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Board Gender Diversity and M&A performances

An event study on European M&A deals

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Abstract

Mergers and Acquisitions (M&A) could be value enhancing or destroying for shareholders. A high percentage of M&A failures are attributed to male dominance in corporate boards of directors. This study examines the impact of board gender diversity on M&A performances of listed European acquirers. An event study is performed to obtain the cumulative abnormal returns (CARs) from 910 M&A deals from 2003 to 2021 in 20 European countries. The results indicate that there is no significant relationship between board gender diversity (BGD) and M&A performances. Furthermore, it is found that the presence of at least 30% female directors on the acquiring board does not significantly impact the M&A performances. Finally, it is found that the effect of board gender diversity on M&A performances is not significantly stronger in countries with a binding gender quota law or a soft gender quota law. With one-year lagged variables included, a positive significant effect of BGD was found.

Keywords: Mergers and Acquisitions, Board Gender Diversity, Cumulative Abnormal returns, gender Quota laws

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1. Introduction

Recently, a photograph taken at the Munich Security Conference has led to a lot of discussion on LinkedIn. In this picture only white, older men are shown, these CEOs represented the lack of diversity at the highest level of organizations (LinkedIn, 2022). Diversity is a subject often spoken of, but are we improving the diversity on boards of listed corporations? Even though around 60% of the new university graduates are female, they are still outnumbered by men in the leadership positions in companies in European Union according to the European Commission (European Commission, 2014). Deloitte recently published a report stating that worldwide only 19.7% of all board seats are held by women. In Europe, this percentage is higher, namely 30.7% in 2021. The number of seats held by women has slowly gotten higher in recent years, but this is a slow process (Deloitte, 2022). In the last decades, gender quotas have been introduced to contribute to a more equal division of board members. This could have contributed to a higher percentage of seats held by women. Critical readers could argue that you should not use gender quota to appoint board members, as you should always select the best candidate. This should of course always be considered, but previous research shows empirical evidence that there is a bias when it comes to appointing women to corporate boards. This is because of the stereotyped values that are seen as feminine and therefore are seen as not competitive and assertive enough to be in the higher level of organizations (Konrad, Ritchie, & Corrigal, 2000; Sealy, Doldor, & Vinnicombe, 2009; Oakley, 2000; Carrasco, Francoeur, Réal, Laffarga, & Ruiz-Barbadillo, 2014). This bias should not be the reason for not appointing women for these functions, as there are a lot of benefits to having a more diverse board (Nielsen & Huse, 2010; Adams & Ferreira, 2009; Levi, et al., 2014).

Mergers and Acquisitions (from now on called M&As) are one of the most used ways of eliminating competition and gaining a larger market share. The profitability of M&A activity has been analysed frequently and the general conclusion is that it pays off (Bruner, 2002; DePamphilis, 2019). When engaging in M&A there are two parties involved: the acquirer and the target. According to DePamphilis (2019), the sum of the shareholders' gains of the acquirer and target around the announcement date of the deal is positive and statistically significant, on average. The target shareholders' gain is often higher than that of the acquirer, as they usually have greater bargaining leverage. Since they are not willing to sell their shares when they do not receive enough

compensation for them. The acquirer's shareholders also profit from the deal, in comparison to a situation where no deal had been settled. This has to do with the expectations of the M&A to be successful and possible synergies or cost reductions after the M&A (DePamphilis, 2019).

One of the reasons that some M&As are not paying off is the overconfidence of CEOs. Since research has shown that women are generally less prone to overconfidence, female board representation matters (Chen, et al., 2019). Chen et al (2019) argue that female participation in the boardroom reduced the CEO's overconfident views about his firm's prospects when engaging in M&A activity. When there are more women on the board, better acquisition decisions are made. Since CEO overconfidence is reduced, leading to less aggressive investment policies implemented. This leads to improved financial performance according to Chen, et al. (2019) This became more important in industries with high overconfidence prevenance (Chen, Leung, Song, & Goergen, 2019).

In this paper, the relationship between board gender diversity (BGD) and M&A success, measured by cumulative abnormal returns (CARs) after the announcement date, is therefore analysed. This could contribute to the existing literature by extending the analysed period, as there were enormous M&A deals in the last years (Nishant, 2021). There could be a different outcome than previous studies have shown, as deals are higher, highly resilient to economic setbacks (KPMG, 2021; Chen et al., 2019) and there is more influence from the public on diversity in society and corporate boards (Dixton-Fyle et al., 2020). Moreover, investors pressure companies to support diversity in organisations (Le Clercq, 2020), which is important for listed companies as their investors have a lot of influence over if the company does well or not.

2. Literature review

Existing literature is reviewed in this chapter to create a theoretical framework for board gender diversity and M&A performance. In chapter 3 the hypotheses are developed based on this framework. In this chapter, firm performance will be discussed first (2.1) to explain why it is important to look at this topic. Second, the role of the corporate board of directors is discussed (2.2). Third, there will be a focus on the role of females on the board of directors in reducing male CEO overconfidence (2.3.1.) and risk aversion of women and the effect of that on decisions made on the board of directors (2.3.2) is reviewed. Furthermore, self-selection is discussed in chapter 2.3.3. Last, gender quotas are discussed in chapter 2.4.

2.1 Firm performance

The objective of firms is to maximize shareholder value (Sundaram & Inkpen, 2004). There are multiple ways to measure firm performance. One of the most used variables to analyse the firm performance is the companies' stock price (Woon, 2004). The stock price should give a fair representation of how the firm is doing and it reflects investor perception of a company's ability to earn and grow its profits in the future.

To maximize the shareholder value several strategies are employed. One of these strategies for eliminating competition and gaining a larger market share is undertaking M&As. This way shareholder value could increase as the acquirer can extend their power and create synergies or a reduction in their costs. But there is also a high percentage of M&A failures, where M&As lead to shareholder value decreases (Levi, et al., 2014; Andrade, et al., 2001; Chen et al., 2007). To analyse if investors perceive the M&A as a positive development an event study is employed. The definition of this event study will be an analysis of the changes in stock price beyond expectation over a specified period. This change in stock price is analysed by looking at the abnormal returns in the event window chosen. The abnormal returns are then attributed to the effects of the event. The key assumption of the event study methodology is that the market must be efficient (Woon, 2004). When the market is efficient the effects of the M&A should be directly reflected in the stock prices of the acquirer. Levi et al. (2014), stated that M&As are an 'ideal setting to investigate the implications of male versus female behavioural traits in the boardroom'. Previous studies found that the continued massive levels of failed transactions could only be explained as misguided

actions by managers (Angwin, 2007). These managers and CEOs follow certain beliefs and have a certain background, age, and gender. These factors could contribute to the way they make choices and assess risk when engaging in M&A activity. This will be discussed further in chapter 2.3.

2.2 The corporate board of directors

The corporate board of directors is a body in an organization that is established to make economic decisions. They can affect the well-being of investors' capital, the economic health of the company, employees' security, and executives' power and benefits. It is often thought that CEOs and managers make all the decisions in the organization, yet it is the board of directors that has the ultimate internal power in the organization, therefore it is important to have a good working board to be a successful corporation (Molz, 1985). Members of the current board are elected by shareholders but nominated by a nominations committee (Chen, 2021), but a confirmation bias could be present as people tend to favour people that support their beliefs and values. A lot of unfavourable decisions in the context of corporate governance that are made by board members have biases at the root (Água & Correia, 2021). Consequently, to maintain a healthy board of directors one should be conscious of these biases and be able to look for other candidates that could make the board more diverse, for example by nominating women instead of men or people from other nationalities, ages, or backgrounds.

2.3 Gender diversity

Having a gender-diversified board is an interesting topic that has been analyzed often in the previous years. The focus of these studies was mostly on other topics than the relationship between gender diversity and M&A. The effects of having a gender-diverse board are still relevant for this study as they show underlying ideas as to why it is important for a company to have female board representation. The literature suggests that female directors on the board have a significant impact in different ways. Female directors are associated with lower bid premia, and they are less likely to initiate an acquisition as they are less overconfident according to Levi, Li, & Zhang (2014). Their findings support that female directors help create shareholder value as they do not overestimate the worth of a company they are going to acquire. Therefore, the female directors are less likely to overestimate the merger gains, and through their influence on M&A decisions, they make sure that unsuccessful acquisitions are minimalized (Levi, Li, & Zhang, 2014).

Another difference between men and women on the corporate board is that women on the board have better board attendance records and are more likely to join the monitoring committees (Adams & Ferreira, 2009). They found that female directors significantly impact the board inputs and outcomes. And male directors were found to have fewer attendance problems the more gender-diverse the board was. Therefore, better decisions can be made as a higher percentage of the board is attending the meetings (Adams & Ferreira, 2009).

Other contributions of having women on boards of directors were found by Nielsen & Huse (2010), who held a survey of 201 Norwegian firms to look at board behaviour by making use of theories of gender differences and group effectiveness. They found that the ratio of women directors is positively associated with board strategic control. Female directors on the board were also found to decrease the level of conflict on the board and increased board development. This could lead to policy implications as the presence of women on the board seems to ensure a high quality of board development activities (Nielsen & Huse, 2010).

Important to note, is that previous research found that a "critical mass" of women on the board also has an influence on firm performance. Joecks, Pull, & Vetter (2013) found that gender diversity at first negatively affect firm performance. After a "critical mass" of about 30 % women on the board has been reached, gender diversity resulted in higher firm performance than completely male boards accomplished. This is also supported by other researchers such as Wiley & Monllor-Tormos (2018), who found the same effect in their sample. They also found that at or above the "critical mass" percentage of 30% of women on the board, board gender diversity facilitated better monitoring of management, greater resource provisions, and divergent thinking (Wiley & Monllor-Tormos, 2018). Therefore, this paper suggests hypothesis H1b were the effect of at least 30% of female representation on the board of directors is considered. It is expected that the effect of gender diversity on corporate boards on M&A performance is higher when there is at least 30% of female representation on the board of directors.

2.3.1 Overconfidence

CEO overconfidence was found to be reduced when there is a higher proportion of female presence on the board of directors according to Chen et al., 2019. This was a novel reason why there could be a need for female board representation. They found that male CEOs at companies with female directors are less likely to hold deep-in-the-money options. In addition, they found

support that female directors are associated with less aggressive investment policies. Also, women make better acquisition decisions and have improved financial performance for firms operating in industries with high overconfidence prevalence (Chen, et al., 2019). The influence of the board of directors on the corporate outcomes could be great, as they could have a moderating role on the CEOs' biased beliefs. These biased beliefs due to overconfidence have a big influence on the firm decisions and therefore performance according to Malmendier and Tate (2005, 2008) & Malmendier et al. (2011). In another paper, they also state that managerial overconfidence leads to overinvestment when they have abundant internal funds, as they overestimate the returns of their projects. Therefore, they account for corporate investment errors, and this could lead to worse financial performance of the company (Malmendier & Tate, 2005). Less overconfident female directors also overestimate merger gains less often than overconfident directors according to Levi, et al. (2014) as explained in chapter 2.3. Female directors help create shareholder value through their influence on acquisition decisions by having this moderating role on the overconfident directors (Levi, Li, & Zhang, 2014). Huang and Kisgen (2013) also examined investment and corporate financial decisions made by female executives in comparison with male executives. They found that male executives undertake more M&A and issue debt more often than their female counterparts. Furthermore, they found that acquisitions made by firms with male executives have announcement returns of approximately 2% lower than those done by firms with female executives. They base this on the overconfidence of men in their corporate decision making (Huang & Kisgen, 2013).

Having a more gender-diverse board of directors is therefore expected to reduce the overconfidence of the CEO of the company and have a positive influence on the firm's performance.

2.3.2 Risk aversion

The level of risk aversion is another big difference in behaviour between men and women. Women are in general more risk-averse than men and make less risky decisions because of their lower risk appetite (Eckel & Grossman, 2002;2008). Women were also found to report a lower willingness to accept financial risk (Barsky, Juster, Kimbal, & Shapiro, 1997). Because of these reasons, women are less likely to engage in M&A activity and if they do, they are expected to make less risky bids. Because of this risk aversion women are expected to have a mitigation effect on men when it comes to M&A decisions. Women are more careful in their decision

making and have better oversight in their strategic actions and will dismiss proposals that seem too risky earlier than men (Chen et al., 2016; Levi, Li, & Zhang, 2014; Adams & Ferreira, 2009). Therefore, women could influence the overall risk appetite positively, as the riskiest M&As will not take place. This could lead to higher performances after the M&A.

2.3.3 Self-selection

In the last paragraphs the difference between men and women, in general, regarding overconfidence and risk-aversion were discussed. Between people there are also major differences even if they are from the same gender. It could be that women in board positions are a lot more similar in their risk appetite and characteristics to their male counterparts. People who are on the board might need to take much more risky decisions and have enough self-confidence to get to that position. As these women are in a traditionally (mostly) male environment, they could be as, or even more, competitive as men in that environment (Nekby, Thoursie, & Vahtrik, 2008). They might feel the need to work harder to get to that position or just have similar characteristics as men in the same position. Nekby, et al. (2008) found that there are male-dominated environments in which the selection of women, who participated, were more likely to be confident and competitive. They also found that, within a group composed of men and women that participated in the event, performance improved equally for both genders in absolute terms in comparison to group only existing of men. In this study people could register themselves in different categories and self-selected their group on their own judgement of their own performances. It could also be that women decline invitations to the board of directors and therefore self-select to not take on the position. They chose to dedicate themselves to more traditional family roles instead of choosing higher level positions in the organization (García-Izquierdo, Fernández-Méndez, & Arrondo-García, 2018). Croson & Gneezy (2009) found that in comparision to the higher risk aversion of an average female, women in managerial positions where similar to the men in that position. The differences between the genders were are smaller and often even inexistent (Croson & Gneezy, 2009). In this paper self-selection could be a mitigating factor of the board gender diversity, as women in the board could have the same characteristics as their male counterparts in the board. Consequently, the M&A perfomance could be less influenced by the board gender diversity.

2.4 Gender quota

In 2003 the first gender quota was installed by the Norwegian government. Women's talents were/are being underutilized in the top level of organizations, to promote these countries proposed a soft or hard quota for the number of women on the board of directors (Terjesen, Aguilera, & Lorenz, 2015). Gender quota laws significantly impact the composition of boards of directors and thus the strategic direction of these companies. The European Commission stated that change was necessary for the corporate and the political world so Europe would be more competitive with other countries, they want to create a sustainable future where everyone's talents are used to the full capacity (European Commission, 2012). Countries have different quotas employed at this moment with different sanctions when violated. Some countries have strict regulations, in Norway companies that do not comply with the quota regulation are liquidated by the government (Terjesen, Aguilera, & Lorenz, 2015). Other countries have softer regulations and quotas, which do not lead to such extreme sanctions. An overview of the current gender quota based on previous studies is shown in Table 1.

TABLE 1: COUNTRIES WITH A GENDER QUOTA[1]

Binding gender quotas

Country	Quota	Year	Sanctions/measures & source(s)
Belgium	33%	2011	The appointment of any directors who do not conform to board quota targets is revoked and director benefits are suspended (Terjesen et al., 2015).
France	40%	2011	Sanctions for non-compliers include directors not receiving fees (Terjesen et al., 2015)
Germany	30%	2015	Sanctions for non-compliers include filling any vacant board seats with women (Terjesen & Sealy, 2016).
Italy	33%	2011	There are fines for the con-complying companies and directors lose their office (Terjesen et al., 2015).
Norway	40%	2003	There are fines for the con-complying companies, dissolution of firms, and refusal to register the board (Terjesen et al., 2015).
Portugal	33%	2017	Fines for non-compliers could be imposed (Mensi-Klarbach & Seierstad, 2020).

Non-binding gender quotas

Austria	-	2008	Firm-specific gender quotas for state-owned entities (Terjesen et al., 2015) In 2017, a quota target of 30% was enlisted (Mensi-Klarbach & Seierstad, 2020).
Belgium	30%	2008	Firms are required to evaluate the gender diversity of their boards (Terjesen et al., 2015).

[1] Note that Belgium, France, and Germany first implemented soft quotas and then later implemented binding quotas.

