The initial stock market reaction to announced M&As – The case of European and UK acquirers

Master Thesis

Name: Willard ter Stal

Student number: s2418916

e-mail: w.g.terstal@student.utwente.nl

University of Twente

Faculty Behavioural, Management and Social Sciences (BMS)

MSc Business Administration – Financial Management

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1st supervisor: Dr. X. Huang

2nd supervisor: Dr. V. Marisetty

UNIVERSITY OF TWENTE.

Abstract

This study examines the initial stock market reactions to M&A announcements by European and UK acquiring firms from 2010 till 2019. In the same manner, indicating multiple theoretical explanations, this paper provides a better understanding towards the short-term performance of M&As, captured through the stock market reaction. The sample consists of 187 M&A announcements between 2010 till 2019 by European and UK acquiring firms, capturing both domestic and cross-border M&As. Multiple analyses have been performed through statistically testing for the announcement events as well as regression analysis. The regression explicitly evaluates the role of payment method as well as distance, both geographically and in terms of governance quality between the involved countries. Overall, this study finds an average return between .582% and 1.257% for the acquiring firms, based on multiple announcement windows and the market model and market adjusted model. However, the results of the additional analysis do not present an overall influence for payment method and the earlier mentioned multidimensional distance indicators. Only a moderating effect through governance quality distance and M&A deals with multiple sources of payment is presented. More specifically, the initially observed positive stock market reaction becomes negative for mixed-financed M&As when the distance in country governance quality increases. The findings of this study are against the expectations gathered through prior research, thereby questioning the relevancy of stock market reaction investigation in the M&A research-field.

Keywords

M&As, takeover waves, initial stock market reaction, payment method, country governance quality, governance mechanisms

Table of contents

1. Introduction

Nowadays, one of the most addressed, studied, and valued subjects in the area of corporate expansion is expansion through M&As. Bureau van Dijk reported a total amount of 98,181 M&A deals globally during 2019, with a combined value of $4,589,597 million (Bureau van Dijk, 2020). To explain, Bureau van Dijk (2020) ranks the year 2019 in the context of M&A deals as the sixth-highest year on record in terms of volume, and the seventh highest by value. These numbers address the global impact of M&A deals on corporate expansion. Moreover, not only the numbers of M&A deals globally, but also the reasoning behind those M&A's address a valued impact, as Tao, Liu, Gao, and Xia (2017) note that as an example, cross-border M&A can be seen as indication of a substantial changing corporate strategy for a firm's expansion. This can also be stated regarding the $2,8 billion worth, cross-border acquisition of the American firm BioTelemetry by Philips. Philips is mainly active in the sale of equipment in hospitals but anticipates hereby towards the rapidly growing market of remote care (Financieel Dagblad, 2020). In addition, BioTelemetry is the American market leader in remote cardiac monitoring, thereby Philips chooses not to invest in researching remote cardiac monitoring themselves, but in a firm that possesses the desired knowledge and technology already (Financieel Dagblad, 2020). As indicated, this specific case highlights an industry-related M&A, whereby the acquiring firm anticipates a rapidly changing environment by participating in a cross-border M&A and is thereby a representative example to highlight the globally growing popularity of mergers and acquisitions. Additionally, the process of such an acquisition can be very complicated and influenced by various factors.

Likewise, the popularity in business practices, M&As have been one of the most studied topics in corporate management and is rising in popularity in other disciplines. As mentioned, M&As, and specifically cross-border M&As, can indicate a substantial changing corporate strategy, which sheds a different light on investor's perception of the firm's future performance, constituting a stock-market reaction (Tao et al., 2017). As M&As are expected to be driven by synergies, a combined unique value creation through joint effect greater than each separate effect, whereby many occur due to technology reasons (Bena & Li, 2014; Song et al., 2021). Moreover, Bena and Li (2014) uncover corporate innovation activity as an acquisition driver with positive merger outcomes. Given this, firms can potentially benefit from acquisitions. More precisely, innovation activities and technological overlap between firms' innovation activities increases a firm's likelihood to be acquired, or merger pair formation, and raises the takeover premium as a next step (Wu & Chung, 2019; Bena & Li, 2014).

In contrast, regarding the positive outcomes of M&As, Haleblian, Devers, McNamara, Carpenter, and Davison (2009) state that although studies generally showed positive combined returns as a result of M&As, most of the gains is accounted for by targets, leaving acquirers with neutral or even negative returns. Nevertheless, it is indicated that M&As under certain conditions and situations, can be beneficial for acquirers (Haleblian et al., 2009). To explain, Dutta, Saadi, and Zhu (2013) conclude from extant literature that payment method matters for M&As to shareholders, whereby cash offers are more positively viewed than stock offers, from the acquiring shareholders' perspective. Interestingly, they find that some circumstances provide important advantages for stock-financed deals rather than cash-financed deals, indicating a positive relationship for short-term performance. Additionally, stock-payment in cross-border acquisitions is reviewed and considered as a remedy for reducing information asymmetry as well as risk related to corporate governance (Dutta et al., 2013). To conclude, M&A performance in terms of stock market reaction is mainly determined by the method of payment, as the payment method is perceived to reflect the rationale and reasoning for the M&A deal.

To link back to the beginning, the assumptions of information asymmetry are applicable to situations in various dimensions. In the first place, information asymmetry between acquirer and target is concerned within the ability of an acquirer to accurately value a target firm. Bena and Li (2014) take this perspective in studying M&As and corporate innovation, as they highlight that the intangibility of certain assets is more difficult to evaluate and value for acquiring firms, whereas the

target possesses and is aware of the true value. Such a situation addresses the arising difficulties and uncertainty in the M&A process, due to the arising of information asymmetry between acquirer and target. Provided that, specific target characteristics are demonstrated as influential in the M&A process regarding firm valuation also, as is indicated that unrelated firms, as well as high-tech firms induce uncertainty or unbalance of information by nature. Alongside this information asymmetry between acquirer and target, information asymmetry between the M&A participants and the external market can also occur and affect the M&A performance. Therefore, the performance of M&A is subjected to comprehensive research, as a variety of approaches can be used to measure acquisition performance. Song et al. (2021) use the initial stock market reaction as independent variable to examine alignment with M&A performance, which is based on market efficiency theory; an approach which fundamentally assumes that stock market investors have access to pertinent information to make objective evaluations of firm activities based on value-maximizing criteria (Angwin, Paroutis, & Connell, 2015; Fama, 1970; Shiller, 2003, as cited in Song et al., 2021). However, as this assumption does not always hold, consequently information asymmetry arises, as acquirer's managers may have information about the combining firms and synergy which may not be available to stock market investors. As a result, those investors are not able to value M&A announcement correctly, which may lead to misalignment between initial stock market reaction and post-acquisition performance (Agrawal & Jaffe, 2000; Ben-David, Drake, & Roulstone, 2015; Loughran & Vijh, 1997; Rau & Vermaelen, 1998, as cited in Song et al., 2021; Tao et al., 2017).

Specifically, information asymmetry between investors and acquirers can occur due to target firms' opaqueness and due to the level of financial market development (Song et al., 2021; Tao et al., 2017). Furthermore, applying signalling theory can help to predict the reaction of investors to M&A announcements through buying and selling shares in the stock market (Tao et al., 2017). Additionally, Tao et al. (2017) note that a firm's activities, M&A activities in this specific case, can signal to investors, thereby influencing or changing their expectations. In contrast, unique advantages for stock payment in terms of dealing with agency problems and governance concerns are indicated by Ellis et al. (2017); Dutta et al. (2013); and Starks and Wei (2013). More specifically, the home country governance can be transferred towards targets in countries with lower governance quality (Ellis et al., 2017), whereas stock payment also facilitates possibilities to deal more effectively with agency problems due to reducing information asymmetries and monitoring activities, depending on ownership structures (Dutta et al., 2013; Starks & Wei, 2013).

Consequently, the initial stock market reaction regarding M&A announcements is expected to depend on deal-, internal firm or industry specific characteristics as well as external factors, such as governmental- and market development characteristics. Additionally, both Ellis, Moeller, Schlingemann, and Stulz (2017) and Tao et al. (2017) demonstrate the relevance of country governance quality in the process of M&A activities and performance, although both studies provide diverse conclusions. Furthermore, as indicated, stock financing in M&As for the international context may provide unique advantages related to corporate control, as transfer of corporate governance and control mechanisms can be beneficial in the process of M&A.

As a result, this research is focused on extending current knowledge and prior research on firm performance related to the announcement of M&As, examining the effect of announced M&As on shareholders wealth through the investigation of initial stock-market reactions. Therefore, this research aims to answer the following question: What is the initial stock market reaction to M&A announcements for acquiring firms in Europe and the UK? Additionally, this research investigates the method of payment and country governance quality through the international context in relation to market reaction to M&A announcements in more detail. This investigation is a result of the widely studied aspect of payment method in the M&A context, as literature mainly demonstrates that payment method matters for shareholder wealth. However, the sign of this relationship is subject to diverse conclusions, as some indicate that cash financed M&As dominate the shareholder wealth effect while others demonstrate that stock financed M&As explain the main part of market reactions. Moreover, it is also indicated that the means of payment holds specific advantages in global expansion through M&As. Next, due to the substantial differences in the level of stock market

development and corporate governance regulation between the UK and Continental Europe, different market reactions can be expected. For these reasons, the payment method and governance quality in the international M&A context will also be investigated. This will be done by a subsample consisting of announced cross-border M&As to indicate the distance in governance quality between the acquirer's and target's home country, as well as subsampling for the acquirer's home country based on Europe and the United Kingdom.

The analysis will be done through the even study method, using the CAR as a measure for initial stock market reaction at the time of M&A announcements. Specifically, CAR is a measurement to calculate cumulative abnormal return, considering the normal return through certain models. Additionally, further analysis will be tested by conducting regression models, which will explain the impact of influential factors in the process of M&As, specifically regarding M&A announcements in this study. Applying these methods, this study follows and combines elements from Ellis et al. (2017); Dutta et al. (2013); and Starks and Wei (2013). The focus for collecting data will be on announced M&As between January 1, 2010, and December 31, 2019, made by firms listed in European and UK stock exchanges. This period is selected, as it can be assumed that a sufficient period is selected after the global financial crisis in 2008 and 2009, as well as before the occurrence of an impacting global pandemic in 2020 due to covid-19. Besides, empirical evidence is saturated for the addressed periods indicated in M&A waves, whereas the past decade remains understudied. As given, acquirers from the UK and continental Europe are selected due to diverse market sentiments compared to the well-studied US market. Besides, the European continent is also considered as sufficient for investigating governance aspects, due to the typically concentrated ownership structures and variety in governance mechanisms (Martynova & Renneboog, 2008; Faccio & Masulis, 2005).

Overall, data on M&A announcements will be collected using the Orbis database. Additional data will be collected using Yahoo Finance, classification statements provided by the European Commission, and the World Governance Indicators index. If noticed, the missing of any important data will be collected through firms' annual reports. Moreover, the Nexis Uni database will be used to check for coinciding events which might influence the measurement of cumulative abnormal returns, and thereby might cause potential bias within the results.

This study contributes to the widely studied field of mergers and acquisitions and the relation with the payment method, as it aims to increase generalizability of prior conducted research with sampling data in another setting and with different market conditions, namely European and UK M&A announcements. Thereby focusing on extended conditions, as not only emerging markets, but rather to developed markets, which are less highlighted in the recent literature due to increasing popularity of emerging markets. More specifically, by selecting European and UK markets, additional in-sample analysis can shed additional light to the results, as literature indicates that the UK markets and countries are significantly different from the continental European markets in terms governance mechanisms and quality. Secondly, this study continues and extends research initiative by using data from a much more recent period and focusing on both emerging and more developed markets. The contribution lays in the combined focus, as most prior research focuses on acquirers from emerging markets or acquirers from US or Canada, which are perceived to be extremely diverse in terms of corporate governance and market conditions, also in comparison to other continents. To explain, by selecting European and UK markets, inner continental differences in country governance quality can be investigated in relation to stock market reactions towards M&A announcements. Moreover, this study specifically combines and sheds additional light at the overall level to the studies of Ellis et al. (2017); Tao et al. (2017); Dutta et al. (2013); and Starks and Wei (2013) by replicating, combining, and investigating partial perspectives from their studies and extent those to a different context.

This research is organized as follows: chapter 2 will describe and build the applied theories and research question-related literature. In chapter 3, the research methodology will be discussed, thereafter following the data collection in chapter 4. Chapter 5 contains the results, meanwhile chapter 6 presents the discussion and conclusion along with limitations regarding the research.

2. Literature review

2.1 M&As from a general view

As this paper is investigating the reaction to a certain event, in this case M&A announcements, it is first necessary to define the term M&A, or mergers and acquisitions, fully written. The definitions separate the two terms; however, the rest of this research does not distinguish between mergers and acquisitions and uses the term M&A to appoint the defined phenomena. By using the term merger, the phenomenon of the transfer of two or more firms' assets into a new launched firm, which is also typed as 'fusion by new launch', is appointed (Ullrich, Wieseke, & Dick, 2005; Goergen & Renneboog, 2004; Ossadnik, 1996). Additionally, Ossadnik (1996) addresses that shareholders exchange their original capital shares from the separated firms for newly created merger firm shares. On the other hand, acquisition is defined as a transfer of assets from at least one firm to another, acquiring firm (Ullrich et al., 2005). More specifically, Ullrich et al. (2005); Goergen and Renneboog (2004) type an acquisition as a 'fusion by integration', in which the acquiring firm takes over other firms. In this way the differences can be addressed as a mainly legal issue (Ullrich et al., 2005). However, in M&A-literature it is often common to use both terms interchangeably. As can be discovered in the definitions, both mergers and acquisitions are about transfers of assets. In addition to this, Brealey, Myers, and Allen (2019) note that forms of such M&As occur in three ways: the first one is through merging, whereby all assets and liabilities are assumed from one company to another; secondly is the alternative of buying the seller's stock in exchange for cash, shares, or other securities; third is to buy assets only, thereby only the ownership of the bought assets is transferred. With such a variety of possibilities, different processes and outcomes of M&As can be expected, which will be highlighted in a later stage of this research.

2.1.1 M&A motives

Defining M&A does not tell that much about why such activities are conducted by firms. Therefore, examining the motives for M&A activities expands and tells something more about the phenomena of M&A, as more can be said about the drivers and motives for conducting such activities. In the first place, M&As are established as significantly influential to a wide variety of stakeholders, including shareholders (Yaghoubi, Yaghoubi, Locke, & Gibb, 2016; Martynova & Renneboog, 2008). Moreover, by conducting M&A activities, firms aim to maximize shareholder value, as representation of firm performance. To increase shareholder value, firms aim to gain economically through takeovers, by merging the resources of the two firms, which is called the synergy motive (Berkovitch & Narayanan, 1993; Goergen & Renneboog, 2004). Regarding this motive, the general assumption is that managers of both firms have the intention to maximise shareholder wealth (Berkovitch & Narayanan, 1993; Goergen & Renneboog, 2004). Therefore, the economic gain for both firms is expected to be positive. Additionally, through bargaining power because of the ability to resist the bid or competition among bidders, the target's wealth gain can even increase relatively to the total combined synergy gain (Berkovitch & Narayanan, 1993; Goergen & Renneboog, 2004).

Still, managers might give priority to growth strategies instead of maximizing shareholder wealth, which include value-destroying mergers, due to not owning equity (Goergen & Renneboog, 2004). Such an issue indicates a higher level of agency problems. Moreover, within the perspective of M&As motivated by the self-interest of the acquirer management, it is expected that the result of M&As is value extraction from the acquirer shareholders, transferred towards acquirer management (Berkovitch & Narayanan, 1993; Goergen & Renneboog, 2004; Jensen, 1986). Specifically, Berkovitch & Narayanan (1993) indicate such issues as they highlight that through acquiring familiar firms, dependency on specific managerial skills can be created, thereby primarily focusing on outperforming competition instead of shareholder wealth. Additionally, such actions result in agency costs, reducing and changing the division within the combined value compared to shareholder wealth and besides make it even more difficult to replace the manager, indicating self-interest acting

(Berkovitch & Narayanan, 1993; Shleifer & Vishny, 1989). Besides, as mentioned, a manager's priority to growth strategies can also cause agency problems, as growth increases a manager's control over resources and thereby their power, resulting in higher possibility of value-decreasing acquisitions due to free cash flows (Martynova & Renneboog, 2008; Jensen, 1986). Moreover, Jensen (1986) notes that growth strategies most often are beneficial for managers' compensation, as compensation is related to sales growth.

In the third place, the bidding management's hubris is mentioned as motive for M&As, which suggests that management makes mistakes in evaluating targets, typically in the form of overestimating their own abilities to control the process and make the deal succeed. This hubris might even result in engagement of acquirers in non-synergistic acquisitions (Berkovitch & Narayanan, 1993; Goergen & Renneboog, 2004; Roll, 1986). To explain, an equal probability of over- or underestimating a M&A's synergy means that managers may pay too much most often, making a bid after overestimating the outcome synergies (Goergen & Renneboog, 2004). Such a situation eventually results in a wealth transfer from the bidder to the target with an overall gain of zero, as the target's gain is the bidder's 'pain' (Berkovitch & Narayanan, 1993; Goergen & Renneboog, 2004).

Overall, the terms mergers and acquisitions are most often used interchangeably, whereby 'fusion by new launch' is a proper visual way to define mergers, and 'fusion by integration' is a proper visual way to define acquisitions. As most important, both terms capture a transfer of assets. The occurrence of M&As can be mainly motivated in three ways. First, M&A activities are conducted to maximize shareholder wealth. Secondly, managers might conduct M&A activities for self-interested goals rather than maximizing shareholder wealth. Third, M&A activities can be motivated through management mistakes in target evaluation.

To substantiate the explanations of the mentioned motives for conducting M&As more concretely, general empirical evidence will be discussed in short. To explain, a first indication will be given, not directly diving in the deep, as additional characteristics will concretely provide better explanations for understanding the motives of M&As.

First, Goergen & Renneboog (2004) analysed the correlations between the target gain and total gain and target gain and bidder gain, to facilitate suggestions about the M&A's motive. To explain, an indication of a synergy motive is expected when both correlations are positive. Moreover, the correlations are tested for the expected indication by analysing the wealth gains at the announcement day and over the period from ten days before up to and including the announcement day. As a result, both those correlations indicate a synergistic motivation as they remain significant and positive, based on a sample of 64 large European M&A bids (Goergen & Renneboog, 2004). To explain, the correlations indicate that the target's gain increases when the total gain increases, as well as an increase in the acquirer's gain alongside the target's gain. Based on these full-sample correlations, Goergen and Renneboog (2004) conclude that their results indicate synergies as prime motivation for participating in M&As, where the wealth gains are shared by both acquirer and target. This result is in line with Berkovitch and Narayanan (1993), who also test this correlation with a sample based on US acquirers. Based on the entire sample, synergistic motivation for conducting M&As is indicated as the correlation between target and total gains is significant and positive (Berkovitch & Narayanan, 1993). Although synergy is found as the prime motivation, subsamples provide evidence for additional motivations regarding M&As in general.

Secondly, after creating subsamples based on the direction of gains, out of the total sample, the subsample of negative total gains indicates a domination of agency as motive for M&As, as the correlation between target and total gains is negative (Berkovitch and Narayanan, 1993). In contrast, such an indication is not given by Goergen and Renneboog (2004), as although they also find a negative correlation between target and bidder gains, the correlation between target and total gains is rather positive for the same subsample. This indicates that target gain moves in similar fashion as total gains, where the authors expected that this correlation also would be negative when agency motives are present.

Finally, after regressing the target gain against the acquirer gain, the intercept confirms the presence of hubris when synergy is the primary motive, as the intercept is significantly positive in the positive gain subsample (Berkovitch & Narayanan, 1993). In the same way, Goergen and Renneboog (2004) also find that managerial hubris plays a role in M&A motivation, as they demonstrate a positive correlation between target and total gains but negative and significant between target and bidder gains for the negative total gain subsample. Interestingly, the negative gain subsample intercept is observed as not significantly different from zero, supporting that negative acquirer gains are primarily due to agency problems and hubris does not play a role in this situation (Berkovitch & Narayanan, 1993).

Overall, the specific examinations of the correlations between wealth gains in the context of subsamples provide evidence that M&As are primarily motivated by synergy realization, whereas it appears that managerial hubris might play a role in M&As partially, alongside agency problems.

2.1.2 Types of M&A

In line with such motives for M&A activities, different types of M&As can be discovered, also considering the geographical and nature characteristics.

First, because of the mentioned motives for M&A activities, an M&A can be horizontal, vertical, or conglomerate (Brealey et al., 2019). A M&A is labelled as horizontal if it contains firms involved in the same line of the supply chain or same business industry. Naturally, such M&As arise to reduce costs and achieve economies of scale (Brealey et al., 2019). However, such intentions are also claimed by another type of M&A, which will be discussed in the last part of this paragraph. Besides, Next, vertical M&As contain firms involved which operate in different stages of the supply chain or industry. This means that those firms could have had a buyer-seller relationship before involvement in the M&A process. Brealey et al. (2019) highlight two possibilities of vertical M&As, as they state that acquirers can expand backwards to the suppliers of raw materials, and on the other hand forwards, in the direction of the consumer. This is called Economies of Vertical Integration, whereby such M&As seek to gain control over the supply chain (Brealey et al., 2019). Then there is also the possibility of conglomerate M&As, which contains involvement of firms in unrelated business or industries, which means that the acquirer and target are operating in diverse industries. As mentioned, Brealy et al. (2019) note that achieving economies of scale has also been claimed in conglomerate M&As, by claiming that fixed costs were spread over a larger volume of production, resulting in lower average unit cost and increased production. Next, some conglomerate M&As are conducted as the acquirers aim for diversification as an end in itself, as this is expected to reduce risk. However, Brealey et al. (2019) refute this argument by highlighting diversification through M&As as an end in itself as dubious, since diversification is more accessible and more reasonable for stockholders compared with corporations. These three main types are considered to be relevant in line with the common thread in this research. The next paragraph will shed light on types of M&As focusing on the geographical perspective and the nature of agreement.

To further explain the other mentioned characteristics, the geographical characteristic distinguishes between domestic and cross-border M&As. Goergen and Renneboog (2004) classify M&As as domestic if the target and the bidder are in the same country, which means that on the other hand, M&As are classified as cross-border if the countries of origin differ. Yet other classifications are applied, as Shimizu, Hitt, Vaidyanath, & Pisano (2004) define cross-border M&As as such if the headquarters of both participants are located in different origin countries. Given this, domestic M&As then are qualified as such if both firms' headquarters are located in the same country of origin.

Third, by applying the term nature in the type of M&A, this research points towards the intentions and sentiment within the process of an M&A. More specifically, the level of opposition against a certain M&A from the side of the potential target indicates the M&A's typology within this perspective. This means that an acquisition (attempt) in which the initial offer is rejected by the potential target's board of directors, is commonly qualified as hostile, no matter for what reason it

has been rejected (Goergen & Renneboog, 2004). Additionally, hostility might occur because of incompatibility with the strategy, from the target's point of view, or might be the outcome of a bargaining strategy in case of multiple bidders, to increase the target shareholders' gain (Goergen & Renneboog, 2004). On the other hand, if the potential target's board of directors agree with the initial offer, the acquisition is commonly qualified as friendly.

To conclude, in line with the mentioned motives for M&A activities, M&As can be labelled as horizontal, vertical, or conglomerate M&As. Moreover, focusing on the geographical perspective and the nature of agreement, a differentiation between domestic and cross-border M&As, as well as friendly and hostile M&As can be discovered. Results regarding the geographical perspective will be highlighted in a later stage of the literature review, as indicating additional characteristics is necessary to provide a deeper understanding of the multidimensional context.

2.2 M&A waves through time

This section will further examine the occurrence of M&As with more attention towards the corresponding period. Concretely, additional examination of literature will be conducted regarding at which periods in time specific types of M&A occur, to observe if certain patterns within the occurrence of M&As can be discovered. To explain, Martynova and Renneboog (2008) state that mergers and acquisitions come in waves, indicating a cyclical wave pattern. Moreover, their study adds a major contribution to understanding the occurrence of such patterns, as they also focus on answering the question why these cyclical patterns exist. These questions indicate several research subjects and the directions found are shown as embedded in both economic and regulatory developments. As a result, this research will also take a closer view towards the cyclical patterns in M&As, thereby also covering the role of M&As' payment method within these patterns.

As mentioned, Martynova and Rennboog (2008) provided major contributions with their study on M&As through time, whereby they cover so-called 'takeover waves' over multiple periods of time. This facilitates a broader overview on the history of M&As, covering the whole pattern, instead of one single 'wave'. To get a better understanding about the phenomenon of 'takeover waves', it is necessary to explain what is meant by it first.

To begin with, a takeover wave reflects the number and total value of takeover deals as a wave pattern over time (Martynova & Renneboog, 2008). To extend, this pattern indicates a period of higher activity in M&A deals and thereafter a relatively calmer period, resulting from economic, political, and regulatory changes. These patterns started to occur in the US economy, between 1890 and 1900, where the 20th century recognised five waves, according to Martynova & Renneboog. Additionally, Matsusaka (1993) found changes in investor sentiment, specifically regarding variability in returns over different periods within this 20th century. Thereafter, more researchers shed light on the aspect of performance in M&A deals at different waves and wave stages. But first, besides changes in time aspect, also changes in terms of geographical scope, reasoning and additional M&A activity characteristics can be discovered across the multiple waves. For instance, after the development in the US economy, such cyclical patterns also occurred in other continental economies such as Europe and Asia in more recent waves (Martynova & Renneboog, 2008). Furthermore, differences in popularity of horizontal and conglomerate mergers represent the reasoning perspective as a driver for indicated takeover waves. To explain, during the past and present century, different waves of M&As occurred and all were characterized by a primary driver, resulting in the cyclical pattern phenomenon of 'takeover wave'. For example, as mentioned that the US economy experienced five ways during the 20th century, the first waves were typically focused on the arising of horizontal consolidation in industries, resulting in monopolies and in the latter stage oligopolies (Martynova & Renneboog, 2008). In addition, Martynova and Renneboog (2008) highlight that the middle wave focused on diversification through conglomerate M&As (Haleblian et al., 2009; Matsusaka, 1993), and the latter waves are marked by business reorganization due to the inefficient conglomerate structures, globalization, and expansion through increased cross-border M&As. Also,

from the mid-20th century, the waves began to rise in other continents and markets such as the UK, Continental Europe and Asia (Martynova & Renneboog, 2008). A full overview of the M&A waves and their characteristics is presented in figure 1 (see appendix A) (Martynova & Renneboog, 2008, p. 2151). Overall, Haleblian et al. (2009) conclude from researching studies with a primary focus towards single waves that although results about reasoning and the expected returns are mixed, it can be discovered that the strategic focus of M&As influences the acquirers' returns.

Specifically, firms intended to benefit from growth opportunities in markets unrelated to their primary business through conglomerate M&As, especially during the wave of 1950 till 1973 (Haleblian et al., 2009; Martynova & Renneboog, 2008). The other view rests on horizontal acquisitions as a means for resource alignment and economies of scope. Specifically, the diversified M&As resulted in positive returns in the mid-century period towards negative returns near the end of the 20th century, from the perspective of acquirers (Matsusaka, 1993). Regarding the horizontal M&As, King, Slotegraaf, and Kesner (2008) showed an association between acquirers' abnormal returns and resource complementarity between acquirer and target. Near the end of the 20th century and through the beginning of the 21st century, increasing numbers and volumes for M&As occurred driven by globalization and global expansion (Martynova & Renneboog, 2008). In addition, acquisition performance is highlighted as higher for the early acquirers but lower for acquirers' activity at the height of a wave (McNamara, Haleblian, & Dykes, 2008). This study researched acquisitions in the period corresponding with Martynova and Renneboog (2008) and thereby is a good confirmation of the previous indications. Third, additional M&A activity characteristics, with a specific focus on method of payment selected as a deal characteristic, are identified as varying conditions in different takeover waves. Also, in this specific characteristic of payment method, the earlier mentioned aspect of performance in M&A deals becomes more relevant. Overall, it can be concluded that each wave of M&A activity is fundamentally different from the former and subsequent ones, but all have in common that they emerge in periods of economic recovery and through shocks from innovations in technological and industrial perspective.

Next, the specific deal characteristic: method of payment is included in several studies regarding the occurrence of merger waves and their relationship with performance more specifically. To begin with, the means of payment varied from dominantly cash payments in the first wave, thereafter switching to equity payments as dominant source in the mid-period of the 20th century, whereas finally, mixed dominance occurs in the transformation to the 21st century (Martynova & Renneboog, 2008). This mixed dominance is better visualised by Eckbo et al. (2018), who take a closer look at the distribution across payment methods in US markets from 1980 till 2014. This overview supports the takeover wave payment method dimension of Martynova and Renneboog, as Eckbo et al. (2018) also show that during the fifth wave stock-financed M&A deals were the dominant source of payment. Moreover, Eckbo et al. (2018) highlight a corresponding dominance for cash payments, followed by mixed financed sources in the 21st century.

More specifically, besides the differences during the occurred takeover waves, differences in perceived performance from the means of payment is also noticed. These differences can be explained from the perspective of different theoretical perceptions, which will be mentioned in this section, but further examination into these theories will be done in a later stage of this paper.

To begin with, a common perception on the method of payment is that managers aim to use cash for acquisitions if they think their firm's shares are undervalued, and on the other hand equity financing if overvaluation of the firm's shares is believed (King, Dalton, Daily, & Covin, 2004; Myers & Majluf, 1984). This indicates that the use of cash can be seen as a signal about the post-acquisition performance of the acquirer, which refers to signalling theory and the perception of information asymmetry. This perception, however, is not perceived as covering the entire explanation. As varying results regarding the context of samples is discovered. To explain, US studies agree that negative returns are expected to equity financed M&A announcements and underperformance compared to cash payment, whereas European studies provide evidence for positive results for equity-financed takeovers (Martynova & Renneboog, 2008). Interestingly, King et al. (2004) found no post-acquisition

performance impact of the method of payment as a condition within M&A activity but do indicate that this may explain significant variance and the need for additional theory development.

Secondly, it is argued that the market views the method of payment differently in the case of valuation uncertainty, for both target and bidder, and the level of asymmetric information involved in the deal process (Fuller et al., 2002). Besides, Fuller et al. (2002) indicate an alternative explanation in the perspective of tax implications and the consequences for target firms' owners and the acquirer's return. Moreover, the importance of corporate governance within the perspective of M&A payment choices is addressed in previous studies, as the trade-off between concerns with corporate governance and the debt financing constraints are found to heavily affect the choice for method of payment in M&As, thereby affecting firm performance (Faccio & Masulis, 2005). Another perspective from corporate governance or agency point of view is added by Bris, Brisley, and Cabolis (2008) through cross-border acquisitions, as they present evidence of improved transfer of corporate governance practices within the M&A process, thereby affecting firm performance.

Given these arguments and various perspectives towards M&As' outcome of performance, and specifically the deal characteristic method of payment, it is necessary to provide concrete explanation of what is meant by performance. Especially within the context of M&As and the motives for M&A activities.

2.3 M&A performance

The eventual realisation of the mentioned motives for M&A activities is a meaningful and well-studied subject within the academic literature, which is approached as the impact of M&As on performance. The subject is meaningful and well-studied as it contains multiple dimensions and various perspectives in literature, such as finance, strategic management, and organizational behaviour.

To begin with, Yaghoubi et al. (2016) highlight the economic impact in terms of M&A consequences as the main focus, based on previous studies. However, the measurement of the construct M&A performance is wide varied and by nature extremely complex. To explain, this concept is not captured in one single factor or a universal construct, leading to unavoidable outcomes of using various indicators and measurement methods (Meglio & Risberg, 2011; Zollo & Meier, 2008). To illustrate, Zollo and Meier (2008) conduct a review of empirical articles utilized in M&A research, resulting in analysing 88 articles and 12 different approaches published in top management and finance journals between 1970 and 2006. Similarly, Meglio and Risberg (2011) shed additional light to the understanding of the variety in meanings for M&A performance by also conducting a literature review of empirical M&A research. The authors collected data from 10 high quality journals between 1970 and 2008, specifically focusing on the "What? Where? How? When? Whom?" perspectives for M&A performance. Regarding the measurement methods for M&A performance, past research is dominated by the use of financial objective measures, whereby the short-term window event study method is the most frequently used, thereafter following long-term accounting measures and long-term window event studies (Song et al., 2021; Meglio & Risberg, 2011; Zollo & Meier, 2008). To be more precise, a few days around the event, most often not exceeding 5 days before and after the event, are considered as the short term, whereas a period beyond those days up to five years beyond the event is identified as the long term (see e.g., Song et al., 2021; Meglio & Risberg, 2011; Zollo & Meier, 2008). Regarding theory in the field of finance, shareholder wealth is usually considered as the primary objective within M&As (Martynova & Renneboog, 2008). Additionally, Zollo and Meier (2008) highlight the dimensions of objective measurements as well as subjective measurements, and short-term as well as long-term time horizon as variety within approaches. Specifically, the distinction between objective and subjective measurements relates to the financial and accounting measures through quantitative analysis as objective, whereas the qualitative assessment of synergy realization, integration of process efficacy, or strategic gap reduction cover the dimension of subjective measurements (Zollo & Meier, 2008). For instance, the measure of stock performance related to the time horizon, covering announcements of M&A activities, is a well-known measurement method within this area. In contrast, the subjective measurement dimension of M&A performance is more closely related towards the perspective of strategic and organizational management on a qualitative investigation basis.

As earlier mentioned, a distinction can be made regarding the time horizon, focusing on the short-term by for example using the initial stock market reaction to analyse the impact of M&A announcements, as well as a longer-term focus by investigating accounting measures and stock market reactions over a longer period (Meglio & Risberg, 2011; Zollo & Meier, 2008). As already mentioned, M&A performance is by nature an extremely complex phenomenon to capture and measure, resulting in an ongoing debate. More specifically, the disagreements in existing literature are primarily focused on using the dimension of time in terms of short-term versus long-term windows in event studies, as some argue and question the ability of the stock-market to estimate post-acquisition performance already at the announcement of an M&A (Song et al., 2021; Papadakis & Thanos, 2010; Zollo & Meier, 2008). This debate and the arguments will be discussed in the following sections.

Therefore, additional light will be shed towards the motives and effects between the most frequently used methods which aim to capture the construct of M&A performance, thereby measuring the impact of this phenomenon.

2.3.1 Short-term M&A performance

As mentioned, most research with the scope on M&A performance is dominated by financial objective measures.

Concretely, Zollo and Meier (2008) concluded that 35 out of the 88 analysed studies, so about 40% of the total, on M&A performance used the short-term stock market performance for measuring the construct. Moreover, Meglio & Risberg (2011) indicate almost the same results regarding the use of short-term stock market performance. Such results indicate that measures from the financial domain are primarily covering short-term market performance for capturing M&A performance. About the short-term M&A performance, the initial stock market reaction is a widely used measurement for M&A performance, captured by the abnormal return on the acquiring firm's stock around the announcement of the M&A deal (Song et al., 2021; Meglio & Risberg, 2011; Papadakis & Thanos, 2010; Zollo & Meier, 2008). In addition, this approach assumes that M&A announcements bring new information which updates and reflects investors' expectations in the share price (Martynova & Renneboog, 2008). More specifically, the abnormal return, or cumulative abnormal return, is calculated by extracting the expected normal return from the actual return at the event of an M&A announcement. In addition, such an initial reaction is captured varying in time horizon but in common, based on many studies and literature reviews, repeatedly measured within 3-, 5-, 9-, or 11-day event windows, aiming to cover the reactions around the M&A announcement (Tao et al., 2017; Meglio & Risberg, 2011; Papadakis & Thanos, 2010; Zollo & Meier, 2008; Goergen & Renneboog, 2004).

