



Mergers and Acquisitions in Latin America from a Buyer's Perspective

Tesis para optar al grado de Magíster en
Finanzas

Alumno: Felix Behler

Profesor Guía: Carlos Maquieira

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Abstract

The following paper investigates 296 mergers and acquisitions in Latin America, which were announced between 2001 and 2019, in order to reveal the impact of temporal factors, geographical factors, economical factors, the transaction volume and the payment method on the development of shareholder value of the acquiring company in the short-term around the announcement date of the transactions. As the proposed event study methodology shows the influence of temporal factors is limited. The same holds for the payment method. Geographical factors, economical factors and the transaction volume, on the other hand, appear to have a significant effect on the valuation of the acquiring firm after conducting a merger or acquisition. Firstly, the picture of improved results of domestic transactions arises. Secondly, mergers and acquisitions which aim to diversify operations appear to provide better results than those consolidating the operational focus. Thirdly, it can be shown that larger transaction volumes tend to destroy shareholder value rather than increasing it. Hence, it becomes crucial for companies, which plan to conduct a merger or acquisition, to consider these factors and implement a suitable transaction design which is in line with the interest of shareholders.

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1 Chapter 1

1.1 Introduction

Mergers and acquisitions (M&A) play an important role for many companies and industries worldwide. M&A are processes during which a firm decides to take a certain stake in another firm or at least two firms decide to merge. This can happen in a variety of forms which tend to be an important factor for the outcome of the transaction. The rationale for companies which decide to engage in M&A are diverse and range from simple growth over diversification to acquiring specific know-how among other reasons (Calipha et al., 2010; Kumar and Sharma, 2019). However, the extent of success of these transactions remains arguable (Sirower, 1997; Moeller et al., 2003; Högholm, 2016).

Firm acquisitions have been occurring for several centuries already and play an important role in capitalism. However, innumerable studies have found that modern M&A practices and the first so called Merger Wave can be traced back to around 1897 (Sudarsanam, 2003). Consequently, the phenomena investigated by this paper has a rather long history and has therefore been studied quite extensively. Nonetheless, M&A have developed over time and their study remains incomplete or inadequate for modern M&A designs. First, it is important to mention that the quantity, quality and volume of M&A has risen notably throughout the last decades. Accordingly, a change in the dynamic of M&A is inevitable. Second, despite the fact that the US represents by far the largest M&A market in the world, it has become evident that the academic

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research for other regions needs to be developed further in order to recognize diverse market conditions.

1.2 Problem Statement

M&A offer prompt benefits and are rather easy to execute compared to organic methods like research and development (R&D) or a change of the operational strategy. However, they also come with significant risks and do not automatically provide a net benefit for the participating firms. The involved risks are especially important for the acquirer since it is quite difficult to foresee the outcome as a whole. The owners of target firm on the other hand do not face important uncertainties. Assuming that their entire company or all of its assets are being purchased with cash, the financial benefits are apparent¹ and no further concerns regarding future operations remain since the acquiring firm takes the responsibility for future operations. This uneven distribution of risk has been confirmed by many researchers. While there is no consent regarding the added or destroyed value for the acquiring firm, the majority finds a significant benefit for the target firm. Consequently, it appears rather puzzling why acquirers continue to initiate the bulk of M&A processes and the opinion that acquisitions are crucial for company performance prevails.

¹ Mainly through the premium paid by the acquirer.

1.3 Objective

To this date, the majority of scientific research investigates the M&A market in the USA and other more developed regions like Europe and parts of Asia (Shao, 2013; Lundin and Lundberg, 2017; Quan and Yue, 2018). Furthermore, the focus lies mostly on the valuation effect of the combined entity or the target firms and other value-independent factors like corporate governance. Thus, this study strives to add to the ongoing discussion and investigation on M&A by putting a focus on a developing region, namely Latin America, and taking the approach of a rather broad investigation which captures a variety of potentially important factors for the economic success of these transactions. To the best of my knowledge, these factors have not been investigated jointly for the case of Latin America. Consequently, potential interlinkages can be recognized. Moreover, the investigation of these factors can be useful to enable more successful M&A transactions and reduce value destruction on the side of the acquiring firm in the future.

1.4 Structure

This paper is organized as follows: Chapter 2 takes a closer look at what Mergers and Acquisitions are and highlights the key motives behind this form of transaction. Furthermore, the history of the M&A market will be presented. Chapter 3 gives a short overview of the current state of academic research regarding M&A and its effect on value creation and destruction. Chapter 4 provides a description of the data and the methodology used to discover the success of M&A. The empirical analysis will be carried out through chapter 5 and the results will be presented in a systematic manner.

Lastly, chapter 6 recapitulates the most important findings by this paper and presents new challenges for future research.

2 Introduction to Mergers & Acquisitions

In order to comprehend the topic of M&As better, the following chapter takes a closer look at their practical foundations and motives which have an important impact on the operating principles. Throughout each transaction process different concepts may be chosen. However, the general approach usually follows a set scheme which is why it is essential to understand the differences that occur throughout the transaction process. Furthermore, a brief history of the M&A market will be presented for the purpose of understanding how it got to where it is today.

2.1 Mergers & Acquisitions: Some Concepts

M&A are processes which pool assets or equity of two or more companies and consequently change their ownership. This happens through the purchase of one company by another or the amalgamation of two or more different business entities. Thus, both processes seek to consolidate different companies. However, the motives behind M&A and the consequences for participating firms differ substantially. A general differentiation between the two transactions can be made by looking at the legal structure of the resulting firm(s): If both companies surrender their legal independence and form a new combined entity it is considered a merger. Yet, if the legal structure of at least one firm remains unchanged it is considered an acquisition.

In this case either the equity or assets of the target firm pass over to the acquiring firm. The target firm may remain a separate entity or integrate directly into the new parent company. However, in both cases the acquirer obtains control over operations (Picot, 2012)².

2.2 The Transaction Process

All M&A transactions, independent of the details like the industry or specific intentions of the participating firms, consist of three principal steps on the side of the acquiring firm: (1) Planning, (2) Execution and (3) Integration (Meyer, 2011). Consequently, a rough description of these steps will be given in what follows.

During the first step “Planning” the acquiring firm needs to answer several important questions in order for the transaction to be successful. If the planning is not conducted properly innumerable problems might arise during the transaction process. As a first step companies should conduct several studies and analyses of their targets. The scope of this investigation depends if an entire industry or a specific company serves as a potential target. Throughout this analysis questions, such as “If”, “When” and “How”, need to be answered. Several internal and external factors, such as the compatibility of firms, the competitive environment, legal aspects and the economic viability of the transaction play an important role in order to answer these questions. Often times, findings which surfaced during the planning process lead to an anticipative

² Some exceptions to this rule remain, such as statutory mergers in which only one company upholds its legal status. However, they are of negligible relevance for the purposes of this paper.

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alteration or rejection of initial plans³.

The second step, "Execution", usually begins by hiring external M&A consultants. Specialized experts are indispensable for the success of larger M&A transaction due to the complexity of these processes. Next, a valuation of the target firm should be drawn up in order to find an appropriate price. Afterwards, the target firm is contacted to find out if expectations overlap. If they do, the Due Diligence process begins. During this process, the target firm provides several confidential details about their business so that the acquirer is able to get a better picture of the potential purchase. In case no unexpected dealbreakers turn up during this process, the acquiring firm writes a formal Letter of Intent (LOI) in which it states its intent to acquire or merge with the target company. Afterwards, it proposes an official offer to the target firm. In case the target (and antitrust authorities) agrees to the propositions made by the acquirer a signing and closing date will be defined at which corresponding contracts will be signed and property will be transferred. At the closing date the formal and legal processes of M&A transactions conclude.

Nevertheless, the third step, the integration process, also called post merger integration is likewise crucial so that a M&A transaction is successful for the acquiring firm. During this process, all parts of the merging companies amalgamate. This should be done in a manner that maximizes synergies and the value of the combined entity. However, in practice many firms have failed to conduct the integration process due to poor planning in the first place and unanticipated factors which result in overall value

³ For further aspects which should be considered during a successful planning process see Picot (2012)

destruction on the side of the acquiring firm. Hence, all three steps are essential in order for a M&A transaction to be considered successful.

2.3 Characteristics of an M&A deal

Each M&A deal is unique due to the sophisticated structure of the transaction. However, they also present several common characteristics. Therefore, in the following, the general framework of a M&A deal will be described. First, it is important to mention that three main types of mergers exist: (1) Horizontal mergers, (2) vertical mergers and (3) conglomerate mergers. Horizontal mergers occur between competitors or businesses that offer similar goods or services. Consequently, participating businesses form part of the same industry. Main drivers of these mergers are the formation of synergies and economies of scale while also increasing the market share of the participating companies (Jansen, 2001; Calipha et al., 2010). A prominent example of a horizontal merger was the case of Chile's LAN airlines and Brazil's TAM airlines during which TAM shareholders agreed to a complete takeover by LAN. However, the subsequent development of the stock price also showcases how M&A deals frequently fail to meet initial expectations. Vertical mergers, on the other hand, occur between companies that provide downstream production steps of the same production line. Therefore, participating companies may not always be active within the same industry, but they are somehow related to one another and usually work within the same economic sector. Primary motives for these M&A deals are synergies and greater control of the supply chain process in order to reduce costs and increase operational efficiency. An example for such a M&A deal was the attempt by the largest

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Argentinian airport operator, Aeropuertos Argentinos 2000, to purchase the second largest airline of the same country, LAPA, during the early 2000's. However, antitrust authorities decided to intervene due to the potential market power of the combined entity (Fox and Sokol, 2009). The third type of M&A deal is a conglomerate merger. These transactions seek to consolidate unrelated businesses which operate within different industries or regions. Furthermore, they can be divided in two subgroups: pure and mixed conglomerate mergers. While the first describes M&A deals between companies which have virtually nothing in common, the latter outlines transactions between firms that pursue market extension or product extension. This further subdivision stands on the one hand for firms which strive to enter new markets (like a different geographical region or industry segment) or offer new products within the same market (enable cross-sales). The main motives behind conglomerate mergers are synergies, business diversification and an expanded customer base. Due to several risks, amongst which a loss of efficiency is the most prevalent, conglomerate mergers are the least common form of M&A transaction. However, one successful example for a conglomerate M&A transaction was the merger between the home improvement chain Sodimac S.A. and the multinational company Falabella S.A. which favorably broadened the market accessibility of both companies.

Lastly, it is worth mentioning that horizontal mergers are often guided by the believe in economies of scale, meaning that augmented production of the same or similar products generates net gains. Vertical and conglomerate mergers, on the other hand, are mainly driven by the rationale of economies of scope, which means that an expansion of the variety of products leads to an improved situation for the participating

firms. However, in both cases the benefits can be of operational and financial nature (Witt, 2019).

2.4 Method of Payment

The method of payment is an essential characteristic of any M&A transaction. While the purchase price provides information regarding the valuation of one firm by another, the method of payment reveals inside information, based on the vision of managers, regarding the quality of the valuation of all participating firms made by the market. The two elementary payment methods of M&A are cash and equity, while a combination of both is also possible. However, in order to understand the payment method better, it is essential to grasp the financing method first. According to the pecking order theory, presented by Myers and Majluf (1984), companies follow a set hierarchy to determine the source of financing for operations and acquisitions. Following this hierarchy, retained revenue in the form of cash is the preferred method of financing (internal financing), while debt (external financing) is the second-best solution and equity (external financing) is the least favored. The reason for this order is mainly found within informational asymmetries between the providers of the financing methods: When a company decides to use its own cash for an acquisition, no informational asymmetries exist since the company possesses all necessary information itself. However, if a third party provides the financing for an acquisition, it will never have the same amount of information as the acquiring firm itself. Consequently, the financier will demand a certain risk premium which raises the capital costs for the acquiring firm. Another advantage of cash financed takeovers is

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that no change to the capital structure of the acquiring firm occurs while revenue on equity also remains stable. However, a differentiation within the group of external financing needs to be made when looking at the signal effect of both methods. While the issuance of debt indicates that managers feel confident in repaying future obligations, the issuance of equity signals an overvaluation of the own shares (obtain more for less). Furthermore, it is important to mention that debt financing may ultimately result in a leveraged buyout (LBO). During this type of transaction, the acquirer takes the operations and assets of the target as collateral in order to receive external financing which is used to pay the previous owners. In a next step the liabilities are transferred to the target firm. Consequently, the target usually presents very high costs of capital and Debt/EBITDA ratios afterwards. However, the acquirer is very confident in his restructuring plan and the potential of the target firm to obtain future benefits. On the other hand, stock payments can also be beneficial for the acquirer if new equity is issued which raises current assets instead of lowering them by using cash and therefore the debt ratio can be lowered.

Now, similar deductions presented regarding the financing method, can be made for the payment method of M&A. If managers feel confident of their acquisition and no overvaluation of their own company is apparent, they may signal this point of view by acquiring a firm with retained revenue. This way the acquirer bears the least costs if everything goes as expected. Furthermore, the owners of the target firm are compensated directly and do not face the risk of future operations. Thus, cash appears as the best payment method if the acquirer is confident that he will obtain a benefit, based on synergies, in the future and the target believes that the price paid is appropriate to make up for current operations and future incomes. Another advantage

of this payment method is that the shareholders ownership of the acquirer is not diluted. Moreover, if the acquirer decides to use debt as the financing method, the M&A transaction will ultimately be paid with cash. Consequently, similar conclusions can be drawn, considering certain changes like the increased risk derived by the altered structure of capital. However, if the target firm is more confident about future operations of the acquirer and the acquiring firm is not as convinced of the M&A transaction, a stock swap might be appropriate. This type of deal allows the acquirer to pay the target with its own stock. For example, one target share could be worth 0,2 combined entity shares⁴. Hence, the owners of a target firm also bear potential risk regarding future operations of the acquirer. Lastly, a hybrid or mixture of both payment methods distributes the risks of the transaction between the acquiring firm and the target firm depending on the ratio of cash and equity paid. Therefore, it can be concluded that the method of payment reveals how managers on both sides, conceive the current valuation of the market regarding their own company and also their expectations regarding the performance of the combined entity⁵.

2.5 Type of Acquisition: Share Deal vs Asset Deal

Another important question every company needs to pose before carrying out a M&A is if it is interested in acquiring the target as a whole or only its operational units. In a share deal the acquirer obtains the shares of the target company while an asset deal is a M&A transaction through which the acquirer obtains only the assets of the target,

⁴ Here it is crucial to determine the swap ratio which provides a fair valuation of both companies.

⁵ Naturally, a share offer would be considered a merger, while a cash offer is considered an acquisition.

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leaving behind the legal “shell” of the company. Therefore, the decision for either one entails important consequences for the combined entity. In the following, these will be outlined for the acquiring firm. If the acquirer opts for a share deal, he becomes the owner of target firm and is consequently entitled to all of its legal and economic rights and obligations. While it is possible to maintain the (balance sheet) structure of the purchased company, the acquirer is free to move liabilities, assets and other rights like patents or contracts with third parties between the two companies since they form a legal unit. If the acquirer, on the other hand, decides to carry out an asset deal, he is able to “cherry-pick” the desired assets and obligations which might be valuable for the own company. These will be transferred individually and are integrated directly into the balance sheet of the acquiring firm. Afterwards, only the legal shell and undesired balance sheet items remain which is why firms are regularly liquidated and proceeds from the sale are distributed among shareholders of the target firm, after deducting residual liabilities. While share deals are used by a variety of companies, asset deals are rather difficult to conduct if the target firm is too large. This is mainly due to the fact that each asset and liability position needs to be treated individually. The choice of the acquirer for a share deal or an asset deal depends on a variety of factors, which need to be assessed preemptively. For example, if the acquirer seeks to avoid certain liabilities, such as potential lawsuits, environmental restrictions or employee relationships, like pension plans an asset deal might be the appropriate choice. That way it is less likely that future surprises, which might not have been clear during the due diligence process, surface. However, the acquirer may prefer an asset deal if significant possibilities of depreciation or activation of goodwill exist. While the first enables greater tax deduction by allocating higher amounts to assets which

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have high rates of depreciation, the latter increases the immediate return of the transaction by boosting available assets. This possibility is not available for a share deal since the balance sheet is transferred as it is. Lastly, it is important to emphasize the importance of tax considerations, which differ from country to country, for the decision between a share deal and an asset deal. A share deal gives the acquiring company easy access to potential tax losses of the target, whereas a transfer of these through an asset deal is more complicated. Furthermore, the proceeds of a share deal are usually taxed once as capital gains and are afterwards available to shareholders. An asset deal, on the other hand, is taxed twice: Once during the transaction and another time when shareholders payout the proceeds. Since the target firm takes the double taxation into account when carrying out the transaction, the price may increase significantly. Consequently, a share deal may be preferable. However, here it is important to have a closer look at the individual character of national tax laws. Finally, it can be summarized that the decision for one deal structure is important to consider when carrying a M&A transaction. Since there is not one solution that fits all problems each case needs to be assessed independently in order to find the right approach. It is especially important to consider that the interest of the acquirer might be contrary to the interest of shareholders of the target firm. Thus, the search for an equilibrium is of particular importance.

2.6 Motives behind M&A

The motives behind M&A are diverse and often depend on specific internal and external factors of the individual company. Nonetheless, they can roughly be divided

into three groups: (1) strategic motives, (2) financial motives and (3) managerial motives. Naturally, the intentions of the transactions differ between the acquiring firm and the target firm. However, the focus of this paper lies on the acquiring side. Therefore, the most important motives of the acquiring firm will be described in what follows.

2.6.1 Strategic Motives

The most common purpose of M&A is the creation of synergies. Until this date researchers have created a variety of definitions for “synergies”, yet the most common definition describes the “2+2=5 effect” (Ansoff, 1966) which basically states that the combined entity is of greater value than the individual companies. Firms may achieve this by complementing each other, reducing costs, exchanging resources, boosting output or increasing revenues without expanding the size of the premerger entities (Kumar and Sharma, 2019). The mutual support of both companies therefore enables greater value and benefits the combined enterprise. However, often it is quite difficult to foresee the exact value of the pursued synergies because the integration process is misjudged preemptively. A prominent case of an M&A transaction that aimed to create synergies occurred in 1998 when two car manufacturers, namely the German Daimler AG and the North American Chrysler, decided to merge. However, due to several factors which the companies failed to anticipate, amongst which cultural discrepancies play a significant role, the corporation was later dissolved.

Another motive of M&A transactions is that often times companies seek to increase their market power. This strategy is driven by the belief that larger companies manage

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to obtain higher returns or reduce procurement costs by shaping the competitive market situation. While in the majority of the cases horizontal M&A serve to increase market power due to mere size of the combined entity, in some cases vertical M&A can also increase market power. For example, if a company with specific know-how, which is relevant to the entire industry at some point in the production line, is acquired, competitors will need to turn towards the acquiring firm in order to obtain the necessary products. However, often antitrust authorities will intervene if a company plans to obtain excessive market power and if the potential formation of a monopoly becomes apparent. For that reason, larger M&A usually need regulatory approval before the closure of the deal. An example for a transaction which aimed to create greater market power was the merger between the two American wireless network operators T-Mobile and Sprint in 2020. While their amalgamation had been planned twice before it was discarded both times due to concerns that it would not be approved by antitrust authorities. However, throughout 2019 and 2020 the deal was approved by all relevant regulators, leaving the US with only three major national carriers.

2.6.2 Financial Motives

Besides strategic motives of M&A, financial incentives also play an important role. Indeed, almost all transactions are based on some sort of financial considerations. However, these drivers are mainly concerned with short-term benefits rather than a change of the long-term alignment of the acquiring company. Some of the motives include access to financial resources, risk diversification, accounting policies and considerations regarding taxation (Freiling, 2006; Carpenter and Sanders, 2007). Financial considerations can be shown very well for the case of private-equity

investors who engage within the M&A market. These firms rarely deal with strategic motives due to their nature as a fund with large cash resources and no productive infrastructure. Private equity firms search the market for targets that still have good growth potential or where significant opportunities for profit improvement exists. This can be achieved for example by cutting costs like taxes through a leveraged buyout or higher depreciation rates. Therefore, the potential value growth of the target firm is mainly based on inefficiencies within the company and on an undervaluation from the market side. Consequently, the intention of the acquiring firm is to eradicate these inefficiencies so that the market values the target firm appropriately and profit can be made. Another method, which is commonly used, in order that the market recognizes the true value of a company, is offering the individual parts of the target firm instead of maintaining a conglomerate company⁶.

2.6.3 Managerial Motives

The third important group of motives are managerial motives. These consider specific personal interest which may not be in line with efficient and rational company behavior as it is described by classic economic theory. According to traditional theory businesses aim to maximize shareholders value which is why owners of a firm tend to follow its principles. However, due to the fact that in the real world, companies are complex organizations in which ownership and managerial control are separated, these maxims are not always followed consistently. The principal-agent theory describes this

⁶ An example for such a transaction was the purchase of RWE Solutions by the American private equity firm Advent which proceeded to sell its acquisition in separate parts.

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problem quite precisely: Managers (agents) have personal interests like a high wage, a good reputation, a lot of managerial power and a low risk of getting fired. Furthermore, they usually have more information about the business than the owners (principles) and they use this advantage to obtain personal benefits instead of maximizing the firm's efficiency (Jensen and Meckling 1976). Consequently, the root of a M&A transaction can be found within the personal interests of the acquiring managers and a persistent information asymmetry. For example, if a manager wants to create a sizeable “empire” and his company is not expected to experience significant organic growth within the near future he may turn towards the M&A market in order to become a more prestigious manager of a bigger company (in which he might receive a higher remuneration because of his greater responsibilities). He may do this even when no economic value is apparent from this transaction, simply to “build his own empire”. In some cases, value can even be destroyed for the acquiring company.

Another managerial motive is described by the Hubris Hypothesis. According to the thesis, developed by Roll (1986), managers overestimate their own abilities which leads them to the belief that they could restructure the target company in a way that unleashes greater value. However, oftentimes these projects fail as a result of the overestimation and no value is created. Depending on the extent of the miscalculation the acquiring firm may even incur losses and value gets destroyed. Consequently, it is crucial for shareholders to review M&A deals with the necessary attention in order to discover unprofitable interests which might ultimately destroy their personal wealth. Especially since most of the time M&A deals are based on more than one motive and it can be arduous to uncover specific managerial intentions.

Finally, it can be resumed that a wide range of motives can explain why firms decide to acquire or merge with another company. Generally, it is crucial to identify these drivers ex ante of the transaction process in order to evaluate the participating companies ex post the merger process. Therefore, the evaluation should be based on the original motives and if the post-merger firm(s) managed to achieve their initial objectives. However, as mentioned earlier, M&A are often based on various motives and it is not always feasible to identify all of them. Nonetheless, academic research has identified appreciation of shareholder value as the prevailing motive of these transactions. Thus, this paper will evaluate the success of the investigated M&A transactions based on their ability to increase the shareholder value of the acquiring firm. At this point it is important to remember, that neither the variation of the shareholder value of the target firm nor the shareholder value of the combined entity will be subject of this paper due to the fact that the first has been investigated intensively with a clear positive effect and for the case of the latter it turns out quite difficult to trace back the variation in shareholder value to the merger transaction since usually significant time passes between the announcement date and the post-merger integration and efficient markets recognize expectations regarding the future as early and precisely as possible.