Bulgaria	-	-	No quota/measures.
Croatia	-	-	No quota/measures.
Cyprus	-	-	No quota/measures.
Denmark	-	2010	Firms are required to evaluate the gender diversity of their boards (Terjesen, Aguilera, & Lorenz, 2015).
Estonia	-	-	No quota/measures.
Finland	40%	2005	None (Terjesen & Sealy, 2016)., but state-owned companies are required to have an 'equitable proportion of women and men' (Jourová, 2016).
France	20%	2010	Non-compliers' directors will not receive fees (Terjesen et al., 2015).
Germany	-	2010	Firms are required to evaluate the gender diversity of their boards when appointing board seats (Terjesen et al., 2015).
Greece	-	2016	Policy target quota of 33% for state-owned entities (Jourová, 2016).
Hungary	-	-	Soft positive action measures in the public sector (Jourová, 2016).
Ireland	-	-	A policy target of 40 % female participation on all state boards and committees (Jourová, 2016).
Latvia	-	-	Soft positive action measures in the public sector (Jourová, 2016).
Lithuania	-	-	No quota/measures.
Luxembourg	-	2009	Recommendation: The board should have an appropriate representation of both genders as far as possible (Terjesen, Aguilera, & Lorenz, 2015).
Malta	-	-	No quota/measures.
The Netherlands	30%	2008	For public firms with more than 250 employees a quota of 30% is set (Terjesen et al., 2015). (2011) Recommendation 2008: The supervisory board should aim for a diverse composition in terms of such factors as gender and age (Terjesen, Aguilera, & Lorenz, 2015).
Poland	-	2010	"The Code of good practices establishes a target of 30% for 2015 and a priority rule for equally qualified women. No sanctions are envisaged (Jourová, 2016)."
Slovakia	-	-	No quota/measures.
Slovenia	-	-	No quota/measures.
Spain	40%	2007	Non-compliers risk lower public subsidies and state contracts (Terjesen et al., 2015; Mensi-Klarbach & Seierstad, 2020).
Sweden	-	-	"Self-regulation: The Corporate Governance Code of 2004 has a voluntary goal of parity for listed companies – "comply or explain" mechanism (Jourová, 2016)."
Switzerland	30%	2021	This is quota is only applicable to boards of large companies, if they do not meet the quota, the companies are required to comply or to explain why, and to describe the measures that have been and will be taken to increase the numbers of the underrepresented gender (Libary of congress, 2020).

The gender quotas are expected to impact the board gender diversity and therefore influence the M&A performances. The implementation of gender quotas could increase the motivation of qualified women to apply for board seats, as they could expect a better chance to get the job. As stated before in the introduction, people could argue that you should not use gender quota to appoint board members, as you should always select the best candidate. But there are a lot of

biases among the people that appoint the board members toward the new applicants for the board (Konrad, Ritchie, & Corrigal, 2000; Sealy, Doldor, & Vinnicombe, 2009; Oakley, 2000; Carrasco, Francoeur, Réal, Laffarga, & Ruiz-Barbadillo, 2014). Furthermore, women represent around 60% of the university graduates in Europe, which indicates that there are enough qualified female candidates (European Commission, 2014).

In conclusion to this section, gender quotas are expected to have a significant impact on the effect of board gender diversity on M&A performance.

3. Research problem & Hypotheses development

Following the literature, a research question and hypotheses are developed. This question is answered by following the method described in Chapters 4 and 5. The hypotheses are the expected outcomes of different elements used to answer the research question based on existing literature.

The main research question of this paper is as follows:

What is the effect of having a gender-diversified board of directors on the M&A performances of acquiring firms in Europe between 2003 and 2021?

The M&A performance is measured by the cumulative abnormal returns (CARs) around the announcement date of the M&A as stated before. Gender diversity is measured by the proportion of board seats held by women divided by the number of total seats on the board in the year the M&A was announced.

A positive effect of the gender diversity of the board of directors on the M&A performance is expected and therefore hypotheses H1a and H1b are constructed. H1a looks at the proportion of women on the board of directors independent of a minimum percentage.

H1a: The proportion of women on the board of directors is positively correlated with the M&A performances of the acquiring firms.

H1b considers that previous research showed that only female board representation of at least 30% will have a significant effect on the decision-making of the board (Joecks, Pull, & Vetter, 2013) (See also chapter 2.3).

H1b: Having a minimum of 30% women on the board of directors is positively correlated with the M&A performances of the acquiring firms.

As it is expected that gender quotas have a significant impact on the effect of board gender diversity, which is expected to have influence on M&A performance, hypotheses H2 and H3 are developed.

When there is a binding quota, companies could hire women just for the sake of compliance with the quota and not select the best candidate. Even though this should not be happing, it is expected that a negative interaction effect will be found when there is a binding quota. This leads to hypothesis 2:

H2: A negative interaction effect of the proportion of female directors on corporate boards on the M&A performances of acquiring firms is expected in countries with binding a gender quota.

As there are fewer or no sanctions when there is a soft quota implemented it is expected that the best-qualified candidates are found, and this will lead to a more gender-diverse board and better performance of the firms. Therefore, H3 is formulated:

H3: A positive interaction effect of the proportion of female directors on corporate boards on the M&A performances of acquiring firms is expected in countries with a soft quota.

4. Research Methodology

4.1 Research Methodology & Data collection procedure

A quantitative approach will be used to collect the data and analyse this data to test the hypotheses discussed in the literature review. An event study is performed to obtain the CARs in the event window of -1, +1 around the announcement date of the M&A. The window of [-1, +1] is chosen as it is assumed that the effect of the announcement is immediately reflected in the stock prices of the acquirer (Lubatkin & Shrieves, 1986). Other windows are used for robustness checks to make sure that the results do not depend on the event window used in this paper. These event windows are [-5, +5] and [-10, +10]. To measure M&A firm performance cumulative abnormal returns (CARs) are commonly used in studies (Meglio & Risberg, 2011), therefore CARs will also be used in this paper. CARs show the difference between the expected and real returns around the announcement date. It is widely seen as a very objective measure (Meglio & Risberg, 2011).

The M&A deals that were completed in the timeframe specified are downloaded from Zephyr. From all deals that are found in this database, the deals that checked the specified criteria below are included. This dataset is the starting point, the other data is collected and merged with this dataset. The data used to calculate the CARs is obtained from the database Refinitiv Eikon DataStream. The database contains financial data on both firm-specific and market performance indicators. Financial control variables are therefore also obtained from Eikon. Data on the board composition is obtained from BoardEx. This database contains information on an extensive amount of board members around the world, including their age, gender, and role on the board. Due to its accuracy, completeness, and timeliness in its descriptions of corporate boards BoardEx is internationally recognized (Cross et al., 2018) and therefore of good quality to use in this paper.

For the sample all European M&A transactions following a selection of criteria will be used:

1) The time frame of the data is between 2003 and 2021. This choice has been made as the first gender quota was introduced in Norway in 2003. Furthermore, BoardEx does not contain any data before 2000 and in the first years, there was not much data available.

2) The acquirer is a publicly listed European firm. Europe is chosen because of the data availability in BoardEx. Most similar studies focus on only one country, the United Kingdom, or the US and therefore a contribution to the existing literature can be made. Also, the average number of board seats held by women is higher in Europe (Fagan & González Menéndez, 2012) and could give different outcomes than previous studies.
3) The target is a European public firm or a subsidiary.
4) The acquirer may own less than 50% of the target's shares before the announcement date and obtains at least 50% of the target's shares after the M&A in case the target is a public or private firm. Therefore, they have the majority of the shares in possession as a result of the M&A.
5) The transaction value should be at least €1 million.
6) The deal status is completed.
7) The data on the acquirer is available from Zephyr, BoardEx, and Eikon.

These criteria finally result in a sample of 910 M&A deals in 20 countries in Europe from 2003 till 2021. The distribution of countries and years are shown in the appendix (Table 5 and 6).

4.2 Research Method

To find an answer to the research question and to test the hypotheses a pooled Ordinary Least Squares (OLS) regression will be run. Alternative regressions are run to do robustness checks with for example other event windows, checks for differences between countries and between industries.

4.2.1 Dependent variable

The dependent variable will be the measure for firm performance: the CARs around the announcement date. As stated in chapter 4, these CARs are obtained by performing an event study. The event window of 3 days [-1, +1] has been chosen to minimize the effects of other events on the stock prices of the acquirer engaging in M&A activity. To calculate the CARs the normal returns around the announcement date should be determined. These normal returns are based upon the acquirer's recent stock performances (α) and its sensitivity to general market movements (β). The estimation window chosen is [-253, -20] prior to the announcement date. 253 is chosen as it is

one year in workdays. -20 has been chosen to make sure no rumours are already spreading about the M&A, which could already be affecting the stock price.

To obtain the CARs the normal returns (R) are calculated by equation 1:

$$R_{i,t} = \alpha_i + \beta_i * R_{m,t} + \varepsilon_{i,t,} \qquad (1)$$

where $R_{i,t}$ is the stock return for firm i at time t; α_i is the average stock return for firm i in case the market return equals zero; β_i is the systematic risk of stock i, which reflects its sensitivity to the market movements; $R_{m,t}$ is the rate of return in the local market on day t; and $\varepsilon_{i,t}$ is the error term. All are estimated over the days in the estimation window which is [-253, -20] prior to the announcement date.

With these normal returns, the abnormal returns (AR) are calculated with the estimated alphas and betas from equation 1 predicting the R over the event window.

The AR follow equation 2:

$$AR_{i,t} = R_{i,t} - \hat{\alpha}_{i,t} - \hat{\beta}_i * R_{m,i} \qquad (2)$$

where $AR_{i,t}$ is the abnormal return for firm i at time t; and $R_{i,t}$ is the actual stock return for firm i at time t.

With the AR obtained the firm-specific CARs can be calculated by aggregating the AR for each firm over the event window. The CARs are obtained following equation 3:

$$CAR_{i(t1,t2)} = \sum_{t=t_1}^{t_2} AR_{i,t} \qquad (3)$$

where $CAR_{i(t1,t2)}$ is the cumulative abnormal return for firm i over event window; t_1 is the first day of the event window [-1]; and t_2 is the last day of the event window [+1]. Positive CARs indicates that the share price of the acquirer has increased due to the announcement of the M&A deal. Negative CARs indicates that the share price has decreased due to the announcement.

4.2.2 Independent variable

This study measures board gender diversity (BGD), which is measured by the number of female directors on the board divided by the total number of directors on the board. Therefore, this is the proportion of female directors on the corporate boards of the acquiring firm. This is done in similarity to existing studies (Levi, Li, & Zhang, 2014). For this we use the Gender Ratio found in BoardEx, it is specified as “The proportion of male directors at the Annual Report Date selected”. The variable BGD was created by 1-GenderRatio as this shows the percentage of women on the

board. Also, a dummy (BGD_dum or BGD_30%) has been created to show the number of deals where the percentage of women on the board was 30% or more (215 of the 910 observations were above 30%).

To examine the effect of gender quotas on the CARs of the acquiring firms 3 dummy variables are included in the model: QUOTA, QUOTA_Binding, QUOTA_Soft. QUOTA shows if there at any time was a quota in the country, irrespective of whether this quota is binding or not. QUOTA_Binding shows if there was a binding quota in the country in that year. QUOTA_Soft shows if there was a soft quota or no quota in the country in that year. When the dummy has a value of 0 the acquirer is located in a country without any gender quota or with a soft gender quota and when the value is 1 the acquirer is located in a country with a binding/soft quota.

It could be that there is an interaction effect between variables, as it is expected that gender quotas have a significant impact on the effect of board gender diversity. This is expected to have influence on M&A performance. Therefore, interaction variables for BGD*QUOTA are added. The dummy for QUOTA is thus multiplied by the board gender diversity variable. This has also been done for the QUOTA_Binding and QUOTA_Soft. Resulting in 3 variables: BGD_QUOTA, BGD_ QUOTA_Binding & BGD_QUOTA_Soft.

4.2.3 Control variables

Control variables are added to control for other factors that could influence the CARs of the acquirer. Board control variables, financial control variables, and country control variables are specified below:

Previous studies on market reactions have included several board control variables to control for potential biases (Levi, et al., 2014; Chen, et al., 2019). These variables include board size (BSIZE), board independence (BINDEP), and CEO duality (CeoDuality).

- Board size (BSIZE) is measured as the total number of directors on the board.
- Board independence (BINDEP) is measured as the proportion of non-executive directors on the board. (NO= executive, Yes = non-executive)

- CEO duality (CeoDuality) is a dummy variable that equals 1 if the CEO also holds the position of the chairman/chairwoman of the board and 0 otherwise.

Financial control variables are also included, they are all found in Eikon. These variables are chosen in line with the study of Levi, et al. (2014) & (Chen et al., 2016). These variables are:

- The size of the firm (FSIZE) indicates the size of the firm. The SIZE is measured by the total assets, as most studies use this measurement (Dang & Li, 2015). The natural logarithm of the total assets has been taken as it was not normally distributed.
- Return on assets (ROA), ROA is used to determine how efficient the firm is using its assets. This variable is calculated by the income of the firm divided by its total assets.
- Tobin's Q (TobinsQ) is the market value of total assets divided by the book value of total assets.
- The leverage of the organization (Leverage) indicates how much of the firm's capital is financed with debt and indicates the ability to meet its financial obligation. The leverage is calculated by: The sum of debt in current and long-term liabilities divided by total capital + short term debt + current portion long term debt.
- Cash holdings (CASH_Ratio), indicate the assets that you hold in cash and cash equivalent. The CASH is the sum of cash and cash equivalents divided by the book value of total assets.
- Operating cash flow (OCF_ratio) indicates whether a firm could generate enough cash flow to maintain itself and grow. It is calculated by the sum of net operating activities divided by the book value of the total assets.
- Market capitalization (MCAP) indicates the market value of a publicly listed firm's outstanding shares. Calculated by the number of common shares outstanding times the stock price. The market cap is based on the last trading day of the same year.

Furthermore, the method of payment (MOP) of the M&A deal is included in the regression as a control variable for the CARs. The method of payment results in significant differences in the CARs between common stock exchanges and cash offers, independent of the type of takeover bids (Travlos, 1987). These differences should be controlled for in the method. The MOP is included in the model with 5 dummy variables: MOP_cash, MOP_shares, MOP_liabilities,

MOP_earn_out and MOP_other. They all have a value of 0 when the MOP is not the specified name and a 1 when it is, e.g., MOP_cash has a value of 1 when the deal was financed with cash offers. Cash was in 49.78% the MOP for the M&A deal, Shares in 20.77% of the deals. Liabilities are added as a method of payment, as the acquiror may pay off the debt of the target company on completion of the deal or it may take on the debts of the target as its own. Even tough not often used as a method of payment in research, it is important to at it in this paper as 19.34% of the deals in the sample was paid by debt. The same goes for earn-out with 9.12% of the deals being financed according to an earn out agreement. This is normally linked to the acquired company meeting certain agreed financial targets (e.g., turnover, EBIT, net profit etc.) in a forthcoming period. Other are all deals paid by another MOP than Cash, Shares, Liabilities or Earn-Out agreements (this is only 1% of the deals in the sample but added for completeness).

This way there has been controlled for different ways of payment of the M&A deal and it can be seen if one way contributes significantly (more) to the CARs.

Country control variables are also added to the model: country fixed effects control for different financial systems and corporate governance environments between the countries in the sample. Also, year-fixed effects are included to control for specific year externalities, such as a crisis (e.g., The financial crisis of 2007-2008). A dummy FINCR is generated for the financial crisis of 2007 & 2008. Finally, industry-specific fixed effects are included to control for differences between industries. The companies are classified according to the NACE classification.

4.3 Regression models

Following previous studies on the effect of gender board diversity on the CARs after an M&A deal (Levi, Li, & Zhang, 2014; Huang & Kisgen, 2013), the method of analysis chosen is performing a pooled Ordinary Least Squares (OLS) regression. To perform OLS regressions several assumptions should be considered and met. First, the regression model should be linear in the coefficients and standard errors. Scatterplots have been plotted and it is found that this is the case. Second, the independent and control variables should be normally distributed. Histograms with normal plots have been made and it was found that Total Assets and MCAP were not normally distributed, because of this the natural logarithm of these variables has been accounted for in the model. Third, the observations of the standard error should be uncorrelated with each other. To test for autocorrelation, a Durbin-Watson test is performed. The outcome of the test was around 1.97, when a value of 2.0 is reported zero autocorrelation is reported. As it is really close to 2, it has been concluded that autocorrelation is probably not an issue for this dataset.

