The value of political connections in a well-developed institutional setting

A study of the influence of political connections on firm performance and growth in Sweden

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Abstract

This study examines the effects of political connections on firm performance and growth for privately and state-owned firms operating in Sweden. We use accounting based data from the period of 2010 to 2014 for all registered Swedish limited liabilities companies with an annual turnover exceeding SEK 1 million. We find little evidence of effects on firm growth stemming from political connections in our data. Regarding the effects on firm performance, we find that privately owned firms with politically connected board members and CEOs underperform those without politically connected board members and CEOs. The opposite effect is found for state-owned firms. Our findings suggest that state-owned firms with politically connected board members and CEOs outperform their non-connected counterparts. Our results are in line with prior research conducted in well-developed economies, observing the only distinction from prior research being a positive effect on firm performance for politically connected firms in our state-owned sample.

Keywords: Political connection, firm performance, firm growth, Sweden

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Introduction

The interconnection between business and politics has always been a heavily debated subject. In recent years, the attention to the relationship between politicians and corporations seem to be increasingly focused upon by mass media. Today, it is not too uncommon to observe politicians occupying a seat on the board of directors, or on the averse, observing business people running for parliament or president. This type of political connections among corporations is a widespread phenomenon around the world and their effects have attracted a growing interest from both public scrutiny and academia. In this paper we investigate if political connections, defined as a current or former politician being a CEO or sitting on the board of directors, generate value for corporations operating in a well-developed institutional environment such as in the Swedish settings.

The bulge of previous research points towards that political connections do create value in firms, but that the magnitude of the benefits depends on the specific country setting (Faccio, 2010), the firm's ownership condition (Wu et al., 2012), and the party affiliation of the political connection (Goldman et al., 2013) (Li et al., 2008). Moreover, the benefits are mainly derived from some kind of preferential governmental treatment resulting from the political connection (Claessens et al., 2008) (Adhikari et al., 2006) (Johnson et al., 2003). This holds true if the political connection influences the firm to pursues profit maximization rather than political and social objectives (Boubakri et al., 2008) (Wu et al., 2012), and if the politician on the board exhibits business expertise and a market oriented mind (Fan et al., 2007).

Although the positive effect of political connections has been-well documented in many prior studies, the majority of previous research have been conducted in developing countries with poor institutional environments. This sparks the interest to examine whether this relationship also exists in a country with well-developed institutions. On a cross-country comparison (Faccio, 2006) (Faccio, 2010) found that the net beneficial value for firms of political connections decrease with lower levels of corruption, alongside stronger legal systems and stronger property rights protection. These findings indicate that the value of political connections might be non-existent, or negative, for firms operating in well-functioning institutional environments.

Continuing this string of research, Sweden becomes an interesting subject of analysis. Sweden ranks in the top percentile in the quality of legal systems, property rights protection and low levels

of corruption.[1] In this well-functioning institutional environment there ought to presumably be very low incentives for a profit-maximising firm to have political connections within the corporation. However, the Swedish business community regularly experiences politicians taking places on corporate boards after resigning leading governmental positions. This raises the question as to why corporations choose to place politicians on the board of directors. What role does the political connection play in corporations operating in the developed world? And do the political connections generate extra value for corporations also in Sweden with its well-functioning institutional environment?

[1]Transparency International – The Global Anti-Corruption Coalition,
source: https://www.transparency.org/cpi2015/#results-table, visited 01-12-2016.
IPRI 2016 – International Property Rights Index 2016,
source: http://internationalpropertyrightsindex.org/country?c=SWEDEN, visited 01-12-2016.

Background

In this section we present previous literature covering the topic of political connections and firm performance, and investigate the reasoning behind why firms choose to acquire political connections.

Previous research

The major part of previous research on the relationship between political connections and firm performance is conducted on emerging or transition economies that exhibit high levels of corruption and weaker forms of legal systems and property rights protection. Prior research in these institutional settings have mainly found that the relationship has a positive effect on firm performance (Fisman et al., 2001) (Li et al., 2008). The positive effects can be derived from preferential treatment in acquiring key resources, such as bank loans and raw materials from government owned enterprises (Claessens et al., 2008), favorable tax treatments (Adhikari et al., 2006), or increased market power from beneficial governmental treatment (Johnson et al., 2003). However, (Fan et al., 2007) provided evidence that political connections can have negative effects on firm performance from decreased board professionalism, weaker governance and cronyism. This could be derived from the reluctance of governments to relinquish control of newly privatized firms (Boubakri et al., 2008). Later, (Wu et al., 2012) clarified some of the mixed evidence from prior studies by testing for the ownership condition, if the firm is state or privately owned. The study found that political connections created value for private firms, but that state-owned firms were negatively affected. In the latter case the political connection influenced an increased focus at fulfilling social and political objectives rather than pursuing a goal of achieving profit maximization.

As with all the previous mentioned studies being single country studies, the specific findings only hold true for the specific country setting. Especially when the variable of a political connection is dissimilarly defined between the studies. However, many of the findings from developing countries are confirmed on a cross-country comparison (Faccio, 2006) (Faccio, 2010). On average, politically connected firms display stronger market positions, have higher leverage and lower taxation. Furthermore, the effects are more profound if the connection is stronger and if the connected firm operates in countries with higher levels of corruption. On the other hand, connected firms generally underperform with regards to return on assets (ROA) in comparison to their non-connected peers (Faccio, 2010). Although there is an evident difference between connected and non-connected firms, there is one limitation to the results. As is disclosed in the study, it is impossible to say if these

differences are generated by the connection, or if this group of firms are more prone to establish political connections.

While the majority of prior research is largely documenting a positive effect from political connections on firms in the developing world, it is not equally well-established among countries with a well-functioning institutional environment. In the US setting, which has a strong legal system and well-developed financial market, (Hillman, 2005) provided mixed support that political connections created positive effects on firm performance. The study found that connections were associated with positive effects on market-based performance measures, but not on accounting based performance measures. This is in line with (Goldman et al., 2009) that found US firms experiencing positive stock market reactions from nominating a politically connected director. Further, the study found that in the 2000 election the firms increased (decreased) in value accordingly to if they were connected to the winning (losing) political party. The importance of the political connection's party affiliation was further highlighted by (Goldman et al., 2013) where they found that a ruling (non-ruling) party connection gave large advantageous (disadvantageous) treatments in acquiring governmental procurement contracts.

The main conclusion one can draw from the US setting is that although the positive effect of political connections is not documented in accounting measures, the market responses indicate that such benefits do exist. Moreover, as (Goldman et al., 2013) identified, one source of this positive market-based value can be derived from how the political connection may affect the allocation of governmental procurement contracts. This shows that the incentives for firms to become politically connected is also justified in well-functioning institutional environments such as in the US. This holds especially true for firms operating in industries with a higher presence of government involvement. In these industries, governmental involvement by policy making or regulations might result in a significant reallocation of resources for the affected firms. This is confirmed by (Hillman, 2005) findings where more political connections were present in more heavily regulated industries compared to less regulated industries.

This study's contribution to prior research

Whereas the effect of political connections is well-understood in developing countries, it is only partially examined in well-functioning institutional environments. There are a few previous studies that have examined the US setting (Hillman, 2005) (Goldman et al., 2009) (Goldman et al., 2013), but their findings are based on old data on large publicly traded firms during the end of the 20th century.

