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**political connectedness
and firm performance:
evidence from Germany**

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Political Connectedness and Firm Performance - Evidence from Germany*

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Abstract

This paper investigates politically connected firms in Germany. With the introduction of a new transparency law in 2007, information on additional income sources for all members of the German parliament became publicly available. We find that members of the conservative party (CDU/CSU) and the liberal party (FDP) are more likely to work for firms than members of left-wing parties (SPD and The Left) or the green party (Alliance 90/The Greens). Politically connected firms are larger, less risky, and have lower market valuations than unconnected firms. They also have fewer growth opportunities, but slightly better accounting performance. On the stock market, connected firms significantly outperform unconnected firms in 2006, i.e. prior to the publication of the data on political connections. Differences in stock market performance are much smaller in 2007.

JEL-Classification Codes: G14, G18, G30, G38, H89, K29, L14

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1 Introduction

After a large public debate, members of the German parliament (Bundestag) are now obliged to full disclosure of any additional income that is not derived from their mandate. In January 2006, Amendment 26 of the Act on the Legal Status of Members of the German Bundestag became effective. This law requires that any activities of the delegate that might indicate conflicts of interest or exceed certain amounts of monetary compensation have to be disclosed and published. Nine members of the Bundestag tried to prevent the publication of their supplementary incomes by lodging a complaint at the Federal Constitution Court. In July 2007, their objection was finally overruled and all non-parliamentary job activities including information on the monetary compensation for these activities was published.

We use this newly available information to examine the characteristics of politically connected firms as compared to firms that have no direct connection to a member of the Bundestag. We also examine the characteristics of members of the Bundestag engaged in non-parliamentary job activities as compared to delegates without such engagements. The main contribution of this paper is to investigate for the first time whether there is any link between the political connectedness of German firms, and their characteristics and performance, respectively. This question has caught some attention in the public debate and in the academic literature. However, there is still only limited evidence on this issue.

Evidence for a positive correlation between political connections and firm value has been documented for countries with weak as well as strong legal systems (see, e.g., Fisman (2001), Jachandran (2006), Faccio (2006), Faccio and Parsley (2007),

and Goldman, Rocholl, and So (2007)).¹ There are several reasons why politically connected firms might have a better performance than independent firms. First, delegates might engage in non-parliamentary job activities to maintain contact to firms and voters in order to be informed about the needs and demands of the population. For reputational reasons, these delegates might be concerned about only choosing the best performing firms to work for. Second, politicians are often outsiders to the corporate world and might be beneficial to the firm by providing an independent view on the organization which eventually positively affects performance. Third, and arguably most critical, political connections of a firm might lead to a competitive advantage for this firm such as easier access to debt finance, lower taxation, awards of government contracts, or reduced regulatory requirements (see, e.g., Agrawal and Knoeber (2001), Khwaja and Mian (2005), Faccio (2006), Goldman, Rocholl, and So (2008), and Claessens, Feijen, and Laeven (2008)) and thereby increase its performance. If the first reason described above holds true, politicians work for specific firms, because these firms perform well. In contrast, if the latter two reasons are relevant, firms perform well, because politicians work for them.

Based on these findings from the literature, we examine whether politically connected firms deliver a better performance than politically unconnected firms in Germany. To investigate this question, we hand-collect data on non-parliamentary job activities as well as monetary compensation for each member of the Bundestag. These data were published by the Bundestag in July 2007. We obtain information on whether a member of the Bundestag engaged in any paid job activities besides their governmental mandate such as being a director on the supervisory board or advisory council of a firm and how much that person received as compensation. This gives us a major

¹An exception is Bertrand, Kramarz, Schoar, and Thesmar (2007). They find that political connections hurt firm performance in a sample of French firms. Fisman, Fisman, Galef, and Khurana (2006) find that ties to US Vice President Cheney have no value for firms.

advantage over previous studies for the U.S. (see, e.g, Kroszner and Strahan (2001) and Goldman, Rocholl, and So (2007)) that are restricted to data on board compositions due to limited data availability. In contrast, we observe all engagements of delegates including jobs that were not public information before the law became effective as well as their respective monetary compensation.

We find that members of the conservative party (CDU/CSU) and especially the liberal party (FDP) are more likely to be employed by a firm than members of the left-wing parties (SPD, The Left) or the Green party. Most delegates that are on the payroll of a firm belong to a government party in power. There is no significant difference in the probability of being politically connected between delegates that are elected directly and delegates that are elected via a party list.²

In our examination of politically connected firms, we focus on all publicly traded firms that are constituents of the largest German stock market index (CDAX). We find that connected firms are significantly larger than unconnected firms in terms of sales, market capitalization, and total assets. Their market valuations in terms of Tobin's Q are significantly lower than those of unconnected firms. This does not necessarily mean that they perform worse. Rather, it might indicate that connected firms have fewer growth options than unconnected firms. Consistent with this, we also find that the price-earnings ratios are significantly smaller for politically connected firms than for unconnected firms. These results indicate that politicians mainly work for firms that are well-established and have few growth options rather than for more risky growth companies. This might be partially driven by the desire of politicians

²Please refer to Section 2 for details on the German election system.

to be associated with large (and thus typically stable and low-risk) companies for reputational reasons.³

We also find that politically connected firms provide better accounting as well as stock market performance. Specifically, politically connected firms have significantly higher returns on equity (ROE) and returns on investments (ROI) in 2006 and 2007. Regarding stock market performance, we find that politically connected firms have higher raw returns, higher industry adjusted returns, and higher Sharpe (1966) Ratios than unconnected firms in 2006. In that year, data on the political connections of firms was not publicly available, yet. The differences are more pronounced if we focus on politically connected firms that pay delegates a higher compensation. For 2007, when information on industry jobs of delegates finally became publicly available, we still find better stock market returns of politically connected firms. However, the difference to unconnected firms is much smaller in this year and completely vanishes if we analyze Sharpe Ratios. This is consistent with the view that information on political connections could not and was not priced prior to its publication and thus could lead to abnormal returns. The disappearing relationship between stock market performance and political connections after these connections became public knowledge is consistent with efficient stock markets.

