Do Election Results Affect the Value of Politically Connected Firms? – The Effect of the Schröder-Merkel Change of Government on German Prime Standard Firms

Elmar A. Janssen*
University Paderborn

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Abstract: This study applies event study methodology to the outcomes of the 2005 election of the German Bundestag. Results are compared to those of Goldman, Rocholl and So (2009) who found that following the 2000 presidential election in the US, value effects were positive for firms connected to the Republicans and significantly different from the negative ones of firms connected to the Democrats. The present study shows that, contrary to expectations, political connections had little impact on the value of politically connected corporations among the companies listed at the DAX, MDAX, SDAX or TecDAX. The key results of this study are: First, there is a significantly smaller fraction of politically connected firms in Germany than in the US. Second, following the start of the exploratory talk and the inauguration of the new government, politically connected companies generate about 0.7 and 1.2 percent higher abnormal returns, respectively. Finally, while there is no significant impact of the election results on the returns of companies with political connections with respect to other different characteristics, there is slight support that connections to the federal parliament are more valuable than those to the state parliaments. The different reactions of the US and the German Stock Market are likely to occur due to the different corporate governance systems. Nearly all identified political connections in the present study are based on memberships on the supervisory board which duties are to give advice and control.

JEL-classification: J53, G14, G34, G38, L14.

Keywords: *corporate governance, two tier system, political connectedness, firm value, event study*

* Department of Management, University of Paderborn, Warburger Str. 100, D-33098 Paderborn, Germany. mail: elmar.janssen@wiwi.uni-paderborn.de, phone: +49-(0)5251-60-2091, fax: +49-(0)5251-60-3550.

1 INTRODUCTION

After sixteen years of Helmut Kohl's coalition of Christian Democrats and Free Democrats and seven years of a coalition between Social Democrats and the Greens led by Gerhard Schröder, another change of Government was in store for Germany in 2005. Months before September 18th 2005, the Election Day, the polls predicted a victory of the Christian Democrats, now led by Angela Merkel. At times they predicted a renewal of a coalition with their partner of choice, the Free Democrats, at other times even an absolute majority seemed possible. In spite of the fact that, according to the polls, 25 percent of the voters were still undecided on the eve of the election, the election results surprised because of the discrepancy to the previous weeks' poll results: In the end, the Christian Democrats won the election with an edge of only one meager percent over the Social Democrats. Since neither of the two parties could gain the necessary majority to build the government alone or with their partners of choice, in the end the coalition talks led to a grand coalition between Christian Democrats and Social Democrats with Angela Merkel as chancellor.

The aim of the present study is to analyze which effect the 2005 change in government had on politically connected firms in Germany. Because the outcome of the election was uncertain in advance, event study methodology can be used to analyze this election. In particular, an event study is conducted to determine how stock market returns of politically connected prime standard firms responded to the election results in comparison to unconnected firms. There is a wide range of possibilities how a company can be connected to politics. While there are analyses in the literature looking at different connection types ranging from government owned enterprises (Menozzi, Gutierrez Urtiaga and Vannoni (2012), Sapienza (2004), Dinç (2005)), politicians as owner or shareholders of a company (Bunkanwanicha and Wiwattanakantang (2009)) and campaign contributions (e. g. Claessens, Feijen and Laeven (2008), Stratmann (1991), Aggarwal, Meschke and Wang (2012), Cooper, Gulen and Ovtchinnikov (2010), Jayachandran (2006)) over lobbying (e. g. Blau, Brough and Thomas (2013), Richter, Samphantharak and Timmons (2009), Yu and Yu (2011), Blanes i Vidal, Draca and Fons-Rosen (2012), Hill, Kelly, Lockhart and van Ness (2013), Igan, Mishra and Tressel (2011)) to corruption (e. g. Ramalho (2003), Borisov, Goldman and Gupta (2012), Ferraz and Finan (2008)) and nepotism (Fisman

(2001), Leuz and Oberholzer-Gee (2006), Amore and Bennedsen (2013)), this study confines itself to firms connected through politicians in their boardrooms. This is essential as the market's reaction to the event is of interest and because the shareholders at the market have to depend on public available information. For politicians' board memberships, this is the case because the names of board members are published in annual reports and politicians on boards are often discussed in the press. It is rare that other forms of political connections become public, and if they do, this information is only available for some cases but not a whole set of listed firms.

Up to now, there have been some studies that analyze how valuable political connections are for companies in different parts of the world. In the first study in this area, Fisman (2001) shows that in Indonesia the value of publicly traded firms which were connected to the family of President Suharto fluctuated according to information regarding Suharto's health. With a similar approach, Fisman, Fisman, Galef, Khurana and Wang (2012) analyze whether personnel ties to Vice-president Richard Cheney in the US had an impact on the value of firms connected to him. They find that news about unexpected changes in the health of Cheney and other events related to him did not affect stock prices of the connected companies. These differences to the case of Suharto in Indonesia are interpreted as evidence for the working controlling institutions in the US and the influence of media scrutiny.

The fact that political connections can be valuable to companies has also been shown by Faccio, Masulis and McConnell (2006). By analyzing data from 35 countries, they come to the conclusion that the probability of a company being bailed out by the respective state government is significantly higher when the company is politically connected. Even a weak connection like a geographic tie can affect firm value as shown by Faccio and Parsley (2009), who state that after an unexpected death of a politician, the stock price of companies that headquartered in the deceased politician's hometown decreased by 1.7 percent. Faccio (2010) analyzes firms with political connections in 47 countries to determine which characteristics are shared by countries with widespread political connections. In countries with higher levels of corruption, higher restrictions on foreign investment and more transparent systems, Faccio observes political connections more often. In countries with high corruption levels she also finds increasing firm values if large

shareholders or officers enter politics. But also in countries with low corruption levels, political connections can be of value. This is shown by Amore and Bennedsen (2013) who use the restructuring of responsibilities for local municipality in Denmark, one of the least corrupt countries according to the Corruption Perception Index (CPI) of Transparency International. They show that companies connected by family to politicians significantly improve their performance as about the same degree as the connected local politician gains power.

For the US, Goldman, Rocholl and So (2009) analyze the presidential election in 2000. As the polls suggested a very close race until the election, this provided an opportunity to analyze stock market responses to the victory of one or the other party within an event study. They find positive, postelection abnormal stock returns for firms whose boards were connected to the winning party, the Republicans. The significant results show that firms with connections to the Republicans increased about 3 percent in value while those connected to the Democrats dropped nearly 3 percent in value in the days following the announcement of the election results. Additionally, their study shows that there is a positive announcement effect of nominations of politically connected individuals to boards. Goldmann, Rocholl and So (2013) also show that companies profit from being connected to the winning party of an election: they look at the 1994 midterm election and at the 2000 presidential election in the US and point out that such companies are significantly more likely to be awarded more procurement contracts than unconnected firms or firms connected to the losing party.

For Germany, there is only scarce empirical evidence on how the value of German companies is affected by political connections. Bohl and Gottschalk (2005) analyze whether there are systematic higher returns in the German stock market under a left wing opposed to under a right wing government. They find no influence of one or the other political orientation on stock market returns, yet they show that returns are significantly higher in the second half of the German election cycle. This finding is consistent with the results of Booth and Booth (2003) for the US who call this the “Presidential Cycle Effect”. Niessen-Ruenzi and Ruenzi (2010) use the implementation of a new transparency law in 2007 to test whether firms which are connected to a member of the German Federal Parliament outperform unconnected firms. Due to this law, all members of the German

Federal Parliament are obliged to disclose sources and amounts of additional incomes. For 2006, before this law was introduced, Niessen-Ruenzi and Ruenzi show that politically connected firms outperform unconnected ones significantly, but this effect vanishes in 2007, when information regarding these connections had to be made publicly available. That it is not a new phenomenon that political connections can be valuable to firms is shown by Braggion and Moore (2013) as well as Ferguson and Voth (2008). In late Victorian Britain, share prices of new tech companies[1] directed by a member of parliament exceeded those of other firms by up to 2.5 % (Braggion and Moore (2013)). The results of Ferguson and Voth (2008) indicate that firms which were connected to the Nazi movement outperformed unconnected firms by 5 to 8 percent in early 1933.

