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Mergers and Acquisitions: The Impact of Financing Strategies

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Resumo

No contexto de fusões e aquisições, a aquisição da empresa-alvo requer que a empresa adquirente detenha fundos suficientes, tornando as estratégias de financiamento um fator crítico. O principal objetivo desta dissertação consiste em analisar o impacto das diferentes fontes de financiamento utilizadas em fusões e aquisições na performance financeira da empresa adquirente. Para tal, recorreu-se a indicadores que permitem avaliar a lucratividade, eficiência, liquidez e solvência da empresa adquirente. Após o cálculo dos respectivos indicadores, os valores foram comparados ao longo dos anos tendo como período de análise os três anos que antecedem a aquisição e os cinco anos após a conclusão da mesma. Para a análise, foram selecionados três casos de estudo, sendo que cada um deles utiliza, exclusivamente, uma das fontes de financiamento consideradas neste estudo: capital próprio, dívida e fundos internos. No caso em que capital próprio é emitido, foi observada uma diminuição na proporção do montante do passivo para o total dos ativos na empresa adquirente após a aquisição. Isto sugere que uma estratégia para reduzir a proporção de passivos em relação ao total de ativos é adquirir uma empresa com uma baixa proporção de passivos face aos ativos, utilizando a emissão de capital próprio como financiamento. Adicionalmente, os rácios de estrutura de capital indicam que a transação é realizada por meio da emissão de capital próprio para evitar a acumulação de dívida. No caso de estudo em que é utilizada emissão de dívida, a evolução da proporção dos passivos para o total de ativos sugere que a empresa adquirente tenta anular o impacto que a aquisição teve no seu endividamento nos anos após a conclusão da transação. Quando analisado o caso de estudo que utiliza fundos internos como fonte de financiamento, a empresa aparenta optar por converter investimentos de curto prazo em numerário de forma a financiar a aquisição. Para além disto, a proporção de passivos para o total de ativos sugere que a empresa adquirente tinha capacidade para financiar a transação por meio de dívida, mas preferiu utilizar financiamento interno.

Códigos JEL: G30; G32; G34

Palavras-chave: Aquisições; Desempenho pós-aquisição; Decisões de financiamento; Estrutura de capital; Endividamento

Abstract

In the context of mergers and acquisitions, the acquisition of the target firm requires the possession of funds by the acquiring company, making financing strategies a critical factor. The main objective of this dissertation is to analyse the impacts of the sources of financing on the financial performance of the acquiring firm. We use indicators that allow us to evaluate the acquiring company's profitability, efficiency, liquidity and solvency. These indicators are compared throughout the years and the period of analysis encompasses the three years preceding the acquisition and five years after the acquisition's completion. We select three case studies, each case study exclusively using one of the financing sources considered: equity, debt, and internal funds. In the case where equity is issued, we observe a decrease in the ratio of Total Liabilities to Total Assets in the acquiring company following the acquisition. This suggests that to reduce the proportion of Total Liabilities in relation to Total Assets, a firm can acquire a company with a lower Total Liabilities to Total Assets ratio using equity as financing source. Additionally, the capital structure ratios indicate that the transaction is made through equity to prevent debt accumulation. In the case study that employs debt as the source of financing, the evolution of the Total Liabilities to Total Assets ratio suggests that the acquirer try to offset the acquisition's impact on its leverage in the years after the completion of the deal. In the case where cash is used as source of financing, it appears that the company chose to convert short-term investments into cash resources to fund the acquisition. Moreover, the Total Liabilities to Total Assets ratio suggests that the acquiring company had capacity to finance the transaction through debt but prefer to use internal financing.

JEL codes: G30; G32; G34

Keywords: Acquisitions; Post-acquisition performance; Financing decisions; Capital structure; Leverage

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1. Introduction

Mergers and acquisitions (M&A)¹ represent one of the largest investment decisions that companies pursue in order to foster growth (Betton et al., 2008; Malmendier et al., 2016). In the process of an acquisition, it is necessary to acquire the control of the target firm. The payment for this control can be made through cash, stocks or through a combination of the both (Brown & Ryngaert, 1991). Therefore, to exist one successful M&A transaction the acquiring company should possess sufficient funds. So, financing becomes a crucial factor when a bidder does not have enough cash on hand to pay for his bid (Vladimirov, 2015). This rationale is validated by the fact that the literature shows that the choice of the sources of financing can have a significant effect on the way of how the market will react to the takeover announcement (Fischer, 2017; Martynova & Renneboog, 2009; Schlingemann, 2004). In addition to this, some of the literature states that the financing methods employed in large transactions can have an impact on the financial performance² of the acquiring company (e.g., Gao et al., 2021; Harford et al., 2009). However, despite the use of different sources to finance a M&A offer a vast scope for analysis, the study of the impacts of the different financing sources on the performance of the acquiring company has received little relevance in the literature.

The main objective of this dissertation is to analyse the impacts of the different sources of financing employed in acquisitions on the financial performance of the acquiring company. In order to build our analysis, we use various indicators to evaluate the company's profitability, efficiency, liquidity and solvency. After the computation of the financial ratios, based on Coelli et al. (2005), we decide to compare the values achieved throughout the years, specially looking for the period before and after the M&A transaction, in order to understand the evolutions in the performance. This approach allows us to follow the studies of Harford et al. (2009) and Gao and Bao (2022) and examine how the capital structure of acquiring companies changes during the process of takeover transactions.

The methodology we employ centres around the utilization of financial ratios. This approach diverges from the conventional method followed by the literature, which typically relies on

¹ In this dissertation, the terms acquisition, merger, takeover, deal, and transaction are utilized synonymously.

² When we use the term financial performance throughout this dissertation, we are specifically referring to the changes in operational results and profitability, as well as the modifications in the company's capital structure, indebtedness, and liquidity.

the measurement of the cumulative abnormal returns (CARs) around the announcement date of the transaction (e.g., Bharadwaj & Shivdasani, 2003; Fischer, 2017; Martynova & Renneboog, 2009; Schlingemann, 2004). We have chosen not to follow the same path of the literature due to the idea that acquisitions are complex events, so it is natural that markets may not instantaneously and entirely understand the effects of all the information disclosed during the announcement (Harrison et al., 2005). Thus, studies focusing solely on announcement period returns of acquisitions might overlook the complete implications and broader impact of the transaction (Oler, 2008). By directly analysing the financial statements of the acquiring company, we can gain deeper insights into the true impact of the financing source on the acquiring company's financial performance and stability.

To ensure that our analysis captures large transactions, we only take into account deals that are equal to or exceed 500 million dollars of deal value. In large transactions the acquiring company might be compelled to seek external financing sources to fund the acquisition and the likelihood of a considerable impact on the capital structure will be higher (Gao & Bao, 2022; Harford et al., 2009). In addition to this, based on the insights provided by Schlingemann (2004) and Harrison et al. (2014), we examine the financial performance of the acquiring company for three years preceding the acquisition and five years after the acquisition's completion to ensure a robust understanding of the financial impacts.

In our dissertation, in line with Fischer (2017), we consider M&A transactions that feature only one type of financing source. Similar to Bessler et al. (2020), we have excluded the use of financing mix. As a result, we have deliberately selected three distinct case studies, with each case study exclusively using one of the financing sources considered in our dissertation: equity, debt, and internal funds. The reasons why we decide to proceed our analysis through a case study methodology is because we have noticed the existence of limited research dedicated to evaluating the impacts of financing strategies employed in M&A transactions. In less explored research domains, the case study method can be a valuable tool for obtaining insights, creating hypotheses, and identifying potential opportunities for future empirical research. By examining the three case studies separately, we can generate some important findings of how each source of financing impacts the financial performance of the acquiring company.

In the case study where equity served as the financing source for the M&A transaction, relevant insights has emerged. The most important finding which we observe is the decrease

in the ratio of Total Liabilities to Total Assets in the acquiring company following the acquisition in the year 2014. This reduction can be attributed to the increase in Total Assets resulting from the acquisition of the target company, which outpaced the growth in Total Liabilities, as the acquisition was funded through equity issuance. This finding suggests that one effective strategy to reduce the proportion of Total Liabilities in relation to Total Assets is to acquire a company with a lower Total Liabilities to Total Assets ratio, utilizing equity issuance as financing. Additionally, several capital structure ratios indicate that the transaction was made through equity issuance to prevent further debt accumulation in the capital structure. This aligns with the findings of Uysal (2011) and Elsas et al. (2014), which propose that firms take measures to decrease their leverage deficits and tend to issue equity when overleveraged.

In the case study that debt is used as the financing source for the M&A, the evolution of the Total Liabilities to Total Assets ratio over the analysed period suggests that, as highlighted by Harford et al. (2009), the greater the acquirer's pre-acquisition leverage deviation, the more likely it is that the firm will offset the acquisition's impact on its leverage. We can infer this from the fluctuations in the Total Liabilities to Total Assets ratio, which peaked in the year 2014 and subsequently decreased in 2018 and 2019, indicating a reduction in leverage.

Concerning the third case study, in which the acquiring company utilized cash as the financing source for the M&A, we made significant findings as well. Firstly, it appears that the company chose to convert short-term investments into cash resources to fund the acquisition. This underlines the importance of including short-term investments in ratio analysis. Moreover, the Total Liabilities to Total Assets ratio suggests that the acquiring company had the debt capacity to finance the transaction through debt issuance in the years 2013 and 2014. Since the company opted to use existing cash and short-term investments on its balance sheet, this decision aligns with the theories proposed by Myers (1984) and Myers and Majluf (1984), which emphasize companies' preference for utilizing internal financing in relation to external debt.

It is important to note that acquiring a corporation is essentially an investment (Benston, 1980). Bharadwaj and Shivdasani (2003) state that M&A offer an ideal context for exploring how financing sources impacts companies' investment decisions, since the information of these transactions is reported in a timely and complete manner. Therefore, this dissertation

not only aim to complement the M&A literature but also offers insights related to companies' investment decisions.

It is worth noting that the objective of this study is not stopping at its own findings, but laying the groundwork for further empirical research by providing a methodology and approach that can be used to develop more comprehensive research to uncover permanent patterns in the relationship between financing sources and acquiring companies' financial performance.

The remainder of the study is structured in the following manner. In Section 2 we present the literature review where we discuss studies concerning the use of sources of financing in the context of M&A. To gain a comprehensive understanding of this literature we begin by examining the main literature related to capital structure theories, since this literature explains the rationale behind certain financing decisions. Section 3 outlines the criteria used in the selection of the case studies and the methodology employed to analyse them. The Section 4 presents the analysis of the chosen case studies and identify some patterns within the data. Section 5 concludes the dissertation.

2. Literature review

Our literature review is specifically tailored to explore studies related to financing strategies and their effects on the acquiring company's financial performance. In order to understand the impacts of different financing sources, we consider that it is crucial to start by reviewing the main literature related to the capital structure theories, since are those theories that explain some of the financing choices made by the companies. Subsequently, we focus on the literature concerned to the impacts of the different financing strategies on the financial performance of the acquiring company.

2.1. The capital structure as a rationale for takeovers

The economic theory has provided rationales that explain numerous M&A deals, highlighting their importance in understanding the driving forces behind such transactions (Andrade et

al., 2001). Despite the existence of numerous motives to proceed with M&A, our literature review only focuses on the rationales related to the capital structure of the companies, since the emphasis in this dissertation centres on the financing strategies and their impact on the acquiring firm's financial performance.

One of the reasons why the capital structure can be a motive to proceed with a takeover is due to the existence of companies with financial slack. This is one of the main conclusions of the model developed by Myers and Majluf (1984). The rationale behind their model is that one company with insufficient financial slack will probably miss some investment opportunities that can bring value to the company. Consequently, if a firm has insufficient financial slack but have valuable investment opportunities, it can increase its value by pursuing acquisitions. The other way also holds true. That is, a firm with ample slack should actively seek out acquirer firms that have limited financial slack but offer promising investment opportunities. Therefore, the merger of a company with surplus slack and one with a shortage of slack can result on the increase of the overall value of the combined entity.

In addition to the ideas exposed by Myers and Majluf (1984), Smith and Kim (1994) state that, when we combine those conclusions with the arguments presented by Jensen (1986) an interesting perspective emerges. Jensen (1986) states that managers of firms with excess cash flow may invest in unprofitable opportunities to avoid distributing the surplus to shareholders. In this context, acquisitions can serve as a solution to actual or potential resource allocation problems, by bringing together firms with limited financial slack and those with available free cash flow. The greatest gains from these acquisitions are expected when they serve as a constraint on the investing of free cash flow. This can be achieved by imposing greater debt service commitments as a result of the acquisition (Smith & Kim, 1994). Therefore, in this way, the perspective of Smith and Kim (1994) which combines the existence of financial slack proposed by Myers and Majluf (1984) with the arguments presented by Jensen (1986) can result in a financial motive that justify the pursue of takeover transactions.

In addition to this reasons, Almeida et al. (2011) propose another financial justification for pursuing takeover transactions. More concretely, Almeida et al. (2011) develop a model which explains why a financially distressed firms may be acquired by firms with liquidity within the same industry, even in the absence of true operational synergies between the two companies.

These specific types of acquisitions are referred to as liquidity mergers. The main objective of these transactions is to reallocate liquidity from firms that possess in excess to those that are facing liquidity shortfalls and may be at risk of inefficient liquidation.

In line with Myers and Majluf (1984) and Bruner (1988), Ang et al. (2019) explore whether acquirers pay a premium to gain benefits from increased financing opportunities resulting from the merger. Their findings reveal that acquirers with overlevered view the restoration of borrowing options and gaining financial flexibility as more valuable compared to acquirers with lower levels of debt (underlevered). This is shown by the fact that overlevered acquirers offer significantly higher premiums when the takeover can bring a potential increase in debt capacity. The positive effects of these capital structure adjustments on the firm's value become visible in the long-term stock returns (over the 12 - 24 months) following the merger announcement. It appears that the market may not fully recognize the added value of increased borrowing capacity until the firms gradually reveal their superior investment opportunities in the future. This study, in line with those aforementioned, indicates that firms strategically pursue financial flexibility for potential future investments.

In conclusion, this section of the literature review highlights the importance of a company's capital structure as a factor that justifies the pursuit and execution of takeover transactions.

2.2. Capital structure theories

When considering financing options, it is crucial to take into account capital structure theories, which are concerned with how companies finance their investment projects. This literature review explores three prominent capital structure theories: trade-off theory, pecking order theory, and free cash flow theory. By delving into these theories, we aim to gain valuable insights into the decision-making behind acquisition financing and help us understand the implications of each chosen financing source. However, we recognize that the examination of capital structures constitutes a specialized and distinct field of research. Therefore, our focus is directed towards a comprehensive review of the literature that we deem most pertinent and essential to our specific theme.