Since members of the Bundestag started to disclose their non-parliamentary job activities and compensations for 2006 after the new law became effective, our analysis is solely based on the years 2006 and 2007. Thus, the results are descriptive and should be interpreted with caution as a very first indication that political connectedness might be a valuable asset for firms in Germany. However, at this stage we are not

³An alternative interpretation is that only large companies have the necessary resources to pay delegates. However, given that our later results show that a lot of delegates work for relatively low compensation, this explanation seems less likely.

able to make any causality statements. A further analysis based on a longer time series of data should add additional insights in the future.

Our paper contributes to two main strands of the literature. First, it contributes to the emerging literature on politician-firm networks (see, e.g., Fisman (2001), Bertrand, Kramarz, Schoar, and Thesmar (2007), Faccio, Masulis, and McConnell (2006), Faccio (2006), Faccio and Parsley (2007), Goldman, Rocholl, and So (2007) and (2008), Aggarwal, Meschke, and Wang (2008) and Boubakri, Cosset, and Saffar (2008)). This literature shows that political connections are a valuable asset for firms. Our results offer a first indication that this also seems to be the case in Germany.⁴ Second, our paper is also related to the literature on the impact of characteristics of corporate board members on firm performance (see, e.g., Kroszner and Strahan (2001), and Güner, Malmendier, and Tate (2008)). Our results suggest that having board members that are at the same time members of the Bundestag is positively correlated with better accounting as well as stock market performance.

The paper proceeds as follows. Section 2 contains a brief description of the German election system and of our data. Empirical results on the characteristics of politically connected firms as well as Bundestag delegates working for firms are presented in Section 3. Section 4 contains results on valuation and performance differences between politically connected and unconnected firms. Section 5 concludes.

⁴There is some evidence for a positive value of political connections in Germany under the Hitler regime. Ferguson and Voth (2008) show that firms that had connections to the Nazi regime significantly outperformed firms with no connections between January and May 1933, the time period in which the new regime established its power.

2 Data

The political system of the Federal Republic of Germany is a pluriform multi-party system. Federal legislative power is designated to both the government and the two chambers of parliament, Bundestag and Bundesrat. The Bundestag is elected by the population. Under the German electoral system, each voter casts two votes in a Bundestag election. The elector's first vote is given to a particular candidate running to represent the district in which the elector resides. Half of the Bundestag members are directly elected based on the first votes (constituency members). The second vote is given to a particular political party: the voter elects one of the lists of candidates put up by the parties in each of Germany's 16 federal states. It determines the other half of the Bundestag members (party list members). The last election was held on September 18, 2005. The result led to a "grand coalition" between the conservatives (CDU/CSU) and the social democrats (SPD), and an opposition consisting of the three smaller parties (FDP, Alliance 90/The Greens, and The Left). The following parties currently participate in the Bundestag: CDU/CSU (224 seats), SPD (222 seats), FDP (61 seats), The Left (53 seats), and Alliance 90/The Greens (51 seats).

We hand collect data on non-parliamentary job activities from all 611 members of the Bundestag from the Bundestag's website.⁵ These data were supposed to be published with the commencement of the new transparency laws in January 2006. However, publication was suspended due to the objection of nine delegates. The data were finally published in July 2007, when the objection was overruled by the Federal Constitution Court. Thus, our findings for the year 2006 are not driven by any announcement effects since we examine data on political connections of members of the Bundestag for this year that were only first published in July 2007.

⁵These data are publicly available at <http://www.bundestag.de> and are regularly updated.

Every member of the Bundestag has to declare non-parliamentary job activities if they exceed 1,000 Euros per month or 10,000 Euros per year. The President of the Bundestag publishes this information. It contains the name of the firm a delegate is associated with, the job position of the delegate as well as that person's monetary compensation. Thus, we observe several job positions (besides being on the board of directors or the supervisory board)⁶ like advisory counselor, consultant, speaker, curator, or scientific mentor that were not public information before the new transparency law was introduced. The monetary compensation each member of the Bundestag receives is not disclosed as a precise number. Instead, it is classified into one of three brackets. The lowest bracket (Stage 1) includes salaries from 1,000 to 3,500 Euros, the middle bracket (Stage 2) includes salaries between 3,500 and 7,000 Euros, and the top bracket (Stage 3) includes all salaries above 7,000 Euros. Furthermore, it has to be disclosed whether the compensation was awarded only once, on a monthly basis, or on a yearly basis.⁷

We combine these data with financial market data as well as accounting data for all firms contained in the largest German stock market index, CDAX. These data are provided by Factset/JCF and Datastream. Several delegates are associated with smaller firms or companies that are not publicly traded. Thus, to investigate the relation between firm performance and political connections, we have to restrict our sample to publicly listed companies whose financial market data are accessible.

⁶All German publicly traded firms have a two-tier system of corporate governance, consisting of the board of directors and the supervisory board. The board of directors is responsible for managing the firm, while the supervisory board supervises and advises the board of directors.

⁷The monetary compensation is published without taking into account income related expenses, traveling expenses, or other costs.

3 Characteristics of Connected Firms and Delegates

Our empirical analysis starts with an examination of the characteristics of politically connected vs. unconnected firms and of the delegates that work for them. We conduct this rather descriptive examination because the novelty of the data means there is still very little known about the nature of politically connected firms in Germany. Overall, our sample contains 605 public companies out of which 28 (4.6%) are politically connected through the employment of a delegate. This number might seem surprisingly small, but is in line with - and even a little bit higher than - the fractions of politically connected firms from other countries (Faccio (2006)). Furthermore, we can only identify connections of firms to delegates of the Bundestag. Firms might also have delegates from state parliaments or other politicians on their payrolls.⁸ Table 1 contains information on all political connections of publicly traded companies we could identify.

The first column contains the name of the firm for which a political connection could be identified, followed by the industry the firm belongs to in column 2. It is noticeable that most of the firms are well-established and well-known in Germany like Deutsche Bank or Volkswagen. The two firms with the most Bundestag delegates on their payroll in 2006 are Allianz AG with four delegates and Deutsche Bank AG with three delegates. A potential reason why mainly large, national companies rather than regionally operating firms are connected to Bundestag delegates could be that for smaller companies it makes more sense to be connected to a delegate from a state parliament.

⁸Firms might also be connected to politicians or parties via campaign contributions or party donations. Aggarwal, Meschke, and Wang (2008) find that corporate political contributions lead to worse performance and are a sign of agency problems within the firm.