Following Goldman, Rocholl and So (2009), data on the political background of each board member is used to determine whether a company is politically connected and, if so, to which party. This study adds to the growing body of literature on the impact of political connections of firms in several ways. First, in contrast to previous studies with German data, the present study also takes into account connections of firms to members of the State Parliaments and does not confine itself to connections with members of the Federal Parliament. Second, this study analyzes the effect of a governmental change on stock market returns of politically connected firms in a country with a *two-tier corporate governance system*. Because of the division of management functions and control functions into two organs in such systems, the market reactions for firms in a two-tier system could generate new insights on the value of political connections. Therefore, the findings of this study are compared to those of the event study analyzing the 2000 Presidential Election in the US by Goldman, Rocholl and So (2009) – as well as to other related literature concerning one-tier systems – and the discrepancies between the findings are discussed.

The remainder of the paper is organized as follows. After a brief summary of the past elections to the German Bundestag before the event of interest and a description of the events surrounding the 2005 election, hypotheses are derived in section 2. Section 3 describes the data used and the selected sample in greater detail and explains the methodology of an event study. In section 4, descriptive statistics and the results of the

[1] These were firms of the second industrial revolution.

event study are presented. Section 5 discusses the results and compares them to the findings for the US of Goldman, Rocholl and So (2009). Section 6 concludes.

2 POLITICAL LANDSCAPE

In 1998 the Social Democrats, led by Gerhard Schröder, together with the Greens won the elections to the Bundestag against Helmut Kohl's coalition of Christian Democrats and Free Democrats who had governed the country for sixteen years. The Red-Green coalition of Gerhard Schröder won the following elections in 2002 again, this time by a close vote. As can be seen in Figure 1, the outcome of the elections to the Bundestag in September 2005 had been uncertain in advance. A few months before the elections, the poll numbers of opinion research centers such as Forschungsgruppe Wahlen (2005) predicted a victory of the Christian Democrats led by Angela Merkel. Together with their partner of choice, the Free Democrats, they would have achieved the necessary majority to form the government.

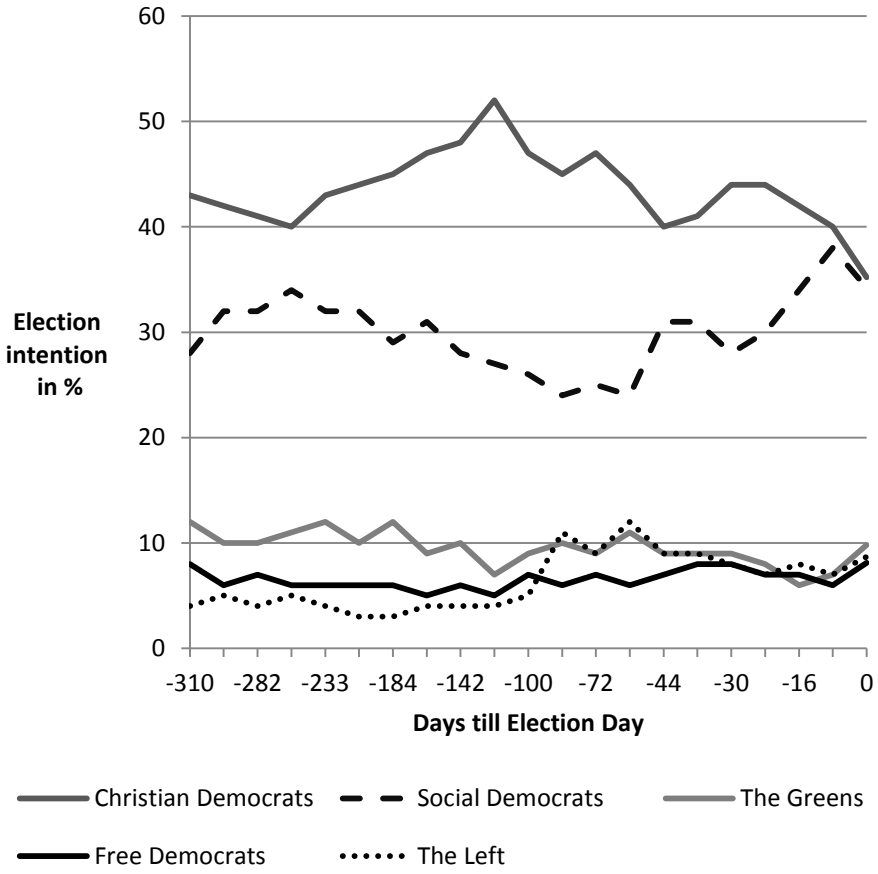
This changed shortly before September 18th 2005, the Election Day, when the Christian Democrats began to lose ground and the Social Democrats began to gain on them. The election results were surprising because of the huge discrepancy to the poll results of the previous weeks: Neither did the Social Democrats together with the Greens reach the necessary majority of the votes to continue their Red-Green coalition, with 34.2 % and 8.1 % respectively, nor did the Christian Democrats together with the Free Democrats, with 35.2 % and 9.8 % of the votes respectively[2]. In the weeks following the Election Day, exploratory talks took place between the different parties. They ended on October 10th 2005 when Christian Democrats and Social Democrats announced they would enter the coalition talks. The grand coalition between the Christian Democrats and the Social Democrats signed the coalition agreement on November 11th and on November 22nd 2005, Angela Merkel was elected chancellor and her ministry was inaugurated.

As this situation is somewhat similar to the circumstances of the presidential election 2000 in the US described by Goldman, Rocholl and So (2009), the event of the 2005 elections to the Bundestag is used to test whether election results affect the value of con-

[2] Additionally to those four political forces, the Left Party entered the Bundestag with 8.7 % of votes.

nected firms in Germany. Furthermore, the circumstances are similar, yet the political and electoral systems as well as the corporate government systems differ considerably between the US and Germany. This has to be taken into account when comparing the results to the effects found for the US later on.

Figure 1: Election Intention in % until the Election Day



Data for the pre-election period originates from "Forschungsgruppe Wahlen: Politbarometer" and data of the election results (day 0) from the Federal State Parliament.

First, while the Federal Republic of Germany is a federal parliamentary republic, which is based on representative democracy, the United States is a federal constitutional republic. Second, for elections in the US the method of voting is first-past-the-post, whereas the German Federal Parliament and some of the State Parliaments are elected through a personalized proportional representation and the other State Parliaments are elected through proportional representation with cumulative voting and cross voting. However,

for these two differences, there seems to be no argument, on how they could moderate the influence politicians in the board room have on the company's value. Third, with the board of directors in US companies being responsible for leadership and control, there is a one-tier system on the firm level, whereas in Germany under a two-tier system, functions are divided between the management board (leading function) and the supervisory board (control function). The management board consists of managers who are hired to run the company. The supervisory board is built by representatives of the shareholders, who are elected at the shareholders' meeting. Additionally, German law regulates that up to 50 percent of the members of the supervisory board have to be employee representatives, for big publicly traded companies, which is the case in the current sample. These representatives are in general blue-collar and white-collar workers, elected by the employees, but in some cases it is also possible that labor union representatives occupy seats of the employee representatives. However, these differences in corporate governance systems could have a moderating effect. One can argue that political connections to the management board should have a stronger effect – because here, the politician takes part in the decision-making process – than a connection to the supervisory board where he can control and give advice.

Hypotheses

Because influential connections of politically connected companies were found by many studies for different kinds of political connections and in different countries around the world the first hypothesis is:

Hypothesis 1: The abnormal returns generated by politically connected firms after the elections are higher than those generated by unconnected firms.

Based on the results of Goldman, Rocholl and So (2009) one would expect that the Christian Democrats, as strongest party and thus as the party wich has been given the task of forming a government, generates returns different from those of the Social Democrats, which only came in second and from those generated by the Free Democrats, which had to realize that there was no majority for them to form a coalition with the Christian

Democrats. Likewise, a difference between companies connected to the Social Democrats and the Free Democrats can be expected.[3] Therefore the second hypotheses are:

Hypothesis 2a: Companies connected to the Christian Democrats generate different abnormal returns than companies connected to the Social Democrats.

Hypothesis 2b: Companies connected to the Christian Democrats generate different abnormal returns than companies connected to the Free Democrats.