Fourth, the Breusch–Pagan test is done, the result of this test shows that we should reject the H0 hypothesis of the that, which states that there is constant variance among the residuals as $Prob > chi2 = 0.0000$. Therefore, heteroscedasticity is present in the data, this reduces the validity of the regression. To correct for this, robust standard errors are taken into account. The coefficients of the variables stay equal to the coefficients of the original regression, but the standard errors are more robust to failure. Finally, the models should be tested for multicollinearity. As the model cannot easily distinguish the separate effects of the variables when variables are highly correlated, testing for multicollinearity is essential. The correlation matrix is shown in the appendix Table 4. The boundaries considered when testing for multicollinearity are -0.7 and 0.7 as this is normally considered in other studies (Dormann, et al., 2013). There are high correlations between FSIZE & BSIZE and FSIZE and LogMCAP. Also, between the independent variables QUOTA_Binding and QUOTA_Soft and the interaction variables BGD_ QUOTA_Binding and BGD_QUOTA_Soft based on the QUOTA variables are high correlations. Lastly, a correlation is shown in the Table between QUOTA_Soft and Year. To make sure that these high correlations do not affect the regression results separate regression are performed, in which the highly correlating variables are excluded by turn. The other variables do not exceed the boundaries and therefore it is considered that there is no or little correlation between them. Furthermore, to test for multicollinearity VIF tests have been done for the main

regressions. All values below 10 are acceptable and are a sign that there is no high correlation. In all models all dummies of method of payment variables and the firm size (FSIZE) are above 10. When the method of payment is not separated in dummies for each type of payment, the VIF value of MOP is 1.04. Only FSIZE is 10.67 (>10), all other variables are under 10. This means that the method of payment variables correlates with each other. All main variables are far below 10. Model 4 is an exception, the BGD variable and the BGD_QUOTA_Soft are both above 10, this could be explained as this interaction variable is based on the BGD variable. As the variables with high VIFs are control variables and the variables of interest do not have high VIFs, there is no severe problem (Allison, 2012).

The 4 models that are used to test the hypotheses suggested in chapter 3 can be found in Table 2. In all regressions a pooled OLS regression analysis with robust standard errors will be performed. In all models i refers to the firm-level variable, j refers to the country-level variable and t refers to the announcement year. The error term of the model is included as $\epsilon_{(i,t)}$.

Model 1 is used to test for the first hypothesis; *H1a: The proportion of women on the board of directors is positively correlated with the M&A performances of the acquiring firms.* In this model the proportion of female directors on the acquiring board (BGD) serves as the main explanator.

Model 2 is used to test for hypotheses H1b: *Having a minimum of 30% women on the board of directors is positively correlated with the M&A performances of the acquiring firms.* In this model the variable representing a minimum of 30% of female directors on the acquiring board (BGDdum) serves as the main explanator.

Model 3 is used to test hypothesis 2, where a negative interaction effect of the proportion of female directors on corporate boards on the M&A performances of acquiring firms is expected in countries with binding a gender quota.

In model 4 hypothesis 3 is tested, in which a positive interaction effect of the proportion of female directors on corporate boards on the M&A performances of acquiring firms is expected in countries with a soft quota.

The country fixed effects are included in the model by “ACC”, year fixed effects are included by variable “YEAR” and the industry fixed effects are formulated as “INDUSTRY.”

TABLE 2: REGRESSION MODELS TO TEST THE HYPOTHESES OF THIS PAPER

Model	Description	Hypothesis	Formula	Table in paper
1	Proportion of female directors on acquiring board (BGD) as the main explanator.	H1a	$CARs_{i\,(t_1,t_2)} = \beta_0 + \beta_1 BGD_{i,t} + \beta_2 CeoDuality_{i,t} + \beta_3 BINDEP_{i,t} + \beta_4 BSIZE_{i,t} + \beta_5 logMCAP_{i,t} + \beta_6 TobinsQ_{i,t} + \beta_7 ROA_{i,t} + \beta_8 Leverage_{i,t} + \beta_9 CASHratio_{i,t} + \beta_{10} OCFratio_{i,t} + \beta_{11} FSIZE_{i,t} + \beta_{12} MOPcash_{i,t} + \beta_{13} MOPshares_{i,t} + \beta_{14} MOPliabilities_{i,t} + \beta_{15} MOPearnout_{i,t} + \beta_{16} MOPother_{i,t} + \beta_{17} YEAR + \beta_{18} FINCR + \beta_{19} INDUSTRY + \beta_{20} ACC + \epsilon_{(i,t)}$	**Table 3, model 3**
2	BGD_dum serves as the main explanator	H1b	$CARs_{i\,(t_1,t_2)} = \beta_0 + \beta_1 BGDdum_{i,t} + \beta_2 BGD_{i,t} + + \beta_3 CeoDuality_{i,t} + \beta_4 BINDEP_{i,t} + \beta_5 BSIZE_{i,t} + \beta_6 logMCAP_{i,t} + \beta_7 TobinsQ_{i,t} + \beta_8 ROA_{i,t} + \beta_9 Leverage_{i,t} + \beta_{10} CASHratio_{i,t} + \beta_{11} OCFratio_{i,t} + \beta_{12} FSIZE_{i,t} + \beta_{13} MOPcash_{i,t} + \beta_{14} MOPshares_{i,t} + \beta_{15} MOPliabilities_{i,t} + \beta_{16} MOPearnout_{i,t} + \beta_{17} MOPother_{i,t} + + \beta_{18} YEAR + \beta_{19} FINCR + \beta_{20} INDUSTRY + \beta_{21} ACC + \epsilon_{(i,t)}$	**Table 3, model 4**
3	Binding gender QUOTA as the main explanator.	2	$CARs_{i\,(t_1,t_2)} = \beta_0 + \beta_1 QUOTA_{Binding_{j,t}} + \beta_2 BGD_{i,t} * QUOTA_{Binding_{j,t}} + \beta_3 BGD_{i,t} + \beta_4 CeoDuality_{i,t} + \beta_5 BINDEP_{i,t} + \beta_6 BSIZE_{i,t} + \beta_7 logMCAP_{i,t} + \beta_8 TobinsQ_{i,t} + \beta_9 ROA_{i,t} + \beta_{10} Leverage_{i,t} + \beta_{11} CASHratio_{i,t} + \beta_{12} OCFratio_{i,t} + \beta_{13} FSIZE_{i,t} + \beta_{14} MOPcash_{i,t} + \beta_{15} MOPshares_{i,t} + \beta_{16} MOPliabilities_{i,t} + \beta_{17} MOPearnout_{i,t} + \beta_{18} MOPother_{i,t} + + \beta_{19} YEAR + \beta_{20} FINCR + \beta_{21} INDUSTRY + \beta_{22} ACC + \epsilon_{(i,t)}$	**Table 3, model 5**

4	Soft gender QUOTA as the main explanator	3	$CARs_{i\,(t_1,t_2)}$ $= \beta_0 + \beta_1 QUOTA_{Soft_{j,t}} + \beta_2 BGD_{i,t} * QUOTA_{Soft_{j,t}}$ $+ \beta_3 BGD_{i,t} + \beta_4 CeoDuality_{i,t} + \beta_5 BINDEP_{i,t}$ $+ \beta_6 BSIZE_{i,t} + \beta_7 logMCAP_{i,t} + \beta_8 TobinsQ_{i,t}$ $+ \beta_9 ROA_{i,t} + \beta_{10} Leverage_{i,t} + \beta_{11} CASHratio_{i,t}$ $+ \beta_{12} OCFratio_{i,t} + \beta_{13} FSIZE_{i,t} + \beta_{14} MOPcash_{i,t}$ $+ \beta_{15} MOPshares_{i,t} + \beta_{16} MOPliabilities_{i,t}$ $+ \beta_{17} MOPearnout_{i,t} + \beta_{18} MOPother_{i,t} + + \beta_{19} YEAR$ $+ \beta_{20} FINCR + \beta_{21} INDUSTRY + \beta_{22} ACC + \epsilon_{(i,t)}$	**Table 3, model 6**

5. Results

In this chapter the main results of the paper are shown and discussed. This chapter includes descriptive statistics, the regression analysis, robustness checks, additional regressions, and a summary of the main findings.

5.1 Descriptive statistics

The dataset consists of 910 observations over 20 countries in the timeframe 2003 until 2021, the distribution of the countries and years is shown in Table 5 and 6 in the appendix respectively. Note that there are limited observations of 2021, due to data constrains. For 2021 we therefore can only provide a provisional indication. In the appendix a combined distribution table of the years and countries can be found (Table 7). Interesting to see in Table 6 is that most deals in the sample took place between 2004 and 2007 and from 2017 to 2020.

The dataset has 27 variables that are included in the model as shown in Table 8 in the appendix. The CARs are overall positive in the event window of 3 days [-1, +1], with a mean of 1.44%. This shows that on average, deal announcements have a positive effect on the short-term stock returns of the acquirer. The dummy variable for CARs (CARs_dum) indicates that 59.45% of the M&A deals in the sample were positive. The dummy has a value of 0 when the CARs were negative and a value of 1 if they were positive in the event window. Gender Ratio has a value of 1 when all board members are men, and 0 when the complete board would exist of women. Considering the gender diversity of the acquiring boards, on average, 83.24% of the directors on the board were male directors. Therefore only 16.76%, on average, were female directors. The highest percentage of females on the board was 62.50% (BGD) and therefore, only 37.5% of the board was composed of male directors (GenderRatio). But a lot of the included boards still consist of only men. 27.47% of the boards in the sample (250 of the 910 observations) had zero women on the board at the announcement date of the M&A deal. Only 23.63% of the companies had 30% or more female director on the board at the time of the deal (BGD_30%). Furthermore, the Table shows that in 64.62% of the sample a quota was implemented or in place at the time of the deal, this value just shows if there was any (soft) quota in the country the acquirer was located. When looking at the

QUOTA_Binding only 25.60% of the acquirers in the sample were in a country that had a binding quota at the time of the M&A deal.

The Table (8) shows some (extreme) outliers for CARs, TobinsQ, ROA, leverage and FSIZE. This has been tested by making boxplots, checking the Z scores and extremes in Stata. To increase the robustness of the results, additional regressions are performed in which all non-dummy variables are winsorized at the 1st and 99th percentiles. These regressions can be found in chapter 5.4.

To check for differences between years the averages of the main variables are shown in Table 9 in the appendix. This has been done to check for curious developments of these variables over time and understand the main variables better. The number of observations and the mean of the CARs, BGD, QUOTA_Binding and QUOTA_Soft are shown. Some interesting findings are that the CARs are only negative on average in 2009, this could be the result of the crisis as shareholders might have been scared after facing major losses in the crisis. However, the CARs are quite high in 2008, this could be because the firms were financially healthy (Beltratti & Paladino, 2013). Also, it could be that the shareholders might have had the possibility to buy a company for a lower value because of the crisis. This could be leading to higher returns in comparison, as stock values declined in the crisis in general (Huang & Chang, 2022). From 2017 to 2021 the CARs are always above 1.89% at the lowest, therefore based in on this sample, it looks like M&As are paying off quite a lot in the last years. Important to note is that this only holds for the event window chosen around the announcement date, long term stock returns should be analysed to check if this statement holds for a longer period. If we look at BGD we see that from 2003 till 2007 the percentage of female board directors was around the 6.5 percent, after 2011 the percentage rose and was at its peak in 2020. This could be as in 2009 the first deals delt with a binding gender quota law in the country of the acquirer and from 2010 most deals (89% or higher) were done in a country with at least a soft quota.

In Table 10 in the appendix the same main variables are shown over the countries in the sample. As some countries are represented less than others the numbers alone in the table could not be a fair representation of the country, but no other deals were available in the database or missing

values in the other variables were found. Germany, France, Italy, and Sweden are represented most in the data, so it must be noted that the total regressions could be influenced by the deals from these counties, therefore the country variable (ACC) is added in the regressions. Three out of the four countries also have a binding gender quota. Only 2 countries have on average negative CARs (LT & PL), but these countries only have 1 observation.

5.2 Regression analysis

To test the hypothesis multiple pooled OLS regressions are performed. To create a baseline where the models are compared to one original without, and with: country, year, and industry fixed effects column (1) and (2) from Table 3 are included.

The baseline regression in column (1), which only includes the control variables, is performed to set a benchmark. It is found that CeoDuality (+), BSIZE (-), logMCAP (-), TobinsQ (+), ROA (-), leverage (-), MOP_cash (+), MOP_shares (+) and MOP_liabilities (+) are statistically significant in explaining CARs in this sample. The other control variables seem to have no significant effect. Interesting is that the financial control variables that are significant seem to have a negative effect on the CARs and the Method of payment seems to have a positive effect. In other studies, CEO Duality often had insignificant effect on the firm performance, and it differs in direction of the coefficient (Chen C.-W. J., 2008; Jayaraman, Nanda, & Ryan Jr., 2022). BSIZE and Leverage were found to have a negative effect in most studies, like this paper, but often insignificant (Tulung & Ramdani, 2018; Levi, et al., 2014; Chen, et. al, 2019;). LogMCAP shows a negative significant effect in most studies on the CAR (Caiffa, Farina, & Fattobene, 2021). Tobin's q seems to be significantly positive in most studies (Chen, et al., 2019; Faccio, Mcconnell, & Stolin, 2006), as is the case for this paper. Chang & Suk (2005) argue that stocks as the method of payment result in positive abnormal returns and cash offers result in negative abnormal returns on average (Chang & Suk, 1998). This paper has the same postive sign for the MOP_shares and a negative sign for cash. MOP_liabilities showed mostly positive effects on the CARs (Bessler, Kruizenga, & Westerman, 2020). For ROA mostly negative signs were found, but insignificant in most studies (Levi, Li, & Zhang, 2014).

To make sure that multicollinearity is not a problem, based on the VIF values and correlation matrix as discussed in chapter 4.3, several variables were excluded from the baseline regression to improve the validity of the model. Deleting firm size from the regression does not have any

influence on the significance of the other variables. Exclusion of the board size variable let to MOP_shares not being significant anymore, but as these do not correlate it does not make sense to exclude BSIZE. Similar regressions for the main models are discussed in chapter 5.3 (Robustness checks).

Column (2) of Table 3 shows the same regression as column (1), but with country-, year-, and industry fixed effects. BSIZE is not significant anymore and Year Fixed effects are statistically significant (+).