Although short term market performance is well-known and the most frequently used measure for M&A performance, it is noteworthy to pay further attention to the ongoing debate, to facilitate a better understanding of the complexity of M&A performance as a construct.
As mentioned, some question the alignment of the initial stock-market reaction with the post-acquisition performance. Their main argument for questioning is that for initial stock market reactions, most often the market is collectively betting on the impact and effects of M&A performance and the expected future success of M&A deals, indicated by a "blip" in the acquirer's stock around M&A announcements (Zollo & Meier, 2008). Moreover, Zollo and Meier (2008) further challenge the ability of the initial stock market reaction, as they argue that the market fails to win a bet on M&A announcements on average, creating worries for efficient market theory advocators and liberation for acquiring firms' managers. Those worries are based on the observation of the failures of winning M&A announcement bets, which is contradicting with the assumption that investors are collectively capable of accurate predictions based on evenly available information. Such an observation is more likely to be supportive to situations in which information is unequally distributed. Besides, Yaghoubi et al. (2016) argue that, from the perspective of behavioural theory, such a market reaction does not necessarily reflect the value effects. More specifically, behavioural theory suggests that mis-valuation drives mergers, whereby mispricing of a firm's stock incentivizes to acquirer other firms with the acquirers' overvalued stocks. Additionally, Yaghoubi et al. (2016) indicate that behaviouralists argue in contrast with the managerial hubris hypothesis, as they argue that M&As are a form of arbitrage through advantage-taking over market inefficiencies by rational managers, instead of an outcome of irrational managers. Still, the evidence is noticed to be inconclusive at best, as found by Zollo & Meier (2008). Additional discussion of market efficiency, unequally distributed information and market timing through mispricing will be done in section 2.4.

Empirical evidence for short-term M&A performance

Regarding the empirical results for short-term M&A performance, this research distinguishes between the results from studies of domestic M&As and cross-border M&As, as well as emerging and developed markets.

To begin with, Goergen & Renneboog (2004) find announcement effects of 9% for the target firms and 0.7% for the bidders, dominantly motivated by expected synergies and share of the wealth

gains. Their study focused on 118 domestic and 69 cross-border bids from the period 1993 till 2000, involving both UK and Continental Europe firms in the role of both bidder and target alternately. An interesting outcome is the higher wealth effects trigger for domestic M&As compared to cross-border M&As, unexpectedly to the authors, as the theoretical perception that foreign bidders should be able to generate more gains through taking advantage of market imperfections (Goergen & Renneboog, 2004). Regarding the motivations behind M&A activities and performance, it is already mentioned that the synergies motive is dominant. However, negative total wealth gains and a negative correlation between target and bidder gain also provide evidence for poor decision making on M&As through managerial hubris (Goergen & Renneboog, 2004).

Next, cross-border M&A announcements result in lower initial stock market reaction because of the perceived association with information asymmetries and transaction costs (Andriosopoulos, Yang, & Li, 2016). However, Andriosopoulos et al. (2016) do find that domestic M&A announcements have more positive (0.763%) cumulative abnormal returns, as well as value acquirers have (0.747%). The study's sample consists of 2582 public UK acquirers announcing 1519 domestic and 1063 cross-border M&As between 2000 and 2010.

Moreover, Dutta et al. (2013) used a sample of 1300 M&As from Canadian acquirers in the period between 1993 and 2002, including 545 cross-border and 755 domestic deals, to study the initial stock-market reaction and the long-term performance. Their study finds a positive significant effect for the abnormal returns around the announcement date for both domestic and cross-border M&As. This study is contextually different, as the Canadian market is fundamentally different in terms of investor protection and corporate governance practices, compared to Continental Europe, a major part of the context used by Goergen and Renneboog (2004). Specifically, in the case of cross-border acquisitions, Dutta et al. (2013) find a favoured position for cross-border stock-financed M&A deals, based on the announcement returns, even though the results, based on the ratio of cash and stock payment, indicate that most of the cross-border deals are preferred by primary cash payment (63%) or mixed payment (90%). The authors provide an explanation for this observation, as they also analyse the long-term performance, which will be discussed while discussing the empirical evidence for long-term M&A performance.

Furthermore, studies from the geographical context of Asian markets provide similar results, as announcing cross-border M&A results in a positive stock-market reaction of 0.84%, 0.89% and 1.22% cumulative abnormal returns for respectively the (-1,0), (0,+1) and (-1,+1) windows (Tao et al., 2017). The study is based on a sample of 165 cross-border M&As with Chinese public firms from the Shanghai, Shenzhen or Hong Kong stock exchange as acquirers and targets outside mainland China, from the period of 2000 up to and including 2012 (Tao et al., 2017). Also, an increase in M&A activity for emerging markets, especially in the role of acquirers. This specifically in combination with the positive results of Tao et al. (2017) indicate an increasing importance of M&A activity as means of internationalization strategy and global expansion. Given the specific sample, a fundamentally different context is presented in this study, as not only the captured time-period is fundamentally different due to influencing events, such as the global financial crisis, but also the unique institutional setting of China and the reverse approach for governance quality.

These differences are addressed as meaningful and important, as well as selected as research material by Song et al. (2021). They indicate target characteristics and financial market characteristics of the acquirer to examine the impact on aligning the initial stock market reaction and post-M&A performance. More specifically, the authors aim to examine the effect of a weak informational environment in emerging financial markets and test for moderating effects through cross-listings with more developed markets, with a sample of 589 M&As by 401 firms, from which 249 single-listed in Mainland China and 152 cross-listed in the proxy for developed financial market, the Hong Kong stock exchange (Song et al., 2021). The results provide support to signalling theory as remedy against information asymmetry, as voluntary disclosure through cross-listing increases alignment between the initial stock-market reaction and post-M&A performance (Song et al., 2021).

Besides, King et al. (2004) conducted a meta-analysis for reaching a best estimate for a true population relationship based on multiple studies between M&A variables and indicated clear results, as positive abnormal returns on announcement day for both target and acquirer are realized, indicating an initial expectation towards longer-term synergy from M&A activity. However, they also find that the returns for acquiring firms become insignificant or negative in subsequent periods, past the window for capturing the initial reaction. Such a finding indicates that expected synergies at M&A announcement are not realized by acquirers thereafter, resulting in no evidence for improved financial performance (King et al., 2004).

Such findings illustrate a positive reaction to M&A announcements and the perceived rationale and motives behind it. Besides, a part of the empirical evidence provides a bridge towards other explanations of the results as some indicated results still need additional elaboration. This will be done in the following section where the long-term M&A performance will be discussed, as some studies conducted additional investigations which are not mentioned yet.

2.3.2 Long-term M&A performance

The long-time horizon is also quite often used, as highlighted by Zollo and Meier (2008); Martynova and Renneboog (2008). Zollo and Meiers' results note the long-term accounting measures as second, counting for 28% of their total sample, whereas long-term window event studies follow as third, counting for 19%. Moreover, Meglio & Risberg (2011) highlight that more than half of their studied literature did not apply a short-time scale, but instead used a medium- or long-term time scale. Such results indicate relevant and noteworthy to mention M&A performance measures, despite their somewhat less used frequency compared to short-term M&A performance measures.

About the accounting measures over a long-term horizon, it is typically to assess M&A performance by analysing profitability through return on investment (ROI), return on equity (ROE), and return on assets (ROA). Moreover, sales and assets growth rates as well as cash flow performance are also often applied as accounting measures for M&A performance. The performance resulting from those measures are compared with benchmarks; based on size, industry, and geographic region (Zollo & Meier, 2008; Martynova & Renneboog, 2008). Despite the popularity, these measures suffer from accounting distortions, as accounting data can contain noise and such data changes over time and across countries through the accounting standards (Martynova & Renneboog, 2008). Given this, a cautious interpretation of long-term accounting performance ought to be required.

Besides the accounting measures, also the long-term stock performance as proximate for M&A performance will be discussed. This method specifically shows similarity with the short-term stock performance in terms of specific measures and models for stock-performance yet is contrasting in terms of the event window. Regarding the specific timescale, the applied event windows are most often between 12 to 36 months, and in some cases, researchers use even longer windows (Meglio & Risberg, 2011; Dutta & Jog, 2009; Zollo & Meier, 2008). Additionally, Martynova & Renneboog (2008) found various studies facilitating the specific measurement of M&A performance through the market model, which is also common for short-term stock measurement. Besides, the buy-and-hold abnormal return (BAHR) and benchmark portfolios, which compares the cumulative abnormal return of the acquiring firm with references as market index return, matching firms based on size and book-to-market value ratio, is also well-known and applied in various studies (Dutta & Jog, 2009; Martynova & Renneboog, 2008).

Overall, difficulties arise in setting boundaries for the timescale, as it might be difficult to decide when the process of integration is completed (Meglio & Risberg, 2011; Zollo & Meier, 2008). Moreover, with such measurements using methods with longer time horizons, other widely varied factors might cause changes in stock-price, thereby biasing the proximate for M&A performance. This addresses the difficulties of isolating the takeover effect, as indicated by Martynova and Renneboog (2008). Moreover, Martynova and Renneboog (2008) add that most long-term performance measurement methods assume financial market efficiency, which predict the M&A effects to be fully

reflected in announcement returns instead of the long-term period. Still, covering the long-term horizon and thereby the entire relevant period for implementing the new business plan and consequences as value creation or destruction is a valued approximation for M&A performance, even with the boundary difficulties and context-dependency of value creation in mind (Zollo & Meier, 2008). Besides, one can argue that measuring the long-term performance is more representative and better aligned with actual M&A performance, as more information will be available to estimate and evaluate the ability of managing the M&A performance by the acquiring firm (Zollo & Meier, 2008).

Empirical evidence for long-term M&A performance

As stated above, some studies provided a bridge towards empirical evidence for M&A performance in the long-term horizon, accounting for post-announcement performance.

More specifically, in addition to their findings for initial stock market reaction to M&A announcement, Dutta et al. (2013) question whether they found a justified answer with their observations and check for consistency, by investigating the performance of cross-border cash- and stock financed through buy-and-hold abnormal return in the long-term horizon subsequently. This method calculates the average difference between the individual stock and a benchmark for a period of 36 months. This study has 1018 cases for BAHR calculations and 229 non-overlapping M&As in the period of 36 months. The outcomes indicate that the market corrects for overreaction in expecting synergistic gains in the long-term, as no significant improvements for long-term performance in cross-border stock financed deals were found (Dutta et al., 2013). However, cross-border M&As may have context-specific characteristics in which stock payment might be favoured.

Next, Moeller and Schlingemann (2005) investigate the improvements in operating performance, measured as industry-adjusted cash flow normalized by assets, for domestic and cross-border acquirers in a period of 1-5 years before and after M&A announcement (from 1985 - 1995). The final sample consists of 4430 M&A deals, with the dominance of 4047 domestic deals and 383 cross-border deals. US firms acquiring domestic targets experience a significant mean change in operating performance of -0.002, while acquiring foreign targets through involvement in cross-border M&As results in a significant mean change of -0.067 in operating performance (Moeller & Schlingemann, 2005). Also, the results are found to be robust.

Moreover, using a sample of 947 M&As during 1970-1989 from US acquirers, BAHRs over a 5-year period indicate a -6.5% average difference compared to the benchmarking returns (Loughran & Vijh, 1997). Additionally, Carow et al. (2004) indicate that long-term industry-adjusted stock returns are negative with an average of -6.9% in 250 trading days after completing the announced M&A, -13.21% in 500 trading days and even -15.71% in 750 trading days. Their sample is concentrated on public US traded firms, announced, and completed between 1979-1998. Also noteworthy to mention is the study of Papadakis and Thanos (2010), who focus on Greek domestic M&As during 1997-2003. Their focus regarding outcome is different, as they indicate that 50% of the firms experienced deterioration in financial performance. Additionally, Papadakis and Thanos (2010) indicate a lack of correlation between the accounting-based, stock-market-based, and subjective-based measurements of M&A performance for the Greek context.

Besides, the earlier mentioned empirical evidence of King et al. (2004) also provide empirical evidence about performance in the long-term horizon, as they argue that acquirers experience a modest negative performance effect for this horizon. Additionally, the most studied conditions in M&A activity are found as not impacting post-acquisition performance in terms of abnormal returns or accounting performance, specifically testing relatedness in M&As, method of payment, and prior M&A experience (King et al., 2004).

2.4 The role of payment method in M&As

As can be discovered in figure 1 (see appendix A), takeover waves can also be characterized in terms of payment method or means of payment. This figure identifies the dominant source of financing and means of payment for each observed M&A wave during the 20th century (Martynova & Renneboog,

2008). Although source of financing and means of payment are interchangeably used in this figure, this interchangeable usage will be less appropriate in practice.

More specifically, the payment method or likewise, the means of payment, and funding source do not need to encompass the same meaning. Such a statement can be better substantiated by means of the pecking order theory. This theory of pecking order seems to identify the most appropriate source of funding in corporate finance, of which M&As are part of. To explain, Myers and Majluf (1984) suggest that firms prefer internal funding sources as cash flows from retained earnings, thereafter following debt over equity as external funding sources. This indication of equity as least favourable source of funding rests on the assumptions of information asymmetry and signalling. To explain shortly, announcing investments or in this specific case an M&A investment paid or funded with equity, acquirers might send a signal of a perceived stock overvaluation towards investors, who are aware of the potential signs or rationale behind such decisions. Consequently, investors might adjust their expectations and behaviour which thereafter will be reflected in the firm's stock price. Additional light to this explanation and rationale will be shed in later sections, where the theories explaining market reaction will be further discussed.

As already mentioned, funding source and means of payment can be slightly different when compared. To explain, cash as payment method can be funded through various sources of funding, such as internal funding from existing cash resources, through issuing equity, increased leverage, convertible bonds, or bank loans. However all eventually can provide the acquiring firm the necessary amount of cash to finance the M&A, thereby still indicating cash as means of payment. To substantiate, figure 1 (see appendix A) indicates for the fourth wave in the 20th century and the potential new wave cash payment as dominant means of payment, but also identifies debt as the dominant funding source for both waves. On the other hand is also indicated that for other waves, the dominant funding source is equal to the dominant means of payment, indicating that it cannot be defined in one direction.

Next, besides this variation in terminology use, literature also widely supports and identifies the occurrence of varying stock market reactions towards M&A announcements, influenced by the means of payment. Before the focus will be on these reactions, it is necessary to define the framework of this thesis' focus for payment method, namely payment in the form of solely cash, stocks, or a mixed form of cash and stocks. Notably, this focus does not highlight the relevancy of the funding source, indicating that this thesis does not differentiate between the different funding sources, but rather the means of payment. As stated, literature is widely supportive to payment method as influential driver for stock market reactions. Goergen & Renneboog (2004) submit strong evidence by indicating an impact on the acquirer's share price through the means of payment in M&As. This indicates that the means of payment does have an influence on the shareholders' wealth in terms of stock market reaction. As indicated by figure 1 (see appendix A), the different M&A waves also indicate the dominant means of payment, whereas also M&A outcome and industry relatedness is highlighted (Martynova & Renneboog, 2008). For the third wave is indicated that growth through diversification and equity payment are characterizing this period. To explain, this might signal that since less experience and uncertainty regarding synergy realization are associated with diversification to unknown industries, acquirers might be given preference to equity payment as they thereby transfer part of the risk to the target's shareholders. Another wave is characterized by a combination of equity as dominant means of payment with an increased role for the international context. This combination might indicate that equity is preferred in the initial start of global expansion, possibly indicating that acquirers prefer to remain existing shareholders and take advantage of local networks, knowledge, and experience. Overall, those examples for the M&A waves address equity as potential remedy for situations of higher information asymmetries, as equity payment might align interests and enhances monitoring activities. Although advantages as mentioned above for equity payment can be identified, multiple studies also indicate that cash as means of payment is the most beneficial for M&As and shareholder wealth. This is mainly based on the perceived confidence of managers on the M&A deal, as cash payment indicates a fixed firm valuation and thereby account for all the risk of full synergy realization. On the other hand, cash payment partially depends on the

firm's existing cash resources and earnings availability. Moreover, the target shareholders are on the one hand sure of the premium they receive for their shares through cash payment. But on the other hand, they are not able to benefit from possible excess synergistic outcomes, as they do not longer possess the right to benefit from shares. Moreover, in case of cash payment, the target shareholders are confronted with immediate tax obligation which is not the case for payment in the form of stocks. These are some main advantages and disadvantages of both means of payment, compared with each other.

A fundamental argument explaining the means of payment and the market reaction is based on the market timing perspective, which provides a clarification for the choice for a cash or stock offer. To explain, this perspective highlights that the choice for payment method depends on the manager's observation of their firm's stock valuation by the market. More specifically, if the manager observes undervaluation of the firm's stock price, it is argued that a cash offer will be more obvious, as outside investors will also pick up the signal that will be send through this selected means of payment, which will be reflected in the firm's stock price. The other way around is also true; if the manager has information which indicates overvaluation, stock financing for M&As is more common. This argumentation is widely covered by literature, but evidence contradicting this perspective is also demonstrated. Particularly, the choice of payment method is not observed as a signal to the market for over- or undervaluation, as is shown that the market reacts more positively (+1%) to announcements of stock financed M&As compared to cash financed M&As (Goergen & Renneboog, 2004). In contrast, Haleblian et al. (2009) identify and discuss literature which indicate that cash-financed deals are more beneficial regardless of the rationale behind the choice. Eventually, evidence indicating that the means of payment is not relevant for the market reaction in deals with public targets is also discussed (Haleblian et al., 2009; Fuller et al., 2002).

In conclusion, although previous literature is not unified in their conclusion about the means of payment and stock market reaction, some reasonable arguments are given, and empirical evidence is presented by previous literature. Those arguments are further investigated and explained in the upcoming sections.

2.5 Theories explaining M&A motives and market reaction

In this chapter, the perspective of synergies, information asymmetry and signalling theory, hypothesis of tax, corporate governance and control concerns, and managerial hubris will be explained. Those theories will provide insights into the possible relationships between method of payment and initial stock market reaction to M&A announcements, differences between domestic and cross-border M&As and the initial stock market reaction to the announcement, the combination of both the payment method and the geography concern and stock market reaction to announcements. Eventually, an aspect of corporate control will be added to this combined relationship from a theoretical perspective to see at what level certain information asymmetries and signalling theory can be indicated. A summary of these theories and explanations can be found in table 1.

As already indicated in previous parts of this literature review, different rationale and motivations drive the conclusions and interpretation of results from previous studies. To begin with, indicated as the primary motive for conducting M&A activity is the synergy seeking motive. As defined in previous parts based on literature, this perspective is focused on the perception that the managers of both acquirers and targets have the intention to maximize shareholder wealth and aim to achieve additional gains through by combining their resources, where their combined value is expected to be greater than the total value of the summed-up value of the two individual firms. Furthermore, observing the initial stock market reaction to M&A announcement as measure for performance addresses the assumption of market efficiency, which assumes that investors are able to evaluate firm activities and value-maximizing criteria objectively due to information access and prices change only due to good, sensible information (Fama, 1970; Shiller, 2003; Song et al., 2021).

Additionally, as indicated that it appears that managers do not always tend to aim for maximizing shareholder wealth, another theoretical perspective is indicated as rationale and driver for M&A activities, namely the agency theory. This theory addresses the central point that the interest of shareholders and managers might not be aligned, which could cause problems within the context of a firm specifically. To explain, managers may attempt to pursue and prioritize their own interest instead of acting in the shareholders' interests. More specifically, the occurrence of diversified M&As for risk reduction, empire building through excessive funds rather than maximizing shareholder value through M&A; both indicate to managers acting out of self-interest with value destroying M&As or eventually being taken over themselves consequently (Martynova & Renneboog, 2008). To resolve these problems or to realign the interests of both parties, additional efforts in monitoring and governing the relationship are necessary, also in terms of financial costs. The origin of such resulting agency problems appears to be caused by an uneven distribution of information between the involved parties. More specifically, this refers to situations in which one party possesses more or different information than the other party.

One of the first papers focusing on the economics of asymmetric information is Akerlof's paper, which investigates the market mechanisms when potential buyers have uncertainty about the quality of products and provides a structure for determining the economic costs of dishonesty (Akerlof, 1970). In the case of M&A activity, a typical occurrence of this phenomenon might arise between deal insiders and outside investors, as well as between acquirer and target. In the case of deal insiders and outside investors, acquirer and target can have shared information about possible future synergies after completing the M&A process, which might not be available to outside investors on the public market. However, the parties involved in the deal are aware that they cannot just make such information public, as it might benefit other outsiders or competitors and might even be destructive for their own interests. Note that in such a situation, the assumption of market efficiency does not hold and thereby also the investors' ability to evaluate M&A activity accurately, which influences the alignment of the initial stock market reaction to announce M&As and the subsequent performance.

To solve such an issue, Spence (2002) addresses the assumption of signalling theory, which aims to reduce the unequal availability of information by carrying information through signals as a form of communication from those with more to those with less information. Sending such signals gives parties, in this case acquirers, the opportunity to convey a certain level of perceived quality about the value of the target or the deal itself towards outsiders, without revealing the possessed information. This assumption helps to understand how investors react in the specific case of M&A announcements, given certain deal characteristics, or why managers try to reach or avoid certain outcomes in the context of the negotiation process with targets. Moreover, signalling results in a move away from egalitarian outcomes, as it facilitates an opportunity to distinguish better between low- and high-productivity, as part of the competitive equilibrium (Spence, 2002). Note that, for the signal to survive and retain its ability to convey the information, the acquirer must have identified the presence of an unobservable but valuable attribute and costs of observable efforts must be negatively correlated to this valuable attribute (Spence, 2002). Otherwise, the signaller, that is the acquirer, is at risk of sending the wrong signal without contributing to the purpose of signalling certain levels of quality about the target's or deal's value. Additionally, investors may need to rely on other information or search for other sources of information providing to be able to accurately evaluate firm activities (Tao et al., 2017).

Finally, additional theoretical perspectives arise in the assumption of managerial hubris and the assumption of market timing eventually. To explain, the managerial hubris hypothesis explains the rationale of M&As as an average overpayment from acquirers due to overestimating the gains from M&As. The hypothesis as stated by Roll (1986) assumes market efficiency in terms of a full reflection of all information in the asset price of firms. However, the author also indicates that hubris alone cannot explain why M&A activities are conducted. Besides, Martynova and Renneboog (2008) indicate that a first sample of successful takeover encourages other firms to conduct M&A activities

also, thereby suffering from managerial hubris as they mimic the actions of successful cases instead of a clear economic sense-making base.

Regarding the assumption of market timing, Martynova and Renneboog (2008) indicate two models which predict that managers use overvaluation for acquiring real assets in a more favourable way. To explain, these models are based on the suggestion indicated by Myers and Majluf (1984), who developed a model for explaining several aspects of behaviour in corporate finance. This suggestion indicates that overvaluation of a firm's equity during certain periods might facilitate advantages. Specifically, bidding managers take advantage of temporary market inefficiencies by using their overvalued equity to buy real assets of the less overvalued target, as the longer term is expected to correct the mispricing (Martynova & Renneboog, 2008). Another aspect is added by Rhodes-Kropf and Viswanathan (2004), as they indicate that the target also is exposed to a certain risk of overvaluation of the expected synergy when the market is overvalued. Therefore, target managers are also more likely expected to accept bids in the form of stock payment. As can be seen, this reasoning provides connections to other theoretical perspectives, it is interesting to ask why firms participate in M&As in times of overvaluation. This might be because of the possession of superior information, which outsiders do not have access to, referring to the perspective of asymmetric information. Moreover, it might also be because of overestimating the potential synergy, which is indicated as managerial hubris. On the other hand, it could also be that participating is in the manager's own interest, indicating aspects of the agency problem.

To conclude, this section provides an overview of the relevant theories in the context of capital markets, from this paper's perspective. The goal was to provide a general view on the perspectives, thereby explaining the assumptions and perspective towards M&As more specifically. In the next section, a more in-depth understanding will be provided by a deeper elaboration on the above-mentioned theoretical assumptions, with more specific attention to the aspects of information asymmetry and signalling theory within the discussed agency theory.

2.6 Impact of payment method on initial stock market reaction

This section will shed additional light to the discussed theories in the previous section, as these theories will be applied in the context of payment method and geographical origination for M&As. As a starting point, the main focus will be on information asymmetry and the potential remedy through signalling, as explained within agency theory. Also, some aspects of the synergy motive, managerial hubris and market timing will be discussed. A summary of these theories and explanations can be found in table 1.

2.6.1 Market timing explanation

To begin with, when applying the previously mentioned theories in the context of M&As and their method of payment, diverse perceptions can be discovered and argued without fixed outcomes. But before taking a deeper insight into the perceptions of the theories regarding the method of payment in M&As, a general overview of the different methods will help to understand what is meant with the concept of payment method. To explain, when a firm is interested in merging or acquiring another firm, also called the target, the interested firm will announce their interest. However, the target firm will not agree with a merger or acquisition on a voluntary basis and give their property as shareholders away for free. They expect to get compensation in the form of a certain price reward to give up and transfer their shareholdings within the target firm towards the acquiring firm. This reward is expected to be a payment based on the perceived value of the target firm, based on the asset value and the expected synergies, in the form of a cash transfer, a certain amount of shares of the new merged firm or a mix of both types of payment. This type of reward is known as the payment method in M&A processes and does not seem to be a straightforward fixed outcome as a side issue but rather seems to imply strategic consequences eventually.

Starting from the perspective of market timing, the choice of payment method in M&A deals seems to influence the initial stock market reaction of the acquirer. To explain, Andrade, Mitchell,

and Stafford (2001) highlight that acquirers can see financing M&As with stock payment as two simultaneous transactions in terms of the M&A itself and an equity issue. Moreover, equity issues are more likely when managers perceive that their firm is overvalued. However, investors (outsiders in this scenario) or target firms perceive an issue of equity or stock-financed M&A also as a signal for overvaluation and therefore will bid down the stock price (Andrade et al., 2001; Myers & Majluf, 1984). Therefore, a cash offer in M&A transactions is perceived as a positive signal of proper valuation to outsiders and this method of payment is suggested as more favourable (Myers & Majluf, 1984; Dutta et al., 2013). According to this reasoning, the market will react negatively to stock-financed M&As and prefer the method of cash payment for the M&A deal transaction. With the perspective of market timing as a starting point, interfaces with the theory of asymmetric information and the following signalling theory are presented. More specifically, stock financing for an M&A transaction could be chosen due to a perceived overvaluation of the acquirer's stock price by managers, whereby they try to take advantage of a situation of asymmetric information through market timing. However, when stock-financed M&As will be offered towards the target or announced towards the public market, outsiders can interpret this as a signal for the situation of overvaluation in the acquirer's stock price and obtained another form of information out of the offering or announcement. Besides, Fuller et al. (2002) suggest that in the case of variation in returns for frequent acquirers, this must be due to the target's or deal characteristics as different payment methods and targets can be chosen. More specifically, when acquirers bid for private firms and subsidiaries a stock offer is more appropriate when the bidder possesses less information about the target's value (Fuller et al., 2002). To explain this occurrence, uncertainty about the target's value might reduce the willingness of acquirers to offer cash since the acquirer then will overpay certainly, as the target will only accept cash offers greater than its true value (Fuller et al., 2002; Dutta et al., 2013). Regarding target valuation uncertainty, targets share part of the risk with stock offers in case of overpaying by acquirers, therefore bidders need to indicate the stock offer in case of high target valuation uncertainty and cash offer in case of higher uncertainty regarding their own original value (Fuller et al., 2002; Eckbo & Thorburn, 2000). Alternative perceptions about the appropriate source of funding for M&As will be discussed after examining the empirical evidence for market timing.

Empirical evidence on market timing and initial stock market reaction

To begin with, Andrade et al. (2001) indicate that abnormal returns for acquirers' result is non-significant for cash offers but are significantly negative with -1.5% for stock-offers to public targets during the three-days announcement window. Such a finding is supportive for their suggestion of signalling overvaluation through stock-offers and proper valuation through cash-offers in M&A announcements. Their results are based on a sample consisting of acquirers and targets both publicly traded in US markets which have registered M&A announcements between 1973 and 1998. Additionally, it seems that the overall major positive returns are largely assigned to targets (Andrade et al., 2001). In addition, Fuller et al. (2002) present similar results as they indicate insignificant returns for acquirers using cash- or combination-offers to acquire public targets, but significant negative returns with -1.86% for stock-offers. These outcomes are measured using a 5-day announcement window, capturing returns two days before and after the announcement. Interestingly, returns become significantly positive for acquiring private targets, where announcements of stock-financed M&As provide greater acquirer returns by 2.43%, compared to only 1.62% provided by announcements of cash-financed M&As (Fuller et al., 2002). On the other hand, both cash- and stock-financed M&As result in positive cumulative abnormal returns, in principle (Dutta et al., 2013). The sample of this study is dominated by cash-financed M&As compared to the proportion of stock-financed M&As, whereby also the differences between the payment methods are presented as insignificant, which is in contrast with Eckbo and Thorburn (2000). Both studies focus on a sample of Canadian acquirers, however Eckbo and Thorburn (2000) present a significant difference between the different payment methods. More specifically all-cash bids are reported as marginally significant with 3.11% increase in acquirer's value and statistically

significance for all-stock bids with 2.99% increase and 65% of the observations reported as positive (Eckbo & Thorburn, 2000). Also, the subsample of mixed offers is reported as highly significant with 5.10% increase in acquirer's value (Eckbo & Thorburn, 2000). Moreover, Starks and Wei (2013) indicate a CAR of 2.06% during the period of 5 days before and after the announcement for US domestic bidders announcing stock-offers for M&As, and 1.37% CAR for cash-offers. Interestingly, the sample partially covers the same period and objects of observation as Andrade et al. (2001), but does present different results.

Besides, it is important to investigate if the results remain the same under different market circumstances or with different methodologies, as the aforementioned studies all focused on measuring returns and US markets, by at least indicating US acquirers. As a result, King et al. (2004) find that the payment method does not impact post-acquisition performance, either long-term as well as the initial stock-market reaction, through a meta-analysis. Next, CAARs for European bidders for announcing stock-financed M&As is highly positive significant, resulting in 0.98% return on the announcement day and even 2.57% during the two days before and after the announcement (Goergen & Renneboog, 2004). In contrast, Goergen and Renneboog (2004) indicate only slightly positive significant CAARs for European bidders of cash-financed M&As, with 0.37% on the announcement day and 0.90% in the five-day announcement window. Additionally, the results indicate underperformance of cash-offers compared to stock-offers, as CAARs from cash offers – CAARs from stock-offers results in -0.61% on the announcement day and -1.67% during the five-day announcement window (Goergen & Renneboog, 2004). Such differences might occur because of corporate control incentives. To explain, Faccio and Masulis (2005) indicate results that support the suggestion that European bidders chose stock-financed M&As more often as their financial condition weakens, whereas considering corporate governance concerns in the payment method for M&As is stronger for European acquirers than for US firms. Additionally, the study presents a 23% explanation of cross-sectional variability for M&A payment decisions through the bidder's financial condition, corporate control threat, and deal characteristics (Faccio & Masulis, 2005). More specifically, Faccio and Masulis (2005) find that bidders prefer to offer cash when the voting control of their dominant shareholder would be threatened with stock-offering, particularly for high concentrated target shareholdings.

Overall, the empirical results do not present a unilateral outcome for the support of one specific perception regarding market timing and overvaluation directly, as market- and firm-characteristics also vary from sample to sample.

2.6.2 Tax-based explanation

Alternatively, Modigliani and Miller introduced a fundamental perception through their theory by suggestions about a trade-off in funding sources for corporate finance, of which M&As are a result of investing in activities which in principle took place beyond the acquirer's activities. This trade-off indicates a striving for balance between tax advantages through debt financing and on the other side the consequences of lacking sufficient sources for investment opportunities and the risk of financial distress ultimately. Besides, the first proposition indicates an indifference to funding through cash or equity payment, as efficient markets contain symmetric information and funding choices are perceived as indifferent behaviour, indicating that the average cost of capital is constant and independently of the financial structure (Modigliani & Miller, 1958). In a later stage, Modigliani and Miller (1963) corrected the first propositions by stating that some value creation can be observed through the tax rate and the degree of leverage and not only of expected after-tax returns. As already shown, market efficiency and symmetric information are not likely to hold constantly, as imperfections and situations of asymmetric information also occur. Therefore, preference of payment method is not perceived to be indifferent, however Modigliani and Miller provided fundamental proportions applicable to real-world scenarios.

To add on, Fuller et al. (2002) also indicate a tax-based perception regarding the payment method in M&A deals. To explain, they indicate that acquisitions of private targets with cash

payment result in a direct tax implication for the target's owners as the payment is directly subject to taxation, which might not be preferable for the original owners. This will not be the case for stock offerings as the tax implications then will be deferred, which could be valuable to the target's owners (Fuller et al., 2002; Faccio & Masulis, 2005). Eventually, Fuller et al. (2002) indicate that this could mean a discounted price appropriate to the value of the tax deferral option, which will be reflected in higher returns for the acquirer in the case of stock payment. Additionally, the possibility to profit from the expected synergistic gains is provided by offering the target's shareholders shares in the new emerging firm. However, this brings additional risk for the target's shareholders, as they also bear the consequences of not achieving the expectations. On the other hand, it might also be that the target's owners prefer a cash offering when they consider the risk-minimizing benefits of cash. Besides, cash might also be preferred when target's owners are aware of becoming a minority shareholder in a concentrated ownership structure, which may cause additional agency problems (Faccio & Masulis, 2005). This could change the perspectives of consideration about the payment method.

Empirical evidence for the tax-based perception and initial stock market reaction

The tax-based assumption, which highlights the benefits of different tax structures and shields through M&As and the method of payment specifically, holds some empirical evidence.

To begin with, Fuller et al. (2002) support their theoretical assumption with empirical evidence by presenting larger returns received by bidders because of stock offers to private targets, due to tax considerations and lower price reflections in the bidder returns. More specifically, cash offers in general M&A deals result in higher bidders' CARs for the five-day announcement window, as 1.78% is given, compared to a 1.25% CAR for stock offers in the same context (Fuller et al., 2002). However, stock offers to private targets result in 2.43% CAR, whereas stock offers to public targets result in a -1.86% CAR for the same context (Fuller et al., 2002). Additionally, in line with this finding, the relative M&A deal size is also perceived as positive related to acquirers' returns. More specifically, if the deal size becomes larger, the acquirers' returns for stock offers to private targets become statistically significant and larger. Concretely, the acquirer's returns vary from insignificant for deals where the target size is covering 5%-9.99% of the acquirer's market value, to +4.34% when the target's value covers 10%-19.99% of the acquirer's market value and even +11.72% at deals where the target value is larger than 20%, compared to the acquirer's market value (Fuller et al., 2002). To illustrate, this is the other way around for stock-offers to public targets, as acquirers' returns are insignificant for deals where the target size is 5%-9.99% relative to the acquirer's market value, but -2.81% at the 10%-19.99% relative deal size and even -4.37% at deal sizes where the target value is larger than 20% of the acquirer's market value (Fuller et al., 2002). As a result, Fuller et al. (2002) indicate their findings as evidence for the tax-based assumption, partially explaining the occurrence of higher bidder returns in the case of stock offers to private targets.

The tax-based assumption is not only a point of attention in studies focusing on M&As and firm characteristics in general. To explain, Faccio and Masulis (2005) address the tax-based assumption by examining measurements for this perception in cross-border M&As and the proportion of payment methods compared to each other. In addition, the authors attempt to control for tax effects of M&A deals but do indicate that controlling for all the effects through tax implications is nearly impossible. Moreover, capital gains are observed as statistically insignificant as an explanatory variable for the percentage of cash financing in M&A deals, whereby capital gains are measured as a dummy variable for target nations with individual and corporate capital gains treatment (Faccio & Masulis, 2005). To explain, such a measure indicates if any tax advantage is facilitated in the origin country of the target through stock offers. In contrast, merger tax benefits are observed as negative and statistically significant, indicating that if the bidder and/or target country facilitate tax benefits for mergers, the proportion of cash financing M&A deals will be 20.88% lower, holding other variables constant (Faccio & Masulis, 2005). This measure is also in the scope of the

authors, as they state that tax exemption for mergers, which are generally stock financed, are allowed in several countries.

In contrast, the market appears to be overenthusiastic and overestimates the expected synergies, as the initial stock market reaction to M&A announcement did not hold and no supportive evidence is presented for the tax-based assumption. (Dutta et al., 2013). It is important to consider the differences between the sample constructions and the sample characteristics to be able to interpret and compare these outcomes. More specifically, the variation in results for both studies might be due to differences in sample, as one's focus is on the Canadian context and the other towards European M&As. Whereas the Canadian market is comparable in terms of governance mechanisms and quality in terms of shareholder protection and governance practices, it also appears to have some differences in tax codes compared to the European countries. Besides, as already addressed by Faccio and Masulis (2005), it remains very complicated to analyse the effects of all tax implications in the context of cross-border M&As and corporate practices, indicating the possibility of unobserved variables or influences as viable. Also, Dutta et al. (2013) base their conclusion on the observed preference for cash financed M&A deals by the Canadian market, instead of also considering specific variables for tax implications in their analysis. Alternatively, it appears that expected synergies were overestimated from the acquirer's managerial perspective and the market reacts overenthusiastic, in line with the managerial hubris hypothesis as addressed by Roll (1986), (Dutta et al., 2013).