Hypothesis 2c: Companies connected to the Social Democrats generate different abnormal returns than companies connected to the Free Democrats.

As the considered political connections are defined as connections to a person who was member of a parliament since the founding of the federal republic up to the federal election of 2005, one could suspect that such a connection has a greater value for a company if the politician is officiating at the time of the election. Hypothesis 3 therefore is:

Hypothesis 3: The abnormal returns generated by companies connected to an officiating politician are higher than those generated by all other companies.

Finally, because this study also takes politicians in the State Parliaments into account, it is interesting to examine whether these connections differ from those to the Federal Parliament. In general, both types of politicians should be equipped with similar characteristics, like an understanding of political processes or their political network. However, when looking at elections of the German Bundestag one can argue that connections to one of its members generate a more direct link (for example regarding information flow) which would be more beneficial for the connected company. Therefore, hypothesis 4 states:

[3] For The Greens and The Left no hypotheses are formulated, because in the sample there are no companies which are only connected to one of these two parties. The hypotheses for companies connected to the other parties are formulated non-directionally, because no explicit ranking of the election results is possible and because no party reached the necessary majority alone or together with their partners of choice. Also, there are no hypotheses regarding whether connections are formed through the management board or the supervisory board, because in none of the connected companies is there a most recent connection to the management board.

Hypothesis 4: The abnormal returns generated by companies connected through members of the Federal Parliament are higher than those generated by companies connected through members of the State Parliaments.

Before these hypotheses are tested, the next section introduces the empirical approach.

3 EMPIRICAL APPROACH

Performance Data

On the firm level, every firm which was listed at the Frankfurt Stock Exchange on the Election Day in one of the mayor German stock indices DAX, M-DAX, S-DAX or Tec-DAX was included in the sample, which amounts to a total of 160 firms. To identify which companies were listed in these indices at the time of the election, information on historical index composition of the Detusche Börse (2010) was used. The 30 biggest companies in terms of market capitalization and order book volume are listed in the DAX and the 30 firms following this ranking in the technology sector are listed in the TecDAX. The 50 companies ranking below the DAX in non-technology sectors are listed in the MDAX. The SDAX contains the 50 companies ranking below the MDAX.[4] To estimate abnormal returns for each company, daily stock returns from the Frankfurt Stock Exchange are collected. The abnormal returns are adjusted by the corresponding returns of the C-DAX. The C-DAX is a value weighted index which contains all German companies listed in the Prime Standard or in the General Standard of the Frankfurt Stock Exchange which amounts to nearly 700 companies.

The chronology of the event study is displayed in Figure 2. The estimation window covers a whole year and runs from August 19th 2004 to August 18th 2005 which equals the time span from 279 trading days to 22 trading days before the Election Day[5]. Besides providing a solid foundation for the estimation, a further advantage of using a complete year as estimation window is that seasonal effects are canceled out. For the event win-

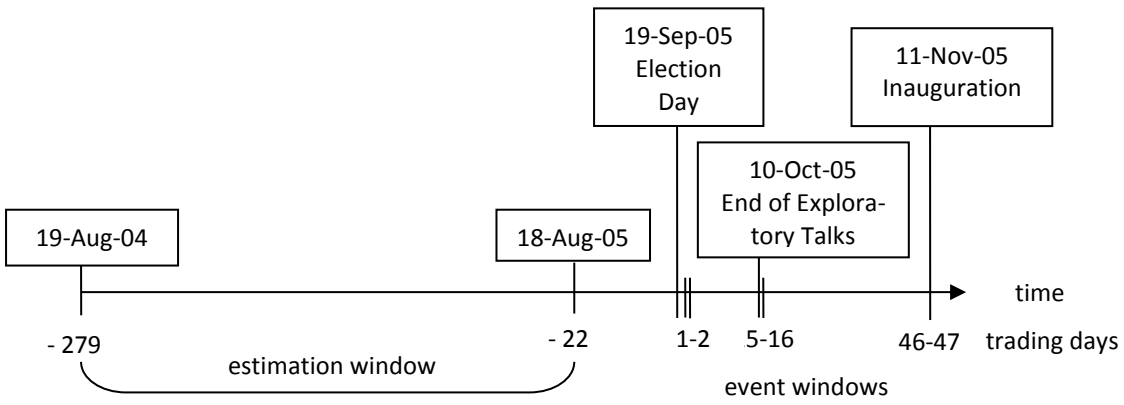
[4] The complete list of all companies included in this study can be found in Table A1 in the appendix.

[5] As usual in event studies, the estimation window does not incorporate a certain timespan before the event to rule out the possibility of information leakage. Even though leaked information is not possible in the case of a proper democratic election, this approach makes sense. In this case for example, the results of the last polls, which are naturally close to the outcome of the election is not priced into the stock data used to estimate the normal performance.

dow, returns are collected for the two trading days[6] following the Election Day. Because the election results do not definitely determine the political future, two additional events are taken into account. As a second event window, the end of the exploratory talks and the day following are examined – trading day 15 and 16 after the Election Day – because the grand coalition under the leadership of Angela Merkel was highly likely after these days. Finally, the day of and the day following the inauguration of Mrs. Merkel and her ministry – trading day 46 and 47 after the Election Day – are examined, because this event marks the end of the entire election procedure. To rule out effects of the previous event windows on the later ones, the same estimation window is used for all three events.

Four of the 160 companies had to be deleted since they had missing data in the estimation window. In detail, *T-Online International* was excluded because a gap in stock price information of 19 trading days and *Conergy*, *Lanxess* and *Premiere* were excluded due to the fact that they went public during the estimation window which led to an inadequate length of the estimation window. This procedure led to a total of 156 companies in the sample.

Figure 2: Chronology of the Event Study



[6] The event window only contains two trading days to minimize the chance that the results become biased by confounding events.

Connection Data

To determine whether or not a firm is politically connected, it is examined whether at least one member of either the management board or the supervisory board is or was a delegate of the Federal Parliament or of one of the State Parliaments. To do so, two data sets are generated and compared. For the first set, the name of every member of the management board and the supervisory board was collected from the 2005 annual reports for each of the 156 companies in the sample. The second set consists of the names of all current and former delegates of the Federal Parliament and the 16 State Parliaments. This set accounts for every election period after the foundation of the Federal Republic of Germany respectively, and for every election period after the German reunification in the case of the five new federal states.[7]

Comparing first and second names of the individuals of both data sets leads to 59 matches. To confirm these matches, further information such as day of birth, former occupation and town of residence are used in a first step. In a second step, a search of company and party websites, personnel homepages and newspaper archives was conducted for the remaining unconfirmed matches. Altogether, this procedure confirmed that 25 current or former delegates were serving as board members in 19 of the examined companies at the election date. These 19 companies are classified as politically connected. If there is only one connection in a firm or if all delegates on the companies' boards are members of the same political party, the firm shall be deemed to be connected to this party in particular. If there are delegates in the firms' boards that are members of different parties, the firm is only counted as politically connected, but not classified as connected to a particular party.[8]

[7] A summary of the included legislation periods can be found in Table A2 in the appendix.

[8] A simple example is given to illustrate this: three members of the 2005 supervisory board of *Aareal Bank* were former delegates of the Federal Parliament or of one of the State Parliaments. So the *Aareal Bank* is counted as a politically connected firm. But because two of these three board members are affiliated with the Christian Democrats and one is affiliated with the Social Democratic Party the *Aareal Bank* is neither counted as solely connected to the Christian Democrats nor as solely connected to the Social Democrats.

For eight of the 156 companies[9] the 2005 annual reports were not available, mostly because of insolvencies or company mergers in the following years. Therefore, the conservative assumption for those companies is that they were not politically connected.