In contrast to the research conducted in the US setting, this study will add to the body of research in three new ways. First, it will examine the relationship in what can be considered as an extremely strong institutional environment, observing that Sweden ranks in the top percentile with regards to low corruption and strong legal systems and property rights protection. The honest and transparent institutional setting of Sweden should further decrease the value of political connections seen in the US setting, and especially the effects seen in the developing world. Second, this study will be performed in a similar method as prior research in the developing world, by including all firms, small as big, private as state-owned, and examine if the ownership condition or the political connections' party affiliation has any effect on firm performance. And third, this research will be based on data from 2010 to 2014, which is more accurate at estimating the current world. While the results found in prior research in the developing world are based on up-to-date information, the results found in research from the US setting are based on relatively old data from the late 20th century.

Role of political connection

Following the reasoning in (Hillman, 2005), the resource dependence theory (Pfeffer et al., 2003) provides a plausible rationale for the underlying incentives of firms to acquire political connections. According to the resource dependence theory, all firms are dependent on external resources. These resources are ultimately acquired from organizations in the specific firm's external environment. Therefore, firms are dependent on organizations in its external institutional environment, and this dependency affects the firms' behavior. The dependency on external sources creates risk and uncertainty, which can be reduced by establishing linkages with the external sources (Pfeffer, 1972). With the increased interdependency between the business community and the government, a major concern for many firms are government regulations, restrictions and policy makings (Hillman et al., 1999). In order to mitigate the uncertainty from governmental intervention, many firms are incentivized to co-opt government through political connections (Selznick, 1949). A legitimate course of action to create this political connection is by electing a current or former politician to the board of directors. As proposed by the resource dependence theory, the need of external linkages is a function on the degree of dependencies facing the firm (Pfeffer et al., 2003) (Boyd, 1990). This relation has been confirmed, with regard to governmental dependencies, by studies performed in the US setting. Accordingly, industries with higher levels of governmental regulations are associated with an increased number of political connections compared to industries with lower levels of regulations (Hillman, 2005). Furthermore, firms where sales to government, lobbying, and exports are greater are associated with an increased number of political connections (Agrawal et al., 2000).

Following the resource dependence logic for political connection in firms and connecting it to prior research findings on political connections and firm performance, we argue that political connections play two main roles when creating value for firms operating in a well-functioning institutional environment. First, the expertise and knowledge the political connection brings to the firm creates value by reducing uncertainty and helps the firm navigate the bureaucratic and complex governmental system, thus governing the firm to allocate resources more efficiently when creating proactive strategies for dealing with potential governmental involvement. Second, the extended network provided by the political connection gives access to preferential treatment for the firm in the governmental system. While this source of value creation has been largely established by prior research performed in developing countries (Claessens et al., 2008) (Adhikari et al., 2006) (Johnson et al., 2003), it has only been partly identified in the more developed US setting, such as the allocation of governmental procurement contracts (Goldman et al., 2013).

To what extent the increased knowledge of the governmental system, or the extended network to the governmental system, generates value for firms, is dependent on the specific country setting (Faccio, 2010), industry setting (Hillman, 2005), and firm setting (Agrawal et al., 2000), alongside the strength of the political connection (Faccio, 2006) (Goldman et al., 2013). However, as some of the value generated by the political connection will be extracted by the politician, firm value will only be enhanced when the marginal benefits of the connection exceed the marginal costs (Shleifer et al., 1994).

Political connections within the Swedish institutional setting

The aim of this study is to examine if political connections generate any beneficial value for firms operating in the well-functioning institutional environment of Sweden. In the following section we frame the scope of the study, briefly describe the institutional environment of Sweden, and elaborate on the influences political connections theoretically should impose on firms operating in the Swedish institutional setting. In light of this discussion, and with prior literature as point of departure, we form the testable hypotheses that this study aims to investigate.

Scope of study

This study will analyze both firm performance and sales growth to examine if a political connection generates value to firms operating in Sweden. A political connection is defined as a current or former politician being a CEO or sitting on the board of directors. The effect of political connections on firms will be tested on an aggregate level including all firms, and further on two individual subsamples consisting of privately and state-owned firms respectively.[2] As a large part of the politically connected sample firms in this study are not publicly traded, and thus lack information on market based firm performance measures, we define firm performance on the accounting based measure return on assets (ROA). Sales growth is measured by the annual sales growth in the income statement.

We further chose to specify an additional defining variable of political connections incorporating the effect of a firm's political connections to the ruling party in the region. We do this to test what we identify as different magnitudes of political connections and thus might provide additional understanding to our tests. We find it useful to use this additional operationalization of firms' political connectedness as the relationship ought to be more distinctive among the firms that also are connected with the decision makers in the region.

The Swedish institutional environment

Sweden is well-known for having an honest, equal and transparent society. Moreover, Sweden as a country has continuously been ranked in the top one percentile when compared on corruption level and fairness and quality of legal systems and property rights.[3] Considering (Faccio, 2010), this

[2] All 'municipality-, county- and state-owned firms' are grouped as one and hereafter defined as simply 'state-owned firms'

[3]Transparency International – The Global Anti-Corruption Coalition,
source: https://www.transparency.org/cpi2015/#results-table, visited 01-12-2016.
IPRI 2016 – International Property Rights Index 2016,
source: http://internationalpropertyrightsindex.org/country?c=SWEDEN, visited 01-12-2016.

institutional setting decreases the value derived from political connections, questioning if the benefits of the connections exceed their marginal costs within this institutional setting. However, much like in the US, the Swedish business community frequently elects current or former politicians into the board of directors despite concerns over conflicting interests between public and private interests, and public scrutiny. This is partly due to the increased interdependencies between the business community and the government that has emerged from the recent decades of privatizations of formerly state-owned enterprises (Hillman, 2005). Furthermore, as is indicated from prior research on the US setting, these connections are a consequence from firms coping with increased governmental interventions such as regulations and policy making (Hillman, 2005) (Agrawal et al., 2000).

Political connections' influence on firm performance

Utilizing findings from prior research, alongside the resource dependence logic, we argue that political connections will influence firm performance with two contradictory forces; one positive and one negative.

The positive influence can be explained by a resource dependence logic. Following (Hillman, 2005) reasoning about a resource dependence logic, the role of the political connection is to provides the firm with outside knowledge about, and create linkages to, the governmental system. This might improve the firm's ability to acquire governmental procurement contracts (Goldman et al., 2013), and help the firm coping with uncertainties resulting from governmental regulations and policies (Hillman, 2005) (Agrawal et al., 2000). All in all, the greater knowledge and extended network that the political connection brings will improve the firm's ability to allocate resources more efficiently when creating proactive strategies for dealing with current or future governmental involvement.

The negative influence on firm performance can be explained by weaker corporate governance, and can be derived from three sources: (1) decreased board professionalism (Fan et al., 2007), (2) decreased monitoring from too busy board members (Fich et al., 2006) and, (3) misaligned goals (Boubakri et al., 2008) (Wu et al., 2012). First, the decreased board professionalism seems evident when considering politicians replacing experienced business professionals in the board of directors. This is confirmed by (Fan et al., 2007), that found firms with more politicians on the board of directors

exhibited weaker board professionalism.[4] Secondly, decreased monitoring has been found in firms with busy board members, in which outside directors hold three or more directorships (Fich et al., 2006). While the sitting politician might not hold three or more directorships, they do have extensive political responsibilities alongside their directorship, which implies that they too could be considered as busy board members. Lastly, the weaker governance can be derived from misaligned goals. As found in developing countries (Boubakri et al., 2008) (Wu et al., 2012), the political connection can influence the firm of pursuing political and social objectives rather than achieving profit maximization, which presumably also is an effect prevalent among Swedish firms with political connections.