Overall, the empirical results show the presence of perceived tax benefits and the perception of accounting for tax implications in the choice of payment method support in M&A deals. However, controlling for all the effects through tax implications is nearly impossible, as mentioned.

2.6.3 Corporate control incentive

The payment choice of the acquiring firm is expected to be largely borne by a trade-off between corporate governance concerns and constraints for debt financing and the costs of financial distress eventually (Faccio & Masulis, 2005). Such a choice as payment method in M&A deals can have consequences for ownership structure and subsequent financing decisions for investment activities, based on the aspects of corporate governance and control from both the acquirer and target. From the perspective of the acquirer, the incentive to choose cash as payment method is bigger when maintaining control mechanisms from corporate governance practices is important, as stock financing influences the ownership structure of the newly emerged firm (Faccio & Masulis, 2005; Dutta et al., 2013). In addition, in the case of concentrated ownership of the target and intermediate levels of voting power in the acquirer's ownership structure, the preference for cash over stock financing might be the strongest as in this situation the control aspect of the acquirer seems to be in danger (Faccio & Masulis, 2005). In contrast, in case of smaller targets or no diffused ownership then this preference might be diminished, which is also likely in the case of supermajority voting rights in acquirer's ownership structure, since the acquirer's controlling block is not threatened (Faccio & Masulis, 2005; Dutta et al., 2013). Further implications and perspectives towards corporate control incentives will be discussed, as it also appears that market characteristics possibly explain part of the initial stock market reactions. But first, some findings about the corporate control incentives in the choice for payment method in general, will be presented.

Empirical evidence for corporate control incentives and the choice of payment method

It appears that the choice of payment method is partially based on corporate control incentives, which can be supportive for explaining initial stock market reaction for M&A deals.

To explain, Faccio & Masulis (2005) demonstrate a major contribution regarding highlighting corporate control incentives for the M&As payment method, which in a latter section will be discussed in relation to the triggers for the initial stock market reaction. Their study is based on M&As with European acquirers over the period from 1997 up till and including 2000. The

fundamental aim for the primary focus on European acquirers in the sample is based on the occurrence of concentrated ownership and a wide range of capital markets, as well as differences in institutional settings, laws, and regulations (Faccio & Masulis, 2005). Additionally, the choice for stocks as payment method is less likely when the target is unlisted, indicating concentrated ownership as well as the aversion of acquirers to facilitating the occurrence of new shareholdings with influential power in the new firm (Faccio & Masulis, 2005). Also, Faccio and Masulis (2005) highlight variation in payment choice for Continental European bidders and UK and Irish bidders, mostly because of the law mechanisms, as the markets of the UK and Ireland are subjected to common law, comparable to the US but different from most law mechanisms in Europe commonly. Besides, connections with banks' boards are associated with better access to debt financing, indicating a preference for the choice for cash payments (Faccio & Masulis, 2005).

On the other hand, Reuer et al. (2004) demonstrate the payment of stocks as a means to transfer the risk and uncertainty, regarding the realization of the expected synergies and future performance, towards the target's shareholders, thereby reducing the acquirer's downside risk. Their findings are based on two multivariate statistical models for estimating the likeliness of contingent pay-out under industry characteristics, and international country varying characteristics and experience variables, based on a sample of US acquirers between 1995 and 1998.

Overall, the empirical results show the importance and implications for corporate control incentives and the difficulties through uncertainties and information asymmetries arising from country mechanisms as well as ownership concerns.

Table 1

M&A motives and payment method relations

Panel A: General M&A motives	
Motive	**Explanation and relation**
Synergy motive	The synergy motive is based on the perception that the managers of both the acquirer and target have the intention to maximize shareholder wealth and aim to achieve excess gains through combined resources. Therefore, it is expected that the market reacts positively to M&A announcements, based on this explanation.
Agency theory (Information asymmetries and signalling theory)	Agency theory relates to the situation in which the interests of shareholders and managers are not aligned, wherethrough managers may attempt to pursue and prioritize their own interest instead of acting in the shareholders' interests. Such situations can occur if information provision is asymmetric. Eventually, those situations can result in wealth destruction for shareholders, as managers may only focus on empire building or other self-interest-based motives. Therefore, the initial market reaction to M&A announcements can also be negative if the market beliefs it is in the manager's interest only.
Managerial Hubris	Managerial hubris explains the rationale of M&As as partially based on managers overconfidence in the gains of M&As. Consequently, overpayment in M&As is much more common due to overestimating the gains from M&As. As this explanation assumes market efficiency, it is expected that the market will react negatively to M&A announcements of which investors belief that managers overestimate the gains. Moreover, in takeover waves it is common that nearby the end, M&A announcements are more or less based on managers' overconfidence and mimic successful cases instead of clear economic sense-making.

M&A motives based on payment method

Motive	Explanation and relation
Market timing	The motive of market timing refers to a situation of asymmetric information in which the managers try to take advantage over the market's valuation of their firm. More specifically, if managers belief their firm is undervalued, they are more likely to make a cash offer in M&As, while stock offers are expected in situations of perceived overvaluation. Based on this motivation, the market reaction is expected to be positive for cash-financed M&As and negative for stock-financed M&As.
Tax-based	This explanation indicates that the payment method of M&As can have implications for target shareholders. That is, if target shareholders are paid with cash, they immediately face a tax payment. This is not the case for stock payment, as taxes then are deferred.
Control and governance	From the perspective of control and governance, the payment method also can play an influential role in the process of M&As. The choice of payment method can have consequences for the ownership structure as well as monitoring activities and realization of synergistic gains. However, in contrast with enhanced monitoring activities through better governance and control mechanisms and access to local networks, knowledge and experience is the risk of agency problems through the renewed relationships of shareholders and managers.

2.7 Cross-border M&As and the initial stock market reaction

While the previously discussed perspectives address a general view towards M&A announcement reaction and the rationale behind the choice of payment method, deeper understandings can be discovered when considering those perspectives regarding cross-border M&As also. More specifically, it might appear that the exposure to different market conditions and country governance, because of cross-border M&A activities, can provide additional insights to explaining the initial stock market reaction.

As a starting point, a broader understanding about the initial perceptions about M&As in general became much more relevant in the past decades as markets and economies aim constantly more and more towards global expansion and internationalization, the literature broaden their scope towards M&As beyond country borders to see if results from M&A studies in general would apply also in M&A activities between countries (Song et al., 2021; Tao et al., 2017; Ellis et al., 2017; Dutta et al., 2013; Starks & Wei, 2013; Kang & Kim, 2008; Bris, Brisley, & Cabolis, 2008; Moeller & Schlingemann, 2005; Goergen & Renneboog, 2004; Reuer et al., 2004; Roll, 1986). The widespread literature regarding the domestic versus cross-border M&A subject addresses somewhat different accents in the case of cross-border M&As specifically. This might be due to a more broadening and multi-dimensional context for which more varying factors are expected and perceived to be part of the dynamic M&A-deal process and outcome. When taking a closer look towards the reasoning and potential incentives, it can be discovered that cross-border M&A activities are most often motivated as strategic activities for expansion and access to extensive investment opportunities for achieving synergistic and efficiency gains, with value creation generally accepted as main achievement (Tao et al., 2017; Ellis et al., 2017; Dutta et al., 2013; Bris et al., 2008; Moeller & Schlingemann, 2005; Goergen & Renneboog, 2004). However, this might not always be so easy within reach, due to again more specific situations of market imperfections and misalignment between the involved parties. More extremely, Moeller and Schlingemann (2005); Roll (1986) argue that cross-border M&As also appear to result in overbidding and lower acquirer returns due to increased hubris and agency

problems. Although this seems no different compared to the case of domestic M&As, acquirers aiming for expansion through cross-border M&As will have to deal with higher levels of uncertainty through multiple dimensions of information asymmetries, agency problems, and corporate governance concerns which can be different to what acquirers already have experienced through domestic M&A deals.

Next, the additional perceptions regarding cross-border M&As in terms of information asymmetries, agency problems, and corporate governance concerns will be discussed, beginning with the situations of information asymmetries in the context of cross-border M&As. Therefore, it is supportive to keep the fundamentals of the information asymmetries and signalling theory regarding outsiders' expectations towards firm valuation and future performance in mind. As already indicated, it is observed that, although market efficiency is assumed for theoretical purposes, it is not always the case that such efficiency holds. This market inefficiency can facilitate situations of asymmetric information, in which a firm's managers or shareholders may possess more information and try to take advantage of this information over outsiders as investors. The actions and publications about those firm activities can bring the investors important signals containing information about the firm's true intentions, thereby acting as a potential remedy for those asymmetric information situations as a result of market inefficiency. Specifically in the case of M&A activities, this means that the announcement of M&As by acquirers can serve as a signal towards the market, containing information which might influence the investors' expectations and investing behaviour. The investors' expectations and confidence about the announcement is reflected in the stock market reaction, which could be positive in the case of strong confidence or negatively when investors are more pessimistic. This is in short, a fundamental perception which needs to be the basis for a better understanding about the occurrence of cross-border M&As and the initial stock market reaction as a result.

The perception of asymmetric information is in the context of cross-border M&As a dominant occurrence, as the announcement of the cross-border M&A can function as a signal towards the market and investors by nature, when unbalanced information possession is perceived between the involved parties (Tao et al., 2017). Those situations of unbalanced distribution of information relate to various relationships, as it can be between the deal insiders and outside investors, but also between the acquirer and the target. With regard to the relationship of deal insiders and outsiders, the occurrence of unbalanced information distribution can be explained through opaqueness of the target (Song et al., 2021; Kang & Kim, 2008) but it is also perceived that the uncertainty and stability of host market environments (Song et al., 2021; Tao et al., 2017; Ellis et al., 2017; Dutta et al., 2013; Starks & Wei, 2013; Moeller & Schlingemann, 2005; Goergen & Renneboog, 2004) can play a role in information asymmetries. First, a target can be typed as opaque through certain of its characteristics, indicating that although the deal participants might possess valuable information regarding the expected future performance and valuation, outsiders might not be able to obtain this information, creating more uncertainty about the M&A-deal towards outside investors. Specifically, private ownership, high-tech industry operations, intangibles-critical and R&D intensive firms and foreign firms, all attributes can add to indicating a target firm's opaqueness (Song et al., 2021; Kang & Kim, 2008). If such attributes are indicated for target firms, deal outsiders can experience difficulties in examining and predicting the future performance and M&A synergies, as the outsiders have less access opportunities to obtain relevant information compared to the deal insiders. For example, regarding the R&D intensive targets, targets with critical intangible assets or operations in high-tech industries, it is most often the case that outside investors face difficulties for estimating the future performance and M&A's outcome, as it might be that those investors have inadequate ability to understand and observe the potential value through their examinations. Besides, it might also be that the deal insiders possess information about the intangible assets or R&D efforts which is unknown to the outside world and will not be made available as competitors might also benefit from disclosing such valuable information. To the extent of other target characteristics, when targets are privately held by shareholders, outside investors cannot obtain firm information through financial market facilities, media attention and analysts, which will make

accurate judgement about the expected synergies more difficult. In addition, in the case of foreign targets, the specific firms and the host market conditions might be unfamiliar to firstly the acquirers and secondly, the outside investors, which will bring uncertainties about the future outcomes.

From the situation of foreign targets, a bridge to a broader perspective of information asymmetries and agency problems can be indicated, as exposures towards other market environments are expected to play a much more relevant role in the reasoning behind initial stock market reactions to M&A announcements. To explain, differences exist between markets in terms of shareholder protection, governance quality and financial and economic development, which are expected to be influential in examining the reasoning behind the M&A process and the expectations regarding the M&A performance (Song et al., 2021; Tao et al., 2017; Ellis et al., 2017; Starks & Wei, 2013; Bris et al., 2008; Moeller & Schlingemann, 2005; Goergen & Renneboog, 2004). Given this, investigations regarding the country governance quality in target countries in relation to the acquirer's country governance impulse different stock market reactions to cross-border M&As.

As a starting point, two positions are generally associated regarding the role of market conditions and the initial stock-market reaction to announced cross-border M&As. On the one hand, Tao et al. (2017) take position from the perspective of acquirers in emerging markets and their reasoning for aiming abroad to more developed countries with M&A activities and the initial stock market reaction towards announcements and, on the other hand, Ellis et al. (2017) take position from the perspective of acquirers in more developed markets and their incentives to participate in cross-border M&As. Both studies show a different direction of the relationship of country governance quality affecting stock market reactions, indicating that there is no general agreement about this direction. Both studies based the indications for estimating the country's development through political stability and governance quality, as provided by Kaufmann, Kraay, and Mastruzzi, 2010). Specifically, those indications are captured in the methodology of the Worldwide Governance Indicators (WGI), which focus is towards measuring six dimensions of governance from the year 1996 up to and including the present numbers, namely Voice and Accountability, Political Stability and Absence of Violence/Terrorism, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption (Kaufmann et al., 2010). Kaufmann et al. (2010) refer to country governance as "the traditions and institutions by which authority in a country is exercised. This includes (a) the process by which governments are selected, monitored and replaced; (b) the capacity of the government to effectively formulate and implement sound policies; and (c) the respect of citizens and the state for the institutions that govern economic and social interactions among them" (p. 4). Given this, country governance facilitates environments through which institutions function in the country, and therefore differences in country governance and eventually in the stock market reaction occur, depending on the governance levels of the host country compared to the acquirer's domestic country. Based on this explanation, Tao et al. (2017), and Ellis et al. (2017) argued differently about country governance quality and the initial stock market reaction to announced cross-border M&As, as mentioned earlier. Those positions will be further explained hereafter.

To begin with, Tao et al. (2017) examine the influences of institutional dimensions through country governance quality to the initial stock market reaction for M&A announcements, considering the conditions of capital market development for value creation through M&As. More specifically, in the absence of firm-specific information due to information asymmetries, outside investors rely on the institutional information from the host country as signal for aligning their expectations which indicates an influential role for the institutional environment in the context of cross-border M&As (Tao et al., 2017). Therefore, differences in country regulations are expected to have influence on initial stock market reactions, as those differences might result in dissimilar levels of adequate information signalling, depending on the country's development. To explain, emerging markets might face more instability from the perspective of politics and governance quality, facing more risk exposure towards future expectations, uncertainty about policy changes, and higher transaction costs as more efforts might be necessary in realising cooperative agreements (Tao et al., 2017). Such exposures are judged as less favourable by investors, whereby pessimism in the stock market

reaction can be the result. Reasoning the other way around results in the suggestion that acquirers from emerging markets gain the most in terms of the initial stock market reaction through announced cross-border M&As by acquiring targets from more developed markets. To explain, acquiring targets from more developed markets compared to their domestic market provide outside investors with more adequate information signalling, as cross-border expansion towards markets with higher political stability and country governance quality facilitates less uncertainty and unreliable information signals, but facilitates more certainty for investors to build upon their expectations. Additionally, the future performance can be estimated with more confidence as corruption means are low, the acquiring firm can find more institutional protection when seeking high quality knowledge and resources abroad and can benefit from an increased ability of gaining unique competitive advantages compared to their domestic markets and eventually in international markets also (Tao et al., 2017). All these arguments substantiate the view of Tao et al. (2017), suggesting that acquirers from emerging markets experience the highest performance in terms of the initial stock market reaction to announced cross-border M&As of targets from more developed countries. In line with this point of view is the perspective of Song et al. (2021), who also take position from the acquirers from emerging markets, but rather focus on the alignment with the stock market reaction and subsequent performance of cross-border M&As. Their study also centralizes information asymmetries and the role of country governance quality but highlights additional target characteristics as incentive for unbalanced information and another form of signalling, namely the occurrence of cross-listed acquirers. In addition to Tao et al. (2017), a potential remedy for asymmetric information situations for acquirers from emerging markets is cross-listing in countries with more developed markets and more stable country governance (Song et al., 2021). The acquirer's dual listing in more stable markets would signal the acquirer's intentions and qualitative efforts towards investors, as such dual listing is associated with higher costs and confidence is necessary due to more disclosure requirements and stricter regulations (Song et al., 2021; Starks & Wei, 2013). Given the earlier mentioned fundamentals of signalling theory, outside investors are facilitated with another important source for perceiving somewhat more sufficient information signals which will make them better able to estimate future expectations with better performance alignment as a result, despite the opaqueness of the M&A deal (Song et al., 2021).

In contrast, Ellis et al. (2017) examine the same influence of country governance quality but change the relationship of country governance quality between acquirer and target by extending the situation of information asymmetry covering the overarching theory of agency problems. More specifically, Ellis et al. (2017) address the role of country governance in cross-border M&As with acquirers from more developed countries relative to the targets, thereby indicating potential gains through country governance transportation towards less developed markets. By doing so, Ellis et al. (2017) focus more on highlighting the relationship between acquirer and target instead of the relationship of deal insiders and outside investors, which is the case in Tao et al. (2017).

Ellis et al. (2017) address a larger occurrence of agency problems, as it can be discovered that due to the greater distance between the involved firms, the higher exposure to risk and uncertainty of foreign markets and the occurrence of more unbalanced information situations results in much more agency problems, as monitoring and maintaining alignment of interests becomes much more difficult. Consequently, the acquirer might face adverse selection, ending up with value destroying M&As. Alternatively, cross-border M&As through acquiring targets in countries with less developed governance quality benefit according to the portable governance theory, as those targets benefit from adopting the acquirer's qualitative corporate governance by enforced property rights and weaker agency problems (Ellis et al., 2017; Starks & Wei, 2013). In addition, poor country governance countries most often face lower financial development, resulting in difficulties in access to financing and investment opportunities as foreign institutions and investors demand higher returns given the greater risk exposure (Ellis et al., 2017). Those difficulties will be diminished when the targets advance their financial development through adopting the acquirer's corporate governance practices, as acquirers' domestic country is perceived to have higher accounting standards and

stronger shareholder protection, based on previous literature (Ellis et al., 2017; Bris et al., 2008). In addition, although the target's domestic country governance system is not subjected to change, the target itself benefits from adopting different levels of accounting standards and shareholder protection (Ellis et al., 2017; Starks & Wei, 2013; Bris et al., 2008; Goergen & Renneboog, 2004; Reuer et al., 2004). Also, such risks of facing weaker investor protection and enforceability problems can also be partially offset through contingent payment forms, of which stock payment is a typical example, which transfer part of the risk towards target's shareholders, reducing adverse selection and the downside risk for acquirers (Reuer et al., 2004). Interestingly, Reuer et al. (2004) indicate that acquirers are less likely to aim for contingent pay-outs, of which stock financing is a typical option, when the host countries lack sufficient shareholder protection. Contradicting, the previously mentioned country governance portability effect will be stronger for targets with lower governance quality in terms of higher returns for those targets due to improved efficiency and exploiting the opportunity of the target's original situation of underinvestment by enhanced access to funding (Ellis et al., 2017). As a matter of fact, those improvements will facilitate even more wealth creation for the merged firm. A statement in line with Ellis et al. (2017) is made by Bris et al. (2008), as they claim that when targets originate from countries with less shareholder protection and weaker governance, both at the country and corporate level, the target's market valuation does not decrease. It is noteworthy to mention that although Ellis et al. (2017) mainly focus on countries with poorer governance as hosts, they also highlight an aspect of the view in contrast, which is in line with Tao et al. (2017). That is, one can argue that although poorer county governance is associated with less efficiency, the negative effect might be partially mitigated by the more developed governance of the host country compared to the acquirer's level of country governance. Obviously, it is in the acquirer's best interest to allow the target firm to continue operations in the more efficient manner and exploit their resources further, as this will increase wealth creation for the acquirer (Ellis et al., 2017; Tao et al., 2017). However, it might also be the case that competitors are also induced to improve governance at the corporate level to avoid being dominated due to the takeovers of industry peers (Bris et al., 2008). Generally, it might be the case that in some situations the poorer country governance of the acquirer might be offset by better host country governance.

In contrast to the perceptions in which cross-border M&A announcements are indications of shareholder wealth creation through confidence about the expected synergies and realization, the occurrence of managerial hubris is also applicable in this process. Particularly, if agency problems increase continuously with value destroying in the aftermath, because of misaligned interests between managers and shareholders, or managers are overconfident about their capabilities and the expected synergies. Such behaviours eventually result in over-bidding and lower acquirers' returns, which might also be unavoidable in the case of cross-border M&As (Roll, 1986). Also, it might appear that the market will correct the overreaction to cross-border M&A announcements in the subsequent period, thereby suggesting that though cross-border M&As show initial promise, living up the long-run expectations seems often unfeasible (Dutta et al., 2013).

To summarize, several arguments are stated as reasoning for cross-border M&As and the explanations for initial stock market reactions and value creation through the expectations regarding announced cross-border M&As. The activities of cross-listing and signalling in case of target or host country opaqueness refer to potential remedies for information asymmetries through signalling or reducing adverse selection. Other activities cover the overarching agency problems which can result in asymmetric information situations, where more effective monitoring and portable country governance serve as efforts for maintaining alignment of interest or realignment of interests. Eventually, it might also occur that announced cross-border M&As and the initial stock market reactions reveal managerial hubris. To put it differently, managerial overestimation and overconfidence may result in participation in value destroying M&A activities through mismatching managerial capabilities and synergy estimations, also in the context of cross-border M&AS.

Empirical evidence on cross-border M&As and initial stock market reaction

Empirical evidence is also given for initial stock market reactions and the announcement of cross-border M&As, mainly based on the discussed articles in the previous section.

To begin with incentives as mitigating information asymmetries as well as risks due to different corporate governance mechanisms account for main explanations. To explain, Tao et al. (2017) report positive and statistically significant CARs for multiple cross-border M&As announcement windows, for acquirers from the relatively less developed market of Mainland China and non-significant CARs for the more developed Hong Kong stock market. That is, acquirers from emerging markets announcing cross-border M&As in which the host country has better country governance experience higher returns. Empirically, acquirers listed in Mainland China report positive and significant CARs for host countries with respectively higher Voice and Accountability, Political Stability and absence of violence, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption (Tao et al., 2017). Additionally, Song et al. (2021) show that the negative moderation of the target opaqueness proxies private targets, high-tech targets, and foreign targets is weaker when the acquirer is cross-listed in more developed markets. All coefficients of the corresponding variables are positive and significant, thereby reversely supporting this conclusion. Those results support the perceptions of signalling as potential remedy for information asymmetries.

On the other hand, empirical evidence is also presented for reasoning the other way around, that is if acquirers' country governance is more developed compared to the host country. Ellis et al. (2017) conduct several multiple regressions and provide statistics regarding the CARs for specific deal samples. Besides, the multiple regressions present, especially after controlling for insider ownership, a significant coefficient of 0.1107 for acquirer's country governance in relation to the acquirer's announcement return in the case of stock financed cross-border M&As with private targets, holding the other variables constant (Ellis et al., 2017). In contrast, the target's country governance shows a negative significant relationship for this coefficient. Overall, the results support the theory of portable governance as acquirers benefit through transport their country governance by buying targets in countries with poorer governance. Moreover, additional empirical evidence regarding the perception of governance concerns is provided by Starks & Wei (2013), who also analyse the acquirer's returns through an event study and conduct multiple regression analysis to estimate foreign acquirers' wealth effects for corporate governance variables. Furthermore, Kang and Kim (2008) demonstrate a clear link between the acquirer's preference for geographically proximity and corporate governance, whereby acquirers' abnormal returns are particularly strong in M&As with the earlier conceptualization of 'opaque' targets and insider ownership. These results are based on analysing information asymmetries and soft information for a US sample with in-state and out-state acquisitions. Interestingly, through examining the long-term performance, it seems the expectations represented by the initial stock market reactions do not live up in the long run (Dutta et al., 2013).

Alternatively, Goergen and Renneboog (2004) find results supportive for managerial hubris, as they find stronger wealth effects for domestic M&As regarding the initial stock market reaction, in contrast with the perceptions of synergistic gains and advantages over capital market imperfections. Such a result can be placed in line with the hypothesized implications of Roll (1986), as he indicated the occurrence of managerial hubris simultaneously to other explanations such as taxes, synergy and inefficient target management.

2.8 Impact of payment method in the context of cross-border M&As

Further elaboration from the context of cross-border M&As will identify additional explanations, as certain characteristics of payment methods are perceived to diminish the unbalanced situations of information asymmetries in the cross-border acquirer-target relationship.

To start off further explanations with a small example, the earlier addressed signalling through the choice of payment method regarding over- and undervaluation might be diminished or even disappear in cross-border M&As, as it can be that foreign targets are unwilling to accept stock offers, thereby almost literally obliging the acquirer to make cash offers (Moeller & Schlingemann,

2005). Such a situation might be complex for acquirers, as foreign deals have higher uncertainty and more difficulties in target valuation, a stock offer might be preferred as the target's shareholders will also bear some of the risk, but this reasoning might be diminished as mentioned in the previous argumentation.

To further indicate, as already mentioned for risk reduction in the case of weaker shareholder protection, Reuer et al. (2004) address the contract implementations with specifically contingency payments as appropriate partial remedy for asymmetric information situations. A form of contingent payment method is payment through stocks, whereby the target's shareholders become partly responsible for the synergy realization and wealth creation, also benefiting their own interests. Besides, acquirers can transfer part of the risk to the target's shareholders and reduce their own downside risk, which is particularly attractive for inexperienced acquirers (Reuer et al., 2004).

Third, literature shows that joint investigation of cross-border M&As and payment method leads to interesting findings, as stock payment in M&A deals appears to have some unique advantages in cross-border M&As, whereas acquirers from better governed countries are more likely to make stock offers (Dutta et al., 2013; Starks & Wei, 2013). As it is observed that geographical distance also plays a role, specifically, the role of agency problems might become more relevant when the distance between acquirer and target is increasing. To explain, cash offers will eliminate the existing shareholders of the target (Dutta et al., 2013; Starks & Wei, 2013), however partial maintenance of existing shareholders will facilitate monitoring activities of the firm by local shareholders, which can be of relevant importance (Kang & Kim, 2008). Specifically, local parties have an information advantage over distant acquirers, as they have relatively easier access to value-relevant and soft information, most often considered as intangible and more difficult to interpret (Kang & Kim, 2008; Uysal, Kedia, & Panchapagesan, 2008).

Also, interactions with the target's environmental stakeholders are also easier accessible for local parties (Uysal et al., 2008). Such facilities for accessing advanced information and less time expenditures through transportation distance might, in the first place, give acquirers the ability to discover less obvious synergies and eventually higher value creation through realization (Uysal et al., 2008). In a later stage, after conducting the M&A, such local monitoring might enhance the acquirers' monitoring capabilities and stronger incentives for maintaining monitoring activities, resulting in better firm performance (Kang & Kim, 2008; Fuller et al, 2002). Maintaining advanced monitoring activities becomes much more difficult and expensive for distant acquirers, as monitoring the target's management involves substantial costs of communication and transportation efforts, which are likely to increase if the distance between acquirer and target becomes larger (Kang & Kim, 2008). As given that such relatively easier access to advanced monitoring activities is facilitated, it can be expected that such capabilities are especially valuable in situations with higher information asymmetries. More specifically, the value creation should be better observable in the case of small or risky targets, targets with high R&D intensity, high insider ownership or targets with poor performance constraints in the past (Kang & Kim, 2008). It can be suggested that maintaining such local ownership can be beneficial for acquirers and serves as an important substitution for missing monitoring activities in the mechanism of corporate governance. However, such corporate shareholders can also result in contrast to those expectations, as local corporate shareholders might maintain harmonious relationships with the target's management and stakeholders, thereby diminishing the effective monitoring as they might care more about maintaining those relationships instead of monitoring. Eventually, this will also affect the wealth creation and performance, as the costs of misaligned interest affect the corporate governance mechanisms and firm performance.

Eventually the argument of contingent payment as remedy for information asymmetry and the monitoring effects through corporate governance practices in the context of cross-border M&As will only account as influential for stock-financed cross-border M&As. As target shareholders who receive cash as payment in return for their ownership do not participate in the new ownership structure (Starks & Wei, 2013).

To summarize, several arguments are stated as reasoning for cross-border M&As and the explanations for initial stock market reactions and the payment method through the expectations

regarding announced cross-border M&As. The activities of contingent payment and contractual form, as well as cross-listing and signalling in case of target or host country opaqueness refer to potential remedies for information asymmetries through signalling or reducing adverse selection. Additionally, stock payments are expected to play a larger role in specific situations where the ownership structure holds a relevant position.

Empirical evidence for the impact of payment method in the context of cross-border M&As

Empirical evidence is also given for initial stock market reactions with a particular role for payment method in the context of cross-border M&A announcements.

To begin with, it is given that acquirers announcing stock financed cross-border M&As with private targets result on average in 2.59% CAR, whereas announcements for cash financed cross-border M&As with private targets result in a lower average of 1.39% CAR (Ellis et al., 2017). Next, Dutta et al. (2013) conduct a multidimensional focus regarding the occurrence of M&As and investors' reactions, thereby also considering the initial stock market reactions in the context of cross-border M&As. Their results are in line with Kang and Kim (2008); Reuer et al. (2004), as investors favour stock financed M&A deals in the cross-border context, given the positive initial stock market reaction for a three-day announcement window. Besides, the initial stock market reaction for cash financed deals in the context of cross-border M&As is showing no significant results. To compare with Faccio and Masulis (2005), both studies indicate that these varying results might be possibly explained by the ownership structure, which is in the European sample of Faccio and Masulis (2005) much more concentrated than the Canadian sample of Dutta et al. (2013), as less concerns might exist due to the high representation of generally widely held US targets.

Additionally, Starks and Wei (2013) show highest returns for M&As financed through stock payment, with respectively a return of 1.56% in the cross-border context announcement. The returns for stock financed M&As are generally higher compared to M&A deals with cash offers. Moreover, the regression analysis shows that stock offers by acquirers with better corporate governance results in increased foreign acquirers' wealth, based on measurements of corporate governance proxies (Starks & Wei, 2013). To provide additional evidence for the case of cross-border M&As and stock payment methods, Uysal et al. (2008) present significantly higher returns for acquirers in the context of local M&A deals, at least partially explained by information advantages arising from the geographic proximity as presented by Kang and Kim (2008). This implies that local shareholdings in the context of cross-border M&As would contribute to the acquirer's wealth creation through informational advantages and stronger monitoring capabilities.

Overall, those results highlight the context of information asymmetries and governance practices in light of agency problems, especially in the context of cross-border M&As and payment method.

2.9 Hypotheses

2.9.1 M&A announcements and initial stock market reaction

The occurrence of M&As is a result of external factors and events such as economic and financial development, technological disruptions and innovations and political and regulatory progressions. As provided by previous literature, the dominant motive for conducting M&A activities for firms is to aim for, seek and pursue the realization of expected synergies. More specifically, the expected synergies reflect the presence of yet unobserved and unexploited value creation through combined resources of both participating firms, whereas the created value in terms of the new total firm value is larger than the sum of both firm values. Thus, M&As can be observed as a form of strategic asset seeking, as firms aim to gain additional wealth through improved firm performance in terms of combined market value, which is perceived to be unique as just adding the separate firms values together is inequivalent. When M&As are a response to the earlier mentioned factors, and managers also acknowledge the interests of shareholders in alignment with their own, profit optimisation and shareholder wealth creation might be a result of those M&As (Martynova & Renneboog, 2008). From the market perspective, information for estimating performance and settling expectations can be obtained through disclosure and are expected to be reflected at the time of the official announcement. Therefore, it is expected that the market's expectations and estimations of synergistic gains is reflected in the reaction to the acquirers' stocks.

Other directions of theories address explanations for the case of underperforming M&As, which can be indicated as a result of managerial hubris and agency problems, eventually resulting in the possibility of value-destroying M&As. As indicated by literature, it is not always the case that managers' and shareholders' interests are aligned, as managers might give priority to growth strategies based on asset size value for self-interests, indicating agency problems (Goergen & Renneboog, 2004; Jensen, 1986). Additionally, managers might make mistakes in evaluating targets and observations of synergistic gains, thereby overestimation of target value and overpayment may result in the loss of value or value destruction through M&As (Roll, 1986). Also, managers might also suffer from managerial hubris as a consequence of mimicking actions of other successful M&As rather than based on economic sense-making, as other successful M&As encourage other firms to conduct M&A activities also (Martynova & Renneboog, 2008). In contrast, even though the interests of managers and shareholders might not be aligned, a positive stock market reaction is still possible towards announced M&As as managers can also conduct M&As for reputation-building and gaining stronger positions, which can be supported by M&As with gains through stock market reactions. Therefore, it might appear that, although the interests of both parties are not aligned, a stock market reaction in the same direction, reflecting the outside investors' expectations, might be desirable for both managers and shareholders. Furthermore, when managers possess information that indicates overvaluation from the market regarding their firm value, they can be stimulated to exploit this information over less informed targets and conduct M&As (Martynova & Renneboog, 2008; Myers & Majluf, 1984). Especially when assessing a firm's true valuation becomes more challenging due to temporary market conditions, this might be a relevant explanation.

Most of the recent conducted studies based their geographical focus on US acquirers, or US acquirers and targets, or other equivalent markets. As given, the literature broadened their geographical aim during the waves in the last decade of the 20th century, with studies based on European and Asian market reactions also becoming relevant. Most research with a geographical scope towards European acquires focused on the period between 1990 or some years later, and 2001 as the ending year due to the common acceptance of the corresponding wave's end (Martynova & Renneboog, 2008; Faccio & Masulis, 2005; Goergen & Renneboog, 2004). Those studies demonstrate positive initial stock market reactions, in line with the reasoning of shareholder wealth creation through conducting synergistic motivated M&As. Interestingly, research from the past decade seems insufficient.

Overall, it appears that the synergy motive is the dominant driver for the occurrence of M&As, and therefore it appears that assuming positive initial stock market reactions to M&A announcements by European and UK acquiring firms is substantiated.

Hypothesis 1: M&A announcements result in a positive initial stock market reaction for acquiring firms.

2.9.2 The initial stock market reaction to M&A announcements with specific payment methods

Current literature also highlights the role of the method of payment in M&A announcements and the initial stock market reaction. This role is based on the underlying assumptions which indicate plausible arguments for the rationale behind the choice of how to finance M&As. Generally, those arguments are based on the view of the target and the reasoning regarding the market's judgement, namely the earlier mentioned tax implication in section 2.5.2. of the literature review and the acquirer's attempts for market timing and the market's anticipations based on 'signals'.

First, the tax implication indicates a preference for equity payment by the targets as they then are provided with the possibility to defer tax payments.

Secondly, although stated in the argumentations for the first hypothesis that acquirers' managers try to exploit possessed information indicating overvaluation by the market, it is more likely that such behaviours are exposed towards outside investors, providing the market the occasion to correct such behaviour, which thereafter would be reflected in the acquirer's stock price and affecting the firm value (Dutta et al., 2013; Fuller et al., 2002; Myers & Majluf, 1984). To explain, when acquirers' managers try to take advantage of overvaluation by offering equity payment in M&A deals, in the form of stocks, the market as well as the target's shareholders observe this payment method as a signal for the managers' awareness of overvaluation and will correct the acquirer's firm value as reflected by the stock price. This perspective of market timing and signalling indicate that eventually, both acquirer and target will be reluctant to use stock payment, but rather prefer cash payment. Moreover, the target's shareholders are expected to prefer cash payment, as the value and therefore the premium will not be contingent, but the premium will rather be unambiguous as a fixed payment in cash will be negotiated, based on the determined value. In similar fashion, it also is expected that acquirers will prefer cash payment as there is no room for ambiguity regarding the agreed value and the realization of synergies.

Interestingly, in some specific cases, the acquirers also prefer contingent payment as they might experience challenges in estimating the target's potential value and the underlying synergistic gains, due to the opaqueness of the target by nature. In such situations, acquirers are expected to aim for contingent payment in the form of stocks, thereby transferring the risk to the target's shareholders partially, to reduce the downside risk (Reuer et al., 2004). Additionally, the acquirer's preference for stock payments might also hold in other situations of opaqueness as exposure towards governance risks abroad is also expected to play a role. However, it is less likely that such a preference will be reflected in the general examination of stock market reactions regarding the payment method in M&As.

Overall, it is expected that the use of cash payment in M&As will result in higher returns for the acquirers during M&A announcements, as M&A announcements including stock payments can be perceived as indication for overvaluation of the acquiring firm.