Table 1: Political Connections

<i>Name of Firm</i>	<i>Industry of Firm</i>	<i>Committee Memberships and Secretary Posts of Delegate</i>	<i>Distance in km</i>
Allianz AG	Insurance	Health; Labor and Social Affairs	54.55
Allianz AG	Insurance	Finance; Mediation; Budget	387.58
Allianz AG	Insurance	Human Rights and Humanitarian Aid	597.99
Altana AG	Chemistry	Economics and Technology; Education, Research and Technology Assessment	281.08
AWD Holding AG	Finance	Economic Cooperation and Development	533.91
Borussia Dortmund AG	Sports	Minister of Defense (up to Nov 05)	247.77
Commerzbank AG	Finance	Foreign Affairs	491.13
Commerzbank AG	Finance	Finance; Legal Affairs; Foreign Affairs	180.04
CropEnergies AG	Energy	Food, Agriculture and Consumer Protection	34.15
DaimlerChrysler AG	Automobile	Foreign Affairs; Affairs of the EU	222.31
Dbv Winterthur Holding AG	Insurance	Finance; Legal Affairs; Foreign Affairs	39.15
Dbv Winterthur Holding AG	Insurance	Foreign Affairs	517.63
Deutsche Bank AG	Finance	Economics and Technology; Mediation	52.05
Deutsche Bank AG	Finance	Foreign Affairs	40.65
Deutsche Bank AG	Finance	Finance; Budget	391
Deutsche Boerse AG	Stock Exch.	Finance, Legal Affairs, Foreign Affairs	491.13
Deutsche Telekom AG	Telecom.	Economics and Technology	315.66
E.On AG	Energy	Baltic Sea Parliamentary Conference	439.19
Energie Baden Wurttemberg AG	Energy	Affairs of the EU	363.31
Energie Baden Wurttemberg AG	Energy	Education, Research and Technology Assessment; Legal Affairs; Scrutiny of Elections	77.59
Evotec AG	Pharmaceuticals	Economics and Technology; Education, Research and Technology Assessment	491.13
Henkel AG	Cons.&Ind. Products	Economics and Technology; Education, Research and Technology Assessment	226.92
Ikb Deutsche Industriebank AG	Finance	Foreign Affairs; Cultural and Media Affairs; former state secret. at Ministry of Finance	96.28
Interseroh AG	Recycling	Legal Affairs; Finance; Foreign Affairs	425.43
IVG Immobilien AG	RealEstate	Economics and Technology; Budget; Defence	83.32
IVG Immobilien AG	RealEstate	Legal Affairs; Finance; Foreign Affairs	447.67
Lufthansa AG	Airline	Labor and Social Affairs; Economic Cooperation and Development; Petitions; Internal Affairs	191.65
Marseille Kliniken AG	Healthcare	Sports; Legal Affairs, Transport, Building and Urban Affairs	379.12
MLP AG	Finance	Labor and Social Affairs; Sports; Family Affairs	270.54
MLP AG	Finance	Finance; Labor and Social Affairs	427.22
Piper Generalvertretung Deutschl. AG	Air&Defense	Vice President of the German Bundestag; Finance; Food, Agriculture and Consumer Protection	140.52
Rhoen Klinikum AG	Healthcare	Health; Finance	326.97
Saint Gobain Oberland AG	Glass	Economics and Technology; Affairs of the EU; Packaging	284.55
Siemens AG	Inform.& Communic.	Defence; Scrutiny of Elections; Economics and Technology, Education, Research and Technology Assessment	391.89
Axel Springer AG	Publishing	Chairman of the party "the Left"	718.2
Vattenfall Europe AG	Energy	Environment, Nature Conservation and Nuclear Safety; Economics and Technology; Finance	437.25
Volkswagen AG	Automobile	Affairs of the EU; Economic Cooperation and Development	0.00
Volkswagen AG	Automobile	Economics and Technology	87.53

Notes: A description of the committees connected delegates work for is provided in the Appendix. The last column gives the distance in km between the headquarters of the firm and the electoral district the respective delegate is based.

Political connections are particularly prevalent among industries related to financial services like 'Financial Institutions', 'Insurance', or 'Stock Exchange', but also in the 'Energy' and 'Automobile' sectors. There is only one politically connected company from the 'Aerospace & Defense' industry in our sample. Firms in this industry could directly profit from procurement contracts with the government, while this is not obvious for firms from other industries.

In column 3 of Table 1 we present the expertise of the delegates based on information about their current official roles like committee memberships, secretary positions (e.g. Secretary of the Interior, Secretary of Science), or party chairmanships. Some of the official roles of connected delegates are potentially relevant for the firms they work for. For example, delegates that are members for the Bundestag's 'Finance Committee' work for Allianz, Deutsche Bank, Deutsche Boerse, and Commerzbank, respectively. Similarly, members of the 'Committee on Education, Research, and Technology Assessment' work for firms from the 'Energy' and 'Pharmaceutical' industry, respectively, a member of the 'Health Committee' works for a firm from the 'Healthcare' industry, and a member of the 'Environment, Nature Conservation, and Nuclear Safety Committee' works for Vattenfall Europe AG, a company that operates nuclear plants.⁹ These cases might indicate potential conflicts of interest. However, they might also simply reflect the expertise of the respective delegate.

In the last column we collect information on the distance between the headquarters of the firm a delegate works for and her or his electoral district. The distance varies between 0 kilometers (a delegate from the electoral district of Wolfsburg working for Volkswagen with Volkswagen having its headquarters in Wolfsburg) and 718 kilometers (a delegate from the electoral district of Saarbrücken who is connected to

⁹An overview on the responsibilities of the Bundestag's various committees is given in a separate table in the Appendix.

Axel Springer AG that is headquartered in Berlin). Generally, there is no clear pattern of delegates working for firms located in or particularly close to their electoral districts. Overall, the average distance is quite large, suggesting that geographical proximity plays a minor role in explaining political connections of firms.

We now take a closer look at the characteristics of politically connected delegates. We compute the number of jobs a delegate is engaged in, the share of politically connected delegates per party, the type of mandate the delegate is holding, as well as the type of job and monetary compensation received by the delegate. Results are presented in Table 2.