2.2.1. Trade-off theory

To accurately explore the capital structure theories, it is essential to begin by reviewing the work of Modigliani and Miller (1958). Their research is considered as the foundation upon which the capital structure theories was built (Titman, 2002). Modigliani and Miller (1958) create a significant argument within the capital structure theory by assuming the existence of a world with complete and perfect capital markets, where all market participants possess full and symmetric information. In their theoretical model, they conclude that the total market value of a firm is solely determined by the earning power and risks of the real assets that the firm possess. The specific division of securities used to finance the firm would have no impact on its overall market value. However, a notable limitation in their original work was the fact that it ignores the impact of corporate taxes on the cost of debt and on the firm's overall value. Modigliani and Miller (1963) recognize this omission and introduced a crucial correction to their analysis. They acknowledge that corporate debt offers a tax shield, due to the interest payments on debt being tax-deductible. As a result, the effective cost of debt is reduced because of the tax savings gained from deducting interest expenses from taxable income. This finding implies that the presence of taxes has implications for a firm's optimal capital structure, since the use of debt as financing method becomes more advantageous. Nonetheless, Modigliani and Miller (1963) warn against the assumption that firms should always attempt to employ the maximum possible amount of debt in their capital structures. Moreover, real-world financial strategies involve various dimensions and costs, which are not fully encompassed within the framework of static equilibrium models. Following Modigliani and Miller (1963), Hirshleifer (1966) research reveals that, when there are no bankruptcy penalties, any procedure which aims minimize taxes would lead to an increase in the market value of the firm. Based on the findings of Hirshleifer (1966), Kraus and Litzenberger (1973) consider that the model of Modigliani and Miller (1958) does not account for two significant market imperfections which play a crucial role in shaping the relationship between capital structure and valuation. Those market imperfections are the existence of the taxation of corporate profits and the presence of bankruptcy penalties. According to them, the debt financing offers a tax advantage, as interest charges are tax-deductible. However, it is also important to keep in mind that corporate bonds create a legal obligation to pay a fixed amount. Failure to meet this debt obligation can lead to bankruptcy

and its associated penalties. Therefore, Kraus and Litzenberger (1973) incorporate corporate taxes and bankruptcy penalties into a single-period valuation model. This analysis shed light on the trade-off that a firm is subject when it decides to issue additional debt. This trade-off involves evaluating the relationship between the potential tax advantages obtained with an extra tax shield and the increased risk of bankruptcy, which consequently lowers the firm value. To address this trade-off, Kraus and Litzenberger (1973) propose a static trade-off framework aimed at determining the most advantageous balance in the firm's financing structure. By utilizing this approach, the firm can identify the optimal level of debt that ensures the most favourable financial mix.

Fama and French (2002) conduct an empirical study to test the validity of the predictions of the static trade-off model. The study's empirical tests indicates that firms with greater non-debt tax shields tend to have lower levels of leverage, in line with the trade-off model's expectations. However, Fama and French (2002) results do not support that more profitable firms have higher book leverage. This raises significant doubts about the model's overall validity in predicting leverage levels impacts on the profitability of the firm.

Fischer et al. (1989) highlight that single-period capital structure models, such as the one proposed by Kraus and Litzenberger (1973), overlook the firm's strategic choices for restructuring in response to fluctuations in asset values over time. To address this issue, Fischer et al. (1989) develop a capital structure model that operates in a continuous-time framework. This new model takes into account the advantages of debt financing, such as tax benefits, as well as bankruptcy costs, also proposed by Kraus and Litzenberger (1973). In addition to this, Fischer et al. (1989) add to the model the underlying asset variability, the riskless interest rate, and the size of recapitalization costs which according to them also play significant roles in shaping the optimal capital structure. The model generates predictions that link firm-specific attributes to the range of optimal leverage ratios.

More recently, DeAngelo and Roll (2015) examine the stability of capital structure over long periods. The study reveals that the leverage of companies, when observed at intervals spanning several years, displays significant variations. Rather than being the norm, stability in capital structure is an exceptional occurrence, typically observed at low leverage levels.

2.2.2. Pecking order theory

A different perspective of the capital structure emerged with the introduction of a new approach, known as the pecking order theory. Unlike traditional trade-off models that aim to establish an optimal relationship between equity and debt financing, the pecking order theory takes a different stance. This theory provides an alternative framework for understanding how firms make financing decisions.

The term pecking order was first used by Myers (1984), but the idea behind the pecking order theory was developed previously by Donaldson (1961). In his work, Donaldson (1961) observe a clear preference among management for utilizing internal funds as the primary source of funds. In addition, the author finds that in unavoidable situations where external funds were necessary, the managers rarely consider issuing stocks. This finding strongly aligns with the essence of the pecking order hypothesis. Myers (1984) introduces the pecking order theory as an alternative to the static trade-off theory. The author identifies significant limitations in the static trade-off theory ability to explain real-world evidence (a perspective empirically corroborated by Fama and French (2002)). The static trade-off theory struggle to account for the substantial variations in actual debt ratios observed among seemingly similar firms in practice. This lack of explanatory power raised concerns about its validity in understanding financing decisions accurately. To overcome these discrepancies, Myers and Majluf (1984) put forth the pecking order theory, which revolves around the concept of asymmetric information. According to this theory, firm's managers possess superior information regarding their financials and investment opportunities. This private knowledge significantly influences the choices they make when it comes to financing their operations. Myers and Majluf (1984) present a model which suggests some important conclusions related to financing policies of firms. One of the conclusions states that firms that face a situation where their investment opportunities exceed their available operating cash flows and have already exhausted their capacity to issue low-risk debt, firms may choose to forgo potentially good investments. From an ex-ante perspective, stockholders benefit more when the firm maintains enough financial flexibility to undertake promising investment opportunities as they arise. Other important conclusion is the fact that firms can accumulate financial slack by issuing new stock during periods when managers have little information advantage. On the other hand, firms with insufficient financial slack to cover future

investment opportunities would choose to issue securities during periods when managers lack an information advantage. However, the model does not provide a universally optimal dynamic issue strategy. The most important conclusion that can be applied to our work is the fact that, Myers and Majluf (1984) model highlight that when managers possess superior information and issue new stock to finance investments, the stock price will tend to decrease, all else being equal. According to Myers and Majluf (1984), this happens because firms can take advantage of the market by issuing securities only when the firm is overpriced, and the investor will anticipate that. In case in which investors are aware that the firm has sufficient reserves to invest without the need for immediate issuance, any attempt to issue new stock sends a powerful pessimistic signal. If the firm chooses to issue safe, default-risk-free debt to finance its investments, the stock price will not experience a decline. Summarizing the works and conclusions of the articles by Myers (1984) and Myers and Majluf (1984), we can state that exists a hierarchy that should be followed for financing an investment in a new project, such as a takeover. Specifically, the pecking order theory, concerning the financing of a new project, can be synthesized as follows: companies prefer to finance themselves using internal funds rather than seeking external financing; if external financing is necessary, the company prefers to start by financing through debt, and only if debt financing is unavailable, it resorts to riskier forms of debt, such as hybrid instruments; only as a last resort does the company seek financing through the issuance of new shares.

Loughran and Ritter (1995) conduct an empirical study which can be used to examine the conclusions of Myers and Majluf (1984). Loughran and Ritter (1995) examine firms that participate in Initial Public Offerings (IPOs) and Seasoned Equity Offerings (SEOs). Over a five-year period following the issuance, the average annual return was 5% for IPOs and 7% for SEOs. In contrast, investing an equivalent amount in a non-issuing firm with similar market capitalization during the same period would have resulted in a return of 12% per year for IPOs and 15% for SEOs. In the same line of Loughran and Ritter (1995), Spiess and Affleck-Graves (1995) conduct a study to analyse the long-term stock returns subsequent to SEOs. Their findings indicate that the median return in the five-year period following a SEO was 10%, which is significantly lower when we compare this value with the median five-year holding-period return of 42.3% observed for non-issuing firms of similar-sized operating in similar industries. The conclusion that they ultimately arrive is the same conclusion obtained by Loughran and Ritter (1995). Therefore, Loughran and Ritter (1995) and Spiess and Affleck-Graves (1995) empirical evidence supports the notion that companies issue stocks

when they are overvalued, corroborating the insights proposed by Myers and Majluf (1984) model.

A research that offers a distinct conclusion from the previously mentioned works is the study conducted by Campello and Graham (2013). The authors investigate the effects of a widespread price run-up (commonly referred as a "bubble"). The focus was on industries where the underlying fundamentals of companies remained unchanged, but their market valuations experienced significant increases. The key finding of the study is that financially unconstrained firms did not make any adjustment to their policy of issuances as response to the market mispricing, in contrast with financially constrained firms. These findings contradict the idea that managers consistently issue overvalued stocks and make investments that transfer wealth from new to old shareholders.

Differently from the studies previously mentioned, Leary and Roberts (2010) examine the validity of the pecking order hypothesis, proposed by Myers and Majluf (1984), in explaining the financing decisions of companies. Leary and Roberts (2010) findings show that the pecking order theory has significant problems in explaining observed financing decisions. This limitation stems not only from its neglect of significant second-order factors that play a crucial role in financing choices, but also because the pecking order behaviour seems to be predominantly driven by incentive conflicts rather than information asymmetry.

In a more recent study, Eckbo et al. (2018) extend the aforementioned line of thinking to M&A and investigate whether stock-financed takeovers could be considered opportunistic. Notably, their findings challenge the idea of opportunism in stock-financed takeovers. They observe that public bidders tend to utilize more stock in the deal payment when the target possesses greater knowledge about the bidder. This behaviour contradicts the notion of opportunism in such transactions. Furthermore, Eckbo et al. (2018) suggest that a stock-financed takeover can result in a potentially concentrated group of shareholders from the target company in the newly merged firm, and these shareholders might raise concerns post-merger, claiming that they received payment in overpriced bidder shares. This concerns related to post-merger behaviour may further impact the bidder's incentives to use stock as a payment method.

2.2.3. Agency costs of free cash flow

The presence of information asymmetries and agency conflicts complicates the process of allocating capital to investment projects (Stein, 2003). After considering the impacts of information asymmetries, it is now important to account to the agency conflicts that can also explain the capital structure choices made by the company.

Agency conflicts arise due to the separation of ownership and control within a corporation, as shareholders delegate decision-making to managers who may pursue their interests at the expense of the shareholders' objectives (Pindyck & Rubinfeld, 2018). Therefore, corporate managers act as agents of shareholders, but this relationship involves conflicting interests, as described by agency theory. One major point of conflict arises due to the payout of cash to shareholders. When companies distribute cash to shareholders, it diminishes the resources under the control of managers, reducing their power and potentially subjecting them to scrutiny from capital markets when seeking new financing. To avoid such monitoring and the possibility of obtaining funds at high costs, managers may prefer to finance projects internally, and so they avoid giving out free cash flows to shareholders (Jensen, 1986). In Jensen (1986) rationale, this happens because managers may be inclined to expand their firms beyond the optimal size with the goal of increasing their power and compensation. Jensen (1986) introduces the concept of "free cash flow", referring to cash flow in excess of what is needed for projects with positive net present values at the relevant cost of capital. Conflicts between shareholders and managers over payout policies become particularly pronounced when the organization generates substantial free cash flow.

According to any typical textbook used in classes of finance, the objective of corporate governance system is to mitigate the conflicts of interest arising from the separation of ownership and control (e.g., Berk & DeMarzo, 2011). Therefore, the agency conflict proposed by Jensen (1986) may be solved through the existence of corporate governance policies within the companies. With this in mind, Dittmar and Mahrt-Smith (2007) and Harford et al. (2008) have analysed the impacts of corporate governance policies on the management of firm cash holdings. Dittmar and Mahrt-Smith (2007) observe that firms with better corporate governance are more effective at preventing the dissipation of excess cash reserves through less profitable investments, in comparison to poorly governed firms. In the same line, Harford et al. (2008) discover that firms which present a weak corporate

governance structure tend to maintain smaller cash reserves. All of this validates the rationale suggested by Jensen (1986).

In addition to the corporate governance, Jensen (1986) propose the use of debt to reduce agency conflicts and motivating managers to act efficiently. Debt reduces the agency costs of free cash flow by restricting the cash available for discretionary spending of managers. Also, the fear of failing to meet debt service payments serves as a strong motivating force for organizations to become more efficient. In addition to this, through the use of debt, managers are subjected to the monitoring of markets, making it another advantage. This control effect of debt becomes a potential determinant of a company's capital structure (Jensen, 1986).

Other way that managers may choose to spend cash rather than pay it out to shareholders is through acquisitions. Many benefits of going private and engaging in leveraged buyout (LBO) transactions seem to arise from the control function of debt, since debt helps prevent such firms from squandering resources on low-return projects (Jensen, 1986). The existent relation between M&A and the free cash flow hypothesis suggested by Jensen (1986) is specifically examined in the studies of Lang et al. (1991) and Oler (2008).

In the context of large acquisitions, the findings of Lang et al. (1991) provide support for the free cash flow hypothesis. In the same line, Oler (2008) reveal that the level of cash held by the acquiring company before the announcement also serves as a robust and negative predictor of the post-acquisition returns.

The studies mentioned demonstrate how the availability and management of free cash flow can significantly influence a company's decision-making process, particularly in the context of strategic acquisitions, and shed light on the implications of agency conflicts and the efficient allocation of corporate resources.

2.2.4. The relation between M&A transactions and capital structure

The use of financing sources by the acquiring company can significantly impact the capital structure of the company, especially in the case of large transactions in which significant financing is needed (Harford et al., 2009). This section reviews the literature that explains the

relationship between M&A-related financial decisions and the capital structure of the acquiring companies.

In relation to these matters, we have the study of Harford et al. (2009) which focus in analysing the theories of capital structure within the framework of large takeovers transactions. Their results suggest that bidders carefully consider their target firm's capital structure when planning such acquisitions. It is shown that, in the case of cash deals, bidders become overleveraged immediately after the acquisition. However, over the course of five years following these deals, the positive leverage deviation decreases. This study indicates that the greater the acquirer's pre-acquisition leverage deviation, more likely will be that the firm will reverse the impact of the acquisition on its leverage. In the same line of thinking of Harford et al. (2009), we have the studies of Uysal (2011) and Harrison et al. (2014).

Uysal (2011) expands the work of Harford et al. (2009) by analysing the impact of leverage deficit in a firm's capacity to proceed with acquisitions and in the choices the acquiring company makes during the transactions. Uysal (2011) suggests that overleverage restricts the ability to acquire other companies and affects the terms of such acquisitions. This study reveals that overleveraged firms take measures to decrease their leverage deficits and tend to issue equity in order to move closer to their target capital structures. Moreover, this tendency to rebalance the capital structure is more pronounced for overleveraged firms when they are more likely to engage in acquisitions. Also, the findings achieved by this study suggest that managers consider the deviations from their target capital structures when formulating their bidding strategies. For instance, this research shows that the inability to raise capital constrains a firm's ability to engage in aggressive bidding. In line with this, the authors find that overleveraged acquirers tend to pay premiums with lower values and have less intentions to utilize cash in their acquisitions offers. The authors also examine the reaction of the markets to the announcement of corporate acquisitions. They find that acquisition announcement returns are positively associated with leverage deficit and are particularly significant for overleveraged acquirers. These results provide evidence in favour of the idea that managers of overleveraged firms undertake acquisitions that enhance value of the firm.

The study of Harrison et al. (2014), like Harford et al. (2009), observe a notable and persistent impact of acquisitions on the bidder's capital structure. Specifically, Harrison et al. (2014) suggest that acquisitions led to an increase in the average debt-to-assets ratio, which

might restrict managerial discretion in resource allocation during the acquisition process, and consequently adversely affect overall performance.

More recently, Gao and Bao (2022) examine how the debt structure of acquiring companies changes during the process of takeover transactions and the influence of mega-deals on these changes. The main findings indicate that mega-deals, in comparison to non-mega deals, lead to more substantial changes in the leverage ratio and debt to total assets of acquiring firms. The evidence shows a significantly positive correlation between mega-deals and changes in both leverage ratio and debt to total assets of acquiring firms. Mega deals exhibit a 14.1% higher likelihood of experiencing larger changes in leverage and a 2.5% higher likelihood of experiencing larger changes in the debt to total asset ratio.

