

Law, governance and capital structure

The relationship between law, governance and their impact on the capital structure

Master's Thesis in Finance
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Abstract

Legal reforms that followed after the corporate scandals in the early years of the new millennium were aimed at influencing governance and ultimately financial markets. Previous research has shown that either law and/or governance influence financial markets and thereby capital structures. We investigate if this statement holds, by focusing on different legal systems. We found that the statement by previous research does not hold when focusing on a legal system however the statement is valid for certain sectors on an industry level within a legal system.

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1. Introduction

Previous research in the area of law and governance found either evidence that the capital structure of firms is influenced by the judicial structure and its development (Rajan and Zingales (1995), La Porta et al (1998a) and Demirgüç-Kunt and Levine (1999)) or by the quality of firm level governance (Jensen and Meckling (1976) and Titman et al (2006)). Other authors in the field of law and governance found that law is the main determinant that influences governance both in choice and scope (Cheffins (2000) and Coffee (2000)). What is still an open question is how law and governance influences each other and impact the capital structure of firms. In this master thesis we will try to answer this question. The corporate scandals in the early years of the new millennium increased the importance of answering this question. The scandals led to reforms in among others the US, UK and the Netherlands, where governments tried to embody through legislation the relationship between law, governance and capital structure. These legal reforms, Sarbanes-Oxley Act (SOX), Combined Code and Tabaksblat Code are attempts by the Common law legal system (US and UK government) and French civil law legal system (Dutch government) respectively to among others influence firms to restructure their governance structure, which they hope increases the protection of minority investors and thereby increases the liquidity and the mix (between equity and debt) in financial markets. This increase in liquidity and mix in its turn influences the capital structure of firms as firms make a trade off between debt and equity. Our research is an attempt to investigate if these types of reforms taken in different countries have reached their goals and expectations.

Our study is based on financial data of 920 firms, from 19 countries and 4 legal systems from the period 2004 and 2005. Our own expectation in this matter is that governments in countries with strong investor protection will influence firms to restructure their governance and that both legislation and firm level governance will in turn increase the protection of minority investors. This would ultimately lead to firms showing a capital structure dominated by equity. Our expectations for countries with weak investor protection is that either legislation or firm level governance will increase the protection of minority investors and that either one of the two will ultimately lead to firms showing a capital structure moving more towards equity. Important to mention is that although we draw these expectations, we are aware that our research on legal system level has industry bias (unevenly spread industries). It is therefore not possible to draw any conclusions without also trying to answer the question on an industry level (robustness check).

1.1 Contribution

To our knowledge there is no paper that focuses on the relationship between law, governance and their impact on the capital structure of firms from different legal system perspective. We will therefore contribute by extending the understanding in the field of finance on how this three way relationship works.

1.2 Outline

This master's thesis is further outlined as follows. We will start this paper by discussing the theoretical background regarding the relationship between firm level governance, judicial system and capital structure. Secondly we describe our hypotheses. Thereafter we continue by describing our data, followed by a description of our model and our choice of variables. Finally we will present our results and conclusions.

2. Theoretical background

In this section we will introduce the reader to the meaning, the importance and the implications of the relationship between governance, law and their impact on the capital structure.

2.1 The impact of law and governance on capital structure

There are two dominant legal systems in the world, common law and civil law. The common law has its roots in England while civil law has its roots from Roman law. The civil law legal system itself evolves further and can therefore be separated into three related legal families: French, German and Scandinavian. Together with common law, French and German civil law have spread throughout the world either by colonization of other parts of the world or by being copied by other countries. The Scandinavian civil law on the other hand was only spread in Scandinavia. Compared to common law, civil law is the legal system in the majority of the world.

La Porta et al (1998a) have researched the differences in the four above legal systems. They concluded that common law countries generally have the strongest and French civil law countries the weakest protection of investors, with German and Scandinavian civil law countries positioned in the middle. The background between the different qualities of law in these two opposite legal system lies in the significance of legislation, regulation and enforcement. These must be sufficiently clear and predictable. When legal action is required courts must be independent, able to resolve disputes effectively in a short period of time and also enforce their ruling quickly (La Porta et al (1998b)). These settings are crucial for the protection of investors. When investing in firms, investors run the risk that they will not see a return on their investment. This risk can be manifested in the expropriation behaviour of management. Stealing profits, selling assets to firms they control, installing unfit family members in managerial positions or overpaying executives are forms expropriation can take hold of. Jensen and Meckling (1976) studied this managerial behaviour and described it as the agency problem. The solution to the agency problem lies in governance through legal approach (La Porta et al 1997)

Governance is a mean to employ authority and control. It is seen as a mechanism to allocate ownership, capital structure and managerial incentive schemes. Governance is critical in providing accountability and transparency in order to ensure a balanced distribution of wealth. It provides institutional and individual providers of capital with the ability to better govern corporations, enhance corporate accountability and create a more certain return of wealth. In the past the firm level governance function was fulfilled by the board of directors who were and still are elected to supervise and monitor managers in order to ensure that firm value is maximized in the long term for among others shareholders and creditors. The distinction between the governance role of the director on one side and the management role of managers on the other was and still is sometimes complicated and not clearly defined. This leads to that the governance authority provided to directors is not necessarily sufficient to give

investors the security to finance firms. In response, in order to strengthen and offer the providers of capital the right of governance, firms were and are restructured to incorporate several sets of governance mechanisms to ensure alignment with capital providers' interests and thereby giving firms a more secure access to capital markets. Some of these governance mechanisms are voting rights, reorganization and liquidation rights of creditors. When these rights are well enforced by the legal system there will be a stronger willingness for investors to provide finance in financial markets which translate into a lower cost of equity capital and greater liquidity.

In weaker legal systems legislation, regulation and enforcement although weak still can influence the governance structure of firms (Klapper and Love (2002) and Doidge et al (2006)). This influence is translated in that firms try to counterbalance the weak legal structure by implementing better governance mechanisms. This improvement signals stronger investors' protection, which in turn increases the availability of capital. This behaviour is not always an option for firms. Black (2001) argued in his paper that firms might not be able to structure trustworthy governance that can be verified credible due to the fact that the legal structure does not provide and/or exercise its tools to make the necessary verification. A solution to this problem is for firms to implement a governance structure but then to cross list in foreign markets with stronger investor protection and where a better governance structure is rewarded (Stulz (1999) and Coffee (2000)).

Law and governance came under the loop in the early years of the new millennium. The very systems that needed to protect investors failed. This failure manifested itself as corporate scandals characterized by accounting scandals, fraud and other unfair and deceptive business practices. These scandals resulted in investors mistrusting firms. Investors felt that existing legislation and governance didn't provide protection against and/or deter firms from expropriation behaviour resulting in that financial markets in the US and Europe suffered from a retraction of equity capital. Especially for the governments in the US and United Kingdom this negative atmosphere in the financial markets was an embarrassment. Both belong to the common law legal system, which provides the better protection of investors' rights. These scandals put a dent to the belief that investors can feel secure of their rights when taking a minority position. In order to restore confidence in the financial system, the US and the UK governments introduced the Sarbanes-Oxley Act and Combined Code, respectively. These reforms have among others the aim of influencing firms to restructure their governance structure by introducing (more) independent boards and enforcing disciplinary mechanisms to prevent expropriation behaviour. These improvement measures would in turn signal to investors that raised equity will be used to increase shareholders' value, leading to that trust in financial markets and firm credibility would be restored. This response is seen as crucial for the US and UK governments, as both legislation and restructured firm level governance would regain trust and credibility in the financial markets. The response or interaction is in that way complementary in nature. Both law and governance are needed in order to ensure higher liquidity in the markets and lower cost of equity capital thereby leading to equity dominated capital structures.