Panel A contains the number of connections to firms of the members of the Bundestag. The large majority of 516 delegates are not connected to a firm. 67 delegates hold one position at a firm, 12 delegates hold two positions, 3 delegates hold three positions, and 13 delegates have more than three outside positions. Overall, 16% of the members of the Bundestag are connected to at least one firm.¹⁰ Panel B contains the share of delegates per party that are associated with at least one non-parliamentary job-activity. It shows that members of the conservative (CDU/CSU) and the liberal party (FDP) are more likely to be connected to a firm than members of left-wing parties (SPD, The Left) or the Green party: 19% of all delegates belonging to the CDU/CSU declare at least one job activity. Furthermore, 25% of all FDP delegates, 12% of SPD delegates, 10% of Alliance 90/The Greens delegates, and 9% of The Left delegates are connected to at least one firm. Overall, 76% of all connected delegates are members of a party that is part of the government (CDU/CSU and SPD), while the remaining 24% are members of an opposition party. In Panel C, we look at the type of mandate the delegate is holding, i.e., we distinguish whether that person was

¹⁰Note that not all connected delegates are connected to a publicly traded firm. This explains why the number of connections between delegates and firms reported here is larger than the number of political connections of publicly traded firms in Table 1.

Table 2: Characteristics of Connected Delegates

<i>Connected Delegates</i>	
<i>Panel A: Number of Outside Positions of Delegates</i>	
<i>None</i>	516
<i>One</i>	67
<i>Two</i>	12
<i>Three</i>	3
<i>More Than Three</i>	13
<i>Panel B: Share of Delegates With Outside Positions per Party</i>	
<i>CDU/CSU</i>	19%
<i>SPD</i>	12%
<i>Alliance 90/The Greens</i>	10%
<i>FDP</i>	25%
<i>The Left</i>	9%
<i>Panel C: Type of Mandate</i>	
<i>Directly Elected</i>	47%
<i>Party List</i>	53%
<i>Panel D: Type of Job</i>	
<i>Board of Directors</i>	4.3%
<i>Supervisory Board</i>	46.0%
<i>Advisory Council</i>	21.5%
<i>Consultant</i>	3.7%
<i>Speech</i>	9.8%
<i>Others</i>	14.7%
<i>Panel E: Monetary Compensation</i>	
<i>Stage One (o/m/a)</i>	0.7%/0.7%/0.7%
<i>Stage Two (o/m/a)</i>	2.4%/0.0%/2.4%
<i>Stage Three (o/m/a)</i>	9.1%/1.8%/23.2%
<i>Honorary</i>	4.3%
<i>Below Reporting Threshold</i>	54.9%

Notes: The time period is from January 2006 to December 2006.

directly elected or elected from a party list. We find no significant difference: 47% of all connected delegates are directly elected, while 53% of all connected delegates are elected from a party list.

With respect to the type of job connected delegates are engaged in, results in Panel D show that 46% are a member of the firm's supervisory board and 21% are a member of an advisory council of the firm they work for. Fewer delegates are a member of the board of directors (4.3%), work as consultants (3.7%), or gave a speech at a firm (9.8%). Panel E contains information on the monetary compensation these delegates receive. Delegates declare whether their compensation was awarded once, monthly, or annually (o/m/a). 23.2% (1.8%) of the connected delegates receive more than 7,000 Euros per year (month), while 9.1% receive more than 7,000 Euros once, mostly for speeches given at a firm. Furthermore, 2.4% of the connected delegates report salaries from 3,500 Euros up to 7,000 Euros on both a monthly as well as a yearly basis. Only a few connected delegates report earnings at stage one: less than 1.0% receive a compensation between 1,000 and 3,500 Euros. The rest receives a monetary compensation below the reporting threshold of 1,000 Euros or no compensation at all in 2006.

We now investigate the characteristics of politically connected firms as compared to unconnected firms. Specifically, we compare market capitalization at the end of 2006 as well as sales and total assets of these firms in the year 2006.¹¹ Results are presented in Table 3.

Our results show that 4.6% of all firms contained in the CDAX are politically connected. This number is somewhat higher than the figures reported in Faccio (2006). She shows that 2.68% of all listed companies in a large cross section of countries are

¹¹The values for 2007 show a similar pattern and are thus not tabulated.

Table 3: Characteristics of Unconnected and Connected Firms

	<i>Unconnected Firms</i>		<i>Connected Firms</i>	
	Mean	Median	Mean	Median
<i>Market Capitalization (in Million Euros)</i>	1,335	71	17,246	5,187
<i>Sales (in Million Euros)</i>	2,219	146	44,365	13,001
<i>Total Assets (in Million Euros)</i>	44,261	420	367,129	58,539
<i>Stock Market Risk (Return Standard Deviation)</i>	48%	44%	23%	26%
<i>Number of Observations</i>	577		28	
<i>Percentage</i>	95.4%		4.6%	

Notes: Market capitalization and total assets is from the end of 2006, sales and stock market return standard deviations are for the year 2006.

politically connected. One reason for this could be that Faccio (2006) only focuses on jobs of the delegates for which information is publicly available, i.e., mainly board memberships, while we have information on all engagements of delegates.

Our findings hitherto show that politically connected firms have a higher market capitalization, higher sales, and higher total assets than politically unconnected firms. All differences are statistically significant at the 1%-level. These results are also in line with findings in Faccio (2006). We also find that the stock market return standard deviation of politically unconnected firms is 48%, while the return standard deviation of connected firms is significantly lower at 23%. Overall, these results suggest that politicians mainly work for large, well-established, and low-risk firms. One possible reason for this is that politicians choose to work for such firms rather than for more risky start-up firms because of reputational concerns.

4 Valuation and Performance of Politically Connected Firms

4.1 Market Valuation and Accounting-based Performance

We start our investigation by comparing the market valuations of firms that are connected to at least one member of the Bundestag and unconnected firms. We follow Morck, Shleifer, and Vishny (1988) and use Tobin's Q as a proxy for a firm's market valuation. To compute Tobin's Q, we use the method suggested in Schlingemann, Stulz, and Walkling (2002): Tobin's Q is defined as the ratio of the book value of assets minus the bookvalue of equity plus the market value of equity to the bookvalue of assets. Results for the year 2006 are presented in column 1 in Panel A of Table 4.