TABLE 3: POOLED OLS REGRESSIONS

Dependent variable			**CARs**			
Model	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
BGD			0.5095		0.0580	0.1441
			(1.4869)		(1.7707)	(2.7349)
BGD_dum				0.3956		
				(0.4611)		
QUOTA_Binding					-0.5289	
					(0.9364)	
BGD*QUOTA_Binding					1.6243	
					(2.9633)	
QUOTA_Soft						0.0322
						(0.6176)
BGD*QUOTA_Soft						0.4015
						(3.2439)
CeoDuality	2.0508**	1.9446**	1.9481**	1.9157**	1.9432**	1.9507**
	(0.8111)	(0.7947)	(0.7955)	(0.7927)	(0.7963)	(0.7948)
BINDEP	1.3384	0.7240	0.6214	0.5552	0.5815	0.6033
	(1.0629)	(1.0777)	(1.0887)	(1.0867)	(1.0925)	(1.0927)
BSIZE	-0.0646*	-0.0323	-0.0326	-0.0305	-0.0312	-0.0322
	(0.0371)	(0.0390)	(0.0389)	(0.0391)	(0.0394)	(0.0395)
logMCAP	-0.3917*	-0.4359*	-0.4388*	-0.4472*	-0.4447*	-0.4391*
	(0.2317)	(0.2451)	(0.2457)	(0.2458)	(0.2465)	(0.2453)
TobinsQ	0.6140**	0.6041**	0.6042**	0.6083**	0.6014**	0.6042**
	(0.2474)	(0.2482)	(0.2484)	(0.2482)	(0.2485)	(0.2484)
ROA	-0.0884***	-0.0906***	-0.0904***	-0.0914***	-0.0912***	-0.0905***
	(0.0307)	(0.0294)	(0.0293)	(0.0295)	(0.0294)	(0.0294)
Leverage	-0.0094**	-0.0090**	-0.0090**	-0.0092**	-0.0091**	-0.0090**
	(0.0043)	(0.0043)	(0.0043)	(0.0043)	(0.0043)	(0.0043)
CASH_Ratio	-0.4387	-0.6492	-0.6197	-0.5888	-0.5837	-0.6231
	(1.6657)	(1.6897)	(1.6914)	(1.6937)	(1.7127)	(1.6924)
OCF_Ratio	3.3168	3.6205	3.6249	3.6889	3.6477	3.6462
	(2.4204)	(2.4216)	(2.4225)	(2.4298)	(2.4486)	(2.4332)
FSIZE	0.0749	0.0917	0.0903	0.0902	0.0871	0.0919

	(0.2055)	(0.2127)	(0.2127)	(0.2126)	(0.2125)	(0.2134)
MOP_cash	2.2849***	2.4101***	2.4201***	2.2781***	2.4203***	2.4318***
	(0.7699)	(0.8007)	(0.8006)	(0.8138)	(0.8626)	(0.7966)
MOP_shares	1.7827**	1.8823**	1.8968**	1.7742**	1.8950**	1.9125**
	(0.8141)	(0.8657)	(0.8691)	(0.8572)	(0.9201)	(0.8666)
MOP_liabilities	1.9007**	1.8086**	1.8085**	1.6671**	1.8120**	1.8203**
	(0.7617)	(0.8148)	(0.8149)	(0.8243)	(0.8955)	(0.8045)
MOP_earn_out	0.6569	0.6304	0.6399	0.5070	0.6496	0.6568
	(0.8729)	(0.9300)	(0.9309)	(0.9312)	(0.9925)	(0.9125)
MOP_other	0.9071	1.0435	1.0501	0.9104	1.0413	1.0750
	(0.8945)	(0.8952)	(0.9021)	(0.9133)	(0.9552)	(0.8982)
Year		0.0979***	0.0901**	0.0842**	0.0985***	0.0867**
		(0.0321)	(0.0367)	(0.0359)	(0.0377)	(0.0439)
FINCR		0.0969	0.1043	0.0934	0.0713	0.1108
		(0.5010)	(0.5053)	(0.5011)	(0.5084)	(0.5026)
INDUSTRY		-0.0033	-0.0033	-0.0034	-0.0032	-0.0033
		(0.0030)	(0.0030)	(0.0030)	(0.0030)	(0.0030)
ACC		0.0183	0.0159	0.0135	0.0141	0.0156
		(0.0368)	(0.0382)	(0.0375)	(0.0398)	(0.0385)
Constant	0.8890	-195.6206***	-179.8480**	-167.6875**	-196.4483***	-172.9458*
	(1.4294)	(64.4004)	(73.6361)	(72.1149)	(75.6965)	(88.1491)
Observations	910	910	910	910	910	910
Year Fixed effects	No	Yes	Yes	Yes	Yes	Yes
Country Fixed effects	No	Yes	Yes	Yes	Yes	Yes
Industry Fixed effects	No	Yes	Yes	Yes	Yes	Yes
R-squared	0.0941	0.1052	0.1053	0.1059	0.1057	0.1053

Notes: Robust standard errors are shown in the parentheses, ***, ** and * represent the statistical significance at the 1%, 5% and 10% significance level, respectively.

In column (3) model 1 is executed to test hypothesis 1a "*The proportion of women on the board of directors is positively correlated with the M&A performances of the acquiring firms."* And in column (4) which executes model 2, H1b is tested: *"Having a minimum of 30% women on the board of directors is positively correlated with the M&A performances of the acquiring firms."*

The results show that there is no significant relationship between the proportion of female directors on corporate boards of acquiring firms (BGD) and the CARs around the announcement date [-1, +1]. Therefore, hypothesis 1a must be rejected. Furthermore, even though not significant, it does give an indication that with the percentages of women in the sample (which was quite low, as seen in Table 8) has a positive influence on the CARs around the announcement date. In the sample 250 companies (27.47%) did not even have a single woman on the board of directors at the announcement date of the M&A deal. There can be explanations for this finding not being

significant statistically. It could be considered that women that worked hard to get in the position of director on the board are afraid of giving their opinion (Gunter, 2017), as they are still a minority in the boardroom. Therefore, they could not have much of an influence on the M&A deal and their outcomes (CARs). It could also be that the market and financial components have more influence than the composition of the board and therefore this influence could be minimized. Or it could be that there is no effect, as the result is insignificant. This would indicate that female directors don't necessarily make better decisions than the male board members. This could also be explained by self-selection as discussed in the literature section 2.3.3. As women on the board could have similar characteristics and are less risk averse, they do not differ much from men on the board. Consequently, the effect of board gender diversity could be mitigated by this similarity between the men and women on the board.

BGD_dum, showing the percentage of deals where the percentage of women on the board was 30% or more, is also not significant. Accordingly, hypothesis 1b must be rejected as well. There is an indication (positive sign) that having at least 30% women on the board could influence the CARs in a positive way.

In column (5) model 3 is executed. In this model hypothesis 2 is challenged, where a negative interaction effect of the proportion of female directors on corporate boards on the M&A performances of acquiring firms is expected in countries with binding a gender quota. In the regression a positive interaction effect (BGD*QUOTA_Binding) is found: 1.6243, but not statistically significant. Therefore, also hypothesis 2 must be rejected.

In column (6) model 4 is tested. Hypothesis 3 is connected to this model, in which a positive interaction effect of the proportion of female directors on corporate boards on the M&A performances of acquiring firms is expected in countries with a soft quota. In model 4 a positive interaction effect (BGD*QUOTA_Soft) can be found (0.4015), but also not statistically significant. As most countries in the sample had at least a soft quota in most of the years included in the dataset, it is logical that the sign is positive as the coefficient of BGD is positive and QUOTA_Soft is a dummy with a value of 1 when a country has a soft quota in place.

A possible explanation for the QUOTA variables not being significant is that it could be that women do not need to be hired because of a quota, as the best candidate should always be chosen. Considering this, a quota in place is not relevant for the CARs after the announcement date. They should not influence the outcomes of an M&A. As BGD is also not significant it could be presumed that the composition of the board is less important as presumed. It could be that other diversity or personality characteristics, like education or risk-aversion, would have a bigger influence on the M&A performance than gender.

It is important to note that all control variables that were significant in the baseline regression stayed significant at the same significance level. The R-Squared is quite high for the baseline regression already and more, but little, explanation power can be seen when adding the main independent variables. In model 2 the highest R-squared can be observed of 0.1059.

5.3 Robustness checks

Robustness checks are run to check the validity and reliability of the results of the main regressions and to check if another event window would change the outcomes of the models.

The first robustness check performed is the main analysis performed with winsorized variables at the 1st and 99th percentiles. Note that only the non-dummy variables are winsorized. These alternative regressions have been done to ensure that extreme outliers did not affect the main results of this paper. The results of this regression are shown in the appendix in Table 11. In this robustness check the main variables did not change in significance and direction of the coefficients (positive or negative). Only in model 4 BGD_w1 changed in direction (negative) instead of positive (BGD) and the sign of QUOTA_Soft changed to negative, but these results were still insignificant. There are some changes in the control variables. LogMCAP_w1 is not significant anymore, while in the main analysis the variable was significant at the 10% significance level. TobinsQ_w1 and Leverage_w1 are also not significant anymore, while they were significant at the 5% significance level. OCF_Ratio_w1 became significant in this robustness check at the 5% significance level. However, the explanatory power of the winsorized regressions is lower for all models. Therefore, the main regressions are preferred.

Second, additional regressions are performed in which highly correlating variables are excluded. These variables are FSIZE (Table 12), BSIZE (Table 13), LogMCAP (Table 14) for all models.

For model 3 QUOTA_Binding and its interaction variable BGD_QUOTA_Binding are excluded on turn (Table 15, model 3a & 3b) and for model 4 QUOTA_Soft and the interaction variable BGD_QUOTA_Soft are excluded separately (Table 15, model 4a & 4b) and to check for the correlation between QUOTA_Soft and Year (Table 16) a regression without year fixed effects is run to check for this. These regressions can be found in Tables 12-16 in the appendix. The highly correlated variables did not change the main explanator's direction of the coefficients and their significance. Furthermore, the variables that were significant in the main analysis stayed that on the same significance level and did also not change in direction. Some findings from the table that should be mentioned are that in Table 14, FSIZE became significant at the 5% level and changed in direction of the coefficient, from positive to negative. This means that the correlation between FSIZE and logMCAP matters for the analysis of these variables, but it did not change any other variables. It could be that some effects from the size of the firm are captured by the natural logarithm of MCAP. The coefficient of QUOTA_Binding did not change in direction when the interaction variable was excluded (Table 15) from the model and the coefficient of BGD_QUOTA_Soft did not change as well, when excluding the QUOTA_Soft, both were not significant.

The third robustness check performed is changing the event window from [-1, +1] to 2 different new event windows [-5, + 5] & [-10, +10], to make sure that the results do not depend on the event window used in this paper. In these regressions, a wider event window is used, in which the CARs are measured over 11 days, 5 days are checked before and 5 days after the announcement date [-5, +5] and 21 days are checked, measured by 10 days before and 10 days after the announcement date [-10, +10]. These regressions can be found in Table 17 and 18 in the appendix. The main variables did not change in significance for all regressions. Only for the event window of [-5, +5] the directions of the coefficients of most main variables changed, even though not significant. In the wider event window [-10, +10] this was not the case for model 1,2 and 3, all main coefficients were in the same directions as in the main analysis. For model 4, BGD and QUOTA_Soft became negative, BGD_QUOTA_Soft did not change in direction, but these results are again not significant. Therefore, the results from the main regression seem to be robust with a wider event window before and after the M&A deal had been announced.

Finally, lagged variables for the four main independent variables have been added. It is possible that the effects of board gender diversity and the gender quota laws are not directly visible or

noticeable. It might take some time for board members to have an impact on the decision-making process, as they need to get the trust of the other members. Therefore, it could take some time to have an impact on the M&A performances. Gender quota laws also could be implemented, but boards cannot directly change their composition, so this may take some time. As a result, it is possible that the effect of a gender quota law only appears after a year. Additional regressions are therefore performed in which one-year lagged board and quota variables are used, the results can be found in Table 19 in the appendix. These regressions give an interesting insight. The lagged variable of BGD is significant at the 10% significance level (model 1). The lagged BGD variable shows that when the value of the BGD variable increases, the mean of the CARs also tends to increase (coefficient = 2.2336). This could indicate that indeed board member characteristics need some time to have an impact on the M&A deal performance. The same goes for the lagged quota variables, as they are positive as well, but they were not significant. This could give an indication that after a year the positive effects of the quota have a positive impact on the CARs after a M&A deal. BGD_dum and the control variables did not change in significance and direction.

5.4 Additional regressions

Several additional regressions have been done to identify if there are different outcomes when looking at countries that are classified as feminine and masculine conform the Hofstede index. These regressions can be found in Table 20 & 21 in the appendix. In Table 20 only Sweden and Denmark are included in the regression, as they score quite low on the Hofstede index. Sweden scored a 5 out of 100 and Denmark a 16 out of 100. In these feminine countries it is important to keep the life/work balance. In these countries people find a manager effective if “he or she is supportive to his/her people, and decision making is achieved through involvement. Managers strive for consensus and people value equality, solidarity, and quality in their working lives (Hofstede Insights, 2022).” Therefore, it can be expected that the influence of gender in the board is less big, as it is expected that board members are all valued equally, independent of their gender. In the regression a negative sign can be found for BGD (model 1) and the interaction effect of BGD and Quota_soft also became negative (model 4). But both were not significant. Consequently, this alternative regression does not change the main variables in significance. For the more masculine countries Austria, Germany and Italy are included, as they score 79, 66 and 70 respectively on the

masculinity index of Hofstede. In a masculine society performance and living for your work is valued highly. People are separated in different type of schools and categories in the society based on their performances and status is often shown (Hofstede Insights, 2022). Therefore, it is expected that the influence of board gender diversity would be bigger in these countries, as women must perform more to get where they are, and men are more masculine and typical feminine characteristics could mitigate the choices from the men in the board. Table 21 shows that for model 1,2 and 3 the direction of most of the main coefficients changed, but the results stayed insignificant. For model 4 something interesting happens, BGD (+) and the interaction variable linked to it (BGD_QUOTA_Soft (-)) become significant at the 5% level. But a high correlation between both variables is found (vif = 20.46 for the interaction effect and 14.98 for BGD). When excluding BGD, the interaction effect becomes insignificant and without quota (model 1) this is also the case. But the results give an indication that the proportion of women in the board of directors has a positive influence on the CARs. But because of the interaction, the effect of having more women in the board of directors is significantly more negative in countries with a soft quota than no quota in the year of announcement. In conclusion, board gender diversity seems to have a positive influence on countries, which are classified as more masculine. And when there is a soft quota in place, in the country the acquirer is located, this seems to have a negative effect. For feminine countries no significant results were found.

Five additional regressions have been run to check if other characteristics of the board members and the deals in the sample would have a significant influence on the M&A performance (CARs) in this sample. These regressions can be found in Table 22 in the appendix. The five new independent variables are NationalityMix (model 1), Time in company (model 2), The average time in role (model 3), logDealvaluethEUR (model 4), Number of Qualifications (model 5). The descriptions of the variable can be found in the notes underneath the table in the appendix (Table 20). Models 1, 3 and 5 show no significant results for the newly added variables. Therefore, these variables give only an indication of directions of the coefficients in this sample, but do not have significant influence on the CARs of the deals used in the sample. Nationality Mix and the average time in the role show a positive direction and the number of qualifications indicates a negative influence on the CARs. The time in the company (model 2) shows a significant negative direction of the coefficient (-0.0328*) on the 10% level. This gives tendency that when a board director is

already in the company for a longer period the CARs seem to be a bit lower. This could indicate that new insights in the board could help make better M&A decisions. This might be an interesting topic to analyze in future research. Model 4 shows that the natural logarithm of the deal values of the M&A deals in this sample are significantly adding to the explanation of the CARs found in this analysis. logDealvaluethEUR shows a coefficient of 0.4076 on the 1% significance level. Therefore, we can conclude that when, in this sample, the deal value increases the mean of the CARs also tends to increase. Higher CARs can be expected when the deal has a higher value. This could be the case as when deal values are higher, the acquiring firm could be more thoughtful about making the decision of proceeding with the M&A deal. As the risks are bigger, the rewards could also be bigger.

5.5 Summary of the findings

The main findings of this paper are summarized in this chapter. This study analyzed 910 M&A deals in 20 countries in Europe from 2003 till 2021. It is found that the CARs were positive overall in the event window of 3 days [-1, +1], with a mean of 1.44%. Also 59.45% of the M&A deals in the sample were positive. This shows that on average, deal announcements have a positive effect on the short-term stock returns of the acquirer. In this sample 83.24% of the directors on the board were male directors. Therefore only 16.76%, on average, were female directors. This is an indication that still a lot of the boards of directors are not very gender diverse.

The main results of the regression models show that the proportion of female directors on the board does not significantly affect the M&A performances of European acquirers. BGD_dum, showing the percentage of deals where the percentage of women on the board was 30% or more, is also not significant. Accordingly, hypothesis 1a and 1b must be rejected. There is an indication (positive sign) that BGD and having at least 30% women on the board could influence the CARs in a positive way. Positive interaction effects for BGD*QUOTA_Binding and BGD*QUOTA_Soft are found, but both interaction effects are not statistically significant. Therefore hypotheses 3 and 4 are also rejected. Robustness checks were performed and showed that the results of the main regressions seem robust. Lagged variables for BGD seemed to have significant positive influence on the CARs. This could mean that the effects of board gender diversity and the gender quota laws are not directly visible, but after one year these variables seem to have a positive influence on the CARs after the announcement date. Alternative regressions show that deal value matters (is

significant) for this sample and the time directors were working in the company has also an influence on the CARs, this could provide interesting topics for future research.