2.3. The impacts of the sources of financing

There are two main ways of studying the impacts of the sources of financing in the literature. Traditionally, the literature tends to consider the method of payment of acquisitions as a valid proxy for the source of financing (Fischer, 2017; Martynova & Renneboog, 2009; Schlingemann, 2004). The studies of Faccio and Masulis (2005), Harford et al. (2009), Uysal (2011), Karampatsas et al. (2014) and Vermaelen and Xu (2014) are some examples of literature that follows this assumption. However, Martynova and Renneboog (2009) and Fischer (2017) consider that the use of the method of payment to proxy the sources of financing can generate some bias in the results. This bias may be more intensified in the case of cash offers due to the different methods of financing that can be used to raise cash. The literature which considers the methods of payment as a proxy to the financing source tend to consider the use of cash as equivalent to the use of debt. According to Fischer (2017) the rationale behind this assumption lies in the fact that acquiring firms will only be capable of realizing cash payments if the firm has been saving free cash flows during a long period of time before the takeover takes place. The proxy assumes that this will not happen, and therefore additional debt will be required. Also, according to Fischer (2017), even though the assumption is logic, the closer examination shows several weaknesses. Firstly, the use of retained earnings is not considered at all. Additionally, the assumption also states that the cash is used in an equal amount of debt borrowed. All of this is an oversimplification because some companies will have enough internal resources to complete the transaction through

cash payments without the need to raise cash – especially in acquisitions with low deal values. In addition to this, the assumption is refuted by the fact that firms can receive cash through the issue of equity and can use those proceeds to pay for the transaction (Celikyurt et al., 2010; Fischer, 2017).

In this section, we review the literature that does not consider the method of payment in acquisitions as a reliable indicator of the underlying source of financing. The following studies focus on examining the effects of the actual sources of financing employed in the takeover transactions.

To the best of our knowledge, Datta and Iskandar-Datta (1995) produced the first study which looked directly to the sources of financing used on operations of M&A. Their work focus on analysing the impact of partial acquisitions on bondholders and stockholders' wealth that result from the financing decisions made. They restrict their sample to large transactions, as these have a stronger impact on share prices, and the firms included have a higher likelihood of having publicly traded debt. The results show the significance of financing variables in explaining the wealth outcomes of both bondholders and stockholders. By specifically examining the financing method, it is observed that debt financing has a more detrimental effect on bondholders compared to stock financing. On the other hand, stock financing is found to have a negative impact on stockholders. This goes in line with Myers and Majluf (1984) regarding the adverse information carried on stock issuances.

In a chronological order, the subsequent study which we have found regarding these matters was the work of Bharadwaj and Shivdasani (2003). They specifically examine the impact of bank financing on a company's investment decision using a dataset composed by 115 cash tender offers that took place between 1990 and 1996. Within this sample, banks provided financing in 70% of the tender offers, with half of these takeovers being entirely financed by banks. The authors findings suggest that acquirers obtain bank financing to execute the takeovers when they possess reduced cash reserves and when the deal value is relatively large. The results obtained by Bharadwaj and Shivdasani (2003) highlight the fact that acquirers achieve significantly higher two-day CARs when the acquisition is entirely financed through bank debt. In contrast, acquisitions funded solely by internal funds yield statistically insignificant average CARs for the same window of analysis. The achievement of positive CARs related with bank-financed acquisitions indicates that the existence of informed investors (such as banks) are capable of filling the gap in information between the firm and

external capital markets. The evidence suggests that banks actively monitor and validate the quality of acquisitions. One of the main conclusions of this study is the fact that it provides evidence in favour of the hypothesis that the source of financing used in takeovers transactions can impact both the characteristics of the transactions and the reaction of the market. Therefore, we can denote that while having financial flexibility can help companies overcome asymmetric information challenges which generally appear when a company needs external financing (Myers & Majluf, 1984), it can isolate the company from informed intermediaries like banks, who provide screening and monitoring services, which give confidence to investors (Bharadwaj & Shivdasani, 2003).

Following this, Schlingemann (2004), by holding constant the form of payment, focuses on the source of cash. Specifically, the author examines the relationship between the bidder's financing decisions prior to the takeover and the bidder gains. The analysis of bidder gains is made using the CAR on the announcement date in line with Bharadwaj and Shivdasani (2003). The study finds a positive and significant association between bidder gains and the quantity of cash obtained through the issuance of equity in the fiscal year before the announcement of the transaction. This finding suggests that the takeover announcement give explanation to the uncertainties surrounding the firm's decision to issue equity. Additionally, a negative and significant relationship was identified between internally generated free cash flows and bidder gains. On the other hand, no significant relation was found between the debt financing and bidder gains. These observations align with the idea that debt can serve both as a means of monitoring (as suggested by Bharadwaj and Shivdasani (2003)) and restricting managerial discretion. Furthermore, the study reveals that the negative relationship between internal funds and bidder gains is specifically prominent for firms with investment opportunities below the median level, which goes in line with the perspective of Jensen (1986).

Both Bharadwaj and Shivdasani (2003) and Schlingemann (2004) use a sample composed of tender offers paid with cash. This approach has the advantage of focusing solely on the source of financing used by the companies to acquire cash (Schlingemann, 2004). However, it has the disadvantage of not distinguishing between the payment and financing effect. Martynova and Renneboog (2009) address this issue. To the best of our knowledge, Martynova and Renneboog (2009) was the first to examine the relationship between payment method used in takeovers and the sources of financing. In line with the authors previously

mentioned, Martynova and Renneboog (2009) investigate the importance of the financing decision using the CARs obtained by the acquirers upon the announcement date. Consistent with the pecking order hypothesis, the study shows that bidders with ample cash reserves tend to use the least costly financing source (internally generated funds) and bidders lacking sufficient internal funds utilize external capital for M&A financing. Borrowing is preferred when debt capacity is high, while equity issuance is chosen when investor sentiment is positive and the firm's fundamental value is perceived as favourably. However, firms with strong growth opportunities, which require flexibility to managing corporate funds, tend to avoid debt financing for takeovers due to concerns about potential debt overhang problems. Instead, they go towards equity capital, even if their debt capacity remains high. One surprising result is that riskier firms do not show a persistent preference for equity financing, even in the case in which debt appears to be less attractive. The analysis of the relationship between the method of payment and the sources of financing in takeovers shows that the financing decisions are also influenced by the bidder's strategic preferences for specific means of payment. For example, when the bidding firm is susceptible to the threat of a change in control, equity financing becomes less likely. But, in summary, the authors found that the choice of financing sources is primarily determined by the cost of capital.

In line with Myers and Majluf (1984), Martynova and Renneboog (2009) evidence confirms that investors perceive equity issuances as a signal of overvalued shares of the bidding firm. Moreover, the study reveals that acquisitions financed with internal funds tend to underperform debt-financed deals, showing the investors' concerns that cash deals may be motivated by managerial motives of empire building. In conclusion, according to Martynova and Renneboog (2009), the financing structure of a takeover transaction conveys significant information to the market regarding the quality of the bidding firm and the profitability of the deal which will consequently generate market reactions.

Specifically in relation to the effects of leverage, Harrison et al. (2014) suggests that the surge in debt levels might restrict managerial discretion in resource allocation during the acquisition process, which could adversely affect overall performance. In order to study those impacts on the performance, the authors observe how the market respond to leverage changes. During the announcement period, the authors observe that returns significantly increase in correlation with the additional leverage taken on during the acquisition. This finding suggests that the market anticipated higher leverage to positively impact firm performance. However,

the post-acquisition returns show a significant decrease with the amount of leverage of the target firm and the added leverage. This negative association is indicative of investors recognizing the bad post-acquisition performance. That indicates that the recognition of the potential disadvantages related to target firm leverage and added leverage only became evident after the acquisition has been completed. As a conclusion, Harrison et al. (2014) underlines the importance of careful consideration of leverage effects in acquisitions, especially when the target firm carries a substantial amount of debt or when a considerable debt burden is required to finance the acquisition. According to the authors we should take into account that the M&A inherently carry risks, and adding leverage to such a scenario may reduce managerial discretion or cause managers to focus primarily on risk reduction which in turn will result on the neglect of value-adding activities required during the post-acquisition period (Harrison et al., 2014).

In the study of Elsas et al. (2014), the authors examine firms located in the United States (US) that engaged in significant capital expenditures or acquisitions. The evidence consistently demonstrates that the choice of securities used to finance large investments is significantly influenced by the disparity between a firm's desired target leverage and its actual leverage. When financing substantial projects, companies with excessive leverage issue less debt and more equity, while the opposite holds true for underleveraged firms. Moreover, managers tend to issue more equity after a rise in share prices preceding large acquisitions. Specifically, in the case of large acquisitions the evidence shows that more profitable firms issue less equity but opt for more debt. The study also highlights that the adjustments in leverage vary between investments in built projects and those involving acquisitions. This difference can be due to the greater complexity involved in financing acquisitions. While built investments can be financed solely to maximize the value for the investing firm's shareholders, acquisition financing necessitates additional considerations such as tax obligations of target shareholders, information asymmetries, corporate control considerations, and the preferences of the owners of the target firm.

Within the last decade, we have the study of Vladimirov (2015). The author creates a model in which he endogenize the financing choice and its relationship with the bidding process in competitive takeovers. The findings of the study reveal that firms facing constraints to obtain competitive financing, such as smaller firms, firms located in countries with less developed capital markets and private firms, tend to raise cash through equity issuance. Before

Vladimirov (2015), Morellec and Zhdanov (2008) also develop a model with the aim of understanding the financing strategies of the bidder. The model of Morellec and Zhdanov (2008) predicts that the bidder with lower leverage has a higher probability of winning in a takeover competition. Furthermore, the premium offered to the target company is expected to decrease in relation to the leverage of the winning bidder.

Other type of study that we consider important to examine is the study of Aybar and Thanakijsoontorn (2015) which analyses the impact of cash sources for acquisition financing in the framework of cross-border acquisitions (CBAs) by emerging-market acquirers. The study reveals that CBAs financed through debt issuance are valued more highly in the market compared to those funded by internally generated funds. This suggests that investors view the expenses associated with internal financing, like the agency costs of free cash flows, as being greater than the costs related to debt.

More recently, Fischer (2017) conducts one research in line with the studies of Bharadwaj and Shivdasani (2003), Schlingemann (2004) and Martynova and Renneboog (2009). Fischer (2017) expands on their investigations by incorporating data from the US and conducting a comprehensive analysis of both short-term and long-term effects of financing sources in the context of acquisitions. Fischer (2017) develops a two-step framework. The first step involves the acquirers determining whether they opt for external financing or internal financing. If they opt for external financing, in the second step, the acquirers select the source of external financing: equity or debt. The findings of the author in relation to this choice indicate that common stock financing becomes less attractive in competing bids. Regarding the short-term returns, the evidence achieved reveals that bank-financed takeovers yield the highest announcement returns for companies. On the other hand, financing acquisitions through stock issuance underperforms other financing sources. In relation to the long-term, the analysis produces coefficient estimates lacking statistical significance. Overall, Fischer (2017) findings show that the capital markets price the impact of takeovers upon their announcement in an accurately way.

Fischer (2017) mentions the limitations of studying alternative financing sources, and the author suggests that further research should concentrate solely on the dominant financing source. Based on this, Bessler et al. (2020) address the matter by assuming that bidders' financing sources are either debt or equity, thereby excluding transactions that involve mixed financing sources. The findings of Bessler et al. (2020) reveal that debt financing for bidder

shareholders generates significantly higher abnormal returns compared to equity financing, consistent with the results achieved by Martynova and Renneboog (2009) and Fischer (2017). This empirical evidence supports the pecking order theory, indicating a preference for debt issuance over equity financing, leading to positive valuation effects.

Until here we have been mentioning that acquisitions often require external financing. In reality this external financing generally comes with the use of covenants to ensure that the management of the company behave in a responsible way (Daher & Ismail, 2018). Daher and Ismail (2018) conduct a study which analyses the impact of debt covenants on acquisition characteristics. The findings of Daher and Ismail (2018) reveal that acquirers which possess debt contracts including covenants tend to pay lower premiums for their acquisitions, pursue more focused acquisition targets, and use a lower share fraction to fund these deals. Moreover, M&A completed by acquirers with debt covenants are associated with more favourable acquirer returns during the announcement of the deals.

An important study that we have found particularly noteworthy due to its unique approach is the research of Mavis et al. (2020). This study follows a different perspective by examining the strategy of firms that sell an asset to fund an acquisition (known as "selling-to-buy"). Surprisingly, the existing literature on sources of financing for acquisitions largely overlooks the use of proceeds from asset sales and primarily focuses on operating cash flows, cash reserves, debt, and equity. To the best of our knowledge, this is the only work that thoroughly examines and analyses the impacts of the selling-to-buy strategy. According to Mavis et al. (2020), this strategy is particularly relevant for firms that are financially constrained. By divesting unwanted operations unrelated to their core business and generating funds from asset sales, these firms can undertake investments that would otherwise be missed. This paper demonstrates that the firms which follow this strategy have a greater improvement in operating performance comparative to its industry peers over the three years following the asset sale and observe higher abnormal stock returns upon the announcement of the asset sale. Their findings underline the relevance of the revenue obtained through the asset sale as an additional funding source for corporate investments, avoiding the adverse effects typically associated with conventional external funding sources like equity and debt issuances.

After the study of Mavis et al. (2020), the literature within the last years has predominantly centred around the utilization of debt as the financing sources of M&A. One of those studies is the research of Dennis et al. (2021) which follows the works of Bharadwaj and

Shivdasani (2003), Martynova and Renneboog (2009) and Fischer (2017), and examine the debt financing choices made by firms in the context of takeovers transactions. Specifically, they analyse the utilization of bank loans, public bonds, and privately placed debt, both before and after the M&A event. The authors argue that this analysis is crucial since firms strategically position their debt issuances in advance of the M&A announcement. In addition to this, Dennis et al. (2021) acknowledge that some firms may issue debt for one purpose while utilizing it to finance acquisitions, and that debt issuances, even unrelated to M&A, may be influenced by significant corporate restructuring events. Irrespective of purpose, all forms of borrowing increase a firm's leverage, assuming other factors remain constant. Nevertheless, different types of debt carry distinct implications, particularly for highly leveraged firms. For example, bank loans offer the benefits of quality certification and ease of renegotiations, making them valuable for highly leveraged firms seeking funds to execute M&A transactions. Although, pursuing bank loans may subject firms to rent payments charged by the bank, creating concerns of potential exploitation. To mitigate this, firms can opt for public bonds or non-bank private debt, thereby circumventing or reducing the problem. Overall, Dennis et al. (2021) suggest that firms should carefully evaluate the benefits and disadvantages associated with different kinds of debt. The authors examine the influence of a firm's existing capital structure on its choice of debt type, particularly in relation to M&A. Their findings reveal that companies with higher leverage than the optimal level prefer non-bank debt financing over bank debt before engaging in M&A transactions. Furthermore, the authors investigate the impact of different types of debt issues on shareholder wealth in the context of M&A. Their analysis reveals a negative association between non-bank financing and three-day CARs around M&A announcement date. This negative relationship especially applies to highly leveraged firms. Additionally, the study shows that acquirer firms issuing non-bank debt experience lower abnormal returns over three- and five-year periods compared to those issuing bank debt. These findings align with the notion of bank debt providing certification value, supporting the evidence presented by Bharadwaj and Shivdasani (2003). Moreover, the results indicate that highly leveraged acquirers tend to prefer non-bank debt to escape from monitoring.

Other study which focuses only on the effects of debt on the context of M&A is the work of Gao et al. (2021). More specifically, the authors explore the pricing of loans in the context of M&A. The cost of financing plays a crucial role in M&A transactions as it directly impacts the gains derived from these deals. Gao et al. (2021) find a significant and consistent positive

effect of the relative deal size on loan prices. This positive effect aligns with the idea that larger transactions are associated with greater complexity and information risks (Faccio & Masulis, 2005). Moreover, Gao et al. (2021) also find that higher loan prices are linked to poorer post-M&A performance, indicating that loan prices effectively reflect the quality of acquisitions.