In Europe, especially in the Netherlands and France (both belonging to the French civil law system), the response to the corporate scandals led to the Tabaksblat Code and Bouton report respectively. Since a majority of firms in these countries do not have a sufficient governance structure, the Dutch and the French governments hope that legislation would provide the protection investors are looking for. The response or interaction is in that way substitute in nature.

The reactions of the above mentioned governments give us a first indication of how governments' think the relationship between law and governance works and how this relationship influences the capital structure of firms. The question that still stands is if this relationship is evident.

3. Hypothesis

In the previous section we discussed that governance and judicial systems might have an impact on the capital structure. We will in this section discuss our hypothesis regarding the relationship between law, governance and their impact on the capital structure of firms.

3.1 The relationship between firm level governance and law

The relationship between governance and law can be described as a relationship where law provokes a response from firms to either improve their governance or act in accordance to general business conduct. When this relationship is not evident firms have either the option to improve their governance regardless of law or influence governments to improve the quality of the legal system, all with the aim to increase liquidity in the financial market. We state the hypothesis as followed:

H1: A relationship exist between governance and law

3.2 The kind of relationship between firm level governance and judicial systems

If a relationship is found between governance and law, then either governance and law matters for investors or one in absence of the other is sufficient for investors. By this we mean that the relationship can either be a substitute relationship or no relationship, a complementary relationship or no relationship. This conclusion leads to the following hypothesis:

H2: A substitute relationship is evident

H3: A complementary effect is evident

The substitute relationship can be defined as the effect that only governance reforms are sufficient to convince investors that their investment will be used for the right intentions. Firms implementing governance reforms will notice that the cost of equity capital will be cheaper and thereby see their capital structure move towards equity regardless of the quality of the judicial system. In this scenario if a substitute effect is observed, governments can let the market regulate itself in a high degree. Alternatively the substitute effect can also be defined as the effect where only legal reforms are sufficient to signal to investors that their investment is safe. Here it would be unnecessary for firms to improve their governance structure as laws and regulations will do the signalling of investors' protection for them.

The complementary relationship can be defined as both law and governance are necessary in order to increase liquidity in capital markets. The governance structure and its mechanisms will be seen as

powerless to discipline the insiders without the backing of a legal system which provide investors the same protection as governance.

3.3 Expected outcome

Taking into consideration the findings of LaPorta et al (1998b), Doidge et al (2006), Klapper and Love (2002) and the reactions of governments in the wake of the corporate scandals we expect the following:

H4: The worse the legal system the more likely we have a substitute effect

H5: The better the legal system the more likely we have a complementary effect

What we hope to conclude is that in common law countries a complementary relationship is evident. Both law and governance will complement each other in convincing investors that their investment is safe, leading to a lower cost of equity capital and a move of capital structures towards equity. In the case of French civil law countries we hope to find a substitute relationship. When legal reforms are not evident, firms determined to lower their cost of capital and/or trying to gain access to financial markets will implement a better governance structure. This implementation, as mentioned previously, will lead to that the financial market will become more liquid and/or show a better mix. The capital structure of firms will in turn move towards equity. When legal reforms are evident, we will notice the same result. The financial market will become more liquid and/or further develop showing a better mix as the necessary conditions for investors' protection are given. This will convince investors that they will have the legal backing to punish insiders if expropriation takes place thereby making governance reforms unnecessary. Regarding the German and Scandinavian legal system we don't have a definite conclusion. We assume that they can swing in both ways as the quality of these judicial systems lies between that of common law and French civil law.

3.4 Summary of hypothesis

Table 1. Summary of hypothesis.

Hypothesis:

H1: A relationship exist between governance and law

H2: A substitute relationship is evident

H3: A complementary effect is evident

H4: The worse the legal system the more likely we have a substitute effect

H5: The better the legal system the more likely we have a complementary effect

4. Methodology and data

This section will be divided in three subsections and we proceed as follows. First, we outline the model and our choice of method used for testing the hypothesis. Next section will describe our choice of variables for testing our hypothesis. And we will finally describe our method for collecting the data and how the collection of our variables was done.

4.1 Model

In order to test our hypothesis we used OLS regression to find the coefficient and significance of each variable. Our model consists of control variables, governance score, quality of judicial system and an interaction between the judicial system and governance. The model is as follows:

$$\text{Leverage} = \alpha + \beta_1 \text{Control variables} + \beta_2 \text{Governance} + \beta_3 \text{Proxy for the quality of the judicial legal system} \\ + \beta_4 \text{Interaction between governance and proxy for the quality of the judicial legal system} + \delta$$

The model we used is an existing model used by Klapper and Love (2002). The authors investigated the effect of the interaction between governance and judicial system using a comparable model. We differ from these authors in that we use leverage as our dependent variable instead of firm valuation and that we control for factors that might influence our dependent variable.

4.1.1 Leverage

As a proxy for the capital structure we use leverage. The choice for leverage comes mainly from the paper of Jensen and Meckling (1976) and also from the paper written by Titman et al (2006). In separate independent papers, both authors provide evidence of the relationship between debt and judicial efficiency. They proved that in judicial efficient countries firms have less total debt in their capital structure. Another paper written by Chiyachantana et al (2005) provides evidence of the relationship between leverage and governance quality. All the above mentioned authors defined leverage as debt divided by equity i.e. debt ratio.

4.1.2 Governance

In order to perform our investigation we were in need of an indicator for governance measure that was comparable across countries. We therefore used governance attributes generated by ISS which measures the strength of governance. ISS is the world's leading provider of proxy voting and governance data services. The FTSE (London stock exchange), as an example, has incorporated the ISS governance ratings as a part of their services. Institutions like Bloomberg provide not only financial information about firms, but also their ISS governance rating. The same is done by Salomon Smith Barney, who adds the ratings

made by ISS when reporting on companies. Finally a great number of companies like Citrix Systems, CIT Group Inc. and Colgate report their rating received by among others ISS to existing and potential new investors.

ISS's proprietary rating system, CGQ, ranks the governance performance by evaluating the strengths, deficiencies and overall quality of a company's governance practices and board of directors. Brown and Caylor (2006) show that ISS's governance scores is a good proxy for governance quality and conclude that they are consistent with the prediction of agency theory. A large majority of the studies done on governance use the ratings of different rating institutes and it seems that there is a consensus that these ratings are reliable and representative to be used in studies. In order to calculate the CGQ score for each company ISS analysts use a list of governance standards and score companies on the basis of the quality and how many of these standards they have in place. ISS use public disclosure documents to gather information on these 55 factors and code them as either 1 or 0 depending on whether the firm's governance standards are minimally acceptable. These comprehensive inventories of governance attributes of 55 binary variables constituting eight governance categories are then summed up for each company in order to derive the CGQ score. The governance categories are the following: 1) audit, 2) board of directors, 3) charter and bylaw provisions, 4) anti-takeover provisions, 5) executive and director compensation, 6) progressive practices, 7) ownership, and 8) director education. Using this score as a basis the CGQ score of a company is then further adjusted by comparing firms within the ISS Developed Ex-US Universe (Index CGQ score). These final scores are given to non US firms, US firms are treated differently and leading to that the CGQ score of US companies is not comparable to that of companies in the rest of the world. The list of governance standards used by ISS to calculate the CGQ scores for international companies i.e. non US firms can be found in Appendix 5.