2.7 History of the M&A market

As mentioned before, the market for M&A shows a longstanding history. To this date academic research has identified a cyclical market movement resulting in seven global “merger waves”. These waves represent a sequence of time periods during which

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M&A activity is abnormally high (Rhodes-Kropf and Viswanathan, 2004). The roots of this phenomena have been changing constantly. However, it is important to understand their drivers in order to comprehend the future M&A market better. Hence, hereinafter a brief overview will be given. The first merger wave took place from 1897 until 1904 and was mainly driven by the industrial revolution and the economic expansion that came with it. Most M&A occurred on a horizontal level within industries that profited heavily from the steel boom. However, the panics of 1904 and 1907, together with an American Supreme Court decision in 1904 which restricted firm acquisitions, caused a halt in M&A activities (Stigler, 1950). The second wave lasted from 1919 until 1929 and occurred in a similar manner to the first wave. Further consolidation in the heavy industry was observable. However, mergers shifted away from a horizontal direction towards a vertical direction. Nonetheless, M&A activities plummeted in 1929 with the beginning of the Great Depression. The third wave, which took place from 1955 until 1969, was characterized by the formation of mayor conglomerates. Many companies aimed to diversify their business as much as possible in order to obtain greater growth. However, after the crash of several conglomerates in 1969 M&A activity declined significantly (Shleifer and Vishny, 1991). The fourth wave developed around 1974 and climaxed in a crash in 1989. During this period many companies carried out hostile takeovers with the help of the financial industry. Substantial amounts of leverage were used for M&A transactions. One of the prominent cases was the leveraged buyout of RJR Nabisco which unveiled questionable practices within the market and ultimately put an end to the merger wave (Pazarskis et al., 2011). The fifth wave took place from 1993 until 2000 and was characterized by “mega-deals” within the “new economy”. Companies tended to

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believe “the bigger, the better” and formed immense entities. Until this day 5 of the 10 biggest M&A deals by transaction value took place during this period⁷. However, the merger wave concluded in the early 2000's with the burst of the dotcom bubble (Sudarsanam, 2010). The sixth wave followed shortly afterwards in the year 2003 and finished during the Great Recession of 2008. The wave was mainly driven by prevalent low interest rates and financial investors. Furthermore, it is important to mention that M&A became a lot more popular in a variety of developing markets during this time. The last wave, which many researchers have found from the year 2014 until today is characterized by a number of transnational transactions and an ongoing globalization process⁸. Ultimately, it is worth noting that these merger waves describe the history of the global M&A market. Due to specific market conditions only two major merger waves have been detected for the case of Latin America. The first wave occurred during the time from 1995 until 2002 with a slight decrease between 2000 and 2002 while the second wave took place from 2003 until 2010. Several macroeconomic variables like the domestic interest rate, gross domestic product (GDP) growth, and the unemployment rate, in combination with the development of the global M&A market have been detected as the principal drivers of these waves (Córtes et al., 2017). These regional merger waves have made it important to stress the significance of today's M&A activity in Latin America. While the number of transactions in this particular region grew by 199% in recent years, the global market experienced a surge

⁷ Accounting for Inflation.

⁸ The ongoing Corona crisis has led to a significant decline in M&A activity, especially in emerging markets. However, industrialized markets are starting to recover.

of only 67% during the same period (Córtes et al., 2017). Hence, Latin America plays a more relevant role on the international M&A stage today.

3 Literature Review

Academic literature on M&A has a longstanding history and vast sections of its development and efficiency have been investigated. Furthermore, a variety of attributes have been identified which contribute to a successful M&A transaction. The methodology used to evaluate M&A is rather broad and grasps a variety of aspects. However, the majority of research has been done for economically developed regions like North America and Europe. In the following a few important findings will be presented.

3.1 Event date

Many studies have found that in order to evaluate the impact of M&A on shareholder value, it is favorable to review movements around the announcement date rather than the closing date since rational markets are able to foresee possible outcomes and prices shares accordingly. For example, a study conducted by Eccles et al. (1999) concludes that while significant negative abnormal returns are observable on the announcement date, only insignificant effects are found at the closing date. Other researchers like Andrade et al. (2001), or Agrawal and Jaffe (2000) obtain similar results. The latter reviews 22 different papers and comes to the conclusion that significant abnormal returns are observable around the announcement date while normal negative returns are usually found in the long term.

3.2 Development of shareholder value

Furthermore, innumerable studies regarding the development of shareholder value of companies engaging in the M&A market have been conducted. The overwhelming majority of researchers has found a clear positive impact on the target side. For example, Jensen and Ruback (1983) reviewed 13 different studies which provided information regarding abnormal returns of target companies around the announcement date of the M&A transaction and all of them found significant positive returns between 6,2% and 34,2% with different timeframes observed. Results for the acquiring firm, on the other hand are not as clear. Högholm (2016), for example, finds, among a sample of 51 Finnish companies, positive abnormal returns shortly after the announcement date of a M&A transaction. However, the findings are not statistically significant wherefore he concludes that returns move around 0. Bhagat et al. (2005) and Zrilic and Hoshino (2007) obtain similar results for the North American and Japanese market. However, a multitude of studies, like Sirower (1997), Moeller et al. (2003), and Hackbarth and Morellec (2008), have also found negative abnormal returns shortly after the acquisitions. Sirower (1997) finds that 66% of acquirers destroy part of their own value around the announcement date. He primarily locates the root of this failure within the excessive premiums paid and the delayed, and often scarce, synergy cash flows which result for the combined entity. Moeller et al. (2003) on the other hand suspect that the value destruction on the acquiring side is often independent of the M&A transaction, and more prevalent during specific periods of

time. While their sample shows a loss of 12% for acquirers between 1998 and 2001⁹ only 1,6% were lost throughout the 1980's. They conclude that only a few high value deals are causing the negative return average. The flaws of these deals are diverse but in most of the cases it appears that the acquirer was overvalued prior to the M&A and the transaction simply revealed the real value of the firm. Lastly, Hackbarth and Morellec (2008) who primarily investigated the development of the company beta around the announcement date of a M&A, found for a sample of 1086 US companies a significant negative return in the short term.

3.3 Impact of time variable on outcome

Similar to the study mentioned by Moeller et al. (2003), various others have shown that significant differences in success rates of M&A transactions are observable depending on the time of their realization. For example, Mentz (2006) found that transactions within the automotive supply industry resulted in no significant value change between 1981 and 1992. However, from 1993 until 2003 acquisitions obtained positive returns around the announcement date on average. Analogically, Kaup (2009) showed for a sample of globally active companies within the logistics industry, that success of M&A transactions is time variant: From 1999 until 2002 the examined firms obtained abnormal positive returns of 3,25% during an event window of [-20;20]. However, from 1991 until 1994 results showed a significant abnormal return of -5,02% for the same event window.

⁹ With losses on the acquiring side exceeding benefits on the target side.

3.4 Impact of industry variable on outcome

Further questions which several researchers have tried to answer is if M&A within specific industries are able to create (or destroy) more value than in other industries and, if cross-industry (non-horizontal) mergers are less or more efficient than others. Early academics, who argued that certain characteristics of particular industries lead on the one hand to greater M&A activity and on the other hand to a higher success rate of M&A were Mitchel and Mulherin (1996) and Mulherin and Boone (2000). Kirchhoff and Schiereck (2011) and Schweizer (2002) showcased this for the biotechnological industry which is distinctively active in the M&A market. They find that transactions tend to destroy value around the announcement date. Yet, they conclude that they present an essential and effective tool to strengthen the position of many firms since they seek other advantages like sales synergies which are especially important for biotechnological companies. Other academics like Mentz (2006), Beitel (2002) and Schulte (2020) obtain comparable results for other industries. Studies which investigate the effect of cross industry M&A are generally opposed to industry specific studies since they are not able to filter out the effect of industry specific factors. Quan and Yue (2018), for example, highlight the importance of cross industry M&A and their ability to create value for a variety of industry combinations within the Chinese market. Consequently, the authors do not locate success factors within individual industries.

3.5 Impact of transaction volume variable on outcome

Another characteristic which has been investigated by a number of scholars is the impact of the transaction volume on the success of M&A. High volumes may imply more complex deal structures and therefore complicate the integration process and lower returns (Steigenberger, 2016). Moreover, high volumes indicate large acquirer firms. Thus, some authors have argued that larger companies have less efficient organic growth potential and therefore turn towards the M&A market which results in reduced value creation based on inept transactions¹⁰ (Moeller et al., 2003; Shao, 2013; Fama and French 1993). However, empirical studies have not been able to confirm a sole negative relation between transaction volume and M&A returns. In his study on 219 M&A transaction in the European telecommunications sector Lenhard (2009) finds a nonlinear impact of the transaction volume on the abnormal return around the announcement date. For volumes lower than 1 billion USD the abnormal return is -10,13%, volumes between 1 and 30 billion USD result on average in returns around -4,18% and transactions with volumes higher than 30 billion produce abnormal returns of -5,33%. However, due to certain characteristics of the last group he concludes that higher volumes are usually related to more negative returns. Kaup (2009) and Pauser (2008) on the other hand find that larger M&A transactions within the logistics and construction industry respectively, result in significantly higher returns based on augmented synergy potential. Consequently, no straightforward conclusion regarding the relationship between abnormal returns and transaction volume can be drawn.

¹⁰ Because valuable transactions are exhausted for larger firms.

3.6 Impact of geographical variable on outcome

Furthermore, the answers of academic researchers to the question if geographical factors like national vs. cross-national M&A transactions play an important role for the success of M&A transactions does not provide a clear picture to this day either. On the one hand, cross-national M&A may enable tax- and exchange rate advantages while also allowing for greater diversification but on the other hand they can also entail geographic distance and create cultural and language barriers which may harm proper functioning of operations. Generally speaking, geographic factors can be divided in three groups which should be evaluated for each country: (1) economic factors (2) political factors (3) socio-cultural factors (Meyer, 2011). Empirical studies regarding the differences between national and cross-national M&A come to different conclusions regarding their efficiency: Shao (2013) investigated the change of shareholder value for US companies engaging in domestic and foreign M&A. His study concludes that while both types of transaction result in positive abnormal returns for the acquirer around the announcement date (1,2% and 0,52%), the benefit of domestic deals is considerably higher. Lundin and Lundberg (2017) on the other hand obtained significant negative results for Swedish high-tech firms engaging in the domestic M&A market and abnormal positive returns for cross-national transactions which is similar to the results found by Lenhard (2009). Consequently, the weighting of different geographical factors remains unclear and further investigations will be crucial in order to obtain a clearer picture.

3.7 Impact of Payment Type on Outcome

The bulk of existent literature agrees that, in the majority of cases, the payment type is used as a form of risk management which reveals important information regarding the current position of firms participating in an M&A transaction and therefore has a meaningful impact on the outcome (Chevalier and Redor, 2008; Schlingemann, 2004). However, academics remain divided in terms of the direction of the effect on shareholder value. While Jensen (1986), Alexandridis et al. (2010) and Ladkani and Banerjee (2013) state that if a company possesses large amounts of cash and debt raising capacity is not exhausted, then equity should be avoided as a payment method since it empirically tends to result in less creation of shareholder value. This is mainly due to the signal which the market receives through the announcement. Furthermore, Faccio and Masulis (2005) found that cash will also be preferred by management since controlling mechanisms (and ownership) remain stable. However, other researchers like Eckbo and Langohr (1989) and Harris et al. (1987) conclude that stock payments are often times less costly due to tax benefits while Alshwer et al. (2011) adds that stock payments may also be a crucial necessity if net positive M&A transactions are hindered by financial constraints on the acquiring side. Regarding a combination of cash and equity as a payment method, academics like Boone et al. (2014) have stated that a sharp rise in the number of transactions can be observed over the course of recent years indicating a favorable view on this type of payment. However, the immediate observable effect on shareholder value is unclear due to unique proportions within each transaction (Sankar and Leepsa, 2018).

3.8 Literature on Latin America

To this date, the literature reviewing specifically the state of Latin American M&A is relatively scarce. However, the combined literature on M&A in emerging markets is quite extensive and has been advancing rapidly within the last years. Córtes (2017) found that M&A activity occurred in the Latin American market in two waves: from 1995 until 2002 and from 2003 until 2010. Furthermore, macroeconomic variables like GDP growth and unemployment rates are more capable in explaining formation of merger waves rather than company or industry specific variables. Moreover, a literature review carried out by Bohada and Romero (2019) finds significant value creation on the side of acquirers for Latin American countries with the majority of transactions taking place in the principal economies of the region, according to their GDP: Argentina, Brazil and Mexico. Additionally, essential industries like the mining, gas, oil and metals seem to be more active in the M&A market. Regarding the development of shareholder value Córtes et al. (2015) state that while the majority of airlines, reviewed between 1996 and 2013, managed to obtain abnormal positive returns between 0,28% and 2,02% after announcing an acquisition, which are in some cases significant, in other occasions negative abnormal returns were observable. Consequently, no precise prediction of the effect of M&A on acquirer's shareholder value could be made. Furthermore, Rochman and Arbeleche (2009), who investigate the development of shareholder value depending on the country of origin find notable differences for each country. Their study, regarding 429 different companies in a variety of industries concludes that while Argentinian and Mexican firms tend to

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obtain significant negative returns in the long term after announcing a M&A transaction, Chilean companies obtain significant positive returns. The results for other countries, however, do not present abnormal returns in the long term. Similar results have been found by Sevindik and Gökğöz who investigate changes in shareholder value for emerging markets, namely the BRICS (+Turkey) states, before and after the financial crisis of 2008. Due to the fact that some countries always show positive abnormal returns while others tend to show negative returns, they conclude that the success of M&A transactions is country dependent. Finally, it can be concluded that the state of the art regarding M&A activity is partially contradictory and the impact of several factors remains unclear. Therefore, this paper strives to add to existent literature in order to enhance future debates and clarify certain aspects.

4 Methodology and Data

The following chapter is divided into two parts. While the first section presents the Event Study methodology which will be used to evaluate shareholder value of the acquiring firm around the announcement date of a M&A transaction, the second section gives a brief overview of the data used and describes its composition.

4.1 Methodology

Event studies, similar to academic research on M&A, have a longstanding history. While the methodology can probably be traced back to Dolley (1933) it has developed over time and was eventually applied by Fama et al. (1969) in a similar manner that

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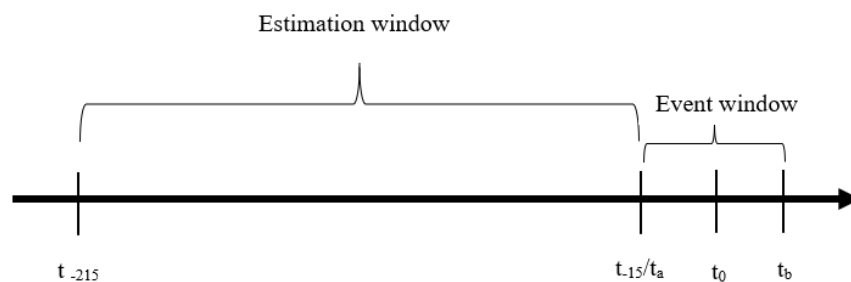
will be used for this study. Event studies, in contrast to other methodologies like comparison of multiples or other financial indicators, are focused on the development of a firm within capital markets and measure its position or valuation around a specific event. Furthermore, the valuation of firms is based on two principal assumptions. First, stock prices reflect future cash flows towards shareholders. Consequently, changes of stock prices display altered expectations of the market regarding the capability of the company to create value for its shareholders. Second, efficient markets prevail. According to Fama (1970) in efficient markets stock prices reflect all information regarding the future and past of a company and consequently reveals the intrinsic value of the firm. Therefore, new information in form of a M&A transaction are reflected in price changes and lead to a new equilibrium price which evaluates the acquisition. The event-study methodology measures this change of the equilibrium price in the form of abnormal returns (AR) which occur during a specified time frame. According to the theoretical framework the valuation change should occur immediately. However, in the real world, markets take some time to process information properly. Thus, a prolonged event window serves to observe the effect of information changes on the valuation in form of stock prices. In order to calculate abnormal returns the difference between expected stock returns, which are based on pre-announcement information and observed stock returns, which include the information of the M&A transaction, is calculated. In case the abnormal returns are positive, the new information leads the market to believe that future cash flows, and therefore shareholder value, increase through the transaction. If abnormal returns are negative, the contrary is the case.

4.1.1 Approach

The structure of an event-study usually follows a set design: First the event date is defined. The precise determination of this date is crucial since the objective of an event study is to determine the immediate impact of a matter (in this case the M&A transaction), which occurred at a specific date, on stock prices. For purposes of this paper the announcement date will serve as the event date since it represents the M&A in an appropriate manner and, as research has shown, the reaction of markets tends to occur around the announcement date rather than the completion date which some academics have also used as the event date. Furthermore, the event date is defined as t_0 which will be important for further calculations. In the next step the event period or event window is specified. This period describes the time frame surrounding the event (M&A transaction) and is necessary since markets do not incorporate changes in a single moment or day but rather take some time to evaluate the event. Consequently, a few days or months prior to the event date are examined to detect if the market anticipated the M&A in some way. Moreover, a few days or months following the M&A are studied in order to disclose the market reaction towards the transaction. Among academic researchers, no consensus regarding the appropriate time frame of an event window exists. However, it appears clear that a shorter time frame leads to further precision and less potential of involuntarily observing price reactions which are not caused by the specific event. A larger event window, on the other hand, may be able to detect further reactions of the market which may occur due to newly related facts that surge around the transaction. However, it also bears the potential risk of diluting the direct impacts of the M&A. Hence, in order to find an appropriate equilibrium, the maximum event window studied throughout this paper is set to 15

trading days prior to the transaction and 15 days after the transaction (denoted as [-15;15]) with further event windows studied that lie within this time frame¹¹.

After defining the event period, it is necessary to delineate an estimation period. This interval is used to calculate the parameters α and β in order to estimate the expected development of the stock (normal returns), independent of the transaction. Consequently, it is important that the M&A had no impact on stock prices throughout this period. Usually, the dates just prior to the event window are used since they represent the current state of the company in the most adequate manner while also considering past developments of the firm. The parameters resulting from the estimation window are assumed constant throughout the event window. For the purposes of this paper an estimation window of 200 trading days, preceding the event window are used in order to calculate the expected return of the stocks.



Source: Own representation

Figure 1: Required timeline for an event study

Various models may serve in order to calculate the expected return of a stock, based on data derived from the estimation period. Therefore, academics do not specify a

¹¹ The event windows applied for throughout this paper are [-15:15], [-7:7], [-3:3], [-1:1], [-1:0], [0:0], [0:1] and [0:5].

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single perfect model since all show some advantages and disadvantages. However, this paper will use the single index model or market model which was, based on the work of Markowitz (1952), developed by Sharpe (1963) and since then has been applied by vast research on M&A. The market model is a single factor model based on the premise that the market is the most relevant factor in order to reliably explain the normal development of a stock. Furthermore, the relation between stock returns and the market is linear and can be described as follows:

$$R_{i,t} = \alpha + \beta_i \cdot R_{m,t} + \varepsilon \quad (1)$$

Here, the intercept α represents a company dependent factor which helps explain the return of firm i . β , on the other hand represents the impact of the market on company i while R_m stands for the observable market return¹². Lastly, ε stands for an error term for past returns which is not explained by the regression. In order to obtain the parameters α and β of each individual company a simple OLS regression is run over the estimation window. Subsequently, α and β are adopted in order to calculate the expected return $E[R_{i,t}]$ for the dates within the event window, making use of the observed market returns¹³

$$E[R_{i,t}] = \alpha + \beta_i \cdot R_{m,t} + \varepsilon \quad (2)$$

Furthermore, it is important to mention the way in which the observed returns, which are essential for the estimation of expected returns and throughout the event window, are calculated. Observed returns may be compounded in two different ways: Discretely

¹² Throughout this paper, the respective MSCI Index will be used as a proxy for market returns.

¹³ Here, it is important that the relation between the market and the company, represented by β is assumed constant.

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and continuously. While the first creates a weighted sum of all values composing the examined portfolio, the latter are returns compounded additively along the used timeline and therefore describe the continuous interest rate between the initial value and the final value (resulting in a normal distribution of returns). However, considering interest effects leads to a systematic understatement of average returns of portfolios which is why for example Dorfleitner (1999) recommends using discretely compounded returns¹⁴. These returns are calculated in the following manner:

$$R_{i,t} = \frac{K_t - K_{t-1}}{K_{t-1}} \quad (3)$$

With K_t being the stock price of stock i at moment t .

Lastly, the matter of interest of an event study in the form of abnormal returns is calculated. As mentioned earlier, they represent the difference between the observed return which is obtained in a discrete manner throughout the underlying event window and the initially expected return, calculated through the market model. Consequently, they isolate the reaction of the market towards the originally unknown event, here the M&A transaction, from the expected development of the stock. Their calculation can be described mathematically in the following way:

$$AR_t = R_{i,t} - E[R_{i,t} | \Omega_{t-1}] \quad (4)$$

With Ω_{t-1} being the information available at point $t-1$.

¹⁴ This understatement may in some cases be negligible due to absolute changes close to 0

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For purposes of this paper abnormal returns of individual firms, which are obtained through the event study, will be aggregated to certain groups which are of interest for the investigation. For example, all transactions are divided in groups depending on the country of origin of the acquiring firm in order to find out if certain countries produce higher or lower abnormal returns. In order to do so, the average abnormal return (AAR) of all companies (N) forming part of the specific group is calculated for each point in time t . This can be done in following manner:

$$AAR_t = \frac{1}{N} \cdot \sum_{i=1}^N AR_{i,t} \quad (5)$$

After gathering the average abnormal returns for each group of interest, they need to be aggregated according to the event window which is observed in order to obtain the cumulative average abnormal return (CAAR). Here, various methods can be useful. However, this paper will make use of the additive method outlined by Fama et al. (1969) which simply adds up the average abnormal returns of group j for each point in time t throughout the event window. For this, the following formula is used:

$$CAAR_j = \sum_a^b AAR_t \quad (6)$$

where a and b are equal to the first and last day of the event window respectively.