To what extent the positive influence derived from resource dependence logic, or the negative influence derived from weaker corporate governance, will affect firm performance has been shown to be dependent on the firm's ownership condition (Wu et al., 2012) and on the strength of the political connection (Faccio, 2010) (Goldman et al., 2013). Although (Wu et al., 2012) found a positive effect on ROA among privately owned firms that were politically connected in China, the contrary was evident in the US (Hillman, 2005). Moreover, on a cross-country level (Faccio, 2010) documented that politically connected firms generally underperformed their non-connected peers on ROA. This suggests that politically connected firms operating in Sweden, regardless of being privately- or state-owned, will exhibit influences more leaning towards the negative influences. However, a stronger political connection, the connection being affiliated with the ruling party, might offset these negative influences. Leaning on (Goldman et al., 2013) findings in the US[5], it is plausible to believe that privately owned firms associated with a ruling party affiliated political connection will exhibit stronger positive influences. However, as the study never documented positive effects on ROA, it is unlikely that any of these positive influences will translate into a detectable positive effect on ROA for firms operating in Sweden. Following this line of reasoning, we form the first testable hypothesis on what effect political connections will have on firm performance:

[4] This is contradictory to findings from the US setting (Hillman, 2005), but as it is found to be evident in China (Fan, Wong and Zhang, 2007), this effect might also be prevalent in Sweden. (The study performed on the US setting (Hillman, 2005), found that firms operating in heavily regulated industries had more political connections compared to firms operating in less regulated industries. Both groups inhibited better market based performance measures from an increased number of political connections, with the former group exhibiting more pronounced effects from the connections. However, no effect was detectable on accounting based performance measures, which are the measures used in this study for measuring firm performance.)

[5] In short; Politically connected firms in the US experienced a large advantageous (disadvantageous) treatment in acquiring governmental procurement contracts when the connection was affiliated with the ruling (non-ruling) party.

H1: *Firms with political connections will exhibit a lower ROA compared to non-connected firms*

If we cannot prove H1, this would imply that there are either no effects or positive effects derived from having political connections in firms operating in the transparent and well-functioning institutional environment of Sweden.

Political connections' influence on sales growth

As sales is a major factor influencing the ROA, it is evident that several of the influences discussed in the previous section also applies to sales growth. The main difference of testing the sales growth is that firms with political connections will be less exposed to the negative influences previously discussed regarding firm performance. The negative influence explained by weaker corporate governance ought to only result in poorer operational efficiencies and not affect the sales growth potential. Thus, the influence political connections have on sales growth ought to be more positively weighted compared to the influences political connections have on firm performance.

As a disclaimer for the following discussion, the reader should consider that there are no previous studies to the authors' knowing that have tested the implicit effect political connections have on sales growth. However, there are a few studies that have documented effects that may indicate partial influences on sales growth stemming from political connections. (Faccio, 2010) documented that politically connected firms had stronger market positions, and (Goldman et al., 2013) found that US firms with political connections affiliated to the ruling (non-ruling) party experienced an advantageous (disadvantageous) treatment in acquiring governmental procurement contracts. Both these findings indicate that a strong political connection may translate into a detectable increase in sales growth for firms operating in Sweden. However, as it is doubtful to believe that state-owned firms would experience any preferential treatment from the political connections in Sweden, we argue that only privately owned firms that have a ruling party affiliated political connection would be subject to experience any positive effects in sales growth. This brings us to the second testable hypothesis:

H2: *Firms with political connections will exhibit similar annual sales growth compared to non-connected firms*

If we cannot prove H2, this would imply that there are significant effects on firm sales growth derived from having political connections in firms operating in the transparent and well-functioning institutional environment of Sweden.

Political connections' influence based on party affiliation

It is of further interest for our study to examine if the politically connected firm also being affiliated with the region's decision makers has any more pronounced effects on firm performance and sales growth (see method section "Specification of independent variables" where the operationalization of this variable will be discussed more in detail). Thus, if we are able to identify any positive effects on firm performance, thereby rejecting H1, the positive effect for politically connected firms also affiliated with the region's ruling party ought to be stronger. Furthermore, if we are able to identify any positive effects for politically connected firms on sales growth, thereby rejecting H2, the sales growth ought to be more positive for politically connected firms also affiliated with the ruling party in the region.

The sub-hypothesis for H1 is then specified as:

H1-b: *Politically connected firms also affiliated with the region's ruling party will exhibit a higher ROA compared to politically connected firms not affiliated with the ruling party in the region*

And the sub-hypothesis for H2 is then specified as:

H2-b: *Politically connected firms affiliated with the region's ruling party will exhibit a higher annual sales growth compared to politically connected firms not affiliated with the ruling party in the region*

In conclusion, if H1 and H1-b is rejected, we can conclude that political connection do not add value (nor destroy value) in terms of firm performance in the well-functioning institutional environment of Sweden. However, if H1 is rejected whilst H1-b cannot be rejected, there exist further positive effects from the increased formal strength in the political connections of firms. For effects on firm sales growth, if H2 is true and H2-b is rejected, we can conclude that political connection do not add value in terms of sales growth in the well-functioning institutional environment of Sweden. However, if we are able to reject H2 whilst failing to reject H2-b, we are able to see evidence of increased effects generated by strong political connections that brings value for firms. Further, as the difference is dependent on the strength of the political connection, this indicates that it is the extended network to the political power in the governmental system that adds value for the specific firm. Hence, implying that there is an existence of preferential governmental treatment also in Sweden.[6]

[6] This holds true, if the average political connection exhibits the same knowledge of the governmental system, i.e. the knowledge of the governmental system is not dependent on whether the connection is affiliated with the ruling or non-

Research design

This section describes the overall research design used in this study. First we describe how the data has been collected and ordered, and secondly we proceed with describing the statistical approach chosen for testing our hypotheses.

Data

Favorably for this study is the transparency in the Swedish society where data of politicians, board members and CEOs are publicly available. This, although being time consuming, simplifies the process of mapping all the politically connected firms. Our full sample data stretches across the period 2010 to 2014 and three databases will be utilized for the purpose of this study. The utilized databases in this study are the Swedish Election Authority[7], Retriever, and Serrano. The Swedish Election Authority and Retriever are used to establish a sample of politically connected firms, and Serrano is used to collect data of firm performance measures. In this section we present the three databases and describe the approach used to identify a politically connected firm.

Data of politicians

Data of politicians are provided by the Swedish Election Authority. Using data from the Swedish elections in 2010 we compile information of politicians becoming elected into municipality councils, county councils and parliament. The data includes information of the politician such as name, age, party affiliation and election district. In 2010 there were a total of 14,981 elected politicians, with 3,268 politicians resigning and being replaced over the four-year term of office. In total, 18,249 politicians were active in the councils and parliament for a given period of time during the period from 2010 to 2014.

Data of board members and CEOs

Data of board members and CEOs are collected from the Retriever database. This database provides name, age, registered residential address and location of the firm within which the board members and CEOs currently are holding a position.

ruling party. Thus, it is not the knowledge of the governmental system affecting the increased sales growth, but instead the extended network to the ruling party, hence current power holder, in the governmental system that generates the extra value in sales growth.

[7] Swedish: Valmyndigheten

Data of firm performance and accounting based information

Accounting based data and firm performance measures are collected from the Serrano database The Serrano database gathers, interprets and standardizes Swedish firms' annual reports filed to the Swedish Companies Registration Office.[8] We choose to limit our sample to only include Swedish limited liability companies[9] due to information availability and quality of accounting information. Further we put a restriction to firm size where we exclude firms with sales below 1 MSEK during each year of our test period. To cope with the issue of the Serrano database reporting both consolidated and unconsolidated accounts, we consolidated all group subsidiary accounts to the group level and proceed with only including the groups' consolidated accounts in our dataset.