4.1.3 Proxy for the judicial legal system

The approaches towards governance have in the last twenty years increasingly focused on the problem of investor expropriation also referred to as self dealing (Djankov et al (2005)). In contrast to earlier research¹, modern theory of corporate finance focus on whether those who control a corporation i.e. managers and controlling shareholders can use their power to transfer corporate wealth to themselves (Grossman and Hart (1988), Hart (1995) and Zingales (1994)). Such diversion of resources from firms to their controllers could be excessive managerial compensation, transfer pricing and self-serving financial transactions such as directed equity issuance or personal loans to insiders (Djankov et al (2005)). In order to compare countries on their regulatory environment for business and assess the impact of laws and regulations on business activity we were in need of an objective database. We found this in World Banks Doing Business database. The proxy (investor protection) used by us to measure the strength of legal

¹ Earlier research focused on such problems as managerial consumption of perquisites (Jensen and Meckling (1976)), managerial effort (Holmstrom (1979)) and over-investment in pursuit of growth (Jensen (1986)).

environment addresses specifically the legal protection of minority shareholders against expropriation by corporate insiders. The index describes a hypothetical self-dealing transaction between two firms controlled by the same person who wants to enrich himself. The index is an indicator for how difficult it is for minority shareholders to prevent the deal before it goes through and to recover damages if it is carried out. The strength of investor protection index for the countries used by us in this survey is based on legal rules prevailing in 2005 (see Appendix 3). Our proxy for judicial efficiency distinguishes three dimensions of investor protection. The main indicators for this proxy are²:

- Transparency of transactions (Extent of Disclosure Index)
- Liability for self-dealing (Extent of Director Liability Index)
- Shareholders' ability to sue officers and directors for misconduct (Ease of Shareholder Suit Index)
- Strength of Investor Protection Index (the average of the three index)

For a more detailed description of investor protection index see Appendix 4. This proxy for country level measure of legal efficiency directly aimed at controlling self dealing was originally developed in Djankov et al (2005) and is adopted by the World Bank in their "Doing Business" report with minor changes.

4.1.4 Control variables

As we use leverage as a proxy for capital structure, we need to control for so called disturbance factors. The disturbance factors are other leverage determinant factors beside governance and law. The use of disturbance factors increases direct causality. There is a variety of papers written about the determinants of leverage. Titman and Wessels' paper "the determinants of capital structure choice" (1988) looked at the factors like non-debt tax shields, growth, firm size, earnings and profitability. In their paper they found all of the above mentioned variables to be significant. In more recent papers like the paper written by Rajan and Zingales (1995), the authors looked at the determinant factors like firm size and profitability across the G-7 countries. They found that leverage increases with size and decreases with growth opportunities and profitability. Based on the papers of among others the above mentioned authors we used the following control variables:

- Firm size
- Tangibility
- Growth opportunity
- Profitability

According to Rajan and Zingales (1995) firm size is a determinant because larger firms are more visible in the market and therefore suffer less from information asymmetry which in turn leads that they are more

² <http://www.doingbusiness.org/>

leveraged. As both Rajan and Zingales (1995) and Titman and Wessels (1988) we use the natural logarithm of sales to proxy for firm size.

Tangibility is a determinant because it will provide information on how easy assets can be liquidated in a company, which in turn has influence on the agency costs of debt. Companies with a higher degree of tangibility will show a higher degree of leverage. As Mehran (1992) and Johnson (1997) we determine tangibility as the sum of the net property, plant and equipment divided by the total assets.

Growth is according to Myers (1977) a significant determinant of capital structure which argues that leverage is lower for companies with growth opportunities. The same reasoning is found by the authors Bevan and Danbolt (2000) as well as Rajan and Zingales (1995). Bevan and Danbolt (2000) suggest that growth in its early stages is negatively related to leverage. The authors argue that growth opportunities are largely intangible and that it provides limited liquidation value. This leads to that companies are not offered credits at this stage or companies may be reluctant to take on debt. Rajan and Zingales (1995) also suggest a negative relationship between growth and leverage. Growth is measured by taking the market value of assets (calculated as book value of assets minus book value of equity plus market value of equity) over book value of assets (Tobin's Q). This measurement of determining growth has been used by Rajan and Zingales (1995) and is recommended because it provides a better proxy for future growth opportunity than sales growth which describes past growth experience.

Profitability is a determinant because of the pecking order theory whereby debt financing is the second choice after retained earnings, and before equity as the managers' choice of pecking. We use as a proxy for profitability, the net income to shareholders' equity (return on net worth or EBIT ratio). This methodology is among others used by Chiyachantana et al (2005).

4.2 Data

To construct the data sample, we start with all companies for which ISS provide a comparable governance score, a total of 920 companies from 4 different legal systems and 19 countries. All firms from these 19 countries are included in the sample provided that they meet three criteria. First, each firm must have financial data reported in the DataStream database which is the primary data source used in this study. Second, we exclude firms in the following industries; banks, diversified financials, insurance utilities and energy. This approach runs into the objective that the dividend policy for the firms operating in the above mentioned industries are highly constrained by external forces and that due to regulation their leverage cannot be interpreted in the same manner as the other industries in our sample. We finally restrict our analysis to firms that have no missing data i.e. we eliminate firms with incomplete data.

End of year accounting variables were collected for each firm as reported in corporate reports (available from DataStream). In order to validate the accuracy of the data collected we made manual checks by comparing the figures obtained from DataStream with the annual reports of a small number of companies. The results of these tests were satisfactory and we didn't find any errors that required corrections.

We collected two samples of firms for each legal system and market capitalization was used in order to classify these two samples. The first sample consist of firms with a capitalization below one billion US dollars at the end of 2004 while our second sample consist of all the firms with a market capitalization above one billion but below 30 billion US dollars at the end of 2004. We call the first sample “small cap” and the second “large cap”.

There are few further restrictions. First we exclude all affiliates of foreign firms, this is done to eliminate the effects of cross listing. A firm is defined as an affiliate if 50 percent or more of the votes are directly controlled by a single foreign company. Finally, firms that are owned either wholly privately or by the government are excluded since they are not listed. This approach biases our result towards finding fewer firms with government and family ownership that actually exist. The restriction is acceptable since the dividend payments for public sector firms are influenced by a large number of social obligations and the shares of family firms are, to a degree, illiquid (La Porta et al (1998b)). Finally, in general we reduced our sample further by dropping the extreme percentiles of the residuals (1st and 99th).

We further wanted to compare per industry and therefore decided to run two separate regressions; one with and another without industry dummies for all of our legal systems. In the regression with industry dummies we exclude, by legal systems, any industries with less than three firms. This approach is in accordance with Klapper and Love (2002). We did not run an industry dummy regression for the German and Scandinavian small cap samples since they contained too few observations. We also used the Wald test to see if the individual dummies differ in result from the reference dummy in order to conclude the existents of a relationship between governance and law within the individual industries.

As mentioned in the section 4.1.1, it is well recognized in the literature that governance affects leverage and, at the same time, leverage also impacts governance quality. We deal with this problem by using lagged leverage. In other words, we collected governance score based on 2004 years data. We also collected 2004 years’ data for our control variables whereas data covering 2005 were collected for leverage. This approach is used since we assume that causality runs from governance quality to leverage and not the reverse³ (Chiyachantana et al (2005)). We believe that it is not necessary to lag law as companies must abide by the judicial rules or else face penalties i.e. investors’ protection rankings are based on 2005 years’ data.

³ Other methods to control for endogeneity include orthogonalizing the endogenous variables as in Denis and Sarin (1999), and specifying a structural model of simultaneous equations, as in Agrawal and Knoeber (1996). Other authors as Boon et al (2004) however argue against orthogonalization and simultaneous equations. The authors just mentioned contend that orthogonalization does not address the endogeneity issue itself. Simultaneous equations are likely to give results that are highly sensitive to the specified model and the identifying assumptions (Bhagat and Jefferis (2002)).

5. Empirical results and discussion

In this section we will present our empirical result and draw an overall conclusion regarding the relationship between law and governance and their impact on the capital structure of firms. We will first present our empirical results against our hypothesis. Thereafter we compare our actual result with our expectations and in order to test if our results are robust, we have performed a robustness test. Finally, we will present our overall conclusion. Note that we perform our test at 5 % level of significance throughout the paper. See Appendix 8 for regression results.