Also, in the field of debt studies, we have the work of Gao and Bao (2022). Their research is the most recent literature related to the effects of financing sources on M&A. The evidence presented by the authors indicate that mega deals with more significant leverage changes tend to show a better performance in the short run compared to those with lower leverage changes, although no significant effect is observed on long-term performance. The long-term evidence achieved by Gao and Bao (2022) goes in line with Fischer (2017) which obtain coefficient estimates lacking statistical significance on the long-term analysis³.

3. Data and Methodology

The main objective of this study is to examine whether the method used to finance an acquisition has any influence on the acquiring company's financial performance after the deal is completed. To achieve this, we conduct a comparative analysis of the acquiring company's financial performance before and after the completion of the transaction. Like Harrison et al. (2014) our analysis centres around the financial statements of the acquiring company, focusing on various financial metrics and indicators that allow us to measure the profitability, liquidity, and capital structure of the acquiring company. In this section, we describe the procedures for selecting the case studies that we use, and the research methodology employed to analyse them.

³ In this literature review, to the best of our knowledge, we excluded only the study of Chen et al. (2020) due to the unique legal requirements and institutional environment of China, from which the sample of M&A used in the study was drawn.

3.1. Selection of case studies

In this section, we aim to explain the criteria that we use to select the case studies that are analysed in this dissertation. We conduct the data collection process using *Refinitiv* as our data source. This involved extracting information about the acquiring companies, alongside with detailed transaction characteristics.

It is important to start by mentioning that Fischer (2017) emphasizes the difficulties involved in understanding various alternative financing sources and suggests that future research should focus exclusively on the dominant source of financing used in each deal. In response to this concern, Bessler et al. (2020) conduct a study where they assume that bidders' financing sources are limited to either debt or equity. In our dissertation, in line with Fischer (2017) ideas, we have selected case studies that feature only one type of financing source. Similar to Bessler et al. (2020), we have excluded the use of financing mix. As a result, we have deliberately selected three distinct case studies, with each case study exclusively using one of the financing sources considered in our dissertation. Specifically, these financing sources include equity issuance, debt, and internal funds (i.e., cash on hand that existed within the company). By examining these case studies separately, we aim to gain a comprehensive understanding of how each type of financing source impacts the financial performance of the respective acquiring company. By selecting a specific text variable for each deal, we had knowledge of the financing sources employed in each transaction⁴.

In order to select the case studies, we consider that it is important that the acquiring companies in all three case studies have their headquarters within the same country and shared the same currency. This approach allows us to control for certain effects. One of these effects is the impact of regulation since some literature suggests that the regulatory framework significantly influences corporate financing decisions (Djankov et al., 2007; Levine, 1999; Porta et al., 1998). Moreover, we can also control for potential macroeconomic effects that could affect the companies and M&A transactions (Garfinkel & Hankins, 2011; Harford, 2005). Considering the substantial volume of M&A transactions that typically take

⁴ The use of a text variable to construct our case studies goes in line with Fischer (2017) which also rely on variables based on textual information on the source of financing.

place within the US annually, we have deliberately chosen acquiring entities whose principal headquarters are located within the US⁵.

Other criteria that we applied is related to the deal status. Like Schlingemann (2004) and Fischer (2017), we focus solely on transactions with a deal status of completed, indicating that the transactions have been successfully finalized and closed.

When assessing potential deals, it is crucial to consider the value of the transaction. According to *Refinitiv*, the deal value that we use represents the total amount paid by the acquiring company, excluding any associated fees and expenses. Notably, larger transactions often involve the use of external financing sources (Bharadwaj & Shivdasani, 2003; Elsas et al., 2014; Harford et al., 2009; Martynova & Renneboog, 2009) which, in turn, can significantly influence the financial performance of the acquiring company and specifically the capital structure (Gao & Bao, 2022; Harford et al., 2009). To ensure that our analysis captures meaningful and substantial transactions, we have set a specific threshold for deal values. Therefore, we only take into account transactions that are equal to or exceed 500 million dollars of deal value. In accordance with Alexandridis et al. (2017), acquisitions characterized by a transaction value over 500 million dollars are categorized as mega-mergers. Therefore, building upon this classification, our dissertation, like the study of Gao and Bao (2022), focuses on the analysis of mega-mergers. This threshold has been chosen to ensure that the transaction's impact on the acquiring company is significant.

In line with the studies of Schlingemann (2004) and Martynova and Renneboog (2009), we only consider as potential case studies to our analysis, deals in which the acquirer obtains an interest of 50 per cent or more in the target, thereby increasing its ownership from below 50 per cent to above 50 per cent. Therefore, we focus solely on transactions in which the acquiring company gained effective control of the target.

In our research methodology, we choose the time frame of our analysis of the financial statements based on the works of Harrison et al. (2014) and Schlingemann (2004). Like Harrison et al. (2014) we retrieve the data for financial variables from financial statements

⁵ When dealing with companies that maintain dual headquarters, the *Refinitiv* database employs a weighted system to determine the nation of headquarters. The criteria used in this system include the location of the chief executive officer, the location of senior management, the primary listing of the company, its assets, revenues, and the location of its employees. Each criterion is assigned a specific weight in the evaluation process. In cases where there is a tie in the evaluation results, *Refinitiv* default approach is to consider the location of the chief executive officer as the decisive factor in determining the nation of headquarters for the company.

for the period: before the announcement of the M&A, the year of the announcement and the years after. These variables allow us to gain a more comprehensive understanding of the financial performance of the acquiring company. Furthermore, we consider the insights provided by Schlingemann (2004), which suggests that the financing decisions made in the year preceding a takeover contribute significantly to explain bidder gains. Therefore, based on the insights provided, and in order to achieve a broader perspective, we examine the financial performance of the acquiring company for three years preceding the acquisition and five years after the acquisition's completion to ensure a robust understanding of the financial impacts. Examining the period before a transaction is important because companies can position themselves before the announcement of the M&A (Dennis et al., 2021). The period of time that we propose to analyse allows us to account for any potential fluctuations or "bad years" that might skew the analysis if we were to focus solely on one year's performance. Also, this timeframe enable us to, like Fischer (2017), assess the long-term effects of the financing choices made during these M&A transactions. Additionally, evaluating the acquiring company's financial performance five years after the transaction help us to determine whether the source of financing has any lasting impacts.

All case studies used in this dissertation share a common deal announcement date set in the year 2014. The rationale behind this uniform selection is due to two main reasons. Firstly, it enables us to control regulatory and macroeconomic factors, which may vary if different deal announcement dates were used. Secondly, this consistent choice of the year 2014 as the deal announcement date is deliberate to ensure that the 5th year of the post-transaction analysis period remains unaffected by the COVID-19 pandemic and any economic circumstances stemming from it. Also, we decide to use the deal announcement date because *Refinitiv* only provides us with the announcement date, not the date when the acquisition was completed. To ensure that the acquisition was either completed in 2014 or in the early months of 2015, we searched for the completion date information in *Refinitiv news monitor*⁶.

Furthermore, in conjunction with what was aforementioned, it is important to state that if multiple case studies associated with each financing source conform to the entirety of the abovementioned selection criteria, we will analyse the case study that shows a higher deal

⁶ The method of hand-match information was also followed by Datta and Iskandar-Datta (1995) which also found themselves compelled to resort to this method due to the difficulty in obtaining information.

value. We choose this tiebreaker criteria in line with the existent literature and to ensure that the transaction is significant to the acquiring company⁷.

3.2. Financial performance indicators

In order to analyse the impacts of the different financing strategies employed during M&A transactions on the financial performance of acquiring companies, we use specific financial ratios as tools to measure and evaluate the outcomes. To ensure the accuracy and reliability of our findings, we conduct a selection process for the financial ratios. The selection process involves careful consideration and scrutiny to choose only those financial ratios that possess the potential to provide crucial insights and relevant information to our study. This section presents the indicators and financial ratios that function as guiding parameters, as well as their respective meaning and the reasons behind their choice.

As commonly stated in widely used corporate finance textbooks (e.g., Berk & DeMarzo, 2011; Ross et al., 2011), financial ratios are traditionally categorized into different groups. To assess the company's short-term financial health, we employ liquidity ratios. These ratios enable us to evaluate the company's ability to meet its immediate financial obligations without facing excessive strain. For evaluating the company's long-term financial stability, we use ratios that aim to measure the capital structure and indebtedness. Additionally, we incorporate profitability measures, which allow us to assess the company's efficiency in utilizing its assets and managing its operations (Ross et al., 2011). These ratios are measured for each year in the analysis and compared over time. This comparison is particularly significant when examining the period before and after the completion of the M&A transaction which enables us to gain insights into how the company's financial performance has evolved throughout the years. Through this comparative analysis, we aim to understand the trends and changes in the company's financial performance in order to identify potential impacts of the sources of financing.

The methodology we employ, which primarily centres around the utilization of financial ratios, diverges from the conventional approach in the literature, which typically relies on the measurement of the CARs around the announcement date of the transaction (e.g.,

⁷ In this study we also decide to exclude M&A involving financial institutions.

Bharadwaj & Shivdasani, 2003; Fischer, 2017; Martynova & Renneboog, 2009; Schlingemann, 2004). We have chosen not to follow the same path of the literature due to the idea that market can make mistakes in valuing certain events like M&A. Our approach allows us to understand the impacts of such events on a company's financial performance instead of solely relying on investors' expectations at the time of the announcement. Acquisitions are complex events, so it is natural that markets may not instantaneously and entirely understand the effects of all the information disclosed during the announcement (Harrison et al., 2005). Thus, event studies focusing solely on announcement period returns of acquisitions might overlook the complete implications and broader impact of the transaction (Oler, 2008). According to Hirshleifer and Teoh (2003), investors with restricted attention tend to focus on more noticeable and readily processed information, potentially overlooking less prominent information. In the same line Oler (2008) suggest that limited attention of investors implies that market prices are more likely to reflect prominent information, such as net income, rather than less prominent information such as details inherent in the acquiring company balance sheet at the time the acquisition is announced. Our approach enables us to gain deeper insights into the true impact of the financing source on the acquiring company's financial performance.

The financial ratios used are categorized into two groups: the Operating Summary and the Capitalization Summary. The Operating Summary presents the financial ratios and indicators that enable us to evaluate the company's capability to generate profits and assess its efficiency in utilizing its assets. On the other hand, the Capitalization Summary encompass the financial ratios that allow us to measure the capital structure and level of indebtedness, as well as evaluate the company's capacity to fulfil its immediate financial obligations.

The calculation of the financial ratios is based on the accounting items classifications and financial statement formats provided by the data source *Refinitiv*. This approach is followed consistently, even if the company own financial reports present the financial statements in a different format or use different accounting item classifications. In addition to this, we examine the financial statements of each company reported on December 31st for each year under analysis. This ensures that all the statements are reported on the same date and control for certain effects.

The financial statements used to proceed with the analysis are presented in a consolidated format. A typical textbook used in accountant classes explains that consolidated financial

statements play a crucial role since the financial records of the central company (referred to as the parent or holding company) offer limited insights into the overall resources and responsibilities of the entire group. Thus, to enable investors or shareholders to accurately assess the financial standing and growth prospects of the group, it becomes imperative to examine the consolidated financial statements (Ding et al., 2013).

We believe that conducting an analysis based on financial ratios, in which we compare the period before and after the M&A transaction is an effective approach. This approach is in part suggested by Coelli et al. (2005) since the authors states that the performance of one company in one year can be measured relative to its performance in the previous year. The following sections explain the two categories of financial ratios chosen to provide an understanding of acquiring companies' financial performance.

3.2.1. Operating Summary

The Operating Summary represents a category of financial ratios designed to assess the effectiveness of a company in generating profits. This category comprises the following ratios:

- Revenue from Goods and Services: According to *Refinitiv*, Revenue from Goods and Services indicates the total value of revenue generated from the sale of products and services. This value accounts for sales figures after cash discounts, trade discounts, excise tax, and any returns and allowances associated with sales.
- Growth rate of Revenue from Goods and Services: This measure shows us the rate at which the company's revenue from the sale of goods and services is increasing or decreasing in relation to the previous period.
- Gross Profit Margin: The Gross Profit Margin shows the profitability of a company's operations by measuring the amount of revenue that exceeds the Cost of Operating Revenue. According to *Refinitiv*, the Cost of Operating Revenue represents the total cost of goods and services sold and does not account for Selling, General and Administrative Expenses and Other Operating Expenses/Income (this last accounting item refers to expenses and income related to plant hire, fixed assets rentals, marketing, research and development, etc.). The study of Martynova et al. (2007) suggests standardizing

disparities in the size of companies across various entities and different periods of time. In order to achieve this, the authors suggest dividing these measures by the amount of sales. Hence, to facilitate the assessment and ensure a meaningful comparison of the Gross Profit Margin across various companies and across different years, we decide to express the Gross Profit Margin as a percentage of the Revenue from Goods and Services. Therefore, the Gross Profit Margin is calculated for each year in the analysis as follows:

$$\text{Gross Profit Margin} = \frac{\text{Revenue from Goods and Services} - \text{Cost of Operating Revenue}}{\text{Revenue from Goods and Services}} \quad (3.1)$$

- Operating Profit Margin: We calculate the Operating Profit Margin by dividing the Operating Profit before Non-recurring Income/Expense by the company's Revenue from Goods and Services. According to *Refinitiv*, the Operating Profit before Non-recurring Income/Expense represents the total operating income obtained by the company's core operations, before non-recurring and non-operating items. It is important to note that this measure does not account for financing income/expense, and therefore does not consider the interest costs supported by the company, which can differ significantly between companies, especially in the case in which the transaction is completed through the use of debt. Additionally, this measure is not biased by tax expenses. Thus, by excluding taxes, interests, and non-recurring expenses (such as impairment costs), this measure provides us with a clearer picture of companies' operations and their ability to generate operational profits. In addition to these, we follow the work of Martynova et al. (2007) which suggests the standardization of the measure by dividing it by the amount of revenue in order to enhance comparability across companies and across the years in analysis. Therefore, the Operating Profit Margin tell us the percentage of revenue that effectively turns in operating profit. This allows us to assess how efficiently a company generates profit from its primary operations. The formula for the Operating Profit Margin is computed as follows:

$$\text{Operating Profit Margin} = \frac{\text{Operating Profit before Non- recurring Income/Expense}}{\text{Revenue from Goods and Services}} \quad (3.2)$$

- **Margin:** The ratio Margin is a financial ratio constructed to assess a company's ability to generate profits from its core business operations. In this ratio we take into account the Interest Expense on Capital Financing ("Interest Expense"). The idea of using this method was based on Schlingemann (2004), which also considers the operating income before depreciation and also deducts the value of interest expense. By utilizing the interest expense, we consider the interest payments that a company makes on its debt or borrowed capital. Subtracting the interest expense from the operating profit provides a clearer insight into the company's profitability. Through this, we can gain a better understanding of the distinct impacts of the various financing strategies employed in M&A transactions. For instance, if we were not to consider the interest expenses as suggested by Martynova et al. (2007), the comparison of the Operating Profit before Non-recurring Income/Expense among companies that used as financing source debt versus those that did not used debt, would in some manner be skewed. Hence, the resultant Margin, presented as a percentage of revenue, reflects the company's capacity to generate profits from its core business operations while accounting for the direct costs of financing. Since the Margin account for the direct costs of financing, when we compare this ratio with the Operating Profit Margin, we are able to understand the impact of the interest costs on operational profits, what can be useful to retrieve important conclusions from the case studies. The formula to calculate the ratio is as follows:

$$\text{Margin} = \frac{\text{Operating Profit before Non-recurring Income/Expense} - \text{Interest Expense}}{\text{Revenue from Goods and Services}} \quad (3.3)$$