We use three alternative classifications of political connectedness. First, we define firms for which at least one member of the Bundestag works as *Politically Connected Firms*. Firms that have no member of the Bundestag on their payroll are defined as *Politically Unconnected Firms*.¹² By using this broad definition, we do not distinguish between the type of job or the amount of monetary compensation the delegate receives. Results show that politically connected firms have an average Tobin's Q of 1.66 which is lower than the average Tobin's Q of politically unconnected firms of 2.14, i.e. the Tobin's Q of politically connected firms is about 30% lower than that of unconnected firms. The difference is statistically significant at the 1%-level.

Second, we compare firms where at least one delegate is a member of the supervisory board (SB) or advisory council (AC), *Politicians in SB or AC*, to politically

¹²Note that our analysis is solely based on jobs of the members of the Bundestag. Thus, it is still possible that firms defined as unconnected here are connected to members of a state parliament or to other politicians that are not members of the Bundestag.

Table 4: Firm Value and Accounting-based Performance

Panel A: 2006	<i>Tobin's Q</i>	<i>P/E-Ratio</i>	<i>ROE</i>	<i>ROI</i>
<i>Politically Connected Firms (PC)</i>	1.66	14.41	11.49	8.19
<i>Politically Unconnected Firms (PU)</i>	2.14	29.44	9.38	0.78
<i>Difference</i>	-0.48***	-15.03***	2.11	7.41
<i>Observations PC/PU</i>	25/533	25/379	26/615	26/514
<i>Delegates in SB or AC</i>	1.46	13.03	13.79	7.59
<i>Politically Unconnected Firms</i>	2.14	29.44	9.38	0.78
<i>Difference</i>	-0.68***	-16.41***	4.42	6.81
<i>Observations PC/PU</i>	17/533	17/379	17/615	17/514
<i>Delegates in SB or AC and Stage 3</i>	1.45	13.33	14.63	11.17
<i>Politically Unconnected Firms</i>	2.14	29.44	9.38	0.78
<i>Difference</i>	-0.69***	-16.11***	5.25	10.39
<i>Observations PC/PU</i>	11/533	11/379	11/615	11/514
Panel B: 2007	<i>Tobin's Q</i>	<i>PE</i>	<i>ROE</i>	<i>ROI</i>
<i>Politically Connected Firms (PC)</i>	1.66	12.02	15.62	1.92
<i>Politically Unconnected Firms (PU)</i>	2.07	27.34	4.25	-0.10
<i>Difference</i>	-0.41***	-15.32***	11.37**	2.01
<i>Observations PC/PU</i>	25/536	25/414	26/609	25/503
<i>Delegates in SB or AC</i>	1.51	11.20	13.02	4.39
<i>Politically Unconnected Firms</i>	2.07	27.34	4.25	-0.10
<i>Difference</i>	-0.56***	-16.14***	8.77	4.49***
<i>Observations PC/PU</i>	17/536	17/414	17/609	17/503
<i>Delegates in SB or AC and Stage 3</i>	1.44	9.71	11.57	3.92
<i>Politically Unconnected Firms</i>	2.07	27.34	4.25	-0.10
<i>Difference</i>	-0.63***	-17.63***	7.23	4.02**
<i>Observations PC/PU</i>	11/536	11/414	11/609	11/503

Notes: The time period is from January 2006 to December 2006. SB (AC) stands for supervisory board (advisory council). ROE and ROI are the firm's return on equity and return on investment, respectively. Statistical significance is based on a two-sided t-test. Significance levels are indicated as follows: *** 1% significance, ** 5% significance and * 10% significance.

unconnected firms. In this case, the difference is even higher at 0.68 and again statistically significant at the 1%-level.

Third, we compare firms where at least one delegate is a member of the supervisory board or advisory council *and* receives a monetary compensation of more than 7,000 Euros per annum, *Politicians in SB or AC and Stage 3*, with politically unconnected firms. Now, the difference in Tobin's Q amounts to 0.69. It is again significant at the 1%-level.

The low Tobin's Q among connected firms are not necessarily an indication that connected firms perform worse. It can also just indicate differences in the growth characteristics between connected and unconnected firms. Lindenberg and Ross (1981) point out that Tobin's Q mainly captures the value of a firm's growth options. It should be equal to 1 if the firm has no growth options at all. The low average Tobin's Q of connected firms indicates that politicians work for firms that lack growth options and is consistent with our earlier results that politicians mainly work for large and well-established companies (Tables 1 and 3).

Another proxy for low growth opportunities is a high price-earnings ratio (Miller and Modigliani (1961), Solt and Statman (1989)). If politicians mainly work for firms with few growth options, we should also observe lower price-earnings ratios among connected firms. Results on the price-earnings ratios of connected and unconnected firms are presented in column 2 in Panel A of Table 4. They clearly show that the price-earnings ratios of connected firms are much smaller than those of unconnected firms. The average price-earnings ratio of unconnected firms is 29.44, while it is only 14.41 for connected firms. Results are very similar for all three classifications of political connectedness. The difference is always significant at the 1%-level.

We repeat the whole investigation of differences in market valuations and price-earnings ratios using data from the year 2007. Results are presented in Panel B. As they confirm our findings using data from the year 2006 (see Panel A), we will not discuss them in detail here.

Instead, we now turn to the question whether connected firms are more successful in terms of accounting based performance measures. We examine differences in return on equity (ROE) and in return on investment (ROI). Results for 2006 are presented in columns 3 and 4 in Panel A of Table 4. Using ROE as well as ROI we document better performance outcomes among connected firms than among unconnected firms. In 2006, the ROE for unconnected firms is 9.38% while it ranges between 11.49% for all connected firms and up to 14.63% for firms that fulfill our narrowest definition of connectedness. Differences are even more pronounced if we look at ROI. While unconnected firms have an average ROI of 0.78% in 2006, the average ROI of connected firms is 8.19% for all connected firms and 11.17% for the firms that fulfill the narrowest connectedness definition, respectively. However, it should be noted that – while economically significant – none of the differences in ROE and ROI are statistically significant in 2006. The lack of significance is probably due to the small number of observations from politically connected firms. If we look at the results for 2007 (Panel B), we find a very similar pattern. Again, connected firms do better than unconnected firms. The differences are economically meaningful and we now also find some differences in ROI and ROE that are statistically significant at the 5%- and 1%-level, respectively.

