consequential limitation is statistical power. With 139 stock-financed deals against 1,066 cash-financed deals, the standard error on STOCK in the main specification is 1.47 p.p., implying a minimum detectable effect of approximately 4.1 p.p. at conventional 80% power. With the Travlos (1987) US benchmark at -1.47 p.p. and a Nordic prior of attenuated magnitude, the sample is underpowered to detect the predicted-magnitude effect at conventional significance levels. The H2 interaction is identified off only 47 stock-financed deals in the top tercile of stock-deal RELSIZE, which inflates the standard error on the interaction coefficient to 4.28 p.p. We therefore caution against interpreting the failure to reject the null as positive evidence that the Nordic method-of-payment effect is zero.

The second limitation concerns the binary financing design. Following the established specification of Travlos (1987) and Golubov, Petmezas and Travlos (2016), we restrict the sample to pure cash and pure stock deals and exclude mixed-financing transactions entirely. This choice sharpens the identification of the financing-signal mechanism, but it removes a class of transactions that may be informative in its own right and reduces the statistical mass of the stock subsample further.

The third limitation is methodological. The Market-Adjusted Model is the appropriate choice for a multi-country sample of this size, but it does not adjust for systematic differences in beta across acquirers, and it abstracts from confounding announcements within the 5-day event window. We have not screened the sample for contemporaneous earnings releases or other corporate news that would inflate the event-window CAR for individual deals, and we have not addressed serial-acquirer effects beyond the two-way clustering of standard errors. While these designs are standard in comparable literature, they may depress the precision of the estimates.

6.3 Further Research

The most immediate suggestion for further research is to relax the binary financing design that this thesis adopts. A natural extension would replace the discrete STOCK indicator with a continuous payment-mix variable defined as the share of equity consideration in the total deal

value, and to readmit the mixed-financing transactions that are excluded from the present sample. This redesign would simultaneously expand the size of the analytical sample and convert H1 into a sharper test of whether the cash-stock differential is monotone in the share of equity consideration. If the adverse-selection mechanism operates as theory predicts, the announcement-period return should decline smoothly with the equity-consideration share, and a monotone gradient would constitute stronger evidence of the financing-signal channel than a binary cash vs. stock contrast can provide.

Finally, another direction is to extend the analysis to target-side announcement returns and combined acquirer-target wealth effects. The present design speaks only to the acquirer's announcement-period return and is therefore silent on whether the cash-stock differential reflects a wealth transfer between the two sides of the transaction or a signal of value destruction at the deal level. Estimating CARs for the listed targets in the sample, computing combined value-weighted wealth effects, and re-running the H1 specification on the combined return would shift the question from whether stock acquirers lose to whether the cash-stock differential is a redistribution of gains between the contracting parties or a destruction of joint value. This distinction is a natural next step in interpreting the Nordic effect, and it would clarify whether the Nordic adverse-selection cost is borne primarily by acquirer shareholders or absorbed at the deal level.

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Appendix

Appendix A. Correlation Matrix

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
(1) STOCK	1.00																	
(2) MARCAP	-0.26***	1.00																
(3) M/B	-0.00	0.17***	1.00															
(4) RUN-UP	-0.11***	0.05	0.10***	1.00														
(5) LEVERAGE	-0.12***	-0.00	-0.16***	0.02	1.00													
(6) CASH HOLD	0.17***	-0.18***	0.19***	-0.02	-0.38***	1.00												
(7) OPER PERFORM	-0.35***	0.43***	0.16***	0.14***	0.01	-0.13***	1.00											
(8) ASSET TANG	-0.09***	0.16***	-0.21***	-0.02	0.52***	-0.34***	0.06**	1.00										
(9) P/CF	-0.15***	0.11***	0.09***	0.09***	0.09***	-0.08***	0.24***	0.07***	1.00									
(10) DEAL VALUE	0.03	0.56***	0.02	0.00	0.05*	-0.10***	0.15***	0.11***	0.03	1.00								
(11) RELSIZE	0.38***	-0.37***	0.02	-0.10***	-0.02	0.06**	-0.28***	-0.04	-0.01	0.12***	1.00							
(12) DIVERSIFIC	0.06**	-0.04	-0.01	-0.05*	-0.11***	0.06**	-0.02	-0.18***	-0.10***	-0.07**	0.01	1.00						
(13) HOSTILE	-0.01	0.02	-0.02	-0.03	0.00	0.10***	0.05	0.01	-0.01	0.05	-0.00	-0.02	1.00					
(14) TENDER	0.16***	0.07**	-0.03	0.02	-0.04	0.00	-0.01	-0.05*	0.01	0.16***	0.02	-0.03	-0.01	1.00				
(15) MULTIBID	0.02	0.05*	0.02	-0.01	0.00	-0.01	0.02	0.03	0.00	0.07**	-0.01	-0.01	-0.00	0.06*	1.00			
(16) PURE PRIMARY	0.04	-0.02	0.04	0.02	0.03	0.02	-0.01	-0.05	0.08***	0.10***	0.07**	-0.03	-0.00	0.09***	-0.01	1.00		
(17) TPUBLIC	0.28***	0.14***	-0.02	-0.02	-0.08***	0.03	-0.01	-0.05*	-0.01	0.25***	0.05*	-0.02	0.09***	0.63***	0.18***	0.05*	1.00	
(18) XBORDER	-0.24***	0.29***	0.13***	0.08***	-0.11***	0.06**	0.15***	-0.24***	0.03	0.18***	-0.14***	-0.03	0.02	-0.07**	0.02	-0.03	-0.06**	1.00