5.1 Relationship between firm level governance and law

We will in the following look at the result regarding the relationship between governance and law and their impact on the capital structure. In section 3.1 we stated our hypothesis as:

H1: A relationship exist between governance and law

H2: A substitute relationship is evident

H3: A complementary effect is evident

5.1.1 Common law

Our results supports the hypothesis that a relationship between law and governance exist in common law countries for our small cap sample, but not for the large cap sample. When focusing on an industry level the industry sector Capital Goods is the only sector in our small cap sample that shows a significant relationship between law and governance. This suggests that small cap Capital Goods firms in common law countries react to legal reforms by improving their governance. The relationship is therefore complementary in nature. The implications for governments of common law countries are that any legal reforms will be limited to only one sector of the economy. For investors in the Capital Goods market on the other hand this relationship would mean that they not only have the legal means to punish insiders in the case of expropriation, but also that the risk of expropriation itself is reduced due to the steps taken by the Capital Goods firms. These investors will therefore increasingly provide equity capital to Capital Goods firms which in turn will find that equity capital will be easier and cheaper to obtain.

5.1.2 French civil law

The result for small cap firms shows no indication of a significant relationship between law and governance. Small cap firms in the French civil law system are not influenced by any legal change aimed to improve firm's governance structure. On an industry level the same conclusion hold for all industries. For large cap firms we do find evidence of a relationship between law and governance, but this relationship is limited to the following sectors:

- Automobiles & Components
- Capital Goods
- Commercial Services & Supplies
- Consumer Durables & Apparel
- Food & Staples Retailing
- Health Care Equipment & Services
- Materials
- Real Estate
- Software & Services
- Technology Hardware & Equipment.

Compared to common law French civil law governments will find that their policies lead to reactions in a more diverse spectrum of the economy. If the above mentioned sectors are the drivers of the economy, French civil law governments will find their policies having the expected effect of investors being more willing to invest. Looking from the business perspective, our empirical result indicates that firms do not react by improving their governance in case governments put investors' protection policies in place. If on the other hand such policies are not implemented by governments, we find that firms in the above mentioned sectors will improve their governance in order to give investors the protection that is lacking from the governments side. This relationship is therefore substitute in nature. We can rephrase the substitute effect as the effect that either law or governance is necessary to make capital more available in financial markets. In our earlier referral to the case where legal reforms are lacking, we will find firms improving their governance due to the type of investors that will make financial resources available. The type we are referring to are financial institutions like banks, investment firms etc. They can through contractual agreements force firms to improve their governance. This result is evident from our French civil law regressions; as either law or governance improves, the capital structure of firms in the above mentioned sectors will dominance towards debt. Debt holders can acquire a position within firms (through the contractual agreements) where they can more easily monitor management behaviour and have more influence on where money is invested. In a situation of weak legal protection acquiring such a position could decrease the risk of expropriation by firms.

5.1.3 German civil law

The German civil law legal system is recognized as the judicial system lying between the quality of the common law and the French civil law legal system when it comes to protecting the rights of investors. Our results supports the hypothesis that there is no relationship between law and governance for both our small as large cap samples. Any government intention to encourage a reaction from firms will not have any effect. This observation also holds on an industry level for both the small as the large cap samples.

5.1.4 Scandinavian civil law

The Scandinavian civil law legal system as the German civil law legal system also lies in between the French civil law legal system and Common law. For small cap firms in this legal system we do not find any evidence of an existence of a relationship between law and governance. Since we do not have enough observations to perform the test on industry level, the only conclusion we can draw is that in general no relationship exists between law and governance. As we look at our large cap firms samples, we find evidence of a relationship between law and governance, but this relationship is limited to only four industry sectors:

- Food & Beverages
- Healthcare equipment & services
- Real estate
- Transportation

This means that if these sectors are the driving force for the economy, government investors' protection policies will successfully lead to a reaction by firms within these sectors. Also in the Scandinavian civil law we found that the type of relationship is substitute in nature. As it was for the French civil law, either governance or law is a necessity for investors to feel that capital provided will be used with the right intentions or that in case of expropriation investors rights can be uphold in courts. However, the financial markets in the Scandinavian civil law legal system compared to that of the French civil law show a better mix between equity and debt capital. This mix is on the other hand not that extend as within the common law legal system. Although there is a better mix present, we found that if legal reforms instead of governance reforms take place the debt holders in the financial markets will make more capital available for the firms within our earlier mentioned sectors. If legal reforms are absent debt holders will still provide capital, due to the protection they enjoy through their contractual agreements. Acquiring such a position would decrease the risk of expropriation and force firms to improve their governance. Hence, we came to the same conclusion as for the French civil law system.

5.1.5 Summary of empirical results⁴

Table 2. Empirical results per legal system and industry.

ORIGIN	Industry	Conclusion
Common law	Small cap: Capital Goods	Complementary relationship
French Civil law	Large cap: Automobiles & Components Capital Goods Commercial Services & Supplies Consumer Durables & Apparel Food & Staples Retailing HealthCare Equipment & Services Materials Real Estate Software & Services Technology Hardware & Equipment	Substitute relationship
German Civil law	No relationship	No relationship
Scandinavian Civil law	Large cap: Food & Beverages HealthCare Equipment & Services Real Estate Transportation	Substitute relationship

5.2 Actual outcome

Finally we will focus now on the results regarding our expectations. In section 3.3 we stated our hypothesis as:

H4: The worse the legal system the more likely we have a substitute effect

H5: The better the legal system the more likely we have a complementary effect

What we can conclude is that in common law countries for small cap firms a complementary relationship is evident. We cannot draw a significant final conclusion regarding the large cap firms. Thus the conclusion for small cap firms, the better the legal system the more likely a complementary effect. This is in line with our expectations. Both law and governance will complement each other in convincing investors that their investment is safe, leading to a lower cost of equity capital and a move of capital structures towards equity (more liquid financial market).

⁴ See Appendix 11 for regression results.

In the case of French civil law countries we found a substitute relationship, but in this case only for large cap firms. We cannot draw a significant final conclusion regarding the small cap firms. The French civil law system is seen as the worst legal system compared to its other civil law family members and common law. This leads to that we can conclude for large cap firms, that the worse the legal system the more likely a substitute effect. This conclusion is also in line with our expectations, but because the move of the capital structure is towards debt the expectation of a better mix is not fulfilled.

Regarding the German and Scandinavian legal system we didn't have a definite conclusion as these two systems are seen qualitatively to lie in between common law and French civil law. From our results we couldn't draw a significant definite conclusion regarding German civil law. Scandinavian civil law on the other hand showed us a similar result as French civil law.

5.3 Robustness check

In this section we address the problems that multicollinearity can cause when conducting regression analysis. Multicollinearity occurs when an independent variable is very highly correlated with one or more other independent variables. Examining the correlation matrixes we can see that our firm level governance variable is highly correlated in all of our eight samples (small and large cap in all four legal systems). The high correlation between these two variables is not surprising since the interaction effect is a function of the governance variable. With correlation values ranging from 0.6950 for our German large cap sample to 0.9852 for our Scandinavian sample it is possible that multicollinearity will make the regression coefficients unstable and unreliable. Since the purpose of this study is to estimate the contribution of individual predictors and our interpretations are based on the values of the coefficients we may get some misleading results. To identify and assess how multicollinearity influences our results we performed a stepwise multiple regression analysis. This means in other words that we regress our samples with all possible permutations between control variables, judicial efficiency variable, firm level governance variable and the interaction effect and then carefully compare the results.

5.3.1 Common law

In our small cap firms' regression we concluded a significant complementary relationship between law and governance on the capital structure. As we performed our multiple regression analysis we notice that this conclusion holds although the impact is weaker. The individual variables law and governance in our regression analysis show the same impact on the capital structure, but the impact became insignificant. Regarding large cap firms, in our original regression we drew the conclusion of an insignificant relationship between law and governance on the capital structure of large cap firms. This conclusion does not hold in the sense that when we performed our multiple regression analysis, we noticed that a significant relationship between law and governance on the capital structure of large cap firms exist. This relationship is as the small cap firms sample complementary in nature. Looking at the law and governance

variables individually we noticed that the impact of law on the capital structure of large cap firms has not changed compared to our original regression. Law still influences the capital structure in that the better law the more the capital structure will move towards equity, but when looking at the significance level we notice that in the regression analysis the impact of law on the capital structure becomes significant. For governance we noticed the same results in that its impact and insignificance has not changed.