We further limit our sample by excluding firms belonging to certain specific industries, mainly financial institutions and banks, real estate, and energy, as these industries either differ significantly in their reporting standards or are heavily regulated and thus operate in significantly different business conditions.[10]

Approach for identifying politically connected firms

To identify a politically connected firm we use a specific set of criteria. First, we cross-match the information provided by the Swedish Election Authority (data of politicians) with the information provided by the Retriever database (data of board members and CEOs). This is done by matching politicians first-, middle- and surnames, and age with the same data of firm board members and CEOs. To narrow the match, we control that the politician's election district is in the same county as the location of the matched board member's or CEO's firm. Second, to further validate the match we manually check that the matched board member's and CEO's registered residential address is located in the matched politician's election district. If further confirmation is needed for the match we use an online search engine to further investigate the matched board member, or CEO, and politician. If there still exist any doubts of the match we choose to drop the observation to not risk distorting our sample with non-politically connected firm observations.

[8] Swedish: Bolagsverket
[9] Swedish: Aktiebolag
[10] When including the more heavily regulated industries the results in our regressions are similar in direction, but with slightly less pronounced effects with regards to the coefficients

Method

This section describes the statistical method used for testing the hypotheses. We start by specifying the general fixed effects model used to test the effect political connections have on firm performance and sales growth. Thereafter we describe the variables used in the regression model, and lastly we present a summary of the full regression models specified in this study.

Specification of fixed effect panel regression model

As our sample consists of an unbalanced panel of firm-year observations, we are able to control for time-constant unobserved heterogeneity which may bias the results of cross-sectional studies if these unobserved factors correlate with independent variables. Thus we choose to specify fixed effects models for our tests of the effects from political connections[11]. The general fixed effects regression model can be written as:

$$DV_{i,t} = \alpha + \beta_1 * IV_{i,t-1} + \beta_{control\ var} * Control\ variables_{i,t-1} + Region\ indicators + Industry\ indicators + Year\ indicators + (u_i + \varepsilon_{i,t})$$

Where *i* refers to the firm and *t* the current time period. $DV_{i,t}$ refers to the dependent variable ROA or GROWTH. $IV_{i,t-1}$ represents the independent variables POLCON[12] or RPA[13], note that we employ a one-year lag for our independent variables and control variables. The control variables represent a set of control variables that prior literature have proven to affect the regressed dependent variables. Given this model specification the parameter of interest is β_1.

To test if any detectable effects from political effects are dependent on any ownership conditions the fixed effects models are performed on an aggregate level including all firms, and on the two subsamples consisting of privately owned firms and state-owned firms. Further, to test if a stronger political connection has any impact on firm performance or sales growth, both the independent variables POLCON and RPA will be individually regressed on the full sample and individually on each subsample. Following is a detailed description of the variables used in the fixed effects models.

[11] Either fixed effects models or random effects models could be specified for our tests of the effects from political connections. However, as the Hausman test rejects the random effect estimator, the fixed effects panel regression is our preferred model. (For the fixed- and random effects regression models, u_i represents the unobserved heterogeneity term, which is assumed to be firm-specific and constant throughout the different time periods. The random effects estimator is only valid if u_i would be uncorrelated with the explanatory variables.

[12] POLCON represents a politically connected firm

[13] RPA represents a politically connected firm where the political connection is affiliated with the ruling party

Specification of dependent variables

To measure the political connections' effect on firm performance and sales growth we use return on assets (ROA) and annual sales growth (GROWTH) as the dependent variables.

ROA – Return on assets is pre-calculated by the Serrano database as adjusted operating profit, or loss, after financial income divided by the opening balance of total assets. To reduce the impact of outliers in the ROA variable, we truncate the variable at the top and bottom 1% of the distribution.

GROWTH – Sales growth is defined as the annual percentage change in gross revenues of the firm. It is calculated as the difference between the year's reported closing balance revenues and the previous year's closing balance revenues divided by the previous year's closing balance revenues. To reduce the impact of outliers in the GROWTH variable, we truncate the GROWTH variable. As the variable exhibits large positive skewness, we truncate the variable at the bottom 1% and the top 5% of the distribution.

Specification of independent variables

To test if any detectable effects on the dependent variables are dependent on the strength of the political connection we define the independent variables POLCON and RPA.

POLCON – Represents a firm-year that is politically connected. Following prior literature (Wu et al., 2012), we define a firm-year to be politically connected if a current or former politician is the CEO or sitting on the board of directors of a firm. Although the CEO can be regarded as being closer to the daily operations of the business compared to the board members, we expand the definition of being political connected to also include the board members. This as previously presented research suggests the existence of an influence from politically connected board members on firm performance.

RPA – Represents a firm-year that is politically connected, and where the political connection is affiliated with the ruling party in the region. This independent variable tests if a stronger political connection has more profound effects on the dependent variables. Per our operationalization of the RPA variable, all firm-years indicated by the RPA variable will be a subsample of the firm-years indicated by the POLCON variable.[14]

[14] In our specification of the RPA variable we have only chosen to include the eight major Swedish parties represented in the parliament. This cut-off is chosen as the minor, more local parties, often tend to experience changes in their council

Control variables

Following (Wu et al., 2012) regression setup, and other prior studies' setup, we include the following control variables to control for factors that affect sales growth and firm performance.[15]

SIZE – To control for the size and economies of scales for the firms, we include the natural logarithm of assets in our regression models.

LEV – We include the natural logarithm of leverage, where leverage is defined as adjusted total liabilities divided by adjusted equity.

GROWTH – A specific control variable for the dependent variable ROA is the previous year's annual sales growth. As the variable exhibits large positive skewness, we truncate the variable at the bottom 1% and the top 5% of the distribution.

CAPINT – A specific control variable for the dependent variable ROA is the capital intensity of the firm. CAPINT is calculated as the sum of intangible and tangible fixed assets divided by total assets. To reduce the impact of outliers, we truncate the variable at the top and bottom 1% of the distribution.

ROA – A specific control variable for the dependent variable GROWTH is return on assets. To reduce the impact of outliers, we truncate the variable at the top and bottom 1% of the distribution.

AGE – A specific control variable for the dependent variable GROWTH is firm age. The firm age is calculated as the difference in years between the registration date of the firm and the year of the current observations.

We further include control variables for industries and regions to control for the differing business conditions across industries and regions, and year indicators to control for year-fixed effects.

representatives. Hence, the tenure of these politicians tends to be very short resulting in low "political power". Thus, for the purpose of our tests, we decided to exclude these parties to be more conservative in our variable specifications.

[15] Many prior studies use the firms' R&D expenditures as a control variable for firm performance and future sales growth. In our tests, we are not able to conduct the same operationalization of R&D expenditures as the firms in our full sample are reporting their financial statements in accordance with various frameworks (K2, K3 and IFRS). As the reported R&D expenditures are one of the financial posts substantially differing between the different accounting frameworks, the operationalization of R&D expenditures is heavily distorted by the different accounting standards and thus not comparable across reporting frameworks.