In a last step, after obtaining the variables of interest of this paper, the AAR and CAAR through the event study, it is essential to verify their significance in order to

statistically prove that their appearance is not random. In order to do so a parametric test like a t-Test appears appropriate. This type of test is based on the following hypothesis:

$$H_0: CAAR = 0$$

$$H_1: CAAR \neq 0$$

Moreover, the t-value which follows the regular Student's t-distribution is calculated in the following manner:

$$t = \frac{CAAR(a, b)}{[\hat{\sigma}^2(a, b)]^{0.5}} \quad (7)$$

Consequently, if the H_0 hypothesis can be rejected, the results in the form of the CAAR are significant. However, due to the fact that much research has been performed around the question of an appropriate parametric significance test for event studies, it is important to mention a few factors which need to be kept in mind when conducting such a test. First, this test usually requires a normal distribution of the returns which is most likely not the case. However, if observations are independently and identically distributed and the sample size is sufficiently large it can be assumed that the normal distribution restriction does not hold. Second, a discrepancy between the variance observed for the estimation window and the variance of the event window can result in a not rejected H_0 hypothesis when it should have been rejected. Third, collinearity between returns of different companies needs to be considered. For example, if firms which form part of the same industry, are affected by the same incident in a similar

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manner, collinearity may result (Meyer, 2011). In order to address these problems, Patell (1976) and Boehmer et al. (1991) have developed further significance tests. However, due to the fact that these tests still lack completeness the academic debate on an appropriate approach has yet to be continued and this paper will make use of a modified t-Test which is in line with other modern studies like Griffin (2015) and Andersson (2020). The application of this test has been described prominently by Princeton University (2008) and by using robust estimations the problem of heteroscedasticity becomes negligible. Furthermore, based on the total sample size of 296 independently and identically distributed transactions of this paper it can be refrained from the restriction of a normal distribution of returns. However, the t-Test is not appropriate for several subsamples investigated throughout this paper, which provide an insufficient amount of observations and therefore normality cannot be assumed. Hence, a further non-parametric test, namely the Wilcoxon-signed-rank¹⁵ test was applied in order to investigate the statistical significance of corresponding results. In line with Brown and Warner (1985) who find that, in order to fulfill the normality requirement of the general t-test a sample of at least 30 observations is required, the Wilcoxon-signed-rank test was applied to all subsamples below this threshold¹⁶. Lastly, in order to address the problem of collinearity, only one transaction per trading day was used for the sample, eliminating transactions with the smallest deal value.

¹⁵ Applying modifications presented by T. Harris and J. W. Hardin (2013) suitable for smaller samples.

¹⁶ Subsamples with less than 5 observations were omitted from significance testing procedures.

4.2 Sample description

The data on M&A transactions which will be used for this paper was obtained from the EIKON by Thomson Reuters database and includes M&A transactions for which the acquiring firm maintains its headquarters within a Latin American country. Furthermore, the data for the daily stock prices of the acquiring firms was also gathered from EIKON. For purposes of this paper data on all M&A transactions which were announced between 1.8.2001 and 31.12.2019 and completed by 1.7.2020 were considered. During this time frame the market for M&A developed significantly in Latin America. Moreover, only transactions for which the acquiring firm was publicly listed at the moment of the transaction form part of the data set. This is especially important in order to obtain reliable data on stock price movements which are caused by the transaction. Furthermore, only share deals which resulted in a transfer of 100% of the target shares were used for the sample. This guarantees the full transition of controlling rights and therefore assures that the transaction is considered a M&A in accordance with any definition of such a transaction. Additionally, only transactions with a value of at least 1 million USD form part of the used data set. The threshold is set in order to assure a certain relevance of the transaction for the acquiring firm since smaller transactions may have too little impact and therefore cause no meaningful change on stock prices of the acquiring firm. Moreover, only transactions for which the acquiring firm was at least 215 days prior to the transaction and 15 days following the transaction publicly traded were considered in order to conduct the event-study method consistently. Furthermore, as described earlier, for each trading date only one transaction is used throughout the sample. If more than one transaction occurred on

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the same date only the M&A with the highest deal value is used. In case an individual firm carried out more than one M&A and their corresponding event windows overlap only the earliest transaction forms part of the sample. Moreover, the companies and their stock price were examined in order to find confounding events which impact the valuation within the time frame of the event window but are not related to the M&A, such as equity issues or larger asset sales. Cases where such an event was detected were also deleted from the sample. Lastly, it is important to mention that no restrictions regarding the payment type were made. After applying all necessary restrictions, a sample of 296 M&A transactions was obtained. The sample consists of 175 different acquiring firms which are located in 10 different countries and are active in 34 different industries.

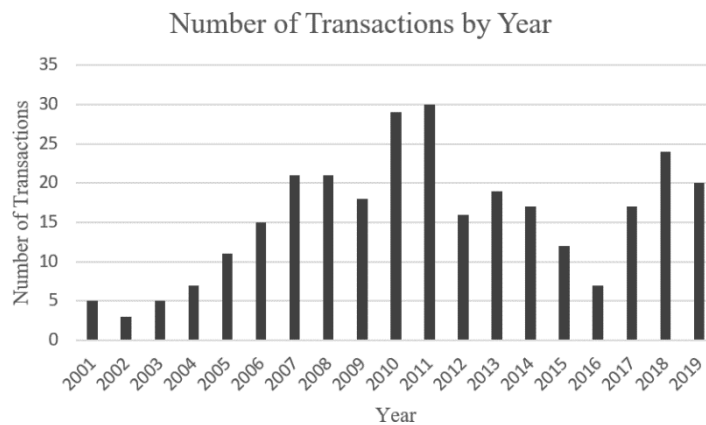
4.2.1 Temporal focus

The evaluation of the data sample regarding the temporal focus will be conducted in two steps. First it will be divided according to the years in which the M&A transaction occurred and second according to the month.

4.2.1.1 Years

As can be seen in figure 2 the number of M&A transactions in Latin America has followed a wavelike trend which confirms the findings of Córtes et al. (2017). However, it is important to note a few particularities. First, an almost continuous upwards trend is observable from 2002 until 2011. However, this trend experienced slight deviations throughout the years of the Great Recession which is in accordance to the assumption that M&A activity occurs analogically to general economic

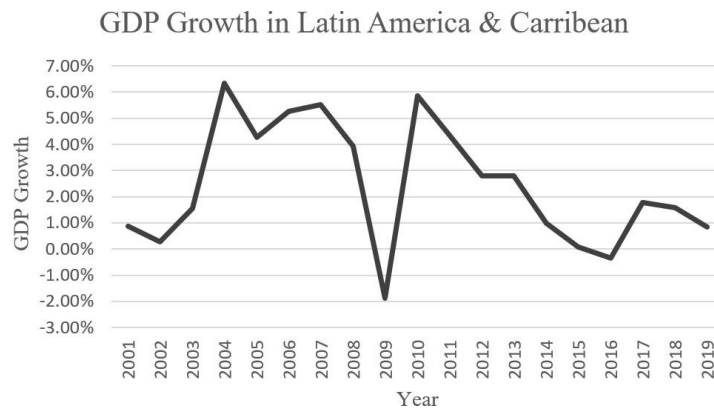
development (Shleifer and Vishny, 2003). Second, an abrupt drop of transactions of almost 46,6% can be observed for the year of 2012. This halt in activity seemingly initiated a downwards trend which continued until the year 2016 and is in line with the development of GDP growth for the region as can be seen in figure 3. Third, after 2016



Source: Own presentation based on Eikon data

Figure 2: Number of transactions for all years forming part of the sample

it appears that on the one hand economic growth and on the other hand M&A activity in Latin America seems to experience a meaningful boost. Consequently, GDP growth seems to be an adequate indicator for the development of the number of M&A transactions in Latin America throughout the observed time frame.



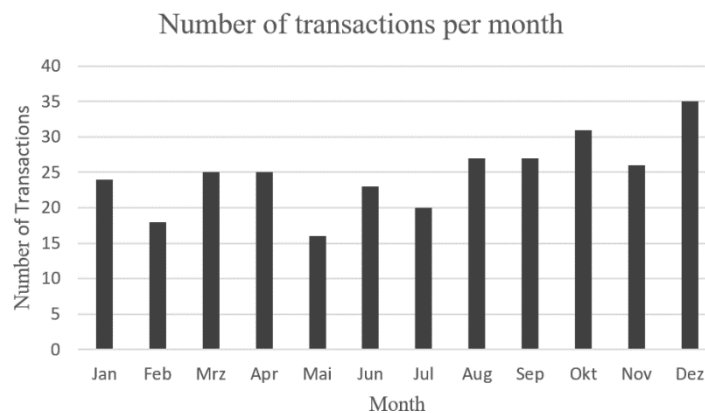
Source: Own presentation based on World Bank data

Figure 3: GDP growth in Latin America & Caribbean

4.2.1.2 Month

Figure 4 depicts the number of M&A transactions in Latin America according to the month in which the transaction was announced. At first sight, no explicit trend can be detected. However, it appears that the amount of transactions tends to be higher within the second half of the year. Excluding July, the minima of the second semester (November) lays above the maxima of the first semester (March & April). Furthermore, the global maxima can be found in December while the global minima occurs during the month of May with a difference of about 118%. As Meyer (2011) has stated, this seasonal development of the M&A market may be caused by publishing

practices of annual financial statements which provide fundamental information regarding the situation of a company and may therefore be necessary in order to make a competent decision regarding a M&A. Lastly, when looking at the days of the week, it is worth mentioning that various academics find the majority of M&A announcements on Mondays¹⁷. The reasoning behind this is to allow the market to price the shares of the participating companies in a timely manner while executives also hold positive expectations regarding their transaction (Siganos and Wu, 2016).



Source: Own representation based on EIKON data

Figure 4: Number of transactions by month

4.2.2 Geographical focus

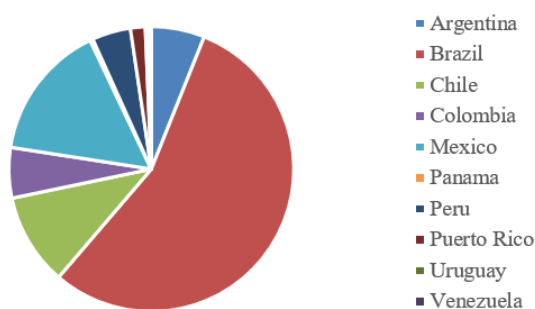
In order to evaluate the success of a M&A transaction geographical factors can play an important role as well. While some countries may provide a proper political and economical framework to carry out M&A transactions, this may not be the case in other countries or subregions¹⁸. Furthermore, the question if national or cross-national transactions lead to better results has been asked by a variety of researchers with no

¹⁷ Which is why they are also called Merger Mondays.

¹⁸ Such as the Pacific Alliance or the Mercosur.

clear answer to this date. For the case of the Latin American sample used by this paper a total of 10 different countries are observable for the acquiring company. However, as can be seen in figure 5, in 55,2% of the transactions the purchasing firm was from Brazil making this country the initiator of more than half of the region's transactions. Moreover, the three most active countries, Brazil, Mexico and Chile, account for more than 80% of the regions M&A which is a remarkably high share. However, as can be derived from figure 6 the number of transactions of each country is also reasonably proportional to the respective shares of the regions GDP, with the only exceptions being Chile and Venezuela. While for the first the number of M&A is unproportionally high for the latter it is unproportionally low. Consequently, it can, once again, be assumed that M&A activity occurs similar to the general development of a country's economic development.

Share of transactions by acquirer nation



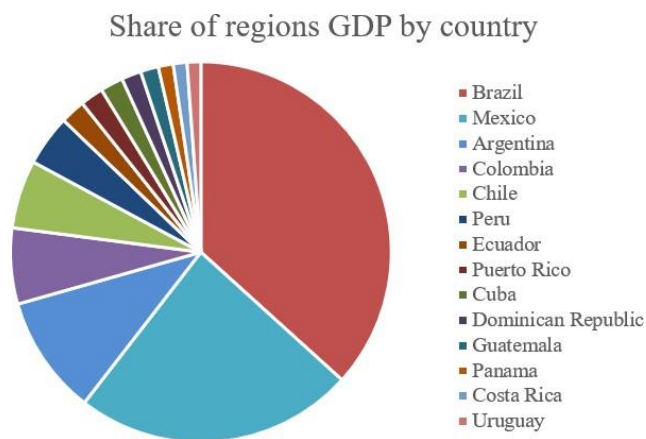
Source: Own representation based on EIKON data

Figure 5: Distribution of acquirer's origin

Regarding the country of establishment of the target firms it is important to note that the sample consists of 22 which is considerably higher than the number for the acquiring firms pointing towards a tendency of diversification and internationalization of companies which are active in the M&A market in Latin America. Furthermore, 31

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target firms or 10,4% of the sample are located outside of Latin America and within globally important economies like Spain, Australia or the United States which may indicate profound development of the Latin American market and its readiness to compete globally. However, similar to the samples used by other studies like Bohado and Romero (2019) the bulk of transactions remains within the region in order to strengthen the local presence.



Source: Own representation based on World Bank data

Figure 6: Share of region's GDP by country

Lastly, it is worth noting that for 71% of all M&A the acquiring firm and the target firm were established within the same country and consequently it is considered a national transaction. Accordingly, 29% of the of the sample contains cross-national transactions.



Source: Own presentation based on EIKON data

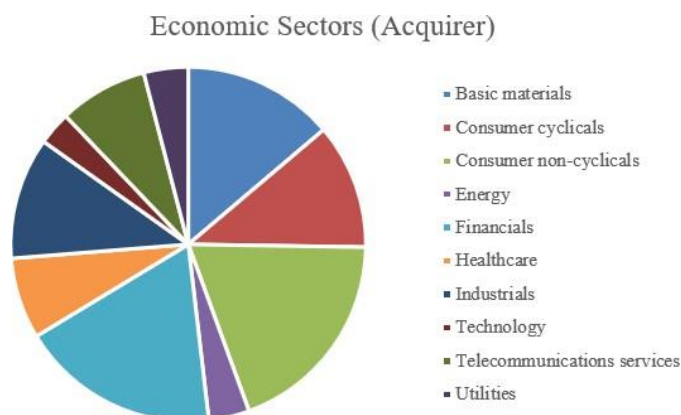
Figure 7: Distribution of target's origin

4.2.3 Industry focus

In order to evaluate if the direction of a M&A deal or the sector and industry affiliation of a company has a meaningful impact on the economic outcome of a M&A transaction, this paper will also take a closer look at the industries in which the involved companies are active. In a similar manner, to academics like Meyer (2011) transactions in which the industry is the same for the acquirer and the target, are considered horizontal M&A while transactions for which only the economic sectors are the same are considered vertical M&A. Lastly, transactions in which the economic sector does not coincide for the acquirer and the target are considered conglomerate mergers. The line of reasoning behind using affiliation to a specific industry as a proxy for a similar or diverse business orientation of participating firms is simplified but manages to capture the general direction and is therefore suitable. The information regarding the industries of the firms which form part of the sample are based on the assessment provided by Thomson Reuters. First it should be noted that all ten sectors which are available according to the classification used are represented in the sample.

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As can be seen in figure 8 and figure 9, companies within the economic sectors “Consumer non-cyclical” & “Financials” carried out the majority of M&A for the time observed. This holds for the buyer and the target side in an equal manner with 19% & 18% and 20% & 18% of all transactions respectively. However, on the acquiring side the technology sector was the least active on the M&A market while on the target side the energy sector was the least active¹⁹. The general distribution of the economic sectors provides a similar picture for the acquiring side and the target side. Consequently, the impression that few conglomerate mergers exist within the sample arises. This can also be confirmed by the numbers which show that only 24% of the transactions occurred between companies belonging to different economic sectors.



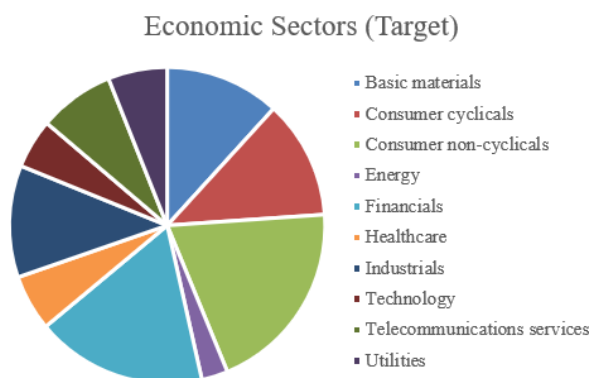
Source. Own representation based on EIKON data

Figure 8: Acquirer's Sector

Regarding the industries which form part of the sample a mismatch between the number on the acquiring side and the target side should be noted first. While the first

¹⁹ Measured in number of transactions.

group contains 34 variables, the second consists of 40 variables. Hence, the target firms are active in a wider range of industries which indicates a tendency of heterogenization

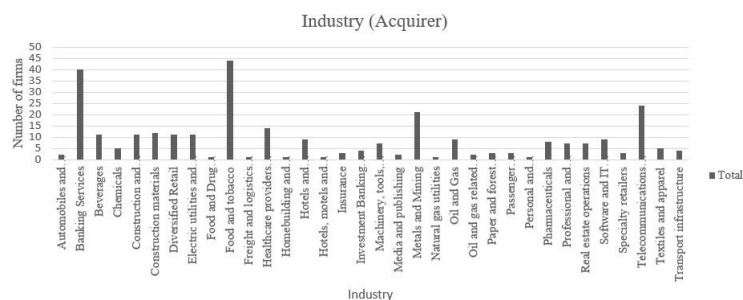


Source: Own representation based on EIKON data

Figure 9: Target's Sector

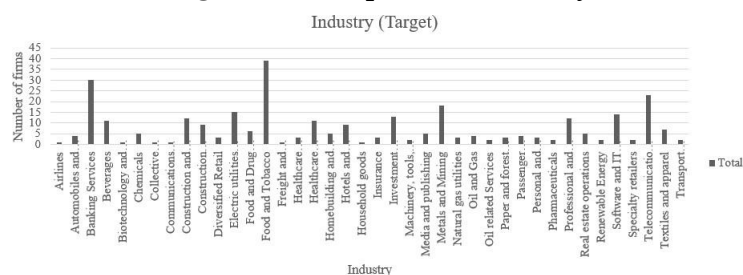
through M&A. Furthermore, as can be seen in figure 10 and figure 11, most firms who engage in the M&A market belong to the Food and Tobacco industry. This holds for the buyer side and for the target side. The general distribution of industries does not appear as similar between the two groups as it was the case for the economic sector. Thus, the initial impression of further diversification within the same economic sector strengthens. When looking at the numbers, it becomes clear that while the vast majority of M&A transactions still occurred between companies which are active in the same industry, the number is lower than what was found the economic sector: 32% of the transaction in the sample were conducted between companies belonging to different industries, and in 68% of the cases the participating firms were active in the same industry. Consequently, it can be concluded that throughout the sample 68% of the transactions are considered horizontal M&A, 8% are considered vertical M&A and 24% are classified as conglomerate mergers.

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Source: Own representation based on EIKON data

Figure 10: Acquirer's Industry



Source: Own representation based on EIKON data

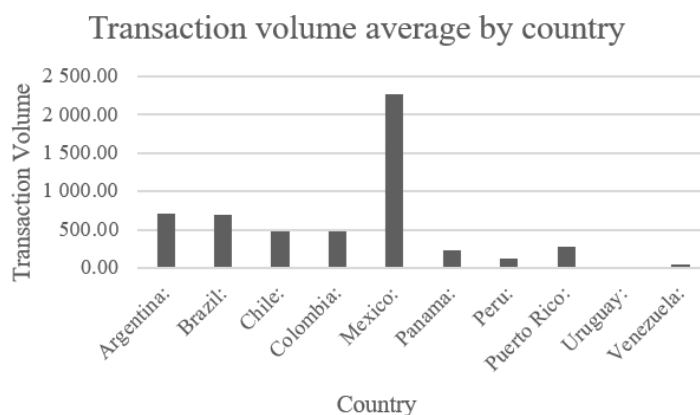
Figure 11: Target's Industry

4.2.4 Transaction volume focus

The next variable, which this paper evaluates, in order to reveal its impact on the economic success of a M&A is the transaction volume. The volume is based on the purchase price disclosed by the participating companies and compiled by Thomson Reuters²⁰. Here it is important to keep in mind that several target firms were not publicly traded prior to the transaction. Consequently, the transaction value is the only observable monetary variable unlike other factors such as the premium paid or the deal value. As mentioned before the sample is subject to the restriction of a transaction volume of at least 1 million USD. Thus, a range of volumes between 1,39 million USD and 31.756 million USD results. The volume average including all transactions is 867,38 million USD which seems to be relatively high and strongly driven by

²⁰ Other costs like consultant fees are not incorporated.

transactions for which the acquirer is located in Mexico as can be seen in figure 12. In order to investigate the impact of the transaction volume the entire sample was divided in quartiles. Thus, the first quartile is composed of the 25% of transactions which showed the lowest volume while the fourth quartile consists of the 25% of transactions which showed the highest volume. The reasoning for the second and third quartile is analog. As table 1 shows, an important difference of 1071% between the average of the third and the fourth quartile exists. The main drivers of this steep rise are a few very high-volume transactions within the last quartile while the rest of the sample is fairly evenly distributed.



Source: Own representation based on EIKON data

Figure 12: Average transaction volume by country (Million USD)

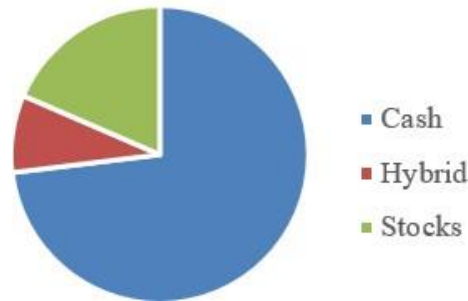
	Average Transaction Volume
First Quartile	14,06
Second Quartile	62,70
Third Quartile	290,64
Fourth Quartile	3113,67

Table 1: Average transaction volume by quartiles (M USD)

4.2.5 Payment method

Lastly, the impact of the payment type on the development of the shareholder value of the acquirers will be evaluated. As described earlier, the payment method provides insights regarding the perception of managers who often possess high amounts of information on the current state of their company. Consequently, their actions entail a crucial signaling effect. However, the direction of this effect may not always be clear since various opposing factors need to be considered. The underlying sample of this paper consists of three major payment methods. While the vast majority of transactions was paid with cash (73%), a few transactions were also carried out using stocks to pay (18%). In the case of the latter, oftentimes a stock swap transaction occurred during which the owner of the target company exchanged their own stocks for a preemptively determined amount of stocks of the acquiring company becoming a co-owner of the combined entity. In these cases, the stock swap ratio is usually determined by variables observable on the last trading day prior to the announcement day (e.g., shareholder value), showing once again that based on efficient markets the reaction of the market is expected to occur primarily around the announcement date. The last group of transactions which are considered “hybrid” consists of the cases where the M&A was conducted using a mixture of cash and stocks (8%). In a few instances the primary compensation were stocks while in others it was cash. Here, no clear tendency of the exact composition can be observed.

Payment Method



Source: Own representation based on EIKON data

Figure 13: Distribution of payment methods

5 Results of the Event Study

The following chapter presents the findings of the event study, based on the previously described sample for Latin American firm acquisitions. The drivers of the revealed value effects for the acquiring shareholder are in several parts significant and shall consequently be considered when conducting M&A transactions. At first, the results of the complete sample are presented while in a second step each factor which potentially impacts the economic success from a capital market perspective is evaluated. In order to recognize contrasting effects which may occur at different points throughout the analysis, a variety of event windows will be applied to the sample, resulting in corresponding CAARs.