Notes: *This table reports pairwise Pearson correlation coefficients (lower triangle) between the stock-financing indicator (STOCK), the eight acquirer characteristics, and the nine deal characteristics, used in the H1 and H2 specifications. Coefficients are reported to two decimal places. Continuous variables are winsorized at the 1st and 99th percentiles on the pooled sample. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.*

Appendix B. Multicollinearity Test

Variable	VIF
STOCK	1.502
MARCAP	2.657
M/B	1.207
RUN-UP	1.051
LEVERAGE	1.545
CASH HOLD	1.315
OPER PERFORM	1.419
ASSET TANG	1.698
P/CF	1.109
DEAL VALUE	1.964
RELSIZE	1.579
DIVERSIFIC	1.058
HOSTILE	1.038
TENDER	1.689
MULTIBID	1.044
PURE PRIMARY	1.044
TPUBLIC	1.944
XBORDER	1.297
Mean VIF	**1.453**
Max VIF	**2.657**

Notes: *This table reports variance inflation factors (VIFs) from an auxiliary OLS regression of each regressor on the remaining regressors used in the H1 and H2 specifications. Year, industry, and country fixed effects are excluded from the VIF computation as dummy-variable VIFs are mechanically inflated and not informative for assessing multicollinearity among substantive regressors. Continuous variables are winsorized at the 1st and 99th percentiles on the pooled sample. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. As a rule of thumb, VIF values exceeding 10 suggest high multicollinearity, whereas values near 1 indicate low multicollinearity.*

Appendix C. Descriptive Statistics

Panel A: All transactions

Variable	N	Mean	SD	Min	P25	Median	P75	Max
MARCAP (€ mil.)	1,205	3,727.946	8,991.128	2.821	127.300	592.950	2,584.910	58,545.851
MARCAP	1,205	6.334	2.174	1.037	4.847	6.385	7.857	10.977
M/B	1,205	3.154	3.345	0.460	1.310	2.110	3.540	22.560
RUN-UP	1,205	0.060	0.343	-0.735	-0.141	0.018	0.242	1.215
LEVERAGE	1,205	0.278	0.173	0.000	0.138	0.271	0.398	0.671
CASH HOLD	1,205	0.083	0.083	0.001	0.026	0.056	0.111	0.414
OPER PERFORM	1,205	0.101	0.121	-0.584	0.068	0.105	0.151	0.403
ASSET TANG	1,205	0.250	0.290	0.002	0.036	0.134	0.318	0.981
P/CF	1,205	12.228	23.234	-104.854	6.720	11.280	17.230	125.008
DEAL VALUE (€ mil.)	1,205	137.990	336.349	1.192	7.731	25.543	93.702	2,149.146
DEAL VALUE	1,205	3.343	1.776	0.176	2.045	3.240	4.540	7.673
RELSIZE	1,205	0.339	1.277	0.001	0.016	0.051	0.160	10.648
DIVERSIFIC	1,205	0.370	0.483	0	0	0	1	1
HOSTILE	1,205	0.001	0.029	0	0	0	0	1
TENDER	1,205	0.047	0.212	0	0	0	0	1
MULTIBID	1,205	0.003	0.058	0	0	0	0	1
PURE PRIMARY	1,205	0.011	0.103	0	0	0	0	1
TPUBLIC	1,205	0.094	0.292	0	0	0	0	1
XBORDER	1,205	0.611	0.488	0	0	1	1	1
CAR2 (%)	1,205	3.720%	11.547%	-18.665%	-1.881%	1.343%	6.052%	62.987%