Summary of specified fixed effects regression models

The four different fixed effects regression models performed on a full sample including all firms, and on subsamples of privately- and state-owned firms, can be written as:

$$ROA_{i,t} = \alpha + \beta_1 * POLCON_{i,t-1} + \beta_{SIZE} * SIZE_{t-1} + \beta_{LEV} * LEV_{t-1} + \beta_{GROWTH} * GROWTH_{t-1} + \beta_{CAPINT} * CAPINT_{t-1} + Region\ indicators + Industry\ indicators + Year\ indicators + (u_i + \varepsilon_{i,t})$$

$$ROA_{i,t} = \alpha + \beta_1 * RPA_{i,t-1} + \beta_{SIZE} * SIZE_{t-1} + \beta_{LEV} * LEV_{t-1} + \beta_{GROWTH} * GROWTH_{t-1} + \beta_{CAPINT} * CAPINT_{t-1} + Region\ indicators + Industry\ indicators + Year\ indicators + (u_i + \varepsilon_{i,t})$$

$$GROWTH_{i,t} = \alpha + \beta_1 * POLCON_{i,t-1} + \beta_{SIZE} * SIZE_{t-1} + \beta_{LEV} * LEV_{t-1} + \beta_{ROA} * ROA_{t-1} + \beta_{CAPINT} * CAPINT_{t-1} + Region\ indicators + Industry\ indicators + Year\ indicators + (u_i + \varepsilon_{i,t})$$

$$GROWTH_{i,t} = \alpha + \beta_1 * RPA_{i,t-1} + \beta_{SIZE} * SIZE_{t-1} + \beta_{LEV} * LEV_{t-1} + \beta_{ROA} * ROA_{t-1} + \beta_{AGE} * AGE_{t-1} + Region\ indicators + Industry\ indicators + Year\ indicators + (u_i + \varepsilon_{i,t})$$

Empirical Results

Sample descriptive statistics

(Table 1) shows descriptive statistics of our full sample of firms by year. The full sample consist of a total of 569 192 firm-year observation, whereof 3 245 firm-year observations are politically connected and 2 024 firm-year observation are affiliated with a ruling party political connection. The average annual ratio of politically connected firms is 0.57%, which suggests that political connections are fairly unusual in Sweden. Throughout all observed years, more than half of the politically connected firms were connected with the ruling party in the region. When splitting the politically connected firms into the subsamples consisting of privately owned and state-owned firms, we can observe a substantially higher presence of politically connected firms in the state-owned subsample. On average 0.47% privately owned firms are politically connected in comparison to 38% of the state-owned firms. Furthermore, in both subsamples there is an increase in politically connected firms moving from 2010 to 2014. This is partly explained by the operationalization of the POLCON and RPA variable, where we define a firm to be politically connected if a current or *former* politician is CEO or sitting on the board of directors. As there were 3 268 politicians resigning and being reelected during the four-year term of office, part of the increase in political connections are due to the increase in the pool of former and current politicians. However, this increase in former politicians accounts for a 22% increase in the total number of politicians during the period 2010 to 2014, which implies that the some part of the increase in politically connected firms is due to firms acquiring political connections.

(Table 2) shows descriptive statistics for our main variables that are used in the fixed effects regression models. The number of firm-year observations for the full sample of firms is 414 331, with 2 541 politically connected firm-year observation and whereof 1 604 politically connected firm-year observation are affiliated with the ruling party.[16] *Panel A* shows descriptive statistics for the full sample and the sub samples of privately owned and state-owned firms, with *Panel B* and *Panel C* providing in-depth descriptive statistics of the POLCON and RPA firm-year observations. Comparing the private- and state-owned firm subsamples, we observe certain differences between the two subsamples. Firms operating in the private sector exhibit a higher average ROA and sales growth, and are on average younger and smaller with regards to asset base.

[16] The decrease in number of firm-year observations shown in *(Table 2)* compared to *(Table 1)* is due to the lagging effect in the fixed effects regressions model.

(Table 3) shows a correlation analysis of the variables in *(Table 2)*. Indicated in the table, the correlation between the variables used in our models are low. Further, we examine the variance inflation factor (VIF) of the variables. The VIF values of the variables used in the regressions are below 10, which indicates that multicollinearity among our variables is not an issue.

Table 1: Descriptive statistics of total sample and sub samples

	Full Sample					Privately Owned					State-owned				
YEAR	Firms	POLCON	(%) of firms	RPA	(%) of POLCON	Firms	POLCON	(%) of firms	RPA	(%) of POLCON	Firms	POLCON	(%) of firms	RPA	(%) of POLCON
2010	95 542	446	0.47%	280	63%	95 257	358	0.38%	225	63%	285	88	31%	55	63%
2011	102 976	528	0.51%	337	64%	102 681	422	0.41%	270	64%	295	106	36%	67	63%
2012	113 441	648	0.57%	417	64%	113 130	527	0.47%	330	63%	311	121	39%	87	72%
2013	123 143	765	0.62%	468	61%	122 829	628	0.51%	373	59%	314	137	44%	95	69%
2014	134 090	858	0.64%	522	61%	133 764	725	0.54%	424	58%	326	133	41%	98	74%
Total	569 192	3 245	0.57%	2 024	62%	567 661	2 660	0.47%	1 622	61%	1 531	585	38%	402	69%

This table presents the descriptive statistics of the political connections of Swedish limited liability corporations by year from 2010 to 2014 for the full samples as well as the two subsamples characterized by either being privately- or state-owned. POLCON stands for a political connected firm. RPA stands for a politically connected firm that is affiliated with the ruling party in the region. The table reports the following from left to right: the number of firm-year observations in the entire sample; the number of politically connected firm-year observations; the percentage of firm-year observation that are politically connected; the number of politically connected firm-year observation that are affiliated with the ruling party in the region; and the percentage of politically connected firm-year observation that are affiliated with the ruling party.

Table 2: Summary statistics of main variables in total sample and sub samples

PANEL A: Summary statistics of main variables

	Full Sample					Privately Owned					State-owned				
VARIABLES	N	mean	min	p50	Max	N	mean	min	p50	max	N	mean	min	p50	max
ROA	414 331	12.20%	-68.70%	10.21%	153.50%	413 236	12.20%	-68.70%	10.24%	153.50%	1 095	2.15%	-66.90%	2.04%	106.60%
GROWTH	414 331	6.29%	-60.00%	2.55%	199.90%	413 236	6.29%	-60.00%	2.55%	199.90%	1 095	4.69%	-59.30%	2.58%	199.40%
AGE	414 331	17.07	1	13	150	413 236	17.04	1	13	150	1 095	27.11	1	19	117
SIZE	414 331	8.15	3.71	7.96	19.36	413 236	8.14	3.71	7.95	19.36	1 095	10.85	5.99	10.67	17.41
LEV	414 331	0.37	-9.18	0.30	9.04	413 236	0.37	-9.18	0.30	9.04	1 095	0.78	-3.61	0.76	8.69
CAPINT	414 331	0.19	0.00	0.07	0.90	413 236	0.18	0.00	0.07	0.90	1 095	0.30	0.00	0.16	0.90

PANEL B: Summary statistics of POLCON samples

	Full Sample					Privately Owned					State-owned				
VARIABLES	N	mean	min	p50	Max	N	mean	min	p50	max	N	mean	min	p50	max
ROA	2 541	7.09%	-66.90%	5.43%	117.70%	2 103	8.62%	-63.50%	6.56%	117.70%	438	-0.29%	-66.90%	1.35%	68.40%
GROWTH	2 541	5.69%	-59.10%	2.74%	199.40%	2 103	6.01%	-59.10%	2.79%	176.60%	438	4.17%	-57.40%	2.62%	199.40%
AGE	2 541	23.90	1	19	150	2 103	22.04	1	18	150	438	32.83	1	23	117
SIZE	2 541	9.10	5.08	8.88	15.89	2 103	8.79	5.08	8.56	15.89	438	10.57	6.63	10.45	15.32
LEV	2 541	0.57	-3.13	0.53	6.29	2 103	0.56	-3.13	0.51	5.14	438	0.58	-2.80	0.57	6.29
CAPINT	2 541	0.24	0.00	0.11	0.90	2 103	0.21	0.00	0.09	0.89	438	0.37	0.00	0.31	0.90