5.3.2 French civil law

When performing multiple regression analysis on our small cap firms' sample, we notice that we do not obtain the same results as our original regression. Our small cap firms sample shows a significant complementary relationship between law and governance. Looking at the individual law and governance variables, we notice that the insignificance didn't change and thereby leading to no difference between our original regression. Regarding large cap firms, in our original regression we drew the conclusion of a significant relationship between law and governance on the capital structure of large cap firms. This conclusion does not hold in the sense that when we performed our multiple regression analysis, we noticed that the relationship became insignificant. Looking at the law and governance variables individually we noticed that the impact of governance on the capital structure of large cap firms has changed compared to our original regression. Governance moved from being a significant influence on the capital structure to an insignificant influence. It moved from being the better governance the more the capital structure will move towards debt, to the better governance the more the capital structure will move towards equity. This conflicting result leads us drawing the conclusion that we cannot for certain trust the results obtained in our original regression. Regarding law, we noticed that it still influences the capital structure in that the better law the more the capital structure will move towards debt. When looking at the significance we notice that in the multiple regression analysis the impact of law on the capital structure becomes insignificant.

5.3.3 German civil law

In our original regression we drew the conclusion of an insignificant relationship between law and governance on the capital structure of small cap firms. When performing the multiple regression analysis on our small cap firms' sample, we notice that we do not obtain the same results as our original regression. Our small cap sample shows a significant substitute relationship between law and governance. Looking at the individual law and governance variables, we notice that the insignificance didn't change and thereby leading to no difference between our original regression. For our large cap firms' sample we drew the conclusion of an insignificant relationship between law and governance on the capital structure of large cap firms. This conclusion does not hold when we performed our multiple regression analysis. We noticed that the relationship between law and governance on the capital structure of large cap firms changes from an insignificant complementary relationship to an insignificant substitute relationship. This

result leads to the conclusion that we also in this case cannot for certain trust the results of our original regression. Looking at the law and governance variables individually we noticed the impact of law on the capital structure of large cap firms has changed in the same pattern as the earlier mentioned interaction effect. Law and governance changes in impact when it comes to their influence on the capital structure of large cap firms. The only factor that is constant between our original regression and multiple regression analysis is that in both cases these variables are insignificant. Overall we can thus conclude that our original regression results regarding German civil law are not robust.

5.3.4 *Scandinavian civil law*

In our original regression we drew the conclusion of an insignificant relationship between law and governance on the capital structure of small cap firms. This does not hold when we performed our multiple regression analysis. For our large cap sample we drew the conclusion of a significant relationship between law and governance on the capital structure. This does not hold either when we performed our multiple regression analysis. We noticed that although there still exist a substitute relationship between law and governance on the capital structure of large cap firms, this relationship in our multiple regression analysis became insignificant. Looking at the law and governance variables individually we noticed that the impact of governance on the capital structure of large cap firms has changed compared to our original regression. Governance moved from being a significant influence on the capital structure to an insignificant influence with the same impact. Regarding law, we noticed that law still influences the capital structure and that this significant impact still holds when performing our multiple regression analysis.

5.4 Overall conclusion

As described in our introduction we set out to investigate how law and governance influences each other and how they impact the capital structure of firms. This investigation was done in order to draw a conclusion regarding the legislation that different governments in different legal systems implemented. What we found (described under our empirical result section) is the existence of a relationship in common law countries (complementary), French civil law countries (substitute) and Scandinavian civil law countries (substitute). But these relationships are not applicable for the legal systems as a whole⁵. In common law countries we saw that the sector Capital Goods is the only industry we can conclude that there is a relationship between law and governance and that it only applies to small cap firms. In French civil law countries we noticed that only in ten different sectors of the economy a relationship exists, but that this relationship only applies to large cap firms. Finally in Scandinavian civil law countries we found that only in four sectors of the economy a relationship exists, but that this relationship only is limited to

⁵ This conclusion is not definite. See section 5.4 Robustness check regarding the validity of this conclusion.

large cap firms. These found relationships in the three different legal systems in their turn influences the capital structure of the firms. In common law countries the complementary relationship influences the capital structure of small cap firms (i.e. increase in the firms' equity ratio). In French civil law countries the substitute relationship influences the capital structure of large cap firms (i.e. increase in the firms' debt ratio). Finally in Scandinavian civil law countries the substitute relationship influences the capital structure of large cap firms (i.e. increase in the firms' debt ratio).

Taking our results into consideration we can conclude that reforms implemented by different governments to influence firms and thereby also steer the development of their financial markets will not reach their goals and fulfill their expectations. Our results indicate that too few firms in too few sectors are influence by the steps taken by governments. In the common law system the legislation of the British government for example will not have any overall impact on firms. The reasoning of government to influence firms and thereby financial markets through legislation will only apply to a single industry sector within the small cap sector. In the French civil law system the legislation taken by for example the Dutch government to influence firms and thereby financial markets will only have an impact on ten industry sectors. This leaves the question if the legislation implemented by this government is useful. If these sectors make up the bulk of the most important determinants of the Dutch economical development then we can conclude that legislation has fulfilled its purpose of influencing firms, but the aim of developing a more diversified liquid financial market is not achieved. We noticed that in French civil law countries debt is still the financing choice that steers the capital structure. Finally in the Scandinavian civil law system the legislation taken by for example the Swedish government will also not fulfil its goals and expectations as only four sectors of the economy are influenced by legislation.

In order to influence firms and steer the financial markets our result indicates that governments need to change their approach by studying more the dynamics of their economy as our results indicate that the relationship between law and governance and their impact on capital structure is more a matter for industry level than a country level. There is one legal system we haven't mentioned so far in our overall conclusion, the German civil law system. For both small and large cap firms in this legal system, a relationship between law and governance is nonexistent. We are not aware of any legal reforms taken by the German civil law countries, but we can conclude that if there were any reforms they will not service their goal to influence firms and financial markets. What the German civil law legal system taught us is that other factors might play a role when it comes to the investors' protection and capital structures changes.

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Appendix 1: The variables, definitions and sources

Table 3. This table describes the variables collected for the 19 countries included in our study. The first and second column gives the name of the variable and its notation, respectively. The third column describes the variable and the fourth and last column provides the sources from which the variable was collected.

Main Variables	Notations	Definitions	Sources
Origin	ORIGIN	Identifies the legal origin of the Company Law or Commercial Code of each country.	La Porta et al (1998a)
Leverage	D/E	Long term debt to common equity at the end of 2005 in US dollars.	DataStream
Investor protection	LAW	This index rates countries on the basis of how efficient and qualitative the legal rules prevailing in 2005 were with respect to the protection of investors interests.	Worldbank: Doing Business
Firm level governance	CGQ	Ranks the corporate governance performance in 2004 by evaluating the strengths, deficiencies and overall quality of a company's corporate governance practices and board of directors.	ISS
Market Capitalization	MCAP	The value of listed shares at the end of 2004 in US dollars.	DataStream
Industry dummies	D	Industry dummies for 2004.	ISS
Tangibility	TANG	The sum of the net property, plant and equipment divided by the total assets at the end of 2004 in US dollars.	DataStream
Growth opportunity	GROW	The market value of assets (calculated as book value of assets minus book value of equity plus market value of equity) over book value of assets at the end of 2004 in US dollars.	DataStream
Profitability	PROF	Net income to market capitalization at the of 2004 in US dollars.	DataStream
Size	SIZE	Natural logarithm of sales at the end of 2004 in US dollars.	DataStream

Appendix 2: Legal origin

Section I: Overview of countries in the world belonging to the four legal systems

Table 4. This table classifies countries by legal origin in alphabetic order.