Panel B: Stock-financed transactions

Variable	N	Mean	SD	Min	P25	Median	P75	Max
MARCAP (€ mil.)	139	1,849.753	6,311.806	2.821	24.300	85.120	477.675	44,886.670
MARCAP	139	4.754	2.339	1.037	3.190	4.444	6.167	10.712
M/B	139	3.119	3.722	0.460	1.200	2.000	3.240	22.560
RUN-UP	139	-0.045	0.426	-0.735	-0.289	-0.050	0.153	1.215
LEVERAGE	139	0.220	0.184	0.000	0.070	0.203	0.322	0.671
CASH HOLD	139	0.122	0.116	0.002	0.033	0.078	0.177	0.414
OPER PERFORM	139	-0.015	0.205	-0.584	-0.104	0.053	0.110	0.403
ASSET TANG	139	0.179	0.248	0.002	0.013	0.071	0.236	0.981
P/CF	139	2.298	37.357	-104.854	-6.750	5.900	15.375	125.008
DEAL VALUE (€ mil.)	139	216.792	493.699	1.319	6.490	26.736	164.367	2,149.146
DEAL VALUE	139	3.496	2.021	0.277	1.870	3.286	5.102	7.673
RELSIZE	139	1.676	3.206	0.001	0.069	0.315	0.991	10.648
DIVERSIFIC	139	0.453	0.500	0	0	0	1	1
HOSTILE	139	0.000	0.000	0	0	0	0	0
TENDER	139	0.144	0.352	0	0	0	0	1
MULTIBID	139	0.007	0.085	0	0	0	0	1
PURE PRIMARY	139	0.022	0.146	0	0	0	0	1
TPUBLIC	139	0.324	0.470	0	0	0	1	1
XBORDER	139	0.281	0.451	0	0	0	1	1
CAR2 (%)	139	6.063%	16.172%	-18.665%	-2.262%	1.491%	8.924%	62.987%

Panel C: Cash-financed transactions

Variable	N	Mean	SD	Min	P25	Median	P75	Max
MARCAP (€ mil.)	1,066	3,972.851	9,257.900	2.821	179.160	698.530	2,966.767	58,545.851
MARCAP	1,066	6.540	2.066	1.037	5.188	6.549	7.995	10.977
M/B	1,066	3.159	3.294	0.460	1.340	2.120	3.547	22.560
RUN-UP	1,066	0.074	0.328	-0.735	-0.124	0.022	0.245	1.215
LEVERAGE	1,066	0.286	0.170	0.000	0.151	0.280	0.405	0.671
CASH HOLD	1,066	0.078	0.077	0.001	0.025	0.055	0.104	0.414
OPER PERFORM	1,066	0.116	0.095	-0.584	0.077	0.111	0.155	0.403
ASSET TANG	1,066	0.260	0.294	0.002	0.045	0.143	0.330	0.981
P/CF	1,066	13.522	20.368	-104.854	7.280	11.800	17.402	125.008
DEAL VALUE (€ mil.)	1,066	127.715	308.864	1.192	7.963	25.215	90.000	2,149.146
DEAL VALUE	1,066	3.323	1.741	0.176	2.075	3.227	4.500	7.673
RELSIZE	1,066	0.165	0.499	0.001	0.014	0.043	0.122	7.788
DIVERSIFIC	1,066	0.359	0.480	0	0	0	1	1
HOSTILE	1,066	0.001	0.031	0	0	0	0	1
TENDER	1,066	0.035	0.183	0	0	0	0	1
MULTIBID	1,066	0.003	0.053	0	0	0	0	1
PURE PRIMARY	1,066	0.009	0.096	0	0	0	0	1
TPUBLIC	1,066	0.064	0.244	0	0	0	0	1
XBORDER	1,066	0.654	0.476	0	0	1	1	1
CAR2 (%)	1,066	3.414%	10.772%	-18.665%	-1.826%	1.342%	5.647%	62.987%