Hypothesis 2: For M&As in general, the announcements of cash-financed M&As result in more positive stock market reactions for acquiring firms, compared to stock-financed M&As.

2.9.3 The initial stock market reaction to cross-border M&A announcements with specific payment methods

The initial expectations regarding the stock market reactions for announced cash financed M&As are also discussed in in the cross-border context.

As a continuation of the previous hypothesis, it can be stated that the impact will be even stronger in the cross-border context, as literature shows that cross-border M&As most often are expected to be the most crucial ones for wealth creation through expansion. On the other hand, as the importance of the synergy realisation for strategic success increases, the risk of failure also increases, possibly resulting in destroying more shareholder wealth in terms of firm performance.

Moreover, the assumption of market timing, whereby acquirers tend to take advantage of over- or undervaluation by the market, and the corresponding signalling theory seem to be a primary explanation for cross-border M&As also. On the other hand, the earlier addressed signalling through the choice of payment method regarding over- and undervaluation might be diminished or even disappear in cross-border M&As. To explain, it can be that foreign targets are unwilling to accept stock offers, thereby almost literally obliging the acquirer to make cash offers (Moeller & Schlingemann, 2005). Such a situation might be complex for acquirers, as foreign deals have higher uncertainty and more difficulties in target valuation, a stock offer might be preferred as the target's shareholders will also bear some of the risk, but this reasoning might be diminished as mentioned in the previous argumentation.

Overall, also for the cross-border M&A context, it is expected that the announcement of cash financed M&As will result in in more positive stock market reactions, based on the extension of the market timing perception to the cross-border context, as well as a kind of forced choice for cash payment.

Hypothesis 3: The positive stock market reaction to the announcements of cash financed M&As will be even more positive for cross-border M&As.

2.9.4 The initial stock market reaction to cross-border M&A announcements & country governance

The literature review introduced and discussed two perspectives towards the perceptions about short-term effects for cross-border M&A announcements and country governance. Although cross-border M&As also occur most often as strategic activities for synergistic and efficiency gains through broader expansion, the international context also addresses specific situations of market imperfections.

As expressed, the rationale of host country governance can be interpreted from the position of acquirers with lower levels of country governance, as well as from the position of acquirers with higher levels of country governance. Specifically, the announcements of cross-border M&As can be seen as informational signals in case of information asymmetries due to target or market opaqueness, depending on the host country's governance quality (Tao et al., 2017; Kang & Kim, 2008). To explain, when acquirers announce takeovers of targets for which the outside investors experience challenges in estimating the performance and expected synergies due to the target's opaqueness by nature, those outsiders can still identify informational signals through the host country's governance quality which can function as indications of quality efforts and less uncertainty. Moreover, the same argumentation holds for the occurrence of an acquirer's dual-listing to countries with higher levels of country governance, also highlighting the informational signals which might indicate confidence and efforts regarding the disclosure requirements and stricter regulations (Song et al., 2021; Starks & Wei, 2013).

In contrast, Ellis et al. (2017) approach short-term returns for cross-border M&A announcements when the host country has a lower level of governance quality compared to the acquirer's home country. Thereby they indicate that country governance transportation from the acquirer towards the host country have potential gains for the acquirer, thereby addressing the role of agency problems in the cross-border M&A context. Targets may benefit from adopting different levels of accounting standards and shareholder protection from the acquirer's more developed governance environment, facilitating benefits in terms of financial development, access to financing and investment opportunities (Ellis et al., 2017; Starks & Wei, 2013; Bris et al., 2008; Goergen & Renneboog, 2004; Reuer et al., 2004). Additionally, acquirers from better governed countries gain more in terms of share price from cross-border M&As to worse governed countries (Ellis et al., 2017). More specifically, this shareholder value is created due to better allocation of resources, access to better contracting mechanisms, better and cheaper access to funding, and possession of critical assets that are not able in poor governed countries (Ellis et al., 2017).

Contradicting to the above discussed perceptions, managerial hubris might also play a role in the cross-border M&A context. In other words, when agency problems are continuously increasing, eventually resulting in firm value destruction, or managers' overconfidence, overbidding or lower acquirer returns also can be the consequence for the cross-border M&A context (Roll, 1986). This overreaction can be corrected by the market afterwards (Dutta et al., 2013).

Provided that, the governance quality on the level of country's overall is in literature most often based on the identifiers of Kaufmann et al. (2010), who highlight a country's level of governance quality in terms of governance quality and political stability, complied as World Governance Indicators (WGI). By the same token, the governance quality of a country is based on the government effectiveness (GE), regulatory quality (RQ), rule of law (RL), and control of corruption (CC), whereas political stability is based on a country's voice and accountability (VA), and political stability and absence of violence (PS) (Kaufmann et al., 2010).

Next, as indicated, this study's focus is towards acquirers from European countries and the UK, it is noteworthy to indicate the general levels of governance qualities compared to other continents, to substantiate the hypothesis as stated below. In addition, where Ellis et al. (2017) approach the acquirers from a global perspective, as their sample consists of acquirers from countries all over the world, other studies also highlight the M&A activities of acquirers from continents specifically. More specifically, the sample of acquirers of Ellis et al. (2017) has a high

content of US and UK acquirers, followed by other countries, where European countries also cover a substantial portion. Moreover, Faccio and Masulis (2005) present Europe as an ideal venue, due to the wide range of capital markets, institutional settings, laws, and regulations. Furthermore, several European countries, as well as the UK, are members of the OECD programme. To explain, OECD membership is addressed as a proxy for economic development, connecting with governance quality (see e.g., Bris et al., 2008). Based on the focus regarding the location of the acquirers in this study as well as provided by other studies (Ellis et al., 2017; Bris et al., 2008; Faccio & Masulis, 2005; Goergen & Renneboog, 2004), it is more likely to hypothesize that acquirers from countries with relative higher levels of governance qualities compared to the host countries, will experience higher short-term returns during announcements of cross-border M&As than those that have lower levels of governance quality, which is in line with the general view of Ellis et al. (2017).

Hypothesis 4: For cross-border M&As, the announcements of cross-border M&As result in more positive stock market reactions when the host country has higher governance quality distance, compared to those that have acquired targets from host countries with lower governance quality distance.

2.9.5 The initial stock market reaction to cross-border M&A announcements, country governance, and corporate control incentives through payment methods

As a result of the previous section regarding the arguments for initial stock market reactions and cross-border M&As, the role of the payment method can also play a role as reflection for corporate control incentives in relation to country governance quality. To put it differently, previous studies demonstrate that joint investigation of cross-border M&As and the payment method leads to interesting findings, due to some unique advantages of stock payment and the preference of acquirers from better governed countries (Dutta et al., 2013; Starks & Wei, 2013).

First, stock payment is a form of contingent payment, which can be used in M&A deals and fulfils the role of asymmetric information remedy in the cross-border context, as the acquirers transfer part of the downside risk towards target's shareholders (Reuer et al., 2004). Next, where cash offers in M&As eliminates the existing shareholders, stock payment can function as a means to keep local shareholders involved, benefiting from maintaining the information advantages of local experts and monitoring efforts, which is especially valuable in more likely situations of higher information asymmetry as the cross-border context (Dutta et al., 2013; Starks & Wei, 2013; Kang & Kim, 2008; Uysal et al., 2008; Fuller et al., 2002). Such benefits eventually result in better firm performance, through on the one hand enhanced monitoring capabilities and less time-consuming efforts and on the other hand lower transportation and communication costs as well as monitoring costs (Kang & Kim, 2008). Nevertheless, local corporate shareholders can also result in contrast, as those shareholders attach more value to maintaining harmonious local relationships, reducing the monitoring effectiveness, and increasing agency problems.

Overall, elaborating on the previous hypothesized arguments for cross-border M&As and country governance quality, it can be expected that the role of payment method will shed additional light on the arguments. Then, corporate control incentives are expected to function through stock financed cross-border M&A announcements for host countries with higher governance quality distance, indicating a relatively lower governance quality.

Hypothesis 5: For cross-border M&As, the announcements of stock financed cross-border M&As to host countries for which the governance quality distance is higher, result in more positive stock market reactions compared to acquirers' announcements of cash financed cross-border M&As.

3. Research methodology

3.1 The event study method

This study focuses on the M&A announcement effects through capturing the initial stock market reactions in the period of announcing. Those reactions will be captured using the so-called event study methodology, thereby calculating and analysing the cumulative abnormal returns (CARs) over the chosen period.

First, the event study measures the impact of a specific event on firm value using financial market data (MacKinlay, 1997). As demonstrated by the literature section, the initial stock market reaction captured by the CAR on the acquiring firm's stock return around the announcement date is a generally substantiated measurement for the most covered concept of firm performance in M&As, namely the short-term stock market performance. Such a measurement is only applicable in case of listed acquirers, as data about stock prices is the fundamental subject of measurement. This return is calculated using the following formula:

$$Total\ Stock\ Return = \frac{(P_1 - P_0\ )}{P_0}$$

Where P_0 is the initial stock price of the firm and P_1 represents the ending stock price of the firm for period 1. Additionally, the logarithm of the return will be used in the analysis, as the logarithm is supportive for the statistical analysis by distributing the return normally (Ellis et al., 2017; Dutta et al., 2013).

The advantage compared to long-term performance measurements is that short-term measurements are better able to capture the effect of the occurrence of M&As on the firm performance, reflected by the acquirer's stock price. In addition, when considering the long-term performance, it is much more difficult to estimate when the influence of the M&A announcement is still relevant and significant for the window, as it might also be that the occurrence of other events also affects the stock price in the meantime, causing potential measurement bias. Moreover, it is expected that the occurrence of M&As and their announcements will carry additional information, which will be reflected in the acquirer's stock price, according to the efficient market hypothesis. The price reactions will be driven by the reflections of the expectations based on the available M&A information reflections regarding the firm's performance and expected outcomes from investors. Furthermore, Healy, Palepu, & Ruback (1992) highlight that increases in operating cash flows, representative as an accounting performance measure, are positively related to abnormal stock returns at M&A announcements, based on their results. Additionally, the market's ability to predict future profitability of M&As at the time of the announcements is suggested by the positive association between the event abnormal return and changes in the average ROA over a longer period (Finkelstein & Haleblian, 2002). Given this, it can be expected that the investors' expectations during the announcement of M&As are in line with the longer-term performance of M&As, predicted through the investors.

To be able to calculate the CARs around a specific event, the following steps are necessary to guide towards the CARs. First, it is necessary to identify the event date, in this case the specific date of the M&A announcement. Secondly, after the identification of the specific announcement date, a sufficient model for estimating the expected change in stock price needs to be selected. Third, the non-event, also known as the estimation period, and event periods need to be estimated. Fourth, after identifying the first three steps, the calculation of the CARs is the next step in the process. Finally, when the CARs for the event periods around the identified announcement date and estimation period are computed through the selected model, the results need to be statistically analysed and interpreted to be able to draw conclusions.

For identifying the specific event dates, in this study's context the M&A announcement dates, the Orbis database of Bureau van Dijk is used as provider for the specific dates, where after which the verification of correctness is done manually. Next, as mentioned, it is necessary to select a sufficient model which facilitates the opportunity to estimate the observed returns around the announcement date and the normal returns, also known as the expected return. Generally, multiple models exist to specify the expected change in returns for the event methodology. Nevertheless, based on previous studies (see e.g., Song et al., 2021; Ellis et al., 2017; Tao et al., 2017; Starks & Wei, 2013; Kang & Kim, 2008) it appears that the most employed model is the market model using daily stock returns, from Brown and Warner (1985). This model facilitates computing the expected returns to calculate the abnormal returns. Additionally, the market adjusted model will also be employed to check for robustness. Both these models are identified as statistical models, whereas also economic models can be identified in estimating normal returns for the event study.
MacKinlay (1997) highlights two common economic models, the Capital Asset Pricing Model (CAPM), (see e.g., Goergen & Renneboog, 2004) and the Arbitrage Pricing Theory (APT). Those economic models, as well as other multifactor models, are not selected for this thesis, as the statistical models eliminate similar biases and employing those models does not add significant explanatory power compared to the statistical models, explaining the statistical models' dominance in event studies (MacKinlay, 1997). Additionally, Brown and Warner (1985) show that the market adjusted returns and the market model outperform the mean adjusted model in terms of power. Eventually, both the employed statistical models will be further explained hereafter.

3.1.1 the Market Model

As indicated, the market model is the most employed model for estimating normal returns. Brown and Warner (1985) introduce the model based on daily stock returns, where the market model assumes a linear relation between the market return and the firm's stock return (MacKinlay, 1997). More specifically, this model considers the market index for the market return, thereby being advantageous compared to the mean adjusted model. The market model is as follows:

$$Rit = \alpha i + \beta i Rmt + \varepsilon it$$

Where Rit is the period-t stock return of a firm i, Rmt represents the return on the market index m return for period-t, and εit is the error term with expectation zero and finite variance. Generally, the market model parameters αi and βi are consistently estimated through OLS regression of Rit on Rmt (Tao et al., 2017; MacKinlay, 1997; Brown & Warner, 1985). The market index in this thesis is presented by the STOXX Europe 600 index, based on the sample's focus towards European and UK firms. Given this equation, the normal return can be computed using the estimation window, which will be specified further after discussing the models for expected returns. Based on the above model, the sample abnormal returns (AR), which is the difference between the actual return and the predicted normal return, can be measured as follows:

$$ARit = Rit - (\hat{\alpha}i + \hat{\beta}iRmt)$$

For this equation, $\hat{\alpha}i$ and $\hat{\beta}i$ represent the OLS values estimated from the estimation period (Brown & Warner, 1985).

3.1.2 the Market Adjusted Model

As earlier mentioned, the market adjusted model is selected as a robustness check for the results provided when employing the market model. The market adjusted model is a model which can be seen as more feasible in case of limitations in data and demonstrates consensus with the market model, as it can be seen as a restricted market model with prespecified model coefficients (MacKinlay, 1997). Therefore, it is not necessary to identify an estimation period for the expected

returns, when employing the market adjusted model. Based on this information, the market adjusted model calculates the abnormal return (AR), as follows:

$$ARit = Rit - Rmt$$

Where the actual return of firm i over period-t is presented as Rit, and Rmt presents the market return, which is subtracted from the firm's actual return. The market return is in this thesis represented by the STOXX Europe 600 index, again based on the sample's focus towards European and UK firms.

After selecting sufficient models, the event window and the estimation period, which is the non- or pre-event window, needs to be estimated. This is specifically relevant, as selecting the right event window is essential to be able to fully identify the announcement effects, where in contrast it is also important to be aware of the influence of other events, potentially biasing the measurement of the M&A announcement reactions.

To begin with, the corresponding period for estimating the returns needs to be identified to estimate the normal returns. Commonly, this period is prior to the event window, and does not include the event period to prevent influential overlap in performance calculations. To explain, if both the normal return and abnormal return would capture the event impact, methodological problems would violate the assumption that the event impact is captured by the abnormal returns (MacKinlay, 1997). Although MacKinlay (1997) identifies that an estimation period of 120 days prior to the event window for estimating the market model parameters could be selected, this thesis follows Ellis et al. (2017) by selecting an estimation period of 200 days, ranging from 205 days to 6 days prior to the announcement date, noted as (τ-205, τ-6).

Next, after determining the estimation period, the event window needs to be specified to identify for which period the CARs will be accounted for as event impact. Such selection needs additional attention. To explain, the event window can be selected based on various assumptions of information reflection and timing. Although Fama (1970) introduces the efficient market hypothesis, which states that a stock price fully reflects all available information of that firm to the outside market, for the event study method, it is commonly accepted to integrate the semi strong form. This semi strong form of efficient markets presents that a firm's stock price reflects the investors' estimations about future firm performance based on all available information, and when new information becomes available through event announcements, it is expected that the stock price will change due to adjusted estimations by investors (Song et al., 2021). Additionally, Ellis et al. (2017) present that, especially in the case of the cross-border context, it might appear that the timing of announcement can vary when firms from different markets and countries are involved. To explain, it can happen that one of the markets at announcement time is closed and the other market is not. Also, differences in disclosure requirements influences the extent to which the market reacts to announcements (Ellis et al., 2017). For this reason, Ellis et al. (2017) select the 5-day event window, spread in two days before and two days after the announcement, in addition to the commonly accepted 3-day window. Therefore, multiple event windows around the M&A announcement are selected to facilitate the incorporation of the announcement information and the reflection of the stock market reactions. The following windows are selected for computing the CARs related to the M&A announcement:

(τ-1,τ0): 1-day event window; (τ0,τ+1): 1-day event window; (τ-1,τ+1): 3-day event window; (τ-2,τ+2): 5-day event window; (τ-5,τ+5): 11-day event window.

For all these event windows, the event date, in this case the announcement date, is referred to as τ = 0. Given this, it is obvious to notice that τ+1 = one day after the announcement date, τ+2 = two days after the announcement date, and τ+5 = five days after the announcement date. On the other side of the window, it is obvious that τ-1 = one day before the announcement date, τ -2 = two days before

the announcement date, and τ -5 = five days before the announcement date. Note that the estimation period and the selected event windows connect to each other, but do not overlap. The time horizon of those periods is visualized in figure 2. In conclusion, through these event windows, the predicted normal returns and abnormal returns are calculated to identify the initial stock market reaction to M&A announcements, considering a semi strong form of efficiency also.
As identified as the fourth step in the event study methodology, the abnormal returns are calculated and thereafter aggregated as cumulative abnormal returns (CARs). Obviously, the CAR is the sum of the included average abnormal returns for the days of the event window.

This results in the following equation for computing CAR:

$$CAR_i(\tau_1, \tau_2) = \sum_{\tau=\tau_1}^{\tau_2} AR_{i\tau}$$

This equation holds for the abnormal returns of both the market model and the market adjusted model. To explain, CAR_i is the cumulative abnormal return for firm i over the event window (τ_1, τ_2), which remains for period t = day 1 until t = day n (Tao et al., 2017)

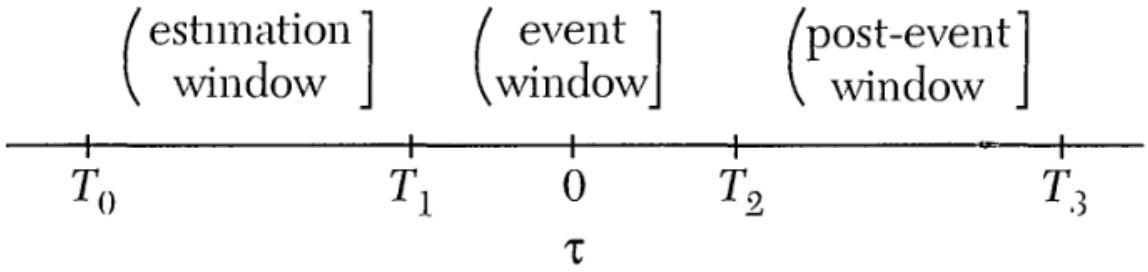

Figure 2: *Note. Timeline for an event study. Adapted from MacKinlay (1997, p. 20).*

Further, to identify whether the CAR is a result of the fluctuation of stock prices, the statistical significance needs to be assessed. This consideration for statistical analysis to interpret the CARs is the bridge towards the earlier indicated fifth and final step in the process of the event study methodology. Initially, to check if the CARs deviations from zero are statistically significant, a parametric test in the form of the t-statistic, assuming a normal distribution of the sample data, is performed as follows:

$$t_{CAR} = \frac{CAR}{\frac{S_{CAR}}{\sqrt{n}}}$$

Where CAR is the cumulative abnormal return, S_{CAR} represents the standard deviation of the cumulative abnormal return, and n represents the sample size. If the observed CAR during the M&A announcement by European and UK acquirers is significantly different from zero, it can be concluded that this M&A announcement event has a significant impact on the acquirers' stock prices. Such a conclusion is rejective to the null hypothesis, which states that the event has no impact on the behaviour of returns (MacKinlay, 1997). Those tests will be conducted for all the earlier stated hypotheses, based on panel data.

In conclusion, by following the mentioned steps of the event study method, a conclusion can be drawn regarding the association between the event of an M&A announcement and the abnormal returns for acquirers. Next, additional models for statistical analysis will be explained to facilitate the investigation of specific characteristics regarding the M&A announcement and the participating

firms. Those additional analyses will provide further and more detailed explanations regarding the conclusions of the event study.

3.2 Cross-sectional regression analysis

To facilitate the investigation of specific characteristics regarding the M&A announcement and the participating firms, cross-sectional regression analysis will be performed to examine the multiple hypotheses stated for the source of the abnormal return.

As indicated by MacKinlay (1997), a cross-sectional regression model is appropriate for investigating the association between the M&A announcement and abnormal returns for acquirers, where it is common to run the regression of the abnormal returns on the hypothesized characteristics. The cross-sectional regressions are conducted to test H2, H3, H4, and H5 whereby the regression serves as validation for the consistency of the cross-sectional variation of the firm's abnormal returns with the theory to lend credibility to the empirical findings (Gubbi, Aulakh, Ray, Sarkar, & Chittoor, 2010; McWilliams & Siegel, 1997). Regarding the regression model, the calculated CARs (-1,+1; -2,+2; -5,+5) from the event study approach are selected as the dependent variable for M&A performance (Ellis et al., 2017; Dutta et al., 2013; Gubbi et al., 2010; Uysal et al., 2008; Moeller & Schlingemann, 2005; Fuller et al., 2002), whereas the payment method, country governance quality distance in the form of governance quality and political stability, geographical distance and the interaction between payment method and country governance quality distance as well as geographical distance are selected as independent variables. The focus of this thesis is on the Ordinary Least Squares (OLS) regression method, thereby following most existing research (see e.g., Dutta et al., 2013; Gubbi et al., 2010). Noteworthy to mention is that while applying multiple regression analysis, it is necessary to construct a stable model with low correlation among the predictor variables (De Vaux, Velleman, & Bock, 2016). If it appears that the predictor variables are linearly related, collinearity or simultaneously named as multicollinearity, can be disturbing to the balance of the model and the interpretation, as underlying associations between the independent variables are present (De Vaux et al., 2016; Curto & Pinto, 2010). To check if collinearity is problematic, the Variance Inflation Factors (VIF values) demonstrate estimations of the variance, which facilitates an indicator for the variance in the estimated slope (Curto & Pinto, 2010; Gubbi et al., 2010). In case of problematic collinearity, which as a rule of thumb is indicated by VIF values higher than 10, the variables can be reconstructed through factor analysis, assessed in separate regression models, or can be removed when similar variables are already added (De Vaux et al., 2016; Curto & Pinto, 2010). Notably, Kaufmann et al. (2010) do indicate that these measurement indicators for country governance should not be seen as independent of each other, but rather inter-relational, which forces one to be aware of multicollinearity between the independent variables in the specific regression. Therefore, it might be necessary to construct a composite variable for the six dimensions, indicating the governance quality distance between the home country of the acquirer and the host country of the target. Next, as a check for robustness, the independent variables regarding payment method are dummy variables in the main test for H2, H3 and H5, but will be replaced in additional tests by the continuous variable portion cash, indicating the percentage of cash payment announced. Provided that, the independent variables can be further specified to operationalize the constructs of payment method, country governance quality distance and geographical distance.

3.2.1 Regression model hypothesis 2 and 3

To begin with, hypothesis 2 will be tested using dummy variables to measure the payment method, namely the dummy pure cash and mixed payment. The dummy pure cash equals 1 if the M&A announcement consists of pure cash payment, and 0 otherwise, whereas the dummy for mixed payments equals 1 if the M&A announcement consists of mixed payment, mainly in the form of cash and stock payment. Moreover, a dummy variable for cross-border M&As, equalling 1 if the target is located in another country, is added to the model. Those measurement variables are in line with Dutta et al. (2013), who approach the variable payment method using the same dummies. Additionally, several control variables with various dimensions are added to the model, namely control variables at the deal level, acquirer firm level, and additional dummies for year and industry. More specifically, in all regressions is controlled for a set of variables as an additional check for robustness. Based on several studies (see e.g., Song et al., 2021; Eckbo et al., 2018; Tao et al., 2017; Faccio & Masulis, 2005; Goergen & Renneboog, 2004; Reuer et al., 2004; Fuller et al., 2002) target characteristics which can be qualified as 'opaque', meaning that certain target characteristics create uncertainty regarding the estimations of the expected M&A outcome and outsiders' observations regarding the deal. Therefore, dummy variables are included, indicating if a target is a private firm, a high-tech industry firm or a firm from unrelated industries. To explain, target opaqueness might also bring uncertainty in the deal process if the acquirer's ability to indicate and to detect the target's true value and synergies is less sufficient. Such uncertainty and inability from acquirers might result in poorer performance, as acquirers might be unable to exploit the true synergies hidden behind the target's opaqueness. By bringing in stocks as a means of payment, the acquirer can generate downside protection and transfer the risk to the target's shareholders partially (Reuer et al., 2004).

Finally, deal size is added to the model as it is broadly supported by current literature (see e.g., Eckbo et al., 2018; Ellis et al., 2017; Andriosopoulos et al., 2016; Gubbi et al., 2010; Faccio & Masulis, 2005; Goergen & Renneboog, 2004; Fuller et al., 2002). More specifically, a rising target size simultaneously increases the risks of value destruction for the acquirer due to the impact of asymmetric information and the uncertainty about synergistic outcomes through the relatively bigger impact of the M&A deal. To simplify, it can be expected that a rising deal size will have an impact on the stock market reaction and therefore the control variable deal size, measured as the natural logarithm of the deal value in millions of euros, will be added to all regression models.

Furthermore, several control variables at the acquirer firm level will be added to the regression equation, which will be held the same for testing all hypotheses of this thesis, as those variables might also influence the relationship between M&A announcements and abnormal returns. The firm level control variables which are selected are the acquirer's firm size, firm age, leverage, and ROA are incorporated.

First, firm size can influence the acquirer's strategic choices (Gubbi et al., 2010) and previous literature indicate that institutional owners are attracted to larger firms, whereby firm size is indicated as a key driver for acquirer's returns (Andriosopoulos et al., 2016). Acquirer's firm size is measured as the natural logarithm of the acquirer's total assets at the year-end prior to the M&A announcement (Song et al., 2021; Andriosopoulos et al., 2016; Gubbi et al., 2010).

Secondly, the acquirer's age is perceived to have influence on the decisions regarding the motives for M&A activities, methods of payment or obtaining financing and eventually internationalization strategy (Gubbi et al., 2010). As a result, firm age is measured in line with Gubbi et al. (2010), who compute the difference between the year of M&A and the acquirer's incorporation year.

Third, leverage is observed as a firm-level slack, influencing the reactions in the acquirer's stock price to M&A announcements as proxy for firm performance (Song et al., 2021; Ellis et al., 2017; Gubbi et al., 2010). Moreover, a theory of pecking order seems to identify the most appropriate source of funding in corporate finance, of which investments for M&A activities and thus the payment method is in line with such type of funding in corporate finance. More specifically, Myers and Majluf (1984) suggest that firms rely on internal sources of funds primarily in the form of

cash flows originating from retained earnings, thereafter prefer debt over equity from external financing if the internal funding sources are not sufficient. To explain, this pecking order in the funding sources indicates the allocation of equity as funding source for M&As also as least favourable, which is a clear consequence of the indicated perception of over- or undervaluation and the subsequent signals towards outsiders when managers think they can use their information in their own advantage without any consequences. However, in some situations or constraints in market and firm conditions, it is more difficult to maintain the amount of retained earnings and therefore it is more likely that sufficient amounts of cash might not be available or other financing methods are chosen due to a high exposure to valuation uncertainty. Therefore, Leverage is indicated as control variable. Leverage is measured as the ratio of total debt to total assets in terms of market value, at the year-end prior to the M&A announcement (Ellis et al., 2017; Andriosopoulos et al., 2016).

Fourth, a control variable for firm performance is added, as prior firm performance of the acquirer stimulates strategic activities, including M&A activities. Firm performance is measured through return on assets (ROA), the return on assets of the acquirer at the year-end prior to the M&A announcement (Gubbi et al., 2010). Another possibility to capture firm performance is through measuring return on equity (ROE), however this measure does not consider the firm's complete capital structure, as debt is not included in the ratio. Finally, two dummy variables to control for time and industry effect are selected, as certain periods of time are characterised by the excessive number of M&A deals and their profitability, identifying a so called 'M&A wave'. Such phenomenon is also applicable for certain industries. Therefore, these variables are also added as control variables to eventually all regression models.

As can be discovered, the analysis of the second and third hypothesis can be combined in one model, simply by adding interaction terms, which can be formulated as PURE CASH * CROSS_BORDER and MIXED PAYMENT * CROSS_BORDER. Eventually, the model can be formulated as follows:

$$CAR_i = \alpha + \beta_1 Pure\ Cash_i + \beta_2 Mixed\ Payment_i + \beta_3 CROSS\_BORDER_i + \beta_4 Pure\ Cash_i * CROSS\_BORDER_i + \beta_5 Mixed\ Payment_i * CROSS\_BORDER_i + \beta_6 PRIVATE\ TARGET_i + \beta_7 HIGHTECH\ TARGET_i + \beta_8 UNRELATEDNESS_i + \beta_9 DEALSIZE_i + \beta_{10} FIRMSIZE_i + \beta_{11} FIRMAGE_i + \beta_{12} LEVERAGE_i + \beta_{13} ROA_i + \beta_{14} YEAR_i + \beta_{15} INDUSTRY_i + \varepsilon$$

3.2.2 Regression model hypothesis 4

Next, hypothesis 4 focuses on the governance quality distance between the host country and the acquirers home country, indicating the relative host country governance quality, as the independent variable. Obviously, in order to be able to test H4, it is necessary to draw a subsample consisting of cross-border M&As only. Regarding the specific independent variable, it holds the perception that acquirers who target firms in countries with lower governance quality, and thus with higher governance quality distance, will experience higher announcement returns. For measuring the country governance quality, multiple studies (see e.g., Ellis et al., 2017; Tao et al., 2017) selected the World Governance Indicators (WGIs) as constructed by Kaufmann et al. (2010). As earlier indicated, Kaufmann et al. (2010) separate country governance quality in six indicators beneath two main dimensions, namely governance quality and political stability. The dimension of governance quality is covered by the following four indicators: government effectiveness (GE), regulatory quality (RQ), rule of law (RL), and control of corruption (CC). By the same token, the dimension of political stability is covered by two indicators, namely the country's voice and accountability (VA), and political stability and absence of violence (PS). Those indicators are composed into the World Governance Indicators Index, whereafter it is possible to subtract the host country index from the acquirer's home country index. The result is operationalized as the governance quality distance, is used as independent variable to represent the distance between the governance quality of both participating countries. The WGI indicators cover several individual underlying governance variables for over 200 countries,

facilitating the opportunity to make cross-country and over-time comparisons (Kaufmann et al., 2010). Additionally, a proxy for geographical distance, measured as the logarithm of the distance between the capital cities of both the acquirer and target's country is added (Dutta et al., 2013; Kang & Kim, 2008; Uysal et al., 2008). The earlier indicated control variables will also be added to this regression model. All these variables, as well as all variables added in the cross-sectional regression analysis, are more specifically described in table 2. The regression model can be formulated as follows:

$$CAR_i = \alpha + \beta_{16} WGI\ Distance_i + \beta_{17} GEO\ Distance_i + \beta_6\ PRIVATE\ TARGET_i + \beta_7 HIGHTECH\ TARGET_i + \beta_8 UNRELATEDNESS_i + \beta_9 DEALSIZE_i + \beta_{10} FIRMSIZE_i + \beta_{11} FIRMAGE_i + \beta_{12} LEVERAGE_i + \beta_{13} ROA_i + \beta_{14} YEAR_i + \beta_{15} INDUSTRY_i + \varepsilon$$

3.2.3 Regression model hypothesis 5

Next, the fifth hypothesis is focused on the incentives of specific payment methods, in the extension of the country governance quality distance and the cross-border context from the previous hypothesis. Therefore, it is again necessary to draw a subsample consisting of cross-border M&As only. This regression model will be based on variables from previous hypothesis testing, but additional variables are added, in line with Ellis et al. (2017). To explain, to focus on the incentives of specific payment methods, it is necessary to add the M&A payment method in the form of the pure cash dummy and mixed payment dummy again, as payment method is observed with aspects of corporate control through changes in shareholding structure, solely for stock payment. Moreover, the translated World Governance Indicators distance remain as independent variable in the regression model. Those measurements are in line with the study of Ellis et al. (2017), who aim to examine if targets and merged firms benefit from good country governance facilitated through the acquirer. Additionally, a proxy for geographical distance is added again, measured as the logarithm of the distance between the capital cities of both the acquirer and target's country (Dutta et al., 2013; Kang & Kim, 2008; Uysal et al., 2008). To identify if earlier reasoning for lower monitoring and transportation costs through local shareholders holds, interaction terms of PURE CASH * GEO DISTANCE and MIXED PAYMENT * GEO DISTANCE, as well as PURE CASH * WGI DISTANCE and MIXED PAYMENT * WGI DISTANCE are added to the model. To explain, as earlier indicated, when the distance between the acquirer and target is larger, stock payment to remain local shareholdings is expected to reduce the increase in monitoring and transportation costs for corporate governance, as monitoring will remain more efficient through local shareholdings. On the other hand, if the acquiring firm in such a long-distance M&As is determined to complete the acquisition with cash payment, the cost advantages for transportation costs and monitoring activities are expected to be omitted, as local shareholdings then are eliminated. Eventually, the model for testing the fourth hypothesis can be formulated as follows:

$$CAR_i = \alpha + \beta_{16} WGI\_Distance_i + \beta_{17} GEO\ Distance_i + \beta_1 Pure\ Cash_i + \beta_2 Mixed\ Payment_i + \beta_{18} Pure\ Cash_i * GEO\ Distance_i + \beta_{19} Mixed\ Payment_i * GEO\ Distance_i + \beta_{20} Pure\ Cash * WGI\ Distance_i + \beta_{21} Mixed\ Payment_i * WGI\ Distance_i + \beta_6\ PRIVATE\ TARGET_i + \beta_7 HIGHTECH\ TARGET_i + \beta_8 UNRELATEDNESS_i + \beta_9 DEALSIZE_i + \beta_{10} FIRMSIZE_i + \beta_{11} FIRMAGE_i + \beta_{12} LEVERAGE_i + \beta_{13} ROA_i + \beta_{14} YEAR_i + \beta_{15} INDUSTRY_i + \varepsilon$$

Table 2

Variable definitions

Panel A: Dependent variable		
Variable	**Hyp.**	**Definition and Source**
CAR	All	Cumulative Abnormal Return. The sum of the daily returns excessive to the expected returns based on the market model and the market adjusted model for the various event windows (-1,+1; -2,+2; -5,+5), (Yahoo Finance)
Panel B: Explanatory variables		
Variable	**Hyp.**	**Definition and Source**
Pure Cash	H2 + H3 + H5	Binary variable, equals 1 if the announced M&A is purely financed with cash, 0 otherwise (Orbis database);
Mixed Payment	H2 + H3 + H5	Binary variable, equals 1 if the announced M&A is financed with a combination of payment sources, 0 otherwise (Orbis database);
Cross-border	H2 + H3	Binary variable, equals 1 if the target is located in a country different from the acquirer's country, 0 otherwise (Orbis database);
Pure Cash * Cross-border	H3	Interaction term between the binary variable pure cash and the binary variable cross-border (target) (Orbis database);
Mixed Payment * Cross-border	H3	Interaction term between the binary variable mixed payment and the binary variable cross-border (target) (Orbis database);
VA	H4 + H5	**Voice and Accountability (VA)***** - capturing perceptions for citizens' ability for participating in government selection, freedom of expression, association, and media. The score ranges from -2.5 to 2.5 standard normal units, indicating larger country governance in terms of voice and accountability when the score is higher;
PS	H4 + H5	**Political Stability and Absence of Violence/Terrorism (PS/PV)***** - capturing perceptions of the likelihood of destabilization or overthrowing of the country's government by unconstitutional or violent means, including politically motivated violence and terrorism. The score ranges from -2.5 to 2.5 standard normal units, indicating larger country governance in terms of political stability and absence of violence and terrorism when the score is higher;
GE	H4 + H5	**Government Effectiveness (GE)***** - capturing perceptions of the quality of public services, civil service as well as its independence from political pressures, the quality of policy formulation and implementation, and the government's credibility and commitment to such policies. The score ranges from -2.5 to 2.5 standard normal units, indicating larger country governance in terms of government effectiveness when the score is higher;
RQ	H4 + H5	**Regulatory Quality (RQ)***** - capturing perceptions of the government's ability to formulate and implement sound policies and regulations that permit and promote private sector development. The score ranges from -2.5 to 2.5 standard normal units, indicating larger country governance in terms of regulatory quality when the score is higher;
LI	H4 + H5	**Rule of Law (RL)***** - capturing perceptions of the extent to which agents have confidence in the rules of society and abide by them, particularly the quality of contract enforcement, property rights, the

		police and the courts, as well as the likelihood of crime and violence. The score ranges from -2.5 to 2.5 standard normal units, indicating larger country governance in terms of rule of law when the score is higher;
CC	H4 + H5	**Control of Corruption (CC)*** -** capturing perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests. The score ranges from -2.5 to 2.5 standard normal units, indicating larger country governance in terms of control of corruption when the score is higher;
WGI Distance (World Governance Indicators Index Distance)	H4 + H5	Independent variable indicating the distance of governance quality between the acquirer's home country and the target's host country. This variable is computed by firstly summing up the scores for the individual indicators for VA, PS, GE, RQ, LI, and CC. Secondly, after the computation of the WGI-score, the composite target's host country average governance quality score will be deducted from the acquirer's home country average governance quality score. Therefore, three outcomes can be observed, as 1) Governance distance > 0, indicating higher home country governance quality; 2) Governance distance = 0, indicating equal governance quality for the home and host county; 3) Governance distance < 0, indicating lower home country governance quality (World Bank);
GEO Distance	H4 + H5	Natural logarithm of the distance in kilometres between the capital cities of both the acquirer's home country and the target's host country;
Pure Cash * GEO Distance	H5	Interaction term between the binary variable pure cash and the continuous variable geographical distance (Orbis database);
Pure Cash * WGI Distance	H5	Interaction term between the binary variable pure cash and the composite variable World Governance Indicators Index Distance (Orbis database & World Bank);
Mixed Payment * GEO Distance	H5	Interaction term between the binary variable mixed payment and the continuous variable geographical distance (Orbis database);
Mixed Payment * WGI Distance	H5	Interaction term between the binary variable mixed payment and the composite variable World Governance Indicators Index Distance (Orbis database & World Bank);
Portion Cash	H2 + H3 + H5	Independent variable indicating the portion of stock as payment announced in the M&A deal (Orbis database);
Portion Cash * GEO Distance	H5	Interaction term between the portion of cash as payment method announced in the M&A deal and the geographical distance in kilometres between the capital cities of both the acquirer's home country and the target's host country. This interaction term is used to check for robustness (Orbis database);
Portion Cash * WGI Distance	H5	Interaction term between the portion of cash as payment announced in the M&A deal and the governance quality distance between the acquirer's home country and target's host country, measured as the difference between both average country governance quality scores from the WGIs. This interaction term is used to check for robustness (Orbis database & World Bank).