6. Conclusion & Discussion

6.1 Discussion

By performing several regressions, this study finds that board gender diversity does not have a significant effect on the M&A performances of European acquirers in this sample. Since no significant relationship is found for all hypotheses, it is important to emphasize what is not found. First, this study did not find a negative relationship between board gender diversity and having at least 30% female directors and M&A performance (hypothesis 1a and 1b). Thus, the results do not obstruct the vision of having gender equality in organizations. It could still be important to have a gender-diverse board for other topics. Second, these findings may indicate that the input of the board of directors is less important than expected for M&A performances. This could be concluded as the baseline regressions already showed great explanatory power with only the control variables included. Financial control variables seem to have greater influence than the composition of the board members.

Some possible limitations to this paper are that not all deals that took place in the chosen period are included due to data availability in Zephyr. In total 910 M&A deals executed by European acquirers remained after the downloading, merging, and data cleaning of the dataset. Due to this rather small sample size, it is harder to generalize the results for all M&A deals done in the period of 2003 till 2021. Also, most data from 2021 was not yet available. The event window [-1, +1] could also have a difference on the outcome of the main regression, to inspect this robustness checks were performed. The results seem to be robust for the event windows [-5, +5] and [-10, +10]. There could be other effects of diversity like age, nationality, level of education or other diversity expects on the M&A performance of the firm. Alternative regressions were performed for nationality and the level of education (number of qualifications), but those regressions showed no significant results for these variables. In this paper gender diversity was expected to have the biggest influence, but it could be interesting to look at other diversity aspects in future research. No two women are the same, every human being has different values and believes, it could also be useful to include more personal characteristics of humans in the model, such as their ethical norms and values. Besides their values, the working experience was not included in this paper. Some (women) could have less professional experience and/or less experience with working in a board

of directors. As mentioned in the literature review, overconfidence and risk aversion are considered as male characteristics that may lead to value-destroying M&A deals (Levi, et al., 2014; Chen, et al., 2019). It could be better to measure these characteristics separately in the analysis, instead of comparing between men and women. The influence of self-selection could be of great significance, as it could be the case that women on the board have the same or at least similar characteristics as their male colleagues. Therefore, we could find that not gender but risk aversion and overconfidence are the main influence on the decisions taken regarding M&A deals. The influence on the outcomes of the M&A deals can be measured with these separate results. Another possible limitation of the study is that M&A performance is based on the CARs after the M&A announcement date. It might be that the completion date of the deal has different outcomes. Also, another measure of M&A performance could give different results. Even tough CARs are commonly used and a great measure of M&A performance, other studies look at Return on Assets (ROA), Return on Investments (ROI) or Return on Equity (ROE) for example. Therefore, this study only says something about the influence on the CARs after the M&A announcement in the event window chosen. It could be an interesting topic for future research to analyse the impact of BGD on the different measures of M&A performance and compare these measures.

The limitations stated above could lead to interesting future research. Therefore, some recommendations for further research are made. First, more years and more data could be considered (if available) so the dataset would be bigger and easier to generalize for all deals done in the years and countries included. Second, other personal characteristics, values, and gender diversity characteristics could be analyzed to see if there would be a (bigger) effect on the M&A performance. It could be measured if self-selection has an influence on the performances, as it might be found that women have similar risk appetite as men in that position. Thus, it might be interesting to compare their characteristics and see if they are the same for both genders. Third, other measures of M&A performance could be used in investigating the effect of BGD on the performances of M&A deals. Fourth, this study only focussed on European acquirers, while previous studies mostly focussed on the US. It could be interesting to generate and analyse a dataset including European and US firms, and (if possible) also Asian firms. Such a study might find interesting results regarding the effect of gender quota's, which is still considered as something European.

6.2 Conclusion

This paper attempted to answer the research question "*What is the effect of having a gender-diversified board of directors on the M&A performances of acquiring firms in Europe between 2003 and 2021?"* In this paper four hypotheses were tested to answer this question. All were rejected as the main independent variables were not significant. Therefore, no significant effect of having a gender-diversified board of directors on the M&A performances of acquiring firms in Europe between 2003 and 2021 was found in this sample. With this paper previous research was extended by adding more recent years to the regressions to show if there is a bigger effect of having more female board directors as the number of women on the corporate board of directors increased in the last years. The focus was on more than one country. All countries of Europe, where M&A activity took place in the specified period were included in the sample. A quantitative approach was used to is look at the effect of having a gender-diversified board of directors on the M&A performances of acquiring firms in Europe. The data is received from Zephyr, Eikon and BoardEx and merged in one dataset in Stata. Regressions were run to examine the relationship between the dependent variable (CARs) and the independent variables. Control variables were also included to make sure the found relationship is not caused by something else than the independent variables. Reviewing the literature, it was expected that board gender diversity would have a positive effect on the performances of the acquiring firms. This indication was also found in the main regressions, but the positive coefficients were not significant. To conclude the paper, after examining 910 M&A deals from 2003 till 2021 no significant effect of having a gender-diversified board of directors on the M&A performances of acquiring firms in Europe was found in this sample.

7. References

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8. Appendix

TABLE 4: CORRELATION MATRIX OF ALL VARIABLES

	CARs	BGD	BGD_dum	CeoDuality	BINDEP	BSIZE	logMCAP	TobinsQ	ROA	Leverage	CASH_Ratio	OCF_Ratio	FSIZE	MOP_cash	MOP_shares	MOP_liabilities	MOP_earnout	MOP_other	QUOTA_BorN	BGD_QUOTA_BNB	QUOTA_SorN	BGD_QUOTA_SN	Year	FINCR	INDUSTRY	ACC
CARs	1																									
BGD	0.0489	1																								
BGD_dum	0.046	**0.8058**	1																							
CeoDuality	0.0926	-0.0189	0.0338	1																						
BINDEP	-0.0118	0.4004	0.3197	-0.0508	1																					
BSIZE	-0.1632	-0.0666	-0.0728	-0.0239	0.0237	1																				
logMCAP	-0.18	0.1255	0.1321	-0.0199	0.2069	0.6363	1																			
TobinsQ	0.1793	-0.0204	-0.037	0.0378	-0.084	-0.1694	-0.0944	1																		
ROA	-0.1131	0.0367	0.0737	-0.0133	0.0491	0.0259	0.2143	0.0618	1																	
Leverage	-0.0154	0.0163	0.031	0.1002	0.0406	0.0989	0.0304	0.1023	-0.3519	1																
CASH_Ratio	0.084	-0.0459	-0.0628	-0.0131	-0.1161	-0.2329	-0.2272	0.2192	-0.0645	-0.2362	1															
OCF_Ratio	-0.0105	0.0219	0.0217	-0.0068	0.0811	0.011	0.1806	0.1674	0.6424	-0.2889	-0.0119	1														
FSIZE	-0.2083	0.1043	0.1077	-0.0547	0.1856	**0.7084**	**0.8902**	-0.3331	0.0774	0.1418	-0.3606	0.0178	1													
MOP_cash	0.0396	-0.1145	-0.0519	0.006	-0.0684	0.0865	0.1047	0.0074	0.1132	-0.0586	0.0173	0.1141	0.0798	1												
MOP_shares	0.0191	-0.0846	-0.1126	-0.0216	-0.0906	-0.0397	-0.2189	-0.0331	-0.2505	0.1195	0.0109	-0.2515	-0.1317	-0.5097	1											
MOP_liabilities	-0.0328	0.2036	0.1684	0.0499	0.1751	0.0318	0.186	-0.0508	0.0673	0.0024	-0.0872	0.0704	0.1341	-0.4858	-0.2498	1										
MOP_earn_out	-0.0386	0.0393	0.0215	-0.0394	0.0118	-0.1509	-0.1467	0.1116	0.0755	-0.069	0.0758	0.0675	-0.1613	-0.3154	-0.1622	-0.1546	1									
MOP_other	-0.0312	-0.0036	-0.0033	-0.0233	-0.0214	0.0432	0.0426	-0.0193	-0.0171	-0.001	-0.0243	-0.013	0.0603	-0.0995	-0.0512	-0.0488	-0.0317	1								
QUOTA_BorNB	0.0435	0.407	0.385	0.0337	-0.0311	-0.0464	-0.0438	-0.0368	-0.0649	-0.0068	0.1406	-0.1005	-0.0489	-0.0855	0.0162	0.0971	-0.0022	-0.0077	1							
BGD_QUOTA_BNB	0.0452	0.2879	0.2648	0.0339	-0.0827	-0.066	-0.0968	-0.0287	-0.0802	-0.0182	0.1639	-0.104	-0.0969	-0.0817	0.0371	0.0648	0.0067	-0.0107	**0.9749**	1						
QUOTA_SorN	0.1211	0.5338	0.39	0.0065	0.1912	-0.2519	-0.1585	0.0925	-0.0264	-0.0007	0.1065	-0.0253	-0.1936	-0.0952	-0.012	0.1045	0.0508	-0.0422	0.4341	0.4232	1					
BGD_QUOTA_SN	0.1202	0.2732	0.1503	0.0128	0.0745	-0.2528	-0.2225	0.1159	-0.0434	-0.0053	0.1328	-0.0321	-0.2528	-0.071	0.0187	0.0458	0.046	-0.0422	0.3469	0.3799	**0.9537**	1				
Year	0.1231	0.6201	0.4873	0.0244	0.181	-0.2462	-0.0889	0.0583	0.0189	-0.0383	0.116	-0.0048	-0.1251	-0.1497	0.0066	0.1267	0.0831	-0.0197	0.5019	0.4692	**0.7083**	0.5886	1			
FINCR	-0.021	-0.2121	-0.1334	-0.0162	-0.1094	-0.0075	0.0019	0.091	0.0767	-0.022	-0.0767	-0.0069	-0.0251	0.0621	-0.0364	-0.0601	0.0266	0.0015	-0.2026	-0.1975	-0.2136	-0.1633	-0.2541	1		
INDUSTRY	-0.0312	0.0465	0.0295	-0.0769	0.0181	-0.0334	-0.0987	-0.0083	-0.067	0.0766	0.0478	-0.1007	-0.0112	-0.0419	0.1303	-0.1006	0.0208	0.0286	0.0499	0.0572	-0.0158	-0.0258	0.0329	0.0234	1	
ACC	0.0272	0.1862	0.1709	-0.0568	0.1938	-0.2369	-0.0749	0.0555	0.0337	0.0051	0.0038	0.0084	-0.0966	-0.0174	-0.1223	0.0741	0.1025	0.0003	-0.1671	-0.1931	0.044	-0.0233	-0.0134	-0.0537	0.0101	1

TABLE 5: DESCRIPTIVE STATISTICS BY COUNTRY

Acquiror Country Code	Freq.	Percent	Cum.
AT	22	2.42	2.42
BE	54	5.93	8.35
CH	1	0.11	8.46
CY	2	0.22	8.68
DE	120	13.19	21.87
DK	29	3.19	25.05
ES	66	7.25	32.31
FI	50	5.49	37.8
FR	192	21.1	58.9
GR	12	1.32	60.22
IE	40	4.4	64.62
IT	115	12.64	77.25
LT	1	0.11	77.36
LU	9	0.99	78.35
MT	2	0.22	78.57
NL	75	8.24	86.81
PL	1	0.11	86.92
PT	8	0.88	87.8
SE	110	12.09	99.89
SI	1	0.11	100
Total	910	100	

TABLE 6: DESCRIPTIVE STATISTICS BY YEAR

Year	Freq.	Percent	Cum.
2003	51	5.6	5.6
2004	64	7.03	12.64
2005	75	8.24	20.88
2006	69	7.58	28.46
2007	62	6.81	35.27
2008	35	3.85	39.12
2009	32	3.52	42.64
2010	35	3.85	46.48
2011	33	3.63	50.11
2012	33	3.63	53.74

2013	24	2.64	56.37
2014	30	3.3	59.67
2015	51	5.6	65.27
2016	50	5.49	70.77
2017	64	7.03	77.8
2018	72	7.91	85.71
2019	64	7.03	92.75
2020	62	6.81	99.56
2021	4	0.44	100
Total	910	100	

TABLE 7: DISTRIBUTION OF YEARS AND COUNTRIES

Year	AT	BE	CH	CY	DE	DK	ES	FI	FR	GR	IE	IT	LT	LU	MT	NL	PL	PT	SE	SI	Total
2003	1	1	0	0	8	1	2	0	11	0	4	9	0	0	0	5	0	1	8	0	51
2004	2	8	0	0	6	3	4	2	14	0	5	4	0	0	0	6	0	2	8	0	64
2005	0	6	0	0	9	2	1	4	19	2	1	9	0	0	0	11	0	2	9	0	75
2006	1	1	0	0	4	3	4	0	13	3	5	12	0	0	0	16	0	0	7	0	69
2007	2	7	0	0	13	0	6	1	11	1	3	2	0	0	0	11	0	0	4	1	62
2008	0	7	1	0	4	1	0	3	4	1	1	5	0	0	0	4	0	0	4	0	35
2009	2	1	0	0	8	0	0	0	9	1	0	5	0	1	0	1	0	0	4	0	32
2010	4	1	0	0	9	0	4	0	8	0	2	4	0	0	0	2	0	0	1	0	35
2011	0	4	0	0	3	1	1	1	8	1	3	3	0	1	1	1	1	0	4	0	33
2012	1	1	0	1	5	1	6	4	6	1	2	2	0	0	0	0	0	0	3	0	33
2013	0	2	0	0	6	2	0	3	5	0	1	0	0	0	0	1	0	1	3	0	24
2014	1	1	0	0	8	0	1	0	10	0	1	1	0	1	0	0	0	0	6	0	30
2015	2	6	0	0	9	1	2	3	11	0	6	5	1	1	1	0	0	1	2	0	51
2016	1	2	0	0	4	1	7	5	14	1	2	7	0	0	0	1	0	0	5	0	50
2017	0	2	0	0	7	4	9	1	16	0	1	5	0	3	0	5	0	0	11	0	64
2018	1	2	0	1	4	4	5	8	12	1	2	13	0	0	0	4	0	0	15	0	72
2019	0	0	0	0	10	2	6	8	14	0	1	10	0	1	0	2	0	0	10	0	64
2020	4	2	0	0	3	2	7	6	6	0	0	19	0	1	0	5	0	1	6	0	62
2021	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	4
Total	22	54	1	2	120	29	66	50	192	12	40	115	1	9	2	75	1	8	110	1	910

TABLE 8 : DESCRIPTIVE STATISTICS VARIABLES

Variable	**N. Obs.**	**Mean**	**Std. dev.**	**Min**	**Max**
CARs	910	1.442231	5.168759	-16.9847	44.87145
CARs_dum	910	0.594506	0.491258	0	1
BGD	910	0.167647	0.148766	0	0.625
GenderRatio	910	0.832353	0.148766	0.375	1
BGD_30%	910	0.236264	0.425020	0	1
CeoDuality	910	0.051648	0.221438	0	1
BINDEP	910	0.787851	0.161031	0	1

BSIZE	910	11.44176	5.155707	1	34
QUOTA	910	0.646154	0.478425	0	1
QUOTA_Binding	910	0.256044	0.436686	0	1
QUOTA_Soft	910	0.646154	0.478425	0	1
BGD*QUOTA	910	0.146276	0.159211	0	1
BGD*QUOTA_Binding	910	0.069336	0.138841	0	0.571
BGD*QUOTA_Soft	910	0.146276	0.159211	0	0.625
MCAP	910	6690.671	14624.03	2.09	118298.4
logMCAP	910	7.177882	1.987809	0.7371641	11.68097
TobinsQ	910	1.726241	1.544483	0.2611	23.9936
ROA	910	4.642176	9.801283	-85.41	46.75
Leverage	910	42.35591	45.75712	0	1126.7
CASH_Ratio	910	0.126364	0.136442	0	0.890438
OCF_Ratio	910	0.070958	0.100071	-0.77386	0.522243
FSIZE	910	7.628435	2.440349	0.076035	14.60122
MOP_cash	910	0.497802	0.50027	0	1
MOP_shares	910	0.207692	0.405878	0	1
MOP_liabilities	910	0.192308	0.39433	0	1
MOP_earn_out	910	0.091209	0.288064	0	1
MOP_other	910	0.00989	0.09901	0	1
Year	910	2011.571	5.726903	2003	2021
FINCR	910	0.106593	0.308765	0	1
INDUSTRY	910	135.8769	61.40228	1	239
ACC	910	9.983516	5.006349	1	20