Event Study

It is the aim of an event study to separate the effect of an unanticipated event or the unforeseen outcome of an event on companies' stock returns from the normal development of the market. To do so, stock returns are estimated for each company for the case that the event would not have taken place. These normal returns are then compared to the actual returns. The differences between both are the abnormal returns, which are cumulated over the days of the event window. The following steps are taken to calculate these cumulated abnormal returns (CARs).[10] First, a simple market model

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it}, \tag{1}$$

is estimated for the data in the estimation window where R_{it} is the daily stock return of company i on day t, R_{mt} is the daily return of the market on day t (here the return of the CDAX) and ε_{it} is an error term. In a second step, the normal performance for each company in the event window was estimated with

$$E[R_{it}] = \alpha_i + \beta_i R_{mt}, \tag{2}$$

where $E[R_{it}]$ is the expected value of the daily return of company i on day t and α_i and β_i are the estimated parameters from equation (1), so that AR_{it}, the abnormal returns for company i on day t in the event window can be calculated by

$$AR_{it} = R_{it} - E[R_{it}]. \tag{3}$$

Finally these abnormal returns are cumulated for each firm over the time of the event window by

$$CAR_i(t_1, t_2) = \sum_{t=t_1}^{t_2} AR_{it}, \tag{4}$$

[9] These are *Schering* from the DAX, *AWD Holding* from the MDAX, *BHW Holding*, *Concord Effekten* and *DIS Deutscher Industrie Service* from the SDAX and finally, *BB Biotech*, *GPC Biotech* and *WEB.DE* form the TecDAX.

[10] More general information on event study methodology can be found for example in MacKinlay, 1997, Brown and Warner, 1985, McWilliams and Siegel, 1997 or Kothari and Warner, 2007.

where $CAR_i(t_1, t_2)$ is the cumulated abnormal return of company i from days t_1 to t_2. CARs are calculated for three different event windows to capture the different stages of forming the government after the Election Day. Each event window consists of two trading days, hence t_1 equals day 1 after the election and t_2 day 2, respectively days 15 and 16 or days 46 and 47.

When using the event study method, one has to consider its underlying assumptions. According to McWilliams and Siegel (1997) these assumptions are: efficient markets, the absence of confounding events during the event window and the unpredictability of the event of interest. The key assumption of the method is that markets are efficient, which means that all accessible information that is financially relevant for a company is quickly reflected in its stock prices (Bromiley, Govekar and Marcus (1988)). The absence of confounding events during the event window is important, because the effect of the event of interest cannot be separated from the effect of the confounding event. Contrary to Goldman, Rocholl and So (2009) the length of the event windows is confined to two trading days in the present study, because long event windows are not consistent with the assumption of efficient markets and they also raise the probability that confounding events take place.[11] The unpredictability of the event is needed, because if the event could be anticipated in advance this would also be incorporated by the efficient market even before the event itself has taken place. Hence, no abnormal returns could be observed at or following the day of the event. As already argued above, this is not a problem for the 2005 election of the German Bundestag, because the outcome of the election was quiet unclear in the previous weeks: While in the months before the election the Christian Democrats had an edge over the Social Democrats of up to 25 percent, they won the elections by one meager percent.

[11] The second and third event-windows are in so far uncritical as the estimation window stays the same and the events themselves were not predictable beforehand. Therefore, estimates for these windows are a kind of lower bound, because effects of previous events had enough time to be priced by the market. However, one has to be cautious when interpreting those estimations, because the estimated normal performance becomes more inaccurate the more time passes between the estimation window and the event window.

4 EMPIRICAL RESULTS

Descriptive Statistics

Some descriptive information about the companies in the sample is given in Table 1. Overall, politically connected companies tend to be larger in terms of market capitalization, sales, assets and employees than their unconnected counterparts. Among the connected companies, those connected exclusively to the Christian Democrats are larger, than those connected to the Social Democrats.

Table 1: Descriptive Company Statistics

	Unconnected companies		**Connected companies**		**Pure connection to Christ. Democrats**		**Pure connection to Social Democrats**	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median
Market cap.	5320.47	777.71	6981.08	1676.5	8949.17	4085.41	6226.49	708.61
Sales	8057.21	944.00	12385.72	2523.00	10317.34	2743.00	6456.17	2028.50
Assets	294.41	43.60	567.48	136.40	854.29	232.25	434.98	42.50
P/E ratio	36.59	16.85	16.14	16.10	15.80	15.45	18.50	16.30
Employees	29955	4159	40085	10783	21235	10025	19458	5327
Obs.	135		19		8		6	

Note: Reported values are measured as of the end of 2004. Market capitalization, sales and assets are reported in € million. The used data stems from the companies' annual reports and www.ariva.de.

Table 2 documents the connections between politicians and the companies in which they serve as board members. Due to the fact that one of the 24 politicians who were identified as board members was serving on the supervisory boards of three different companies at the time of the election, there are a total of 26 connections. Because some companies have more than one politician on their boards, the number of connected firms amounts to 19. Out of these, *Aareal Bank* and *Fraport* are connected through three board members each and *Jenoptik*, *Salzgitter* and *Volkswagen* are connected through two board members each. The fact that only 12.2 percent of the sample companies are politically connected could be a first indicator of differences between the situation in Germany and the results found by Goldman, Rocholl and So (2009) for the US. In their sample 30.6 percent (153 of the Standard & Poor's 500) of the companies were politically connected. A two-sided chi-square test shows that with χ^2 = 20.86 this difference is highly significant at the 0.1 percent level. However, one has to bear in mind that this discrepancy in numbers is probably at least partial due to the fact that Goldman, Rocholl

and So (2009) were not confined to information about delegates to determine whether a company is connected or not, but could use a broader range of political positions.[12]

Table 2: Summary of Politically Connected Companies

Company	Index	Connecting board member	Board type	Party	Parliament	Term
Aareal Bank	MDAX	Dr. Jahn	SB	CDU	FP	1972 - 1994
		Mr. Freitag	SB	SPD	SP	1982 - 1993
		Dr. Westphal	SB	CDU	SP	1975 - 1987
Altana	DAX	Prof. Dr. Riesenhuber	SB	CDU	FP	1976 - 2005
AMB Generali	MDAX	Dr. Kohl	SB	CDU	SP FP	1959 - 1976 1976 – 2002
Deutsche Bank	DAX	Mrs. Förster	SB	SPD	SP	1990 - 2004
Deutsche Börse	DAX	Mr. Merz	SB	CDU	FP	1994 - 2005
Deutsche Lufthansa	DAX	Dr. Graf Lambsdorff	SB	FDP	FP	1972 - 1998
EON	DAX	Dr. Freiherr von Waldenfels	SB	CSU	SP	1974 - 1998
Evotec OAI	TecDAX	Prof. Dr. Riesenhuber	SB	CDU	FP	1976 - 2005
Fraport	MDAX	Mrs. Roth	SB	Greens	SP	1987 - 1999
		Mr. Hahn	SB	FDP	SP	1987 - 2008
		Mr. Klemm	SB	SPD	SP	1982 - 2008
Henkel	DAX	Prof. Dr. Riesenhuber	SB	CDU	FP	1976 - 2005
HOCHTIEF	MDAX	Mr. Wiesehügel	SB	SPD	FP	1998 - 2002
Jenoptik	TecDAX	Prof. Dr. Späth	SB	CDU	SP	1968 - 1992
		Mrs. Diezel	SB	CDU	SP SP	1994 - 1999 2004 - 2009
Loewe	SDAX	Mr. Heinrich	SB	SPD	SP	1993 - 1997
MVV Energie	SDAX	Dr. Jüttner	SB	CDU	FP	1990 - 2005
Norddeutsche Affinerie	MDAX	Prof. Dr. Vahrenholt	SB	SPD	SP	2001 - 2004
Salzgitter	MDAX	Mr. Eppers	SB	CDU	SP	1994 - 2008
		Mr. Schneider	MB	SPD	SP	1986 - 1998
Volkswagen	DAX	Mr. Wulff	SB	CDU	SP	1998 - 2008
		Mr. Hirche	SB	FDP	SP SP FP SP	1974 - 1978 1982 - 1994 1994 - 2002 2003 - 2008
Vossloh	MDAX	Mr. Klein	SB	SPD	SP	1990 - 2009
Wincor Nixdorf	MDAX	Mrs. Schwarz-Schumann	SB	SPD	SP	2000 - 2010

Company gives the name of the connected company, while **Index** states the stock index the company is listed on. **Connecting board member** lists the last names of the board member/politician and **Board type** indicates if they held a seat at the management board (MB) or the supervisory board (SB) of the company. The **Party** column states whether the politician was member of the Christian Democrats (CDU or CSU), the Social Democrats (SPD), the Free Democrats (FDP) or The Greens (Greens). **Parliament** indicates whether the political mandate was either held at the Federal Parliament (FP) or at one of the sixteen State Parliaments (SP) and **Term** gives the time span of the corresponding mandate.