Panel C: Control variables

Variable	**Hyp.**	**Definition and Source**

Private target	All	Binary variable, equals 1 if the target is unlisted or a subsidiary, 0 otherwise (Orbis database);
High-tech target	All	Binary variable, equals 1 if the target operates in a high-tech industry, whereby the selection is based on the following two-digit SIC codes: 28 (chemicals and allied products), 35 (computer hardware), 36 (communications equipment & electronics), 38 (navigation equipment & measuring and controlling devices), 48 (communication services), and 73 (software)*, 0 otherwise (Orbis database);
Unrelatedness	All	Binary variable, equals 1 if the target operates in an unrelated industry compared to the acquirer (based on SIC codes), 0 otherwise (Orbis database);
Deal size	All	Natural logarithm of the deal value in millions of euros (see e.g., Eckbo et al., 2018; Ellis et al., 2017; Andriosopoulos et al., 2016; Gubbi et al., 2010; Faccio & Masulis, 2005; Goergen & Renneboog, 2004; Fuller et al., 2002), (Orbis database);
Firm Size	All	Natural logarithm of the acquirer's total assets at the year-end prior to the M&A announcement date (Song et al., 2021; Andriosopoulos et al., 2016; Gubbi et al., 2010), (Refinitiv Eikon);
Firm Age	All	Difference between the year of the M&A announcement and the acquirer's incorporation year (Gubbi et al., 2010), (Orbis database);
Leverage	All	Ratio of total debt to total assets in terms of market value, at the year-end prior to the M&A announcement (Ellis et al., 2017; Andriosopoulos et al., 2016), (Refinitiv Eikon & Yahoo Finance);
ROA	All	Ratio for firm performance; the return on assets of the acquirer at the year-end prior to the M&A announcement, whereby return is defined as income before discontinued operations and extraordinary items (Gubbi et al., 2010), (Refinitiv Eikon).
Year	All	Control variable for calendar year of the M&A announcement (Orbis database);
Industry	All	Control variable for the main industry classification (Orbis database)

Note: * Classification SIC codes for high-tech industries is based on Eckbo et al. (2018); Faccio & Masulis (2005);
** Measurement is based on the variable definition from Eckbo et al. (2018);
*** Data and the variables are based on the World Governance Indicators constructed by Kaufmann et al. (2010), (World Bank affiliated);
**** Measurement is based on the variable definition from Andriosopoulos et al. (2016).

3.3 Data sample

To conduct the mentioned analysis and apply the methods to analyse, data is necessary to perform the analysis. Therefore, data collection is done to sample the units, applying the following criteria. First, acquirers from Europe and the UK, listed on the STOXX Europe 600 are selected as the focus for this thesis. This exchange is selected above other European stock exchanges as it facilitates the opportunity to include more units and collect more data. To explain, only listed firms are selected as acquirers to be able to compute the market reactions through daily stock price returns. The data about M&A deal announcements and characteristics is collected using the Orbis Database.

Secondly, additional criteria are applied as the M&A deals must be completed and the announcement date must refer to the selected period between 01/01/2010 and 31/12/2019. This period is selected as it ranges within a new decade after the global financial crisis of 2008 and 2009, and before the global pandemic, due to the COVID-19 virus, impacted the financial markets. Moreover, the whole decade is chosen to see if a new pattern can be identified in terms of a takeover wave, as the last well-known wave dates from the beginning of this century before the

global financial crisis. Additionally, the financial sector is excluded as this sector has fundamental differences in reporting and financial structures as well as industry characteristics. This excluding criterion is applied based on the European NACE Rev. 2 industry classification codes (NACE Rev. 2 codes 64-68/69). Third, only M&A deal announcements of the type merger or acquisition are included in which the position after the M&A deal is over 50%, indicating a majority stake. Fourth, only announcements with (partially) cash or stock payment are included, whereas payment solely in constructions similar to convertible debt are excluded. Also, deals without a clearly mentioned payment method are excluded, whereas deals with an unspecified distribution of dual payment in shares and cash are assigned as half of the deal funding for both methods.

Next, additional restrictions are inflicted to feature more adequate data. To be more precise, the acquirer did not announce other M&As 205 days till 6 days prior to the announcement of the concerning M&A. This results in a sample of 330 M&A announcements of 188 firms. Additionally, after collecting the data of daily stock price returns, additional deals are excluded due to the absence of necessary stock price data during the announcement windows, collected via Yahoo Finance. An additional 108 M&A deal announcements are excluded, resulting in a preliminary sample of 222 M&A deal announcements.

Finally, after collecting additional data to construct the independent and control variables, 35 other deal announcements were considered insufficient in terms of data. This results in a final sample of 187 M&A deal announcements.

Moreover, a small overview of the sample distribution is presented, before moving to the statistical analysis of the sample. As can be discovered in table 4 (see Appendix D), the 187 M&A deal announcements are spread over the years 2010 up till and including 2019, where a somewhat rough change in direction can be discovered. This change is clearer and more visible presented in figure 3 (see Appendix C), where the number of deals is presented by region and year in a more visual way. Additionally, figure 3 makes a distinction between (Continental) Europe and the UK, whereby similar patterns can be discovered for both geographical regions, although the deal numbers clearly differentiate. Those overviews show relatively the most deals in the first year of the sample period, namely 29 in 2010, which is roughly 16% of the sample. In the next 5 years, the number of deals decreases below less than half the original number. However, a strong growth in terms of numbers for the last 3 years of the decade is presented for both (Continental) Europe and the UK, almost recovering to the level of deals in 2010.

Moreover, figure 4 (see Appendix C) highlights the total deal values (€) per year for both geographical regions. This figure shows a roughly different pattern compared to the cycles of deal numbers. To explain, the values indicate a clear M&A 'wave' for both (Continental) Europe and the UK towards the second half of the decade, as the deal values in the first half of the decade are relatively low but explode in the second half of the decade. More specifically, where (Continental) Europe and the UK score approximately €18 billion and €4 billion for 2010, a decade-record is set with an explosive total value of resp. €62 billion for (Continental) Europe in 2016, and €59 billion for the UK in 2017. These numbers and the figures for the deal values in Appendix C clearly indicate a cyclical pattern, the so called 'takeover waves'. Interestingly, the sample is not representative for the typical 'takeover wave' is indicated by previous studies, since the least valuable deals appear to occur in the beginning of the decade for the sample. This is in contrast with previous literature, which generally agree that the least valuable deals occur nearby the end of a takeover wave.

Finally, the distribution of the sample is presented in perspective of both acquirers' countries of origin and industries, as well as the targets' countries of origin and industries. Firstly, table 5 (Appendix D) presents the sample distribution for acquirers, indicating that most of the acquirers in the sample deals originated from the UK with 57 firms (30.5%), followed by France with 28 firms (14.9%) and Sweden with 19 firms (10.1%). The top-5 is completed by Italy and Switzerland, whereas Austria is the least represented country, with only 1 (0.5%) deal involved. Additionally, most of the acquirers have their core business in the manufacturing industry, representing 59.3% of the sample, followed at a huge distance by the information and communication industry with 12.3% of the deals,

and the industry of professional, scientific, and technical activities with 7.0% of the deals. Interestingly, table 6 (Appendix D) indicates that most of the targets are located outside of (Continental) Europe and the UK, namely in the US, as 60 targets (32.9%) are located in this country. Thereafter follow the UK and Italy with both 14 targets (7.5%) and Germany and France with both 13 targets (6.9%). The least represented countries are Argentina, Armenia, China, the Democratic Republic of Congo (DCR), Georgia, Greece, India, Peru, Portugal, the Russian Federation, South Africa, Turkey, and the United Arab Emirates (UAE). All are represented by a target firm involved in only one deal (0.5%). Furthermore, the industry representation for target firms is led by the manufacturing industry, with involvement in 95 deals of the deals in the sample (50.8%). Thereafter follow the industry for professional, scientific, and technical activities with involvement in 25 deals (13.4%), and the industry of information and communication with 23 deal involvements (12.3%).

4. Results

In this section, the results will be discussed. First, the descriptive statistics are presented, whereafter the bivariate analysis will be discussed. Moreover, the main results of the performed analysis as explained in the methodology-part are presented. Additionally, robustness checks are highlighted to substantiate the results.

4.1 Univariate analysis

4.1.1 Descriptive statistics

The descriptive statistics of the fundamental variables used in this study are presented in table 8. To mitigate the effect of disturbing outliers, the metric variables are either adjusted based on their natural logarithm or winsorized to avoid deleting outliers. The various CARs for both the market model and the market adjusted model, as well as GEO DISTANCE, DEAL SIZE, and FIRM SIZE are calculated based on their natural logarithm, whereas the CARs again and WGI DISTANCE, the control variables FIRM AGE and ROA are winsorized. Specifically regarding the CARs, the values are calculated by taking the natural log of the total stock price return, $ln(P_1/P_0)$. divided Those metrics are winsorized at the values up to 3SD's away from the median, roughly equivalent to the 0.1 percent and 99.9 percent tail. To explain, the mean and median for those variables are roughly equal, therefore the range of 3SD's from the median is considered roughly equivalent to the 0.1 percent and 99.9 percent tail. The data of the dependent variables are based on market reactions to M&A announcements during the years 2010 – 2019. Additionally, the independent variables are mainly based on characteristics of payment method as well as multidimensional measurements of distance at the time of announcement, whereas the control variables DEAL SIZE, FIRM SIZE, FIRM AGE, LEVERAGE, and ROA are one-year lagged and based on the years 2009-2018. The unbalanced descriptive statistics are presented in Appendix E.

When examining the dependent variables, the table demonstrates that all selected windows for both models present positive means. More specifically, the market model calculation results in a mean CAR of .762% (-5,+5), .882% (-2,+2), .802% (-1,+1), .691% (0,+1), and .582% (-1,0). Interestingly, the market adjusted model, which is selected as a check for robustness, presents higher mean CARs. More precisely, the market adjusted model results in mean CARs of 1.257%, 1.139%, 1.014%, .885%, and .727% for the respectively event windows (-5,+5), (-2,+2), (-1,+1), (0,+1), and (-1,0). Those numbers reveal an average positive stock market reaction at the time of an M&A announcement, although the range and interquartile range also indicate negative CARs in the sample for all selected windows. This indicates that the stock market reactions towards M&A announcements is not straightforward, given the relatively large variation in standard deviations for all CARs. This is in line with the ongoing debate in previous literature. Furthermore, the large variation in standard deviation, as well as the large variation in the range indicate distributions with high variation for all CAR calculations.

Next, looking at the independent variables, the dummy variables indicate that the sample has a mean payment of .790 for pure cash in M&As, indicating that 79% of the sample consists of M&As purely paid with cash. Additionally, the relatively low mean of .116 for mixed payment is supportive for the previous indication, as this indicates that 11.6% of the sample consists of M&As paid with a mix in funding sources. The remaining percentage can be allocated to M&As purely paid with the acquirer's own shares. Besides, the presented mean for the numeric variable PORTION CASH is also supportive by indicating that the sample has a mean portion of cash payment of .856, equalling 85.6%, in the selected M&A announcements. Moreover, the mean Cross-border M&A is .753, indicating that 75.3% of the M&A announcement from the sample is a cross-border M&A. When taking a closer look to the variables related to the cross-border M&As, the mean (LN) geographical distance is given at 8.060, or unbalanced at around 3,655 km, whereas the mean distance in governance quality is given at 1.587. This mean WGI distance score indicates that the governance quality of the acquirer's home country is on average higher than the governance quality of the target's home country. However, as given by the minimum score of -6.240 and the Q1 of -.58, the sample also contains M&A announcements for which the acquirers' country governance quality is lower compared to the targets' country governance quality. These statistics for WGI distance are in line with Ellis et al. (2017).

Besides, control variables are added to the models. The added control variable for deal-characteristics is DEAL SIZE, whereas the dummies PRIVATE TARGET, HIGH-TECH TARGET, and UNRELATEDNESS are added to control for target-characteristics, and eventually FIRM SIZE, FIRM AGE, LEVERAGE, and ROA are added to control for acquirer-characteristics. To begin with, the target-level control variables indicate that the sample has a mean score of .59 for private target, revealing that 59% of the M&A announcements in the sample aimed to acquire a private target. Additionally, although the mean score of .100 for high-tech targets indicates that only 10% of the targets in the sample is considered to be from a high-tech industry, more than half of the M&A announcements consists of targets who are unrelated to the acquirer's industry. This can be stated based on the mean of .640 for UNRELATEDNESS, indicating that 64% of the M&A announcements are M&As with involved firms from unrelated industries. Next, the acquirer-level characteristics indicate that the mean age of acquirers is 105.615 years at the time of M&A announcement. Together with the high average for FIRM SIZE, based on the acquirer's natural logarithm of total assets, it can be discovered that the acquirers in the sample are mainly more mature firms. However, as given by the outliers, minimum score and first quartile, the sample also consists of a couple of relatively younger acquirers. Ultimately, those ages are ranged at the minimum of 42 years, to deal with disturbing outliers. This is done in co-consideration with the mean and median age for acquirers, which are respectively 105.615 and 109 years. Moreover, LEVERAGE has a mean value of .235, indicating an average D/A ratio of 23.5% for the acquirers in the sample, with a minimum value below 0.1% and a maximum value of 64.8%. Considering the third quartile value of 29.3% for leverage, indicating that most of the acquirers in the sample have a D/A ratio up to 29.3%, the maximum value is not considered a usual level of leverage. Additionally, the control variable ROA, selected as ratio of firm performance, indicates that the average return on assets for the acquirers is 7.6%, given the mean value of .076. Again, the Interquartile values highlight that the return on assets vary mostly between 4,1% and 9,7%, with a quarter of acquirers having better performance given the maximum value of 45.9%. Given the minimum value of <0.001, it can be said that there are no negative performing firms in terms of ROA in the sample of M&A announcements.

4.1.2. M&A announcement effects

Now the descriptive statistics have been treated, the CARs can be tested statistically to identify whether the CAR is a result of the fluctuation of stock prices. To check if the CARs deviations from zero, as identified by the descriptive statistics, are statistically significant, a parametric test in the form of the t-statistic is performed.

Table 9 presents the CARs for 187 (Continental) European and UK listed acquiring firms over the period of 2010 till 2019. The calculations are based on the Market Model and the Market Adjusted Model, as a check of robustness. The results for the mean CARs calculated via both models are all positive, as already mentioned in the previous section. The focus for this section is on the statistical significance of the CARs, for which can be concluded that all selected event windows present significant results. To explain, the CARs for almost all selected event windows are statistically significant at the significance level of 1%. As can be discovered, only the 1-day prior announcement window and the 11-day announcement window, are significant at another significance level, namely the resp. 5% and 10% level. In addition, those deviating result windows are calculated through the market model, thereby indirectly indicating that all windows based on the market adjusted model are statistically significant at the 1% significance level. Given these results, it is safe to assume that all CARs are statistically significantly different from zero, whereby is indicated that at least 60% of the M&A deals in the sample resulted in positive stock market reactions for the acquiring firms, on average. Those results are roughly similar to the initial results of Goergen and Renneboog (2004), who also find average cumulative abnormal returns around 1% for the (-1,0) and (-2,+2) announcement window for European acquiring firms. Additionally, the findings are also somewhat in line with Ellis et al. (2017), as they also indicate a 1.5% CAR for the (-2,+2) announcement window. However, their sample consists of acquiring firms originating from countries all over the world.

Given this, the presented results support the first hypothesis, claiming that M&A announcements result in a positive stock market reaction for acquiring firms, based on our sample results.

Table 8

Descriptive statistics (winsorized).

	N	Mean	Median	Std. Deviation.	Min.	Q1	Q3	Max.
Panel A: Dependent variables								
Market Model (%)								
MM CAR (-5,+5)	187	.762	.911	5.922	-16.091	-2.610	4.010	19.000
MM CAR (-2,+2)	187	.882	.881	4.305	-13.000	-1.146	3.242	13.218
MM CAR (-1,+1)	187	.802	.804	3.935	-11.135	-1.488	2.879	13.000
MM CAR (0,+1)	187	.691	.433	3.241	-10.000	-.749	2.536	11.000
MM CAR (-1,0)	187	.582	.443	3.146	-8.096	-1.306	1.902	11.000
Market adjusted model (%)								
MAM CAR (-5,+5)	187	1.257	1.102	5.242	-15.060	-1.435	4.626	17.000
MAM CAR (-2,+2)	187	1.139	1.124	3.857	-11.000	-.801	3.405	13.000
MAM CAR (-1,+1)	187	1.014	1.077	3.619	-11.000	-.737	2.867	13.000
MAM CAR (0,+1)	187	.885	.766	3.257	-10.000	-.470	2.840	12.000
MAM CAR (-1,0)	187	.727	.567	2.836	-6.046	-.993	2.137	10.000
Panel B: Independent Variables								
Pure Cash	187	.790	1.000	.409	.000	1.000	1.000	1.000
Mixed payment	187	.116	.000	.321	.000	.000	.000	1.000
Cross-border	187	.753	1.000	.434	.000	.500	1.000	1.000
WGI Distance	187	1.587	1.1781	3.290	-6.240	-.058	3.563	11.000
Geographical Distance	140	8.060	8.682	1.071	5.580	7.140	8.795	9.740
Portion Cash	187	.856	1.000	.318	.000	1.000	1.000	1.000
Panel C: Control Variables								
Private target	187	.590	1.000	.493	.000	.000	1.000	1.000
High-tech target	187	.100	.000	.296	.000	.000	.000	1.000
Unrelatedness	187	.640	1.000	.482	.000	.000	1.000	1.000
Deal Size	140	18.928	18.738	2.115	13.816	17.512	20.501	24.702
Deal size (unwinsorized)	187	1,539,221,876	135,000,000	5,527,594,477	1,000,000	40,024,181	7,88,119,450	53,473,173,711

Firm Size	140	22.461	22.197	1.667	18.615	21.175	23.726	26.116
Firm Size (unwinsorized)	187	19,529,955,743	4,729,286,923	33,958,810,005	121,536,223	1,647,531,810	21,143,383,993	219,706,273,600
Firm Age	187	105.615	109.000	16.34906	42.000	106.000	112.000	123.000
Leverage	187	.235	.197	.146	<.001	.132	.293	.648
ROA	187	.076	.061	.063	<.001	.041	.097	.459

Note: This table reports the descriptive statistics for the fundamental variables included in this study, whereby the data is winsorized based on a maximum distance of 3SD's from the median, if necessary. The data of the dependent variables; the CARs based on the market model and the market adjusted model for various windows (-5,+5; -2,+2; -1,+1; 0,+1; -1,0), are based on the years 2010 – 2019. They represent the cumulative abnormal returns' means in percentages for European and UK acquirers at the time of M&A announcement. PURE CASH, MIXED PAYMENT, CROSS_BORDER, WGI DISTANCE, GEO DISTANCE, and PORTION CASH are all independent variables and are simultaneously used for the moderating variables. Panel C represents the control variables. The dependent variables as well as GEO DISTANCE, DEAL SIZE, and FIRM SIZE are calculated based on the natural logarithm. PURE CASH, MIXED PAYMENT, CROSS_BORDER, PRIVATE TARGET, HIGH-TECH TARGET, and UNRELATEDNESS are all dummy variables. WGI DISTANCE, PORTION CASH, FIRM AGE, LEVERAGE, and ROA are all (winsorized) continuous variables.

Table 9

European and UK CARs (2010 – 2019)

	N	Mean	Median	Std. Deviation.	t-stats	Positive %
Panel A: Market Model (%)						
MM CAR (-5,+5)	187	.762	.911	5.922	1.760*	59
MM CAR (-2,+2)	187	.882	.881	4.305	2.802***	65
MM CAR (-1,+1)	187	.802	.804	3.935	2.786***	58
MM CAR (0,+1)	187	.691	.433	3.241	2.913***	60
MM CAR (-1,0)	187	.582	.443	3.146	2.531**	59
						Mean (%): 60
Panel B: Market adjusted model (%)						
MAM CAR (-5,+5)	187	1.257	1.102	5.242	3.280***	62
MAM CAR (-2,+2)	187	1.139	1.124	3.857	4.039***	64
MAM CAR (-1,+1)	187	1.014	1.077	3.619	3.832***	63
MAM CAR (0,+1)	187	.885	.766	3.257	3.717***	64
MAM CAR (-1,0)	187	.727	.567	2.836	3.506***	60
						Mean (%): 63

*Note: The t-statistics are reported under t-stats with ***,**, and * indicating the significance at the resp. 1%, 5%, and 10% level (2-tailed). The CARs represent the cumulative abnormal returns means in for (Continental) European and UK acquiring firms from the period 2010 till 2019. Calculation of the CARs is done via the Market Model in panel A and via the Market adjusted model in Panel B. The mean, median, and standard deviation values are presented in percentages.*

4.2 Bivariate analysis

As a next step, bivariate analysis is conducted through analysing the correlation between the variables by Pearson's correlation. Table 10 presents the correlation matrix with an overview of the correlation coefficients between the explanatory and control variables. For the sake of brevity, only the most noteworthy correlations will be discussed; the ones causing possibly multicollinearity problems, recognizable as values above .7 or below -.7. To indicate, Pearson's r values can vary between -1 and +1, where -1 indicates a perfect negative collinearity and +1 a perfect positive collinearity. Moreover, a value of 0 means that there is no collinearity at all between the involved values. For this reason, values below -.7 and above .7 are discussed, as those values indicate strong collinearity between the independent variables. In case of multicollinearity and no further actions to deal with them, the regression results might be biased, as no clear statement can be made about the observed and underlying relationships between the variables.

As presented below, the independent variables do not show unexpected influential correlations with each other. Although the variables PURE CASH, MIXED PAYMENT and PORTION CASH have R-values above .7, or in case of the PURE CASH * MIXED PAYMENT and PORTION CASH * MIXED PAYMENT values, below -.7, those values are as expected. Additionally, the VIF values are also presented in table 10, as an additional indicator for multicollinearity. As indicated, VIF values higher than 10 might indicate problematic collinearity between the explanatory variables, whereafter separate models can solve the possible issues for collinearity (De Vaux et al., 2016; Curto & Pinto, 2010). When looking to the presented VIF values, it appears that the values for PURE CASH, MIXED PAYMENT, and PORTION CASH are problematic, given that the respectively values of 69.596, 12.95, and 42.407 are all higher than the threshold of 10. Therefore, those variables will be analysed in separate models, omitting the other variables to that variable-specific model. This is according to the designed research method for this study, as the variable PURE CASH and MIXED PAYMENT are selected as one of the main explanatory variables, the variable PORTION CASH is selected as a check of robustness. Besides, all other explanatory variables do not show problematic collinearity with other variables and have VIF values below the threshold of 10, and even below the more strictly threshold of 5.

4.3 Regression analysis

Besides the first hypothesis, additional hypotheses are stated which also need to be addressed. Those additional hypotheses elaborate further on the initial hypothesis. More specifically, the composition of regression models is expected to further specify the previously addressed positive M&A announcement effect.

4.3.1 Regression results H2 and H3

Table 11 presents the estimated results related to hypothesis 2 and 3, through the estimates of equation model 1. The CAR (-2,+2) and (-1,+1) windows based on the market model are selected as dependent variables, due to their highly significant t-test results as presented in table 9. The results for the other event windows based on the market model are presented in Appendix F. The regression analysis consists of various independent variables, including moderating variables, as well as control variables. Additionally, dummy variables are added to control for industry and year effects. Also, the adjusted R^2 is added to table, indicating how much of the variation in the independent variables explains the variation in the dependent variable. In other words, how much of the variation in the dependent variable results is explained by the independent variables. As presented in table 11, equation model 1 has a very low explanatory power, as the Adjusted R^2 is only 2.9% for the equation model with CAR (-2,+2) as dependent variable and 4.2% for the equation model of CAR (-1,+1). Additionally, the panel results for CAR (-2,+2) indicate that none of the independent variables selected for hypotheses 2 and 3 have coefficients which significantly add to the model. Also, the independent variables individually show very low explanatory power, ranging from 3.5% till 4.6%.

Although not find as significantly, some coefficients show directions contradicting to the hypothesized directions. Interestingly, this statement applies to the variables PURE CASH, MIXED PAYMENT, CROSS_BORDER, and PURE CASH * CROSS_BORDER. Those panel results indicate that equation model 1 is not useful to predict a firm's CAR for the 5-day announcement window.

Regarding the results for panel B, the explanatory power for the estimation model related to CAR (-1,+1) is with 4.2% slightly better than panel A, but still extremely low. Only the control variables DEAL SIZE and FIRM SIZE present significant coefficients in the expected directions, at the 1% and 5% significance level respectively. Interestingly, the constant remains significant in the individual models until the moderating variable MIXED PAYMENT * CROSS_BORDER is added. However, this moderating variable does not add significantly to the model but increases the significance of several control variables to the 5% and 10% significance level. Moreover, the variables PURE CASH, MIXED PAYMENT, and CROSS_BORDER also indicate opposing directions in comparison to the hypothesized. Overall, together with the extremely low explanatory power, ranging from 4.9% till 6%, those panel results also indicate that the equation model is not useful to predict a firm's CAR for the 3-day announcement window.

Additional results are presented in appendix F, where the regression results for CAR (-5,+5), (0,+1), and (-1,0) are summarized in tabular form. Similarly, those results also indicate very low explanatory power, below 10% and generally also no significant coefficients. However, the model for the individual independent variables shows one coefficient with a significant result at the 10% significance level. Specifically, this observation occurs at the PURE CASH variable, after adding the moderating variable PURE CASH * CROSS_BORDER to the model. Interestingly, this moderating variable does not show any significance. Likewise, the same control variables remain significant for the various announcement window. Again, those results also indicate that the equation model is not useful to predict a firm's CAR for the 11-day, 1-day after-, and 1-day prior announcement window.

Overall, the regression results do not indicate a significant relationship between the payment method and the announcement of M&As, measured through various announcement windows. Moreover, a significant result is also absent for M&As with an international character, meaning the involvement of targets abroad. The regression results do not provide supportive evidence to confirm hypothesis 2 and 3, meaning that no supportive empirical claims can be given to state that the announcement of cash-financed M&As result in more positive stock market reactions for acquiring firms compared to stock-financed M&As, based on this sample. Similarly, also no supportive empirical claims can be given to state that this positive stock market reaction to announced cash-financed M&As will be even more positive for cross-border M&As.

4.3.2 Regression results H4 and H5

Table 12 presents the estimated results related to hypothesis 4 and 5, through the estimates of equation model 2. Similar to the first regression equation model, the CAR (-2,+2) and (-1,+1) windows based on the market model are selected as the dependent variables and presented in panel results, for the same reason as earlier mentioned. The results for the other event windows based on the market model are presented in Appendix G. Similarly, this regression analysis also consists of various independent variables and moderating variables, as well as control variables and industry and year dummies. Noteworthy to mention is the change in number of observations, compared to the previous regression analysis. The number of observations decreased from 187 announced M&As to 140, as the regression for H4 and H5 only consists of announced cross-border M&As.

The overall equation model for h4 and h5 with CAR (-2,+2) as dependent variable has an explanatory power of 6.5%, which is a couple of percentages higher compared to the first equation model but is still considered as extremely low. However, this low explanatory power is mostly comparable with previous literature (see e.g., Ellis et al., 2017; Dutta et al., 2013; Kang & Kim, 2008; Uysal et al., 2008; Fuller et al., 2002), where some also report adjusted R^2 between 15% and 25% (Faccio & Masulis, 2005; Goergen & Renneboog, 2004). In addition, the explanatory power of the individual variable models ranges between 2.6 and 8%. Besides, the equation model of CAR (-1,+1)

holds an explanatory power of 3.9%, with a range between 3.7% and 5.5%. Additionally, the specific variable related to the fourth hypothesis, namely the variable WGI DISTANCE, does not have significant coefficients in both panel results, neither in the overall models, nor in the individual models. Even the hypothesized direction does not seem to be confirmative, as the coefficients are very small and even negative for most of the announcement windows. In practice, this means that a higher home country governance quality and increased quality distance with the target's country governance is not associated with a more positive stock market reaction. Those observations are contradicting to the study of Ellis et al. (2017), who emphasize that higher home country governance quality and increased quality distance with the target's country governance is associated with more positive stock market reactions to announced cross-border M&As.

Interestingly, although the explanatory power of the model is very low, the model for Panel A indicates one moderating effect with a statistically significant negative effect at the 10% significance level in the overall model, namely for the variable MIXED PAYMENT * WGI DISTANCE. To elaborate further, the individual models in which the variable MIXED PAYMENT is included shows an initial contradicting positive but not significant coefficient, which is obviously influenced by the introduction of the moderating variable MIXED PAYMENT * WGI DISTANCE, as the variable becomes significant at the 10% level. Firstly, although not significant, a positive coefficient for MIXED PAYMENT, as well as the negative but non-significant coefficient for PURE CASH, would indicate that inclusion of stock payment might lead to more positive stock market reactions, and only cash financing might lead to less positive stock market reactions. Also, the moderating variable indicates a significant but negative coefficient at the 5% level. Practically, this observation indicates that an announced cross-border M&A with a combined payment of cash and stock is associated with a positive stock market reaction initially. However, when the distance in country governance quality increases for such transactions, the stock market reaction turns out to be negatively. More specifically, the reaction is expected to be -.326% for every increased point in the WGI Distance score in mixed paid M&As, indicating the distance in country governance quality between the acquirer's home country and the target's country of origin. Importantly, this negative effect only occurs for mixed paid M&As with both cash and stock payment, and not for purely cash financed M&As. This indicates that the inclusion of stock payment in cross-border M&As does not lead to more positive stock market return when the country governance quality distance becomes larger. Additionally, this effect also appears in the panel for CAR (-5,+5), as can be seen in appendix G. The presented coefficient is negative and significant at the 10% level, whereas the reaction is expected to be -.333% for every increased point in the WGI Distance in M&A announcements with mixed payment. Additionally, this effect does not appear in M&A announcements purely financed with cash, as those coefficients remain insignificant for all the selected announcement windows with the market model as fundament. Obviously, those observed moderating effects are contradicting with Dutta et al. (2013); Starks & Wei (2013), as both studies point to the unique advantages of the inclusion of stock payment in cross-border M&As and preferences for acquirers from better governed countries. To explain, the observed negative moderating effects do not indicate the translation of these advantages of stock-payment inclusion or better country governance preference into the stock market reaction at all. A plausible reason might be that the sample consists for 32.9% out of targets originating from the USA, which is commonly known and desired in M&As for its excellent quality of governance. More specifically in terms of the fourth hypothesis, no positive stock market reaction is expected, but rather negative, contradicting the theory of portable country governance. However, with a large number of targets with already excellent and higher country governance quality, expecting gains from transferring the acquirer's governance quality makes no economic sense.

Regarding the absolute distance, represented by the variable GEO DISTANCE, the coefficients point in slightly opposing directions, although not significant. More specifically, it was hypothesized that the coefficient of GEO DISTANCE would have a negative direction. However, the results of both table 12 and table 16 indicate another direction, namely positive. Such findings might indicate that a larger geographical distance is not directly perceived with higher performance uncertainty as a result of higher transportation and communication costs, but rather, the market reaction is expected to be

more positive. Additionally, the moderating variable MIXED PAYMENT * GEO DISTANCE indicates a negative but non-significant coefficient, whereas the moderating variable PURE CASH * GEO DISTANCE also substantiates the previous results, as the coefficient is positive but non-significant. This might indicate a contradiction to the argument of retaining the existing shareholders for mitigating uncertainty about local knowledge and experience, as the coefficient of the moderating variable with inclusion of stock financing becomes negative but non-significant. Again, the sample distribution could be influential towards this outcome, as almost 50% of the targets in the sample are originating from countries located in other continents than Europe. Thereby the average geographical distance is automatically much larger due to those deals, taking into account the other half of the targets from Europe also.

Next, the control variable DEAL SIZE appears to be significant positive at the respectively 5% and 10% level in almost all individual models and the overall model for the CAR (-2,+2) and (-1,+1), which is the expected relationship direction. All other variables remain insignificant.

Additional results are presented in appendix G, where the panel regression results for CAR (-5,+5), CAR (0,+1), and CAR (-1,0) based on the market model. Similarly, those results also indicate very low explanatory power, below 10% and the lower limit at -5.5%, which can be interpreted as an estimate of zero. Additionally, the overall equation model does not show significant coefficients, and neither do the other, not yet discussed, explanatory variables. Only the control variables HIGH-TECH TARGET, DEAL SIZE, and FIRM SIZE appear to be significant in the expected directions, in most of the regressed models. Again, those results also indicate that the equation models are not useful to predict the stock market reaction, specifically measured as the acquirer's CAR for the 11-day, 1-day after-, and 1-day prior announcement window.

Overall, the regression results presented in table 12, as well as in appendix G, do not indicate a significant relationship between the country governance quality distance and geographical distance and the announcement of M&As in the first place. Additionally, a moderating negative effect appears for the stock market reaction to mixed-paid cross-border M&A announcements through increased country governance quality distance. This means that if the quality distance between the acquirer's country governance and the target's country governance increases, with the acquirer's country governance quality as benchmark, the market reaction will be negative for cross-border M&A announcements with the inclusion of stock financing. The regression results do not provide supportive evidence to confirm hypothesis 4 and 5, as they contradict hypothesis 5. To explain, no supportive empirical claims can be given to state that cross-border M&A announcements for which the host country has higher governance quality distance will result in more positive stock market reactions. Moreover, also no supportive empirical claims can be given to state that stock-financed cross border M&As to host countries with higher governance quality distance result in more positive stock market reactions. As a matter of fact, the regression results seem to contradict this hypothesis, as the results indicate more negative stock market reactions in the situation of interest.