5.1 Results for the entire sample

Following²¹ existing literature, the initial hypothesis states that **H1**: Cumulative average abnormal returns for acquiring firms move around 0 with a negative tendency. However, when looking at figure 14 a different picture arises. While it seems to hold that abnormal returns move around 0 it becomes clear that a tendency towards positive abnormal returns prior to the event date prevails. The two highest average abnormal return values are on date t_{-5} and t_0 with 0,4152% and 0,4112% respectively. Furthermore, it is interesting to note important consistent positive AAR values for the immediate points surrounding the event date in both directions which is in line with Fuller et al. (2002) who also examined positive effects for a [-2:2] event window. However, it appears that around day t_{+6} the positive effect of the M&A on the stock price starts to wear off and slightly negative abnormal returns occur. Furthermore, it can be derived from table 3 that all event windows observed provide positive CAARs with the highest and lowest value for the [-7:7] and [-15:15] event window respectively. These findings confirm what had been detected graphically before: During the time just around the event date important positive abnormal returns are observable, while a broader event window causes the subsequent negative ARs to cancel out positive ARs. Lastly, it is worth mentioning that the CAAR for [0:5] is lower than the CAARs of [-3:3] and [-7:7] which confirms the ARs being higher before the event date than afterwards. With respect to the significance levels of the observed CAARs it can be noted that all event windows, apart from the broader [-15:15] window, provide a significance level of at least $|p| \leq 0,1$. This indicates that the

²¹ Hereinafter, see appendix for further details.

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CAARs are not random. The loss of significance for the [-15:15] windows may be due to stock movements which go beyond the effects of the transactions. Consequently, it can be resumed that M&A usually lead to a growth of shareholder value of the acquiring firm in Latin America. This stands in contrast to the initial hypothesis which is based on experience gathered from other regions. The overall positive development of stock prices is in large parts driven by initially unexpected movements previous to the M&A announcement. Therefore, it can be assumed that trades based on leaked information play an important role. Especially since a few days prior to the announcement a wider range of personnel becomes privy to the ongoing negotiations between participating firms. Hence, inside information becomes a relevant factor for the emerging market Latin America²². The development around the announcement date and afterwards, on the other hand, is in line with previous research (Calipha et al., 2010; Mitchell et al., 2004; Meyer, 2011), as positive and negative returns prevail respectively²³. Yet, in Latin America it appears that positive effect of the announcement is greater than the subsequent negative reaction, resulting for example in a positive CAAR of 1.36% for the [-7:7] event window. An important factor in explaining these positive results, which stand in contrast to what has been found for the North American market, is the role of governments and the regulation which they impose on market participants. On the one hand, a relatively large portion of targets are state-owned companies which were sold to private entities. In these cases, the goal of the state was often times to form mega enterprises which are able to compete globally rather than obtaining a high price (Pérez, 2013). On the other hand, the

²² Especially when considering, that often times the purchase price is linked to the stock price on $t-1$.

²³ However, they also observed negative ARs prior to the M&A announcement.

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government fosters the development of strong globally active companies not only through direct sales but also through a lack of regulation as can be shown by the merger between Antarctica and Brahma in Brazil through which the enterprise obtained a local market share of 70% and also became the third largest brewery in the world (Hennart et al., 2017). Another example for a lack of regulation can be shown for the case of Chile, one of the advanced economies in Latin America and a member of the OECD. As recent as May 2017 a law²⁴ which specifically addresses the issues related to M&As and the potential creation of excessive market power was implemented. Consequently, acquirers prior to this date were able to obtain significant advantages compared to companies from other parts of the world. Furthermore, it is worth noting that the financial system in Chile and its regulations are rather advanced compared to large parts of the region (Stallings, 2006). Another more recent example which shows the lack of regulation in Latin America is the phenomena of Special Purpose Acquisition Companies (SPAC) which are already considered, monitored and to a certain extent organized by the SEC while no Latin American regulator has imposed any restrictions yet.

Moreover, the favorable conditions found by Latin American acquirers compared to their North American counterparts can also be shown by the fact that in several jurisdictions, including Argentina, lenders are not able to demand their accounts receivable privately but rather have to enforce it through public court proceedings. Consequently, acquiring companies that borrowed the financing resources,

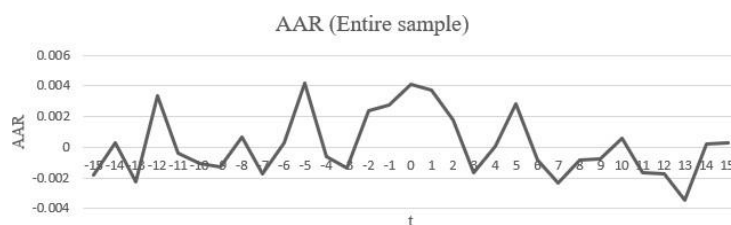
²⁴ Ley 20.945

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specifically their shareholders, find themselves in a preferable situation (Grant et al., 2021).

Lastly, it is important to mention that these factors put Latin American acquirers in a favorable position which might explain why they are able to obtain better results than those in the USA. However, they also expose Latin American targets not only to unfavorable takeovers by local companies but also by firms from other regions²⁵. Consequently, a potential sellout which allocates resources outside the region becomes a feasible hazard.

However, not only country dependent regulations are important for the success of M&As. Consequently, the following sections will investigate several characteristics of Latin American M&A thoroughly, in order to unveil their ability to create, or in some cases also destroy, shareholder value of the acquiring firm.



Source: Own representation based on EIKON data

Figure 14: AAR (Entire sample)

²⁵ This effect is enhanced further by the relative weakening of local currencies compared to the USD.

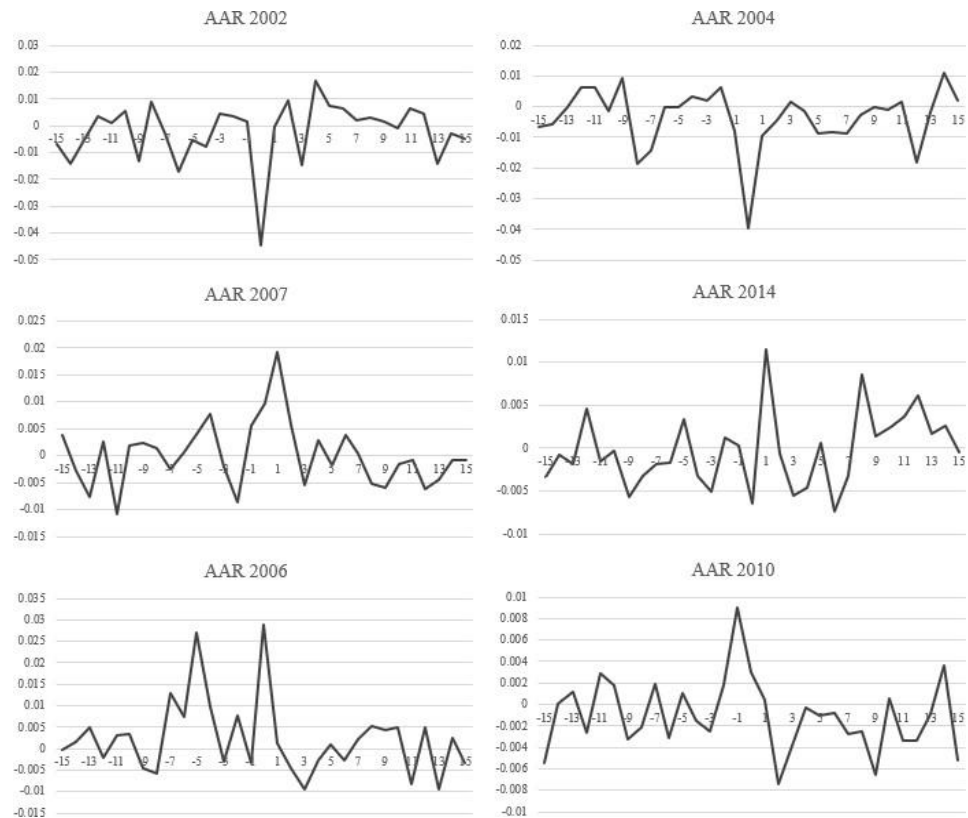
5.2 Time focus: Years

Before examining the results for the AARs and CAARs by year, the initial hypothesis states that **H2**: CAARs are positive when the number of transactions grows compared to the prior year while they should be negative when the number of transactions declines. The line of thought behind the hypothesis is that firms are more likely to acquire or merge with another firm if the expected outcome is positive while they will probably postpone or discard the transaction if negative results are likely. In order to test the hypothesis this paper will take a closer look at all years during which the growth direction of the number of transactions changed. Fortunately, the movements occur in wavelike patterns making this approach reasonable. The results shown in table 14 are able to confirm the prediction made. Based on figure 2 the CAARs should be negative for the years of 2002, 2008, 2012 and 2014 while they should be positive for the years of 2003, 2010, 2013 and 2017²⁶. This holds for all years except 2008 and 2012. In both cases the hypothesis expected CAARs to be negative while in reality they were positive. A potential explanation may be the generally positive direction of CAARs in the sample which uplifts results since in both cases an expected negative turned out to be positive. Furthermore, when looking at the development of AARs a few years stand out due to specific particularities: As can be seen in figure 15 during the years 2006 and 2010 considerable AARs were obtained previous to the event date, indicating that efficient markets were able to anticipate the M&A transactions prior to the actual announcement or trading based on inside information occurred. Especially

²⁶ For this case 2019 was excluded since the announcement date is relevant but only completed M&A were considered. Consequently, data might be incomplete due to M&As with closing dates throughout 2020.

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in



Source: Own representation based on EIKON data

Figure 15: AAR (Selected years)

2010 positive AARs of 0.9% were accumulated at t_{-1} . However, they drop sharply just after the announcement, generating a negative CAAR result of -0.92% for the [0:5] event window but positive results for the other narrow event windows which include trading days previous to t_0 . Furthermore, the years 2002 and 2004 illustrate typical AAR development as it is expected for a pessimistically evaluated M&A transactions: Abnormal returns move around 0 with an eminent spike on t_0 . The results for the years 2007 and 2014, on the other hand, show a contrary development. While AARs were positive on the announcement date in 2007, they managed to turn positive just after the announcement date in 2014²⁷, implying a positive assessment conducted by the

²⁷ Signaling a delayed reaction.

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market. Lastly, it should be noted from table 14 that most CAAR values are not significant at a 10% level. However, for the year 2004 six out of the seven CAARs obtained significant results indicating that transactions during this year were able to count on effective market conditions which led to positive results since the announcement year had a significant impact on the CAARs.

Based on the accepted hypothesis **H2** and the missing significance of CAARs throughout the sample, it can be concluded that the year of the transaction is of limited importance for the economic outcome of M&A transactions in Latin America. Due to the fact that firms often times manage to evaluate the time dependent economic environment appropriately and react accordingly the year of the transaction has played a minor role in explaining the economic success of a transaction.

5.3 Time focus: Month

Prior to examining the CAARs by month the hypothesis that **H3**: CAARs will increase gradually throughout the year. Similar to the hypothesis regarding the development by year it is based on the fact that the number of transactions increases from January until December as can be seen in figure 4. Therefore, managers have higher expectations within the second semester. However, other reasons which play a role when explaining the boost of transactions are the availability of financial statements, window dressing of managers and yearly plans elaborated by many firms. The first reason is due to the fact that often times the fiscal years finishes within the second quarter and therefore elaborated financial statements enable greater scrutiny when conducting a M&A transaction. The second reason describes a phenomenon which can be observed widely

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and means that managers tend to display improved financial statements within the second semester in order to enhance their personal performance for the closing year. Lastly, the third reason means that companies often times develop plans based on which they do business for an entire year. Consequently, in order to comply with initial plans some transactions may be initiated and announced. However, when looking at the different CAARs by month in table 13 the results are not very clear. While it can be noted that in January all event windows except [0:1] are negative and therefore a poor performance at the beginning of the year can be confirmed an improvement throughout the year is not detectable at first sight, especially when considering that for the month of September all CAARs are negative. In order to get a better picture of the development throughout the year table 2 shows the difference between the sum of the second six months and the sum of the first six months of the year. As can be seen the difference is positive for all event windows. Consequently, M&As which are announced within the second semester consistently obtain higher returns around the announcement date. However, this effect is non-linear. While some months in the first semester outperform other months in the second semester the overall trend shows improved performance for the second half of the year. This performance is mainly driven by relatively higher positive values of CAARs. Additionally, it is important to stress the crucial role of the month of July when explaining the difference between semesters since it showed the highest CAARs for all event windows except the narrow [-1:0] window and AARs are particularly pronounced on day t_0 .

Furthermore, the significance levels of all CAARs are able to underpin these findings. While the majority of CAARs lack statistical significance, the values for the month of

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July are mostly significant at least at a 5% level. This is mainly due to the high CAAR value since standard errors are not significantly changed.

Consequently, it can be resumed that the initial hypothesis holds in parts. While M&As which are announced in the second semester tend to outperform those that are announced in the first semester the improvement is not existent when looking at the development of performance month by month. However, due to the fact that results for the majority of month lack statistical significance no general connection between short-term abnormal returns caused by M&A announcements and month of the year can be made. It can be assumed that the significant improvement for July is due to greater availability of information and therefore more sophisticated deals. Hence, this month has a significant impact on CAARs.

	[15:15]	[-7:7]	[-3:3]	[-1:0]	[0:1]	[0:0]	[0:5]
<i>CAAR_{SF}</i>	0,1448	0,1167	0,0895	0,0189	0,0207	0,0024	0,0515

Table 2: CAAR Difference: Second minus first semester

5.4 Geographical focus

As previously described geographic factors have been proven to play an important role for the economic evaluation of M&A transactions globally. Despite the fact that academic research has not provided an unambiguous answer to the question if national or cross-national M&As lead to enhanced performance the overall tendency points towards a preference for domestic transactions. Hence, **H4** states that if the acquirer and the target firm of a M&A maintain headquarters within the same country CAARs will be greater than it is the case for cross-border transactions.

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Furthermore, when evaluating geographical factors, the country of origin of the participating firms has proven to be a relevant factor in order to explain the economic performance of M&As, mainly due to the development of existent markets and the provision of favorable environmental conditions. However, since the focus of this paper lies on the acquirer a greater portion of attention will be on its side of the deal. Therefore, the hypothesis regarding the country of origin states that **H5**: Acquiring firms located within countries that count on higher GDPs per capita will obtain greater CAARs when conducting a M&A transaction. Here, it should be noted that the GDP per capita is a strong yet clear and appropriate simplification of market conditions.

Now, looking at table 4, **H4** can be strongly confirmed for Latin American companies. First of all, the entirety of CAARs evaluating domestic transactions is positive ranging from 0.008 on day t_0 to 0.0253 for the [-7:7] event window. Here, the modest assessment on day t_0 once again affirms that the market takes some time to analyze the deal appropriately even if the market is more familiar with the participating firms. The CAARs for cross-national M&As on the other hand are all negative with values ranging from -0.0185 for the [-15:15] event window to -0.0006 for the [-1:0] event window. Hence, it can be assumed that the cultural and geographical closeness between the acquirer and the target and the similarity of economic frameworks leads to improved transactions from an acquirer perspective. Furthermore, it should be noted that all CAARs of domestic M&As, except the [-15:15] event window, are significant at a 1% level indicating a strong relatedness between a positive market valuation and

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domestic transactions. Thus, Latin American companies should generally look for potential targets within their own country rather than outside its national borders²⁸.

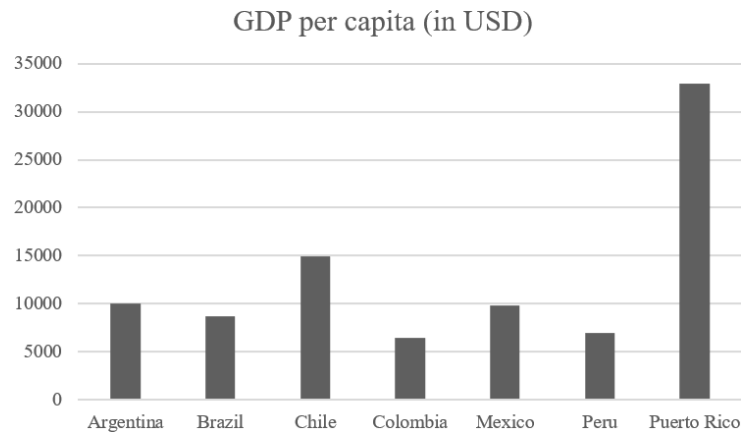
With regards to the effect of the country of origin of the acquirer and the target company table 10 and table 15 are only able to confirm hypothesis **H5** in parts. As figure 16 shows Colombia has the lowest GDP per capita of all acquiring nations. At the same time Colombia also displays the poorest results for all CAARs except the broader [-15:15] event window, indicating inferior quality of transactions for which the acquiring firm is based within this country. Furthermore, Puerto Rico provides the highest CAAR results for four out of seven event windows while also counting on the highest GDP per capita of all countries. Hence, it can be assumed that economic development of a country has some impact on the valuation of M&As in Latin America. However, three factors should be noted at this point. First, only the GDP per capita as of 2019 was used as a point of reference. Consequently, developments which occurred throughout the observed time frame of the sample are not attributed. Second, despite the fact that the outlying countries Puerto Rico and Colombia showed results which are in line with **H5** this is not the case for the intermediate countries. For example, Chile has the second highest GDP per capita but fairly low CAARs while Peru shows contrary peculiarities. Third, only the results for Brazil appear to be significant. On the one hand this might be due to relatively high CAARs but on the other hand it also must be considered that 55.4% of all transactions were conducted by Brazilian acquirers elevating its significance levels due to a greater number of observations.

²⁸ Which is already the case since 71.3% of transactions within the sample occurred domestically

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When looking at the impact of the target's nation on CAARs table 15 provides two essential and noteworthy aspects. First of all, transactions for which the target is located in one of the industrialized Commonwealth nations or the closely linked United States produce important negative abnormal returns, contradicting the expectation that developed markets lead to positive valuations. Second, again Puerto Rico and Brazil manage to obtain high CAARs which are significant at a 1% level for the case of the latter. Therefore, when considering previous findings, it can be assumed that domestic transactions within Brazil and Puerto Rico produce particularly high returns for the acquirer in the short term.

All in all, it can be resumed that geographic factors play a role when conducting M&A in Latin America. While this paper is clearly able to confirm that acquirers should look for potential targets within their own national borders in order to obtain shareholder value enhancing results, it is not as clear that national economic development automatically leads to better performance of transactions. Especially when considering that most CAARs provided results which are not significant at a 10% level.



Source: Own representation based on World Bank data

Figure 16: GDP per capita of acquirer nations (2019)

5.5 Economic focus

Regarding the economic focus a similar approach as the geographical focus will be taken. First, it will be investigated if cross-industry / cross-economic-sector leads to an altered performance of M&A transactions and second the individual sectors and industries are examined. However, it needs to be remembered that cross-economic-sector transactions are considered conglomerate M&A while cross-industry transactions²⁹ are defined as vertical and lastly transactions within the same industry are viewed a horizontal M&A. Consequently, the direction of the transaction will be evaluated as well.

Before examining the results of the event study, the initial hypothesis states that **H6:** Economic similarities between participating firms improve the results of a M&A.

²⁹ Which occur within the same economic sector.

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Hence, conglomerate transactions are expected to provide the least favored economic results while horizontal mergers should result in relatively high CAARs.

Reviewing table 5 it becomes clear that the sample of transactions with Latin American acquirers fails to confirm **H6**. M&As for which the acquirer was active in a different economic sector than the target systematically lead to higher short-term abnormal returns than those for which acquirer and target share the same economic sector. Despite the fact that both groups appear to produce positive CAARs, the magnitude of abnormal returns of the cross-sector group is 507.7% higher on average. These results are further supported by the significance levels observable: CAARs of the cross-economic-sector group are reasonably significant, confirming a relationship between this type of transaction and a positive market valuation around the announcement date. CAARs of the same-economic-sector group, on the other hand, are just slightly short of required p-values which is most likely due to the lower CAAR values while standard errors are similar. Hence, the Latin American market appears to appreciate striving for diversification, while considering needless duplication of staff and certain capacities as a liability. Therefore, it can be resumed that conglomerate M&A have a surprisingly positive impact on the economic valuation of the acquiring firm and should therefore not be discarded preemptively when planning transactions in the future.

Furthermore, the findings for cross-industry transactions are in line with those evaluating cross-economic-sector M&As. As can be seen in table 6 CAARs of acquirers engaging in deals outside of their own industry are able to obtain higher abnormal returns compared to their counterparts which purchase or merge with companies which are active in the same industry. Once again, CAARs of all event

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windows are positive but this time the magnitude of the effect of the first group is 438% higher on average, indicating a preference of the market for cross-industry transactions. Moreover, significance levels show anew a close relatedness between cross-industry M&A and a positive development of shareholder value since results for all event windows except the [-15:15] window are significant. However, in order to conduct a further differentiation between horizontal and vertical transactions table 7 shows that on the one hand the first group manages to obtain higher returns for the broader event windows while the latter appears to perform better throughout dates close to t_0 , especially shortly after the announcement date. This finding is based on the CAARs obtained for the [-15:15], [-7:7] and [-3:3] windows which stand in contrast to the [-1:0], [0:1], [0:0] and [0:5] window. However, since the dates following t_0 show the direct reaction of the market it can be assumed that vertical M&A show an overall improved performance compared to horizontal M&A. Thus, it can be resumed that conglomerate, cross-economic-sector transactions lead to the best short-term results from an acquirer perspective while horizontal transactions entail the least favored results. Hence, a positive impact of diversification on CAARs can be identified.

Regarding the direct impact of the economic sector and industry affiliation of participating firms the initial hypothesis is relatively broad and states that **H7**: The economic sector and industry affiliation have an impact on CAARs. With respect to the economic sector table 11 and table 12 show that this hypothesis holds. Systematic differences between economic sectors are detectable. On the acquiring side it appears that the group of industrials is able to obtain the highest CAARs for six out of seven event windows while transactions with an acquirer from the financial sector resulted in the lowest abnormal returns in four out of seven times. However, on the target side a

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different picture arises: While the energy sector appears to primarily destroy value around the announcement of a M&A no single economic sector can be mentioned which systematically obtains the highest results. Furthermore, it should be noted that essentially only acquirers and targets within the industrials sector are able to count on significant abnormal returns due to the announcement of a M&A. In their case the majority of results are significant at least at a 10% level while other economic sectors are not significantly related to CAARs.

Moreover, when examining the results presented in table 16 and table 17 no explicit market reaction, which is based on industry affiliation of participating firms can be disclosed. While different CAARs are apparent, no systematic pattern can be detected. Hence, it cannot be ruled out that their occurrence is random. This is further underlined by the fact that the majority of industries lacks statistical significance with respect to their observed CAARs. However, here it is important to remember that the field of industries represented in the sample is widely clustered and therefore often times the number of observations for each industry is relatively low. This causes statistical measures to be inappropriate for a fair valuation of M&A announcements in some cases. Consequently, the results of CAARs on an industry level need to be examined with particular caution.

All in all, it can be concluded that it is important to recognize the economic sector and industry affiliation of firms conducting a M&A. It is essential to identify the direction of the desired M&A during the planning phase in order to assess possible outcomes. Surprisingly, it has been shown for the case of Latin America that diversification is often times appreciated by the market and therefore companies should not fear to look

for potential targets outside of their core business if the current operating strategy allows for this type of transaction. However, this does not mean that horizontal M&As should be discarded preemptively since they also provide positive development of shareholder value on average. Regarding the impact of specific economic sectors and industries it has been shown that the group of industrials tend to obtain high CAARs while no clear impact of specific industries has been identified. However, here it will be necessary for future research to further evaluate the topic.