- **Modified Return on Assets (MROA):** MROA is a financial ratio which provides insights into how efficiently a company utilizes its assets to generate profits. Martynova et al. (2007) states that dividing by the amount of total book value of assets, the comparability of return on assets across various companies and years is improved. Even though we decide to follow this approach, we choose to divide by the amount of Operating Assets. The Operating Assets encompass items such as Inventories Total, Property, Plant and Equipment (net of accumulated depreciation and impairment) and Intangible Assets (excluding Goodwill). By excluding non-operational assets like excess cash, loans and receivables, deferred taxes, etc., we can have a better understanding of the company's

ability to translate investments in operational capacity into operational profits. Another benefit is that the results are not skewed by the increase in the accounting item Goodwill (that results from the M&A), since this accounting item is not included in the operational assets. Furthermore, the MROA that we employ allows for an examination of whether the difference between Operating Profit before Non-recurring Income/Expense and Interest Expense is also associated with higher asset returns. By analysing the returns on Operational Assets of the company we are able to understand how effectively this operational capacity is being utilized⁸. The ratio is calculated in the following way:

$$\text{MROA} = \frac{\text{Operating Profit before Non-recurring Income/Expense} - \text{Interest Expense}}{\text{Operating Assets}} \quad (3.4)$$

in which

$$\text{Operating assets} = \text{Inventories Total} + \text{Property, Plant, Equipment} + \text{Intangible Assets} \quad (3.5)$$

3.2.2. Capitalization Summary

The Capitalization Summary represents a category of financial ratios constructed to assess the firm's ability to meet its obligations and the capital structure of the company. This category comprises the following ratios:

- **Acquiring Firm's Leverage:** This ratio shows the percentage of a company's Interest-Bearing Debt in relation to the amount of Total Assets. We calculate the total Interest-Bearing Debt by summing the amount of Total Long-Term Debt (the total non-current debt or interest-bearing financial obligations) with the amount of Short-Term Debt and Current Portion of Long-Term Debt ("Short-term Debt") – all borrowings due within one year. The use of Interest-Bearing Debt aims to mitigate potential bias in the results arising from accounting items, such as accounts payable or provisions, that do not directly reflect the financing source used in the M&A transaction and tend to appear when we consider the amount of total liabilities. This ratio was based on the work of Schlingemann (2004) and Harrison et al. (2014) which also considers the long-term debt

⁸ The numerator employs the same methodology used to calculate the Margin, but in this case, it is weighted by the total of Operating Assets. The numerator still employs the same accounting measures due to the reasons explained earlier.

plus debt due in one year. Harrison et al. (2014) also scale the resulting value by the amount of total assets, in order to measure the degree of leverage of the acquiring firm. The use of Interest-Bearing Debt allows us to focus on the amount of debt that effectively can be used to finance the transaction. The ratio is computed as follow:

$$\text{Acquiring Firm Leverage} = \frac{\text{Interest-Bearing Debt}}{\text{Total Assets}} \quad (3.6)$$

in which

$$\text{Interest-Bearing Debt} = \text{Long-Term Debt} + \text{Short-Term Debt} \quad (3.7)$$

- **Interest-Bearing Debt to Capital Ratio:** The Interest-Bearing Debt to Capital Ratio shows us the percentage of a company's Interest-Bearing Debt in relation to its Total Capital, where the amount of Total Capital is the result of the sum of Interest-Bearing Debt with Total Shareholder's Equity (including minority interests and hybrid debt)⁹. It is crucial to note that the Total Capital represents the amount of funds that the companies typically use to finance its investments. Bruner (1988) suggest that this ratio allows us to understand the financial changes. The ratio is computed as follow:

$$\text{Interest Bearing Debt to Capital Ratio} = \frac{\text{Interest-Bearing Debt}}{\text{Interest Bearing Debt} + \text{Total Shareholder's Equity}} \quad (3.8)$$

- **Interest-Bearing Debt to Equity Ratio:** This ratio measures the percentage of a company's Interest-Bearing Debt relative to the amount of Total Shareholder's Equity (including minority interests and hybrid debt). Schlingemann (2004) also employ the debt-to-equity ratio in order to measure the bidder's capital structure. In the case in which the ratio presents a low value, that may suggest that at that moment the equity financing have a larger role in the financing of the investments of the company in relation to the interest-bearing debt. The ratio is calculated as follow:

⁹ Instead of using the Total Shareholder's Equity (including minority interests and hybrid debt), it would have been more accurate to follow the approach proposed by Schlingemann (2004), which calculates common stock financing as the difference between the flows from the sale of common and preferred stock and the purchase of common and preferred stock, plus the change in the liquidating value of preferred stock. However, we do not have enough data to proceed with the Schlingemann (2004) approach and we decide to use the changes in the Total Shareholder's Equity to understand the amount obtained with the issuance of equity instruments.

$$\text{Interest Bearing- Debt to Equity Ratio} = \frac{\text{Interest- Bearing Debt}}{\text{Total Shareholder's Equity}} \quad (3.9)$$

- **Total Liabilities to Total Assets:** This ratio show us the capital structure of the company and the degree in which the assets of the company are financed by liabilities. Bharadwaj and Shivdasani (2003) also employ this ratio in order to measure the amount of leverage of the acquiring company. The ratio is calculated as follow:

$$\text{Total Liabilities to Total Assets} = \frac{\text{Total Liabilities}}{\text{Total Assets}} \quad (3.10)$$

- **Cash and Short-Term Investments to Current Liabilities:** This ratio assess the company's capacity to meet its short-term obligations using the available cash and short-term investments. This ratio is calculated by dividing the amount of Cash and Short-Term Investments by the amount of Current Liabilities. Bruner (1988) suggests considering cash balances in evaluating a firm's capital structure. We choose to include in this ratio the amount of short-term investments based on Bharadwaj and Shivdasani (2003) and Harrison et al. (2014). This is especially important in our case studies since large companies often hold cash and equivalents in money market instruments that are easily convertible to cash (Mishkin & Eakins, 2016). However, Bharadwaj and Shivdasani (2003) and Harrison et al. (2014) in their studies both scale the Cash and Short-Term Investments by the amount of Total Assets rather than using Current Liabilities. Nevertheless, we believe that using the amount of Current Liabilities allow us to understand the changes in the company's liquidity position, what in our opinion is more useful. Therefore, the ratio is computed as follow:

$$\text{Cash \& Short- Term Investments to Current Liabilities} = \frac{\text{Cash \& Short- Term Investments}}{\text{Current Liabilities}} \quad (3.11)$$

4. Analysis of the Case Studies

In this section, we give an overview of each case study, which encompass a brief summary describing the acquiring company, the value of the deal and the specific financing sources

used. After this, we calculate the financial ratios that were previously outlined. These indicators will be computed for the three years leading up to the year 2014, the year of 2014, and then further extending our scope to encompass the subsequent five years after the announcement of the transaction. It is important to mention that whenever we refer to values related to stock variables, we are specifically referring to the 31st of December of the year, which is when the financial statements were presented. In the case of flow variables, we are referring to the period that spans from 31st of December of the previous year to 31st of December of the following year¹⁰. This methodology is employed with the explicit goal of identifying patterns or trends in the data.

4.1. Buckeye Partners LP and Trafigura Terminals LLC

According with the information retrieved from the data source *Refinitiv*, the transaction in which the company Buckeye Partners L.P. (“Buckeye”) acquired a majority stake of Trafigura Terminals LLC was announced in 2nd of September of 2014. The deal value was of 860 million dollars and the transaction was financed through Buckeye’s public offering. The transaction was also closed in September of 2014 and the Buckeye acquired an 80% equity interest.

According to *Refinitiv*, Buckeye is a US-based corporation that possesses and manages an interconnected range of assets aimed at providing midstream logistical solutions. These solutions are primarily centred around the movement, storage, treatment, and marketing of liquid petroleum goods. Through its extensive global network of marine terminals, Buckeye facilitates the worldwide transfer of crude oil and refined petroleum products, giving to the customers the ability to link supply areas with market centres via some of bulk liquid storage and blending hubs.

When we examine the balance sheet retrieved from the *Refinitiv*, we can see that from 2013 to 2014 the Total Shareholder’s Equity (including minority interests and hybrid debt) increased 859.8 million dollars. When we look at the accounting item of Common Stock Issued and Paid related to the Common Equity Attributable to Parent Shareholders, we can

¹⁰ The financial statements related to the acquiring companies, which were used to analyse each case study, are presented in the Annex.

note that from 2013 to 2014 there was an increase of 648.7 million dollars. This value, summed with the increase in Minority Interest of 222.83 million dollars between the same years, results in a total increase of 871.53 million dollars¹¹.

The Table 1 presented below shows the results of the financial indicators obtained through the calculation of the previously exposed financial ratios. The calculation of these ratios was performed using the values presented in the financial statements available in the *Refinitiv workspace* for the years prior to the M&A (2011 to 2013), for the year of the M&A announcement (2014), and for the years after the M&A announcement date (2015-2018¹²).

Starting with the Operating Summary, we can observe that the transaction did not result in an increase of Revenue from Goods and Services. As we can see, Revenue from Goods and Services in the years 2015 and 2016 experienced a decline of 47.98% and 4.96% respectively, which results in a two-year decrease of 50.56%. However, this decline did not translate into a decrease in Gross Profit Margin, which clearly improved in the years after the transaction, reaching a considerably higher level of performance. We can also observe the same trend with the Operating Profit Margin.

By considering the Margin, that is the indicator created to assess the company's ability to generate profits from its core business operations while accounting for Interest Expense on Capital Financing, we can observe that there is an increase on the post-transaction period, but the increase is not as pronounced as noted in the Operating Profit Margin. This indicates that the Interest Expense on Capital Financing as a percentage of revenue holds significance. However, it is important to note that this increase in the ratio of interest expense to revenue is not necessarily due to the company now having a higher absolute value of Interest Expense on Capital Financing. But it is mainly due to the revenue decline, making the ratio higher.

Since this case study uses equity issuance as a financing strategy, we can investigate if it presents on average lower interest costs. To explore this, we compare the values of Interest Expense on Capital Financing as a percentage of Revenue from Goods and Services

¹¹ This value includes the underwriting fees and estimated offering expenses from the equity issuance. In addition to this, when we refer to the changes in the amount of Minority Interests, we should have in mind that the change does not involve only the raise in equity issuance. Hence, the total value obtained by the equity issuance appears, in our calculations, to be slightly higher than the 860 million dollars suggested by the information retrieved from *Refinitiv*.

¹² The *Refinitiv* data source only provides the Buckeye's financial statements until 2018. However, we had to accept this case study in this form due to the fact that it is the only case study that considers an acquisition through equity issuance. The explanation for the lack of financial statements or the use of other data sources to obtain financial statements are beyond the scope of the methodology followed in this dissertation.

Table 1 - Financial Summary: Buckeye Partners LP

(Dollar Figures in Millions)	2018	2017	2016	2015	2014	2013	2012	2011
Operating Summary								
Revenue from Goods and Services	4 086	3 655	3 248	3 418	6 570	5 068	4 288	4 694
Growth rate of revenue from goods and services	11,79%	12,51%	-4,96%	-47,98%	29,65%	18,19%	-8,65%	-
Gross Profit Margin	31,64%	39,80%	44,46%	36,29%	17,14%	19,48%	19,40%	16,31%
Operating Profit Margin	14,36%	19,98%	22,68%	16,91%	7,75%	9,93%	9,18%	7,79%
Interest Expense on Capital Financing ^a	4,87%	6,30%	6,14%	5,64%	2,76%	2,72%	2,90%	2,71%
Margin	9,49%	13,67%	16,54%	11,28%	5,00%	7,21%	6,28%	5,09%
Modified Return on Assets	5,23%	6,76%	7,40%	5,60%	5,03%	6,69%	5,77%	5,45%
Capitalization Summary								
Acquiring Firm's Leverage	50,39%	47,65%	44,77%	45,93%	43,82%	47,37%	49,18%	47,48%
Interest-Bearing Debt to Capital ratio	53,30%	50,22%	47,30%	48,90%	47,28%	51,86%	55,18%	53,23%
Interest-Bearing Debt to Equity ratio	114,12%	100,87%	89,77%	95,71%	89,70%	107,72%	123,13%	113,80%
Total Liabilities to Total Assets	55,84%	52,76%	50,13%	52,01%	51,14%	56,02%	60,06%	58,28%
Cash and short-term investments to Current liabilities	0,16%	0,32%	160,27%	0,97%	1,32%	0,72%	1,14%	2,34%

Source: Refinitiv and own calculations.

^a The Interest Expense on Capital Financing is calculated as a percentage of the Revenue from Goods and Services.

achieved by Buckeye with the values obtained by the acquiring company of the case study that employs debt as a financing source for the transaction. We conduct this comparison in terms of revenue percentage to account for differences in company size, as suggested by Martynova et al. (2007). Therefore, we calculate the average of the interest expense as a percentage of revenue for the two companies, AT&T (the company of the case study which employs debt as a financing source) and Buckeye (which relies on equity issuance), for the years 2015 to 2018¹³. We observe that AT&T has an average ratio of interest expenses as a percentage of revenue of 4.08%. This average is lower than the average of 5.74% obtained by Buckeye during the same years. Hence, despite the Buckeye realize an equity issuance, the acquiring company's average interest expense as a percentage of revenue is higher in comparison to the case study that adopts debt as a financing strategy for its transaction.

¹³ In the calculation of the interest expense as a percentage of revenue, we used the years from 2015 to 2018, as we assumed that the interest payment would only be reflected in 2015.

In regard to the Capitalization Summary, we start by examining the Acquiring Firm's Leverage, which is indicated by the Interest-Bearing Debt to Total Assets ratio. This ratio maintains relatively consistent values over time, with the minimum value recorded in 2014. By analysing the financial statements, we can suggest that the value achieved in 2014 does not result from one reduction in Interest-Bearing Debt, but rather the result of a substantial increase in Total Assets. This increase in Total Assets in the year 2014 was probably the result of the acquisition of the Trafigura Terminals LLC, which likely outpaced the growth in Interest-Bearing Debt, since the acquisition was financed through equity issuance.

Similar conclusions can be drawn from the Total Liabilities to Total Assets ratio. This ratio indicates a clear change in the company's capital structure after the transaction, with a decrease in the amount of the weight of Total Liabilities in relation to the amount of Total Assets. This generally means lower financial risk (Kraus & Litzenberger, 1973). The fact that the ratio presents a clear change in the company's capital structure after the transaction goes in line with the study of Harford et al. (2009) and Harrison et al. (2014) which observe a notable and persistent impact of acquisitions on the bidder's capital structure. This also suggest that one way to reduce the proportion of Total Liabilities in relation to Total Assets is to acquire a company with a low value of Total Liabilities to Total Assets using as financing source for the transaction equity instruments. This case study suggests that by executing the transaction using this strategy, the amount of Total Liabilities in relation to Total Assets decreases, creating debt capacity for future debt issuances. This idea was previously presented by Myers and Majluf (1984) which suggest that the existence of companies with financial slack can be a motive to proceed with a takeover. The authors add that the merger of a company with surplus slack with one with a shortage of slack can result on the increase of the overall value of the combined entity. Our case study highlights that the acquisition of a company with financial slack by a company with a shortage of slack should be carried out using equity instruments as the source of financing. However, we should take into account that Myers and Majluf (1984) suggest that the transfer of financial slack through M&A has the benefit of the company do not need to receive an adverse market response to the new issue of equity. This is not applied in this case study since the gain in debt capacity is achieved through an M&A transaction funded with equity.