PANEL C: Summary of statistics of RPA samples

	Full Sample					Privately Owned					State-owned				
VARIABLES	N	mean	min	p50	Max	N	mean	min	p50	max	N	mean	min	p50	max
ROA	1 604	6.29%	-66.90%	4.81%	117.70%	1 293	8.10%	-62.90%	6.14%	117.70%	311	-1.25%	-66.90%	1.06%	50.40%
GROWTH	1 604	5.29%	-59.10%	2.71%	161.70%	1 293	5.52%	-59.10%	2.68%	161.70%	311	4.33%	-57.40%	2.72%	139.60%
AGE	1 604	24.58	1	20	150	1 293	23.00	1	19	150	311	31.15	2	22	117
SIZE	1 604	9.21	5.08	9.06	15.32	1 293	8.89	5.08	8.77	14.96	311	10.53	6.63	10.31	15.32
LEV	1 604	0.59	-2.77	0.57	6.29	1 293	0.58	-2.77	0.57	4.97	311	0.62	-2.59	0.59	6.29
CAPINT	1 604	0.24	0.00	0.10	0.90	1 293	0.21	0.00	0.08	0.89	311	0.34	0.00	0.27	0.90

This table presents the descriptive statistics of the main variables used in the fixed effects regression models. ROA is return of assets, GROWTH is annual sales growth, AGE is firm age, SIZE is the natural logarithm of assets, LEV is natural logarithm of adjusted liabilities divided by adjusted equity, and CAPINT is the sum of intangible and tangible fixed assets divided by total assets. The table shows the descriptive statistics for the full sample, and the subsamples of privately- and state-owned firms, alongside subsamples of POLCON and RPA.

Table 3: Pearson correlation matrix of variables

	ROA	GROWTH	POLCON	RPA	LEV	SIZE	AGE	CAPINT
ROA	1.00							
GROWTH	0.24	1.00						
	(0.00)							
POLCON	-0.02	0.00	1.00					
	(0.00)	(0.23)						
RPA	-0.02	0.00	0.79	1.00				
	(0.00)	(0.11)	(0.00)					
LEV	-0.33	0.06	0.01	0.01	1.00			
	(0.00)	(0.00)	(0.00)	(0.00)				
SIZE	-0.02	0.00	0.05	0.04	0.08	1.00		
	(0.00)	(0.91)	(0.00)	(0.00)	(0.00)			
AGE	-0.12	-0.12	0.04	0.03	-0.07	0.36	1.00	
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)		
CAPINT	-0.20	-0.01	0.02	0.01	0.23	0.14	0.03	1.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	

This table reports the Pearson correlation matrix of the variables specified in the fixed effects regression models. ROA is return of assets, GROWTH is annual sales growth, AGE is firm age, SIZE is the natural logarithm of assets, LEV is natural logarithm of adjusted liabilities divided by adjusted equity, and CAPINT is the sum of intangible and tangible fixed assets divided by total assets.

Full sample regression of POLCON and RPA on firm growth and performance

(Table 4) shows the results from the fixed effects regressions on the full sample. The regressions using firm performance (ROA) as the dependent variable are presented in *(model 1 – 3)*, and the regressions using sales growth (GROWTH) as the dependent variable are presented in *(model 4 – 6)*. The estimated coefficients for the relationship between political connections (POLCON), and ruling party affiliations (RPA), on firm performance are stated in *(model 1)* and *(model 2)*. *(model 3)* presents the results for the estimated coefficients for a simultaneous regression of both the independent variables POLCON and RPA on firm performance. Included in *(model 3)* is an interaction term between POLCON, and RPA respectively, indicating which of the politically connected firms that are also affiliated with the region's ruling party. The estimated coefficients for the relationship between POLCON, and RPA respectively, on sales growth are stated in *(model 4)* and *(model 5)*. In *(model 6)* the estimated coefficients for the simultaneous regression of POLCON and RPA on sales growth (GROWTH) is presented.[17]

Observing the results in *(Table 4)* all of the estimated coefficients for the independent variables and interaction terms are insignificant, indicating that no effects from political connections on firm performance (ROA) and sales growth (GROWTH) can be identified within our full sample when we do not control for the ownership form. In line with (Wu et al., 2012), and based on our argumentation in previous section (see section "The setting of this study"), we find it adequate to distinguish between state-owned firms and privately owned firms to examine if there are any differences in effects from political connections on firm performance and sales growth when controlling for ownership form. In subsequent sections, we continue with presenting regression results from the individual regression on the two subsamples, characterized by state-owned and privately owned firms.

[17] When estimating our regression estimations, we employ standard errors robust for heteroscedasticity and serial correlation within our panel data. This is employed for all the fixed effects regressions models presented in this study.

Table 4: Fixed effect panel regression of POLCON and RPA on full sample firm performance and growth

	ROA			GROWTH		
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
POLCON	-0.011			-0.010		
	(0.009)			(0.022)		
RPA		-0.017			0.008	
		(0.010)			(0.024)	
POLCON			-0.002			-0.027
			(0.013)			(0.034)
POLCON*RPA			-0.017			0.004
			(0.011)			(0.025)
SIZE	0.109***	0.109***	0.109***	0.093***	0.093***	0.093***
	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)	(0.003)
LEV	-0.035***	-0.035***	-0.035***	0.029***	0.029***	0.029***
	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)
ROA				0.120***	0.120***	0.120***
				(0.006)	(0.006)	(0.006)
AGE				-0.050***	-0.050***	-0.050***
				(0.000)	(0.000)	(0.000)
GROWTH	-0.105***	-0.105***	-0.105***			
	(0.001)	(0.001)	(0.001)			
CAPINT	-0.074***	-0.074***	-0.074***			
	(0.004)	(0.004)	(0.004)			
Constant	-0.700***	-0.700***	-0.700***	0.196***	0.196***	0.196***
	(0.015)	(0.015)	(0.015)	(0.035)	(0.035)	(0.035)
Observations	414,331	414,331	414,331	414,331	414,331	414,331
R-squared	0.089	0.089	0.089	0.066	0.066	0.066
Number of firms	128,094	128,094	128,094	128,094	128,094	128,094
Adj. for FE within:	-	-	-	-	-	-
Firm	YES	YES	YES	YES	YES	YES
Industry	YES	YES	YES	YES	YES	YES
Region	YES	YES	YES	YES	YES	YES
Year	YES	YES	YES	YES	YES	YES

This table reports the fixed effects regression results of firm sales growth (GROWTH) and performance (ROA) on the POLCON, RPA, and POLCON and RPA interaction term. This table presents the results of the regressions on the full sample. For *(model 3)* and *(model 6)*, the interaction term POLCON*RPA indicates politically connected firms also being affiliated with the region's ruling party. Thus, per the interaction term design, the stand-alone POLCON variable in *(model 3)* and *(model 6)* indicates only the political connected firms not being affiliated with the ruling party in the region. This is a slight difference compared to *(model 1)* and *(model 4)* where the POLCON variable indicates all politically connected firms. Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

The effect of POLCON and RPA on firm performance

(Table 5) shows the results from the fixed effect regressions of the relationship between political connections (POLCON), and ruling party affiliations (RPA) respectively, on firm performance (ROA), within the two sub samples of privately- and state-owned firms. For each subsample we have regressed the dependent variable ROA in three models using POLCON, RPA and an interaction term between POLCON and RPA (splitting the politically connected firms between affiliated and not affiliated with the region's ruling party).