5.6 Transaction volume focus

As many studies like Steigenberger (2016), Moeller et al. (2003) and Lenhard (2009) have shown, the transaction volumes of M&As are an important indicator of potential success from a shareholder perspective. Despite the fact that academics have not presented an undisputed answer to the question how transaction volumes impact short-term returns, it has been empirically shown that large cap transactions typically destroy value of the acquiring firm while small cap takeovers usually unlock greater wealth (Mitchell et al., 2004). Hence, the corresponding hypothesis states that **H8**: A negative relation between transaction volume and CAARs exists. In order to test this hypothesis for the case of Latin America, the sample was divided into volume quartiles as described earlier. Table 9 shows the corresponding CAARs of each quartile and their respective significance levels. At first sight it becomes clear that the second quartile strongly overperforms. For all event windows except the broader [-15:15] window abnormal returns are distinctively high with CAARs surpassing peer levels by considerable amounts. The volumes of transactions which are listed within this quartile

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ranges from 27 million USD to 112 million USD. According to the different MSCI Latin America Indices companies with these amounts of market capitalization form part of the small cap group. Hence, it can be assumed that transactions for which the target is considered a small cap company often times lead to improved results for the acquirer. Some reasons for this observation may be (1) a simpler integration process, (2) less operational and financial risk induced by smaller transactions and (3) maintaining focus on specific motives of the M&A rather than conducting transformation deals. Furthermore, it can be seen that the fourth quartile, composed of transactions with large cap targets, shows the lowest CAARs for three out of seven event windows, indicating again a negative impact of transaction volume on abnormal returns around the announcement date. However, one important inconsistency should be noticed when evaluating the topic: The positive small cap effect is unstable. Transactions within the first quartile provide relatively poor CAARs, especially around the crucial dates of t_{-1} , t_0 and t_{+1} . A potential explanation for this observation is that companies lack experience and expertise required for a successful transaction.

Overall, it can be confirmed that the transaction volume has a negative impact on short-term abnormal returns. Despite the fact that only the second quartile appears to be significant due to the higher magnitude of CAARs, the general direction becomes clear. In the future, it will be essential for the emerging market Latin America to further enhance financial markets in order to improve transaction quality for different types of participants.

5.7 Payment method focus

The last factor considered by this paper, which potentially has an impact on shareholder value of the acquiring firm during a M&A, is the payment method used to conduct the transaction. In this case, the initial hypothesis is mainly based on the signaling effects of a M&A announcement and states that **H9**: Acquirers which attempt to pay for the transaction using cash will obtain better results than those paying with their own stock. However, as can be seen in table 8 the contrary is true. Throughout all event windows acquirers which used their own stock as payment method obtained the highest CAARs. Acquirers which paid for the transaction using cash on the other hand obtained the lowest, yet still positive result for all event windows except the [-15:15] event window. Transactions which were conducted using a hybrid payment method obtained intermediate CAARs. A potential reason for this finding is that the acquiring company is also investigated thoroughly by the target firm which shares the risk by accepting its stock as payment and therefore anticipates growth in the future if stock is used as the payment method. Hence, Latin American markets do not perceive a strong signal about the current state of the acquiring company based on the proposed offer for a M&A transaction and rather consider other factors as influential in order to evaluate the positioning of a firm. This is further confirmed by the fact that no payment method is able to consistently provide statistical significance for its corresponding CAARs and therefore no relation between payment type and abnormal returns can be derived statistically.

5.8 Robustness Check

In a last step, after obtaining the results for all investigated factors and their impact on abnormal returns of the acquiring firm a robustness check becomes useful in order to validate their impact. For the purposes of this paper a single linear regression, including all factors which turned out to be meaningful when evaluating M&A will be conducted. Running only one regression is feasible because all factors are related to one another in some way. For example, as Faccio and Masulis (2005) have shown for the payment method stock swaps are more common in domestic transactions since less restrictions on movement of capitals prevail. Furthermore, intra-industry transactions also tend to make more use of stocks as payment since companies are more familiar with the nature of operations of participating companies and are therefore able to assess other companies more adequately. Moreover, larger volumes of transactions are also closely linked to stocks as the method of payment. Similar conclusions can be drawn for the remaining factors investigated. Hence, a unique regression to establish the relation between investigated factors and abnormal returns appears appropriate. However, several control variables, which have been proven to be important for the evaluation of one independent variable or another will also be implemented in order to uncover the direct effect of the variables of interest on abnormal returns (Ang, 2001; Högholm, 2016; Mentz, 2006). For the purposes of the regression the abnormal returns on a company level will serve as the dependent variable. The explanatory variables are: (1) The month of the transactions since it has been shown that M&As in later stages of the year produce higher abnormal returns. (2) The transaction direction, due to the fact that in Latin America it appears that diversifying transactions lead to higher

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returns³⁰. (3) The transaction volume since the results show that larger M&As tend to destroy more shareholder value. (4) The payment method because in Latin America stock payments appear to produce higher returns than cash payments and (5) the characteristic if the transaction was conducted domestically or internationally since results have shown that national transactions tend to produce higher abnormal returns. Further control variables used to conduct the regression are considering two dimensions. On the one hand the macroeconomic environment is considered and on the other hand the positioning of the participating firms is considered. Both dimensions are evaluated according to the moment in time at which the transaction was announced. The control variables identified to capture these dimensions are: (1) The public status of the target, which may be public, private or subsidiary. (2) The GDP per capita of the acquirer's nation. (3) A dummy variable which captures if the stock price of the acquirer increased within the six months prior to the broadest event window. (4) The relative size of the acquirer over the target, measured in market capitalization at the end of the fiscal year prior to the transaction and deal size respectively. As table 18 shows, the robustness check is able to confirm the findings previously made: The variable month indicates that abnormal returns increase through later stages of the year. Furthermore, similar to previous results, the variable does not meet the criteria for important levels of statistical significance, signaling a rather small impact on abnormal returns. Regarding the impact of the transaction direction on abnormal returns, the variables conglomerate and vertical are once again able to confirm a positive impact of diversification on short-term acquiring shareholder value. The

³⁰ The impact of cross-industry and cross-economic-sector transactions will be omitted since their inclusion would produce the problem of collinearity because the transaction direction was directly derived from this factor. However, the influence can be inferred accordingly.

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positive effect is measured over the default setting of a horizontal transaction within the regression. However, it should be noted that the results for conglomerate M&A, unlike previous findings, do not provide statistical significance. Therefore, conclusions need to be drawn with further caution. Regarding the general impact of the deal size on abnormal returns the negative tendency can also be upheld. Furthermore, the results are significant at least at a 10% level for three out of seven event windows which further validates the derived data. With respect to the payment method the variables cash payment and hybrid payment which stand in contrast to the default setting of stock payment, turn out to be negative. Moreover, the magnitude of the cash payment variable surpasses the one of the hybrid payment variable. This direction, along with the low significance levels is also in line with the findings discovered throughout chapter 5.7. Lastly, the variable domestic which indicates if a transaction was conducted internationally or within a countries borders is in accordance with the data presented in table 4: Domestic transactions lead to higher returns for the acquiring firm on average. Furthermore, this result is statistically significant for five event windows, showing strong support for initial findings.

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The market for M&A has continuously grown over the past decades in Latin America and, despite some downturns, continues to do so. Similar to other regions in the world M&A activity has occurred in a wavelike pattern with a growing trend. In order to provide suitable conditions which further foster productive activity it is crucial for

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research to identify specific aspects which lead to profitable transactions from an acquirer perspective. Hence, the empirical investigation performed throughout this paper has shown that a variety of factors are capable of doing so while others are not. Consequently, it can be resumed that it is crucial for companies which plan on conducting a M&A transaction to consider (1) geographically dependent variables, with a focus geographical proximity, (2) the information available to them at the moment of engaging in this type of transaction, (3) the economic relatedness of participating firms and the potential compatibility of business lines which can be especially important for companies in Latin America and (4) if the volume of the transaction is adequate while not forcing inorganic growth based on motives which are unrelated to value creation. These considerations are especially important to have in mind as a shareholder of an acquiring firm since at the end of the deal they are usually the ones bearing the most significant risk while managers may be driven by individual motives, leaving potentially the principal-agent problem as a major root of value destruction. However, it is essential to remember that the overall results showed a positive development of shareholder value around the announcement date, indicating that M&As in Latin America tend to create value for acquirers rather than to destroy it which is contrary to findings for other regions in the world. Hence, companies should make use of the potential which the local market offers and generally exploit M&A activity for the purpose of strengthening their business and create further value. In order to do so, it will be crucial for academic research to identify specific designs of M&A transactions which systematically lead to value creation. Another interesting subject of investigation for future research would be the question why diversifying transactions are valued in such a positive manner by the Latin American market.

7 Appendix

Table 3: Entire Sample

	[-15:15]	[-7:7]	[-3:3]	[-1:0]	[0:1]	[0:0]	[0:5]
ALL	0.0036 (0.43)	0.0136 (2.15)**	0.0118 (2.71)***	0.0068 (2.32)**	0.0079 (2.63)***	0.0041 (1.71)*	0.0109 (2.51)**

t-values in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0,1$

Table 4: Domestic transaction

	[-15:15]	[-7:7]	[-3:3]	[-1:0]	[0:1]	[0:0]	[0:5]
NO	-0.0185 (-1.35)	-0.0152 (1.61)	-0.0063 (-0.9)	-0.0094 (-1.92)*	-0.0006 (-0.11)	-0.0054 (-1.49)	-0.0043 (-0.57)
YES	0.0126 (1.23)	0.0253 (3.2)***	0.0191 (3.59)***	0.0135 (3.79)***	0.0113 (3.15)***	0.008 (2.64)***	0.0171 (3.27)***

t-values in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0,1$

Table 5: Same Sector

	[-15:15]	[-7:7]	[-3:3]	[-1:0]	[0:1]	[0:0]	[0:5]
NO	0.019 (1.02)	0.0316 (1.97)**	0.0236 (2.21)**	0.0148 (2.3)**	0.0135 (2.08)**	0.0101 (1.74)*	0.0243 (2.15)**
YES	-0.0013 (-0.14)	0.0078 (1.19)	0.008 (1.74)*	0.0043 (1.31)	0.0061 (1.81)*	0.0022 (0.86)	0.0066 (1.5)

t-values in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0,1$

Table 6: Same Industry

	[-15:15]	[-7:7]	[-3:3]	[-1:0]	[0:1]	[0:0]	[0:5]
NO	0.0091 (0.55)	0.0246 (1.92)*	0.0166 (1.9)*	0.0144 (2.61)***	0.0134 (2.5)**	0.0095 (2.0)**	0.0223 (2.53)**
YES	0.001 (0.11)	0.0084 (1.19)	0.0095 (1.94)*	0.0033 (0.96)	0.0053 (1.47)	0.0016 (0.58)	0.0055 (1.15)

t-values in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0,1$

Table 7: Transaction Direction

	[-15:15]	[-7:7]	[-3:3]	[-1:0]	[0:1]	[0:0]	[0:5]
CONGLOMERA TE	0.019 (1.02)	0.0316 (1.97)*	0.0236 (2.21)**	0.0148 (2.3)**	0.0135 (2.08)**	0.0101 (1.74)*	0.0243 (2.15)**
HORIZONTAL	0.001 (0.11)	0.0084 (1.19)	0.0095 (1.94)*	0.0033 (0.96)	0.0053 (1.47)	0.0016 (0.58)	0.0055 (1.15)

Appendix

VERTICAL	-0.0222 (-0.64)	0.003 (0.18)	-0.0055 (-0.44)	0.0129 (1.22)	0.013 (1.44)	0.0077 (1.02)	0.0158 (1.87)*
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t-values in parentheses

*** p < 0.01, ** p < 0.05, * p < 0,1

Table 8: Payment Method

	[-15:15]	[-7:7]	[-3:3]	[-1:0]	[0:1]	[0:0]	[0:5]
CASH	-0.0021 (-0.22)	0.0078 (1.08)	0.0089 (1.92)*	0.0038 (1.53)	0.0052 (1.95)*	0.0014 (0.75)	0.0092 (1.97)**
HYBRID	-0.0295 (-1.36)	0.0083 (0.5)	0.0163 (1.24)	0.0101 (1.62)	0.0062 (0.82)	0.0052 (1.01)	0.0145 (1.28)
STOCKS	0.0412 (2.05)**	0.0389 (2.26)**	0.021 (1.55)	0.0173 (1.42)	0.019 (1.63)	0.0143 (1.37)	0.016 (1.18)

t-values in parentheses

*** p < 0.01, ** p < 0.05, * p < 0,1

Table 9: Volume Quartile

	[-15:15]	[-7:7]	[-3:3]	[-1:0]	[0:1]	[0:0]	[0:5]
1 ST	0.018 (0.97)	0.0094 (0.69)	0.0072 (0.98)	-0.0012 (-0.23)	0.0017 (0.34)	-0.0016 (-0.54)	0.0093 (1.0)
2 ND	0.0117 (0.58)	0.0333 (2.37)**	0.0239 (2.59)**	0.0159 (2.67)***	0.0152 (2.94)***	0.0103 (1.85)*	0.0274 (3.24)***
3 RD	-0.0121 (-0.82)	0.0134 (1.09)	0.0151 (1.68)*	0.0088 (1.46)	0.0105 (1.55)	0.007 (1.3)	0.0116 (1.36)
4 TH	-0.0034 (-0.28)	-0.0017 (-0.16)	0.0009 (0.11)	0.004 (0.63)	0.0041 (0.61)	0.0009 (0.18)	-0.0046 (-0.57)

t-values in parentheses

*** p < 0.01, ** p < 0.05, * p < 0,1

Table 10: Acquirer's Nation

	[-15:15]	[-7:7]	[-3:3]	[-1:0]	[0:1]	[0:0]	[0:5]
ARGENTINA	-0.0334* [0.07]	0.0249 [0.61]	0.0124 [0.87]	0.0164 [0.17]	0.0137 [0.52]	0.0019 [0.97]	0.004 [0.47]
BRAZIL	0.0121 (1,11)	0.0208 (2.38)**	0.0156 (2.44)**	0.0106 (2.46)**	0.009 (2.08)**	0.0085 (2.3)**	0.0164 (2.55)**
CHILE	-0.0043 (-0.23)	0.0093 (0.63)	0.0002 (0.02)	0.0032 (0.48)	0.0016 (0.19)	0.0003 (0.04)	-0.0001 (-0.01)
COLOMBIA	-0.0014 [0.96]	-0.0177 [0.51]	-0.0105 [0.19]	-0.0039 [0.92]	-0.0025 [0.95]	-0.0052 [0.48]	-0.0157 [0.20]
MEXICO	-0.0153 (-0.7)	-0.0044 (-0.28)	0.0085 (0.91)	-0.0026 (-0.42)	0.0053 (0.76)	-0.0049 (-0.93)	-0.0011 (-0.13)
PERU	0.0367 [0.44]	0.0214 [0.30]	0.0188 [0.37]	0.0122 [0.99]	0.0047 [0.58]	0.0027 [0.33]	0.0256 [0.24]
PUERTO RICO	0.0072 [1.0]	0.015 [0.81]	0.0341 [0.31]	0.0182 [0.44]	0.0131 [0.31]	0.0117 [0.63]	0.0298 [0.44]

t-values in parentheses and p-values from Wilcoxon's test in square brackets

*** p < 0.01, ** p < 0.05, * p < 0,1

Table 11: Acquirer's Sector

	[-15:15]	[-7:7]	[-3:3]	[-1:0]	[0:1]	[0:0]	[0:5]
BASIC MATERIALS	0.0362 (1.8)*	0.011 (0.9)	0.0132 (1.54)	0.0062 (0.71)	0.0073 (0.85)	0.0029 (0.49)	0.0045 (0.5)
CONSUMER CYCLICALS	-0.0144 (-0.69)	0.0032 (0.2)	0.0006 (0.05)	0.0072 (1.04)	0.0049 (0.63)	-0.0003 (-0.07)	0.0047 (0.51)
CONSUMER NON-CYCLICALS	0.0034 (0.18)	0.011 (0.67)	0.0069 (0.68)	0.0021 (0.31)	0.0076 (1.1)	-0.0017 (-0.33)	0.0075 (0.76)
ENERGY	-0.0037 [0.97]	0.0246 [0.58]	0.0107 [0.64]	0.0021 [0.64]	0.0118 [0.52]	0.0025 [0.58]	0.0192 [0.41]
FINANCIALS	-0.0247 (-1.52)	-0.0032 (-0.3)	0.0015 (0.17)	0.0009 (0.15)	-0.0041 (-0.74)	-0.0023 (-0.53)	-0.0003 (-0.04)
HEALTHCARE	-0.0235 [0.38]	-0.004 [0.42]	0.0086 [0.70]	0.0148 [0.72]	0.03 [0.06]*	0.0193 [0.97]	0.0212 [0.67]
INDUSTRIALS	0.0448 (1.24)	0.054 (1.76)*	0.0418 (2.13)**	0.0261 (2.1)**	0.0186 (1.69)*	0.0295 (2.6)**	0.0346 (1.72)*
TECHNOLOGY	0.0304 [0.01]**	0.0167 [0.16]	0.025 [0.13]	0.0031 [0.25]	0.0104 [0.30]	0.0014 [0.82]	0.0169 [0.30]
TELECOMMUNICATIONS SERVICES	-0.0148 [0.68]	0.0192 [0.60]	0.0097 [0.49]	0.0027 [0.94]	0.0059 [0.97]	-0.0036 [0.41]	0.0117 [0.99]
UTILITIES	0.0313 [0.23]	0.0365 [0.06]*	0.0268 [0.02]**	0.0054 [0.37]	0.0014 [0.50]	-0.0014 [0.84]	0.0188 [0.33]

t-values in parentheses and p-values from Wilcoxon's test in square brackets

*** p < 0.01, ** p < 0.05, * p < 0,1

Table 12: Target's Sector

	[-15:15]	[-7:7]	[-3:3]	[-1:0]	[0:1]	[0:0]	[0:5]
BASIC MATERIALS	0.0155 (0.69)	0.0007 (0.06)	0.0028 (0.34)	-0.0022 (-0.23)	0.004 (0.46)	-0.0026 (-0.41)	-0.0003 (-0.03)
CONSUMER CYCLICALS	0.0178 (0.73)	0.0322 (1.6)	0.0283 (2.2)**	0.028 (2.47)**	0.02 (1.92)*	0.0123 (1.11)	0.0268 (2.1)**
CONSUMER NON-CYCLICALS	0.0169 (0.89)	0.0157 (0.99)	0.0093 (0.97)	0.0038 (0.6)	0.0115 (1.82)*	0.0019 (0.41)	0.0117 (1.26)
ENERGY	-0.0758 [0.46]	-0.029 [0.64]	-0.0129 [0.84]	-0.0043 [0.64]	-0.0028 [0.95]	0.0004 [1.0]	-0.0341 [0.46]
FINANCIALS	-0.0292 (-1.42)	0.0049 (0.28)	0.0009 (0.07)	-0.0027 (-0.4)	-0.0081 (-1.3)	-0.0037 (-0.74)	0.0038 (0.29)
HEALTHCARE	-0.0295 [0.35]	-0.0047 [0.43]	0.0052 [0.64]	0.23 [0.93]	0.0327 [0.28]	0.0249 [0.89]	0.0083 [0.52]
INDUSTRIALS	0.0369 (1.56)	0.0255 (1.64)	0.0315 (2.63)**	0.13 (2.1)**	0.0137 (1.65)	0.016 (3.3)***	0.0312 (2.53)**
TECHNOLOGY	0.0139 [0.25]	0.0102 [0.49]	0.0128 [0.36]	-0.0006 [1.00]	0.008 [0.45]	0.0005 [1.00]	0.0091 [0.39]
TELECOMMUNICATIONS SERVICES	-0.0078 [0.89]	0.0233 [0.62]	0.0041 [0.75]	0.0038 [0.94]	0.0001 [0.64]	-0.0034 [0.43]	-0.003 [0.50]
UTILITIES	0.0131 [0.49]	0.0233 [0.15]	0.025 [0.04]**	0.0079 [0.13]	0.0057 [0.63]	0.0025 [0.52]	0.0221 [0.05]*

t-values in parentheses and p-values from Wilcoxon's test in square brackets

*** p < 0.01, ** p < 0.05, * p < 0,1

Table 13: Month

	[-15:15]	[-7:7]	[-3:3]	[-1:0]	[0:1]	[0:0]	[0:5]
JANUARY	-0.0212 [0.52]	-0.0146 [0.68]	-0.0049 [0.94]	-0.0069 [0.60]	0.0034 [0.68]	-0.0078 [0.18]	-0.012 [0.26]
FEBRUARY	-0.0151 [0.79]	-0.0104 [0.39]	0.0067 [0.97]	0.0139 [0.21]	0.0143 [0.58]	0.0087 [0.14]	0.0125 [0.37]
MARCH	0.0029 [0.87]	0.0207 [0.75]	0.0104 [0.59]	0.0069 [0.76]	0.0186 [0.03]**	0.0165 [0.07]*	0.0154 [0.07]*
APRIL	-0.0059 [0.95]	0.0021 [0.97]	0.0101 [0.71]	0.0022 [0.87]	-0.0003 [0.61]	0.0005 [0.47]	0.0062 [0.63]
MAY	-0.0251 [0.53]	0.024 [0.21]	-0.0032 [0.71]	0.01 [0.30]	0.0073 [0.60]	0.0033 [0.46]	0.014 [0.35]
JUNE	0.0064 [0.78]	-0.0002 [1.00]	0.0032 [0.99]	0.0058 [0.36]	-0.0036 [0.17]	0.0031 [0.73]	0.0053 [0.92]
JULY	0.0456 [0.18]	0.0477 [0.01]**	0.0414 [0.01]**	0.0099 [0.43]	0.0342 [0.02]**	0.0122 [0.29]	0.0441 [0.01]**
AUGUST	0.0296 (1.46)	0.0197 (1.16)	0.015 (1.44)	0.0027 (0.46)	0.004 (0.54)	-0.0031 (-0.73)	0.0047 (0.55)
SEPTEMBER	-0.0226 (-0.57)	-0.0002 (-0.01)	-0.0003 (-0.02)	-0.0015 (-0.18)	-0.0052 (-0.62)	-0.0006 (-0.1)	-0.0011 (-0.06)
OCTOBER	0.0115 (0.46)	0.0325 (1.29)	0.0292 (1.38)	-0.0015 (-0.12)	0.0234 (1.67)	0.0057 (0.49)	0.0319 (1.4)
NOVEMBER	0.0081 (0.23)	0.0241 (0.83)	0.0106 (0.76)	0.0215 (1.71)*	0.0013 (0.19)	0.0065 (0.89)	0.0022 (0.17)
DECEMBER	0.0146 (0.63)	0.0145 (0.75)	0.0159 (1.28)	0.0197 (2.13)**	0.0027 (0.33)	0.006 (0.88)	0.0111 (1.0)

t-values in parentheses and p-values from Wilcoxon's test in square brackets

*** p < 0.01, ** p < 0.05, * p < 0,1

Table 14: Years

	[-15:15]	[-7:7]	[-3:3]	[-1:0]	[0:1]	[0:0]	[0:5]
2001	-0.2017 [0.06]*	-0.092 [0.06]*	-0.0107 [0.81]	-0.0047 [0.81]	-0.0007 [0.63]	-0.002 [1.0]	-0.0183 [0.63]
2002	-0.0691	-0.0405	-0.0409	-0.043	-0.0449	-0.0446	-0.0259
2003	-0.0214 [0.4375]	0.0166 [1.0]	0.0127 [0.625]	0.0239 [0.3125]	0.025 [0.3125]	0.0089 [0.625]	0.0336 [0.125]
2004	-0.1094 [0.08]*	-0.0901 [0.05]**	-0.0618 [0.11]	-0.0475 [0.05]**	-0.0495 [0.08]*	-0.0398 [0.02]**	-0.0626 [0.08]*
2005	0.0669 [0.04]**	0.007 [0.95]	0.0017 [0.81]	0.0166 [0.88]	0.0233 [0.08]*	0.0094 [0.81]	0.0067 [0.81]
2006	0.0739 [0.27]	0.0721 [0.30]	0.0173 [0.92]	0.0254 [0.48]	0.03 [0.18]	0.0288 [0.55]	0.0143 [0.75]
2007	0.0042 [0.81]	0.0393 [0.08]*	0.024 [0.19]	0.0152 [0.18]	0.023 [0.03]**	0.0097 [0.26]	0.0303 [0.03]**
2008	0.004 [0.52]	0.0136 [0.30]	0.033 [0.04]**	0.015 [0.45]	0.0139 [0.29]	0.01 [0.22]	0.0237 [0.24]
2009	0.076 [0.09]*	0.0349 [0.16]	0.0356 [0.30]	0.0162 [0.22]	0.0221 [0.63]	0.0215 [0.14]	0.0241 [0.69]
2010	-0.0317 (-1.4)	-0.0062 (-0.43)	0.0005 (0.05)	0.0121 (2.01)*	0.0035 (0.46)	0.0031 (0.57)	-0.0092 (-1.08)
2011	-0.0367 (-1.98)*	0.002 (0.13)	0.0083 (0.74)	0.0012 (0.2)	0.0044 (0.5)	0.0021 (0.47)	0.0078 (0.73)
2012	0.0219 [0.18]	0.0181 [0.14]	0.0204 [0.03]**	0.0064 [0.63]	0.0063 [0.40]	0.0007 [0.40]	0.0091 [0.50]
2013	0.0311 [1.00]	0.0263 [0.98]	0.0254 [0.77]	0.0077 [0.31]	-0.0021 [0.68]	0.0039 [0.80]	0.0206 [0.89]
2014	-0.0092 [0.85]	-0.0228 [0.38]	-0.0046 [0.85]	-0.0061 [0.89]	0.0051 [0.68]	-0.0064 [0.82]	-0.0051 [0.71]
2015	0.0665 (0.99)	0.0446 (0.73)	0.0075 (0.27)	0.0096 (0.66)	-0.0007 (-0.08)	0.0079 (1.12)	0.0218 (0.84)
2016	0.0369 [0.47]	0.0395 [0.30]	0.0478 [0.16]	0.0148 [0.69]	0.0077 [0.69]	0.0107 [0.47]	0.0468 [0.38]