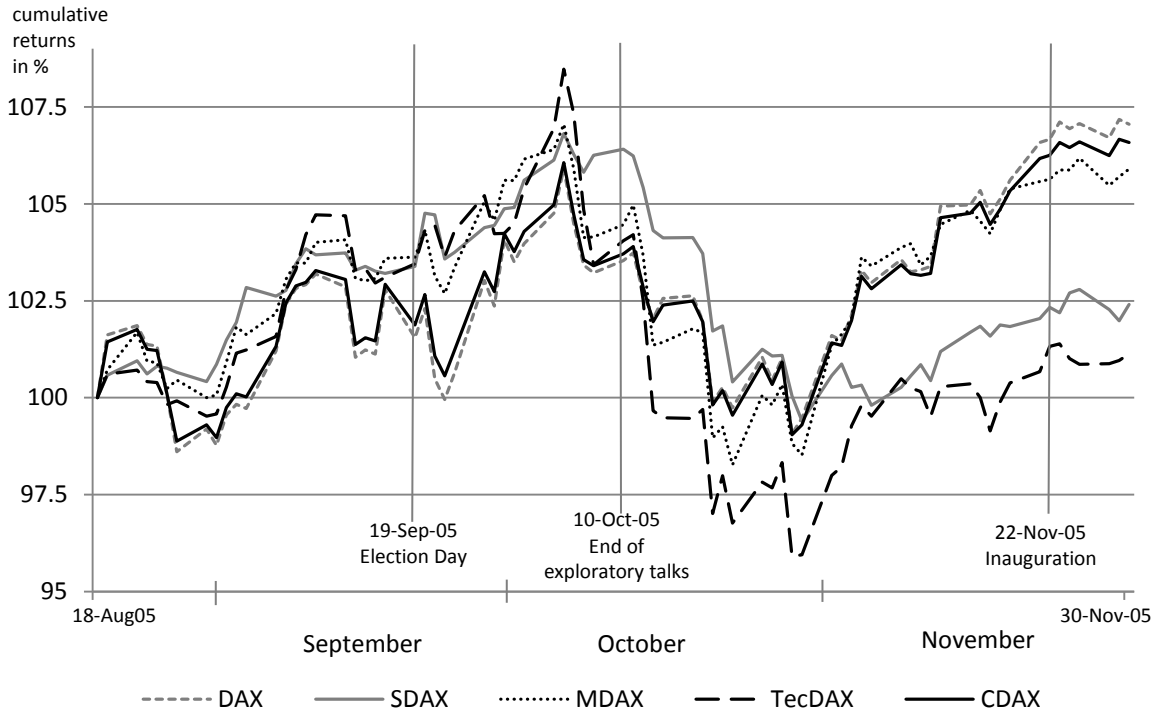
[12] For a full list of positions accounted for in the US study, see Goldman, Rocholl and So, 2009, p. 2339.

Looking at the 19 connected firms in the current study, the index column shows that seven out of the 19 connected firms (37 %) are listed in the DAX, eight (42 %) in the MDAX and only two (11 %) are listed in the TecDAX and the SDAX, respectively.

Out of the 24 politicians, only four are female and 20 are male. As can be seen in the party column, eleven people are affiliated with the Christian Democrats (46 %), nine with the Social Democratic Party (38 %), three with the Free Democrats (13 %) and one with The Greens (4 %). Regarding the 26 connections, there are three interesting points. First, it becomes evident why it is so important to take the delegates of the State parliaments into account, too. Only eight out of the 26 connections, or 31 %, are connections through a Member of the Federal Parliament whereas 16 connections, or 62 %, are via members of the State Parliaments. The two remaining connections are formed through board members who served on both kinds of parliaments during their political career. Second, the column reporting the mandates shows that 13 connections (50 %) are formed through officiating politicians whereas the rest is formed through former delegates. Because of the multiple board memberships, regarding the companies this means that eleven out of the 19 connected firms are connected to a politician who was officiating at the time of the election. The third and maybe most interesting fact is that only one of the 26 connections concerns a member of a management board, while all other connections (96 %) are formed via members of the supervisory boards.

Before the results of the event study are examined, an idea of how the market developed around the time of the events could be interesting. Therefore, Figure 3 shows the cumulative returns of the four indices (DAX, MDAX, SDAX and Tec-DAX) as well as the CDAX, which represents the market portfolio in the estimations for the time span surrounding the events. Each event is indicated by a vertical line and as can be seen, there seems to be no reaction of either one of the indices to any of the three events (Election Day, end of exploratory talks and inauguration). The next section will show whether this first impression can be confirmed when differences between politically connected and unconnected companies are analyzed.

Figure 3: Cumulative Returns of Stock Indices Over the Period of Events



Event Study Results

Tables 3 and 4 report the comparisons of the CARs of different subsamples and their tests of significance. While in Table 3 the CARs are equally weighted over companies, in Table 4 they are weighted by firm value, measured as market capitalization as of December 30, 2004. The structure of Tables 3 and 4 is identical. Panel A compares the CARs of politically connected to politically unconnected companies, while Panels B compares the CARs of the companies who are exclusively connected to one party among one another. Additionally, Panels C and D compare companies with officiating politicians on their boards to all other companies, and companies that are connected to politicians in the Federal Parliament to those connected to politicians in one of the State Parliaments. An additional comparison between companies connected to the new government and companies connected to the new opposition could be interesting. However, this would not lead to any meaningful results, because in practice this would mean to compare the 16 companies connected to Christian Democrats and/or Social Democrats to just one company connected to the Free Democrats.

Table 3: Postelection CARs of DAX, SDAX, MDAX and TecDAX Companies

Connection type	Number of companies	Equally weighted CAR		
		Election Day (+1, +2)	Exploratory talk (+15, +16)	Inauguration (+46, +47)
		Panel A: Political connected		
Political connected (A)	19	0.30	0.53	0.90
Unconnected (B)	137	0.59	-0.17	-0.28
Difference (A>B)		(0.662)	(0.095)*	(0.029)**
		Panel B: Exclusivity of connection		
Pure Christian Democrats (C)	8	-0.96	0.73	0.61
Pure Social Democrats (D)	6	-0.03	0.65	1.56
Pure Free Democrats (E)	1	-0.08	3.24	1.50
Difference (C≠D)		(0.241)	(0.942)	(0.263)
Difference (C≠E)		(0.889)	(0.222)	(0.667)
Difference (D≠E)		(0.571)	(0.571)	(0.857)
		Panel C: Connections with officiating politicians		
Officiating politicians (F)	11	0.79	0.13	0.55
All others (G)	145	0.54	-0.17	-0.28
Difference (F>G)		(0.342)	(0.395)	(0.188)
		Panel D: Type of parliament		
Federal Parliament (H)	9	-0.24	1.22	0.62
State Parliaments (I)	10	0.79	-0.10	1.14
Difference (H>I)		(0.831)	(0.589)*	(0.762)

Abnormal returns are adjusted by the CDAX. The cumulative abnormal returns are equally weighted across companies. The estimation window covers a whole year and runs from 279 trading days to 22 trading days before the Election Day. The event windows run from day 1 to day 2 after the Election Day, respectively the day of and after the end of the exploratory talks, respectively the day of and after the inauguration of Mrs. Merkel and her ministry. All stock returns and index returns are calculated with data from the Frankfurt Stock Exchange. Significance between groups is tested with Fisher-Pitman permutation test; exact p-values are given in parentheses in panel B; p-values in panel A, C and D are calculated using Monte Carlo simulations with 10 million runs. * and ** indicates significance at the 10 % and 5 % level, respectively.

Since the number of observations in most subsamples is quite small, Shapiro-Wilk tests are conducted to test for normal distribution. For none of the subsamples the critical value of the test statistic $W_{crit.}$ is reached. Hence, the subsamples are not normally distributed and the Fisher-Pitman permutation test is used to determine whether the differences between CARs are significant.