TABLE 9: DEVELOPMENT OF THE AVERAGES OF THE MAIN VARIABLES OVER THE YEAR

Year	Obs.	CARs	BGD	QUOTA_Binding	QUOTA_Soft
2003	51	0.0697	6.59%	0.00%	11.76%
2004	64	1.2290	6.87%	0.00%	20.31%
2005	75	1.5645	6.33%	0.00%	18.67%
2006	69	0.2457	6.83%	0.00%	17.39%
2007	62	0.7174	6.25%	0.00%	24.19%
2008	35	1.8546	10.08%	0.00%	54.29%
2009	32	-0.3822	10.54%	3.13%	28.13%
2010	35	1.2525	9.41%	8.57%	88.57%
2011	33	0.7558	15.92%	45.45%	90.91%
2012	33	2.2642	16.60%	27.27%	93.94%

2013	24	2.1236	19.49%	29.17%	95.83%
2014	30	0.3799	24.95%	43.33%	96.67%
2015	51	1.2002	18.61%	60.78%	92.16%
2016	50	1.2073	27.18%	54.00%	100.00%
2017	64	2.8398	24.36%	46.88%	95.31%
2018	72	1.8901	29.78%	43.06%	98.61%
2019	64	2.6336	28.91%	53.13%	98.44%
2020	62	2.8257	30.75%	50.00%	96.77%
2021	4	2.4372	17.23%	25.00%	100.00%
Total	910				

TABLE 10: DEVELOPMENT OF THE AVERAGES OF THE MAIN VARIABLES OVER THE COUNTRIES

ACC	**Obs.**	**CARs**	**BGD**	**QUOTA_Binding**	**QUOTA_Soft**
AT	22	0.7746	7.78%	0.00%	72.73%
BE	54	1.1287	11.84%	40.74%	57.41%
CH	1	7.7516	25.00%	0.00%	0.00%
CY	2	0.0000	6.25%	0.00%	0.00%
DE	120	1.4290	10.92%	32.50%	57.50%
DK	29	1.0124	16.78%	0.00%	65.52%
ES	66	0.5375	15.39%	0.00%	83.33%
FI	50	3.4189	25.12%	0.00%	96.00%
FR	192	1.1102	19.89%	54.69%	57.81%
GR	12	0.4037	4.02%	0.00%	16.67%
IE	40	2.4813	8.31%	0.00%	100.00%
IT	115	1.4754	20.10%	57.39%	57.39%
LT	1	-1.5640	28.60%	0.00%	0.00%
LU	9	1.1331	5.52%	0.00%	11.11%
MT	2	1.5041	12.50%	0.00%	0.00%
NL	75	1.9747	7.72%	0.00%	32.00%
PL	1	-4.7478	0.00%	0.00%	100.00%
PT	8	-0.9055	8.01%	12.50%	12.50%
SE	110	1.6746	27.67%	0.00%	94.55%
SI	1	0.5308	38.50%	0.00%	0.00%
Total	910				

TABLE 11: WINSORIZED REGRESSIONS

Dependent variable	CARs winsorized			
Model	**(1)**	**(2)**	**(3)**	**(4)**
BGD_w1	0.4904		0.3614	-0.1589
	(1.3999)		(1.6279)	(2.5202)
BGD_dum		0.3035		
		(0.4338)		
QUOTA_Binding			-0.3607	
			(0.8704)	
BGD_QUOTA_Binding			0.7940	
			(2.7773)	
QUOTA_Soft				-0.1165
				(0.5154)
BGD_QUOTA_Soft				0.8245
				(2.9272)
CeoDuality	1.9119**	1.8843**	1.9118**	1.9099**
	(0.7689)	(0.7660)	(0.7707)	(0.7696)
BINDEP	0.2636	0.2308	0.1982	0.2502
	(1.0378)	(1.0356)	(1.0414)	(1.0484)
BSIZE_w1	-0.0183	-0.0167	-0.0168	-0.0174
	(0.0376)	(0.0378)	(0.0380)	(0.0379)
logMCAP_w1	-0.2923	-0.3020	-0.2932	-0.2966
	(0.2225)	(0.2222)	(0.2242)	(0.2225)
TobinsQ_w1	0.3575	0.3675	0.3514	0.3608
	(0.2710)	(0.2704)	(0.2718)	(0.2712)
ROA_w1	-0.0782**	-0.0789**	-0.0789**	-0.0786**
	(0.0319)	(0.0320)	(0.0320)	(0.0321)
Leverage_w1	-0.0069	-0.0071	-0.0069	-0.0070
	(0.0083)	(0.0083)	(0.0083)	(0.0083)
CASH_Ratio_w1	-0.6078	-0.6021	-0.5515	-0.6215
	(1.6525)	(1.6545)	(1.6706)	(1.6501)
OCF_Ratio_w1	5.3443**	5.3843**	5.3370**	5.3867**
	(2.5949)	(2.6015)	(2.6056)	(2.6095)
FSIZE_w1	-0.0492	-0.0453	-0.0542	-0.0484
	(0.2085)	(0.2080)	(0.2094)	(0.2093)
MOP_cash	1.9413***	1.8253**	1.9837**	1.9150***
	(0.7439)	(0.7601)	(0.8006)	(0.7308)
MOP_shares	1.5227*	1.4208*	1.5618*	1.4974*
	(0.8027)	(0.7987)	(0.8454)	(0.7895)
MOP_liabilities	1.4269*	1.3145*	1.4754*	1.4002*
	(0.7493)	(0.7639)	(0.8161)	(0.7389)
MOP_earn_out	0.4541	0.3438	0.4992	0.4277
	(0.8840)	(0.8894)	(0.9351)	(0.8677)
MOP_other	0.6639	0.5493	0.7013	0.6440
	(0.8598)	(0.8713)	(0.9051)	(0.8496)

Year	0.1005***	0.0974***	0.1071***	0.1021**
	(0.0346)	(0.0331)	(0.0357)	(0.0397)
FINCR	0.2934	0.2837	0.2669	0.2989
	(0.4944)	(0.4912)	(0.4954)	(0.4933)
INDUSTRY	-0.0020	-0.0020	-0.0019	-0.0020
	(0.0025)	(0.0025)	(0.0025)	(0.0025)
ACC	0.0107	0.0093	0.0083	0.0101
	(0.0331)	(0.0327)	(0.0338)	(0.0332)
Constant	-200.2093***	-193.8363***	-213.3510***	-203.3384**
	(69.4645)	(66.5357)	(71.6798)	(79.6198)
Observations	910	910	910	910
Year Fixed effects	Yes	Yes	Yes	Yes
Country Fixed effects	Yes	Yes	Yes	Yes
Industry Fixed effects	Yes	Yes	Yes	Yes
R-squared	0.0879	0.0883	0.0882	0.0880

Notes: Robust standard errors are shown in the parentheses, ***, ** and * represent the statistical significance at the 1%, 5% and 10% significance level, respectively.

TABLE 12: ROBUSTNESS CHECK WITHOUT FSIZE

Dependent variable			**CARs**	
Model	**(1)**	**(2)**	**(3)**	**(4)**
BGD	0.5218		0.0793	0.1863
	(1.4867)		(1.7718)	(2.7339)
BGD_dum		0.3972		
		(0.4607)		
QUOTA_Binding			-0.5389	
			(0.9357)	
BGD_QUOTA_Binding			1.6229	
			(2.9598)	
QUOTA_Soft				0.0256
				(0.6164)
BGD_QUOTA_Soft				0.3715
				(3.2403)
CeoDuality	1.9167**	1.8842**	1.9132**	1.9185**
	(0.7936)	(0.7910)	(0.7948)	(0.7931)
BINDEP	0.6063	0.5420	0.5622	0.5899
	(1.0897)	(1.0874)	(1.0946)	(1.0937)
BSIZE	-0.0256	-0.0235	-0.0244	-0.0251
	(0.0369)	(0.0371)	(0.0373)	(0.0374)
logMCAP	-0.3537***	-0.3622***	-0.3628***	-0.3527***
	(0.1211)	(0.1205)	(0.1241)	(0.1198)
TobinsQ	0.5737***	0.5779***	0.5719***	0.5733***
	(0.2107)	(0.2105)	(0.2107)	(0.2106)

ROA	-0.0909***	-0.0919***	-0.0917***	-0.0910***
	(0.0295)	(0.0296)	(0.0295)	(0.0295)
Leverage	-0.0086**	-0.0088**	-0.0087**	-0.0086**
	(0.0040)	(0.0040)	(0.0040)	(0.0040)
CASH_Ratio	-0.7692	-0.7386	-0.7239	-0.7746
	(1.6945)	(1.6957)	(1.7150)	(1.6975)
OCF_Ratio	3.5316	3.5959	3.5542	3.5496
	(2.4387)	(2.4457)	(2.4632)	(2.4487)
FSIZE				
MOP_cash	2.3322***	2.1895***	2.3398***	2.3406***
	(0.7877)	(0.8028)	(0.8517)	(0.7822)
MOP_shares	1.8090**	1.6858**	1.8145**	1.8209**
	(0.8620)	(0.8512)	(0.9143)	(0.8576)
MOP_liabilities	1.7090**	1.5671*	1.7210**	1.7173**
	(0.7912)	(0.8024)	(0.8754)	(0.7791)
MOP_earn_out	0.5599	0.4263	0.5766	0.5730
	(0.9345)	(0.9354)	(0.9969)	(0.9158)
MOP_other	0.9853	0.8450	0.9830	1.0058
	(0.8815)	(0.8936)	(0.9363)	(0.8760)
Year	0.0903**	0.0845**	0.0989***	0.0873**
	(0.0366)	(0.0358)	(0.0377)	(0.0438)
FINCR	0.0968	0.0857	0.0630	0.1025
	(0.5041)	(0.4998)	(0.5072)	(0.5013)
INDUSTRY	-0.0031	-0.0032	-0.0030	-0.0031
	(0.0029)	(0.0029)	(0.0029)	(0.0029)
ACC	0.0164	0.0141	0.0144	0.0161
	(0.0380)	(0.0373)	(0.0397)	(0.0384)
Constant	-180.0954**	-168.2039**	-197.1876***	-174.1062**
	(73.5836)	(72.0266)	(75.6239)	(87.8572)
Observations	910	910	910	910
Year Fixed effects	Yes	Yes	Yes	Yes
Country Fixed effects	Yes	Yes	Yes	Yes
Industry Fixed effects	Yes	Yes	Yes	Yes
R-squared	0.1051	0.1057	0.1056	0.1052

Notes: Robust standard errors are shown in the parentheses, ***, ** and * represent the statistical significance at the 1%, 5% and 10% significance level, respectively.

TABEL 13: ROBUSTNESS CHECK WITHOUT BSIZE

Dependent variable			**CARs**	
Model	**(1)**	**(2)**	**(3)**	**(4)**
BGD	0.4905		0.0457	-0.0486
	(1.4902)		(1.7722)	(2.7192)
BGD_dum		0.4087		

		(0.4602)		
QUOTA_Binding			-0.5560	
			(0.9334)	
BGD_QUOTA_Binding			1.6562	
			(2.9622)	
QUOTA_Soft				0.0152
				(0.6149)
BGD_QUOTA_Soft				0.6142
				(3.2093)
CeoDuality	1.9427**	1.9099**	1.9382**	1.9454**
	(0.7947)	(0.7921)	(0.7959)	(0.7942)
BINDEP	0.6602	0.5824	0.6100	0.6366
	(1.0851)	(1.0834)	(1.0905)	(1.0901)
BSIZE				
logMCAP	-0.4364*	-0.4454*	-0.4422*	-0.4374*
	(0.2457)	(0.2458)	(0.2466)	(0.2453)
TobinsQ	0.5934**	0.5983**	0.5906**	0.5939**
	(0.2469)	(0.2466)	(0.2468)	(0.2470)
ROA	-0.0901***	-0.0910***	-0.0909***	-0.0901***
	(0.0292)	(0.0294)	(0.0293)	(0.0293)
Leverage	-0.0089**	-0.0091**	-0.0090**	-0.0089**
	(0.0043)	(0.0043)	(0.0043)	(0.0043)
CASH_Ratio	-0.6414	-0.6060	-0.5982	-0.6457
	(1.6934)	(1.6955)	(1.7151)	(1.6944)
OCF_Ratio	3.6244	3.6909	3.6415	3.6539
	(2.4229)	(2.4301)	(2.4489)	(2.4330)
FSIZE	0.0387	0.0418	0.0373	0.0414
	(0.2009)	(0.2012)	(0.2006)	(0.2017)
MOP_cash	2.1979***	2.0661***	2.2149***	2.2111***
	(0.7570)	(0.7670)	(0.8359)	(0.7467)
MOP_shares	1.6635**	1.5527*	1.6785*	1.6815**
	(0.8265)	(0.8127)	(0.8917)	(0.8186)
MOP_liabilities	1.5946**	1.4621*	1.6153*	1.6075**
	(0.7853)	(0.7924)	(0.8818)	(0.7690)
MOP_earn_out	0.4248	0.3019	0.4510	0.4439
	(0.9009)	(0.8985)	(0.9764)	(0.8761)
MOP_other	0.8319	0.7020	0.8394	0.8614
	(0.8514)	(0.8621)	(0.9199)	(0.8436)
Year	0.0953***	0.0884**	0.1040***	0.0916**
	(0.0358)	(0.0349)	(0.0363)	(0.0430)
FINCR	0.1312	0.1187	0.0946	0.1390
	(0.5007)	(0.4965)	(0.5046)	(0.4976)
INDUSTRY	-0.0033	-0.0033	-0.0032	-0.0032
	(0.0030)	(0.0030)	(0.0030)	(0.0030)
ACC	0.0215	0.0185	0.0191	0.0209
	(0.0380)	(0.0372)	(0.0398)	(0.0384)
Constant	-190.1794***	-175.8845**	-207.4524***	-182.6398**
	(71.8042)	(70.1060)	(73.0101)	(86.2597)

Observations	910	910	910	910
Year Fixed effects	Yes	Yes	Yes	Yes
Country Fixed effects	Yes	Yes	Yes	Yes
Industry Fixed effects	Yes	Yes	Yes	Yes
R-squared	0.1048	0.1055	0.1053	0.1049

Notes: Robust standard errors are shown in the parentheses, ***, ** and * represent the statistical significance at the 1%, 5% and 10% significance level, respectively.