4.3.3 Robustness checks

To test the robustness of the previously discussed results, several robustness checks have been executed. More specifically, the dependent variables in the main regression models consist of CARs for various announcement windows based on the market model, whereby they are replaced for CARs with the same announcement windows but based on the market adjusted model. Additionally, the independent variables PURE CASH and MIXED PAYMENT are replaced with the continuous variable PORTION CASH. This means that not only the initial independent variables are partially replaced, but also the moderating variables change to PORTION CASH * CROSS_BORDER, PORTION CASH * WGI DISTANCE, and PORTION CASH * GEO DISTANCE. The results are reported in Appendix H.

First, table 15 and table 16 (Appendix H1) present the regression results for MAM-based CARs for the same announcement windows as selected in the main regression analysis. As can be seen, the presented results for the MAM-based CARs do not deviate significantly from the main results for MM-based CARs, as presented in Table 11. To explain, although the direction might be

different for some variables, none of the selected independent and moderating variables indicates a significant coefficient in all models. The explanatory power for most models also ranges between 5% and 10%, whereas the CARs (0,+1), (-1,0) are slightly different with much lower or negative explanatory power.

As already stated, the main variables for payment method, PURE CASH and MIXED PAYMENT, are replaced by the continuous variable PORTION CASH, indicating the percentage of cash payment involved in the M&A deal. This replacement is done for all analyses in which those variables were included, meaning that hypothesis 2 till 5 are tested again for both the MM-based CARs as well as the MAM-based CARs. Starting with the MM-based CARs and the PORTION CASH, table 17 and table 18 (Appendix H2) present the regression results for the same announcement windows as selected in the main regression analysis. Similar to the previous statements, the main results do not deviate significantly, as none of the reconstructed explanatory variables, PORTION CASH, PORTION CASH * CROSS_BORDER, PORTION CASH * WGI DISTANCE, and PORTION CASH * GEO DISTANCE shows a coefficient which adds significantly to the model. This is similar for all announcement windows for the MM-based CARs. Likewise, the explanatory power ranges between 5% and 10%, whereas the smaller announcement windows again present a much lower or negative adjusted R^2. The number of observations changes for the regression of the fourth and fifth hypothesis, as only cross-border M&A announcements are included, but still providing a sufficient sample size.

Additionally, the regression results for the MAM-based CARs and the PORTION CASH are presented in table 19 and table 20 (Appendix H2). In like manner as for the previous checks, the main results do not deviate significantly in comparison with the main regression models, as most of the variables do not present significant coefficients. However, in the MAM CAR (-1,0) announcement window, the constant and the variable CROSS_BORDER present a significant coefficient at the10% significance level. Moreover, the coefficient for the variable CROSS_BORDER becomes significantly negative in the main model, whereas it was not significant in the individual model. Although this model presents significant coefficients, it is not useful due to the negative explanatory power. Additionally, the regression results as robustness check for hypotheses 4 and 5 indicate similar outcomes in comparison with the main results. The explanatory power is around 5%, and lower in some announcement windows.

Overall, it can be concluded that the robustness checks are supportive for the presented main results, as the additional tests present similar results to the main regression models. Consequently, this means that the robustness checks also do not support the hypotheses wherefore they were tested. More specifically, the robustness checks do not support the stated second, third, fourth, and fifth hypothesis.

Table 10
Correlation matrix

		Pure Cash	Mixed payment	Cross-border	WGI Distance	GEO Distance	Portion Cash	Private target	High-tech target	Unrelatedness	Deal Size	Firm Size	Firm Age	Leverage	ROA	VIF
1	Pure Cash	1														69.596
2	Mixed payment	-.701**	1													12.95
3	Cross-border	.272**	-.174*	1												1.532
4	WGI Distance	-.035	-.060	-.280**	1											1.315
5	GEO Distance	.073	-.051	.	.155	1										1.098
6	Portion Cash	.915**	-.347**	.274**	-.052	.077	1									42.407
7	Private target	-.061	.066	-1.84*	.034	-.091	-.044	1								1.153
8	High-tech target	-.020	.070	-.020	.093	.061	-.004	-.022	1							1.155
9	Unrelatedness	-.124	.033	-.054	-.026	.032	-.148*	.000	.058	1						1.035
10	Deal Size	-.198**	.104	.022	-.100	.133	-.221**	-.146*	.174*	.059	1					1.970
11	Firm Size	-.067	-.025	-.085	.034	.192*	-.120	-.151*	.091	.086	.537**	1				1.974
22	Firm Age	-.007	-.039	.070	.032	.039	-.002	-.111	.033	-.010	.101	-.017	1			1.078
23	Leverage	-.251**	.083	-.265**	.027	.011	-.281**	.175*	.057	.006	-.014	.191**	-.027	1		1.221
24	ROA	.037	.023	.072	.121	-.021	.086	-.027	.132	-.024	-.177*	-.408**	.054	-.285**	1	1.321

*Note: this table represents the correlation matrix and the VIF values. **, and * indicate a significant correlation at the resp. 1% and 5% significance level.*

Table 11

Regression Results of CARs (-2,+2) and (-1,+1) on payment method, moderating, and control variables.

Variables	Hypothesis	Sign	(1)	(2)	(3)	(4)	(5)	(6)	Model
Panel A: CAR (-2,+2)									
Constant			6.420	6.034	6.528	6.137	9.009	6.242	3.726
			(.994)	*(.931)*	*(.993)*	*(.924)*	*(1.389)*	*(.971)*	*(.620)*
PURE CASH	H2 + H3	+	-.244		-.223		-.465		.404
			(-.253)		*(-.225)*		*(-.452)*		*(.276)*
MIXED PAYMENT	H2 + H3	-		.449		.431		.815	1.182
				(.386)		*(.362)*		*(.644)*	*(.652)*
CROSS_BORDER	H3	+			-.085	-.066	-.150	-.137	-.097
					(-.097)	*(-.076)*	*(-.168)*	*(-.157)*	*(-.108)*
PURE CASH * CROSS_BORDER	H3	+					-.207		.126
							(-.615)		*(.296)*
MIXED PAYMENT * CROSS_BORDER	H3	+						.327	.376
								(.955)	*(.856)*
PRIVATE TARGET		-	-.252	-.252	-.258	-.257	-.262	-.291	-.284
			(-.345)	*(-.346)*	*(-.351)*	*(-.350)*	*(-.405)*	*(-.397)*	*(-.354)*
HIGH-TECH TARGET		-	-.560	-.612	-.552	-.603	-.082	-.397	-.282
			(-.457)	*(-.499)*	*(-.448)*	*(-.488)*	*(-.064)*	*(-.318)*	*(-.230)*
UNRELATEDNESS		-	-.811	-.802	-.812	-.804	-.787	-.770	-.808
			(-1.171)	*(-1.166)*	*(-1.170)*	*(-1.165)*	*(-1.132)*	*(-1.113)*	*(-1.185)*
DEAL SIZE		+	.442**	.425**	.444**	.426**	.440**	.417**	.444**
			(2.280)	*(2.241)*	*(2.282)*	*(2.237)*	*(2.250)*	*(2.185)*	*(2.261)*
FIRM SIZE		-	-.141	-.139	-.142	-.140	-.235	-.164	-.225
			(-.570)	*(-.563)*	*(-.574)*	*(-.565)*	*(-.935)*	*(-.663)*	*(-.914)*
FIRM AGE		+	-.012	-.011	-.012	-.011	-.013	-.010	-.015
			(-.522)	*(-.497)*	*(-.523)*	*(-.498)*	*(-.814)*	*(-.631)*	*(-.914)*
LEVERAGE		-	.295	.408	.284	.390	-.386	.448	-.073
			(.107)	*(.155)*	*(.103)*	*(.147)*	*(-.139)*	*(.168)*	*(-.028)*
ROA		+	-5.289	-5.121	-5.289	-5.129	-9.885	-6.208	-8.980

			(-.724)	*(-.701)*	*(-.722)*	*(-.699)*	*(-1.541)*	*(-.839)*	*(-1.445)*
Industry			Yes	Yes	Yes	Yes	Yes	Yes	*Yes*
Year			Yes	Yes	Yes	Yes	Yes	Yes	*Yes*
Adjusted R^2			.046	.046	.040	.040	.035	.039	.029
F-statistic			1.311	1.308	1.261	1.257	1.219	1.240	1.166
Observations			187	187	187	187	187	187	187
Panel B: CAR (-1,+1)									
Constant			10.345*	10.260*	11.214*	10.524*	11,206*	7.114	5,873
			(1.783)	*(1.712)*	*(1.843)*	*1.719*	*(1.823)*	*1.232*	*(.963)*
PURE CASH	*H2 + H3*	*+*	-.377		-.323		-.320		.081
			(-.431)				*(-.339)*		*(.061)*
MIXED PAYMENT	*H2 + H3*	-		.848		.800		.167	.669
				(.803)		*(.74)*		*(.146)*	*(.405)*
CROSS_BORDER	*H3*	*+*			-.234	-.182	-.232	-.223	-.217
					(-.292)	*(-.228)*	*(-.284)*	*(-.285)*	*(-.264)*
PURE CASH * CROSS_BORDER	*H3*	*+*					.003		-.004
							(.011)		*(-.01)*
MIXED PAYMENT * CROSS_BORDER	*H3*	*+*						-.175	-.165
								(-.573)	*(-.411)*
PRIVATE TARGET		-	-.038	-.014	-.029	-.027	-.029	.022	.023
			(-.057)	*(-.021)*	*(-.043)*	*(-.041)*	*(-.043)*	*(.033)*	*(.035)*
HIGH-TECH TARGET		-	.198	.065	.178	.088	.175	-.653	-.078
			(.175)	*(.058)*	*(.156)*	*(.077)*	*.(15)*	*(-.581)*	*(-.065)*
UNRELATEDNESS		-	-.556	-.541	-.555	-.547	-.556	-.552	-.548
			(-.886)	*(-.864)*	*(-.877)*	*(-.87)*	*(-.871)*	*(-.892)*	*(-.856)*
DEAL SIZE		*+*	.469***	.447**	.474***	.449**	.477***	.454**	.483***
			(2.669)	*(2.601)*	*(2.685)*	*(2.602)*	*(2.688)*	*(2.623)*	*(2.709)*
FIRM SIZE		-	-.257	-.244	-.254	-.247	-.253	-.503**	-.523**
			(-1.133)	*(-1.076)*	*(-1.11)*	*(-1.083)*	*(-1.1)*	*(-2.076)*	*(-2.129)*
FIRM AGE		*+*	-.027*	-.03	-.031	-.03	-.031	-.034*	-.033
			(-1.855)	*(-1.487)*	*(-1.547)*	*(-1.491)*	*(-1.532)*	*(-1.682)*	*(-1.634)*
LEVERAGE		-	-1.026	-.774	-.941	-.82	-.94	-.012	.65
			(-.407)	*(-.32)*	*(-.371)*	*(-.337)*	*(-.369)*	*(-.005)*	*(.254)*

ROA	+	-5.395 *(-.946)*	-5.058 *(-.887)*	-5.21 *(-.907)*	-5.034 *(-.88)*	-5.197 *(-.883)*	-.800 *(-.121)*	-.377 *(-.056)*
Industry		Yes	Yes	Yes	Yes	Yes	Yes	
Year		Yes	Yes	Yes	Yes	Yes	Yes	
Adjusted R^2		.059	.060	.055	.055	.049	.051	.042
F-statistic		1.405	1.411	1359	1.360	1.310	1.321	1.247
Observations		187	187	187	187	187	187	187

*Note: this table presents the estimated coefficients from regressing the CARs (-2,+2), and (-1,+1) on payment method, cross-border, and control variables applying the OLS regression method. ***,**, and * indicate the significance at the 1%, 5%, and 10% level respectively. These regressions are run two times, with CAR (-2,+2) and CAR (-1,+1) as dependent variables. PURE CASH, MIXED PAYMENT, and CROSS_BORDER are the independent variables, whereas moderating variables are added through PURE CASH * CROSS_BORDER and MIXED PAYMENT * CROSS_BORDER. PRIVATE TARGET, HIGH-TECH TARGET, UNRELATEDNESS, DEAL SIZE, FIRM SIZE, FIRM AGE, LEVERAGE, and ROA are control variables. The regression results for the other announcement windows are presented in appendix F.*

Table 12

Regression Results of CARs (-2,+2) and (-1,+1) on payment method, country governance quality, geographical distance, and control variables.

Variables	Hypothesis	Sign	(1)	(2)	(3)	(4)	(5)	Model
Panel A: CAR (-2,+2)								
Constant			3.471	3.758	2.62	14.641	2.563	10.355
			(.455)	*(.487)*	*(.341)*	*(1.250)*	*(.326)*	*(.710)*
WGI DISTANCE	*H4 + H5*	+	-.026	-.034	-.025	-.036	-.099	-.052
			(-.229)	*(-.29)*	*(-.223)*	*(-.308)*	*(-.850)*	*(-.412)*
GEO DISTANCE	*H4 + H5*	-	.021	.040	.049	-.017	-.174	-.286
			(.056)	*(.106)*	*(.131)*	*(-.043)*	*(-.450)*	*(-0,704)*
PURE CASH	*H5*	+		-.423		-10.681		-8.276
				(-.317)		*(-1.078)*		*(-.670)*
MIXED PAYMENT	*H5*	-			1.632		30.431*	24.087
					(1.004)		*(1.826)*	*(1.170)*
PURE CASH * WGI DISTANCE	*H5*	-				.165		-.051
						(1.345)		*(-.271)*
MIXED PAYMENT * WGI DISTANCE	*H5*	+					-.326**	-.373*
							(-2.108)	*(-1.821)*
PURE CASH * GEO DISTANCE	*H5*	-				.455		.550
						(.879)		*(.780)*
MIXED PAYMENT * GEO DISTANCE	*H5*	+					-1.080	-.727
							(-1.606)	*(-.837)*
PRIVATE TARGET		-	.123	.143	.132	.154	-.145	-.082
			(.145)	*(.168)*	*(.156)*	*(.179)*	*(-.174)*	*(-.096)*
HIGH-TECH TARGET		-	-2.535	-2.441	-2.455*	-2.178	-2.177	-2.343
			(-1.762)	*(-1.655)*	*(-1.704)*	*(-1.479)*	*(-1.533)*	*(-1.581)*
UNRELATEDNESS		-	-.525	-.525	-.484	-.733	-.669	-.693
			(-.635)	*(-.633)*	*(-.586)*	*(-.880)*	*(-.826)*	*(-.839)*
DEAL SIZE		+	.497**	.472*	.454*	.427	.416*	.453*
			(2.028)	*(1.828)*	*(1.824)*	*(1.651)*	*(1.712)*	*(1.771)*
FIRM SIZE		-	-.435	-.421	-.403	-.501	-.491	-.524

			(-1.291)	*(-1.234)*	*(-1.188)*	*(-1.464)*	*(-1.473)*	*(-1.547)*
FIRM AGE		+	-.015	-.013	-.008	-.010	.000	.000
			(-.526)	*(-.454)*	*(-.290)*	*(-.342)*	*(-.016)*	*(-.014)*
LEVERAGE		-	.980	.708	.846	1.893	1.975	2.834
			(.310)	*(.215)*	*(.268)*	*(.568)*	*(.618)*	*(.819)*
ROA		+	-6.474	-6.819	-6.89	-6.407	-3.038	-2.57
			(-.743)	*(-.774)*	*(-.79)*	*(-.731)*	*(-.35)*	*(-.289)*
Industry			Yes	Yes	Yes	Yes	Yes	Yes
Year			Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R^2			*.034*	*.026*	*.034*	*.037*	*.080*	*.065*
F-statistic			*1.172*	*1.126*	*1.167*	*1.173*	*1.388*	*1.283*
Observations			*140*	*140*	*140*	*140*	*140*	*140*
Panel B: CAR (-1,+1)								
Constant			1.300	1.220	.988	10.882	.263	7.627
			(.194)	*(.180)*	*(.146)*	*(1.053)*	*(.037)*	*(.585)*
WGI DISTANCE	*H4 + H5*	+	-.039	-.037	-.039	-.031	-.081	-.039
			(-.388)	*(-.356)*	*(-.384)*	*(-.302)*	*(-.777)*	*(-.346)*
GEO DISTANCE	*H4 + H5*	-	.335	.330	.345	.246	.169	.067
			(1.038)	*(1.004)*	*(1.063)*	*(.710)*	*(-.777)*	*(.185)*
PURE CASH	*H5*	+		.118		-9.687		-7.825
				(.101)		*(-1.108)*		*(-.708)*
MIXED PAYMENT	*H5*	-			.598		22.714	16.488
					(.418)		*(1.524)*	*(.895)*
PURE CASH * WGI DISTANCE	*H5*	-				.080		-.058
						(.734)		*(-.341)*
MIXED PAYMENT * WGI DISTANCE	*H5*	+					-.181	-.231
							(-1.308)	*(-1.260)*
PURE CASH * GEO DISTANCE	*H5*	-				.471		.518
						(1.031)		*(.822)*
MIXED PAYMENT * GEO DISTANCE	*H5*	+					-.847	-.506
							(-1.410)	*(-.651)*
PRIVATE TARGET		-	.382	.376	.385	.438	.217	.283
			(.515)	*(.503)*	*(.517)*	*(.578)*	*(.292)*	*(.368)*

HIGH-TECH TARGET	-	-1.980	-2.006	-1.950	-1.825	-1.820	-1.957
		(-1.569)	*(-1.550)*	*(-1.537)*	*(-1.404)*	*(-1.434)*	*(-1.476)*
UNRELATEDNESS	-	.137	.137	.151	-.018	.032	.013
		(.189)	*(.188)*	*(.208)*	*(-.025)*	*(.044)*	*(.017)*
DEAL SIZE	+	.493**	.500**	.477**	.464**	.452**	.483**
		(2.293)	*(2.205)*	*(2.178)*	*(2.036)*	*(2.079)*	*(2.111)*
FIRM SIZE	-	-.436	-.440	-.424	-.487	-.473	-.500
		(-1.475)	*(-1.469)*	*(-1.422)*	*(-1.613)*	*(-1.587)*	*(-1.650)*
FIRM AGE	+	-.024	-.025	-.022	-.021	-.014	-.014
		(-.985)	*(-.982)*	*(-.864)*	*(-.816)*	*(-.529)*	*(-.522)*
LEVERAGE	-	-.109	-.033	-.157	.767	.770	1.457
		(-.039)	*(-.011)*	*(-.057)*	*(.261)*	*(.269)*	*(.471)*
ROA	+	-.681	-.585	-.834	-.272	1.936	2.287
		(-.089)	*(-.076)*	*(-.109)*	*(-.035)*	*(.249)*	*(.288)*
Industry		Yes	Yes	Yes	Yes	Yes	Yes
Year		Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R^2		*.045*	*.037*	*.038*	*.037*	*.055*	*.039*
F-statistic		*1.235*	*1.182*	*1.189*	*1.173*	*1.260*	*1.167*
Observations		*140*	*140*	*140*	*140*	*140*	*140*

*Note: this table presents the estimated coefficients from regressing the CARs (-2,+2), and (-1,+1) on payment method, country governance quality, geographical distance, and control variables applying the OLS regression method. ***,**, and * indicate the significance at the 1%, 5%, and 10% level respectively. These regressions are run two times, with CAR (-2,+2) and CAR (-1,+1) as dependent variables, whereby the results are presented in separate panels. WGI DISTANCE, GEO DISTANCE, PURE CASH, and MIXED PAYMENT are the independent variables, whereas moderating variables are added through PURE CASH * WGI DISTANCE, PURE CASH * GEO DISTANCE, MIXED PAYMENT * WGI DISTANCE, and MIXED PAYMENT * GEO DISTANCE. PRIVATE TARGET, HIGH-TECH TARGET, UNRELATEDNESS, DEAL SIZE, FIRM SIZE, FIRM AGE, LEVERAGE, and ROA are control variables. The regression results for the other announcement windows are presented in appendix G.*

5. Discussion and conclusion

This section discusses the main results as presented in the previous section and elaborates towards an answer to the main research question, as formulation of the conclusion. Furthermore, limitations of the study and recommendations for future research will be addressed.

5.1 Conclusion

The increasing numbers and values of M&A deals and the global expansion of companies has brought the field of M&As under high interest in research. Yet many disagreements arise about the rationale behind M&As when discussing the main drivers driving these M&A transactions. Also, there is still no consensus about the synergistic outcomes and measurement of M&A performance. Therefore, this study aims to answer the following research question: *"What is the initial stock market reaction to M&A announcements for acquiring firms in Europe and the UK?"* In order to shed additional light to the potential drivers of the stock-market reactions to M&A announcements, 5 hypotheses have been formulated in total. Those are focused on the context of payment method and the quality of country governance in an international context. Next, the main results as well as the substantiation of whether the evidence supports the hypotheses.

To begin with, the first hypothesis states that M&A announcements result in a positive initial stock market reaction for acquiring firms. The results of the event window analysis and the statistical one-sample t-test provide supportive evidence to this hypothesis, as is indicated that, on average, at least 60% of the M&A announcements in the sample resulted in positive stock market reactions. This indication is based on the calculations of the acquirer's cumulative abnormal returns through both the market model and market adjusted model. Moreover, all selected announcement windows (MM- and MAM-based, 11-day, 5-day, 3-day, 1-day after, and 1-day prior announcement window) present a significant positive average cumulative abnormal return. More specifically, the MM-based 5-day announcement window presents an average return of .802% for the acquirers, whereas the MAM-based 5-day announcement window presents an average return of 1.139%. In addition, the average returns range between .582% and 1.257%, thereby considering both models. Given this, the results provide supportive evidence to state that M&A announcements result in a positive stock market reaction for acquiring firms. This is in line with a major part of the current literature, who claim that acquirer's returns are small but present.

Secondly, after the recognition of the positive stock market reaction, further investigation is done to identify possible relationships with initially, the method of payment. It was expected that the announcements of cash-financed M&As result in more positive stock market reactions for acquiring firms, compared to stock-financed M&As. Testing this expectation is done in combination with the third hypothesis, which added that this positive stock market reaction to announced cash-financed M&As is expected to be even more positive for cross-border M&As. Those expected relationships were tested through the construction of regression models, whereby payment method in terms of pure cash or mixed payment is not observed as an influential factor for the indicated positive stock market reaction, as the variable influence is considered insignificant and the model's explanatory power very low. Additionally, although considered as insignificant, the coefficients point to contradicting directions which might indicate that it might be considered the other way around. Concretely, this might even signal that stock-financed M&As result in more positive stock market returns. Furthermore, the measurements indicating cross-border M&As, and the moderating variables combining cash-financing with cross-border M&As also do not indicate a significant influence on the earlier highlighted stock market reaction. Based on these findings, no supportive evidence is found to state that cash-financed M&A announcements result in more positive stock market reactions, and that this reaction is expected to be even more positive for cross-border M&As. This is in the first place contradicting to Dutta et al., 2013; Fuller et al., 2002; Myers & Majluf, 1984, who argue that cash-financed M&As result in more positive stock market reactions for cash-financed

M&A announcements, whereas it is also contradicting with Moeller and Schlingemann (2005). To explain, they argue that market timing and signalling, as well as the target's unwillingness to accept stock offers might oblige cash-offers in M&As, and therefore result in more positive stock market reactions. The results presented in this study do not support these arguments.

Third, as an extension of the cross-border M&A context and an attempt to demonstrate potential factors in this context, governance quality differences between the involved countries and the geographical distance were investigated for their influences on the stock market reaction. It was expected that acquirers from countries with better governance who acquired targets from countries with much lower governance quality experience more positive stock market reactions to M&A announcements compared to those that acquired targets from countries with lower distance in terms of governance quality. In extension, the stock market reactions for those M&A announcements with higher distance in country governance quality were expected to be more positive if stock-financed, compared to cash-financed. Those acquirers then would benefit from key features of stock financing. Therefore, the moderating variables for cash-financed and the distance variables were expected to be at least less positive in comparison to the moderating variables for mixed payment and the distance variables. However, the results do not provide indications of significant relationships and influential factors of country governance quality distance, geographical distance, or almost any combination with the payment method identifiers. Interestingly, although with low explanatory power and partially indicated, a significant negative moderating effect for mixed payment and country governance quality distance is presented whereas mixed payment as standalone is presented with a positive less significant relationship. To explain, this means that initially, M&A announcements with the inclusion of stock financing result in positive stock market reactions. However, if the country governance quality distance increases, meaning that the country governance of the target's country is qualified as much poorer, the positive stock market reactions become negative. This effect does not appear for announced M&As purely financed with cash. This finding contradicts with Ellis et al. (2017); Dutta et al. (2013); Starks & Wei (2013), who respectively state that M&As bridge and transfer the governance mechanisms to other countries, thereby expecting to boost the M&A performance. Additionally, stock-offers were expected to add to this boost with unique advantages, in the form of enhanced monitoring capabilities and lower monitoring, transportation, and communication costs. However, the findings of this study do not provide supportive evidence to claim that more positive stock market reactions are assigned to announced cross-border M&As with higher governance quality distance. In addition, the results also do not indicate that this effect is more positive for stock-financed cross-border M&As, compared with cash-financed cross-border M&As. Besides, the additional testing based on MAM-based CARs, replacing explanatory variables and adjusting moderating variables, as well as the control variables, did not change the results from the main analysis.

In conclusion, this study sheds additional light on the discussion of performance in the field of M&As by studying a sample of European and UK acquiring firms. The research question can be answered, as a positive stock market reaction, with a cumulative abnormal return on average ranging between .582% and 1.257%, is reported. However, regarding potential drivers for this positive stock market reactions, generally no direct influences are reported between method of payment, country governance quality, geographical distance, and the dependent variable M&A announcement performance. However, a negative moderating effect is reported for cross-border M&A announcements with mixed payment, as a representative for stock-financing inclusion. This study contributes to current literature by focusing on a sample from more recent periods and with different market conditions, namely M&A announcements from European and UK acquirers between 2010 and 2019. Moreover, most prior research focuses on acquirers from emerging markets or acquirers from US or Canada. Those markets are perceived as extremely diverse in terms of corporate governance and market conditions, in comparison to Europe and the UK, which created difficulties in interpreting previous results for other continents. More specifically, by selecting European and UK acquirers, inner continental differences in country governance quality can be

investigated in relation to stock market reactions towards M&A announcements. Additionally, in-sample analysis indicated differences in M&A deal occurrence and relevancy.

5.2 Limitations and recommendations

Alongside the contributions to the current literature, this study also faces limitations that provides new possibilities for future research.

To begin with, although the literature review indicates the underlying mechanisms explaining the observed stock market reactions to announced M&As, this study is designed to investigate the effect of payment method, country governance quality, and geographical distance for the stock market reactions only. Therefore, only general conclusions about the observed effect can be given, without specifying to which underlying mechanism the effect can be attributed. Therefore, it is recommended for future research to redesign the study into one suitable to also be able to provide statements about the underlying mechanisms to which the observed effects can be attributed.

Secondly, this study is only focused on the stock market reactions, thereby only able to provide claims about the market's perceptions towards the M&A announcements, instead of the actual resulting performance of the M&As. To explain, this study hypothesized also about enhanced monitoring capabilities and lower monitoring, transportation, and communication costs. However, due to the selected short-term period it is only possible to provide claims for the market's perceptions towards this rationale, instead of claims about the actual outcome in terms of these unique advantages. Therefore, a longer period in combination with specific measurements to measure the performance is recommended for future research, to provide deeper understandings about the actual performance realization.

Third, although the selected sample facilitates the opportunity for multidimensional, statistical in-sample analysis, this form of analysis is not chosen in this study. More specifically, the sample consists of European and UK acquiring firms, which is identified as significantly different in terms of corporate governance mechanisms and quality, as well as for market conditions. Moreover, the recent developments in terms of maintaining unification through the European Union with the Brexit as a result, make this in-sample analyses design even more relevant for future research. In addition, although most European countries are unified through the European Union, still differences in market conditions and governance mechanisms can exist between the European countries. Therefore, besides the focus on the in-sample differences between European and UK firms, the focus of future research can also be extended towards in-sample differences of firms from different Continental European countries.

Finally, the current global situation in terms of the pandemic might also have affected the cycles of M&A deals. As indicated, several takeover waves are indicated in the 20th century and the beginning of the 21st century, whereas a roughly wave pattern can also be observed from the results as presented in the Appendix. However, it is very relevant to investigate the developments of the pattern in M&A deals in the run-up period to-, during -, and after the crisis, caused by the global pandemic. Therefore, research during the period of the global pandemic is another avenue for future research.

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Appendices

Appendix A: Summary of takeover waves

Figure 1: *summary of takeover waves*

Summary of takeover waves

	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	New wave (6?)
Period	1890s–1903	1910s–1929	1950s–1973	1981–1989	1993–2001	2003-present
Geographical scope	US	US	US. UK. Europe	US. UK. Europe, Asia	US. UK. Europe, Asia	US. UK. Europe. Asia
M&A outcome	Formation of monopolies	Formation of oligopolies	Growth through diversification	Elimination of inefficiencies	Adjustment to globalization processes	Global expansion
Industry-relatedness	Focus	Focus	Diversification	Focus	Focus	Focus
Industries	Hydraulic power, textiles industry, iron industry	Steam engines, steel. railways	Electricity, chemicals, combustion engines	Petrochemicals. aviation. electronics, communications technology	Communications/ information technology	n.a.
Dominant sources of financing/ means of payment	Cash	Equity	Equity	Debt financed/Cash paid	Equity	Debt and Cash financed/ Cash paid
Hostile takeover activity	n.a.	n.a.	None (US&UK)	High (US&UK)	Some (US&UK)	Some (US&UK)
			None (Europe)	None (Europe)	High (Europe)	Some (Europe)
			None (Asia)	None (Asia)	None (Asia)	Some (Asia)
Cross-border M&A activity	n.a.	n.a.	n.a.	Some	Medium	High
Other specifics				LBOs, MBOs, going-private deals, and divestitures	Mega-deals, divestitures	Deals by private equity funds
Events coinciding with beginning of wave	Economic expansion; industrialisation processes; introduction of new state legislations on incorporations; development of trading on NYSE; radical changes in technology	Economic recovery after the market crash and the First World War; strengthen enforcement of antimonopoly law	Economic recovery after the Second World War; tightening of anti-trust regime in 1950	Economic recovery after recession; changes in anti-trust policy; deregulation of fin. services sector; new financial instruments and markets (e.g. junk bonds); technological progress in electronics	Economic and financial markets boom; globalization processes; technological innovation, deregulation and privatisation	Economic recovery after the downturn in 2000–2001
Events coinciding with end of wave	Stock market crash; economic stagnation; beginning of First World War	Stock market crash; beginning of Great Depression	Stock market crash; oil crisis; economic slowdown	Stock market crash	Stock market crash; 9/11 terrorist attack	n.a.

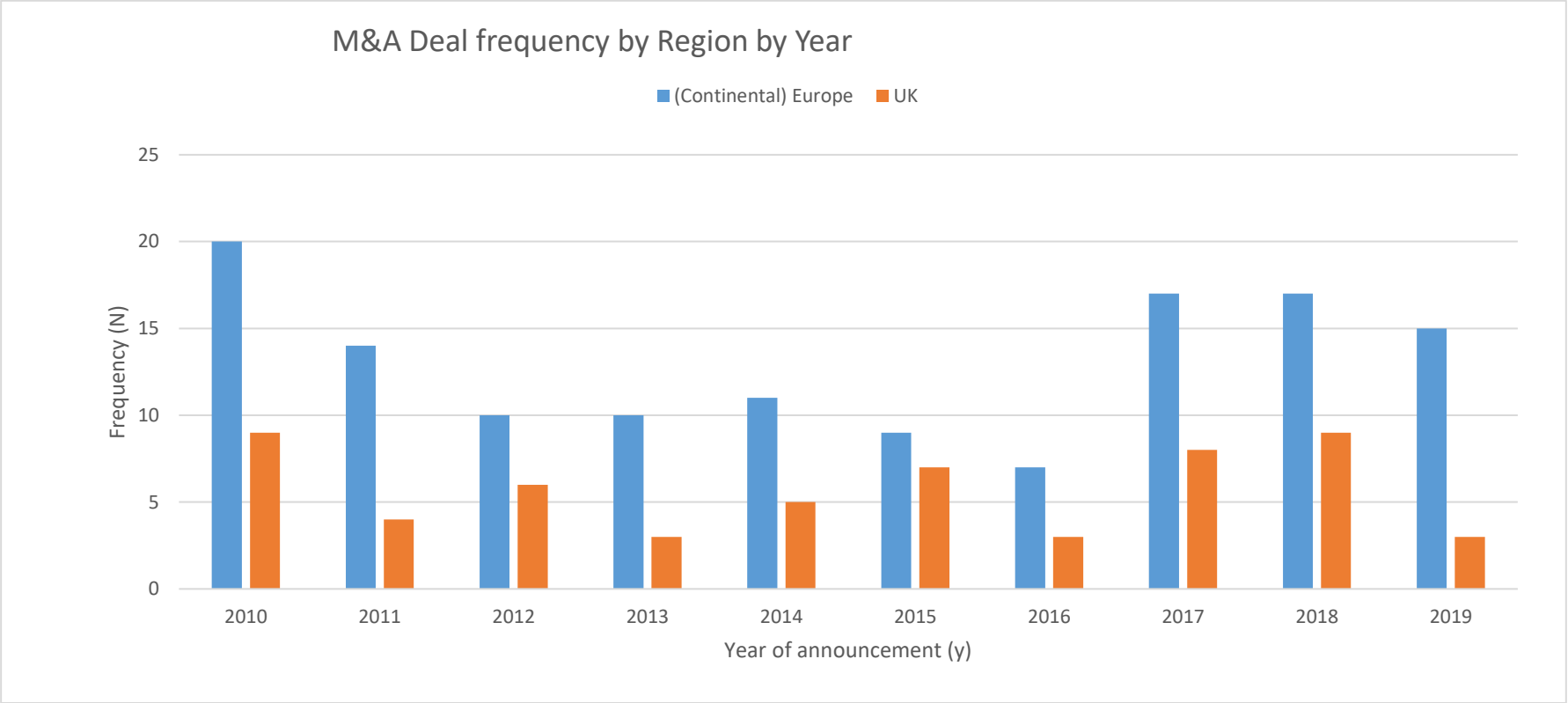
This table summarizes the main characteristics of takeover waves most frequently mentioned in the academic literature.

Note. From "A century of corporate takeovers: What have we learned and where do we stand?", by M. Martynova and L. Renneboog, 2008, *Journal of Banking & Finance, 32*(10), p. 2151 (https://doi.org/10.1016/j.jbankfin.2007.12.038).

Appendix B: Decade overview M&A deals

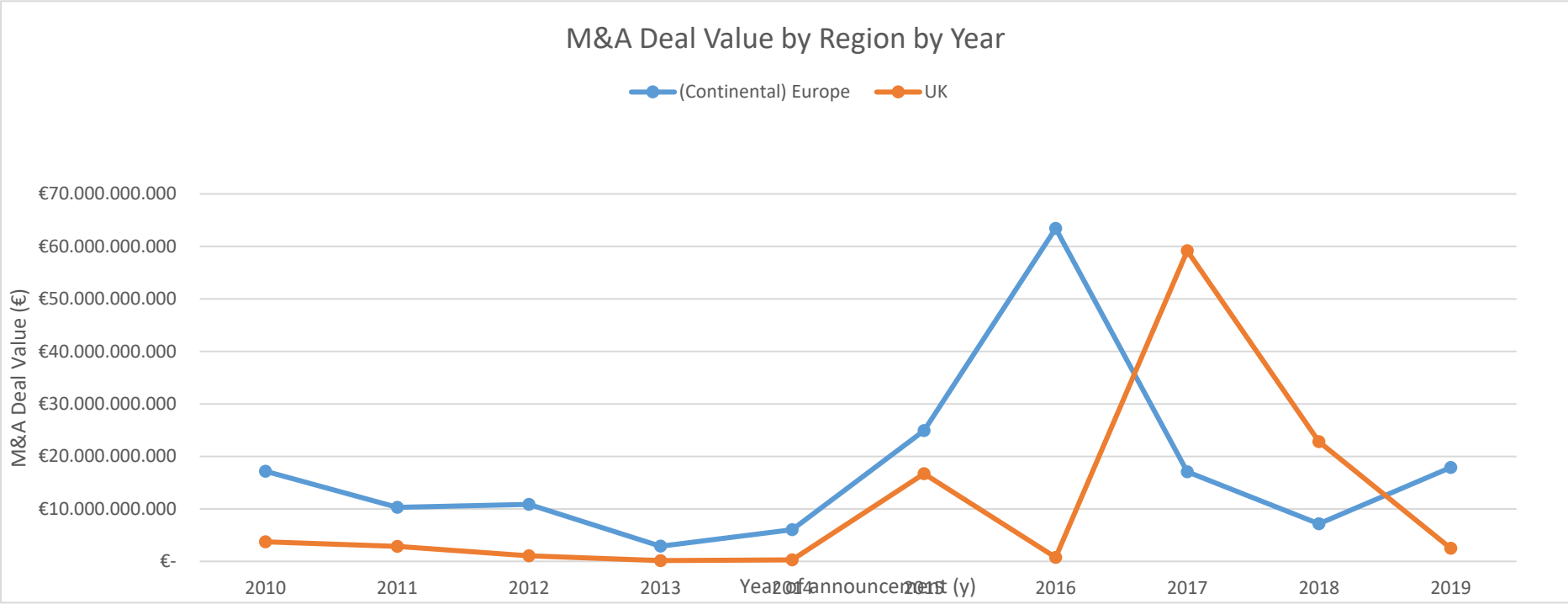
Figure 3

M&A Deal frequency by Region by Year.