Panel D: Distribution by year

Year	All		Stock		Cash	
	N	*%*	*N*	*%*	*N*	*%*
2006	64	5.31	10	7.19	54	5.07
2007	46	3.82	5	3.60	41	3.85
2008	32	2.66	1	0.72	31	2.91
2009	23	1.91	8	5.76	15	1.41
2010	34	2.82	6	4.32	28	2.63
2011	29	2.41	7	5.04	22	2.06
2012	38	3.15	2	1.44	36	3.38
2013	42	3.49	4	2.88	38	3.56
2014	31	2.57	3	2.16	28	2.63
2015	63	5.23	8	5.76	55	5.16
2016	83	6.89	4	2.88	79	7.41
2017	70	5.81	4	2.88	66	6.19
2018	85	7.05	5	3.60	80	7.50
2019	80	6.64	3	2.16	77	7.22
2020	72	5.98	10	7.19	62	5.82
2021	99	8.22	16	11.51	83	7.79
2022	96	7.97	12	8.63	84	7.88
2023	72	5.98	7	5.04	65	6.10
2024	71	5.89	10	7.19	61	5.72
2025	75	6.22	14	10.07	61	5.72
Total	**1,205**	**100.00**	**139**	**100.00**	**1,066**	**100.00**

Panel E: Distribution by acquirer macro industry

Industry	All		Stock		Cash	
	N	*%*	*N*	*%*	*N*	*%*
Consumer Products and Services	108	8.96	8	5.76	100	9.38
Consumer Staples	72	5.98	5	3.60	67	6.29
Energy and Power	43	3.57	9	6.47	34	3.19
Financials	54	4.48	12	8.63	42	3.94
Healthcare	121	10.04	17	12.23	104	9.76
High Technology	235	19.50	29	20.86	206	19.32
Industrials	217	18.01	24	17.27	193	18.11
Materials	76	6.31	6	4.32	70	6.57
Media and Entertainment	44	3.65	6	4.32	38	3.56
Real Estate	134	11.12	11	7.91	123	11.54
Retail	36	2.99	5	3.60	31	2.91
Telecommunications	65	5.39	7	5.04	58	5.44
Total	**1,205**	**100.00**	**139**	**100.00**	**1,066**	**100.00**

Panel F: Distribution by acquirer country

Country	**All**		**Stock**		**Cash**	
	N	***%***	***N***	***%***	***N***	***%***
Denmark	121	10.04	8	5.76	113	10.60
Finland	164	13.61	21	15.11	143	13.41
Norway	163	13.53	32	23.02	131	12.29
Sweden	757	62.82	78	56.12	679	63.70
Total	**1,205**	**100.00**	**139**	**100.00**	**1,066**	**100.00**

Notes: *This table reports descriptive statistics for the sample of 1,205 Nordic M&A transactions announced between January 1, 2006, and December 31, 2025. Variable definitions are provided in Section 3.2. MARCAP and DEAL VALUE are reported both in € millions (de-logged for readability) and in natural-log form; the regression specifications use the natural logarithm of these variables. All continuous variables are winsorized at the 1st and 99th percentiles to mitigate the influence of extreme outliers; indicator variables are left unchanged.*

Appendix D. Authors Note on AI

In authoring this thesis, we have used generative AI in accordance with the guidelines of Stockholm School of Economics (SSE). The tools used were Claude Sonnet 4.6 and Claude Opus 4.7, developed by Anthropic (claude.ai). Claude was used throughout the writing process primarily to improve language clarity, correct grammar, and assist with structuring and phrasing arguments. Furthermore, it was used to support the development of Python code for data handling, statistical analysis, and table generation across our analytical notebooks.

We wish to emphasise that all ideas, arguments, empirical design decisions, and interpretations of results are our own. AI was not used to reason on our behalf, draw conclusions from our data, or generate academic content independently. Only completed drafts were submitted for language revision, and all AI assisted code was manually assessed to the best of our abilities and verified against our data. We are aware that generative AI tools are prone to errors, and we accordingly treated all AI output as a draft rather than a finished product. The use of AI assisted us in working more effectively on our thesis, yet all substantive decisions in this thesis were ultimately made by us.