English origin	French origin	German origin	Skandinavian origin
Australia	Argentina	Austria	Denmark
Canada	Belgium	Germany	Finland
Hong Kong	Brazil	Japan	Norway
India	Chile	South Korea	Sweden
Ireland	Colombia	Switzerland	
Israel	Ecuador	Taiwan	
Kenya	Egypt		
Malaysia	France		
New Zealand	Greece		
Nigeria	Indonesia		
Pakistan	Italy		
Singapore	Jordan		
South Africa	Mexico		
Sri Lanka	Netherlands		
Thailand	Peru		
UK	Philippines		
US	Portugal		
Zimbabwe	Spain		
	Turkey		
	Uruguay		
	Venezuela		

Section II: Overview of countries used in our study and their corresponding belonging to the four legal systems

Table 5. This table classifies countries included in our study by legal origin.

English origin	French origin	German origin	Skandinavian origin
Australia	Belgium	Austria	Denmark
Canada	France	Germany	Finland
Ireland	Greece	Switzerland	Norway
New Zealand	Italy		Sweden
UK	Netherlands		
	Portugal		
	Spain		

Appendix 3: Strength of investor protection index

The proxy (investor protection) used by us to measure the strength of legal environment addresses specifically the legal protection of minority shareholders against expropriation by corporate insiders. The index describes a hypothetical self-dealing transaction between two firms controlled by the same person how wants to enrich himself. The index is an indicator for how difficult it is for minority shareholders to prevent the deal before it goes through and to recover damages if it is carried out. The strength of investor protection index is based on legal rules prevailing in 2005 and focuses on private enforcement mechanisms.

The indicator distinguishes 3 dimensions of investor protection:

- (i) transparency of transactions (extent of disclosure index),
- (ii) liability for self-dealing (extent of director liability index) and
- (iii) shareholders' ability to sue officers and directors for misconduct (ease of shareholder suits index).

To make the data comparable across countries, several assumptions about the business and the transaction are used, see Appendix 4 section I to IV for the assumptions and for a more detailed description of the 3 dimensions of investor protection. The data come from a survey of corporate lawyers and are based on company laws, court rules of evidence and securities regulations. The strength of investor protection index is the average of the extent of disclosure index, the extent of director liability index and the ease of shareholder suits index. The index ranges from 0 to 10, with higher values indicating better investor protection. This methodology was originally developed in Djankov et al (2005) and is adopted here with minor changes. (Source: <http://www.doingbusiness.org/>).

Table 6. This table reports the strength of investor protection index i.e. legal system efficiency for the countries used by us in this survey in alphabetic order.

<i>Country</i>	<i>ORIGIN</i>	<i>Score</i>
Australia	Commom law	5.7
Austria	German Civil law	3.7
Belgium	French Civil law	7.0
Denmark	Scandinavian Civil law	6.3
Finland	Scandinavian Civil law	5.7
France	French Civil law	5.3
Germany	German Civil law	5.0
Greece	French Civil law	3.0
Ireland	Commom law	8.3
Italy	French Civil law	5.0
Netherlands	French Civil law	4.7
New Zealand	Commom law	9.7
Norway	Scandinavian Civil law	6.7
Portugal	French Civil law	6.0
Spain	French Civil law	5.0
Sweden	Scandinavian Civil law	5.7
Switzerland	German Civil law	3.0
UK	Commom law	8.0

Appendix 4: Detailed description of investor protection index

To make the investor protection index comparable across countries, several assumptions about the business and the transaction are used. See section I to IV for the assumptions and for a more detailed description of the 3 dimensions of investor protection. (Source: <http://www.doingbusiness.org/>).

Section I: Assumptions about the business and the transaction

Assumptions about the business (Buyer):

- Is a publicly traded corporation listed on the country's most important stock exchange. If the number of publicly traded companies listed on that exchange is less than 10, or if there is no stock exchange in the country, it is assumed that Buyer is a large private company with multiple shareholders.
- Has a board of directors and a chief executive officer (CEO) who may legally act on behalf of Buyer where permitted, even if this is not specifically required by law.
- Has only national shareholders.
- Has invested only in the country and has no subsidiaries or operations abroad.
- Is a food manufacturer.
- Has its own distribution network.

Assumptions about the transaction:

- Mr. James is Buyer's controlling shareholder and a member of Buyer's board of directors. He owns 60% of Buyer and elected 2 directors to Buyer's 5-member board.
- Mr. James also owns 90% of Seller, a company that operates a chain of retail hardware stores. Seller recently closed a large number of its stores.
- Mr. James proposes to Buyer that it purchase Seller's unused fleet of trucks to expand Buyer's distribution of its food products. Buyer agrees. The price is equal to 10% of Buyer's assets and is higher than the market value.
- The proposed transaction is part of the company's ordinary course of business and is not outside the authority of the company.
- Buyer enters into the transaction. All required approvals are obtained, and all required disclosures made.
- The transaction is unfair to Buyer. Shareholders sue Mr. James and the other parties that approved the transaction.

Section II: Extent of disclosure index

The extent of disclosure index has 5 components:

- (i) what corporate body can provide legally sufficient approval for the transaction (a score of 0 is assigned if it is the CEO or the managing director alone; 1 if the board of directors or shareholders must vote and Mr. James is permitted to vote; 2 if the board of directors must vote and Mr. James is not permitted to vote; 3 if shareholders must vote and Mr. James is not permitted to vote);
- (ii) whether immediate disclosure of the transaction to the public, the shareholders or both is required (a score of 0 is assigned if no disclosure is required; 1 if disclosure on the terms of the transaction but not Mr. James's conflict of interest is required; 2 if disclosure on both the terms and Mr. James's conflict of interest is required);
- (iii) whether disclosure in the annual report is required (a score of 0 is assigned if no disclosure on the transaction is required; 1 if disclosure on the terms of the transaction but not Mr. James's conflict of interest is required; 2 if disclosure on both the terms and Mr. James's conflict of interest is required);
- (iv) whether disclosure by Mr. James to the board of directors is required (a score of 0 is assigned if no disclosure is required; 1 if a general disclosure of the existence of a conflict of interest is required without any specifics; 2 if full disclosure of all material facts relating to Mr. James's interest in the Buyer-Seller transaction is required); and
- (v) whether it is required that an external body, for example, an external auditor, review the transaction before it takes place (a score of 0 is assigned if no; 1 if yes).

The index ranges from 0 to 10, with higher values indicating greater disclosure. In Poland, for example, the board of directors must approve the transaction and Mr. James is not allowed to vote (a score of 2). Buyer is required to disclose immediately all information affecting the stock price, including the conflict of interest (a score of 2). In its annual report Buyer must also disclose the terms of the transaction and Mr. James's ownership in Buyer and Seller (a score of 2). Before the transaction Mr. James must disclose his conflict of interest to the other directors, but he is not required to provide specific information about it (a score of 1). Poland does not require an external body to review the transaction (a score of 0). Adding these numbers gives Poland a score of 7 on the extent of disclosure index.