Overall, these results show that politicians tend to work for relatively profitable firms as evidenced by higher ROEs and ROIs among connected firms as compared to unconnected firms. This evidence also supports the view that the low Tobin's Qs documented among connected firms are not a sign of worse performance among those

firms as compared to unconnected firms but rather an indication of differences in growth opportunities.

4.2 Stock Market Performance

4.2.1 Performance Differences

While our previous results show that connected firms seem to do somewhat better according to accounting-based performance measures, we now investigate whether connected firms also show a better stock market performance than politically unconnected firms. We examine three performance measures. First, we compute continuously compounded annual returns for every stock contained in the CDAX. Second, we compute industry-adjusted returns based on the Factset/JCF industry classification. We subtract the average return of all firms belonging to the same industry as the firm under consideration from the individual stock return of that firm. This allows us to control for industry specific effects and to make sure that our results are not driven by differences in the industry distribution between connected and unconnected firms (see Table 1). Third, we compute the Sharpe (1966) Ratio for each stock, defined as the excess return of the stock over the risk-free rate divided by the annualized standard deviation of monthly stock returns in the respective year. This controls for differences in the riskiness of politically connected and unconnected firms.

One could argue that we generally should not observe differences in returns, because in efficient markets publicly available information is fully reflected in prices. However, full information on political connections for 2006 was not publicly available in 2006 due to the objection of some delegates that prevented the publication (see Section 1). This offers the unique opportunity to analyze the impact of political

connections in a period in which information on such connections could not be fully priced yet. Results for the year 2006 are presented in Panel A of Table 5.

Column 1 contains results for raw returns, Column 2 contains results for industry-adjusted returns, and Column 3 contains results for Sharpe (1966) Ratios. We use the same three classifications of political connectedness as in Section 4.1. Using the broadest definition of political connectedness, stock returns of politically connected firms are on average 18% per annum higher than stock returns of unconnected firms. The difference is statistically significant at the 1%-level.¹³ Results are virtually identical for firms in which delegates are required to be on the supervisory board or member of a supervisory committee. However, the return difference is markedly higher if we additionally require delegates to be in the top compensation bracket. Here, the return difference amounts to 30% per annum. This indicates a positive correlation between the amount a politician gets paid by a firm and the abnormal stock return of that firm. Results are similar for industry adjusted returns (Column 2). The performance difference using industry adjusted returns is still 18% (25%) per annum for the broadest (narrowest) connectedness definition. Finally, we take into account potential differences in the riskiness of politically connected and unconnected firms by examining Sharpe Ratios. Using the broadest (narrowest) definition of political connectedness, the Sharpe Ratio is 0.75 (1.09) for connected firms, while it is only 0.04 for unconnected firms. The difference of 0.71 and 1.05, respectively, is economically meaningful and statistically significant at the 1%-level. Thus, taking into account the riskiness of the firm does not change our basic result: politically connected firms clearly outperform unconnected firms in 2006. We should stress again that the high stock market

¹³We also investigate performance differences between politically connected firms where the delegate is a member of the government as compared to firms where the delegate is part of the opposition. We find that stock returns of firms where the delegate is also member of the government are slightly higher than stock returns of firms where the delegate is a member of the opposition. However, the difference is not statistically significant.

Table 5: Market Based Performance

Panel A: 2006	<i>Raw Returns</i>	<i>Ind. Adj. Returns</i>	<i>Sharpe Ratio</i>
<i>Politically Connected Firms (PC)</i>	0.23	0.17	0.75
<i>Politically Unconnected Firms (PU)</i>	0.05	-0.01	0.04
<i>Difference</i>	0.18***	0.18***	0.71***
<i>Observations PC/PU</i>	28/577	28/577	28/577
<i>Delegates in SB or AC</i>	0.23	0.13	0.88
<i>Politically Unconnected Firms</i>	0.05	-0.01	0.04
<i>Difference</i>	0.18***	0.14***	0.81***
<i>Observations PC/PU</i>	24/577	24/577	24/577
<i>Delegates in SB or AC and Stage 3</i>	0.35	0.24	1.09
<i>Politically Unconnected Firms</i>	0.05	-0.01	0.04
<i>Difference</i>	0.30***	0.25***	1.05***
<i>Observations PC/PU</i>	12/577	12/577	12/577
Panel B: 2007	<i>Raw Returns</i>	<i>Ind. Adj. Returns</i>	<i>Sharpe Ratio</i>
<i>Politically Connected Firms (PC)</i>	-0.13	0.10	-0.83
<i>Politically Unconnected Firms (PU)</i>	-0.21	0.002	-0.72
<i>Difference</i>	0.08	0.10**	-0.11
<i>Observations PC/PU</i>	28/631	28/631	28/631
<i>Delegates in SB or AC</i>	-0.09	0.11	-0.95
<i>Politically Unconnected Firms</i>	-0.21	0.002	-0.72
<i>Difference</i>	0.12	0.11*	-0.23
<i>Observations PC/PU</i>	24/631	24/631	24/631
<i>Delegates in SB or AC and Stage 3</i>	-0.03	0.16	-0.76
<i>Politically Unconnected Firms</i>	-0.21	0.002	-0.72
<i>Difference</i>	0.18**	0.16**	-0.04
<i>Observations PC/PU</i>	12/631	12/631	12/631

Notes: The time period is from January 2006 to December 2006 (Panel A) and from January 2007 to December 2007 (Panel B), respectively. SB (AC) stands for supervisory board (advisory council). Statistical significance is based on a two-sided t-test. Significance levels are indicated as follows: *** 1% significance, ** 5% significance and * 10% significance.

returns we document among connected firms are not a sign of a violation of the stock market's Fama (1970) semi-strong form informational efficiency because information on political connections was not publicly available in 2006.