The equity issuance realized by Buckeye also has clear impacts on the Interest-Bearing Debt to Capital Ratio and on the Interest-Bearing Debt to Equity Ratio. Both ratios reached their

minimum values in 2014, which corresponds with the equity issuance that took place in that year. In the three subsequent years after the acquisition the ratios consistently remained lower compared to the period from 2011 to 2013. This indicates that, the company, after the transaction, possesses a greater dependence on equity financing in relation to interest-bearing debt.

In addition to this, it is important to state that the Interest-Bearing Debt to Capital ratio, the Interest-Bearing Debt to Equity ratio and the Total Liabilities to Total Assets ratio suggest that one of the reasons for the equity issuance was to avoid increment the capital structure with additional debt. This is in line with Uysal (2011) which suggest that overleveraged firms take measures to decrease their leverage deficits and tend to issue equity in order to move closer to their target capital structures. This also follows Elsas et al. (2014) which demonstrates that the choice of securities used to finance large investments is significantly influenced by the disparity between a firm's desired target leverage and its actual leverage. In addition to this, Elsas et al. (2014) state that when financing substantial projects, companies with excessive leverage issue less debt and more equity. This last idea of the authors appears to be the case of the acquiring company of this case study.

It is also important to mention that the information exposed on the balance sheet suggest that one acquisition through the use of retained Cash and Short-Term Investments was, during the analysis period, not possible, since the company consistently maintains low levels of cash which do not allows to proceed with an acquisition equal to or greater than 500 million dollars.

This case study appear to demonstrate the idea proposed by Harford et al. (2009) which suggests that the use of financing sources by the acquiring company can significantly impact the capital structure of the company especially in the case of large transactions in which significant financing is needed.

4.2. AT&T Inc. acquires Grupo Iusacell S.A. de C.V.

Based on *Refinitiv*, the announcement date of the acquisition of Grupo Iusacell S.A. de C.V. ("Iusacell") by AT&T Inc. ("AT&T") was on November 7th, 2014. The total deal value was of 2 500.51 million dollars. The financing for this transaction was facilitated through a term

loan maturing in 2018, as well as another term loan maturing in 2020. The transaction was closed in January 2015.

According to *Refinitiv*, AT&T functions as a holding company. The company is a global provider of telecommunications and technology services. The operations of the company are categorized into two segments: Communications and Latin America. Within the Communications segment, the company offers wireless and wireline telecom services, along with broadband services, to both domestic and international consumers. On the other hand, the Latin America segment involves the provision of wireless services and equipment, especially within Mexico.

The Table 2 illustrates the outcomes of financial indicators derived from computing the aforementioned financial ratios. These ratios were calculated based on the figures provided in the financial statements accessible in the *Refinitiv workspace*. The data encompasses the years preceding the M&A (2011 to 2013), the M&A announcement year (2014), and the subsequent years following the M&A announcement (2015-2019).

By analysing the indicators that encompass the Operating Summary, we can see that, in the years after the announcement of the acquisition, the Revenue from Goods and Services has shown a clear increase. The growth rates achieved during this period are significantly higher than the rates obtained in the years of 2011 to 2014. However, the Gross Profit Margin, after the announcement of the transaction, experienced a significant drop when compared to the period prior to the announcement. This is due to the fact that the increase in Revenue from Goods and Services was accompanied by a relatively higher increase in Cost of Operating Revenue in percentage of Revenue from Goods and Services, resulting in a decrease in the Gross Profit Margin as a percentage of sales¹⁴. Nevertheless, it is worth noting that apart from the year 2013, the company experienced a clear increase in the Operating Profit Margin.

Within the group of ratios in the Operating Summary, the most crucial ratios to analyse and compare are the Operating Profit Margin and the Margin. The fact that the financing sources used for this transaction were term loans maturing in 2018 and 2020, it indicates that the company resorted to debt to finance this transaction. This, in theory, will lead to an increase in interest costs. The results show that the percentage of Interest Expense on Capital

¹⁴ Although the Gross Profit Margin has decrease, it does not mean that the Gross Profit (the numerator of the Gross Profit Margin) has decreased.

Table 2 - Financial Summary: AT&T Inc.

(Dollar Figures in Millions)	2019	2018	2017	2016	2015	2014	2013	2012	2011
Operating Summary									
Revenue from Goods and Services	181 193	170 756	160 546	163 786	146 801	132 447	128 752	127 434	126 723
Growth rate of revenue from goods and services	6,11%	6,36%	-1,98%	11,57%	10,84%	2,87%	1,03%	0,56%	-
Gross Profit Margin	37,99%	36,84%	36,34%	37,28%	39,33%	40,79%	45,95%	42,42%	42,17%
Operating Profit Margin	17,11%	16,53%	15,41%	15,11%	16,88%	10,82%	23,88%	10,20%	9,57%
Interest Expense on Capital Financing ^a	4,76%	4,95%	4,49%	3,54%	3,35%	2,90%	3,28%	2,91%	2,92%
Margin	12,35%	11,58%	10,93%	11,57%	13,53%	7,92%	20,60%	7,29%	6,65%
Modified Return on Assets	7,11%	6,64%	7,46%	7,98%	7,97%	5,77%	15,32%	5,51%	5,03%
Capitalization Summary									
Acquiring Firm's Leverage	29,57%	33,19%	37,01%	30,59%	31,33%	27,57%	26,92%	25,65%	23,94%
Interest-Bearing Debt to Capital ratio	44,69%	47,65%	53,65%	49,88%	50,50%	47,55%	44,98%	42,97%	37,97%
Interest-Bearing Debt to Equity ratio	80,79%	91,04%	115,73%	99,52%	102,03%	90,65%	81,75%	75,35%	61,20%
Total Liabilities to Total Assets	63,40%	63,55%	68,02%	69,27%	69,30%	69,59%	67,07%	65,96%	60,88%
Cash and short-term investments to Current liabilities	17,60%	8,08%	62,05%	11,44%	10,71%	23,08%	9,54%	15,31%	9,86%

Source: Refinitiv and own calculations.

^a The Interest Expense on Capital Financing is calculated as a percentage of the Revenue from Goods and Services.

Financing as a percentage of Revenue from Goods and Services remained relatively constant until the year 2016. However, it is important to consider that over the analysed period, especially up to the year 2016, the Revenue from Goods and Services exhibited growth. This implies that, as anticipated, incurring debt to finance the transaction led to a significant increase in the absolute value of Interest Expense on Capital Financing when comparing the post-transaction announcement period with the pre-transaction announcement period. Nevertheless, the results in the Table 2 indicate that despite the increase in interest expenses, the Margin, except for the year 2013, consistently exhibited considerably higher values compared to the years 2014, 2012, and 2011. The fact that the company utilized debt and still managed to increase its margin compared to the period before the M&A, it may suggest that the merged entity possesses a cash-generating ability that exceeds the current debt service requirements, as suggested by Smith and Kim (1994).

It is also relevant to mention that the values of MROA are substantially higher in the years of 2015 to 2019, compared to the years of 2011 to 2014, except for 2013. All of these observations lead us to suggest that despite the absolute increase in Interest Expense on Capital Financing, executing the transaction through debt was profitable since the company managed to achieve an operational performance after accounting for interest expense on capital financing that was superior in comparison with the years before the transaction. While Harrison et al. (2014) propose that a rise in debt levels could potentially constrain managerial discretion in resource allocation, with potential adverse effects on overall performance, our study contradicts this notion. We find that the added debt did not impact the performance, as illustrated by metrics such as MROA.

By focusing on the Capitalization Summary and on the years after 2014, it is shown that the acquisition led to a rise in Interest-Bearing Debt in percentage of Total Assets. Harrison et al. (2014) suggest that there are several reasons that can explain the rise in leverage after an acquisition: the acquiring company leverage can increase due to the company policies, which may decide to borrow funds for some other reason apart from the transaction; due to the target company which before the transaction had a considerable amount of leverage; or it could it be taken over the course of the M&A. We consider that the three reasons mentioned by Harrison et al. (2014) can explain the increase in Acquiring Firm's Leverage. In addition to this, we observe that the absolute value of long-term debt increased more than what was necessary to finance the deal value. All of this might be due to the fact that we are analysing the financial statements of AT&T on a consolidated basis and therefore the absolute and relative increase observed on the Acquiring Firm's Leverage may be due to the incorporation of the target debt.

When the acquiring company assumes the debt of the target, that could increase the costs for the company. This increase in financing costs can make the takeovers less attractive. However, it should also be considered that those costs can also bring certain benefits, such as a tax shield (Kraus & Litzenberger, 1973; Modigliani & Miller, 1963).

Therefore, this case study suggests that when studying the impact of the sources of financing used on M&A transactions, it is important to also consider the financing costs that the company will also bear due to the debt that is incorporated within the target. Harrison et al. (2014) underline the importance of careful consideration of leverage effects in acquisitions,

especially when the target firm carries a substantial amount of debt or when a considerable debt burden is required to finance the acquisition.

The rise observed in the Interest-Bearing Debt is even more explicit in the Interest-Bearing Debt to Capital Ratio and in the Interest-Bearing Debt to Equity Ratio. Specifically, the Interest-Bearing Debt to Equity Ratio unequivocally demonstrate that the increase in Interest-Bearing Debt in relation to Total Shareholder's Equity (including minority interests and hybrid debt) is significant.

In order to have an understanding of the company's indebtedness, it is important to also consider the Total Liabilities to Total Assets ratio. When we look at this ratio, we can suggest that as pointed by Harford et al. (2009), the greater the acquirer's pre-acquisition leverage deviation, the more likely will be that the firm will reverse the impact of the acquisition on its leverage. We can suggest this, by observing that the Total Liabilities to Total Assets ratio presented a value of 67.07% in 2013, increasing to its peak in 2014 (69.59%), and then significantly decreasing in 2018 and 2019, reaching values around 63%.

Finally, it is important to note that the Cash and Short-term Investments to Current Liabilities ratio does not reveal any significant changes.

4.3. Abbott Laboratories acquires CFR Pharmaceutical S.A.

Based on *Refinitiv*, on May 16th, 2014, Abbott Laboratories ("Abbot") announced the intention to acquire CFR Pharmaceutical S.A. ("CFR"). In September 2014, Abbott completed the acquisition of one controlling interest in CFR. The total deal value was approximately 3 334.43 million dollars. The transaction was financed through Abbott's cash on the balance sheet.

According to *Refinitiv*, Abbott stands as a global healthcare company. The Abbott portfolio encompasses the diagnostics technological products, medical devices, nutritional items, and branded generic medicines. The segments in which the company's operate consist of established pharmaceutical products, diagnostic products, nutritional products, and medical devices.

The Table 3 shown below presents the results of the financial indicators derived from computing the financial ratios. These ratios were calculated based on the figures provided in

the financial statements accessible in the *Refinitiv workspace*. The data encompasses the years preceding the M&A (2011 to 2013), the M&A announcement year (2014), and the subsequent years following the M&A announcement (2015-2019).

Table 3 - Financial Summary: Abbott Laboratories

(Dollar Figures in Millions)	2019	2018	2017	2016	2015	2014	2013	2012	2011
Operating Summary									
Revenue from Goods and Services	31 904	30 578	27 390	20 853	20 405	20 247	19 657	19 050	21 407
Growth rate of revenue from goods and services	4,34%	11,64%	31,35%	2,20%	0,78%	3,00%	3,19%	-11,01%	-
Gross Profit Margin	52,57%	51,37%	47,53%	53,80%	54,28%	51,83%	50,24%	50,16%	48,87%
Operating Profit Margin	14,64%	12,20%	6,83%	14,66%	14,52%	13,65%	10,85%	7,14%	7,40%
Interest Expense on Capital Financing ^a	2,10%	2,70%	3,30%	2,07%	0,80%	0,81%	0,24%	2,01%	3,96%
Margin	12,54%	9,50%	3,53%	12,60%	13,72%	12,84%	10,61%	5,13%	3,45%
Modified Return on Assets	13,20%	9,58%	2,96%	20,72%	20,15%	17,59%	14,55%	4,78%	3,49%
Capitalization Summary									
Acquiring Firm's Leverage	25,92%	29,13%	36,62%	40,92%	20,76%	17,92%	14,10%	29,54%	25,57%
Interest-Bearing Debt to Capital ratio	35,98%	38,91%	47,31%	50,99%	28,65%	25,44%	19,33%	42,55%	38,59%
Interest-Bearing Debt to Equity ratio	56,21%	63,69%	89,79%	104,03%	40,15%	34,13%	23,97%	74,07%	62,85%
Total Liabilities to Total Assets	53,89%	54,26%	59,22%	60,66%	48,30%	47,49%	41,18%	60,12%	59,31%
Cash and short-term investments to Current liabilities	38,11%	45,34%	107,83%	281,91%	66,68%	42,61%	85,18%	114,26%	52,31%

Source: *Refinitiv* and own calculations.

^a The Interest Expense on Capital Financing is calculated as percentage of the Revenue from Goods and Services.

Starting with an analysis of the financing source used in this case study, we can see that Cash and Short-term Investments to Current Liabilities ratio exhibited a significant decrease from the year 2013 to the year 2014 (the year of the acquisition). From the financial statements, it can be observed that the reduction seen in the Cash and Short-Term Investments to Current Liabilities ratio was due to a significant decline in the amount of Short-term Investments held by the company. It is highly probable that the company chose to convert these investments into monetary resources, presumably for the purpose of pay for the acquisition. The strategy employed by the company validates the importance of including short-term investments in our ratio analysis, rather than solely focusing on the cash on hand.

In order to analyse the impacts of using Cash and Short-term Investments to finance the acquisition we begin by examining how they evolve throughout the analysed period. The Cash and Short-Term Investments in absolute value grow in the subsequent years after the acquisition, notably surpassing the 2013 value in 2016 and in 2017. However, in 2018 and 2019, the amount of Cash and Short-Term Investments values once again experienced a clear decline, returning to levels resembling those held by the company in the year 2014.

In an attempt to understand whether the company may have conducted any form of financing to increase Cash and Short-Term Investments, we can begin by examining the accountant item Common Stock Issued and Paid. This item exhibited a gradual and insignificant increase, incapable of explaining the movement in Cash and Short-Term Investments from 2011 to 2016 in absolute value. However, by looking at the Interest-Bearing Debt, specifically from 2014 to 2015, there was an increase in long-term debt of around 2 billion dollars. This amount nearly matches the variation of 2 billion dollars observed in Cash and Short-Term Investments for the years 2014 to 2015. Once again, in the period from 2015 to 2016, another increase in Cash and Short-Term Investments is shown, amounting to around 12 billion dollars. Simultaneously, there was an increase in Interest-Bearing Debt (considering the variation of Short-Term Debt and the Current Portion of Long-Term Debt) of 13 billion dollars. This suggests an approximately symmetrical evolution between 2014 to 2016. This analysis suggests that after the acquisition, the acquiring company seems had the need to issue debt, raising the question of whether mega deals financed through Cash and Short-term Investments ultimately lead to the utilization of financing instruments. This brings us to Harford et al. (2009) which suggest that M&A with significant deal values inevitably lead to the use of sources of financing.

However, it is important to note that while the argument of using debt seems valid until the year 2016, it does not hold up for the year 2017. This is because the use of newly issued debt and the issuance of 10 billion dollars in equity in that year lead to an increase in Total Assets and a decrease in Cash and Short-Term Investments, indicating a use of financing for investments.