Section III: Extent of director liability index

The extent of director liability index measures:

- (i) a shareholder plaintiff's ability to hold Mr. James liable for damage the Buyer-Seller transaction causes to the company (a score of 0 is assigned if Mr. James cannot be held liable or can be held liable only for fraud or bad faith; 1 if Mr. James can be held liable only if he influenced the approval of the transaction or was negligent; 2 if Mr. James can be held liable when the transaction was unfair or prejudicial to the other shareholders);
- (ii) a shareholder plaintiff's ability to hold the approving body (the CEO or board of directors) liable for damage the transaction causes to the company (a score of 0 is assigned if the approving body cannot be held liable or can be held liable only for fraud or bad faith; 1 if the approving body can be held liable for negligence; 2 if the approving body can be held liable when the transaction is unfair or prejudicial to the other shareholders);
- (iii) whether a court can void the transaction upon a successful claim by a shareholder plaintiff (a score of 0 is assigned if rescission is unavailable or is available only in case of fraud or bad faith; 1 if rescission is available when the transaction is oppressive or prejudicial to the other shareholders; 2 if rescission is available when the transaction is unfair or entails a conflict of interest);
- (iv) whether Mr. James pays damages for the harm caused to the company upon a successful claim by the shareholder plaintiff (a score of 0 is assigned if no; 1 if yes);
(v) whether Mr. James repays profits made from the transaction upon a successful claim by the shareholder plaintiff (a score of 0 is assigned if no; 1 if yes); (vi) whether fines and imprisonment can be applied against Mr. James (a score of 0 is assigned if no; 1 if yes); and
- (v) shareholder plaintiffs' ability to sue directly or derivatively for damage the transaction causes to the company (a score of 0 is assigned if suits are unavailable or are available only for shareholders holding more than 10% of the company's share capital; 1 if direct or derivative suits are available for shareholders holding 10% or less of share capital).

The index ranges from 0 to 10, with higher values indicating greater liability of directors. To hold Mr. James liable in Panama, for example, a plaintiff must prove that Mr. James influenced the approving body or acted negligently (a score of 1). To hold the other directors liable, a plaintiff must prove that they acted negligently (a score of 1). The unfair transaction cannot be voided (a score of 0). If Mr. James is found liable, he must pay damages (a score of 1) but he is not required to disgorge his profits (a score of 0). Mr. James cannot be fined or imprisoned (a score of 0). Direct suits are available for shareholders holding 10% or less of share capital (a score of 1). Adding these numbers gives Panama a score of 4 on the extent of director liability index.

Section IV: Ease of shareholder suits index

The ease of shareholder suits index measures:

- (i) the range of documents available to the shareholder plaintiff from the defendant and witnesses during trial (a score of 1 is assigned for each of the following types of documents available: information that the defendant has indicated he intends to rely on for his defense; information that directly proves specific facts in the plaintiff's claim; any information relevant to the subject matter of the claim; and any information that may lead to the discovery of relevant information);
- (ii) whether the plaintiff can directly examine the defendant and witnesses during trial (a score of 0 is assigned if no; 1 if yes, with prior approval of the questions by the judge; 2 if yes, without prior approval);
- (iii) whether the plaintiff can obtain any documents from the defendant without identifying them specifically (a score of 0 is assigned if no; 1 if yes);
(iv) whether shareholders owning 10% or less of the company's share capital can request that a government inspector investigate the Buyer-Seller transaction (a score of 0 is assigned if no; 1 if yes);
- (iv) whether shareholders owning 10% or less of the company's share capital have the right to inspect the transaction documents before filing suit (a score of 0 is assigned if no; 1 if yes); and
- (v) whether the standard of proof for civil suits is lower than that for a criminal case (a score of 0 is assigned if no; 1 if yes).

The index ranges from 0 to 10, with higher values indicating greater powers of shareholders to challenge the transaction. In Greece, for example, the plaintiff can access documents that the defendant intends to rely on for his defense and that directly prove facts in the plaintiff's claim (a score of 2). The plaintiff can examine the defendant and witnesses during trial, though only with prior approval of the questions by the court (a score of 1). The plaintiff must specifically identify the documents being sought (for example, the Buyer-Seller purchase agreement of July 15, 2005) and cannot just request categories (for example, all documents related to the transaction) (a score of 0). A shareholder holding 5% of Buyer's shares can request that a government inspector review suspected mismanagement by Mr. James and the CEO (a score of 1). And any shareholder can inspect the transaction documents before deciding whether to sue (a score of 1). The standard of proof for civil suits is the same as that for criminal suits (a score of 0). Adding these numbers gives Greece a score of 5 on the ease of shareholder suits index.

Appendix 5: CGQ Ratings Criteria – International Firms

Governance attributes generated by ISS which measures the strength of firm level governance. ISS use public disclosure documents to gather information on these 55 factors and code them as either 1 or 0 depending on whether the firm's governance standards are minimally acceptable. These comprehensive inventories of governance attributes of 55 binary variables constituting eight corporate governance categories are then summed up for each company in order to derive the CGQ score. Some of the ratings factors are also looked at in combination under the premise that corporate governance is enhanced when selected combinations of these criteria are adopted. (Source: ISS Corporate Governance: Best Practices User Guide & Glossary, 2003).

Board		Anti-Takeover Provisions	
			Anti-Takeover Provisions Applicable Under Country (local) Laws
1	Board Composition	34	
2	Nominating Committee Compensation	Executive and Director Compensation	
3	Committee	35	Cost of Option Plans
4	Governance Committee	36-37	Option Re-pricing
5	Board Structure	38	Shareholder Approval of Option Plans
6	Board Size	39	Compensation Committee Interlocks
7	Changes In Board Size	40	Director Compensation
8	Cumulative Voting	41	Pension Plans For Non-Employee Directors
9	Boards Served On – CEO	42	Option Expensing
10	Boards Served On – Other Than CEO	43	Option Burn Rate
11	Former CEO's Chairman/CEOs	44	Corporate Loans
12	Separation	Progressive Practices	
13	Board Guidelines	45	Retirement Age for Directors
14	Response To Shareholder Proposals	46	Board Performance Reviews
15	Board Attendance	47	Meetings of Outside Directors
16	Board Vacancies	48	CEO Succession Plan
17	Related Party Transactions	49	Outside Advisors Available to Board
Audit		50	Directors resign upon job change
		Ownership	
	18 Audit Committee		
	19 Audit Fees	51	Director Ownership
	20 Auditor Rotation	52	Executive Stock Ownership Guidelines
	21 Auditor Ratification	53	Director Stock Ownership Guidelines
Charter/Bylaws		54	Officer and Director Stock Ownership
22-27	Features of Poison Pills	Director Education	
28-29	Vote Requirements	55	Director Education
30	Written Consent		
31	Special Meetings		
32	Board Amendments		
33	Capital Structure		

Appendix 6: Summary CGQ statistics by legal system

Table 7 and 8 reports the summary statistics (averages, median, standard deviation, maximum and minimum) of CGQ score for the small and large cap samples by legal system in alphabetic order. The CGQ scores ranks the corporate governance performance in 2004. Number of observations in each sample is denoted by n.

Table 7. Summary statistics for the small cap sample.

ORIGIN	n	means	median	st.dev	max	min
Commom law	242	0,7937	0,8135	0,1431	1,0000	0,0000
French Civil law	61	0,2740	0,1930	0,2435	0,7740	0,0030
German Civil law	25	0,5071	0,4770	0,2008	0,9080	0,0130
Scandinavian Civil law	18	0,2873	0,3205	0,2298	0,6500	0,0130

Table 8. Summary statistics for the large cap sample

ORIGIN	n	means	median	st.dev	max	min
Commom law	189	0,7867	0,8330	0,1779	1,0000	0,1580
French Civil law	150	0,5038	0,5720	0,2291	0,8660	0,0010
German Civil law	63	0,6398	0,6670	0,1979	0,9200	0,0060
Scandinavian Civil law	49	0,4354	0,4660	0,2297	0,8150	0,0210

Appendix 7: Summary CGQ statistics by country

Table 9 and 10 reports the summary statistics (averages, median, standard deviation, maximum and minimum) of CGQ score for the small and large cap samples by country in alphabetic order. The CGQ scores ranks the corporate governance performance in 2004. Number of observations in each sample is denoted by n.

Table 9. Summary CGQ statistics by country for the small cap sample.