We also examine the stock market performance of connected and unconnected firms for 2007, the year in which information on political connections finally became publicly available. Results are presented in Panel B of Table 5. As we would expect according to the efficient market hypothesis, the difference in stock market returns is much smaller now. For raw returns, only the difference between unconnected firms and firms that are connected according to the narrowest definition of connectedness is significant at the 5%-level. Looking at industry adjusted returns, the statistical significance also drops to the 5%-level or 10%-level, respectively, for all levels of connectedness and the return differences are smaller than in 2006. For Sharpe-Ratios we find no significant differences between connected and unconnected firms anymore in 2007.

Overall, these results show that connected firms perform much better on the stock market as long as the information on political connections could not be priced (as it was the case in 2006). In contrast, stock market performance is much more similar between connected and unconnected firms in 2007, when the information on political connections finally became publicly available.

4.2.2 Influence of Firm Characteristics

Stock market returns of firms can depend on stock characteristics. To make sure the return patterns we document in Section 4.2.1 are not driven by differences in firm characteristics (e.g., firm size, see Table 3) that are correlated with political connectedness, we now turn to a multivariate analysis of stock market performance. We

follow Brennan, Chordia, and Subrahmanyam (1998) and control for several variables that have been found to be important for stock market performance. Specifically, we estimate the following equation:¹⁴

$$\begin{aligned}
 Ret_{i,2006} = & \alpha + \beta_1 \cdot PolCon_{i,2006} + \beta_2 \cdot Ret_{i,2005} + \beta_3 \cdot DVOL_{i,2005} + \beta_4 \cdot SIZE_{i,2005} \\
 & + \beta_5 \cdot PRICE_{i,2005} + \beta_6 \cdot BM_{i,2005} + \beta_7 \cdot YLD_{i,2005} + \varepsilon_i.
 \end{aligned} \tag{1}$$

We relate the stock market return, $Ret_{i,2006}$, of firm i in 2006 to a dummy variable, $PolCon_{i,2006}$, that is one if the firm is connected to at least one member of the Bundestag in 2006, and zero otherwise. We include the lagged stock market return, $Ret_{i,2005}$, to control for momentum effects (see, e.g., Jegadeesh and Titman (1993)). To control for liquidity effects (see, e.g., Amihud and Mendelson (1986)), we include the logarithm of the Euro volume of trading in the securities of firm i in 2005, $DVOL_{i,2005}$. To capture a possible impact of the small firm effect on stock returns (see, e.g., Banz (1981)), we include the logarithm of the market value of firm i 's equity at the end of 2005, $SIZE_{i,2005}$. Furthermore, we include the logarithm of the reciprocal share price as reported at the end of the year 2005, $PRICE_{i,2005}$, to control for the low price effect (see, e.g., Miller and Scholes (1982)). Finally, we include the logarithm of the book-to-market ratio, $BM_{i,2005}$, as well as the dividend yield, $YLD_{i,2005}$ (Brennan, Chordia, and Subrahmanyam (1998)). Model (1) is estimated with White (1980) heteroscedasticity-consistent standard errors. Results are presented in Panel A of Table 6.

¹⁴In addition to the variables we use, Brennan, Chordia, and Subrahmanyam (1998) also control for some additional firm characteristics like sales growth. Due to a lack of data availability we could not include these variables.

Table 6: Multivariate Results

Panel A: 2006			
<i>Politically Connected Firms</i>	0.1809***	0.1510*	0.1624*
<i>Lagged Return</i>	0.0751	0.0048	0.1382
<i>Trading Volume</i>		0.0575***	0.0878***
<i>Size</i>		-0.1209***	-0.0839*
<i>Price</i>		-0.2286***	-0.1819***
<i>Book-to-Market</i>			0.0540
<i>Dividend Yield</i>			-0.8644
<i>Intercept</i>	0.0276	-0.4089***	-0.7893***
<i>Observations</i>	586	504	95
<i>R²</i>	1.2%	24.77%	26.94%
Panel B: 2007			
<i>Politically Connected Firms</i>	0.04	0.02	0.01
<i>Lagged Return</i>	-0.04	-0.04	0.06
<i>Trading Volume</i>		-0.00	-0.01
<i>Size</i>		0.02	0.02
<i>Price</i>		0.02	0.02
<i>Book-to-Market</i>			-0.00
<i>Dividend Yield</i>			0.05
<i>Intercept</i>	0.08***	0.06	0.05
<i>Observations</i>	589	575	427
<i>R²</i>	0.3%	1.0%	1.3%

Notes: The dependent variable is the firm's stock market return in 2006 (Panel A) and 2007 (Panel B). The independent variables are lagged by one year. All regressions are estimated with White (1980) heteroscedasticity-consistent standard errors. Significance levels are indicated as follows: *** 1% significance, ** 5% significance, * 10% significance.

We first estimate Model (1) only including lagged returns as an additional control variable. We then stepwise include further control variables. We do not include all control variables right from the beginning, because their inclusion reduces the number of observations in some cases. This effect is particularly pronounced if we add the dividend yield and the book-to-market ratio.

Results in the first column show that politically connected firms have significantly higher stock market returns than independent firms after controlling for lagged returns. The estimate for the influence of $PolCon_{i,2006}$ is statistically significant at the 1%-level. The effect is also economically significant, indicating a positive abnormal stock return of 18% per annum for politically connected firms.

Our result remains stable if we additionally control for other market-based firm characteristics (column 2). In the third column, we add the book-to-market ratio and the dividend yield as control variables. This leads to a massive reduction in the number of observations from 504 to 95. However, we still find a statistically significant positive relation between political connectedness and firm performance. The effect is also still economically significant. The estimate indicates that politically connected firms have returns that are higher by more than 16% per annum than those of unconnected firms in 2006. This confirms the findings from the previous section.¹⁵ Although we control for the influence of the most important firm characteristics it should be noted that it is of course still possible that our results are driven by some other omitted variable.

In Panel B we repeat our estimation of Model (1) but now use return data from 2007 and thus replace the dependent variable by the stock market return in 2007, $Ret_{i,2007}$. All lagged control variables are now based on 2006 values. Consistent with

¹⁵Additional tests show that our results also hold if we use industry adjusted returns as dependent variable. They are also very similar if we define the dummy variable for political connectedness based on the narrower definitions of political connectedness.

the findings from Table 5, we find a much weaker influence of political connections in this case. The estimated coefficient for the political connections dummy is only 0.04 (0.02, 0.01) in column 1 (column 2, 3) and not statistically significant at conventional levels anymore. This is again consistent with the efficient market hypothesis.¹⁶

Overall, the results from this section suggest that German firms with political connections deliver a better performance than firms without any Bundestag delegates on their payroll. Connected firms perform better according to accounting-based performance measures like return on equity and return on investments in 2006 and 2007. On the stock market, firms with political connections earn positive abnormal returns in 2006, when information on political connections is not publicly available. In 2007, when information on political connections finally becomes publicly available, the performance differences between connected and unconnected firms are much smaller and not significant in a multivariate setting.