Table 4: Postelection CARs of DAX, SDAX, MDAX and TecDAX Companies

Connection type	Number of companies	Value weighted CAR		
		Election Day (+1, +2)	Exploratory talk (+15, +16)	Inauguration (+46, +47)
		Panel A: Political connected		
Political connected (A)	19	-0.68	-0.39	1.44
Unconnected (B)	135	-0.03	0.12	0.39
Difference (A>B)		(0.820)	(0.811)	(0.149)
		Panel B: Exclusivity of connection		
Pure Christian Democrats (C)	8	-2.56	-0.70	2.01
Pure Social Democrats (D)	6	1.01	0.49	1.56
Pure Free Democrats (E)	1	-0.08	3.24	1.50
Difference (C≠D)		(0.015)**	(0.489)	(0.997)
Difference (C≠E)		(1.000)	(0.222)	(0.444)
Difference (D≠E)		(0.286)	(0.286)	(0.571)
		Panel C: Connections with officiating politicians		
Officiating politicians (F)	11	0.53	-0.53	-0.43
All others (G)	143	-0.16	0.07	0.60
Difference (F>G)		(0.185)	(0.796)	(0.855)
		Panel D: Type of parliament		
Federal Parliament (H)	9	-0.97	1.19	0.22
State Parliaments (I)	10	-0.58	-0.90	1.83
Difference (H>I)		(0.554)	(0.026)**	(0.786)

Abnormal returns are adjusted by the CDAX. The cumulative abnormal returns are equally weighted across companies. The estimation window covers a whole year and runs from 279 trading days to 22 trading days before the Election Day. The event windows run from day 1 to day 2 after the Election Day, respectively the day of and after the end of the exploratory talks, respectively the day of and after the inauguration of Mrs. Merkel and her ministry. All stock returns and index returns are calculated with data from the Frankfurt Stock Exchange. Significance between groups is tested with Fisher-Pitman permutation test; exact p-values are given in parentheses in panel B; p-values in panel A, C and D are calculated using Monte Carlo simulations with 10 million runs. * and ** indicates significance at the 10 % and 5 % level, respectively.

To answer the question whether politically connected companies differ at all from unconnected ones, Panel A of Table 3 displays the CARs of these two subsamples. As can be seen the CARs of the 19 connected firms as well as the CARs of the 137 unconnected firms[13] are positive for the days after the election but the CARs of the unconnected firms are slightly higher in the equally weighted case. Even both company types generate negative CARs in the value weighted case, the proportion stays the same. An explanation for the lower CARs of these connected companies could be that all three parties they are

[13] Two observations are lost in the value weighted case due to mission data; therefore in Table 4 there are only 135 unconnected firms.

connected to, did not reach the necessary majority together with their partners of choice. That these parties did not reach their goal could be reflected in these lower CARs. But these differences turn out to be not significant.

When turning to the remaining two event windows, three things are remarkable. First, politically connected companies continue to generate positive CARs, while unconnected ones generate negative CARs. Second, the difference between connected and unconnected firms increases over time and third, this difference turns out to be significant at the 5 percent level in the case of the exploratory talk window, where politically connected companies generate 0.70 percent higher abnormal returns than unconnected ones and it becomes even significant at the 5 percent level at the inauguration, where connected companies generate 1.18 percent higher CARs. The development of CARs over the event windows could be reflecting the process of the forming of the government. This could be the case because all but one of the connected companies are connected to the Christian Democrats, the Social Democrats or both. As already stated, at first there is disappointment about the failed election goal right after the Election Day. Then, towards the end of the exploratory talks it becomes clearer that a grand coalition will be formed but it is not all certain yet. Finally, certainty is established with the election of Angela Merkel as chancellor and the inauguration of her ministry. Altogether, hypothesis 2 has to be rejected despite this one significant effect. The differences are only significant in the equally weighted case. While in the value weighted case in Table 4 a similar but slower development can be observed – here the CARs of connected companies exceed the CARs of unconnected companies not until the time of the inauguration – the differences are insignificant. Hence, there is only little support in favor of hypotheses 1.

Panel B shows that only 8 companies are exclusively connected to Christian Democrats, 6 to the Social Democrats and only one is solely connected to the Free Democrats. There are no companies connected exclusively to The Greens. When looking at the CARs of these three company types in Panel B of Table 3, one can see that companies connected to the Christian Democrats generate negative CARs following the days after the election, but so do companies connected to the Social Democrats or the Free Democrats. This lower performance of connected companies could be due to the failed majorities as discussed above. However, the Fisher-Pittman permutation tests show that differences

between companies connected to the Christian Democrats, the Social Democrats and the Free Democrats are not statistically significant. When turning to the remaining two event windows, the end of the exploratory talks and the inauguration of the new government, only positive CARs for all three types of companies are observed. The cumulative abnormal return of the company connected to the Free Democrats is with 3.24 percent quite large after the exploratory talks, but one has to bear in mind that they originate from only one observation and therefore, this result cannot be generalized. Furthermore, KS tests again show that none of the differences in the second or third event window are significant. Altogether, there is no sign that CARs of companies connected to a specific political party differ from those connected to another. This general picture changes only slightly when looking at the value weighted CARs in Table 4. Here, companies connected to the Social Democrats generated positive CARs in the two days following the election, which are 3.57 percent larger (significant at the 5 percent level) than the CARs of companies connected to the Christian Democrats. All other differences in Panel B of Table 4 are again insignificant. Altogether, there is only little support for hypotheses 2b and no support in favor of hypotheses 2a and 2c.

Another aspect could be that company returns are only influenced by connections to officiating politicians. To analyze this possibility Panel C looks at companies with board members who were holding a seat on the Federal Parliament or on one of the State Parliaments at the time of the election. As shown in the tables this is only the case for 11 companies which are compared to all other 145 companies (143 for the value weighted CARs) in the sample. In this case the CARs of these 11 companies are larger than the CARs of all other companies in all three event windows in Table 3, as well as in the first event window in Table 4. However, the Fisher-Pitman permutation test again shows that these differences are not significant, which contradicts hypothesis 3.

Finally, Panel D tests whether it makes a difference if the political connections are formed through a member of the Federal Parliament or through one of the State Parliaments. For companies connected to both types through either different politicians or the same politician in different points in time, only the most current connection is considered. This leads to 9 companies connected to a member of the Federal Parliament. Hence, the remaining 10 companies are connected to one of the State Parliaments. Re-

garding the CARs, no pattern can be found in this Panel in either of the two tables. Only for the second event window, the positive CARs of companies connected through a member of the state federal parliament are significantly higher (on the 10 % level in the equally and at the 5 % level in the value weighted case) than the slightly negative CARs of companies connected through members of the State Parliaments. With respect to hypothesis 4, there is only limited support that the type of parliament, to which the company is connected to via the politician, matters.

As a robustness check and to allow a better comparison to related event studies, the analyzes above were reestimated with event windows consisting of five trading days each. The results are reported in the Tables A3 and A4 in the appendix. But again, despite some significant differences there is no pattern that would generally support the tested hypotheses.

5 DISCUSSION

The aim of this research is to analyze the effect of the change of government from Gerhard Schröder to Angela Merkel on German prime standard firms. Goldman, Rocholl and So (2009) found that companies connected to the Republicans significantly outperformed companies connected to the Democrats in the days following the 2000 US Presidential Election. In particular, they were able to show that in the seven days after the Election Day companies connected to the winning party, the Republicans, generated positive CARs while companies connected to the Democrats who lost the election generated negative CARs. The differences between those groups of firms were significant at the 1 percent level for all specifications and time periods after the election. These results could not be replicated with the present data from Germany, although the circumstances surrounding the election to the Bundestag in 2005 were quite similar. Nevertheless, the present results show that all hypotheses that were derived from the results of Goldman, Rocholl and So (2009) regarding the affiliation of companies to particular parties (hypotheses 2a to 2c) have to be rejected for the regarded events.