Note: this figure presents a decade overview of the frequency of M&A deals separated per Region and Year. The Regions are separated based on a countries' location, either belonging to (Continental) Europe or the UK. The frequency of deals is presented in N.

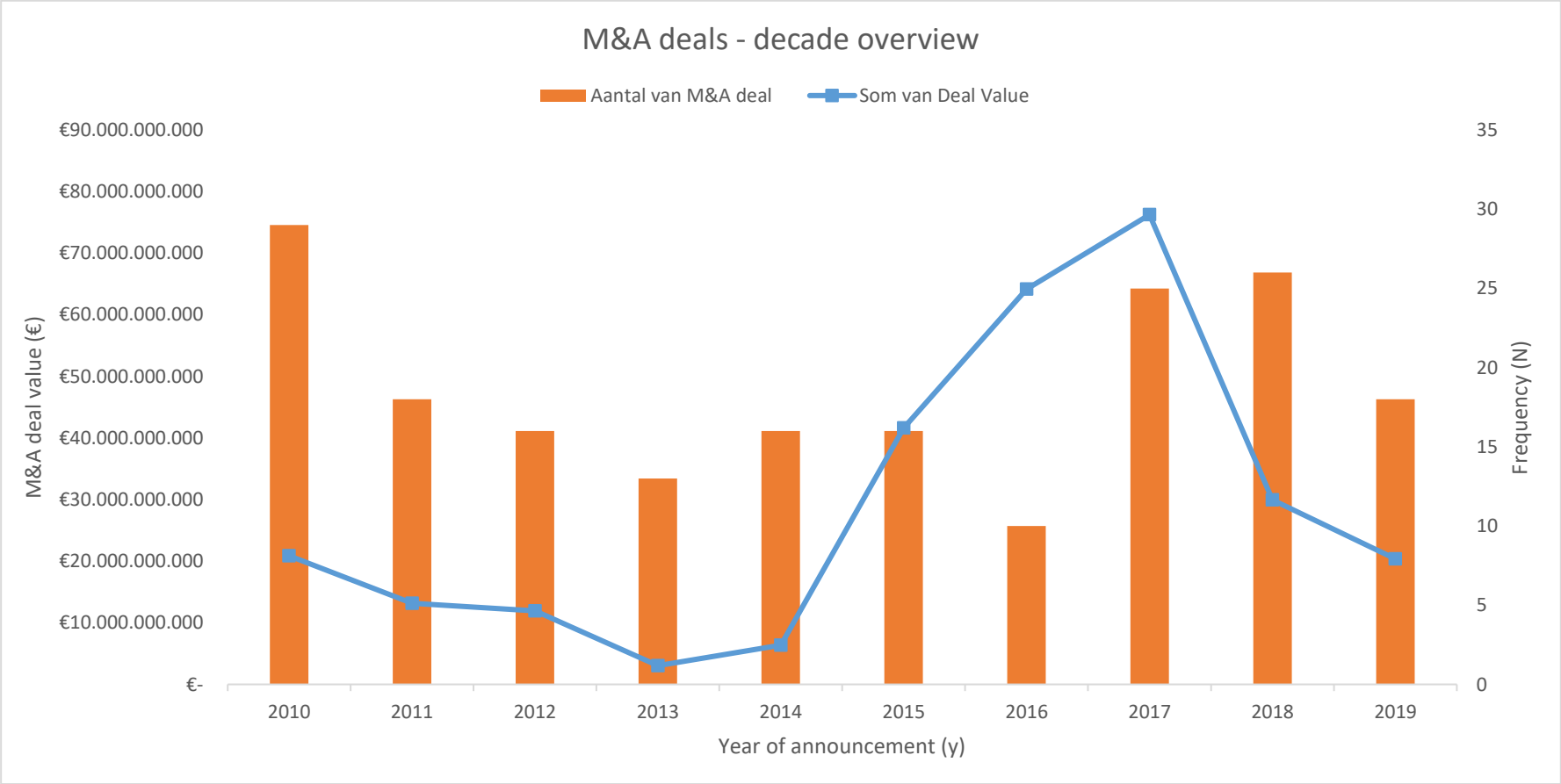
Figure 4
M&A deal value by region by year.



Note: this figure presents a decade overview of the M&A deal values separated per Region and Year. The Regions are separated based on a countries' location, either belonging to (Continental) Europe or the UK. The deal values are presented in €.

Figure 5

M&A deals – decade overview.



Note: this figure presents a decade overview of the total sample M&A deal value and frequency. The data is also presented seperated by Year. The total deal value is presented in € and the frequency in N.

Appendix C: Composite WGI variable

Table 3

Variables compositing WGI measurement

Panel A: Composite variables WGI measurement		
Variable	**Hyp.**	**Definition and Source**
VA	H4 + H5	**Voice and Accountability (VA)***** - capturing perceptions for citizens' ability for participating in government selection, freedom of expression, association, and media. The score ranges from -2.5 to 2.5 standard normal units, indicating larger country governance in terms of voice and accountability when the score is higher;
PS	H4 + H5	**Political Stability and Absence of Violence/Terrorism (PS/PV)***** - capturing perceptions of the likelihood of destabilization or overthrowing of the country's government by unconstitutional or violent means, including politically motivated violence and terrorism. The score ranges from -2.5 to 2.5 standard normal units, indicating larger country governance in terms of political stability and absence of violence and terrorism when the score is higher;
GE	H4 + H5	**Government Effectiveness (GE)***** - capturing perceptions of the quality of public services, civil service as well as its independence from political pressures, the quality of policy formulation and implementation, and the government's credibility and commitment to such policies. The score ranges from -2.5 to 2.5 standard normal units, indicating larger country governance in terms of government effectiveness when the score is higher;
RQ	H4 + H5	**Regulatory Quality (RQ)***** - capturing perceptions of the government's ability to formulate and implement sound policies and regulations that permit and promote private sector development. The score ranges from -2.5 to 2.5 standard normal units, indicating larger country governance in terms of regulatory quality when the score is higher;

LI	H4 + H5	**Rule of Law (RL)*** ** - capturing perceptions of the extent to which agents have confidence in the rules of society and abide by them, particularly the quality of contract enforcement, property rights, the police and the courts, as well as the likelihood of crime and violence. The score ranges from -2.5 to 2.5 standard normal units, indicating larger country governance in terms of rule of law when the score is higher;
CC	H4 + H5	**Control of Corruption (CC)*** ** - capturing perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests. The score ranges from -2.5 to 2.5 standard normal units, indicating larger country governance in terms of control of corruption when the score is higher.

Appendix D: Sample distribution

Table 4
Sample distribution by year.

Sample distribution by year		
	(N)	***(%)***
2010	29	15.5%
2011	18	9.6%
2012	16	8.6%
2013	13	7.0%
2014	16	8.6%
2015	16	8.6%
2016	10	5.3%
2017	25	13.4%
2018	26	13.9%
2019	18	9.6%
Total	**187**	**100%**

Note: this table presents the sample distribution of M&A deals per Year. The distribution is presented in frequency (N) as well as percentage of the total sample (%).

Table 5
Sample distribution acquirers by country and industry.

Sample distribution acquirers by country and industry					
Panel A: Country			*Panel B: Industry (NACE Rev. 2 codes)*		
	(N)	***(%)***		***(N)***	***(%)***
Austria	1	0.5%	01-03 Agriculture, forestry and fishing	*2*	*1.1%*
Belgium	5	2.7%	05-09 Mining and quarrying	*9*	*4.8%*
Denmark	8	4.3%	10-33 Manufacturing	*111*	*59.3%*
Finland	4	2.2%	35 Electricity, gas, steam and air conditioning supply	*6*	*3.2%*
France	28	14.9%	36-39 Water supply; sewerage, waste management and remediation activities	*5*	*2.7%*
Germany	8	4.3%	41-43 Construction	*2*	*1.1%*
Ireland	5	2.7%	45-47 Wholesale and retail trade; repair of motor vehicles and motorcycles	*12*	*6.4%*
Italy	16	8.6%	49-53 Transportation and storage	*2*	*1.1%*
Netherlands	5	2.6%	55-56 Accommodation and food service activities	*1*	*0.5%*
Norway	12	6.4%	58-63 Information and communication	*23*	*12.3%*
Spain	5	2.7%	69-75 Professional, scientific and technical activities	*13*	*7.0%*
Sweden	19	10.1%	77-82 Administrative and support service activities	*1*	*0.5%*
Switzerland	14	7.5%			
United Kingdom (UK)	57	30.5%			
Total	**187**	**100%**	***Total***	***187***	***100%***

Note: this table presents the sample distribution of the acquiring firms by their country of origin in Panel A, and by industry in Panel B. For both panels, the distribution of acquiring home countries and industries is presented in frequency (N) as well as percentage of the total sample (%).

Table 6
Sample distribution targets by country and industry.

Sample distribution targets by country and industry					
Panel A: Country			*Panel B: Industry (NACE Rev. 2 codes)*		
	(N)	***(%)***		***(N)***	***(%)***
Argentina	1	0.5%	01-03 Agriculture, forestry and fishing	2	1.1%
Armenia	1	0.5%	05-09 Mining and quarrying	9	4.8%
Australia	6	3.2%	10-33 Manufacturing	95	50.8%
Belgium	2	1.1%	35 Electricity, gas, steam and air conditioning supply	7	3.7%
Brazil	5	2.7%	36-39 Water supply; sewerage, waste management and remediation activities	5	2.7%
Canada	4	2.2%	41-43 Construction	2	1.1%
China	1	0.5%	45-47 Wholesale and retail trade; repair of motor vehicles and motorcycles	12	6.4%
Czech Republic	5	2.6%	55-56 Accommodation and food service activities	2	1.1%
Democratic Republic of Congo (DCR)	1	0.5%	58-63 Information and communication	23	12.3%
Denmark	4	2.2%	69-75 Professional, scientific and technical activities	25	13.4%
Finland	6	3.2%	77-82 Administrative and support service activities	3	1.6%
France	13	6.9%	86-88 Human health and social work activities	1	0.5%
Georgia	1	0.5%	90-93 Arts, entertainment and recreation	1	0.5%
Germany	13	6.9%			
Greece	1	0.5%			
India	1	0.5%			
Ireland	2	1.1%			
Italy	14	7.5%			
Mexico	2	1.1%			
Netherlands	2	1.1%			
Norway	7	3.7%			
Peru	1	0.5%			
Portugal	1	0.5%			
Romania	2	1.1%			
Russian Federation	1	0.5%			

South Africa		1	0.5%			
Spain		7	3.7%			
Sweden		3	1.6%			
Switzerland		3	1.6%			
Turkey		1	0.5%			
United Arab Emirates (UAE)		1	0.5%			
United Kingdom (UK)		14	7.5%			
United States of America (USA)		60	32.9%			
	Total	**187**	**100%**	***Total***	***187***	***100%***

Note: this table presents the sample distribution of the target firms by their country of origin in Panel A, and by industry in Panel B. For both panels, the distribution of target host countries and industries is presented in frequency (N) as well as percentage of the total sample (%).

Appendix E: unbalanced descriptive statistics

Table 7

Descriptive statistics unbalanced.

	N	Mean	Median	Std. Deviation.	Min.	Q1	Q3	Max.
Panel A: Dependent variables								
Market Model (%)								
MM CAR (-5,+5)	187	.775	.671	5.964	-16.091	-3.128	3.836	21.039
MM CAR (-2,+2)	187	.876	.937	4.325	-14.141	-1.692	3.116	13.218
MM CAR (-1,+1)	187	.827	.753	4.019	-11.135	-1.578	2.918	15.278
MM CAR (0,+1)	187	.750	.494	3.472	-10.285	-.914	2.347	15.930
MM CAR (-1,0)	187	.627	.427	3.330	-8.096	-1.435	1.951	17.854
Market adjusted model (%)								
MAM CAR (-5,+5)	187	1.272	.966	5.294	-15.060	-1.881	3.936	19.791
MAM CAR (-2,+2)	187	1.139	1.088	3.896	-12.428	-.991	3.184	14.103
MAM CAR (-1,+1)	187	1.031	1.024	3.745	-12.713	-1.030	2.768	15.914
MAM CAR (0,+1)	187	.928	.625	3.480	-11.427	-.581	2.712	16.439
MAM CAR (-1,0)	187	.786	.598	3.073	-6.046	-1.035	2.224	17.190
Panel B: Independent Variables								
Pure Cash	187	.790	1.000	.409	.000	1.000	1.000	1.000
Mixed payment	187	.116	.000	.321	.000	.000	.000	1.000
Cross-border	187	.753	1.000	.434	.000	.500	1.000	1.000
WGI Distance	187	1.651	.452	3.496	-6.240	.000	2.917	15.77

Geographical Distance (GEO Distance)	187	3,654.6	1,544.2	3,929.1	.000	.000	6,216.6	16,993.6
Portion Cash	187	.856	1.000	.318	.000			1.000
Panel C: Control Variables								
Private target	187	.590	1.000	.493	.000	.000	1.000	1.000
High-tech target	187	.100	.000	.296	.000	.000	.000	1.000
Unrelatedness	187	.640	1.000	.482	.000	.000	1.000	1.000
Deal Size	187	1,539,221,876	135,000,000	5,527,594,477	1,000,000	40,024,181	7,88,119,450	53,473,173,711
Firm Size	187	19,529,955,743	4,729,286,923	33,958,810,005	121,536,223	1,647,531,810	21,143,383,993	219,706,273,600
Firm Age	187	104.170	109.000	22.167	2.000	106.000	112.000	123.000
Leverage	187	.235	.215	.146	<.001	.134	.324	.648
ROA	187	.076	.0583	.063	.001	.038	.096	.459

Note: This table reports the unbalanced descriptive statistics for the fundamental variables included in this study. The data of the dependent variables; the CARs based on the market model and the market adjusted model for various windows (-5,+5; -2,+2; -1,+1; 0,+1; -1,0), are based on the years 2010 – 2019. They represent the cumulative abnormal returns' means in percentages for European and UK acquirers at the time of M&A announcement. PURE CASH, MIXED PAYMENT, CROSS_BORDER, WGI DISTANCE, GEO DISTANCE, and PORTION CASH *are all independent variables and are simultaneously used for the moderating variables. Panel C represents the control variables. The dependent variables as well as* GEO DISTANCE, DEAL SIZE, and FIRM SIZE *are calculated based on the natural logarithm.* PURE CASH, MIXED PAYMENT, CROSS_BORDER, PRIVATE TARGET, HIGH-TECH TARGET, and UNRELATEDNESS *are all dummy variables.* WGI DISTANCE, PORTION CASH, FIRM AGE, LEVERAGE, and ROA *are all continuous variables.*

Appendix F: Regression results additional announcement windows MM (H2 and H3)

Table 13

Regression Results of CARs (-5,+5), (0,+1), and (-1,0) on payment method, moderating, and control variables.

Variables	Hypothesis	Sign	(1)	(2)	(3)	(4)	(5)	(6)	Model
Panel A: MM CAR (-5,+5)									
Constant			-4.822	-2.603	-5.958	-4.378	-5.505	-4.301	-7.593
			(-0.563)	*(-.308)*	*(-.689)*	*(-.509)*	*(-.632)*	*(-.500)*	*(-.839)*
PURE CASH	H2 + H3	+	1.605		1.328		1.152		2.297
			(1.255)		*(1.014)*		*(0.845)*		*(1.195)*
MIXED PAYMENT	H2 + H3	-		-1.008		-.661		.065	2.081
				(-.647)		*(-.417)*		*(.039)*	*(.869)*
CROSS_BORDER	H3	+			1.141	1.302	1.034	1.206	1.131
					(.978)	*(1.117)*	*(.869)*	*(1.035)*	*(.947)*
PURE CASH * CROSS_BORDER	H3	+					-.216		.228
							(-.481)		*(.402)*
MIXED PAYMENT * CROSS_BORDER	H3	+						.544	.739
								(1.196)	*(1.280)*
PRIVATE TARGET		-	.670	.654	.754	.752	.748	.738	.745
			(.688)	*(.669)*	*(.772)*	*(.768)*	*(.764)*	*(.755)*	*(.760)*
HIGH-TECH TARGET		-	-3.248**	-3.041*	-3.36**	-3.219*	-3.196*	-2.894*	-3.233*
			(-1.98)	*(-1.848)*	*(-2.043)*	*(-1.948)*	*(-1.899)*	*(-1.731)*	*(-1.895)*
UNRELATEDNESS		-	-.689	-0.8	-.667	-.757	-.619	-.688	-.587
			(-.747)	*(-.869)*	*(-.723)*	*(-.822)*	*(-.664)*	*(-.747)*	*(-.629)*
DEAL SIZE		+	.508*	.450*	.494*	.442*	.487*	.426	.493*
			(1.935)	*(1.746)*	*(1.879)*	*(1.715)*	*(1.845)*	*(1.651)*	*(1.863)*
FIRM SIZE		-	-.351	-.312	-.325	-.286	-.339	-.298	-.329
			(-.973)	*(-.866)*	*(-.899)*	*(-.793)*	*(-.931)*	*(-.825)*	*(-.903)*
FIRM AGE		+	.001	0	.001	.001	.003	.007	.008
			(.017)	*(.005)*	*(.047)*	*(.049)*	*(.111)*	*(.224)*	*(.255)*

LEVERAGE		-	.3.118	1.869	3.237	2.214	3.183	2.373	3.971
			(.841)	*(.528)*	*(.873)*	*(.623)*	*(.856)*	*(.668)*	*(1.045)*
ROA		+	-3.951	-4.772	-4.029	-4.673	-5.037	-6.332	-4.709
			(-.406)	*(-.489)*	*(-.414)*	*(-.480)*	*(-.505)*	*(-.644)*	*(-.470)*
Industry			*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
Year			*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
Adjusted R^2			*.075*	*.068*	*.075*	*.070*	*.070*	*.072*	*.069*
F-statistic			*1.519*	*1.468*	*1.500*	*1.463*	*1.463*	*1.466*	*1.415*
Observations	187		*187*	*187*	*187*	*187*	*187*	*187*	*187*
Panel B: MM CAR (0,+1)									
Constant			4.899	4.816	4.197	4.072	4.204	4.053	3.555
			(.964)	(1.011)	(.858)	(.839)	(.852)	(.833)	(.692)
PURE CASH	H2 + H3	+	.197		.084		.081		.450
			(.273)		(.114)		(.106)		(.413)
MIXED PAYMENT	H2 + H3	-		.291		.436		.257	.628
				(.332)		(.488)		(.268)	(0.462)
CROSS_BORDER	H3	+			.467	.545	.465	.569	0.482
					(.707)	(.830)	(.689)	(.862)	(.710)
PURE CASH * CROSS_BORDER	H3	+					-.004		-.113
							(-.014)		(-.350)
MIXED PAYMENT * CROSS_BORDER	H3	+						-.134	-.188
								(-.519)	(-.575)
PRIVATE TARGET		-	.388	.382	.422	.423	.422	.427	.426
			(.706)	(.696)	(.765)	(.767)	(.762)	(.771)	(.767)
HIGH-TECH TARGET		-	-1.02	-1.022	-1.066	-1.097	-1.063	-1.177	-1.196
			(-1.101)	(-1.104)	(-1.146)	(-1.177)	(-1.116)	(-1.243)	(-1.235)
UNRELATEDNESS		-	-.215	-.240	-.206	-.222	-.205	-.239	-.188
			(-.411)	(-.463)	(-.393)	(-.427)	(-.388)	(-.458)	(-.354)
DEAL SIZE		+	.346**	.329**	.340**	.325**	.340**	.329**	.344**
			(2.331)	(2.264)	(2.285)	(2.237)	(2.273)	(2.257)	(2.293)
FIRM SIZE		-	-.396*	-.380*	-.385*	-.369*	-.385*	-.366*	-.383*
			(-1.94)	(-1.87)	(-1.88)	(-1.811)	(-1.869)	(-1.792)	(-1.851)
FIRM AGE		+	-.023	-.023	-.023	-.022	-.023	-.023	-.023

			(-1.399)	(-1.358)	(-1.375)	(-1.323)	(-1.357)	(-1.382)	(-1.329)
LEVERAGE		-	-.182	-.437	-.133	-.292	-.134	-.331	.008
			(-.087)	(-.219)	(-.063)	(-.146)	(-.064)	(-.165)	(.004)
ROA		+	.901	.877	.869	.918	.853	1.326	1.263
			(.164)	(.16)	(.158)	(.167)	(.151)	(.238)	(.222)
Industry			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R^2			.014	.014	.016	.012	.004	.008	-.003
F-statistic			1.091	1.092	1.098	1.077	1.027	1.046	.986
Observations	187		187	187	187	187	187	187	187
Panel C: MM CAR (-1,0)									
Constant			5.992	7.151	6.807	8.183*	5.947	8.153*	5.885
			(1.251)	(1.513)	(1.411)	(1.704)	(1.232)	(1.696)	(1.168)
PURE CASH	H2 + H3	+	.797		.996		1.331*		1.363
			(1.115)		(1.362)		(1.764)		(1.274)
MIXED PAYMENT	H2 + H3	-		-.701		-.902		-1.184	.065
				(-.807)		(-1.02)		(-1.248)	(.049)
CROSS_BORDER	H3	+			-.819	-.757	-.616	-.720	-.610
					(-1.257)	(-1.164)	(-.934)	(-1.104)	(-.917)
PURE CASH * CROSS_BORDER	H3	+					.411		.473
							(1.650)		(1.497)
MIXED PAYMENT * CROSS_BORDER	H3	+						-.211	.104
								(-.827)	(.323)
PRIVATE TARGET		-	.059	.052	-.002	-.005	.009	.001	.008
			(.108)	(.096)	(-.004)	(-.009)	(.017)	(.001)	(.015)
HIGH-TECH TARGET		-	.348	.464	.428	.568	.117	.442	.140
			(.380)	(.506)	(.467)	(.616)	(.126)	(.473)	(.147)
UNRELATEDNESS		-	-.289	-.338	-.305	-.363	-.397	-.390	-.397

			(-.56)	(-.659)	(-.592)	(-.707)	(-.770)	(-.757)	(-.765)
DEAL SIZE		+	.425**	.401*	.435**	.406*	.448**	.412***	.448***
			(2.894)	(2.785)	(2.964)	(2.821)	(3.067)	(2.858)	(3.043)
FIRM SIZE		-	-.580*	-.566*	-.599**	-.581**	-.573*	-.577***	-.572***
			(-2.874)	(-2.811)	(-2.964)	(-2.883)	(-2.843)	(-2.857)	(-2.822)
FIRM AGE		+	-.016	-.016	-.016	-.017	-.020	-.019	-.020
			(-.96)	(-.986)	(-1.000)	(-1.032)	(-1.216)	(-1.142)	(-1.179)
LEVERAGE		-	1.779	1.208	1.693	1.007	1.795	.946	1.839
			(.859)	(.611)	(.818)	(.508)	(.872)	(.477)	(.869)
ROA		+	-3.046	-3.49	-2.989	-3.548	-1.076	-2.906	-1.126
			(-.560)	(-.641)	(-.551)	(-.653)	(-.195)	(-.529)	(-.202)
Industry			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R^2			-.025	-.029	-.021	-.026	-.010	-.029	-.022
F-statistic			.844	.821	.872	.840	.941	.834	.876
Observations	187		187	187	187	187	187	187	187

*Note: this table presents the estimated coefficients from regressing the CARs (-5,+5), (0,+1), and (-1,0) on payment method, cross-border, and control variables applying the OLS regression method. ***,**, and * indicate the significance at the 1%, 5%, and 10% level respectively. These regressions are run two times, with CARs (-5,+5), (0,+1), and (-1,0) as dependent variables. PURE CASH, MIXED PAYMENT, and CROSS_BORDER are the independent variables, whereas moderating variables are added through PURE CASH * CROSS_BORDER and MIXED PAYMENT * CROSS_BORDER. PRIVATE TARGET, HIGH-TECH TARGET, UNRELATEDNESS, DEAL SIZE, FIRM SIZE, FIRM AGE, LEVERAGE, and ROA are control variables.*

Appendix G: Regression results additional announcement windows MM (H4 and H5)

Table 14

Regression Results of CARs (-5,+5), (0,+1), and (-1,0) on payment method, country governance quality, geographical distance, moderating, and control variables

Variables	Hypothesis	Sign	(1)	(2)	(3)	(4)	(5)	Model
Panel A: MM CAR (-5,+5)								
Constant			3.726	2.962	3.018	8.574	3.082	.650
			(.385)	*(.303)*	*(.309)*	*(.575)*	*(.304)*	*(.035)*
WGI DISTANCE	*H4 + H5*	+	.012	.033	.013	.019	-.062	.031
			(.084)	*(.223)*	*(.088)*	*(.127)*	*(-.413)*	*(.191)*
GEO DISTANCE	*H4 + H5*	-	.074	.023	.098	.052	-.120	-.320
			(.160)	*(.049)*	*(.208)*	*(.104)*	*(-.241)*	*(-.616)*
PURE CASH	*H5*	+		1.126		-2.922		1.187
				(.666)		*(-.232)*		*(.075)*
MIXED PAYMENT	*H5*	-			1.356		29.643	34.011
					(.657)		*(1.382)*	*(1.296)*
PURE CASH * WGI DISTANCE	*H5*	+				.205		-.062
						(1.307)		*(-.256)*
MIXED PAYMENT * WGI DISTANCE	*H5*	+					-.333*	-.382
							(-1.670)	*(-1.464)*
PURE CASH * GEO DISTANCE	*H5*	+				.116		.215
						(.176)		*(.239)*
MIXED PAYMENT * GEO DISTANCE	*H5*	+					-1.057	-1.037
							(-1.222)	*(-.936)*
PRIVATE TARGET		-	.683	.629	.690	.540	.411	.255
			(.637)	*(.583)*	*(.643)*	*(.493)*	*(.383)*	*(.233)*
HIGH-TECH TARGET		-	-6.010***	-6.260***	-5.943***	-6.031***	-5.656***	-6.454***
			(-3.296)	*(-3.354)*	*(-3.246)*	*(-3.215)*	*(-3.095)*	*(-3.416)*
UNRELATEDNESS		-	-.697	-.697	-.664	-.858	-.849	-.754
			(-.666)	*(-.664)*	*(-.632)*	*(-.808)*	*(-.814)*	*(-.717)*
DEAL SIZE		+	.664**	0.730**	.628*	.697**	.590*	.745**

			(2.135)	*(2.232)*	*(1.984)*	*(2.119)*	*(1.884)*	*(2.285)*
FIRM SIZE		-	-.482	-.520	-.455	-.603	-.545	-.609
			(-1.129)	*(-1.203)*	*(-1.057)*	*(-1.382)*	*(-1.271)*	*(-1.410)*
FIRM AGE		+	-.034	-.038	-.028	-.038	-.021	-.021
			(-.943)	*(-1.050)*	*(-.772)*	*(-1.041)*	*(-.542)*	*(-.555)*
LEVERAGE		-	2.005	2.729	1.895	3.788	2.992	5.556
			(.500)	*(.656)*	*(.471)*	*(.892)*	*(.727)*	*(1.259)*
ROA		+	-5.145	-4.228	-5.49	-3.922	-1.673	1.208
			(-.466)	*(-.379)*	*(-.495)*	*(-.351)*	*(-.150)*	*(.107)*
Industry			Yes	Yes	Yes	Yes	Yes	Yes
Year			Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R^2			*.071*	*.066*	*.066*	*.065*	*.087*	*.091*
F-statistic			*1.377*	*1.338*	*1.337*	*1.314*	*1.428*	*1.405*
Observations			*140*	*140*	*140*	*140*	*140*	*140*
Panel B: MM CAR (0,+1)								
Constant			.122	.035	-.195	5.412	-1.263	2.302
			(.021)	*(.006)*	*(-.034)*	*(.608)*	*(-.208)*	*(.204)*
WGI DISTANCE	*H4 + H5*	+	-.023	-.020	-.023	-.015	-.041	-.004
			(-.266)	*(-.232)*	*(-.262)*	*(-.167)*	*(-.457)*	*(-.037)*
GEO DISTANCE	*H4 + H5*	-	.269	.263	.280	.206	.150	.055
			(.974)	*(.936)*	*(1.005)*	*(.688)*	*(.503)*	*(.176)*
PURE CASH	*H5*	+		.129		-5.573		-4.180
				(.128)		*(-.740)*		*(-.438)*
MIXED PAYMENT	*H5*	-			.608		16.377	12.991
					(.496)		*(1.271)*	*(.816)*
PURE CASH * WGI DISTANCE	*H5*	+				.021		-.088
						(.223)		*(-.603)*
MIXED PAYMENT * WGI DISTANCE	*H5*	+					-.073	-.139
							(-.607)	*(-.877)*
PURE CASH * GEO DISTANCE	*H5*	+				.285		.347
						(.725)		*(.636)*
MIXED PAYMENT * GEO DISTANCE	*H5*	+					-.619	-.383
							(-1.191)	*(-.570)*

PRIVATE TARGET		-	.234	.228	.237	.281	.154	.179
			(.368)	*(.356)*	*(.372)*	*(.430)*	*(.239)*	*(.269)*
HIGH-TECH TARGET		-	-2.356**	-2.385**	-2.326**	-2.303**	-2.301**	-2.504**
			(-2.180)	*(-2.151)*	*(-2.141)*	*(-2.055)*	*(-2.096)*	*(-2.184)*
UNRELATEDNESS		-	.413	.413	.428	.338	.361	.390
			(.666)	*(.663)*	*(.687)*	*(.533)*	*(.577)*	*(.611)*
DEAL SIZE		+	.337*	.344*	.321*	.326	.306	.348*
			(1.828)	*(1.773)*	*(1.709)*	*(1.660)*	*(1.629)*	*(1.758)*
FIRM SIZE		-	-.255	-.260	-.243	-.278	-.263	-.276
			(-1.008)	*(-1.012)*	*(-.952)*	*(-1.066)*	*(-1.020)*	*(-1.052)*
FIRM AGE		+	-.023	-.024	-.0210	-.021	-.014	-.014
			(-1.100)	*(-1.099)*	*(-.958)*	*(-.962)*	*(-.600)*	*(-.595)*
LEVERAGE		-	.240	.322	.190	.679	.901	1.440
			(.101)	*(.130)*	*(.080)*	*(.268)*	*(.365)*	*(.538)*
ROA		+	5.169	5.273	5.014	5.429	6.835	7.416
			(.790)	*(.796)*	*(.763)*	*(.814)*	*(1.018)*	*(1.080)*
Industry			Yes	Yes	Yes	Yes	Yes	Yes
Year			Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R^2			*-.029*	*-.038*	*-.036*	*-.051*	*-.037*	*-.055*
F-statistic			*.859*	*.823*	*.832*	*.783*	*.839*	*.787*
Observations			*140*	*140*	*140*	*140*	*140*	*140*
Panel C: MM CAR (-1,0)								
Constant			1.997	1.025	2.525	9.661	1.469	5.848
			(.363)	*(.186)*	*(.456)*	*(1.149)*	*(.252)*	*(.546)*
WGI DISTANCE	*H4 + H5*	+	.000	.027	.000	.034	-.019	.027
			(.003)	*(.322)*	*(-.002)*	*(.406)*	*(-.225)*	*(.289)*
GEO DISTANCE	*H4 + H5*	-	.363	.298	.345	.211	.215	.118
			(1.367)	*(1.113)*	*(1.297)*	*(.747)*	*(.751)*	*(.396)*
PURE CASH	*H5*	+		1.433		-7.598		-4.719
				(1.501)		*(-1.069)*		*(-.520)*
MIXED PAYMENT	*H5*	-			-1.012		14.925	12.636
					(-.862)		*(1.212)*	*(.836)*
PURE CASH * WGI DISTANCE	*H5*	+				.046		.010

						(.517)		*(.073)*
MIXED PAYMENT * WGI DISTANCE	*H5*	*+*					-.076	-.078
							(-.663)	*(-.520)*
PURE CASH * GEO DISTANCE	*H5*	*+*				.446		.342
						(1.201)		*(.659)*
MIXED PAYMENT * GEO DISTANCE	*H5*	*+*					-.625	-.458
							(-1.257)	*(-.718)*
PRIVATE TARGET		-	.604	.534	.598	.610	.512	.507
			(.990)	*(.879)*	*(.980)*	*(.989)*	*(.833)*	*(.802)*
HIGH-TECH TARGET		-	-.593	-.912	-.643	-.771	-.614	-.862
			(-.572)	*(-.866)*	*(-.618)*	*(-.729)*	*(-.585)*	*(-.792)*
UNRELATEDNESS		-	-.076	-.075	-.101	-.202	-.170	-.194
			(-.127)	*(-.127)*	*(-.169)*	*(-.338)*	*(-.283)*	*(-.319)*
DEAL SIZE		*+*	.402**	.486**	.428**	.456**	.414**	.464**
			(2.272)	*(2.633)*	*(2.385)*	*(2.457)*	*(2.300)*	*(2.473)*
FIRM SIZE		-	-.547**	-.594**	-.567**	-.628**	-.588**	-.633**
			(-2.251)	*(-2.439)*	*(-2.321)*	*(-2.553)*	*(-2.387)*	*(-2.544)*
FIRM AGE		*+*	-.003	-.009	-.007	-.005	<.001	0 > -.001
			(-.145)	*(-.427)*	*(-.333)*	*(-.235)*	*(.002)*	*(-.003)*
LEVERAGE		-	.596	1.516	.679	2.135	1.396	2.671
			(.262)	*(.646)*	*(.297)*	*(.892)*	*(.591)*	*(1.050)*
ROA		*+*	-3.905	-2.739	-3.648	-2.479	-1.800	-.902
			(-.622)	*(-.435)*	*(-.580)*	*(-.394)*	*(-.280)*	*(-.138)*
Industry			Yes	Yes	Yes	Yes	Yes	Yes
Year			Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R^2			*.035*	*.045*	*.032*	*.046*	*.034*	*.031*
F-statistic			*1.178*	*1.228*	*1.160*	*1.218*	*1.156*	*1.129*
Observations			*140*	*140*	*140*	*140*	*140*	*140*

*Note: this table presents the estimated coefficients from regressing the CARs (-5,+5), (0,+1), and (-1,0) on payment method, country governance quality, geographical distance, and control variables applying the OLS regression method. ***,**, and * indicate the significance at the 1%, 5%, and 10% level respectively. These regressions are run three times, with CAR (-5,+5), CAR (0,+1), and CAR (-1,0) as dependent variables, whereby the results are presented in separate panels. WGI DISTANCE, GEO DISTANCE, PURE CASH, and MIXED PAYMENT are the independent variables, whereas moderating variables are added*

*through PURE CASH * WGI DISTANCE, PURE CASH * GEO DISTANCE, MIXED PAYMENT * WGI DISTANCE, and MIXED PAYMENT * GEO DISTANCE. PRIVATE TARGET, HIGH-TECH TARGET, UNRELATEDNESS, DEAL SIZE, FIRM SIZE, FIRM AGE, LEVERAGE, and ROA are control variables.*

Appendix H: Robustness checks

Appendix H1: Regression Results MAM CARs

Table 15

Regression Results of MAM CARs (-5,+5), (-2,+2), (-1,+1), (0+1), and (-1,0) on payment method, moderating, and control variables.