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2017	0.0046 [1.00]	0.0068 [0.71]	-0.0018 [0.49]	0.0047 [0.26]	0.0072 [0.68]	0.0021 [0.49]	0.0057 [0.93]
2018	-0.0339 [0.27]	0.0077 [0.42]	-0.0006 [0.70]	0.0058 [0.25]	0.0056 [0.47]	0.003 [0.89]	0.0125 [0.18]
2019	0.0345 [0.25]	0.0434 [0.11]	0.0241 [0.09]*	-0.0042 [0.67]	0.0002 [0.90]	-0.0072 [0.60]	0.0207 [0.14]

t-values in parentheses and p-values from Wilcoxon test in square brackets

*** p < 0.01, ** p < 0.05, * p < 0,1

Table 15: Target's Nation

	[-15:15]	[-7:7]	[-3:3]	[-1:0]	[0:1]	[0:0]	[0:5]
ARGENTINA	-0.0367 [0.25]	0.019 [0.96]	0.0101 [0.73]	0.0081 [0.62]	0.0096 [0.52]	-0.0003 [0.84]	0.0008 [0.84]
BRAZIL	0.0207 (1.9)*	0.0288 (3.31)***	0.0245 (3.89)***	0.0158 (3.74)***	0.0149 (3.41)***	0.0117 (3.16)***	0.0228 (3.71)***
CANADA	0.011	-0.0704	-0.0458	-0.099	-0.0212	-0.0499	-0.0092
CHILE	0.0102 [0.89]	0.0038 [0.92]	-0.0019 [0.92]	-0.0005 [0.92]	-0.0091 [0.25]	-0.0051 [0.50]	-0.0043 [0.96]
COLOMBIA	-0.0249 [0.81]	-0.0458 [0.13]	-0.0145 [0.31]	-0.0062 [0.63]	-0.0109 [0.63]	-0.0063 [0.63]	-0.0113 [0.44]
GUATEMALA	0.0684	0.0289	0.0274	0.0044	0.0089	0.0006	-0.0179
MEXICO	0.0001 (0.00)	0.0084 (0.45)	0.0099 (1.05)	-0.0004 (-0.07)	0.0051 (0.71)	-0.0044 (-1.0)	-0.0023 (-0.24)
PANAMA	0.0176 [0.63]	-0.0193 [0.81]	-0.0076 [0.63]	-0.0036 [0.63]	0.0027 [1.0]	-0.0016 [1.0]	-0.0123 [0.31]
PERU	0.0063 [0.79]	0.0248 [0.34]	0.00823 [0.41]	0.0192 [0.27]	0.0133 [0.15]	0.011 [0.89]	0.0291 [0.31]
PUERTO RICO	-0.0303	0.0511	0.0559	0.0468	0.0113	0.0309	0.0372
SPAIN	-0.1007	-0.0554	-0.0131	0.0052	0.0094	0.0202	0.0131
UNITED KINGDOM	-0.1266	-0.0673	-0.0715	-0.0482	-0.0583	-0.0281	-0.0118
UNITED STATES	-0.055 [0.03]**	-0.0324 [0.12]	-0.0231 [0.28]	-0.0168 [0.34]	-0.0083 [0.66]	-0.0159 [0.19]	-0.017 [0.18]
URUGUAY	-0.0459	-0.0374	-0.0161	-0.0082	0.0007	0.0057	-0.0002
VENEZUELA	0.0052	-0.0211	0.0204	-0.0104	-0.0086	-0.0048	-0.0112

t-values in parentheses and p-values from Wilcoxon test in square brackets

*** p < 0.01, ** p < 0.05, * p < 0,1

Table 16: Acquirer's Industry

	[-15:15]	[-7:7]	[-3:3]	[-1:0]	[0:1]	[0:0]	[0:5]
AUTOMOBILES AND AUTO PARTS	-0.0652	-0.0196	-0.0122	0.0017	-0.0124	-0.0079	-0.0235
BANKING SERVICES	-0.0384 (-2.09)**	-0.0195 (-1.77)*	-0.0066 (-0.64)	-0.005 (-0.68)	-0.0107 (-1.78)*	-0.0067 (-1.3)	-0.0104 (-1.17)
BEVERAGES	-0.0468 [0.32]	-0.0372 [0.52]	-0.0268 [0.76]	-0.0391 [0.12]	-0.0099 [0.83]	-0.0285 [0.24]	-0.0213 [0.83]
CHEMICALS	0.0936 [0.81]	0.0216 [1.0]	0.0471 [0.44]	0.0166 [0.81]	0.0151 [1.0]	0.0083 [1.0]	0.0299 [0.44]
CONSTRUCTION AND ENGINEERING	0.0677 [0.50]	0.0797 [0.45]	0.0639 [0.40]	0.0309 [0.08]*	-0.002 [0.62]	0.0271 [0.02]**	0.0562 [0.45]
CONSTRUCTION MATERIALS	0.0023 [0.95]	-0.0225 [0.19]	-0.0129 [0.26]	-0.0078 [0.37]	-0.0057 [0.72]	-0.0083 [0.29]	-0.0159 [0.11]
DIVERSIFIED RETAIL	0.0294 [0.46]	0.0492 [0.28]	0.0098 [0.76]	0.0153 [0.10]	0.0024 [0.97]	0.0009 [0.83]	0.0094 [0.83]
ELECTRIC UTILITIES AND IPPS	0.0236 [0.40]	0.0329 [0.12]	0.0287 [0.03]**	0.006 [0.40]	0.0009 [0.62]	-0.0013 [0.88]	0.0149 [0.56]
FOOD AND TOBACCO	0.0126 (0.57)	0.0198 (1.09)	0.0114 (1.23)	0.0113 (2.44)**	0.0111 (2.13)**	0.004 (1.19)	0.0112 (1.27)

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HEALTHCARE PROVIDERS AND SERVICES	0.0467 [0.39]	0.031 [0.67]	0.0402 [0.36]	0.0228 [0.76]	0.0458 [0.07]*	0.0288 [0.58]	0.0464 [0.54]
HOTELS AND ENTERTAINMENT SERVICES	0.0151 [0.50]	0.008 [0.73]	0.0123 [0.43]	0.0126 [0.20]	0.0106 [0.82]	0.003 [0.57]	0.0156 [0.36]
INSURANCE	0.0035	0.0331	0.0334	0.0038	0.005	0.0004	0.0369
INVESTMENT BANKING AND INVESTMENT SERVICES	0.0813	0.0815	0.0309	0.0365	0.0334	0.0299	0.0536
MACHINERY, TOOLS, HEAVY VEHICLES	0.0193 [0.81]	0.045 [0.47]	0.03345 [0.81]	0.0567 [0.38]	0.0496 [0.22]	0.065 [0.16]	0.0212 [0.38]
MEDIA AND PUBLISHING	-0.0176	-0.0466	-0.0254	0.0651	0.017	0.0418	0.0056
METALS AND MINING	0.0422 [0.27]	0.0269 [0.23]	0.0168 [0.15]	0.0134 [0.43]	0.0109 [0.59]	0.0077 [1.00]	0.0065 [0.95]
OIL AND GAS	-0.0111 [1.0]	0.0016 [0.73]	-0.0012 [0.91]	-0.0036 [0.82]	0.0011 [1.0]	-0.0016 [1.0]	0.0131 [0.50]
OIL AND GAS RELATED EQUIPMENT AND SERVICES	0.0295	0.1285	0.0636	0.0278	0.0601	0.0208	0.0468
PAPER AND FOREST PRODUCTS	0.0345	0.0167	0.0355	-0.0053	0.0215	0.0051	0.0303
PASSENGER TRANSPORTATION SERVICES	0.111	0.1171	0.067	0.0049	0.0747	0.02	0.0795
PHARMACEUTICALS	-0.1463 [0.01]***	-0.0651 [0.01]***	-0.0466 [0.02]**	0.0008 [0.63]	0.0025 [0.52]	0.0026 [0.63]	-0.0229 [0.07]*
PROFESSIONAL AND COMMERCIAL SERVICES	0.0359 [0.30]	0.0509 [0.08]*	0.0225 [0.47]	0.0074 [0.94]	0.0006 [0.69]	0.0119 [0.58]	0.0092 [0.94]
REAL ESTATE OPERATIONS	-0.0185 [0.58]	0.0256 [0.94]	0.0168 [0.81]	0.0131 [0.69]	0.0081 [0.81]	0.0031 [0.94]	0.0105 [0.69]
SOFTWARE AND IT SERVICES	0.0304 [0.01]**	0.0167 [0.16]	0.025 [0.13]	0.0031 [0.25]	0.0104 [0.30]	0.0014 [0.82]	0.0169 [0.30]
SPECIALTY RETAILERS	-0.0238	-0.0146	-0.0124	-0.0115	0.0223	0.0019	-0.0049
TELECOMMUNICATIONS SERVICES	-0.0148 [0.68]	0.0192 [0.60]	0.0097 [0.49]	0.0027 [0.94]	0.0059 [0.97]	-0.0036 [0.41]	0.0117 [0.99]
TEXTILES AND APPAREL	-0.1043 [0.06]*	-0.0328 [0.31]	0.0228 [0.63]	-0.0036 [1.00]	0.0101 [1.00]	-0.0095 [0.31]	0.0072 [0.81]
TRANSPORT INFRASTRUCTURE	-0.0212	-0.036	0.0131	0.0029	-0.0025	0.0096	0.0151

t-values in parentheses and p-values from Wilcoxon test in square brackets

*** $p < 0.01$, ** $p < 0.05$, * $p < 0,1$

Table 17: Target's Industry

	[-15:15]	[-7:7]	[-3:3]	[-1:0]	[0:1]	[0:0]	[0:5]
AUTOMOBILES AND AUTOPARTS	-0.0683	-0.0144	0.0124	0.0289	0.0168	0.0223	0.0048
BANKING SERVICES	-0.0522 (-2.7)**	-0.0349 (-2.78)***	-0.0089 (-0.84)	-0.0064 (-0.67)	-0.0151 (-2.09)**	-0.0079 (-1.19)	-0.0177 (-1.65)
BEVERAGES	-0.0196 [0.83]	-0.0375 [0.52]	-0.0179 [1.0]	-0.031 [0.41]	-0.0038 [0.90]	-0.026 [0.58]	-0.0141 [0.89]
CHEMICALS	0.0203 [0.63]	-0.0231 [0.31]	0.0129 [1.0]	-0.0091 [0.31]	-0.0122 [1.0]	-0.0071 [0.44]	0.0071 [0.63]
CONSTRUCTION AND ENGINEERING	0.0483 [0.23]	0.0342 [0.11]	0.0378 [0.20]	0.031 [0.03]**	0.0051 [0.95]	0.024 [0.03]**	0.0193 [0.51]
CONSTRUCTION MATERIALS	0.0028 [0.88]	-0.0237 [0.34]	-0.0153 [0.24]	-0.0088 [0.55]	-0.0075 [0.63]	-0.0088 [0.48]	-0.0191 [0.12]
DIVERSIFIED RETAIL	0.0454	0.0889	0.0737	0.0008	0.0265	-0.0099	0.0424
ELECTRIC UTILITIES AND IPPS	0.0173 [0.38]	0.025 [0.13]	0.028 [0.03]**	0.0076 [0.15]	0.0052 [0.67]	0.0002 [0.88]	0.227 [0.08]*
FOOD AND DRUG RETAILING	0.0615 [0.31]	0.0579 [0.31]	0.0696 [0.03]**	0.0364 [0.03]**	0.053 [0.03]**	0.0347 [0.03]**	0.0497 [0.31]
FOOD AND TOBACCO	0.0181 (0.74)	0.0229 (1.16)	0.0103 (1.07)	0.0095 (1.95)*	0.0124 (2.9)***	0.0059 (2.43)**	0.0131 (1.5)
HEALTHCARE EQUIPMENT AND SUPPLIES	-0.121	-0.0243	-0.044	-0.0045	-0.002	-0.0025	-0.0014
HEALTHCARE PROVIDERS AND SERVICES	0.014 [0.97]	0.0279 [0.97]	0.0334 [0.64]	0.015 [0.76]	0.0415 [0.21]	0.0244 [0.46]	0.0157 [0.52]
Homebuilding and construction supplies	0.0911 [0.44]	0.0635 [0.44]	0.0435 [0.44]	0.0229 [0.63]	0.0257 [0.81]	0.0143 [0.63]	0.0322 [0.63]

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HOTELS AND ENTERTAINMENT SERVICES	0.0039 [0.91]	-0.0083 [0.82]	0.0028 [0.91]	0.0121 [0.25]	0.013 [0.57]	0.0024 [0.57]	0.0093 [0.65]
INSURANCE	-0.0192	0.0038	0.0153	-0.0031	0.0053	-0.0007	0.0259
INVESTMENT BANKING AND INVESTMENT SERVICES	0.0399 [0.45]	0.098 [0.04]**	0.0317 [0.34]	0.0135 [0.38]	0.0025 [0.59]	0.0089 [0.74]	0.04 [0.74]
MACHINERY, TOOLS, HEAVY VEHICLES	-0.0071	0.0098	-0.0013	0.0148	0.0157	0.0118	0.0024
MEDIA AND PUBLISHING	0.0406 [0.31]	0.0348 [0.63]	0.0284 [0.63]	0.039 [0.13]	0.0436 [0.06]*	0.0193 [0.44]	0.0827 [0.19]
METALS AND MINING	0.0393 [0.50]	0.0235 [0.47]	0.0075 [0.70]	0.0062 [0.90]	0.009 [0.70]	0.0015 [0.44]	0.0047 [0.87]
NATURAL GAS UTILITIES	-0.0079	0.0147	0.01	0.0091	0.0078	0.0143	0.0194
OIL AND GAS	0.0105	0.0356	-0.0126	-0.0069	-0.0059	-0.0079	-0.0077
OIL RELATED SERVICES	-0.3381	-0.179	-0.0637	-0.0149	-0.0278	-0.0051	-0.123
PAPER AND FOREST PRODUCTS	-0.0972	-0.0231	0.0116	-0.0211	0.0357	-0.0008	0.0139
PASSENGER TRANSPORTATION SERVICES	0.0868	0.0778	0.0844	0.03	0.0715	0.0291	0.06
PERSONAL AND HOUSEHOLD PRODUCTS AND SERVICES	0.0461	0.0331	-0.005	-0.0069	-0.0277	-0.0125	0.0124
PHARMACEUTICALS	-0.1886	-0.0855	-0.0693	0.0177	-0.0262	0.0105	-0.0505
PROFESSIONAL AND COMMERCIAL SERVICES	0.0447 [0.13]	0.0271 [0.13]	0.0195 [0.68]	-0.0042 [0.42]	0.0067 [0.97]	0.0061 [0.79]	0.039 [0.27]
REAL ESTATE OPERATIONS	-0.1128 [0.13]	-0.0224 [0.44]	-0.0337 [0.63]	-0.0161 [0.63]	-0.0045 [0.63]	-0.0134 [0.44]	-0.0062 [1.0]
RENEWABLE ENERGY	0.0139	-0.0077	0.0372	0.0113	0.0285	0.0225	0.0019
SOFTWARE AND IT SERVICES	0.0084 [0.39]	0.0117 [0.43]	0.0134 [0.39]	-0.0002 [0.86]	0.0021 [0.71]	-0.001 [0.71]	0.0046 [0.63]
SPECIALTY RETAILERS	-0.0033	0.0668	0.0043	0.0381	-0.0253	-0.0088	0.0397
TELECOMMUNICATIONS SERVICES	-0.0078 [0.89]	0.0233 [0.62]	0.0041 [0.75]	0.0038 [0.94]	0.0001 [0.64]	-0.0034 [0.43]	-0.003 [0.50]
TEXTILES AND APPAREL	-0.0616 [0.08]*	-0.0117 [0.58]	0.0092 [0.94]	0.006 [0.81]	-0.008 [0.58]	-0.0203 [0.22]	-0.0209 [0.47]
TRANSPORT INFRASTRUCTURE	-0.2599	-0.143	-0.0042	-0.0027	-0.0003	0.0181	0.0064

t-values in parentheses and p-values from Wilcoxon test in square brackets

*** $p < 0.01$, ** $p < 0.05$, * $p < 0,1$

Table 18: Robustness Check

	[-15:15]	[-7:7]	[-3:3]	[-1:0]	[0:1]	[0:0]	[0:5]
RELATIVE SIZE	-0.0035 (-0.47)	-0.0055 (-1.00)	-0.0035 (-0.93)	-0.0033 (-1.27)	-0.0034 (-1.28)	-0.0024 (-1.14)	-0.0031 (0.81)
GDP PER CAPITA	0.0022 (0.08)	0.0018 (0.90)	0.0019 (1.46)	0.005 (0.55)	-0.0088 (-0.1)	0.0002 (0.27)	0.0084 (0.62)
ACQUIRER GROWTH	0.0303 (1.72)*	0.0051 (0.38)	0.006 (0.66)	0.0054 (0.87)	0.0095 (1.49)	0.0049 (0.97)	0.0025 (0.27)
PRIVATE STATUS	-0.0275 (-1.03)	-0.0119 (-0.59)	-0.0239 (-1.72)*	-0.0012 (-0.12)	-0.004 (-0.42)	-0.0045 (-0.58)	-0.0095 (-0.68)
SUBSIDIARY STATUS	-0.023 (-0.87)	-0.0024 (-0.12)	-0.0154 (-1.13)	0.0036 (0.39)	-0.0002 (-0.02)	-0.007 (-0.09)	-0.0011 (-0.08)
DOMESTIC	0.0222 (1.15)	0.0324 (2.21)**	0.0243 (2.42)**	0.0184 (2.7)***	0.0077 (1.11)	0.01 (1.77)*	0.0177 (1.75)*
MONTH	0.0029 (1.2)	0.0022 (1.21)	0.0014 (1.11)	0.0011 (1.27)	-0.002 (-1.47)	0.0002 (0.31)	0.0007 (0.59)
DEAL SIZE	-0.0041 (-1.39)	-0.0043 (1.96)*	-0.0036 (-2.41)**	-0.0002 (-0.16)	-0.0016 (-1.47)	-0.0006 (-0.66)	-0.0034 (-2.21)**
CONGLOMERATE	0.0182 (0.92)	0.0184 (1.23)	0.0098 (0.96)	0.0098 (1.4)	0.0078 (1.09)	0.0079 (1.37)	0.0149 (1.44)
VERTICAL	-0.0238 (-0.74)	-0.0054 (-0.22)	-0.0176 (-1.07)	0.0092 (0.82)	0.0078 (0.67)	0.0065 (0.7)	0.0085 (0.51)