There is only little support in favor of hypothesis 1, that political connections have any effect at all in this case. To understand and explain these surprising findings, a close look

at the aspects that differ between the US and Germany and the results of these two studies seems advisable. One possible explanation could be the much smaller number of politically connected firms in Germany. Accordingly, it is only possible to identify the lower bound of politically connected companies in Germany with the data used. Yet if this problem was the only reason for the differences found, one would expect at least some evidence that hints at the expected direction. Another explanation could be the fact that in the US one of the two parties could form the government after the election, while the result of the German vote was not that clear and the two biggest parties – both coming in second-best so to speak – had to form a grand coalition. Therefore, one could expect that stock market reactions for companies connected to those parties are not so clear cut as the results found for the US. Nevertheless, it could be expected that companies connected to one of the future governing parties would generate some positive effect out of these connections in the analyzed event windows. It is more likely that an explanation can be found in the differences between Germany and the US as mentioned in section 2. But while there are no indications on how the differences in the form of government or voting procedures could cause such fundamental differences in the outcome, it is a different matter when looking at corporate governance structures of corporations in these two countries. US corporations are governed by a one-tier system, while in Germany a two-tier system has been implemented. As stated by Clarke (2007) the unitary boards in the US are prone to be large and mostly the majority of members are non-executives which are often CEOs of other firms. In contrast, German corporations are governed by the management board which is composed of company executives and the supervisory board, which is composed of company shareholders and stakeholders. So, while all important activities and decisions regarding a company are executed and monitored by one board or committees, composed by members of this board, in the US, in Germany this power is subdivided. The management board makes the strategic decisions for the company, carries out the operative business and represents the company internally and externally, while the supervisory board monitors and controls the management board and ensures its accountability. Bearing this in mind, the distribution of board memberships of politicians across board types points to an explanation for the observed differences. As stated above, only one of all 26 connections between politicians and boards is allocated at a management board. This fact suggests that in the pre-

sent sample of German corporations, political connections are not able to influence firm performance because politicians are almost exclusively sitting on at supervisory boards which possess control and monitoring functions, yet are not able to take action in the management decisions of a company. Furthermore, given that the connections analyzed in this study are common knowledge, the present results are in line with the results of Niessen-Ruenzi and Ruenzi (2010) who found that politically connected companies only outperform unconnected ones if the market is not aware of the connection.

6 CONCLUSION

This study applies event study methodology on data of German firms to analyze the impact of the 2005 elections of the Bundestag and the following forming of government. Surprisingly, the present study shows that contrary to expectations political connections had little impact on the value of politically connected corporations after the 2005 elections for the Bundestag in Germany. Using novel and hand-collected data concerning all board members serving on the supervisory and management boards of the 160 companies listed at the DAX, MDAX, SDAX or TecDAX at the time of the election, and data about all current and former delegates of the Federal Parliament and the 16 State Parliaments, all companies were classified as politically connected (if applicable to one particular party) or as unconnected. The conducted analysis leads to the following key results:

First, there is a significantly smaller fraction of 12.5 percent politically connected firms in Germany compared to 30.6 percent in the US. However, this difference can at least partly be explained by the different possibilities of the two studies to capture politically connected companies. Second, there seems to be very little impact of the election results on the returns of companies with political connections. Only for the exploratory talk window and the inauguration-window, politically connected companies generate about 0.7 and 1.2 percent higher abnormal returns, respectively, in the case of the equally weighted sample. For the days following the election, there is no significant difference between politically connected and unconnected companies. Also, there is no consistent significant difference with respect to different parties or the condition of whether the

politician is officiating. For the type of parliament the company is connected to, there is slight support for the hypothesis that connections to the federal parliament are more valuable that those to one of the 16 state parliaments. In the second event window, companies connected to the federal parliament significantly outperformed their connected counterparts by about 1.3 percent in the equally and by about 2.9 percent in the value weighted case.

Because there is only some slight support for some of the tested hypotheses in some of the cases, the results seem to be basically in line with the results of Niessen-Ruenzi and Ruenzi (2010) who state that political connections only influence firm value if they are not common knowledge. Finally, the different reactions of the US and the German Stock Market can be explained through the different systems of corporate governance (one-tier versus two-tier) and the fact that nearly all identified political connections in the present study are through members of the supervisory board which only has monitoring and controlling functions. These results implicate numerous interesting possibilities for further research. Especially questions regarding how different types of political connections affect firm value, which characteristics of political connections are crucial for the influence or whether there are differences in the influence for different political levels, are promising avenues to understand the functionality of political connections. Furthermore, questions regarding how other forms of connections between politics and companies, e.g. campaign contributions, take effect in countries with a one-tier governance system are left for future research.

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APPENDIX

Table A1: List of Companies Accounted for by Stock Indices

DAX	MDAX	SDAX	TecDAX
- Adidas	- Aareal Bank	- AIG	- AIXTRON
- Allianz AG	- AMB Generali	- Baader Wertpapier-	- AT&S
- Altana AG	- AWD Holding°	handelsbank	- BB Biotech°
- BASF	- Beiersdorf	- Balda	- Bechtle
- Bayer	- BERU	- BayWa	- Conergy*
- BMW	- Bilfinger + Berger	- Beate Uhse	- Drägerwerk
- Commerzbank	Bau-AG	- BHW Holding°	- ELMOS Semiconductor
- Continental	- Degussa	- BÖWE SYSTEC	- EPCOS
- Daimler-Chrysler	- DEPFA Dt.	- ce CONSUMER	- Evotec OAI
- Deutsche Bank	Pfandbriefbank	ELECTRONIC	- freenet.de
- Deutsche Börse	- Deutsche EuroShop	- CENTROTEC	- Funkwerk
- Deutsche Lufthansa	- Deutsche Postbank	Sustainable	- GPC Biotech°
- Deutsche Post	- DOUGLAS HOLDING	- CeWe Color Holding	- IDS Scheer
- Deutsche Telekom	- EADS	- comdirekt bank	- Jenoptik
- EON	- Fielmann	- Concord Effekten°	- Kontron
- Fresenius Medical Care	- Fraport	- CTS Eventim	- MediGene
- Henkel	- Fresenius	- D Logistics	- Micronas
- Infineon	- GEA	- DAB Bank	Semoconductor
- Kaufhof/Metro	- GEHE	- Deutsche Beteiligungs	- mobilcom
- Linde	- Hannover	AG	- MorphoSys
- MAN	Rückversicherung	- DEUTZ	- Pfeiffer Vacuum
- Münchener Rück	- HEIDELBERGER	- DIS Deutscher	- QIAGEN
- RWE	CEMENT	Industrie Service°	- QSC
- SAP	- Heidelberger	- Dürr	- Rofin-Sinar
- Schering°	Druckmaschinen	- Dyckerhoff	Technologies
- Siemens	- HOCHTIEF	- elexis	- Singulus Technologies
- Thyssen Krupp	- Hugo BOSS	- ElringKlinger	- Software AG
- TUI AG	- Hypo Real Estate	- EM.TV	- SolarWorld
- Unicredti	Holding	- ESCADA	- Teles
- Volkswagen AG	- IKB Deutsche	- fluxx.com	- T-Online International*
	Industriebank	- Fuchs Petrolub	- United Internet
	- IVG	- GERRY WEBER	- WEB.DE°
	- IWKA (Kuka Aktie)	Internat.	
	- Kali und Salz	- GfK	
	- Karstadt Quelle	- Gildemeister	
	- Krones	- GrenekeLeasing	
	- Lanxess*	- H&R WASAG	
	- LEONI	- Hawesko Holding	
	- MEDION	- Highlight	
	- Merck KGaA	Communications	
	- MLP	- Hornbach Holding	
	- MPC Münchm. Peters.	- INDUS Holding	
	Capital	- Jungheinrich	
	- Norddeutsche	- Klöckner-Werke	
	Affinerie	- Koenig & Bauer	
	- Pfleiderer	- Loewe	
	- Premiere*	- Masterflex	
	- Pro Sieben Media AG	- MVV Energie	
	- Puma	- RATIONAL	

DAX	MDAX	SDAX	TecDAX
	- RHEINMETALL - Rhön-Klinikum - Salzgitter - Schwarz Pharma - SGL Carbon - STADA Arzneimittel - Südzucker AG Mann./ Ochs. - Techem - Vossloh - WINCOR NIXDORF	- schlott gruppe - Sixt - Spark Networks - TAKKT - Teleplan International - Villeroy & Boch - Vivacon - Zapf Creation	

Note: Companies marked by * are excluded from the analysis due to missing data in the estimation window; companies marked by ° are treated as non-connected because of missing data about board members.