Martynova and Renneboog (2009) suggest that firms with strong growth opportunities, which require flexibility to managing corporate funds, tend to avoid debt financing for takeovers. This may explain why the company used Cash and Short-Term Investments to pay for the acquisition in 2014 and subsequently secured financing, with a portion of it being

allocated for investments in 2017. The fact that the company pays for the acquisition with internal funds and after three years execute a significant investment is also consistent with the idea of Harrison et al. (2014) which suggest that the use of leverage in M&A may lead to the neglect of value-adding activities required during the post-acquisition period. Martynova and Renneboog (2009) and Fischer (2017) provide another argument and suggest that acquiring companies may choose to finance the takeover using retained funds, primarily because they have accumulated a significant amount of retained earnings. This can be also the case of Abbott since the company presents a considerable amount of Cash and Short-term Investment to Current Liabilities in the year preceding the transaction.

Nonetheless, it is important to observe that in 2018 and 2019, following the supposed use of debt to finance investments in 2017, and by beginning to reduce the absolute value of Interest-Bearing Debt, we can see that the absolute value of Cash and Short-Term Investments returned to levels similar to those in 2014. This may suggest that the company might have reached a "normal" level of cash, that is lower than what it had prior to the acquisition, revealing potential consequences of using Cash and Short-Term Investments to finance the acquisition. However, to accurately analyse the acquisition and cash movements, it is also necessary to consider the company's profitability evolution.

By analysing the financial indicators of the Operating Summary, it is important to begin by noting the fact that the results presented suggest a clear increase in Revenue from Goods and Services. This increase was significantly higher in the years from 2015 to 2019 compared to the years from 2011 to 2014.

Other financial performance indicator within the Operating Summary that we should denote is the Margin. But, before proceeding with the analysis of the Margin, it is important to highlight that in this case study, unlike the two previously examined cases studies, when calculating interest costs, we could not rely on the accounting item Interest Expense on Capital Financing due to the lack of data for all the years under consideration. Therefore, we chose to base our calculations on the use of the accounting item Interest Expense Net of Capitalized Interest¹⁵. Nevertheless, when we examine the Margin, we can observe that in the

¹⁵ We consider that the amount of Interest Expense Net of Capitalized Interest is a good proxy for the amount of Interest Expense on Capital Financing since, in the years in which the amount of Interest Capitalized (that is the amount reduced to Interest Expense on Capital Financing for calculating Interest Expense Net of Capitalized Interest) is recorded, it does not exhibit a relevant value capable of significantly influencing the values of Interest Expense Net of Capitalized Interest. Assuming that this trend will persist, we can consider that the

post-acquisition years, except for 2017 and 2018, the indicator tends to consistently show higher values than those presented in the years from 2011 to 2013. By looking directly at the values of Interest Expense Net of Capitalized Interest, we can verify that interest expenses in absolute terms experienced a clear increase over time. The interest expense in absolute terms reached its peak in 2017 and 2018, which were the years when the Margin had its poorest performance.

If the findings showed before suggest that the company uses debt with the aim of maintaining an optimal level of cash on its balance sheet, it is important to understand whether the use of debt to replace the cash level has any adverse effect on the operational performance of the company. To better understand this, we decided to compare the interest expense as a percentage of revenue between the acquiring company in the case study that uses debt to proceed with the acquisition and Abbott. Therefore, when we analyse the interest expense as a percentage of revenue for the two companies, AT&T (the acquiring company of the case study which employs debt as a financing source) and Abbott (which relies on Cash and Short-Term Investments), for the years 2015 to 2018. We observe that AT&T maintains an average interest expense of 4.08%. This average is considerably higher than the average of 2.74% seen for Abbott during the same years. Hence, despite the results suggest that Abbott employs debt to address the decline in Cash and Cash Equivalents, Abbott's average interest expense as a percentage of revenue remains notably lower in comparison to the case study that adopts debt as a financing strategy for its transactions.

It can be stated that the increase in the company's profitability, as shown by the financial ratios comprising the Operating Summary, may have an impact on Cash and Short-Term Investments. Given that the company demonstrates higher profitability in the post-transaction years, the reduction in the level of Cash and Short-Term Investments due to the finance of the acquisition may not actually materialize. This is because the company's acquisition might have resulted in enhanced profitability, thereby increasing retained earnings. This notion is validated by the fact that net income after tax exhibits a clear growth during the period from 2014 to 2019. However, it is crucial to note that to assess the ability to generate retained earnings, other indicators such as the internally generated cash flows

amount of Interest Expense Net of Capitalized Interest will be a good instrument to estimate the amount of Interest Expense on Capital Financing.

proposed by Schlingemann (2004) would be more appropriated than the indicators presented in the tables.

In addition to all of the aforementioned, the results presented in the Total Liabilities to Total Assets ratio suggests that, in the years 2013 and 2014, the acquiring company appeared to possess debt capacity to execute the transaction through debt issuance. However, it chose not to incur debt and instead used the cash and equivalents (such as short-term investments) retained on the balance sheet to finance the transaction. This aligns with the ideas of Myers (1984) and Myers and Majluf (1984).

5. Conclusion

In this study, our primary aim was to investigate whether the financing method employed for acquisitions influences the financial performance of acquiring companies post-deal completion. We have deliberately selected three distinct case studies, with each case study exclusively using one of the financing sources considered in our dissertation. In order to analyse the impacts of the different financing strategies, we use specific financial ratios as tools to measure the outcomes. These ratios are compared year by year with a particular focus on the period before and after the M&A transaction's completion. By examining the three case studies separately, we generate some important findings of how each source of financing impacts the financial performance of the acquiring company.

In the case study where equity serves as the financing source for the M&A transaction, notable insights emerged. The main finding that can be retrieved is the fact that the acquiring company shows a decrease in the amount of weight of Total Liabilities in relation to the amount of Total Assets. This decrease in Total Liabilities to Total Assets in the year 2014 was probably the result of the acquisition of the target company which increase the amount of Total Assets of the group, outpacing the growth in Total Liabilities, since the acquisition was financed through equity issuance. This result suggests that one way to reduce the proportion of Total Liabilities in relation to Total Assets is to acquire a company with a low value of Total Liabilities to Total Assets using as financing source for the transaction equity instruments. Additionally, several capital structure ratios suggest that the equity issuance was undertaken to prevent further debt accumulation in the capital structure. This aligns with the

findings of Uysal (2011) and Elsas et al. (2014) which propose that firms take measures to decrease their leverage deficits and tend to issue equity when overleveraged.

In the case study that employs debt as the financing source for the M&A, the evolution of the Total Liabilities to Total Assets ratio over the analysed period suggests that, as highlighted by Harford et al. (2009), the greater the acquirer's pre-acquisition leverage deviation, the more likely it is that the firm will offset the acquisition's impact on its leverage. We can suggest this, by observing that the Total Liabilities to Total Assets ratio presented a value of 67.07% in 2013, increasing to its peak in 2014 (69.59%), and then significantly decreasing in 2018 and 2019, reaching values around 63%.

Concerning the third case study, which utilizes cash as the financing source for the M&A, we achieve significant findings as well. Firstly, it appears that the company chose to convert short-term investments into cash resources to fund the acquisition. This underlines the importance of including short-term investments in ratio analysis. Moreover, the Total Liabilities to Total Assets ratio suggests that the acquiring company had the debt capacity to finance the transaction through debt issuance in the years 2013 and 2014. Since the company chose to use existing cash and short-term investments on its balance sheet, this decision aligns with the theories proposed by Myers (1984) and Myers and Majluf (1984), which emphasize companies' preference for utilizing internal financing in relation to external debt.

After all of the aforementioned, it is important to underline that all the conclusions retrieved from this study should be drawn with special carefulness. This particular cautious is due to the fact that some firms may issue debt for one purpose while utilizing it to finance acquisitions (Dennis et al., 2021).

While our study provides insights into various aspects of financing strategies in takeovers, it is important to acknowledge certain limitations we faced during its execution. One of those limitations is the fact that over the long-term, companies are susceptible to a wide range of factors that make it challenging to discern the significant impacts of the different financing strategies. Therefore, long term can be highly misleading for such analyses. This finding concerning the long-term is validated by the results of Fischer (2017) and Gao and Bao (2022). In addition to this, Andrade et al. (2001) and Harford (2005) suggest accounting for the unique characteristics and dynamics of different industries to isolate the specific impact of M&A transactions on the variables of interest. This is done to avoid potential biases that might arise due to industry-specific factors. In our case, this would imply that we should

choose the case studies all from the same industry to ensure that the effects are not biased by the performance of a particular industry. However, considering our constraints, we find it difficult to have all case studies from the same industry.

Based on all the findings we achieved throughout this dissertation, we recommend that future research consider several factors. Firstly, future studies should encompass all acquisitions made by the company within a given year rather than focusing on a single acquisition. Additionally, to assess the impact of the sources of financing on the capital structure of the acquiring company more effectively, researchers may consider following the approach advocated by Harford et al. (2009) and specifically examine takeovers where the target firm has at least 20% of the bidder's size, rather than employing a fixed threshold in absolute terms for the deal value.

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Annex

Table 4 - Buckeye Partners LP Balance Sheet (2011-2018)^a

Statement Data	2018	2017	2016	2015	2014	2013	2012	2011
Current Assets								
Cash & Short-Term Investments	1,83	2,18	640,34	4,88	8,21	4,95	6,78	12,99
Cash & Cash Equivalents	1,83	2,18	640,34	4,88	8,21	4,95	6,78	12,99
Derivative Financial Instruments - Hedging - Short-Term	18,02	34,96	1,53	78,29	69,19	4,41	1,72	6,76
Loans & Receivables - Net - Short-Term	251,0	295,7	255,3	231,4	289,9	359,5	288,6	241,0
Inventories - Total	210,9	301,4	356,8	193,0	243,5	312,1	259,2	298,3
Prepaid Expenses - Short-Term	11,93	10,01	16,83	17,62	12,41	15,85	47,14	37,27
Assets Held for Sale/Discontinued Operations - Short-Term						182	0	
Other Current Assets - Total	29,97	12,33	48,09	26,40	9,09	22,58	30,94	29,75
Total Current Assets	523,6	656,6	1 318,9	551,6	632,3	901,1	634,3	626,0
Non-Current Assets								
Investments in Associates, Joint Ventures and Unconsolidated Subsidiaries	1 111,8	1 494,4	89,6	84,1	82,9	72,4	68,7	65,9
Receivables & Loans - Long-Term	2,06	10,17	10,46	10,99	17,06	12,80	11,57	4,74
Derivative Financial Instruments - Hedging - Long-Term	1,00	0,00	62,77	1,06	2,92	0,00		
Property, Plant & Equipment - Net - Total	6 914,8	6 735,8	6 483,3	6 202,1	5 735,8	4 925,3	4 188,7	3 847,6
Other Non-Current Assets - Total	38,08	41,32	28,28	29,36	47,51	47,17	40,39	42,48
Intangible Assets - Total - Net	764,2	1 366,4	1 427,9	1 490,1	1 547,3	1 046,9	1 037,4	983,7
Goodwill/Cost in Excess of Assets Purchased - Net	470,9	1 007,3	1 004,6	998,8	993,4	821,5	818,1	753,1
Intangible Assets - excluding Goodwill - Net - Total	293,3	359,1	423,3	491,4	553,9	225,4	219,3	230,6
Intangible Assets - Other - Net	293,3	359,1	423,3	491,4	553,9	225,4	219,3	230,6
Total Non-Current Assets	8 831,9	9 648,1	8 102,2	7 817,7	7 433,4	6 104,5	5 346,7	4 944,3
Total Assets	9 355,6	10 304,7	9 421,1	8 369,3	8 065,7	7 005,6	5 981,0	5 570,4
Current Liabilities								
Trade Accounts Payable & Accruals - Short-Term	281,8	291,9	254,8	234,8	250,9	234,4	184,5	280,1
Short-Term Debt & Current Portion of Long-Term Debt	702,7	252,2	0,0	111,5	166,0	226,0	206,2	251,2
Derivative Liabilities - Hedging - Short-Term	1,32	7,17	26,27	0,51	1,80	44,67	82,99	1,86
Liabilities Held for Sale/Discontinued Operations - Short-Term						38	0	
Other Current Liabilities - Total	141,9	134,1	118,5	157,6	203,3	142,2	120,7	21,8
Total Current Liabilities	1 127,8	685,4	399,6	504,3	622,0	685,0	594,4	555,0
Non-Current Liabilities								
Accounts Payable including Accrued Expenses - Long-Term	27,36	31,80	35,88	38,83	39,99	45,63	48,35	45,86
Debt - Long-Term - Total	4 011,7	4 658,3	4 217,7	3 732,8	3 368,6	3 092,7	2 735,2	2 393,6
Derivative Liabilities - Hedging - Long-Term		0	4	1	3	0	58	102
Other Non-Current Liabilities - Total	57,54	60,85	65,35	75,87	91,94	101,34	156,41	150,10
Total Non-Current Liabilities	4 096,6	4 751,0	4 323,1	3 848,2	3 503,2	3 239,7	2 997,8	2 691,4
Total Liabilities	5 224,4	5 436,3	4 722,7	4 352,5	4 125,1	3 924,7	3 592,2	3 246,4
Shareholders' Equity								
Shareholders' Equity - Attributable to Parent Shareholders - Total	4 120,1	4 590,9	4 411,7	3 735,4	3 702,6	3 065,7	2 372,3	2 303,2
Common Equity Attributable to Parent Shareholders	4 120,1	4 590,9	4 411,7	3 735,4	3 702,6	3 065,7	2 372,3	2 303,2
Common Equity - Contributed	4 160,1	4 562,3	4 437,3	3 833,2	3 817,9	3 169,2	2 531,1	2 430,9
Common Stock - Issued & Paid	4 160,1	4 562,3	4 437,3	3 833,2	3 817,9	3 169,2	2 531,1	2 430,9
Equity - Non-Contributed - Reserves & Retained Earnings	-40,06	28,63	-25,59	-97,84	-115,29	-103,55	-158,78	-127,74
Equity - Other								0
Common Equity - Total	4 120,1	4 590,9	4 411,7	3 735,4	3 702,6	3 065,7	2 372,3	2 303,2
Minority Interest - Equity	11,09	277,39	286,70	281,35	237,97	15,17	16,53	20,79
Total Shareholders' Equity - including Minority Interest & Hybrid Debt	4 131,2	4 868,3	4 698,4	4 016,7	3 940,6	3 080,8	2 388,8	2 324,0
Total Liabilities & Equity	9 355,6	10 304,7	9 421,1	8 369,3	8 065,7	7 005,6	5 981,0	5 570,4