TABLE 14: ROBUSTNESS CHECK WITHOUT LOGMCAP

Dependent variable			**CARs**	
Model	**(1)**	**(2)**	**(3)**	**(4)**
BGD	0.4013		0.0738	0.3136
	(1.4780)		(1.7721)	(2.7256)
BGD_dum		0.3451		
		(0.4581)		
QUOTA_Binding			-0.4827	
			(0.9299)	
BGD_QUOTA_Binding			1.3303	
			(2.9381)	
QUOTA_Soft				0.0916
				(0.6197)
BGD_QUOTA_Soft				0.0414
				(3.2224)
CeoDuality	1.8362**	1.8063**	1.8319**	1.8405**
	(0.7998)	(0.7971)	(0.8014)	(0.7982)
BINDEP	0.4042	0.3336	0.3467	0.3904
	(1.0810)	(1.0771)	(1.0852)	(1.0861)
BSIZE	-0.0312	-0.0294	-0.0297	-0.0312
	(0.0392)	(0.0394)	(0.0397)	(0.0397)
logMCAP				
TobinsQ	0.4839**	0.4854**	0.4793**	0.4833**
	(0.2281)	(0.2278)	(0.2285)	(0.2280)
ROA	-0.0953***	-0.0962***	-0.0960***	-0.0953***
	(0.0300)	(0.0302)	(0.0301)	(0.0301)
Leverage	-0.0076*	-0.0077*	-0.0077*	-0.0077*
	(0.0040)	(0.0040)	(0.0040)	(0.0040)
CASH_Ratio	-1.1361	-1.1154	-1.0952	-1.1361
	(1.7065)	(1.7075)	(1.7260)	(1.7043)
OCF_Ratio	3.1568	3.2049	3.1527	3.1686
	(2.4527)	(2.4590)	(2.4779)	(2.4633)
FSIZE	-0.2591**	-0.2654**	-0.2663**	-0.2562**
	(0.1052)	(0.1046)	(0.1076)	(0.1046)
MOP_cash	2.3994***	2.2760***	2.4185***	2.4241***
	(0.8020)	(0.8165)	(0.8659)	(0.7984)

MOP_shares	1.9400**	1.8351**	1.9568**	1.9687**
	(0.8730)	(0.8620)	(0.9260)	(0.8715)
MOP_liabilities	1.7054**	1.5802*	1.7288*	1.7307**
	(0.8146)	(0.8262)	(0.8968)	(0.8040)
MOP_earn_out	0.7094	0.5955	0.7365	0.7393
	(0.9348)	(0.9356)	(0.9986)	(0.9170)
MOP_other	1.0806	0.9599	1.0925	1.1162
	(0.8737)	(0.8853)	(0.9280)	(0.8726)
Year	0.0915**	0.0857**	0.0996***	0.0870**
	(0.0366)	(0.0359)	(0.0377)	(0.0438)
FINCR	0.0555	0.0458	0.0229	0.0604
	(0.5034)	(0.4995)	(0.5072)	(0.5006)
INDUSTRY	-0.0024	-0.0024	-0.0023	-0.0024
	(0.0029)	(0.0028)	(0.0028)	(0.0028)
ACC	0.0173	0.0150	0.0151	0.0173
	(0.0381)	(0.0373)	(0.0397)	(0.0384)
Constant	-182.7684**	-170.8164**	-198.8264***	-173.7079**
	(73.4620)	(72.1487)	(75.7432)	(87.8015)
Observations	910	910	910	910
Year Fixed effects	Yes	Yes	Yes	Yes
Country Fixed effects	Yes	Yes	Yes	Yes
Industry Fixed effects	Yes	Yes	Yes	Yes
R-squared	0.1019	0.1024	0.1023	0.1020

Notes: Robust standard errors are shown in the parentheses, ***, ** and * represent the statistical significance at the 1%, 5% and 10% significance level, respectively.

TABLE 15: ROBUSTNESS CHECKS FOR QUOTA AND THE INTERACTION VARIABLES BASED ON IT.

Dependent variable			**CARs**	
Model	**(3)**	**(3)**	**(4)**	**(4)**
	A	**B**	**A**	**B**
BGD	0.6243	0.4226	0.4740	0.0712
	(1.5952)	(1.7547)	(1.5610)	(2.5196)
QUOTA_Binding	-0.1312			
	(0.5057)			
BGD_QUOTA_Binding		0.1545		
		(1.5934)		
QUOTA_Soft			0.0622	
			(0.5006)	
BGD_QUOTA_Soft				0.5072
				(2.5120)
CeoDuality	1.9500**	1.9469**	1.9507**	1.9497**
	(0.7984)	(0.7951)	(0.7942)	(0.7959)
BINDEP	0.5612	0.6407	0.6125	0.6043
	(1.0860)	(1.1021)	(1.0890)	(1.0928)
logMCAP	-0.4368*	-0.4401*	-0.4378*	-0.4398*
	(0.2456)	(0.2454)	(0.2450)	(0.2462)
BSIZE	-0.0317	-0.0328	-0.0326	-0.0320

	(0.0393)	(0.0391)	(0.0390)	(0.0391)
TobinsQ	0.6011**	0.6052**	0.6035**	0.6046**
	(0.2487)	(0.2487)	(0.2481)	(0.2486)
ROA	-0.0904***	-0.0905***	-0.0904***	-0.0905***
	(0.0293)	(0.0292)	(0.0294)	(0.0293)
Leverage	-0.0090**	-0.0090**	-0.0090**	-0.0090**
	(0.0043)	(0.0043)	(0.0043)	(0.0043)
CASH_Ratio	-0.5769	-0.6327	-0.6206	-0.6234
	(1.7141)	(1.7044)	(1.6946)	(1.6922)
OCF_Ratio	3.5759	3.6458	3.6305	3.6481
	(2.4531)	(2.4476)	(2.4285)	(2.4337)
FSIZE	0.0869	0.0914	0.0915	0.0916
	(0.2124)	(0.2122)	(0.2133)	(0.2130)
MOP_cash	2.4708***	2.4007***	2.4367***	2.4241***
	(0.8673)	(0.8577)	(0.7950)	(0.8001)
MOP_shares	1.9439**	1.8785**	1.9160**	1.9040**
	(0.9193)	(0.9180)	(0.8664)	(0.8699)
MOP_liabilities	1.8656**	1.7870**	1.8253**	1.8125**
	(0.8979)	(0.8879)	(0.8033)	(0.8140)
MOP_earn_out	0.6888	0.6220	0.6599	0.6482
	(0.9950)	(0.9847)	(0.9108)	(0.9276)
MOP_other	1.0998	1.0303	1.0735	1.0663
	(0.9570)	(0.9536)	(0.8981)	(0.9028)
Year	0.0933**	0.0897**	0.0872**	0.0877**
	(0.0383)	(0.0375)	(0.0439)	(0.0400)
FINCR	0.0909	0.1064	0.1072	0.1106
	(0.5058)	(0.5048)	(0.5033)	(0.5025)
INDUSTRY	-0.0033	-0.0033	-0.0033	-0.0033
	(0.0030)	(0.0030)	(0.0030)	(0.0030)
ACC	0.0138	0.0165	0.0159	0.0155
	(0.0397)	(0.0395)	(0.0383)	(0.0382)
Constant	-186.2919**	-178.9560**	-173.9697**	-174.9741**
	(76.9823)	(75.2703)	(88.1750)	(80.4041)
Observations	910	910	910	910
Year Fixed effects	Yes	Yes	Yes	Yes
Country Fixed effects	Yes	Yes	Yes	Yes
Industry Fixed effects	Yes	Yes	Yes	Yes
R-squared	0.1054	0.1053	0.1053	0.1053

Notes: Robust standard errors are shown in the parentheses, ***, ** and * represent the statistical significance at the 1%, 5% and 10% significance level, respectively. In model 3a and 4a the interaction variables of Quota and BGD are excluded, in model 3b and 4b the 'normal' quota variables are excluded.

TABLE 16: ROBUSTNESS CHECK MODEL 4, WITHOUT YEAR FIXED EFFECTS

Dependent variable	**CARs**
Model	**(4)**
	0.7869
BGD	(2.7460)

QUOTA_Soft	0.4565
	(0.5635)
BGD_QUOTA_Soft	1.1237
	(3.2735)
CeoDuality	2.0013**
	(0.7994)
BINDEP	0.4566
	(1.1051)
BSIZE	-0.0463
	(0.0388)
logMCAP	-0.4404*
	(0.2444)
TobinsQ	0.6116**
	(0.2482)
ROA	-0.0882***
	(0.0298)
Leverage	-0.0093**
	(0.0043)
CASH_Ratio	-0.4438
	(1.6869)
OCF_Ratio	3.5223
	(2.4490)
FSIZE	0.1053
	(0.2122)
MOP_cash	2.6153***
	(0.7873)
MOP_shares	2.1543**
	(0.8531)
MOP_liabilities	2.0474**
	(0.7934)
MOP_earn_out	0.9332
	(0.9009)
MOP_other	1.3249
	(0.9193)
FINCR	-0.0212
	(0.5030)
INDUSTRY	-0.0031
	(0.0030)
ACC	0.0018
	(0.0392)
Constant	0.9959
	(1.5025)
Observations	910
Year Fixed effects	No
Country Fixed effects	Yes
Industry Fixed effects	Yes
R-squared	0.1019

Notes: Robust standard errors are shown in the parentheses, ***, ** and * represent the statistical significance at the 1%, 5% and 10% significance level, respectively.

TABLE 17: REGRESSION WITH EVENT WINDOW [-5, +5]

Dependent variable	**CARs, Event window [-5, +5]**			
Model	**(1)**	**(2)**	**(3)**	**(4)**
BGD	-0.0397		-0.3958	1.6013
	(2.4544)		(2.9340)	(4.2950)
BGD_dum		-0.3565		
		(0.7317)		
QUOTA_Binding			0.1159	
			(1.5368)	
BGD_QUOTA_Binding			0.4526	
			(4.7326)	
QUOTA_Soft				-0.0719
				(0.9593)
BGD_QUOTA_Soft				-1.8511
				(5.0897)
CeoDuality	1.0370	1.0633	1.0320	1.0283
	(1.1632)	(1.1627)	(1.1586)	(1.1638)
BINDEP	2.8224	2.9665*	2.9322*	2.8950*
	(1.7221)	(1.7160)	(1.7323)	(1.7397)
BSIZE	-0.0693	-0.0709	-0.0707	-0.0712
	(0.0673)	(0.0673)	(0.0678)	(0.0686)
logMCAP	-0.0579	-0.0479	-0.0635	-0.0555
	(0.3270)	(0.3282)	(0.3272)	(0.3258)
TobinsQ	0.4925*	0.4887*	0.4980**	0.4918*
	(0.2517)	(0.2508)	(0.2518)	(0.2512)
ROA	-0.1254**	-0.1247**	-0.1256**	-0.1252**
	(0.0575)	(0.0575)	(0.0579)	(0.0577)
Leverage	-0.0091	-0.0090	-0.0092	-0.0090
	(0.0064)	(0.0063)	(0.0064)	(0.0063)
CASH_Ratio	-1.5585	-1.6106	-1.6344	-1.5438
	(2.1124)	(2.1072)	(2.1215)	(2.1146)
OCF_Ratio	4.1985	4.1372	4.3031	4.1073
	(4.1141)	(4.1192)	(4.1203)	(4.1421)
FSIZE	-0.2809	-0.2797	-0.2749	-0.2866
	(0.2898)	(0.2896)	(0.2906)	(0.2920)
MOP_cash	2.4587**	2.5784**	2.3570**	2.4250**
	(0.9922)	(1.0188)	(1.0813)	(1.0220)
MOP_shares	0.9251	1.0236	0.8300	0.8764
	(1.1580)	(1.1704)	(1.2292)	(1.1887)
MOP_liabilities	2.2144**	2.3420**	2.1009*	2.1807**
	(1.0839)	(1.1291)	(1.2025)	(1.0858)
MOP_earn_out	-0.3393	-0.2273	-0.4348	-0.3927
	(1.2861)	(1.2727)	(1.3719)	(1.2926)
MOP_other	1.9902	2.1107	1.8880	1.9043

	(1.8022)	(1.8081)	(1.8539)	(1.8336)
Year	0.0763	0.0881	0.0722	0.0886
	(0.0594)	(0.0535)	(0.0646)	(0.0732)
FINCR	-0.6353	-0.6316	-0.6175	-0.6615
	(0.9667)	(0.9615)	(0.9694)	(0.9684)
INDUSTRY	0.0023	0.0024	0.0023	0.0021
	(0.0044)	(0.0044)	(0.0044)	(0.0043)
ACC	-0.0186	-0.0145	-0.0149	-0.0172
	(0.0533)	(0.0531)	(0.0553)	(0.0539)
Constant	-153.0567	-177.0003	-144.7508	-177.6388
	(119.4405)	(107.8232)	(129.7094)	(146.9500)
Observations	910	910	910	910
Year Fixed effects	Yes	Yes	Yes	Yes
Country Fixed effects	Yes	Yes	Yes	Yes
Industry Fixed effects	Yes	Yes	Yes	Yes
R-squared	0.0633	0.0635	0.0634	0.0635

Notes: Robust standard errors are shown in the parentheses, ***, ** and * represent the statistical significance at the 1%, 5% and 10% significance level, respectively.

TABLE 18: REGRESSION WITH EVENT WINDOW [-10, +10]

Dependent variable	**CARs, Eventwindow [-10, +10]**			
Model	**(1)**	**(2)**	**(3)**	**(4)**
BGD	1.8347		0.6207	-2.8300
	(3.4730)		(4.1387)	(5.4629)
BGD_dum		0.0370		
		(0.9590)		
QUOTA_Binding			-0.0543	
			(2.0634)	
BGD_QUOTA_Binding			2.2414	
			(6.2623)	
QUOTA_Soft				-1.8017
				(1.2611)
BGD_QUOTA_Soft				6.5883
				(6.6032)
CeoDuality	2.0828	2.0674	2.0664	2.0284
	(1.4983)	(1.4996)	(1.4951)	(1.5053)
BINDEP	3.0439	3.3977	3.2990	3.0799
	(2.5233)	(2.4517)	(2.4973)	(2.5422)
BSIZE	0.0145	0.0157	0.0119	0.0218
	(0.0911)	(0.0911)	(0.0917)	(0.0926)
logMCAP	-0.0977	-0.0884	-0.1160	-0.1401
	(0.4590)	(0.4622)	(0.4605)	(0.4579)
TobinsQ	0.5033*	0.5033*	0.5157*	0.5287*

	(0.3031)	(0.3027)	(0.3036)	(0.3031)
ROA	-0.1027*	-0.1032*	-0.1038**	-0.1047**
	(0.0526)	(0.0529)	(0.0526)	(0.0521)
Leverage	-0.0125*	-0.0125*	-0.0127*	-0.0122*
	(0.0067)	(0.0067)	(0.0068)	(0.0068)
CASH_Ratio	0.3371	0.2367	0.1664	0.3160
	(2.6273)	(2.6105)	(2.6352)	(2.6009)
OCF_Ratio	4.5366	4.5272	4.8202	4.6737
	(4.6946)	(4.6983)	(4.7110)	(4.7413)
FSIZE	-0.5029	-0.4983	-0.4897	-0.5196
	(0.4034)	(0.4037)	(0.4048)	(0.4083)
MOP_cash	-5.0948***	-5.1432***	-5.3556***	-5.5222***
	(1.1964)	(1.2185)	(1.3002)	(1.2412)
MOP_shares	-7.7237***	-7.7859***	-7.9688***	-8.1852***
	(1.4974)	(1.5096)	(1.5885)	(1.5526)
MOP_liabilities	-5.7414***	-5.7542***	-6.0303***	-6.1763***
	(1.3186)	(1.3611)	(1.4543)	(1.3351)
MOP_earn_out	-8.4896***	-8.5351***	-8.7282***	-8.9616***
	(1.6472)	(1.6283)	(1.7216)	(1.6800)
MOP_other	-7.4478***	-7.4840***	-7.7158***	-7.9135***
	(2.5451)	(2.5550)	(2.6077)	(2.5704)
Year	0.0885	0.1154	0.0835	0.1426
	(0.0864)	(0.0749)	(0.0942)	(0.1048)
FINCR	-1.1967	-1.2238	-1.1728	-1.1989
	(1.2403)	(1.2340)	(1.2473)	(1.2303)
INDUSTRY	0.0031	0.0033	0.0031	0.0029
	(0.0057)	(0.0057)	(0.0057)	(0.0056)
ACC	-0.0296	-0.0214	-0.0213	-0.0359
	(0.0677)	(0.0673)	(0.0699)	(0.0685)
Constant	-169.4932	-223.6741	-159.2172	-276.4140
	(173.4099)	(150.6333)	(189.1258)	(210.1684)
Observations	910	910	910	910
Year Fixed effects	Yes	Yes	Yes	Yes
Country Fixed effects	Yes	Yes	Yes	Yes
Industry Fixed effects	Yes	Yes	Yes	Yes
R-squared	0.0578	0.0574	0.0582	0.0602

Notes: Robust standard errors are shown in the parentheses, ***, ** and * represent the statistical significance at the 1%, 5% and 10% significance level, respectively.