Table A2: Distribution of Legislative Periods for Federal Parliament and State Parliaments

Legislative period	Federal Parliament	Baden-Württemberg	Bavaria	Berlin	Brandenburg	Bremen	Hamburg	Hesse	Mecklenburg- Vor-pommern	Lower Saxony	North Rhine Westpha-lia	Rhineland -Palatinate	Saarland	Saxony	Saxony- Anhalt	Schleswig-Holstein	Thurungia
1	1949 -1953	1952 -1956	1946 -1950	1950 -1954	1990 -1994	1946 -1947	1946 -1949	1946 -1950	1990 -1994	1947 -1951	1947 -1950	1947 -1951	1947 -1952	1990 -1994	1990 -1994	1947 -1950	1990 -1994
2	1953 -1957	1956 -1960	1950 -1954	1954 -1958	1994 -1999	1947 -1951	1949 -1953	1950 -1954	1994 -1998	1951 -1955	1950 -1954	1951 -1955	1952 -1955	1994 -1999	1994 -1998	1950 -1954	1994 -1999
3	1957 -1961	1960 -1964	1954 -1958	1958 -1963	1999 -2004	1951 -1955	1953 -1957	1954 -1958	1998 -2002	1955 -1959	1954 -1958	1955 -1959	1955 -1960	1999 -2004	1998 -2002	1954 -1958	1999 -2004
4	1961 -1965	1964 -1968	1958 -1962	1963 -1967	2004 -2009	1955 -1959	1961 -1966	1958 -1962	2002 -2006	1959 -1963	1958 -1962	1959 -1963	1960 -1965	2004 -2009	2002 -2006	1958 -1962	2004 -2009
5	1965 -1969	1968 -1972	1962 -1966	1967 -1971		1959 -1963	1966 -1970	1962 -1966		1963 -1967	1962 -1966	1963 -1967	1965 -1970			1962 -1967	
6	1969 -1972	1972 -1976	1966 -1970	1971 -1975		1963 -1967	1970 -1974	1966 -1970		1967 -1970	1966 -1970	1967 -1971	1970 -1975			1967 -1971	
7	1972 -1976	1976 -1980	1970 -1974	1975 -1979		1967 -1971	1974 -1978	1970 -1974		1970 -1974	1970 -1975	1971 -1975	1975 -1980			1971 -1975	
8	1976 -1980	1980 -1984	1974 -1978	1979 -1981		1971 -1975	1978 -1982	1974 -1978		1974 -1978	1975 -1980	1975 -1979	1980 -1985			1975 -1979	
9	1980 -1987	1984 -1988	1978 -1982	1981 -1985		1975 -1979	1982	1978 -1982		1978 -1982	1980 -1985	1979 -1983	1985 -1990			1979 -1983	
10	1983 -1987	1988 -1992	1982 -1986	1985 -1989		1979 -1983	1982 -1986	1982 -1983		1982 -1986	1985 -1990	1983 -1987	1990 -1994			1983 -1987	
11	1987 -1990	1992 -1996	1986 -1990	1989 -1990		1983 -1987	1986 -1987	1983 -1987		1986 -1990	1990 -1995	1987 -1991	1994 -1999			1987 -1988	
12	1990 -1994	1996 -2001	1990 -1994	1990 -1995		1987 -1991	1987 -1991	1987 -1991		1990 -1994	1995 -2000	1991 -1996	1999 -2004			1988 -1992	
13	1994 -1998	2001 -2006	1994 -1998	1995 -1999		1991 -1995	1991 -1993	1991 -1995		1994 -1998	2000 -2005	1996 -2001	2004 -2009			1992 -1996	
14	1998 -2002		1998 -2003	1999 -2001		1995 -1999	1993 -1997	1995 -1999		1998 -2003	2005 -2010	2001 -2006				1996 -2000	
15	2002 -2005		2003 -2008	2001 -2006		1999 -2003	1997 -2001	1999 -2003		2003 -2008						2000 -2005	
16	2005 -2009					2003 -2007	2001 -2004	2003 -2008								2005 -2009	
17							2004 -2008										

Table A3: Postelection Equally Weighted CARs, 5-Day Event Windows

Connection type	Number of companies	Equally weighted CAR		
		Election Day (+1, +5)	Exploratory talk (+15, +19)	Inauguration (+46, +50)
		Panel A: Political connected		
Political connected (A)	19	0.09	-1.83	1.07
Unconnected (B)	137	0.78	-1.88	-0.05
Difference (A>B)		(0.774)	(0.497)	(0.150)
		Panel B: Exclusivity of connection		
Pure Christian Democrats (C)	8	-0.80	-0.42	-0.01
Pure Social Democrats (D)	6	-1.53	-1.87	2.62
Pure Free Democrats (E)	1	0.30	2.36	1.16
Difference (C≠D)		(0.625)	(0.355)	(0.098)*
Difference (C≠E)		(0.667)	(0.444)	(0.667)
Difference (D≠E)		(0.857)	(0.285)	(1.000)
		Panel C: Connections with officiating politicians		
Officiating politicians (F)	11	0.75	-2.29	0.67
All others (G)	145	0.70	-1.84	0.04
Difference (F>G)		(0.445)	(0.665)	(0.264)
		Panel D: Type of parliament		
Federal Parliament (H)	9	-0.10	-0.68	0.22
State Parliaments (I)	10	0.26	-2.87	1.83
Difference (H>I)		(0.558)	(0.083)*	(0.893)

Abnormal returns are adjusted by the CDAX. The cumulative abnormal returns are equally weighted across companies. The estimation window covers a whole year and runs from 279 trading days to 22 trading days before the Election Day. The event windows run from day 1 to day 2 after the Election Day, respectively the day of and after the end of the exploratory talks, respectively the day of and after the inauguration of Mrs. Merkel and her ministry. All stock returns and index returns are calculated with data from the Frankfurt Stock Exchange. Significance between groups is tested with Fisher-Pitman permutation test; exact p-values are given in parentheses in panel B; p-values in panel A, C and D are calculated using Monte Carlo simulations with 10 million runs. * and ** indicates significance at the 10 % and 5 % level, respectively.

Table A4: Postelection Value Weighted CARs, 5-Day Event Windows

Connection type	Number of companies	Value weighted CAR		
		Election Day (+1, +5)	Exploratory talk (+15, +19)	Inauguration (+46, +50)
Panel A: Political connected				
Political connected (A)	19	0.02	-1.47	0.70
Unconnected (B)	135	-0.04	0.42	0.28
Difference (A>B)		(0.922)	(0.953)	(0.218)
Panel B: Exclusivity of connection				
Pure Christian Democrats (C)	8	-2.72	-1.70	1.04
Pure Social Democrats (D)	6	0.12	0.00	1.01
Pure Free Democrats (E)	1	0.30	2.36	1.16
Difference (C≠D)		(0.272)	(0.363)	(0.912)
Difference (C≠E)		(0.667)	(0.222)	(0.444)
Difference (D≠E)		(0.857)	(0.286)	(0.857)
Panel C: Connections with officiating politicians				
Officiating politicians (F)	11	3.70	-2.59	-1.05
All others (G)	143	-0.22	0.26	0.42
Difference (F>G)		(0.055)*	(0.978)	(0.845)
Panel D: Type of parliament				
Federal Parliament (H)	9	-0.87	-0.54	-0.49
State Parliaments (I)	10	0.30	-1.77	1.08
Difference (H>I)		(0.617)	(0.211)	(0.860)

Abnormal returns are adjusted by the CDAX. The cumulative abnormal returns are equally weighted across companies. The estimation window covers a whole year and runs from 279 trading days to 22 trading days before the Election Day. The event windows run from day 1 to day 2 after the Election Day, respectively the day of and after the end of the exploratory talks, respectively the day of and after the inauguration of Mrs. Merkel and her ministry. All stock returns and index returns are calculated with data from the Frankfurt Stock Exchange. Significance between groups is tested with Fisher-Pitman permutation test; exact p-values are given in parentheses in panel B; p-values in panel A, C and D are calculated using Monte Carlo simulations with 10 million runs. * and ** indicates significance at the 10 % and 5 % level, respectively.