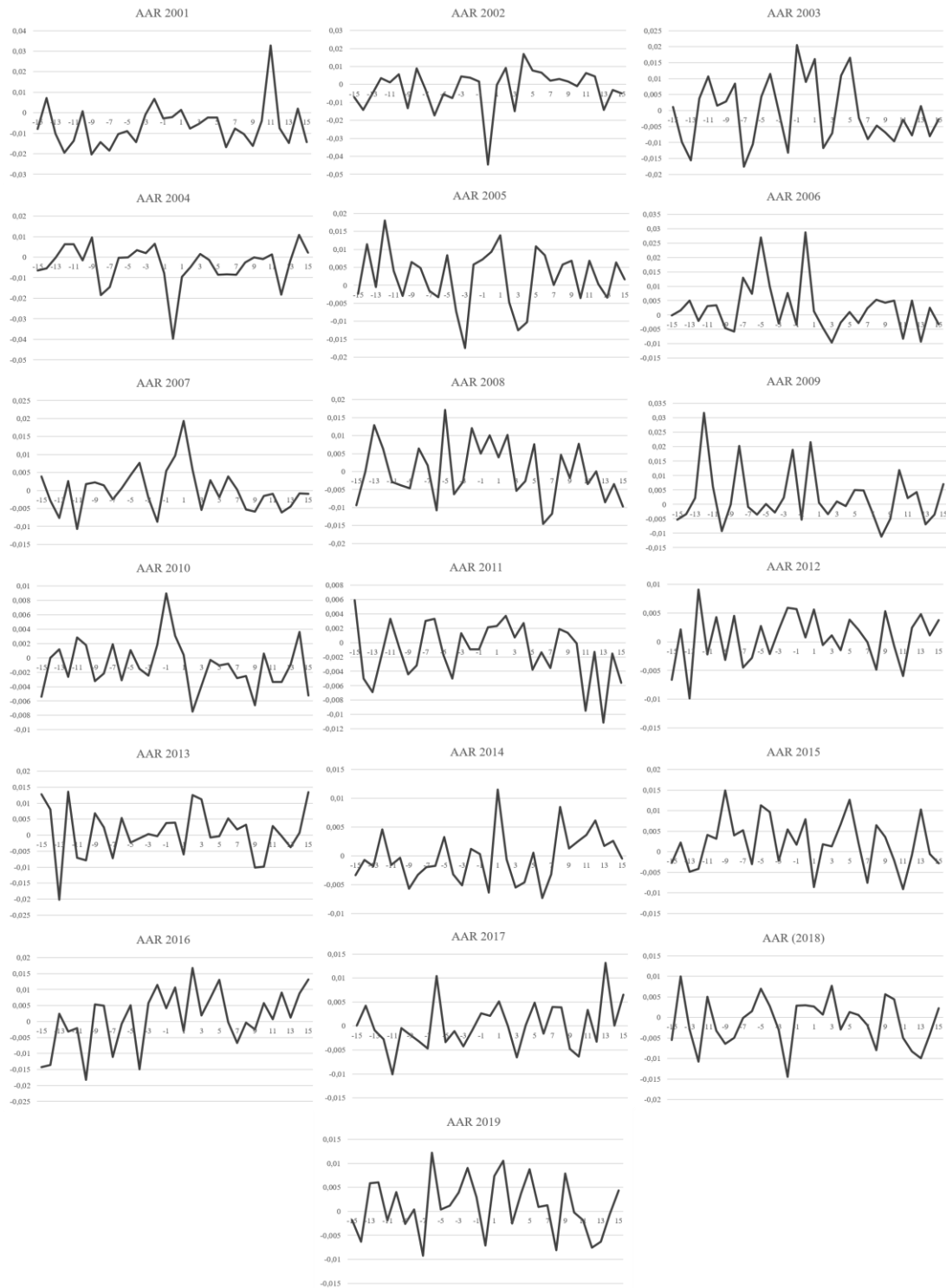
Appendix

CASH PAYMENT	-0.0384 (-1.57)	-0.032 (-1.73)*	-0.0081 (-0.64)	-0.0111 (-1.29)	-0.0154 (-1.74)*	-0.0117 (-1.65)	-0.01 (-0.78)
HYBRID PAYMENT	-0.0746 (-2.09)**	-0.0359 (-1.33)	-0.0052 (-0.28)	-0.0082 (-0.65)	-0.0161 (-1.25)	-0.0099 (-0.96)	-0.0062 (-0.33)
CONSTANT	0.0038 (0.08)	-0.0115 (-0.34)	-0.0116 (-0.5)	-0.0163 (-1.03)	0.0125 (0.77)	0.0008 (0.06)	-0.0047 (-0.2)
R ²	0.0511	0.0649	0.0715	0.0671	0.0447	0.0478	0.0479

t-values in parentheses

*** p < 0.01, ** p < 0.05, * p < 0,1

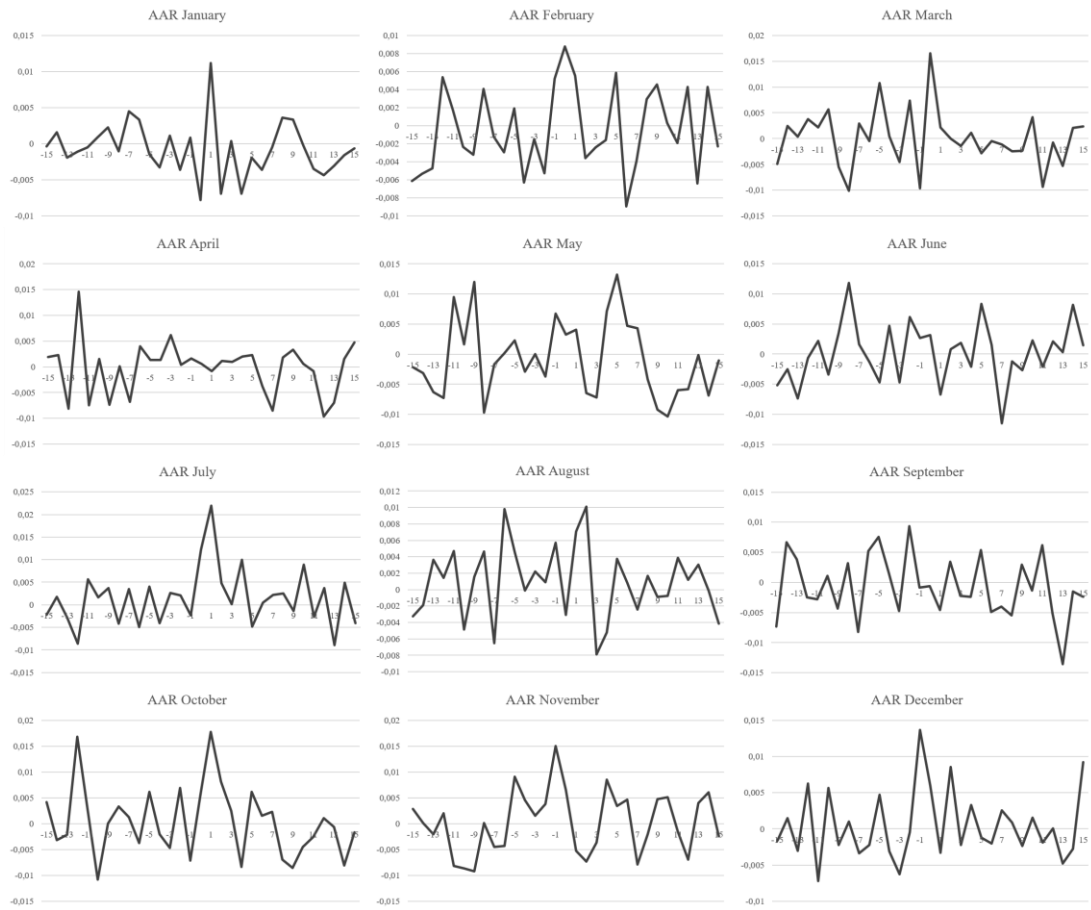
Appendix



Source: Own representation based on EIKON data

Figure 17: AAR by year

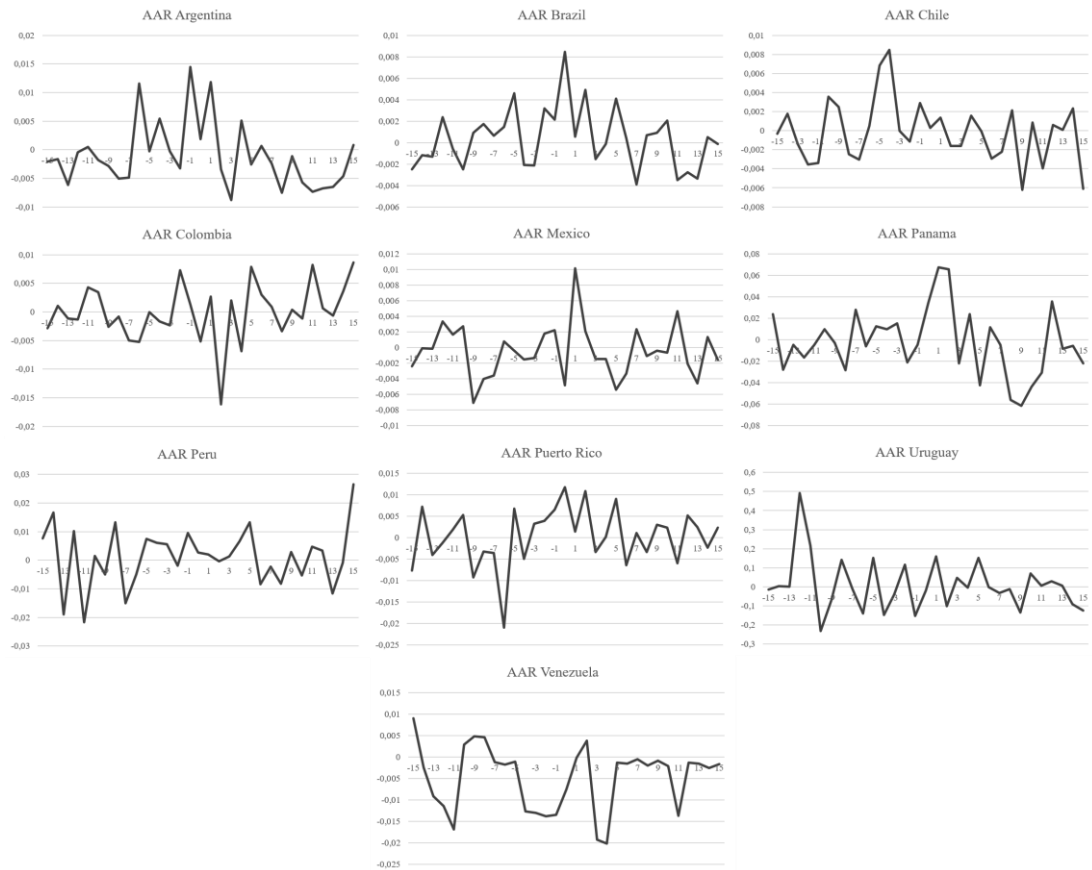
Appendix



Source: Own representation based on EIKON data

Figure 18: AAR by month

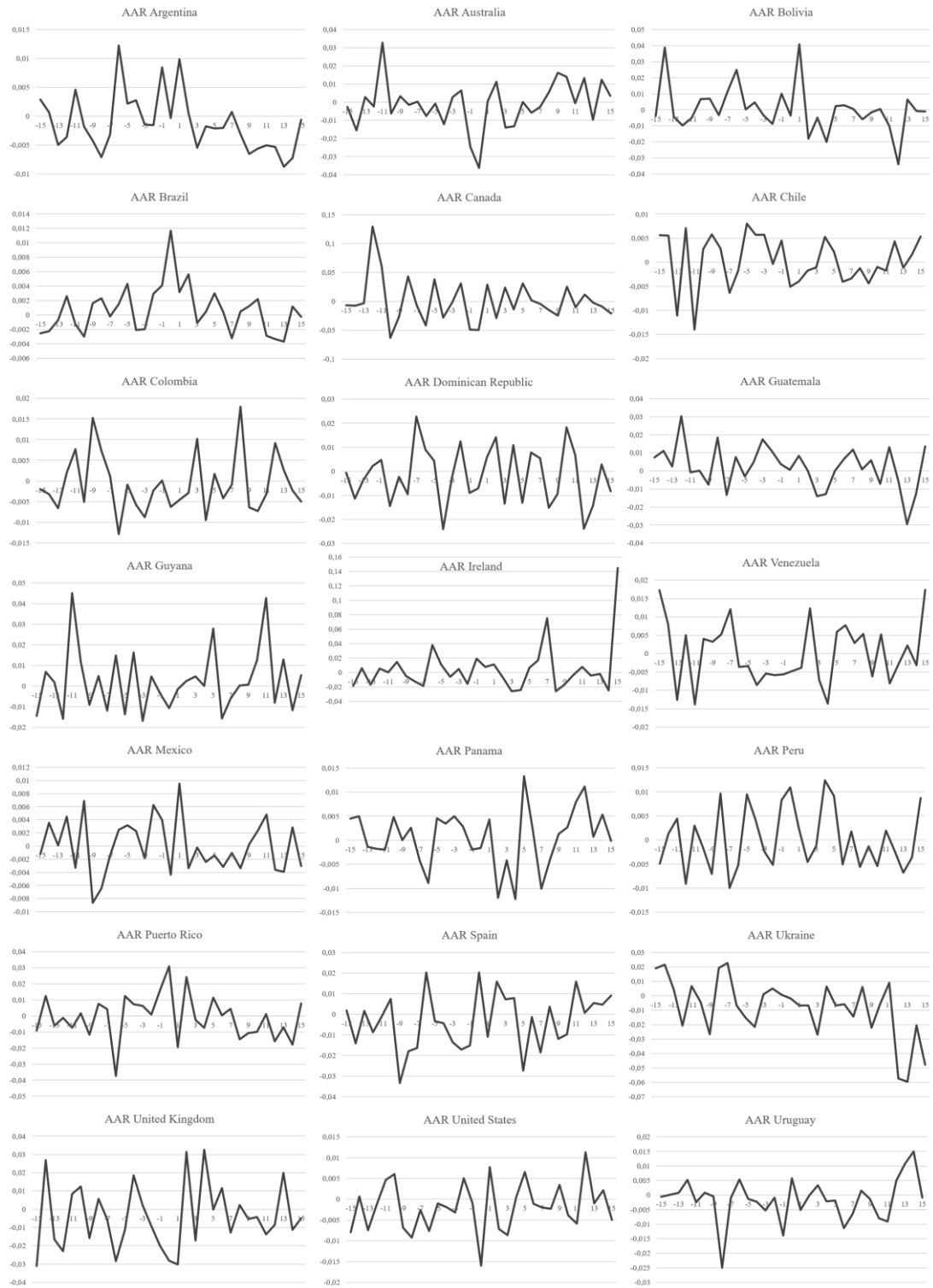
Appendix



Source: Own representation based on EIKON data

Figure 19: AAR by acquirer's nation

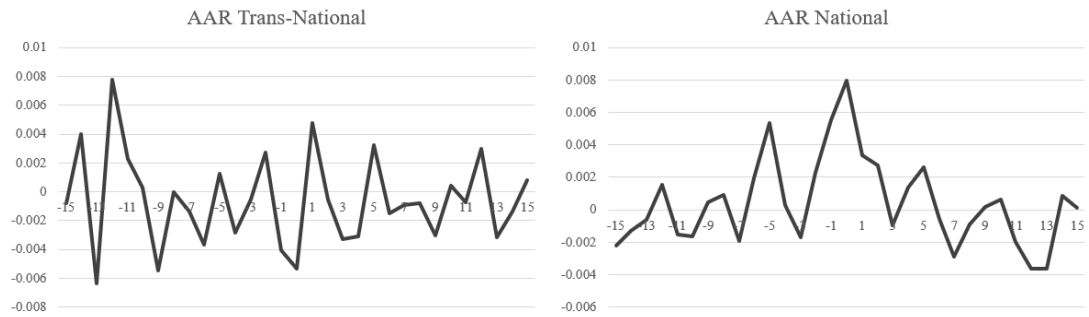
Appendix



Source: Own representation based on EIKON data

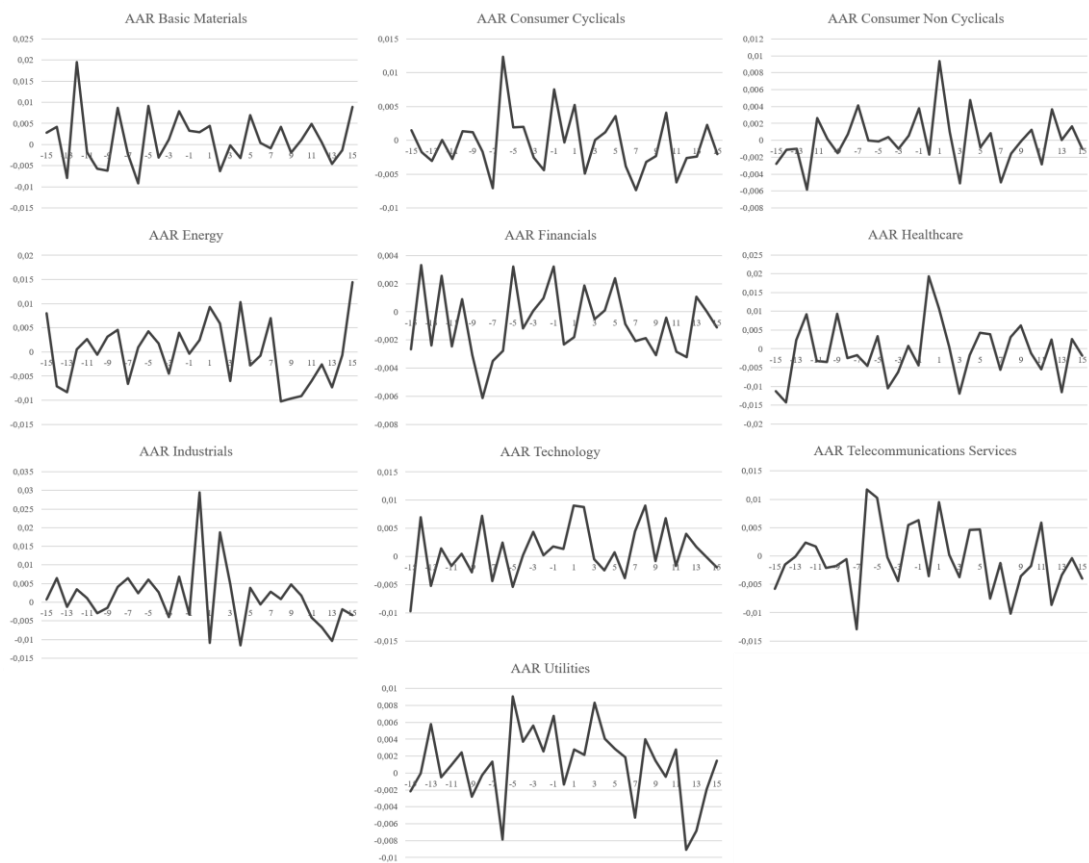
Figure 20: AAR by target's nation

Appendix



Source: Own representation based on EIKON data

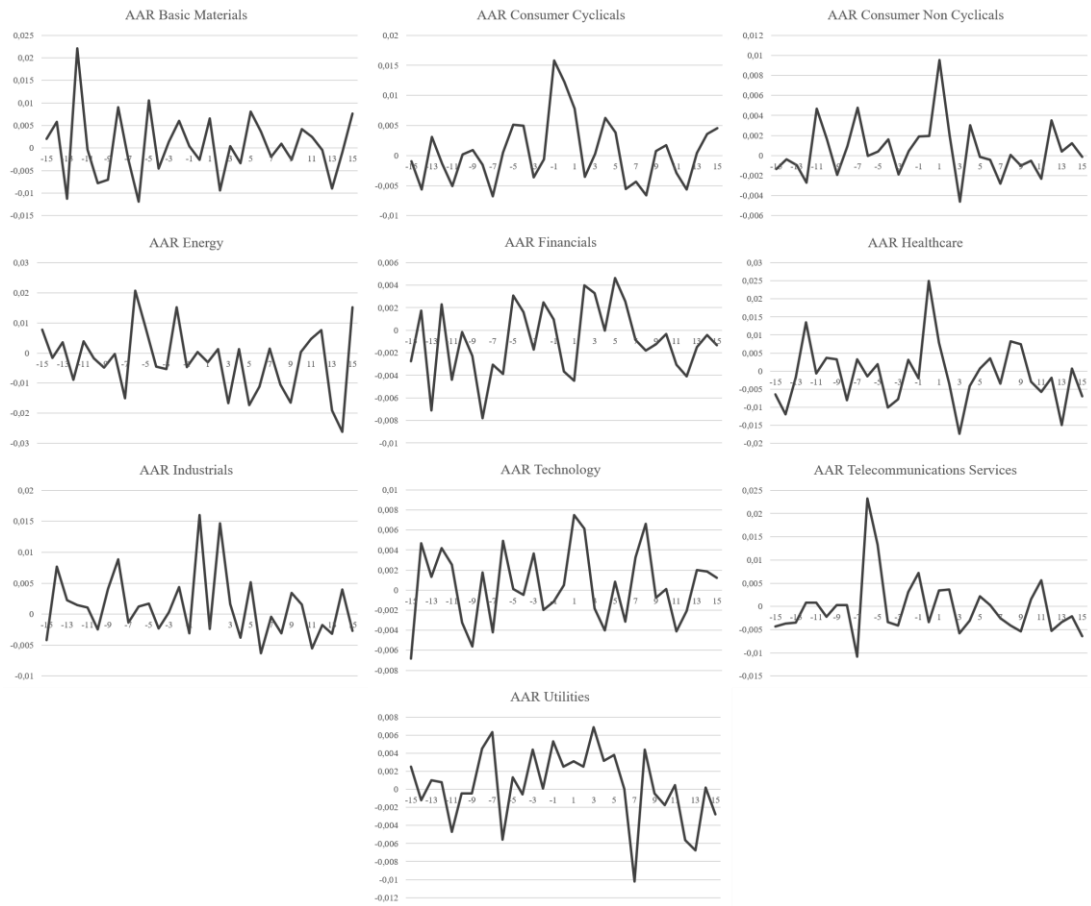
Figure 21: AAR by domestic / transnational transactions