TABLE 19: REGRESSIONS WITH LAGGED MAIN VARIABLES

Dependent variable		**CARs**		
Model	**(1)**	**(2)**	**(3)**	**(4)**
lagBGD	2.2336*		1.6847	1.9012

	(1.1708)		(1.4311)	(1.3935)
lagBGD_dum		0.5054		
		(0.4326)		
lagQUOTA_Binding			0.4163	
			(0.5373)	
BGD_QUOTA_Binding			-0.4543	
			(1.5248)	
lagQUOTA_Soft				0.2180
				(0.3805)
BGD_QUOTA_Soft				-0.1516
				(1.5289)
CeoDuality	1.9129**	1.9258**	1.9182**	1.9304**
	(0.7972)	(0.7910)	(0.7931)	(0.8024)
BINDEP	0.2343	0.5364	0.4326	0.2459
	(1.1367)	(1.0979)	(1.1707)	(1.1336)
BSIZE	-0.0359	-0.0352	-0.0368	-0.0343
	(0.0388)	(0.0389)	(0.0389)	(0.0393)
logMCAP	-0.4321*	-0.4352*	-0.4304*	-0.4306*
	(0.2444)	(0.2439)	(0.2441)	(0.2456)
TobinsQ	0.6051**	0.6057**	0.6130**	0.6022**
	(0.2485)	(0.2489)	(0.2495)	(0.2481)
ROA	-0.0911***	-0.0922***	-0.0899***	-0.0910***
	(0.0295)	(0.0294)	(0.0296)	(0.0296)
Leverage	-0.0091**	-0.0094**	-0.0091**	-0.0092**
	(0.0043)	(0.0043)	(0.0043)	(0.0043)
CASH_Ratio	-0.6175	-0.6478	-0.7115	-0.6223
	(1.6886)	(1.6879)	(1.6994)	(1.6981)
OCF_Ratio	3.8204	3.7766	3.7969	3.7886
	(2.4338)	(2.4417)	(2.4594)	(2.4378)
FSIZE	0.0961	0.0936	0.0999	0.0999
	(0.2118)	(0.2118)	(0.2124)	(0.2125)
MOP_cash	2.4729***	2.3024***	2.3710***	2.5259***
	(0.7967)	(0.8080)	(0.8354)	(0.7958)
MOP_shares	1.9308**	1.7411**	1.8243**	1.9831**
	(0.8639)	(0.8643)	(0.8803)	(0.8680)
MOP_liabilities	1.8941**	1.7123**	1.7863**	1.9589**
	(0.8097)	(0.8166)	(0.8616)	(0.8057)
MOP_earn_out	0.6804	0.5269	0.5862	0.7245
	(0.9269)	(0.9368)	(0.9577)	(0.9249)
MOP_other	1.0407	0.9392	0.9252	1.1536
	(0.9164)	(0.9163)	(0.9423)	(0.9298)
Year	0.0881***	0.0920***	0.0907**	0.0885**
	(0.0326)	(0.0327)	(0.0377)	(0.0399)
FINCR	0.1157	0.0963	0.0886	0.1229
	(0.4991)	(0.5004)	(0.5037)	(0.5045)
INDUSTRY	-0.0037	-0.0035	-0.0037	-0.0035
	(0.0030)	(0.0030)	(0.0030)	(0.0030)
ACC	0.0114	0.0147	0.0179	0.0138
	(0.0370)	(0.0372)	(0.0365)	(0.0381)
Constant	-175.7424***	-183.4705***	-181.1762**	-176.8412**

	(65.3661)	(65.5529)	(75.6589)	(80.1206)
Observations	909	909	909	909
Year Fixed effects	Yes	Yes	Yes	Yes
Country Fixed effects	Yes	Yes	Yes	Yes
Industry Fixed effects	Yes	Yes	Yes	Yes
R-squared	0.1101	0.1081	0.1109	0.1104

Notes: Robust standard errors are shown in the parentheses, ***, ** and * represent the statistical significance at the 1%, 5% and 10% significance level, respectively.

TABLE 20: REGRESSION WITH ONLY SWEDEN AND DENMARK AS THESE COUNTRIES ARE QUITE FEMININE

Dependent variable	**CARs**			
Model	**(1)**	**(2)**	**(3)**	**(4)**
BGD	-0.3654		-0.3654	3.9921
	(5.8413)		(5.8413)	(7.5661)
BGD_dum		0.7186		
		(1.2440)		
QUOTA_BorNB			-	
			-	
BGD_QUOTA_Binding			-	
			-	
QUOTA_SorN				3.6934
				(2.9897)
BGD_QUOTA_Soft				-4.4031
				(11.4158)
CeoDuality	-7.6074**	-8.2933**	-7.6074**	-6.5812*
	(3.3608)	(3.2509)	(3.3608)	(3.6797)
BINDEP	-16.9198	-17.4376	-16.9198	-14.8588
	(10.9977)	(11.3870)	(10.9977)	(10.4281)
BSIZE	-0.1892	-0.1925	-0.1892	-0.2352
	(0.4236)	(0.4387)	(0.4236)	(0.4588)
logMCAP	0.2558	0.2861	0.2558	0.2269
	(0.8821)	(0.8854)	(0.8821)	(0.8875)
TobinsQ	-0.0366	-0.0374	-0.0366	-0.1023
	(0.3446)	(0.3372)	(0.3446)	(0.3501)
ROA	-0.1961***	-0.1972***	-0.1961***	-0.2096***
	(0.0391)	(0.0360)	(0.0391)	(0.0425)
Leverage	0.0094	0.0105	0.0094	0.0148
	(0.0402)	(0.0403)	(0.0402)	(0.0407)
CASH_Ratio	-2.9836	-2.3877	-2.9836	-2.8078
	(3.7170)	(3.6250)	(3.7170)	(3.6553)
OCF_Ratio	11.2040	10.7112	11.2040	13.3340
	(9.1532)	(8.9856)	(9.1532)	(10.1379)
FSIZE	-0.5657	-0.6249	-0.5657	-0.5058
	(0.8579)	(0.8540)	(0.8579)	(0.8601)

MOP_cash	-0.3598	-0.7801	-0.3598	0.0634
	(1.5817)	(1.6004)	(1.5817)	(1.6344)
MOP_shares	-2.8347	-3.2972*	-2.8347	-2.9663*
	(1.7849)	(1.8485)	(1.7849)	(1.7769)
MOP_liabilities	-1.4949	-1.8788	-1.4949	-1.1337
	(1.3445)	(1.3514)	(1.3445)	(1.3641)
MOP_earn_out	-1.8584	-2.2319	-1.8584	-1.4626
	(1.4097)	(1.5110)	(1.4097)	(1.3807)
MOP_other	-	-	-	-
Year	0.1188	0.0903	0.1188	0.0192
	(0.1353)	(0.1528)	(0.1353)	(0.1686)
FINCR	-1.3039	-1.4941	-1.3039	-1.5605
	(1.8083)	(1.8188)	(1.8083)	(1.8834)
INDUSTRY	-0.0094	-0.0098	-0.0094	-0.0105
	(0.0091)	(0.0091)	(0.0091)	(0.0094)
ACC	0.2106	0.1883	0.2106	0.1033
	(0.1507)	(0.1226)	(0.1507)	(0.1508)
Constant	-218.5102	-159.9474	-218.5102	-21.7502
	(279.3748)	(315.7540)	(279.3748)	(344.7255)
Observations	139	139	139	139
Year Fixed effects	Yes	Yes	Yes	Yes
Country Fixed effects	Yes	Yes	Yes	Yes
Industry Fixed effects	Yes	Yes	Yes	Yes
R-squared	0.1894	0.1914	0.1894	0.2029

Notes: Robust standard errors are shown in the parentheses, ***, ** and * represent the statistical significance at the 1%, 5% and 10% significance level, respectively. Note that in Sweden and Denmark did not have a binding quota, so model 3 is equal to model 1.

TABLE 21: REGRESSION WITH ONLY AUSTRIA, GERMANY AND ITALY AS THESE COUNTRIES ARE QUITE MASCULINE

Dependent variable		**CARs**		
Model	**(1)**	**(2)**	**(3)**	**(4)**
BGD	-1.4560		1.9968	12.5235**
	(3.3419)		(4.4440)	(6.1475)
BGD_dum		-0.5282		
		(1.1967)		
QUOTA_BorNB			1.3061	
			(1.5704)	
BGD_QUOTA_Binding			-5.4008	
			(5.7471)	
QUOTA_SorN				1.4714
				(1.7700)
BGD_QUOTA_Soft				-17.0638**

				(6.9034)
CeoDuality	3.6082**	3.6258**	3.5023**	3.6319**
	(1.6587)	(1.6556)	(1.6973)	(1.6243)
BINDEP	0.5511	0.6555	0.9160	1.5645
	(3.4898)	(3.4963)	(3.5151)	(3.5852)
BSIZE	0.0839	0.0794	0.0796	0.0737
	(0.0735)	(0.0769)	(0.0743)	(0.0728)
logMCAP	-1.4399**	-1.4257**	-1.4109**	-1.3789**
	(0.6949)	(0.7014)	(0.6941)	(0.6811)
TobinsQ	2.3514**	2.3380**	2.2875**	2.2674**
	(0.9643)	(0.9724)	(0.9634)	(0.9543)
ROA	-0.0749	-0.0742	-0.0741	-0.0703
	(0.0686)	(0.0685)	(0.0685)	(0.0674)
Leverage	-0.0161	-0.0161	-0.0165	-0.0142
	(0.0150)	(0.0150)	(0.0148)	(0.0148)
CASH_Ratio	-3.9993	-3.8311	-3.7749	-3.8437
	(3.1163)	(3.1122)	(3.1205)	(3.1530)
OCF_Ratio	-8.0296	-7.9633	-8.1189	-8.3942
	(8.0384)	(8.0715)	(7.9593)	(8.0510)
FSIZE	0.5585	0.5517	0.5390	0.4822
	(0.4724)	(0.4750)	(0.4631)	(0.4596)
MOP_cash	0.3602	0.4095	0.3231	0.6687
	(0.8413)	(0.8773)	(0.8940)	(0.9198)
MOP_shares	0.6886	0.7261	0.6210	0.8224
	(1.1129)	(1.1064)	(1.1276)	(1.1613)
MOP_liabilities	0.7667	0.7550	0.6769	0.8451
	(1.1027)	(1.1002)	(1.1933)	(1.1231)
MOP_earn_out	-2.2339	-2.2302	-2.3610	-2.2886
	(1.4747)	(1.4827)	(1.5190)	(1.4782)
MOP_other	-	-	-	-
Year	0.0909	0.0876	0.0509	0.0966
	(0.0810)	(0.0738)	(0.1047)	(0.1494)
FINCR	-0.1384	-0.0777	0.0988	0.2401
	(1.0189)	(1.0166)	(1.0396)	(1.1618)
INDUSTRY	-0.0165*	-0.0168*	-0.0172*	-0.0189**
	(0.0088)	(0.0087)	(0.0090)	(0.0090)
ACC	0.0537	0.0600	0.0659	0.1091
	(0.0911)	(0.0932)	(0.0923)	(0.0974)
Constant	-176.7820	-170.5602	-96.9928	-189.8367
	(162.7611)	(148.3511)	(210.0484)	(299.7699)
Observations	257	257	257	257
Year Fixed effects	Yes	Yes	Yes	Yes
Country Fixed effects	Yes	Yes	Yes	Yes
Industry Fixed effects	Yes	Yes	Yes	Yes
R-squared	0.1903	0.1904	0.1937	0.2030

Notes: Robust standard errors are shown in the parentheses, ***, ** and * represent the statistical significance at the 1%, 5% and 10% significance level, respectively.

TABLE 22: ALTERNATIVE REGRESSIONS WITH 5 NEW MODELS

Dependent variable			**CARs**		
Model	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
NationalityMix	0.5414				
	(0.7298)				
Time In Company		-0.0328*			
		(0.0167)			
avg Time in role			0.0194		
			(0.0620)		
logDealvaluethEUR				0.4076***	
				(0.1184)	
Number of Qualifications					-0.0269
					(0.1833)
CeoDuality	2.0943***	2.0689***	1.9429**	1.9147**	1.9517**
	(0.7904)	(0.7948)	(0.7941)	(0.7915)	(0.7984)
BINDEP	0.5196	0.7234	0.7389	0.6860	0.7355
	(1.1084)	(1.0773)	(1.0774)	(1.0728)	(1.0631)
BSIZE	-0.0308	-0.0313	-0.0321	-0.0424	-0.0332
	(0.0391)	(0.0390)	(0.0390)	(0.0393)	(0.0403)
logMCAP	-0.4842*	-0.4386*	-0.4365*	-0.5999**	-0.4351*
	(0.2481)	(0.2460)	(0.2451)	(0.2481)	(0.2472)
TobinsQ	0.6184**	0.5962**	0.6061**	0.5846**	0.6047**
	(0.2472)	(0.2493)	(0.2482)	(0.2504)	(0.2480)
ROA	-0.0834***	-0.0896***	-0.0908***	-0.0935***	-0.0906***
	(0.0295)	(0.0293)	(0.0293)	(0.0287)	(0.0292)
Leverage	-0.0091**	-0.0092**	-0.0090**	-0.0099**	-0.0090**
	(0.0043)	(0.0043)	(0.0043)	(0.0043)	(0.0043)
CASH_Ratio	-0.6860	-0.6509	-0.6565	-0.7047	-0.6440
	(1.6958)	(1.6880)	(1.6928)	(1.7138)	(1.6900)
OCF_Ratio	3.2452	3.6916	3.5851	3.5539	3.6100
	(2.4137)	(2.4234)	(2.4254)	(2.3926)	(2.4145)
FSIZE	0.1068	0.0969	0.0909	-0.0042	0.0931
	(0.2133)	(0.2135)	(0.2131)	(0.2201)	(0.2115)
MOP_cash	2.5034***	2.3574***	2.3643***	3.1703***	2.4134***
	(0.8431)	(0.8003)	(0.8265)	(0.8338)	(0.7976)
MOP_shares	1.9852**	1.8170**	1.8463**	2.2336**	1.8835**
	(0.9125)	(0.8638)	(0.8872)	(0.8682)	(0.8640)
MOP_liabilities	1.8789**	1.7581**	1.7547**	2.4585***	1.8108**
	(0.8616)	(0.8126)	(0.8581)	(0.8229)	(0.8120)
MOP_earn_out	0.5299	0.6335	0.5824	1.6571*	0.6345
	(0.9641)	(0.9321)	(0.9595)	(0.9455)	(0.9264)
MOP_other	1.2209	1.0042	1.0000	1.7909*	1.0344
	(0.9849)	(0.8989)	(0.9178)	(0.9771)	(0.9082)
Year	0.0986***	0.0912***	0.0984***	0.0853***	0.0981***
	(0.0321)	(0.0325)	(0.0320)	(0.0327)	(0.0321)
FINCR	0.0956	0.1021	0.0900	0.1327	0.0884
	(0.5187)	(0.5012)	(0.5057)	(0.4988)	(0.5073)

INDUSTRY	-0.0031	-0.0037	-0.0032	-0.0030	-0.0033
	(0.0031)	(0.0030)	(0.0030)	(0.0029)	(0.0029)
ACC	0.0179	0.0136	0.0190	0.0246	0.0181
	(0.0369)	(0.0368)	(0.0372)	(0.0371)	(0.0365)
Constant	-196.7778***	-181.6636***	-196.6037***	-173.3857***	-195.9940***
	(64.2876)	(65.0891)	(64.1169)	(65.2255)	(64.3940)
Observations	910	910	910	910	910
Year Fixed effects	Yes	Yes	Yes	Yes	Yes
Country Fixed effects	Yes	Yes	Yes	Yes	Yes
Industry Fixed effects	Yes	Yes	Yes	Yes	Yes
R-squared	0.1086	0.1073	0.1053	0.1220	0.1052

Notes: Robust standard errors are shown in the parentheses, ***, ** and * represent the statistical significance at the 1%, 5% and 10% significance level, respectively. Note that this are alternative regressions, the main variables of this paper are excluded from the regressions.

Descriptions of the independent variables:

- Nationality Mix is measured by the "Proportion of Directors from different countries at the Annual Report Date selected" (BoardEx).
- Number of Qualifications is "The average number of qualifications at undergraduate level and above for all the Directors at the Annual Report Date selected" (BoardEx).
- avg Time in role, is measured by the average time in Role for the individual at a selected Annual Report Date.
- logDealvaluethEUR, is the natural logarithm taken from the values of the deals in thousands of Euro's.
- Number of Qualifications, is "the average number of qualifications at undergraduate level and above forall the Directors at the Annual Report Date selected" (BoardEx).