5 Conclusion and Outlook

This paper is the first to investigate politically connected German firms in the post-WWII era. The introduction of new transparency laws in Germany allows us to collect information on non-parliamentary job activities and compensation for every member of the Bundestag for the first time. We compare firms listed by at least one member of the Bundestag as additional source of income to firms that have no political connections.

¹⁶Also consistent with this, in unreported tests we look at return differences in July 2007 in isolation. In this month, information on political connections was published. We find that connected firms outperform unconnected firms by about 5% in this month, i.e. the return difference of 4% documented above is entirely driven by an announcement effect. This finding suggests that market participants interpret political connections of a firm as a positive signal.

Our results indicate that politically connected firms tend to be large, well-established, low risk companies with few growth options. They have lower Tobin's Qs and lower price-earnings ratios. More importantly, they outperform politically unconnected firms according to market- as well as accounting-based performance measures. These findings are in line with previous studies on the relation between political connectedness and firm performance (see, e.g., Faccio (2006) and Goldman, Rocholl, and So (2007)). Our results are consistent with the view that corporate connections with political officials are valuable for a firm. Assuming that a firm is willing to pay more money to the delegate if that delegate provides more value to the firm, one would expect firms paying high salaries to perform better than firms that pay the delegate less. Our findings provide some support for this view, too: we generally obtain the strongest performance effects for firms that pay delegates a high monetary compensation.

However, the data available to us only covers the years 2006 and 2007. While the data from the year 2006 has the unique advantage that information on political connections was not publicly available yet (and thus could not be reflected in stock prices but had an impact on stock returns), this data basis obviously is still extremely limited. Thus, our findings are indicative rather than conclusive and have to be interpreted with great caution.

It should be emphasized again that our results can only be interpreted as evidence for a positive correlation between various measures of political connections and firm performance. We are not able to make any causality statements. Our results are consistent with both: either delegates help firms to perform better or delegates are for some reason able to select those firms as employers that perform well.

Collecting more data as they become available is necessary to provide further evidence on the relation between firm performance and political connectedness in Germany. However, if these investigations should indicate that politically connected firms do better because of, for example, more favorable tax treatment, access to government procurement contracts, or regulatory exemptions, this would cast some serious doubt on the corporate-policy nexus in Germany.

Additional data will also allow for an examination of further interesting related questions in the future, e.g., whether the probability of a delegate being re-elected depends on whether that person is on the payroll of a firm or not, or whether there is any impact on the stock price of firms if a delegate they are connected to is (or is not) re-elected.

Appendix

The following table contains a brief description of the committees connected delegates work for. A more detailed description can be obtained from <http://www.bundestag.de>.

<i>No.</i>	<i>Committee</i>	<i>Description of Responsibilities</i>
1.	Affairs of the EU	helps to formulate and implement German policy towards the European Union.
2.	Baltic Sea Parliamentary Conference	develops cooperation among parliamentary institutions of the Baltic Sea area and facilitates discussion of major regional issues.
3.	Budget	scrutinizes the expenditures of the Federal Government and is responsible for deliberating on the federal budget each year.
4.	Cultural and Media Affairs	discusses cultural matters of national significance.
5.	Defence	is concerned with the security of the country, parliamentary oversight of the German armed forces.
6.	Economic Cooperation and Development	works for the achievement of the Millennium Goals and the elimination of poverty around the world.
7.	Economics and Technology	discusses fundamental questions of economic and energy policy, the postal sector, telecommunications, new technologies and innovation.
8.	Education, Research and Technology Assessment	deliberates on long-term decisions about the direction in which research and education policy should be moving, questions relating to research and technology policy, draws up analytical studies and issues reports on significant issues.
9.	Environment, Nature Conservation and Nuclear Safety	deals mainly with climate change, nuclear power, renewable energies, landscape conservation and animal protection.
10.	Family Affairs	responsible for or asked for its opinion on all bills, motions, reports, resolutions and EU items relating to families, senior citizens, women, and young people.
11.	Finance	discusses issues related insurance and money-, credit-, and capital-markets.
12.	Food, Agriculture and Consumer Protection	aims to protect consumers against unsafe foodstuffs, helps consumers to inform themselves, manages food scandals, forests and woodlands, and is concerned with animal protection, the agricultural sector, and coastal protection systems.
13.	Foreign Affairs	oversees the governments foreign policy, particularly in the run up to important foreign and security policy decisions.
14.	Health	is concerned with the further development of the reforms to statutory health insurance, patients rights, doctors concerns, questions of medical ethics and pharmaceutical safety.
15.	Human Rights and Humanitarian Aid	helps to stop violations of and avert threats to human rights.
16.	Internal Affairs	is responsible for parliamentary scrutiny of the Federal Ministry of the Interior and intelligence services, prepares important legislative proposals.
17.	Labor and Social Affairs	deals with pensions and the labour market.
18.	Legal Affairs	gives opinion on numerous pieces of draft legislation, responsible for bills relating, to e.g. civil law, criminal law, business law, and procedural law.
19.	Mediation	tries to find a consensus between the Bundestag and the Bundesrat when acts adopted by the Bundestag fail to find a majority in the Bundesrat.
20.	Petitions	examines and deliberates letters addressing requests or complaints to the Bundestag.
21.	Scrutiny of Elections	scrutinizes the validity of elections to the German Bundestag.
22.	Sports	responsible for all aspects of elite and mass sport, deliberates on the significance of sport for health, society, and the economy.
23.	Transport, Building and Urban Affairs	is partly responsible for the fields of policy in which the Federation makes the greatest investments, such as transport infrastructure, also deals with the (social) housing sector.

Source: <http://www.bundestag.de>.

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Inflation Dynamics and the Cost Channel of Monetary
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