As shown in *(model 1)*, the coefficient of POLCON is negative and statistically significant, which indicates that there is a negative effect on ROA for firms with politically connected board members and CEOs. Further, as shown in *(model 2)*, the coefficient for RPA is negative and statistically significant. This suggest that privately owned firms with board members or CEOs also affiliated with the region's ruling party underperform compared to non-connected firms. Further, including the interaction term between RPA and POLCON in *(model 3)*, similar results are produced as in the *(model 1)* and *(model 2)* regressions individually. The coefficient for the interaction term between POLCON and RPA is negative and significant, whilst the coefficient for the POLCON variable, without the interaction term, is insignificant. The results from *(model 3)* indicates that the negative effect on firm performance (ROA) from political connections is derived from the politically connected firms also affiliated to the region's ruling party and not the politically connected firms without affiliations to the region's ruling party.

The results for the state-owned firms in *(model 4 - 6)* indicate opposite effects from political connections on firm performance (ROA) compared to the results from the regressions on privately owned firms (*model 1 - 3*). In *(model 4)*, the coefficient for POLCON is positive and statistically significant, suggesting that politically connected state-owned firms exhibit higher ROA compared to non-connected state-owned firms. In *(model 5)*, the coefficient for RPA is positive but not significant, suggesting that politically connected board members and CEOs affiliated with the region's ruling party does not generate any significant effects on firm performance when comparing the ROA to non-connected firms' ROA. In *(model 6)*, the coefficients of the interaction terms between RPA and POLCON, and stand-alone POLCON are both positive and significant. The results in *(model 6)* are in line with the results in *(model 4)* regarding the positive significant effect from POLCON. In addition, in *(model 6)* the coefficient for the interaction between POLCON and RPA is positively significant, whilst *(model 5)* provided insignificant results for the coefficient for RPA. As the coefficient for the stand-

alone POLCON variable is greater than the coefficient for the POLCON and RPA interaction term, it indicates that non-ruling party affiliated connections generate a more profound positive effect on ROA than ruling party affiliated political connections in state-owned firms.

The test results from the firm performance regressions on our subsamples, indicate that political connections generate negative effects on ROA for privately owned firms, but positive effects for state-owned firms. Although our findings provide evidence of mixed effects from the political connections depending on whether the firm is privately or state-owned, the negative effect on the ROA among privately owned firms are in line with prior findings from the US (Hillman, 2005), and on a cross-country comparison (Faccio, 2010). However, for state-owned firms, the empirical results show an opposite effect on ROA for the politically connected firms. That is, state-owned firms that are politically connected exhibit higher ROA compared to non-connected state-owned firms.

We attribute these findings to a number of reasons. First, in line with prior research, politically connected board members and CEOs can benefit firm ROA through their expertise over, and extended network into, the governmental system, thereby allocating resources more efficiently when creating proactive strategies against potential governmental involvement. Although, this explanation seems less plausible in the Swedish context we cannot exclude this explanation based on our tests. A second reason can be based on a reverse interpretation of the results based on the causality bias. It might be that these better performing firms are more prone to acquire political connections, rather than the opposite interpretation that the connection is causing these positive effects. It might be the case that there is an increased presence of politicians in boards of firms operating in industries exhibiting monopolistic characteristics. These industries would include firms operating the local transportation service or the local port operations. On a local level these firms exhibit a strong local monopolistic position, as they are the only firms operating the specific market within the geographical region. As a result, these firms are less exposed to external competition and thus may exhibit higher ROA compared to firms exposed to more aggressive competition in less “protected” industries. At the same time, as these firms are operating in a monopolistic environment, it resides in the government’s interest to elect local politicians to the board of directors to represent and protect the public interests. As a result of the monopolistic characteristics of these firms, the data indicates a higher ROA for politically connected firms in the public subsample. Although, this effect is not attributable to the politically connected board member or CEO per se. This explanation is supported by the characteristics

of our data where we are able to identify many local transportation services, port operators, regional cable operators and other businesses of monopolistic characteristics in our state-owned subsample.

Interpreting results with regards to limitations in the performance measure ROA

When interpreting the results from the interaction effect between POLCON and RPA in *(model 3)* and *(model 6)*, the negative (positive) effect tends to be more profound for ruling (non-ruling) party affiliated political connections in both subsamples. This is the opposite of the findings from the US setting (Goldman et al., 2009) on market based performance measures. One explanation for this difference could be due to the limitations the market based and accounting based measures have on capturing firm performance on a stand-alone basis. Because of the multidimensional nature of firm performance, both market based and accounting based performance measures should be used to capture performance (Keats, 1988) (Dalton et al., 1998). As is argued by (Keats, 1988) (Chakravarthy, 1986), accounting based measures reflect past performance, whereas market based measures reflect forward looking expectations of performance. These two separate dimensions of performance, trailing and forward looking, were found to be negatively correlated with one another (Keats, 1988). Following this line of argument this might shed some light on the contradictory indication our results show in comparison to studies in the US (Goldman et al., 2009), when regarding ruling (non-ruling) party affiliated political connection's effect on firm performance.

Following this line of discussion privately (state-) owned firms should exhibit future benefits (losses) in value from having political connections, with the effects being more profound with ruling (non-ruling) affiliated connections. Thus, as the accounting based performance measure of ROA indicates past performance, and this might be negatively correlated with forward looking market based performance measures (Keats, 1988), privately owned firms should exhibit lower firm ROA if they are politically connected. Hence, in line with our results.

Table 5: Subsample fixed effects regression results on firm performance

	Private			Public		
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
POLCON	-0.016*			0.046**		
	(0.009)			(0.018)		
RPA		-0.022*			0.001	
		(0.012)			(0.019)	
POLCON			-0.007			0.075***
			(0.014)			(0.024)
POLCON*RPA			-0.023*			0.036**
			(0.012)			(0.018)
SIZE	0.109***	0.109***	0.109***	0.021	0.020	0.021
	(0.002)	(0.002)	(0.002)	(0.019)	(0.019)	(0.019)
LEV	-0.035***	-0.035***	-0.035***	-0.007	-0.006	-0.006
	(0.001)	(0.001)	(0.001)	(0.010)	(0.010)	(0.010)
GROWTH	-0.106***	-0.106***	-0.106***	-0.054***	-0.054***	-0.054***
	(0.001)	(0.001)	(0.001)	(0.017)	(0.017)	(0.017)
CAPINT	-0.074***	-0.074***	-0.074***	0.056	0.047	0.053
	(0.004)	(0.004)	(0.004)	(0.050)	(0.050)	(0.050)
Constant	-0.700***	-0.700***	-0.700***	-0.231	-0.207	-0.232
	(0.015)	(0.015)	(0.015)	(0.207)	(0.204)	(0.205)
Observations	413 236	413 236	413 236	1 095	1 095	1 095
R-squared	0.089	0.089	0.089	0.053	0.048	0.056
Number of firm	127,770	127,770	127,770	362	362	362
Adj. for FE within:	-	-	-	-	-	-
Firm	YES	YES	YES	YES	YES	YES
Industry	YES	YES	YES	YES	YES	YES
Region	YES	YES	YES	YES	YES	YES
Year	YES	YES	YES	YES	YES	YES

This table reports the fixed effects regression results of firm performance (ROA) on the POLCON, RPA, and POLCON and RPA interaction term. This table presents the results of the regressions on the individual subsamples characterized by either state-or private ownership. For *(model 3)* and *(model 6)*, the interaction term POLCON*RPA indicates politically connected firms also being affiliated with the region's ruling party. Thus, per the interaction term design, the stand-alone POLCON variable in *(model 3)* and *(model 6)* only indicates the political connected firms not being affiliated with the ruling party in the region. This is a slight difference compared to *(model 1)* and *(model 4)* where the POLCON variable indicates all politically connected firms.