Source: Own representation based on EIKON data

Figure 22: AAR by acquirer's nation

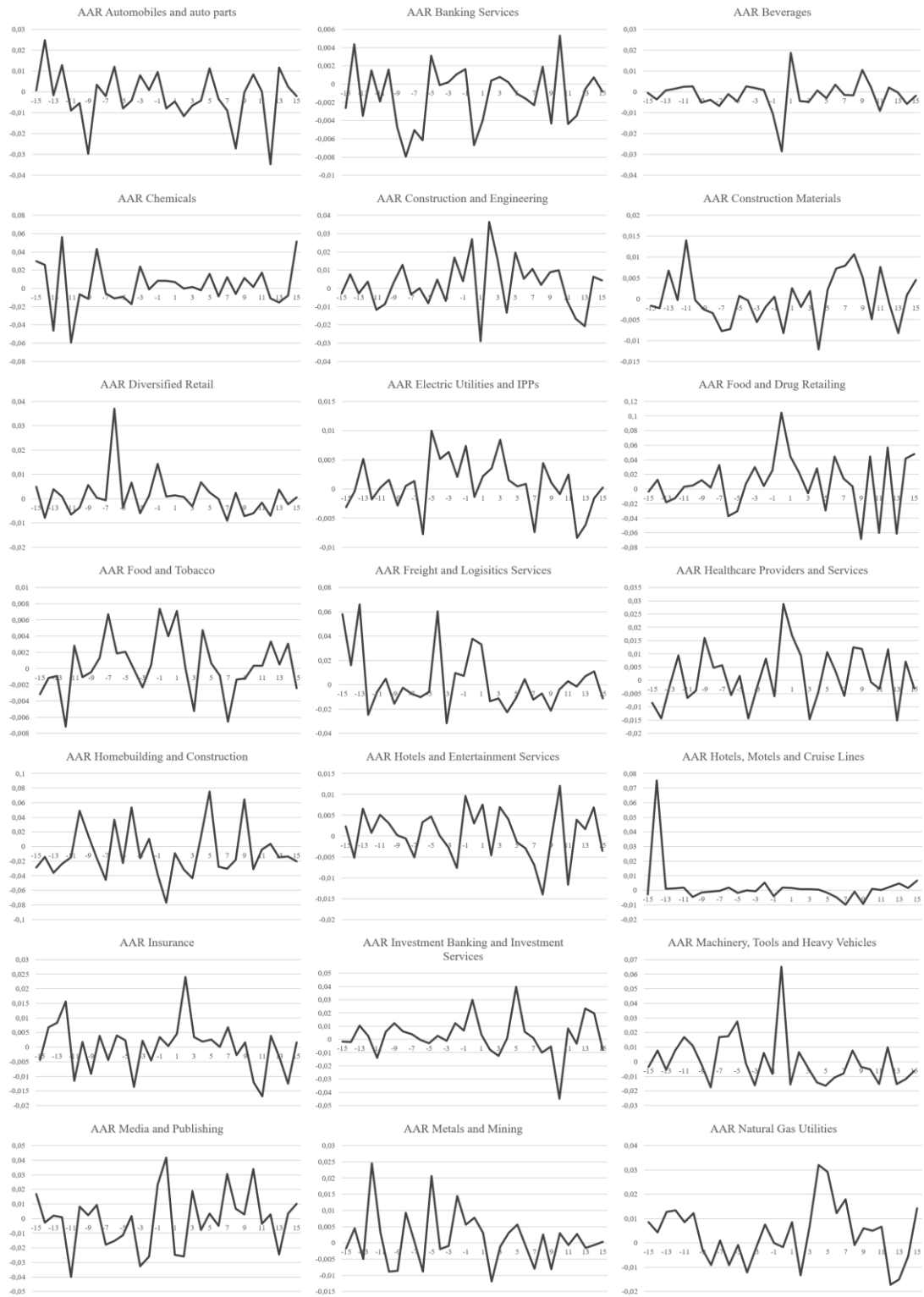
Appendix



Source: Own representation based on EIKON data

Figure 23: AAR by target's sector

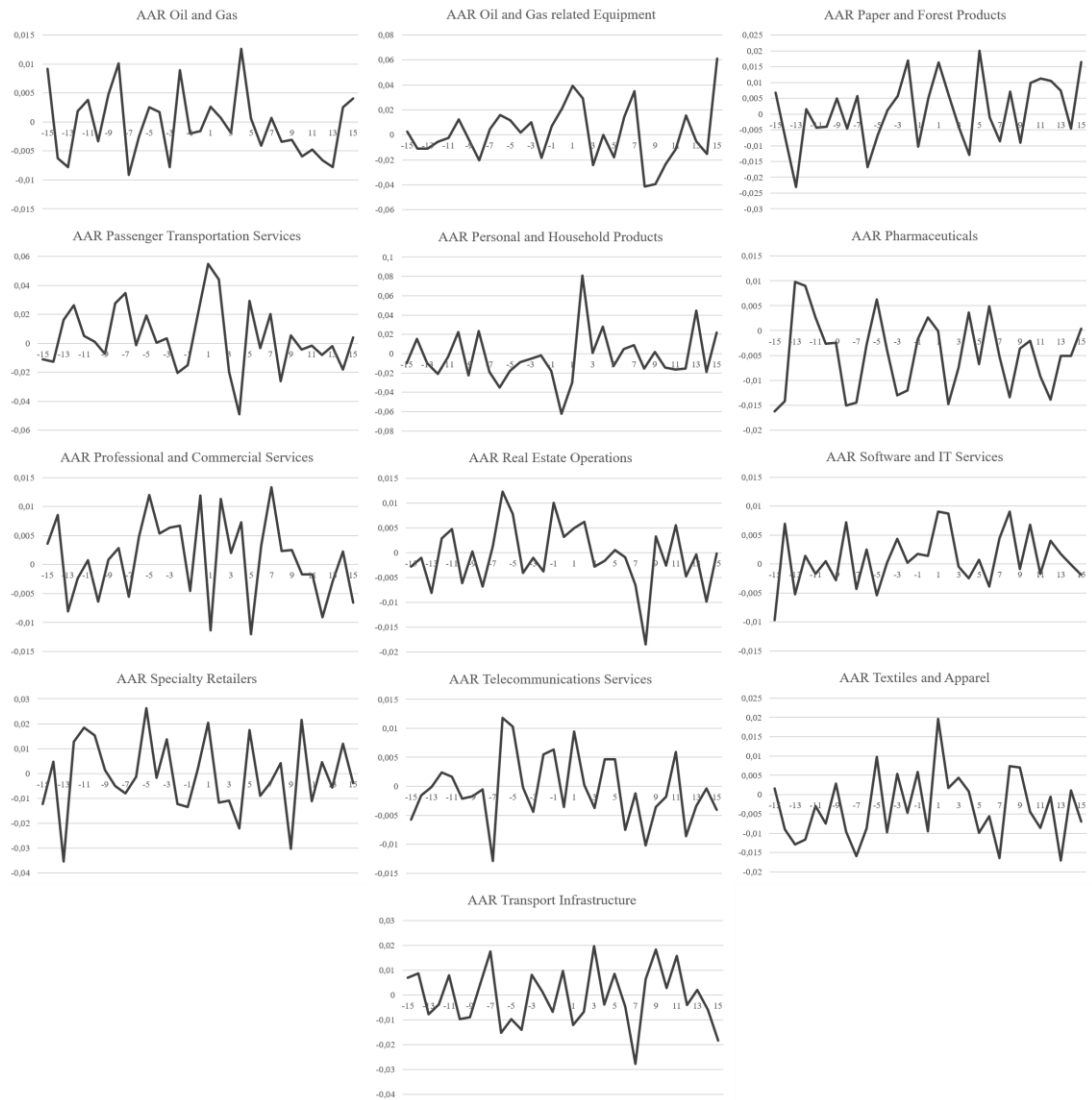
Appendix



Source: Own representation based on EIKON data

Figure 24: AAR by acquirer's industry

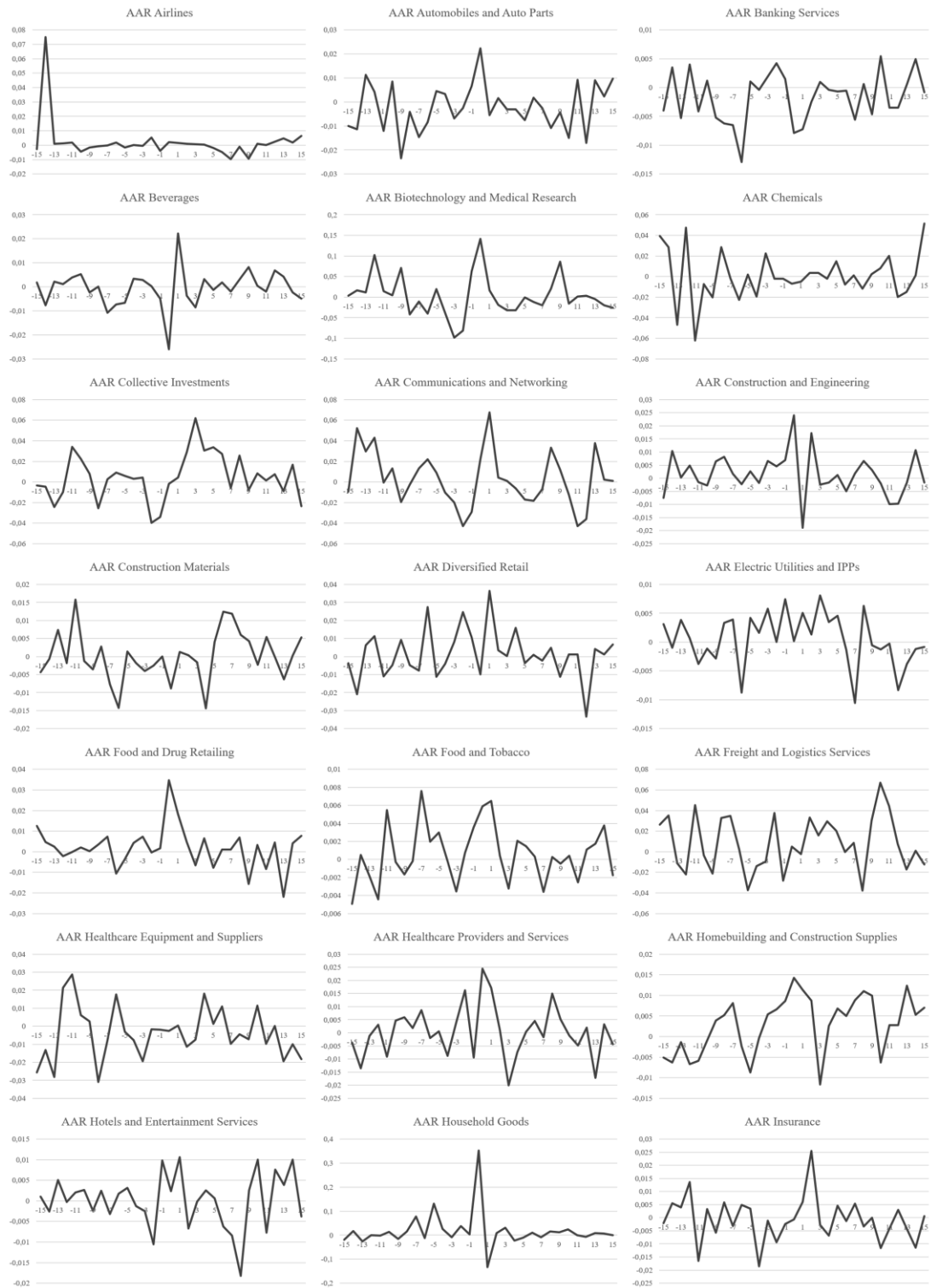
Appendix



Source: Own representation based on EIKON data

Figure 25: Continuation AAR by acquirer's industry

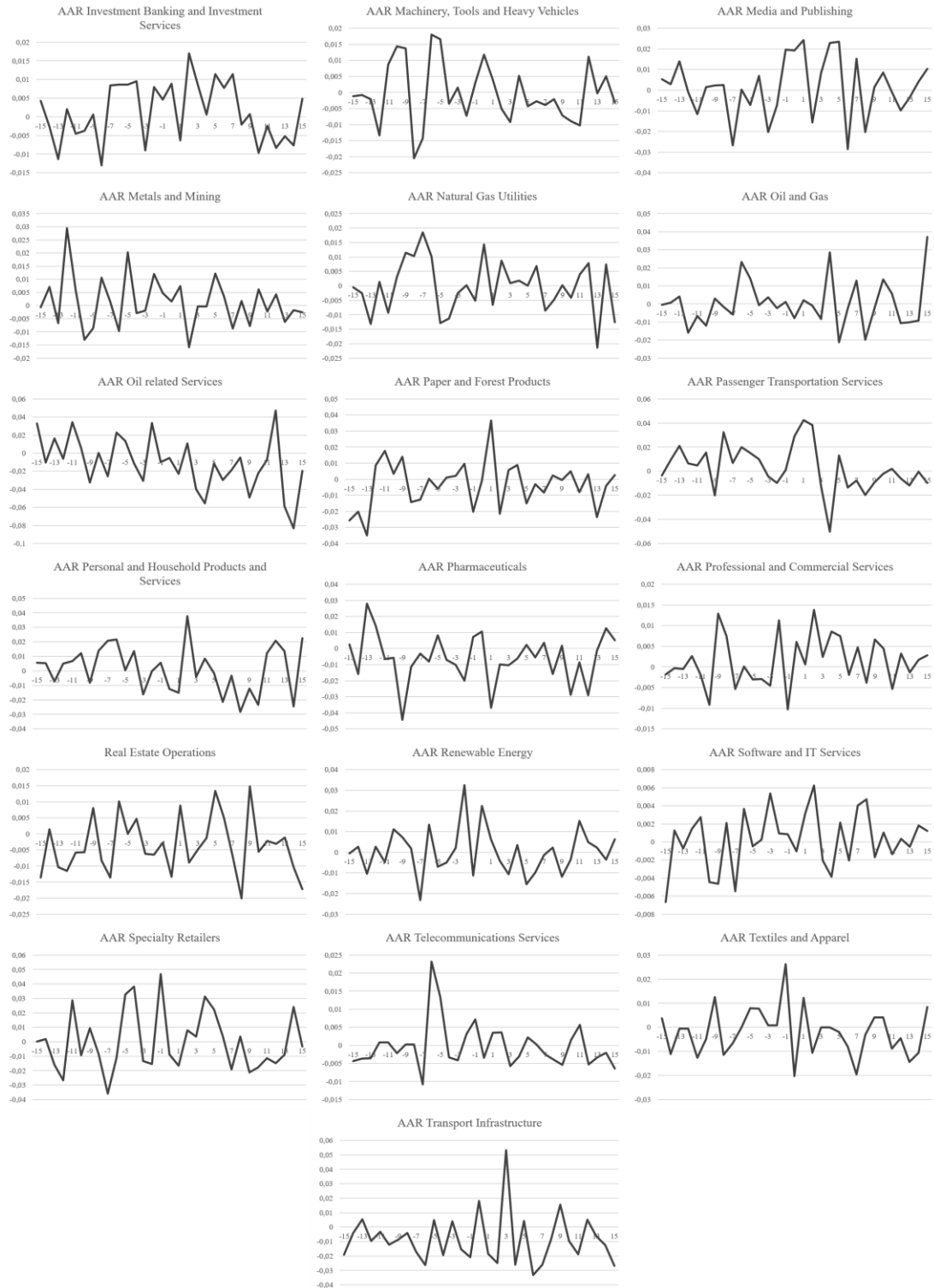
Appendix



Source: Own representation based on EIKON data

Figure 26: AAR by target's industry

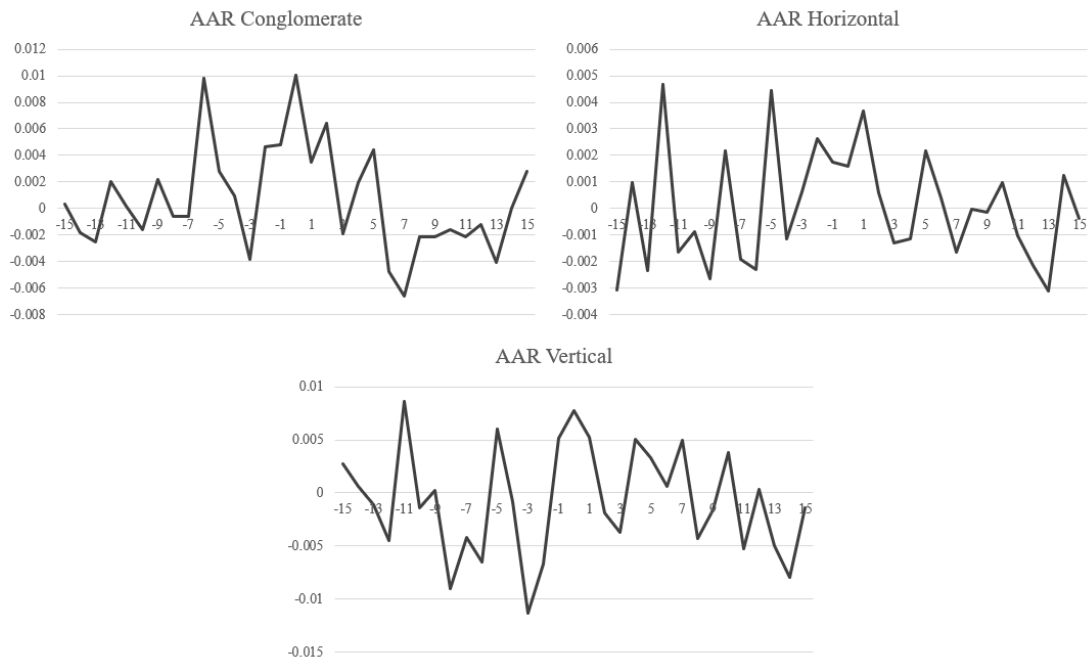
Appendix



Source: Own representation based on EIKON data

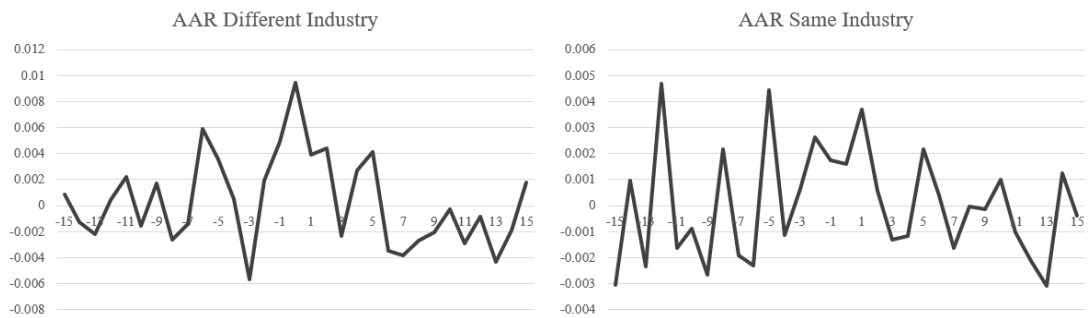
Figure 27: Continuation AAR by target's industry

Appendix



Source: Own representation based on EIKON data

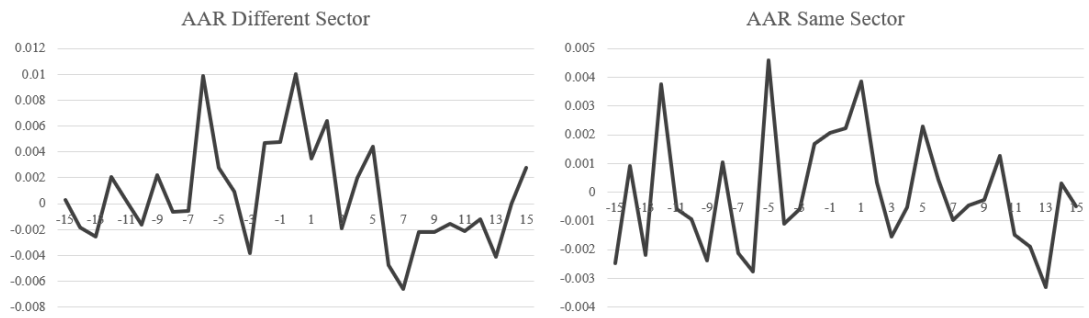
Figure 28: AAR by transaction direction



Source: Own representation based on EIKON data

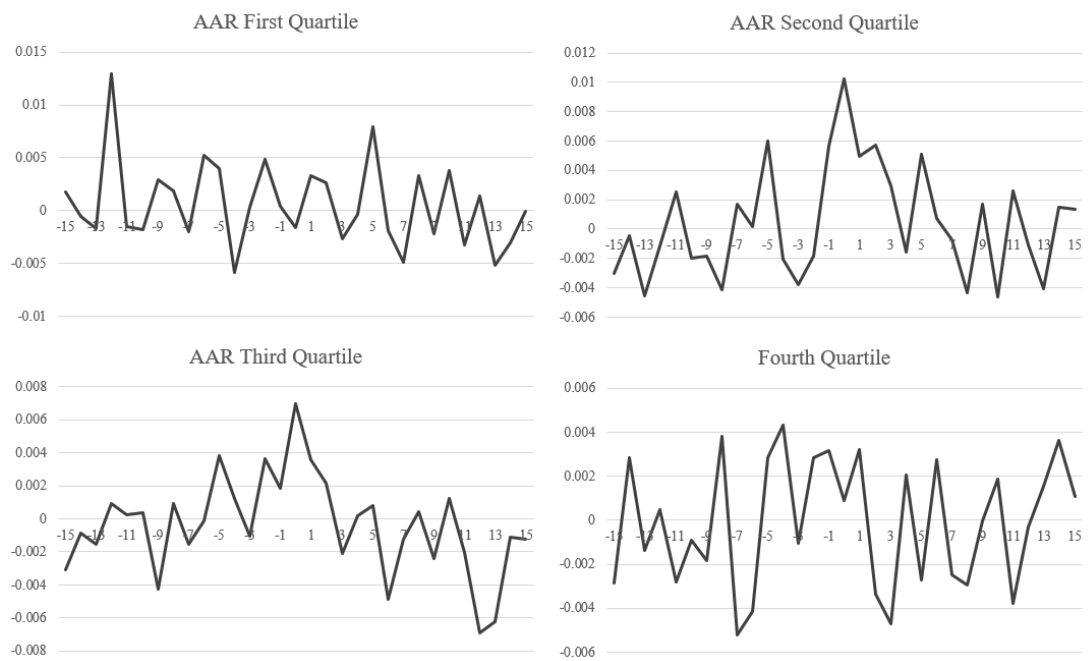
Figure 29: AAR by cross-industry / intra-industry transactions

Appendix



Source: Own representation based on EIKON data

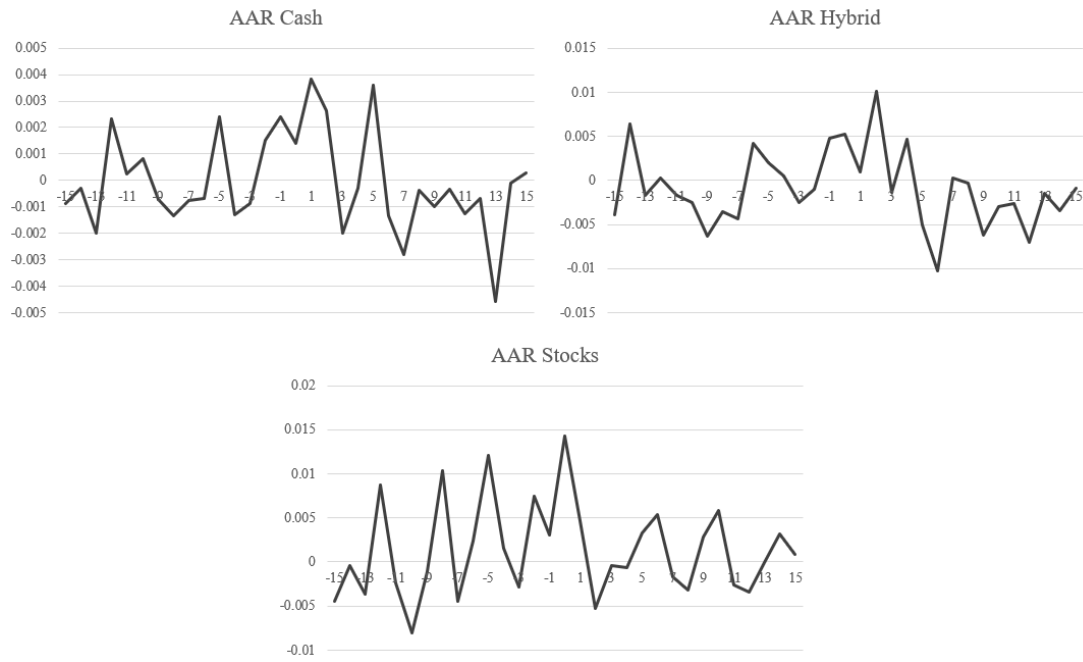
Figure 30: AAR by cross-economic-sector / intra-economic-sector transactions



Source: Own representation based on EIKON data

Figure 31: AAR by volume quartiles

Appendix



Source: Own representation based on EIKON data

Figure 32: AAR by payment method

8 References

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