Variables	Hypothesis	Sign	(1)	(2)	(3)	(4)	(5)	(6)	Model
			Panel A: MAM CAR (-5,+5)						
Constant			.408	-.095	-.866	-.866	-.740	-2.083	-2.083
			(.054)	*(-.012)*	*(-.109)*	*(-.109)*	*(-.092)*	*(-.259)*	*(-.259)*
PURE CASH	*H2 + H3*	*+*	1.280		1.455		1.406		2.132
			(1.128)		*(.908)*		*(.855)*		*(1.251)*
MIXED PAYMENT	*H2 + H3*	*-*		.514		.596		1.943	1.943
				(.267)		*(.308)*		*(.915)*	*(.915)*
CROSS_BORDER	*H3*	*+*			.693	.693	.665	.737	.737
					(.665)	*(.665)*	*(.625)*	*(.695)*	*(.695)*
PURE CASH * CROSS_BORDER	*H3*	*+*					-.057		.411
							(-.143)		*(.817)*
MIXED PAYMENT * CROSS_BORDER	*H3*	*+*						.784	.784
								(1.530)	*(1.530)*
Control variables			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R^2			*.071*	*.066*	*.062*	*.062*	*.056*	*.065*	*.065*
F-statistic			*1.492*	*1.436*	*1.399*	*1.399*	*1.347*	*1.389*	*1.389*
Observations			187	187	187	187	187	187	187
			Panel B: MAM CAR (-2,+2)						
Constant			5.094	4.187	3.962	3.962	4.260	3.478	3.478
			(.904)	*(.720)*	*(.672)*	*(.672)*	*(.716)*	*(.582)*	*(.582)*
PURE CASH	*H2 + H3*	*+*	.330		.828		.709		1.133

			(.392)		*(.696)*		*(.582)*		*(.893)*
MIXED PAYMENT	*H2 + H3*	-		.926		.950		1.726	1.726
				(.648)		*(.662)*		*(1.092)*	*(1.092)*
CROSS_BORDER	*H3*	+			.203	.203	.135	.177	.177
					(.263)	*(.263)*	*(.171)*	*(.224)*	*(.224)*
PURE CASH * CROSS_BORDER	*H3*	+					-.137		.136
							(-.460)		*(.363)*
MIXED PAYMENT * CROSS_BORDER	*H3*	+						.457	.457
								(1.199)	*(1.199)*
Control variables			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R^2			*.055*	*.052*	*.046*	*.046*	*.041*	*.044*	*.044*
F-statistic			*1.374*	*1.337*	*1.228*	*1.288*	*1.248*	*1.257*	*1.257*
Observations			187	187	187	187	187	187	187
Panel C: MAM CAR (-1,+1)									
Constant			7.863	6.509	6.534	6.534	6.635	6.630	6.630
			(1.507)	*(1.211)*	*(1.199)*	*(1.199)*	*(1.207)*	*(1.195)*	*(1.195)*
PURE CASH	*H2 + H3*	+	.219		1.020		.980		.983
			(.281)		*(.929)*		*(.869)*		*(.835)*
MIXED PAYMENT	*H2 + H3*	-		1.384		1.382		1.383	1.383
				(1.049)		*(1.042)*		*(.942)*	*(.942)*
CROSS_BORDER	*H3*	+			-.023	-.023	-.046	-.046	-.046
					(-.032)	*(-.032)*	*(-.063)*	*(-.062)*	*(-.062)*
PURE CASH * CROSS_BORDER	*H3*	+					-.046		-.045
							(-.168)		*(-.128)*
MIXED PAYMENT * CROSS_BORDER	*H3*	+						.003	.003
								(.008)	*(.008)*
Control variables			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year			Yes	Yes	Yes	Yes	Yes	Yes	Yes

Adjusted R^2			*.081*	*.081*	*.075*	*.075*	*.069*	*.063*	*.063*
F-statistic			*1.562*	*1.548*	*1.488*	*1.488*	*1.434*	*1.381*	*1.381*
Observations	187		187	187	187	187	187	187	187
Panel D: MAM CAR (0,+1)									
Constant			4.571	3.641	2.783	2.783	2.988	2.989	2.989
			(.936)	*(.723)*	*(.547)*	*(.547)*	*(.582)*	*(.577)*	*(.577)*
PURE CASH	*H2 + H3*	*+*	.252		.665		.584		.584
			(.345)		*(.649)*		*(.555)*		*(.531)*
MIXED PAYMENT	*H2 + H3*	*-*		.951		1.043		1.034	1.034
				(.769)		*(.842)*		*(.755)*	*(.755)*
CROSS_BORDER	*H3*	*+*			.771	.771	.724	.724	.724
					(1.156)	*(1.156)*	*(1.064)*	*(1.059)*	*(1.059)*
PURE CASH * CROSS_BORDER	*H3*	*+*					-.094		-.094
							(-.366)		*(-.290)*
MIXED PAYMENT * CROSS_BORDER	*H3*	*+*						-.001	-.001
								(-.002)	*(-.002)*
Control variables			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R^2			*.005*	*.002*	*.005*	*.005*	*-.001*	*-.008*	*-.008*
F-statistic			*1.033*	*1.015*	*1.028*	*1.028*	*.994*	*.958*	*.958*
Observations	187		187	187	187	187	187	187	187
Panel E: MAM CAR (-1,0)									
Constant			6.863	6.482	7.397	7.397	6.755	6.639	6.639
			(1.599)	*(1.462)*	*(1.656)*	*(1.656)*	*(1.507)*	*(1.467)*	*(1.467)*
PURE CASH	H2 + H3	+	.694		1.061		1.316		1.379
			(1.083)		*(1.178)*		*(1.431)*		*(1.436)*
MIXED PAYMENT	H2 + H3	-		.389		.292		.433	.433
				(.358)		*(.268)*		*(.362)*	*(.362)*
CROSS_BORDER	H3	+			-.823	-.823	-.676	-.670	-.670
					(-1.404)	*(-1.404)*	*(-1.136)*	*(-1.121)*	*(-1.121)*

PURE CASH * CROSS_BORDER	H3	+					.294		.335
							(1.313)		*(1.182)*
MIXED PAYMENT * CROSS_BORDER	H3	+						.068	.068
								(.235)	*(.235)*
Control variables			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R^2			*-.013*	*-.019*	*-.013*	*-.013*	*-.008*	*-.014*	*-.014*
F-statistic			*.946*	*.885*	*.925*	*.925*	*.954*	*.921*	*.921*
Observations	187		187	187	187	187	187	187	187

*Note: this table presents the estimated coefficients from regressing the CARs (-5,+5), (-2,+2), (-1,+1), (0,+1), and (-1,0) on payment method, cross-border, and control variables applying the OLS regression method. ***,**, and * indicate the significance at the 1%, 5%, and 10% level respectively. These regressions are run multiple times, with CARs (-5,+5), (-2,+2), (-1,+1), (0,+1), and (-1,0) as dependent variables. PURE CASH, MIXED PAYMENT, and CROSS_BORDER are the independent variables, whereas moderating variables are added through PURE CASH * CROSS_BORDER and MIXED PAYMENT * CROSS_BORDER. PRIVATE TARGET, HIGH-TECH TARGET, UNRELATEDNESS, DEAL SIZE, FIRM SIZE, FIRM AGE, LEVERAGE, and ROA are control variables.*

Table 16

Regression Results of MAM CARs on payment method, country governance quality, geographical distance, moderating, and control variables.

Variables	Hypothesis	Sign	(1)	(2)	(3)	(4)	(5)	Model
Panel A: MAM CAR (-5,+5)								
Constant			6.730	5.815	1.213	5.647	-2.656	-2.656
			(.786)	(.674)	(.137)	(.429)	(-.161)	(-.161)
WGI DISTANCE	*H4 + H5*	*+*	.020	.045	.102	.105	.065	.065
			(.152)	(.341)	(.766)	(.752)	(.456)	(.456)
GEO DISTANCE	*H4 + H5*	-	.142	.080	.032	-.012	-.193	-.193
			(.343)	(.192)	(.076)	(-.028)	(-.419)	(-.419)
PURE CASH	*H5*	*+*		1.349		-.330		6.725
				(.903)		(-.030)		(.481)
MIXED PAYMENT	*H5*	-			4.988*		33.323	33.323
					(1.916)		(1.429)	(1.429)
PURE CASH * WGI DISTANCE	*H5*	*+*				.023		-.032
						(.144)		(-.147)
MIXED PAYMENT * WGI DISTANCE	*H5*	*+*					-.198	-.198
							(-.854)	(-.854)
PURE CASH * GEO DISTANCE	*H5*	*+*				.228		-.087
						(.375)		(-.109)
MIXED PAYMENT * GEO DISTANCE	*H5*	*+*					-1.073	-1.073
							(-1.091)	(-1.091)
Control Variables			Yes	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
Industry			Yes	Yes	Yes	Yes	Yes	Yes
Year			Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R^2			*.063*	*.031*	*.084*	*.068*	*.076*	*.076*
F-statistic			*1.334*	*1.314*	*1.423*	*1.319*	*1.335*	*1.335*
Observations			*140*	*140*	*140*	*140*	*140*	*140*
Panel B: MAM CAR (-2,+2)								
Constant			5.247	5.470	2.424	8.005	6.434	6.434
			(.783)	(.807)	(.347)	(.772)	(.498)	(.498)

WGI DISTANCE	*H4 + H5*	*+*	-.001	-.007	.031	.025	-.008	-.008
			(-.006)	(-.065)	(.296)	(.229)	(-.075)	(-.075)
GEO DISTANCE	*H4 + H5*	-	.011	.026	-.006	-.031	-.183	-.183
			(.035)	(.080)	(-.018)	(-.088)	(-.508)	(-.508)
PURE CASH	*H5*	*+*		-.329		-3.565		-2.230
				(-.280)		(-.407)		(-.204)
MIXED PAYMENT	*H5*	-			3.302		17.094	17.094
					(1.606)		(.936)	(.936)
PURE CASH * WGI DISTANCE	*H5*	*+*				.073		-.064
						(.580)		(-.381)
MIXED PAYMENT * WGI DISTANCE	*H5*	*+*					-.296	-.296
							(-1.632)	(-1.632)
PURE CASH * GEO DISTANCE	*H5*	*+*				.221		.261
						(.462)		(.417)
MIXED PAYMENT * GEO DISTANCE	*H5*	*+*					-.444	-.444
							(-.577)	(-.577)
Control Variables			Yes	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
Industry			Yes	Yes	Yes	Yes	Yes	Yes
Year			Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R^2			*.023*	*.014*	*.028*	*.018*	*.036*	*.036*
F-statistic			*1.115*	*1.070*	*1.135*	*1.079*	*1.153*	*1.153*
Observations			*140*	*140*	*140*	*140*	*140*	*140*
Panel C: MAM CAR (-1,+1)								
Constant			3.994	4.110	2.019	6.037	5.798	5.798
			(.665)	(.677)	(.321)	(.646)	(.494)	(.494)
WGI DISTANCE	*H4 + H5*	*+*	-.027	-.031	-.005	.002	-.022	-.022
			(-.305)	(-.331)	(-.048)	(.016)	(-.215)	(-.215)
GEO DISTANCE	*H4 + H5*	-	.262	.270	.248	.198	.092	.092
			(.905)	(.916)	(.841)	(.621)	(.280)	(.280)
PURE CASH	*H5*	*+*		-.170		-3.221		-3.017
				(-.162)		(-.407)		(-.303)
MIXED PAYMENT	*H5*	-			2.267		10.817	10.817
					(1.225)		(.652)	(.652)

PURE CASH * WGI DISTANCE	*H5*	*+*				.007		-.103
						(.063)		(-.673)
MIXED PAYMENT * WGI DISTANCE	*H5*	*+*					-.228	-.228
							(-1.382)	(-1.382)
PURE CASH * GEO DISTANCE	*H5*	*+*				.227		.303
						(.526)		(.534)
MIXED PAYMENT * GEO DISTANCE	*H5*	*+*					-.238	-.238
							(-.340)	(-.340)
Control Variables			Yes	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
Industry			Yes	Yes	Yes	Yes	Yes	Yes
Year			Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R^2			*.046*	*.038*	*.042*	*.028*	*.033*	*.033*
F-statistic			*1.241*	*1.189*	*1.205*	*1.123*	*1.140*	*1.140*
Observations			*140*	*140*	*140*	*140*	*140*	*140*
Panel D: MAM CAR (0,+1)								
Constant			1.956	1.874	-.361	1.349	-.794	-.794
			(.341)	(.323)	(-.060)	(.151)	(-.070)	(-.070)
WGI DISTANCE	*H4 + H5*	*+*	-.016	-.013	.014	.028	.011	.011
			(-.183)	(-.153)	(.158)	(.298)	(.116)	(.116)
GEO DISTANCE	*H4 + H5*	-	.185	.180	.156	.101	.024	.024
			(.670)	(.639)	(.556)	(.332)	(.078)	(.078)
PURE CASH	*H5*	*+*		.120		-1.031		.791
				(.120)		(-.137)		(.083)
MIXED PAYMENT	*H5*	-			2.424		12.529	12.529
					(1.373)		(.786)	(.786)
PURE CASH * WGI DISTANCE	*H5*	*+*				-.046		-.092
						(-.428)		(-.628)
MIXED PAYMENT * WGI DISTANCE	*H5*	*+*					-.117	-.117
							(-.738)	(-.738)
PURE CASH * GEO DISTANCE	*H5*	*+*				.170		.115
						(.415)		(.210)
MIXED PAYMENT * GEO DISTANCE	*H5*	*+*					-.338	-.338
							(-.503)	(-.503)

Control Variables			Yes	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
Industry			Yes	Yes	Yes	Yes	Yes	Yes
Year			Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R^2			-.043	-.052	-.044	-.061	-.069	-.069
F-statistic			*.797*	*.763*	*.806*	*.752*	*.737*	*.737*
Observations			*140*	*140*	*140*	*140*	*140*	*140*
Panel E: MAM CAR (-1,0)								
Constant			3.571	2.823	1.956	5.487	5.462	5.462
			(.744)	(.586)	(.390)	(.736)	(.578)	(.578)
WGI DISTANCE	*H4 + H5*	*+*	.004	.024	.035	.040	.031	.031
			(.050)	(.329)	(.463)	(.510)	(.382)	(.382)
GEO DISTANCE	*H4 + H5*	-	.281	.231	.222	.179	.135	.135
			(1.215)	(.989)	(.946)	(.701)	(.512)	(.512)
PURE CASH	*H5*	*+*		1.102		-2.207		-2.185
				(1.319)		(-.350)		(-.273)
MIXED PAYMENT	*H5*	-			.940		4.362	4.362
					(.637)		(.327)	(.327)
PURE CASH * WGI DISTANCE	*H5*	*+*				.006		-.040
						(.065)		(-.328)
MIXED PAYMENT * WGI DISTANCE	*H5*	*+*					-.095	-.095
							(-.716)	(-.716)
PURE CASH * GEO DISTANCE	*H5*	*+*				.200		.235
						(.582)		(.515)
MIXED PAYMENT * GEO DISTANCE	*H5*	*+*					-.091	-.091
							(-.162)	(-.162)
Control Variables			Yes	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
Industry			Yes	Yes	Yes	Yes	Yes	Yes
Year			Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R^2			.047	.053	.048	.034	.022	.022
F-statistic			*1.245*	*1.270*	*1.235*	*1.154*	*1.093*	*1.093*
Observations			*140*	*140*	*140*	*140*	*140*	*140*

*Note: this table presents the estimated coefficients from regressing the MAM CARs (-5,+5), (-2,+2), (-1,+1)), (0,+1), and (-1,0) on payment method, country governance quality, geographical distance, and control variables applying the OLS regression method. ***,**, and * indicate the significance at the 1%, 5%, and 10% level respectively. These regressions are run multiple times, with MAM CARs (-5,+5), (-2,+2), (-1,+1)), (0,+1), and (-1,0) as dependent variables, whereby the results are presented in separate panels. WGI DISTANCE, GEO DISTANCE, PURE CASH, and MIXED PAYMENT are the independent variables, whereas moderating variables are added through PURE CASH * WGI DISTANCE, PURE CASH * GEO DISTANCE, MIXED PAYMENT * WGI DISTANCE, and MIXED PAYMENT * GEO DISTANCE. PRIVATE TARGET, HIGH-TECH TARGET, UNRELATEDNESS, DEAL SIZE, FIRM SIZE, FIRM AGE, LEVERAGE, and ROA are control variables.*

Appendix H2: Regression results CARs by Portion Cash

Table 17

Regression Results of MM CARs (-5,+5), (-2,+2), (-1,+1), (0+1), and (-1,0) on portion of cash, moderating, and control variables.

Variables	Hypothesis	Sign	(1)	(2)	Model	Variables	Hypothesis	Sign	(1)	(2)	Model
Panel A: MM CAR (-5,+5)						**Panel B: MM CAR (-2,+2)**					
Constant			-5.096	-6.243	-6.403	Constant			4.096	4.228	4.073
			(-.582)	*(-.708)*	*(-.722)*				*(.635)*	*(.649)*	*(.535)*
PORTION CASH	*H2 + H3*	+	1.562		1.095	PORTION CASH	*H2 + H3*	+	.082		-.023
			(.948)		*(.621)*				*(.068)*		*(.986)*
CROSS_BORDER	*H3*	+		1.243	1.880	CROSS_BORDER	*H3*	+		-.143	.475
				(1.071)	*(.712)*					*(-.166)*	*(.808)*
PORTION CASH *	*H3*	+				PORTION CASH *	*H3*	+			
CROSS_BORDER					-.356	CROSS_BORDER					-.345
					(-.269)						*(-.352)*
Control variables			Yes	Yes	Yes	Control variables			Yes	Yes	Yes
Industry			Yes	Yes	Yes	Industry			Yes	Yes	Yes
Year			Yes	Yes	Yes	Year			Yes	Yes	Yes
Adjusted R^2			*.071*	*.072*	*.066*	Adjusted R^2			*.046*	*.040*	*.034*
F-statistic			*1.489*	*1.479*	*1.425*	F-statistic			*1.308*	*1.257*	*1.214*
Observations			187	187	187	Observations			187	187	187
Panel C: MM CAR (-1,+1)						**Panel D: MM CAR (0,+1)**					
Constant			6.515	6.846	6.781	Constant			4.481	4.056	3.931
			(1.113)	*(1.158)*	*(1.141)*				*(.908)*	*(.814)*	*(.785)*
PORTION CASH	*H2 + H3*	+	.291		.324	PORTION CASH	*H2 + H3*	+	.296		.063
			(.264)		*(.274)*				*(.319)*		*(.063)*
CROSS_BORDER	*H3*	+		-.359	-.097	CROSS_BORDER	*H3*	+		.461	.960
				(-.461)	*(-.055)*					*(.703)*	*(.643)*
PORTION CASH *	*H3*	+				PORTION CASH *	*H3*	+			
CROSS_BORDER					-.146	CROSS_BORDER					-.279
					(-.165)						*(-.373)*

Control variables		Yes	Yes	Yes	Control variables	Yes	Yes	Yes
Industry		Yes	Yes	Yes	Industry	Yes	Yes	Yes
Year		Yes	Yes	Yes	Year	Yes	Yes	Yes
Adjusted R^2		*.059*	*.055*	*.049*	Adjusted R^2	*.014*	*.011*	*.005*
F-statistic		*1.406*	*1.359*	*1.308*	F-statistic	*1.092*	*1.069*	*1.033*
Observations		187	187	187	Observations	187	187	187
Panel E: MM CAR (-1,0)								
Constant						5.783	6.479	7.009
						(1.182)	*(1.316)*	*(1.428)*
PORTION CASH	*H2 + H3*		+			.827		1.506
						(.899)		*(1.541)*
CROSS_BORDER	*H3*		+				-.754	-2.867*
							(-1.164)	*(-1.960)*
PORTION CASH * CROSS_BORDER	*H3*		+					1.181
								(1.609)
Control variables						Yes	Yes	Yes
Industry						Yes	Yes	Yes
Year						Yes	Yes	Yes
Adjusted R^2						*-.028*	*-.025*	*-.015*
F-statistic						*.827*	*.846*	*.911*
Observations						187	187	187

*Note: this table presents the estimated coefficients from regressing the MM CARs (-5,+5), (-2,+2), (-1,+1), (0,+1), and (-1,0) on the portion of cash, cross-border, and control variables applying the OLS regression method. ***,**, and * indicate the significance at the 1%, 5%, and 10% level respectively. These regressions are run multiple times, with MM CARs (-5,+5), (-2,+2), (-1,+1), (0,+1), and (-1,0) as dependent variables. PORTION CASH and CROSS_BORDER are the independent variables, whereas a moderating variable is added through PORTION CASH * CROSS_BORDER. PRIVATE TARGET, HIGH-TECH TARGET, UNRELATEDNESS, DEAL SIZE, FIRM SIZE, FIRM AGE, LEVERAGE, and ROA are control variables, as well as INDUSTRY and YEAR dummies.*

Table 18

Regression Results of MM CARs (-5,+5), (-2,+2), (-1,+1), (0+1), and (-1,0) on portion of cash, country governance quality, geographical distance, moderating, and control variables.

Variables	Hypothesis	Sign	(1)	(2)	Model	Variables	Hypothesis	Sign	(1)	(2)	Model
Panel A: MM CAR (-5,+5)						**Panel B: MM CAR (-2,+2)**					
Constant			3.726	2.044	4.986	Constant			3.471	4.139	13.396
			(.385)	(.205)	(.291)				(.455)	(.526)	(.993)
WGI DISTANCE	*H4 + H5*	+	.012	.039	-.333	WGI DISTANCE	*H4 + H5*	+	-.026	-.037	-.302
			(.084)	(.262)	(-.712)				(-.229)	(-.312)	(-.820)
GEO DISTANCE	*H4 + H5*	+	.074	.011	.060	GEO DISTANCE	*H4 + H5*	+	.021	.046	-.769
			(.160)	(.023)	(.031)				(.056)	(.122)	(-.510)
PORTION CASH	*H5*	+		1.627	-.592	PORTION CASH	*H5*	+		-.646	-9.631
				(.734)	(-.040)					(-.369)	(-.822)
PORTION CASH * WGI DISTANCE	*H5*	+			.429	PORTION CASH * WGI DISTANCE	*H5*	+			.321
					(.868)						(.825)
PORTION CASH * GEO DISTANCE	*H5*	+			.027	PORTION CASH * GEO DISTANCE	*H5*	+			.960
					(.014)						(.609)
Control variables			Yes	Yes	Yes	Control variables			Yes	Yes	Yes
Industry			Yes	Yes	Yes	Industry			Yes	Yes	Yes
Year			Yes	Yes	Yes	Year			Yes	Yes	Yes
Adjusted R^2			*.071*	*.067*	*.058*	Adjusted R^2			*.034*	*.026*	*.025*
F-statistic			*1.377*	*1.342*	*1.275*	F-statistic			*1.172*	*1.128*	*1.115*
Observations			140	140	140	Observations			140	140	140
Panel C: MM CAR (-1,+1)						**Panel D: MM CAR (0,+1)**					
Constant			1.300	1.358	10.794	Constant			.122	-.145	5.273
			(.194)	(.197)	(.910)				(.021)	(-.025)	(.517)
WGI DISTANCE	*H4 + H5*	+	-.039	-.040	-.155	WGI DISTANCE	*H4 + H5*	+	-.023	-.019	-.035
			(-.388)	(-.383)	(-.478)				(-.266)	(-.208)	(-.125)

GEO DISTANCE	*H4 + H5*	*+*	.335	.337	-.659	GEO DISTANCE	*H4 + H5*	*+*	.269	.259	-.366
			(1.038)	(1.023)	(-.498)				(.974)	(.918)	(-.321)
PORTION CASH	*H5*	*+*		-.056	-9.556	PORTION CASH	*H5*	*+*		.259	-5.307
				(-.036)	(-.928)					(.196)	(-.599)
PORTION CASH * WGI DISTANCE	*H5*	*+*			.151 (.441)	PORTION CASH * WGI DISTANCE	*H5*	*+*			.030 (.102)
PORTION CASH * GEO DISTANCE	*H5*	*+*			1.128 (.814)	PORTION CASH * GEO DISTANCE	*H5*	*+*			.696 (.584)
Control variables			Yes	Yes	Yes	Control variables			Yes	Yes	Yes
Industry			Yes	Yes	Yes	Industry			Yes	Yes	Yes
Year			Yes	Yes	Yes	Year			Yes	Yes	Yes
Adjusted R^2			*.045*	*.036*	*.032*	Adjusted R^2			*-.029*	*-.038*	*-.052*
F-statistic			*1.235*	*1.181*	*1.148*	F-statistic			*.859*	*.824*	*.776*
Observations			140	140	140	Observations			140	140	140

Panel E: MM CAR (-1,0)

Constant			1.997	.260	8.981
			(.363)	(.046)	(.929)
WGI DISTANCE	*H4 + H5*	*+*	<.001	.028	.004
			(.003)	(.334)	(.014)
GEO DISTANCE	*H4 + H5*	*+*	.363	.297	-.711
			(1.367)	(1.106)	(-.658)
PORTION CASH	*H5*	*+*		1.680	-7.281
				(1.341)	(-.867)
PORTION CASH * WGI DISTANCE	*H5*	*+*			.047
					(.167)

PORTION CASH * GEO DISTANCE	*H5*	*+*		1.121 (.993)
Control variables			Yes	Yes	Yes
Industry			Yes	Yes	Yes
Year			Yes	Yes	Yes
Adjusted R^2			*.035*	*.042*	*.037*
F-statistic			*1.178*	*1.208*	*1.171*
Observations			140	140	140

*Note: this table presents the estimated coefficients from regressing the MM CARs (-5,+5), (-2,+2), (-1,+1)), (0,+1), and (-1,0) on the portion of cash, country governance quality, geographical distance, and control variables applying the OLS regression method. ***,**, and * indicate the significance at the 1%, 5%, and 10% level respectively. These regressions are run multiple times, with MM CARs (-5,+5), (-2,+2), (-1,+1)), (0,+1), and (-1,0) as dependent variables, whereby the results are presented in separate panels. WGI DISTANCE, GEO DISTANCE, and PORTION CASH are the independent variables, whereas moderating variables are added through PORTION CASH * WGI DISTANCE and PORTION CASH * GEO DISTANCE. PRIVATE TARGET, HIGH-TECH TARGET, UNRELATEDNESS, DEAL SIZE, FIRM SIZE, FIRM AGE, LEVERAGE, and ROA are control variables, as well as INDUSTRY and YEAR dummies.*

Table 19

Regression Results of MAM CARs (-5,+5), (-2,+2), (-1,+1), (0+1), and (-1,0) on payment method, moderating, and control variables.

Variables	Hypothesis	Sign	(1)	(2)	Model	Variables	Hypothesis	Sign	(1)	(2)	Model
Panel A: MAM CAR (-5,+5)						**Panel B: MAM CAR (-2,+2)**					
Constant			.382	-.333	-.218	Constant			5.076	4.895	4.791
			(.049)	(-.042)	(-.028)				(.882)	(.842)	(.820)
PORTION CASH	*H2 + H3*	*+*	1.109		1.015	PORTION CASH	*H2 + H3*	*+*	.294		.147
			(.759)		(.647)				(.271)		(.127)
CROSS_BORDER	*H3*	*+*		.775	.315	CROSS_BORDER	*H3*	*+*		.196	.614
				(.752)	(.134)					(.256)	(.352)
PORTION CASH *	*H3*	*+*				PORTION CASH *	*H3*	*+*			
CROSS_BORDER					.257	CROSS_BORDER					-.234
					(.218)						(-.267)
Control variables			Yes	Yes	Yes	Control variables			Yes	Yes	Yes
Industry			Yes	Yes	Yes	Industry			Yes	Yes	Yes
Year			Yes	Yes	Yes	Year			Yes	Yes	Yes
Adjusted R^2			*.067*	*.065*	*.059*	Adjusted R^2			*.055*	*.049*	*.043*
F-statistic			*1.462*	*1.428*	*1.375*	F-statistic			*1.370*	*1.319*	*1.271*
Observations			187	187	187	Observations			187	187	187
Panel C: MAM CAR (-1,+1)						**Panel D: MAM CAR (0,+1)**					
Constant			7.602	7.670	7.541	Constant			4.334	3.665	3.521
			(1.428)	(1.426)	(1.395)				(.870)	(.731)	(.698)
PORTION CASH	*H2 + H3*	*+*	.371		.273	PORTION CASH	*H2 + H3*	*+*	.382		.063
			(.371)		(.253)				(.408)		(.063)
CROSS_BORDER	*H3*	*+*		-.074	.440	CROSS_BORDER	*H3*	*+*		.725	1.300
				(-.104)	(.273)					(1.099)	(.865)
PORTION CASH *	*H3*	*+*				PORTION CASH *	*H3*	*+*			
CROSS_BORDER					-.287	CROSS_BORDER					-.321
					(-.355)						(-.426)
Control variables			Yes	Yes	Yes	Control variables			Yes	Yes	Yes

Industry		Yes	Yes	Yes	Industry	Yes	Yes	Yes
Year		Yes	Yes	Yes	Year	Yes	Yes	Yes
Adjusted R^2		*.081*	*.075*	*.070*	Adjusted R^2	*.005*	*.007*	*.001*
F-statistic		*1.565*	*1.504*	*1.451*	F-statistic	*1.035*	*1.042*	*1.009*
Observations		187	187	187	Observations	187	187	187
Panel E: MAM CAR (-1,0)								
Constant						6.475	7.207	7.608*
						(1.479)	(1.638)	(1.730)
PORTION CASH	*H2 + H3*			*+*		.867		1.438
						(1.052)		(1.642)
CROSS_BORDER	*H3*			*+*			-.793	-2.392*
							(-1.371)	(-1.825)
PORTION CASH * CROSS_BORDER	*H3*			*+*				.894
								(1.359)
Control variables						Yes	Yes	Yes
Industry						Yes	Yes	Yes
Year						Yes	Yes	Yes
Adjusted R^2						*-.014*	*-.008*	*-.003*
F-statistic						*.913*	*.950*	*.984*
Observations						187	187	187

*Note: this table presents the estimated coefficients from regressing the MAM CARs (-5,+5), (-2,+2), (-1,+1), (0,+1), and (-1,0) on the portion of cash, cross-border, and control variables applying the OLS regression method. ***,**, and * indicate the significance at the 1%, 5%, and 10% level respectively. These regressions are run multiple times, with MAM CARs (-5,+5), (-2,+2), (-1,+1), (0,+1), and (-1,0) as dependent variables. PORTION CASH and CROSS_BORDER are the independent variables, whereas a moderating variable is added through PORTION CASH * CROSS_BORDER. PRIVATE TARGET, HIGH-TECH TARGET, UNRELATEDNESS, DEAL SIZE, FIRM SIZE, FIRM AGE, LEVERAGE, and ROA are control variables, as well as INDUSTRY and YEAR dummies.*

Table 20

Regression Results of MAM CARs (-5,+5), (-2,+2), (-1,+1), (0+1), and (-1,0) on payment method, country governance quality, geographical distance, moderating, and control variables.

Variables	Hypothesis	Sign	(1)	(2)	Model	Variables	Hypothesis	Sign	(1)	(2)	Model
Panel A: MAM CAR (-5,+5)						**Panel B: MAM CAR (-2,+2)**					
Constant			6.730	4.579	2.512	Constant			5.247	5.392	6.910
			(.786)	(.521)	(.166)				(.783)	(.779)	(.581)
WGI DISTANCE	*H4 + H5*	+	.020	.054	-.286	WGI DISTANCE	*H4 + H5*	+	-.001	-.003	-.287
			(.152)	(.410)	(-.691)				(-.006)	(-.028)	(-.884)
GEO DISTANCE	*H4 + H5*	+	.142	.060	.669	GEO DISTANCE	*H4 + H5*	+	.011	.017	.141
			(.343)	(.144)	(.396)				(.035)	(.051)	(.106)
PORTION CASH	*H5*	+		2.081	4.968	PORTION CASH	*H5*	+		-.140	-1.082
				(1.064)	(.378)					(-.091)	(-.105)
PORTION CASH * WGI DISTANCE	*H5*	+			.381	PORTION CASH * WGI DISTANCE	*H5*	+			.326
					(.873)						(.950)
PORTION CASH * GEO DISTANCE	*H5*	+			-.599	PORTION CASH * GEO DISTANCE	*H5*	+			-.075
					(-.339)						(-.054)
Control variables			Yes	Yes	Yes	Control variables			Yes	Yes	Yes
Industry			Yes	Yes	Yes	Industry			Yes	Yes	Yes
Year			Yes	Yes	Yes	Year			Yes	Yes	Yes
Adjusted R^2			*.063*	*.064*	*.053*	Adjusted R^2			*.023*	*.014*	*.005*
F-statistic			*1.334*	*1.328*	*1.253*	F-statistic			*1.115*	*1.067*	*1.024*
Observations			140	140	140	Observations			140	140	140
Panel C: MAM CAR (-1,+1)						**Panel D: MAM CAR (0,+1)**					
Constant			3.994	4.026	6.299	Constant			1.956	1.369	1.329
			(.665)	(.650)	(.589)				(.341)	(.231)	(.130)
WGI DISTANCE	*H4 + H5*	+	-.027	-.028	-.155	WGI DISTANCE	*H4 + H5*	+	-.016	-.006	-.081
			(-.305)	(-.300)	(-.531)				(-.183)	(-.071)	(-.291)
GEO DISTANCE	*H4 + H5*	+	.262	.263	.130	GEO DISTANCE	*H4 + H5*	+	.185	.163	.248

			(.905)	(.890)	(.109)			(.670)	(.578)	(.217)
PORTION CASH	*H5*	*+*		-.031	-2.100	PORTION CASH	*H5*	*+*	.568	.774
				(-.023)	(-.226)				(.432)	(.087)
PORTION CASH * WGI DISTANCE	*H5*	*+*			.149	PORTION CASH * WGI DISTANCE	*H5*	*+*		.085
					(.484)					(.288)
PORTION CASH * GEO DISTANCE	*H5*	*+*			.176	PORTION CASH * GEO DISTANCE	*H5*	*+*		-.077
					(.141)					(-.065)
Control variables			Yes	Yes	Yes	Control variables			Yes	Yes	Yes
Industry			Yes	Yes	Yes	Industry			Yes	Yes	Yes
Year			Yes	Yes	Yes	Year			Yes	Yes	Yes
Adjusted R^2			*.046*	*.038*	*.023*	Adjusted R^2			*-.043*	*-.050*	*-.069*
F-statistic			*1.241*	*1.188*	*1.108*	F-statistic			*.797*	*.770*	*.711*
Observations			140	140	140	Observations			140	140	140

Panel E: MAM CAR (-1,0)

Constant			3.571	1.973	5.368
			(.744)	(.402)	(.633)
WGI DISTANCE	*H4 + H5*	*+*	.004	.029	.021
			(.050)	(.397)	(.093)
GEO DISTANCE	*H4 + H5*	*+*	.281	.221	-.173
			(1.215)	(.944)	(-.183)
PORTION CASH	*H5*	*+*		1.545	-1.946
				(1.414)	(-.264)
PORTION CASH * WGI DISTANCE	*H5*	*+*			.016
					(.066)
PORTION CASH * GEO DISTANCE	*H5*	*+*			.438

			(.442)
Control variables	Yes	Yes	Yes
Industry	Yes	Yes	Yes
Year	Yes	Yes	Yes
Adjusted R^2	*.047*	*.056*	*.041*
F-statistic	*1.245*	*1.282*	*1.190*
Observations	140	140	140

*Note: this table presents the estimated coefficients from regressing the MM CARs (-5,+5), (-2,+2), (-1,+1)), (0,+1), and (-1,0) on the portion of cash, country governance quality, geographical distance, and control variables applying the OLS regression method. ***,**, and * indicate the significance at the 1%, 5%, and 10% level respectively. These regressions are run multiple times, with MM CARs (-5,+5), (-2,+2), (-1,+1)), (0,+1), and (-1,0) as dependent variables, whereby the results are presented in separate panels. WGI DISTANCE, GEO DISTANCE, and PORTION CASH are the independent variables, whereas moderating variables are added through PORTION CASH * WGI DISTANCE and PORTION CASH * GEO DISTANCE. PRIVATE TARGET, HIGH-TECH TARGET, UNRELATEDNESS, DEAL SIZE, FIRM SIZE, FIRM AGE, LEVERAGE, and ROA are control variables, as well as INDUSTRY and YEAR dummies.*