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

The effect of POLCON and RPA on firm growth

(Table 6) shows the results from the fixed effect regressions on the relationship between political connections (POLCON), and ruling party affiliations (RPA) respectively, on firm sales growth (GROWTH), within the two sub samples of privately- and state-owned firms. For each subsample we have regressed the dependent variable sales growth in three models using POLCON, RPA and an interaction term between POLCON and RPA (splitting the politically connected firms between affiliated and not affiliated with the region's ruling party).

As can be seen in *(Table 6)*, the coefficient of POLCON, RPA, and the interaction between POLCON and RPA in *(model 1 – 6)*, are not significant, regardless of the firms being privately- or state-owned. This indicates that politically connected board members or CEOs do not generate any detectable effects on annual sales growth for firms in Sweden. This is in line with our hypothesis *H2,* and further enable us to reject sub hypothesis *H2-b*, which stated that there would exist a more profound positive sales growth effects for politically connected firms also affiliated to the region's ruling party.

A plausible reason for this effect to be non-existing in the Swedish data could be attributed to the high level of transparency in the Swedish economy. Regarding sales contracts, a potential favorable treatment by the government of certain firms would be deferred by the public scrutiny, or become heavily penalized by the Swedish legal system if detected.

Table 6: Subsample fixed effect regression results on firm growth

	Private			Public		
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
POLCON	-0.017			0.021		
	(0.024)			(0.047)		
RPA		-0.002			0.013	
		(0.029)			(0.037)	
POLCON			-0.031			0.019
			(0.038)			(0.049)
POLCON*RPA			-0.005			0.022
			(0.029)			(0.050)
SIZE	0.092***	0.092***	0.092***	0.182***	0.182***	0.182***
	(0.003)	(0.003)	(0.003)	(0.064)	(0.064)	(0.064)
LEV	0.030***	0.030***	0.030***	-0.019	-0.019	-0.019
	(0.002)	(0.002)	(0.002)	(0.035)	(0.035)	(0.035)
ROA	0.120***	0.120***	0.120***	0.212*	0.212*	0.212*
	(0.006)	(0.006)	(0.006)	(0.125)	(0.125)	(0.125)
AGE	-0.050***	-0.050***	-0.050***	-0.028***	-0.028***	-0.028***
	(0.000)	(0.000)	(0.000)	(0.009)	(0.009)	(0.009)
Constant	0.198***	0.198***	0.198***	-0.864	-0.861	-0.863
	(0.035)	(0.035)	(0.035)	(0.656)	(0.656)	(0.657)
Observations	413 236	413 236	413236	1 095	1 095	1 095
R-squared	0.066	0.066	0.066	0.033	0.033	0.033
Number of firm	127,770	127,770	127,770	362	362	362
Adj. for FE within:	-	-	-	-	-	-
Firm	YES	YES	YES	YES	YES	YES
Industry	YES	YES	YES	YES	YES	YES
Region	YES	YES	YES	YES	YES	YES
Year	YES	YES	YES	YES	YES	YES

This table reports the fixed effects regression results of firm sales growth (GROWTH) on the POLCON, RPA, and POLCON and RPA interaction term. This table presents the results of the regressions on the individual subsamples characterized by either state-or private ownership. For *(model 3)* and *(model 6)*, the interaction term POLCON*RPA indicates politically connected firms also being affiliated with the region's ruling party. Thus, per the interaction term design, the stand-alone POLCON variable in *(model 3)* and *(model 6)* only indicates the political connected firms not being affiliated with the ruling party in the region. This is a slight difference compared to *(model 1)* and *(model 4)* where the POLCON variables indicates all politically connected firms.

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Limitations

The two main limitations to the results in this study are the direction of causality and the measurement of firm performance being based on return on assets. These limitations will be further discussed in the following section.

Direction of causality

In the subsamples, we find that political connections have a positive effect on firm performance for state-owned firms and a negative effect on firm performance for privately owned firms. However, as the direction of causality is not established, we cannot conclude if these differences are generated by the political connection, or if this group of firms are more prone to establish political connections.

With regard to the privately owned firms, similar results have been found in the US setting (Hillman, 2005), and on a cross-country comparison (Faccio, 2010). Moreover, as the value of political connection have been found to decrease with lower levels of corruption (Faccio, 2006), prior research and this paper's findings point towards that the negative effects seen in privately owned firms are derived from the connection, and not the averse that underperforming firms are more likely to acquire political connections. However, following the discussion in empirical results for the positive effects seen in state-owned firms, the reverse causality effect might be more likely in that case.

Measuring firm performance on ROA

The multidimensional nature of firm performance is usually captured using both market based and accounting based performance measures (Dalton et al., 1998). However, as a large part of our sample firms are not publicly traded and lack information on market based performance measures, we are forced to rely on accounting based performance measures only, where ROA is the most widely used in prior literature (Daily et al., 2000). But as is argued by (Keats, 1988) (Chakravarthy, 1986), accounting based measures reflect past performance, whereas market based measures reflect forward looking expectations of performance. With our time horizon only extending over five years (2010 to 2014), the use of accounting measures for performance might have the shortcomings of not capturing the effect political connections have on firm performance in the forthcoming years. As was evident from the US setting (Hillman, 2005) (Goldman et al., 2013), a positive effect was only found on market based performance measure, and not on accounting based performance measures. This indicates that the effects from political connections might be lagged several years into the future, and therefore not detectable on accounting based measures in the first few years. .

Conclusion

The purpose of this paper is to evaluate the influence politically connected board members and CEOs have on firm performance and sales growth in Sweden. According to prior research in the topic, the influence political connections have on firm performance can be positive as well as negative depending on factors such as the institutional setting in the country of research. In developing countries, it has been largely evident that political connections provide added value for firms, but this value seem to diminish when more well-developed institutional settings are examined. The empirical motivation for this study stems from the extreme institutional environment Sweden facilitates with regards to low corruption and strong legal systems, and property rights protection. Given the substantially different institutional setting in Sweden, it is of interest to document whether the effects documented in other studies also exist in Sweden.

In our presentation of prior literature and theory, we present research and evidence for the incentives behind why firms acquire political connections, and how these connections might influence firm performance. Following this discussion, we state the hypotheses that political connections will exert a negative effect on firm performance (ROA) and have no effect on sales growth for firms operating in Sweden. The hypotheses are tested on a sample of all registered Swedish limited liability companies with an annual revenue above SEK 1 million over the period of 2010-2014.

The effects from political connections are insignificant on an aggregated sample level including all firms. When further individually examining the effects in subsamples consisting of privately- and state-owned firms, we document mixed evidence for the effects political connections exert on firm performance and growth. Politically connected firms that are privately owned exhibit a lower ROA than non-connected privately owned firms. The results are opposite for state-owned firms namely, politically connected firms that are state-owned exhibit a higher ROA than non-connected state-owned firms. The findings of negative effects on ROA among privately owned firms is in line with prior research conducted on developed countries. As we cannot rule out the causality bias, one must take caution with the interpretation of the results. Either the political connection causes the negative effect on ROA, or it is the case that this group of firms are more prone to acquire political connections. Furthermore, the limitations of measuring firm performance with ROA stands the bias of this accounting based measure only reflecting past performance and not future performance. This indicates that the effects from political connections might be lagged several years into the future, and therefore not detectable on accounting based measures in the first few years. With regards to the

positive effects documented in politically connected state-owned firms, one plausible explanation could be found in the prevalence of politically connected firms in industries inherently characterized as local monopolies, and thus facing limited competition (firms belonging to this category are local transport services, local port operations and similar industries). These industries are most prevalent in the state-owned sample as it lies in the interest of the state to govern these local monopolies. Based on our regression on firm sales growth, all estimated coefficients are insignificant, indicating that no effect from political connections can be distinguished in our sample of Swedish firms.

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