Source: Refinitiv

^a Amount in millions of dollars

Table 5 - Buckeye Partners LP Income Statement (2011-2018)^a

Statement Data	2018	2017	2016	2015	2014	2013	2012	2011
Revenue from Goods & Services	4 085,8	3 654,8	3 248,4	3 418,0	6 570,0	5 067,6	4 287,8	4 693,6
Cost of Operating Revenue	2 793,0	2 200,3	1 804,2	2 177,7	5 443,6	4 080,2	3 456,1	3 927,9
Gross Profit - Industrials/Property - Total	1 292,8	1 454,5	1 444,2	1 240,3	1 126,4	987,4	831,7	765,8
Selling, General & Administrative Expenses - Total	82,39	90,98	86,10	88,83	79,20	70,44	65,24	58,93
Other Operating Expense/(Income) - Net	623,6	633,4	621,4	573,4	537,7	413,6	373,0	341,0
Operating Profit before Non-Recurring Income/Expense	586,9	730,1	736,7	578,1	509,5	503,4	393,4	365,9
Non-Operating Expenses								
Financing Income/(Expense) - Net - Total	-190,2	-225,6	-194,9	-171,3	-171,2	-130,9	-115,0	-84,83
Interest Expense - Net of (Interest Income)	190,2	225,6	194,9	171,3	171,2	130,9	115,0	119,6
Interest Expense - Net of Capitalized Interest	190,2	225,6	194,9	171,3	171,2	130,9	115,0	119,6
Interest Expense on Capital Financing - Gross	199,1	230,4	199,3	192,6	181,1	137,9	124,2	127,1
Interest Capitalized	8,90	4,80	4,40	21,30	9,90	7,01	9,24	7,58
Non-Interest Financial Income/(Expense) - Total						0	0	34,73
Sale of Tangible & Intangible Fixed Assets - Gain/(Loss)	343,0							
Equity Earnings/(Loss) - before Taxes including Non-Recurring	-274,1	36,01	11,54	6,38	11,27	5,24	6,10	10,43
Other Non-Operating Income/(Expense) - Total	-0,91	-1,25	-3,18	0,10	-0,43	0,30	-0,45	0,19
Normalized Pre-tax Profit	464,6	539,3	550,1	413,3	349,1	378,0	284,1	291,6
Non-Recurring Income/(Expense) - Total	-512,8	-44,77	0	25,97	-14,15	-25,36	-48,89	0
Income before Taxes	-48,17	494,5	550,1	439,3	335,0	352,7	235,2	291,6
Income Taxes	-3,74	-0,87	-1,46	-0,87	-0,45	-1,06	0,67	0,19
Net Income after Tax	-51,91	493,7	548,7	438,4	334,5	351,6	235,9	291,8

Source: Refinitiv

^a Amount in millions of dollars

Table 6 - AT&T Inc. Balance Sheet (2011-2019)^a

Statement Data	2019	2018	2017	2016	2015	2014	2013	2012	2011
Current Assets									
Cash & Short-Term Investments	12 130	5 204	50 498	5 788	5 121	8 603	3 339	4 868	3 045
Cash & Cash Equivalents	12 130	5 204	50 498	5 788	5 121	8 603	3 339	4 868	3 045
Derivative Financial Instruments - Hedging - Short-Term	13	0	0	0	0	0	0	0	0
Loans & Receivables - Net - Short-Term	25 816	29 164	18 303	18 400	16 532	14 527	12 918	12 657	13 231
Inventories - Total	2 864	2 771	2 225	2 039	4 033	1 933	0	0	1 188
Prepaid Expenses - Short-Term	1 631	2 047	1 369	1 555	1 072	831	960	1 035	1 102
Assets Held for Sale/Discontinued Operations - Short-Term	0	0	0	0	0	0	0	0	0
Other Current Assets - Total	12 307	12 241	6 751	10 587	9 234	7 712	5 979	4 146	4 419
Total Current Assets	54 761	51 427	79 146	38 369	35 992	33 606	23 196	22 706	22 985
Non-Current Assets									
Investments in Associates, Joint Ventures and Unconsolidated Subsidiaries	3 695	6 245	1 560	1 674	1 606	250	3 860	4 581	3 718
Derivative Financial Instruments - Hedging - Long-Term	261	559	0	0	0	0	0	0	0
Property, Plant & Equipment - Net - Total	154 167	131 473	125 222	124 899	124 450	112 898	110 968	109 767	107 087
Other Non-Current Assets - Total	34 927	31 963	18 444	16 812	15 346	13 425	8 278	6 713	6 467
Intangible Assets - Total - Net	303 858	310 197	213 274	215 588	225 278	136 655	131 485	128 548	130 185
Goodwill/Cost in Excess of Assets Purchased - Net	146 241	146 370	105 449	105 207	104 568	69 692	69 273	69 773	70 842
Intangible Assets - excluding Goodwill - Net - Total	157 617	163 827	107 825	110 381	120 710	66 963	62 212	58 775	59 343
Intangible Assets - Other - Net	20 798	26 269	8 747	13 263	18 699	898	878	6 423	2 984
Total Non-Current Assets	496 908	480 437	358 500	358 973	366 680	263 228	254 591	249 609	247 457
Total Assets	551 669	531 864	444 097	403 821	402 672	296 834	277 787	272 315	270 442
Current Liabilities									
Trade Accounts Payable & Accruals - Short-Term	39 859	40 431	31 809	29 115	28 398	21 995	19 548	20 494	18 380
Short-Term Debt & Current Portion of Long-Term Debt	11 838	10 255	38 374	9 832	7 636	6 056	5 498	3 486	3 453
Other Current Liabilities - Total	8 770	8 701	6 874	6 542	6 656	5 702	5 771	4 225	5 448
Total Current Liabilities	68 911	64 420	81 389	50 576	47 816	37 282	34 995	31 787	30 892
Non-Current Liabilities	0	0	0	0	0	0	0	0	0
Debt - Long-Term - Total	151 309	166 250	125 972	113 681	118 515	75 778	69 290	66 358	61 300
Derivative Liabilities - Hedging - Long-Term	3 282	2 604	0	0	0	0	0	0	0
Other Non-Current Liabilities - Total	44 927	46 847	51 522	55 326	56 520	55 068	45 712	52 984	46 705
Total Non-Current Liabilities	280 824	273 560	220 701	229 135	231 216	169 282	151 310	147 833	133 753
Total Liabilities	349 735	337 980	302 090	279 711	279 032	206 564	186 305	179 620	164 645
Shareholders' Equity									
Attributable to Parent Shareholders - Total	184 221	184 089	140 861	123 135	122 671	89 716	90 988	92 362	105 534
Common Equity Attributable to Parent Shareholders	184 221	184 089	140 861	123 135	122 671	89 716	90 988	92 362	105 534
Common Equity - Contributed	133 900	133 146	96 058	96 099	96 258	97 603	97 586	97 533	97 651
Common Stock - Issued & Paid	7 621	7 621	6 495	6 495	6 495	6 495	6 495	6 495	6 495
Equity - Non-Contributed - Reserves & Retained Earnings	63 406	63 002	57 517	39 695	39 005	39 142	39 021	27 717	28 633
Common Equity - Total	184 221	184 089	140 861	123 135	122 671	89 716	90 988	92 362	105 534
Minority Interest - Equity	17 713	9 795	1 146	975	969	554	494	333	263
Total Shareholders' Equity - including Minority Interest & Hybrid Debt	201 934	193 884	142 007	124 110	123 640	90 270	91 482	92 695	105 797
Total Liabilities & Equity	551 669	531 864	444 097	403 821	402 672	296 834	277 787	272 315	270 442

Source: Refinitiv

^a Amount in millions of dollars

Table 7 - AT&T Inc. Income Statement (2011-2019)^a

Statement Data	2019	2018	2017	2016	2015	2014	2013	2012	2011
Revenue from Goods & Services	18 1193	170 756	160 546	163 786	146 801	132 447	128 752	127 434	126 723
Cost of Operating Revenue	11 2358	107 849	102 197	102 731	89 062	78 418	69 586	73 371	73 281
Gross Profit - Industrials/Property - Total	68 835	62 907	58 349	61 055	57 739	54 029	59 166	54 063	53 442
Selling, General & Administrative Expenses - Total	39 490	36 678	35 290	36 310	32 954	39 697	28 414	41 066	41 314
Other Operating Expense/(Income) - Net	-1 656	-2 002	-1 688	0	0	0	0	0	0
Operating Profit before Non-Recurring Income/Expense	31 001	28 231	24 747	24 745	24 785	14 332	30 752	12 997	12 128
Non-Operating Expenses									
Financing Income/(Expense) - Net - Total	-8 221	-8 137	-6 277	-4 792	-4 120	-3 613	-3 940	-3 444	-3 535
Interest Expense - Net of (Interest Income)	8 422	7 957	6 300	4 792	4 120	3 613	3 940	3 444	3 535
Interest Expense - Net of Capitalized Interest	8 422	7 957	6 300	4 910	4 120	3 613	3 940	3 444	3 535
Interest Expense on Capital Financing - Gross	8 622	8 450	7 203	5 802	4 917	3 847	4 224	3 707	3 697
Interest Capitalized	200	493	903	892	797	234	284	263	162
Non-Interest Financial Income/(Expense) - Total	201	-180	23	0	0	0	0	0	0
Equity Earnings/(Loss) - before Taxes including Non-Recurring	6	-48	-128	98	79	175	642	752	784
Other Non-Operating Income/(Expense) - Total	-1 272	6 136	1 574	1 178	33	1 581	596	134	249
Normalized Pre-tax Profit	21 514	26 182	19 916	21 413	20 777	12 475	28 050	10 439	9 626
Non-Recurring Income/(Expense) - Total	-3 046	-1 309	-4 777	-1 601	-85	-2 120	0	0	-2 910
Income before Taxes	18 468	24 873	15 139	19 812	20 692	10 355	28 050	10 439	6 716
Income Taxes	3 493	5 638	5 563	6 479	7 005	3 619	9 328	2 900	2 532
Net Income after Tax	14 975	19 235	9 576	13 333	13 687	6 736	18 722	7 539	4 184

Source: Refinitiv^a Amount in millions of dollars

Table 8 - Abbott Laboratories Balance Sheet (2011-2019)^a

Statement Data	2019	2018	2017	2016	2015	2014	2013	2012	2011
Current Assets									
Cash & Short-Term Investments	4 140	4 086	9 610	18 775	6 125	4 460	8 098	15 174	8 097,36
Cash & Cash Equivalents	3 860	3 844	9 407	18 620	5 001	4 063	3 475	10 802	6 812,82
Short-Term Investments - Total	280	242	203	155	1 124	397	4 623	4 372	1 284,54
Derivative Financial Instruments - Hedging - Short-Term	148	114	138	276	0	0	84	120	115
Loans & Receivables - Net - Short-Term	5 425	5 182	5 249	3 248	3 418	3 586	3 986	7 613	7 683,92
Inventories - Total	4 316	3 796	3 601	2 434	2 599	2 643	2 693	3 793	3 284,25
Prepaid Expenses - Short-Term	1 638	1 445	1 529	1 530	1 908	1 975	1 420	1 637	1 887,71
Assets Held for Sale/Discontinued Operations - Short-Term	0	9	20	513	105	892	438	0	0
Other Current Assets - Total	0	0	0	0	0	0	2 528	2 986	2 700,54
Total Current Assets	15 667	14 632	20 147	26 776	14 155	13 556	19 247	31 323	23 768,77
Non-Current Assets									
Investments in Associates, Joint Ventures and Unconsolidated Subsidiaries	836	856	797	2 906	4 014	212	93	213	317
Derivative Financial Instruments - Hedging - Long-Term	48	0	0	8	116	101	87	185	598
Property, Plant & Equipment - Net - Total	8 972	7 563	7 607	5 705	5 730	5 935	5 905	8 063	7 873,96
Other Non-Current Assets - Total	2 097	1 868	1 944	2 255	2 003	3 187	2 022	3 028	1 962,92
Intangible Assets - Total - Net	40 220	42 196	45 493	12 222	15 200	16 265	15 507	24 362	25 695,02
Goodwill/Cost in Excess of Assets Purchased - Net	23 195	23 254	24 020	7 683	9 638	10 067	9 772	15 774	15 705,38
Intangible Assets - excluding Goodwill - Net - Total	17 025	18 942	21 473	4 539	5 562	6 198	5 735	8 588	9 989,64
Total Non-Current Assets	52 220	52 541	56 103	25 890	27 092	27 651	23 706	3 5912	36 508,12
Total Assets	67 887	67 173	76 250	52 666	41 247	41 207	42 953	6 7235	60 276,89
Current Liabilities									
Trade Accounts Payable & Accruals - Short-Term	8 230	7 842	7 195	4 429	4 852	4 718	5 432	10 002	10 834,24
Short-Term Debt & Current Portion of Long-Term Debt	1 478	207	714	871	2 691	3 992	2 668	1 776	3 374,76
Total Current Liabilities	10 863	9 012	8 912	6 660	9 186	10 467	9 507	13 280	15 480,23
Non-Current Liabilities									
Debt - Long-Term - Total	16 115	19 359	27 210	20 681	5 871	3 393	3 388	18 085	12 039,82
Derivative Liabilities - Hedging - Long-Term	546	0	0	0	0	0	0	80	0
Other Non-Current Liabilities - Total	6 761	6 024	7 024	4 193	4 056	4 728	4 318	8 267	7 527,7
Total Non-Current Liabilities	25 723	27 439	36 240	25 289	10 735	9 101	8 179	27 142	20 270,52
Total Liabilities	36 586	36 451	45 152	31 949	19 921	19 568	17 686	40 422	35 750,75
Shareholders' Equity									
Attributable to Parent Shareholders - Total	31 088	30 524	30 897	20 538	21 211	21 526	25 171	26 721	24 439,83
Common Equity Attributable to Parent Shareholders	31 088	30 524	30 897	20 538	21 211	21 526	25 171	26 721	24 439,83
Common Equity - Contributed	23 853	23 512	23 206	13 027	12 734	12 383	12 048	11 755	9 817,13
Common Stock - Issued & Paid	23 853	23 512	23 206	13 027	12 734	12 383	12 048	11 755	9 817,13
Equity - Non-Contributed - Reserves & Retained Earnings	17 382	16 974	17 916	18 302	19 099	17 821	19 967	20 557	18 310,18
Common Equity - Total	31 088	30 524	30 897	20 538	21 211	21 526	25 171	26 721	24 439,83
Minority Interest - Equity	213	198	201	179	115	113	96	92	86,31
Total Shareholders' Equity - including Minority Interest & Hybrid Debt	31 301	30 722	31 098	20 717	21 326	21 639	25 267	26 813	24 526,15
Total Liabilities & Equity	67 887	67 173	76 250	52 666	41 247	41 207	42 953	67 235	60 276,89

Source: Refinitiv^a Amount in millions of dollars

Table 9 - Abbott Laboratories Income Statement (2011-2019)^a

Statement Data	2019	2018	2017	2016	2015	2014	2013	2012	2011
Revenue from Goods & Services	31 904	30 578	27 390	20 853	20 405	20 247	19 657	19 050	21 407
Cost of Operating Revenue	15 132	14 869	14 372	9 635	9 330	9 753	9 781	9 494	10 945
Gross Profit - Industrials/Property - Total	16 772	15 709	13 018	11 218	11 075	10 494	9 876	9 556	10 462
Selling, General & Administrative Expenses - Total	12 102	11 979	11 147	8 160	8 113	7 731	7 743	8 196	8 877
Operating Profit before Non-Recurring Income/Expense	4 670	3 730	1 871	3 058	2 962	2 763	2 133	1 360	1 585
Non-Operating Expenses									
Financing Income/(Expense) - Net - Total	-658	-649	-682	-835	35	-63	-26	-292	-721
Interest Expense - Net of (Interest Income)	576	721	780	332	58	87	-20	323	782
Interest Expense - Net of Capitalized Interest	670	826	904	431	163	164	47	382	847
Interest Expense on Capital Financing - Gross	0	0	0	0	178	177	62	394	858
Interest Capitalized	0	0	0	0	15	13	15	12	11
Non-Interest Financial Income/(Expense) - Total	-82	72	98	-503	93	24	-46	31	61
Other Non-Operating Income/(Expense) - Total	191	139	1 413	-786	281	0	-66	63	372
Normalized Pre-tax Profit	4 203	3 220	2 602	1 437	3 278	2 700	2 041	1 131	1 236
Non-Recurring Income/(Expense) - Total	-126	-347	-371	-24	-95	-182	0	-1 351	0
Income before Taxes	4 077	2 873	2 231	1 413	3 183	2 518	2 041	-220	1 236
Income Taxes	476	409	418	350	577	797	53	-457	110
Net Income after Tax	3 601	2 464	1 813	1 063	2 606	1 721	1 988	237	1 126

Source: Refinitiv^a Amount in millions of dollars