Country	n	means	median	st.dev	max	min
Australia	20	0,5727	0,5630	0,1048	0,7620	0,4180
Austria	2	0,3015	0,3015	0,4080	0,5900	0,0130
Belgium	4	0,3630	0,4425	0,2112	0,5150	0,0520
Denmark	2	0,2695	0,2695	0,2949	0,4780	0,0610
Finland	5	0,4542	0,4950	0,1837	0,6500	0,1500
France	4	0,4288	0,4750	0,1850	0,5990	0,1660
Germany	15	0,4521	0,4560	0,1432	0,7860	0,1710
Greece	21	0,0912	0,0260	0,1457	0,5360	0,0030
Ireland	4	0,7430	0,7625	0,1741	0,9330	0,5140
Italy	10	0,4879	0,5415	0,1773	0,6370	0,0280
Netherlands	7	0,5544	0,6590	0,2429	0,7740	0,0620
New Zealand	3	0,4590	0,4220	0,0802	0,5510	0,4040
Norway	6	0,2978	0,3205	0,2380	0,5540	0,0130
Portugal	3	0,1633	0,1340	0,0652	0,2380	0,1180
Spain	12	0,1987	0,1395	0,1679	0,4950	0,0100
Sweden	5	0,1148	0,0370	0,1607	0,4010	0,0320
Switzerland	8	0,6616	0,6975	0,1662	0,9080	0,4590
UK	215	0,8198	0,8280	0,1213	1,0000	0,0000

Table 10. Summary CGQ statistics by country for the large cap sample.

Country	n	means	median	st.dev	max	min
Australia	60	0,6036	0,6185	0,1501	0,8260	0,1580
Austria	5	0,2290	0,0140	0,3343	0,7640	0,0060
Belgium	11	0,4117	0,4030	0,1975	0,6650	0,0230
Denmark	10	0,2747	0,2455	0,2259	0,6010	0,0310
Finland	12	0,6848	0,6900	0,0997	0,8150	0,4660
France	55	0,6361	0,6530	0,1393	0,8660	0,1560
Germany	35	0,6289	0,6380	0,1074	0,8680	0,4300
Greece	8	0,3235	0,3195	0,2650	0,6790	0,0010
Ireland	6	0,8105	0,8150	0,0595	0,8980	0,7210
Italy	27	0,5428	0,5780	0,1389	0,6990	0,0410
Netherlands	21	0,5968	0,6460	0,1807	0,7900	0,0110
New Zealand	8	0,6325	0,6590	0,0697	0,6980	0,5320
Norway	5	0,2430	0,1010	0,2475	0,5300	0,0210
Portugal	7	0,0631	0,0230	0,0971	0,2730	0,0020
Spain	21	0,2778	0,2550	0,1879	0,6850	0,0210
Sweden	22	0,4163	0,4335	0,1576	0,6760	0,0720
Switzerland	23	0,7456	0,7890	0,1484	0,9200	0,3640
UK	115	0,8918	0,9170	0,0980	1,0000	0,5350

Appendix 8: Summary statistics for CGQ industry scores per legal system

Section I: Common law industry CGQ summary statistics

Tables 11 and 12 reports the summary statistics (averages, median, standard deviation maximum and minimum) of CGQ score for the common law small and large cap samples by industry in alphabetic order. The CGQ scores ranks the corporate governance performance in 2004. Number of observations in each sample is denoted by n.

Table 11. CGQ summary statistics for small cap firms.

Industry	n	means	median	st.dev	max	min
Automobiles & Components	4	0,7453	0,7495	0,2139	0,9770	0,5050
Capital Goods	32	0,8310	0,8310	0,0903	0,9680	0,6320
Commercial Services & Supplies	30	0,8085	0,8405	0,1371	1,0000	0,4990
Consumer Durables & Apparel	14	0,8567	0,8715	0,1325	0,9940	0,5140
Consumer Services	9	0,8218	0,8280	0,0891	0,9660	0,6590
Food Beverage & Tobacco	11	0,7226	0,8440	0,2816	0,9330	0,0000
Health Care Equipment & Services	7	0,8446	0,8650	0,0788	0,9420	0,7040
Materials	16	0,8136	0,8430	0,1632	0,9860	0,4040
Media	14	0,7041	0,7050	0,1739	0,9800	0,4460
Pharmaceuticals & Biotechnology	12	0,7388	0,7650	0,1153	0,8990	0,5340
Real Estate	16	0,7780	0,7370	0,1140	0,9910	0,6410
Retailing	17	0,7941	0,8050	0,1215	0,9690	0,4980
Software & Services	24	0,7845	0,7970	0,1480	0,9960	0,4240
Technology Hardware & Equipment	20	0,7939	0,7940	0,1051	0,9470	0,5860
Telecommunication Services	6	0,7245	0,7485	0,2024	0,9380	0,4180
Transportation	10	0,8249	0,8455	0,1456	0,9890	0,5510

Table 12 . CGQ summary statistics for large cap firms

Industry	n	means	median	st.dev	max	min
Capital Goods	17	0,8533	0,9140	0,1551	0,9970	0,5090
Commercial Services & Supplies	11	0,8275	0,9020	0,1450	0,9450	0,5120
Consumer Durables & Apparel	13	0,8208	0,8660	0,1346	0,9820	0,5530
Consumer Services	16	0,8658	0,9355	0,1494	0,9930	0,4870
Food & Staples Retailing	6	0,7832	0,8025	0,1739	0,9630	0,5800
Food Beverage & Tobacco	10	0,8263	0,8675	0,1402	0,9770	0,5200
Health Care Equipment & Services	8	0,7698	0,7515	0,1521	0,9980	0,5320
Materials	30	0,7189	0,7140	0,1594	0,9960	0,4010
Media	19	0,8019	0,9100	0,1916	0,9790	0,4170
Pharmaceuticals & Biotechnology	3	0,7637	0,7530	0,0489	0,8170	0,7210
Real Estate	16	0,6634	0,7415	0,2490	0,9990	0,2170
Retailing	14	0,8116	0,8390	0,1605	0,9870	0,5230
Software & Services	4	0,7115	0,6915	0,2125	0,9760	0,4870
Technology Hardware & Equipment	3	0,9003	0,8790	0,0763	0,9850	0,8370
Telecommunication Services	3	0,8950	0,9920	0,1750	1,0000	0,6930
Transportation	16	0,7584	0,7735	0,2171	0,9980	0,1580

Section II: French civil law industry CGQ summary statistics

Tables 13 and 14 reports the summary statistics (averages, median, standard deviation maximum and minimum) of CGQ score for the French small and large cap samples by industry in alphabetic order. The CGQ scores ranks the corporate governance performance in 2004. Number of observations in each sample is denoted by n.

Table 13. CGQ summary statistics for small cap firms.

Industry	n	means	median	st.dev	max	min
Automobiles & Components	4	0,4003	0,4530	0,1865	0,5610	0,1340
Capital Goods	14	0,2167	0,0805	0,2480	0,6600	0,0040
Consumer Durables & Apparel	5	0,2280	0,1660	0,2339	0,4890	0,0030
Consumer Services	3	0,3293	0,3670	0,2903	0,5990	0,0220
Food Beverage & Tobacco	4	0,3375	0,2830	0,3780	0,7740	0,0100
Health Care Equipment & Services	3	0,3743	0,5150	0,2844	0,5610	0,0470
Materials	12	0,2383	0,1810	0,2034	0,6370	0,0390
Media	5	0,3862	0,4440	0,2187	0,5880	0,0120
Retailing	3	0,2300	0,2680	0,1987	0,4070	0,0150
Technology Hardware & Equipment	4	0,4715	0,5635	0,3126	0,7330	0,0260
Transportation	4	0,0285	0,0225	0,0161	0,0520	0,0170

Table 14. CGQ summary statistics for large cap firms

Industry	n	means	median	st.dev	max	min
Automobiles & Components	5	0,6424	0,6530	0,0939	0,7530	0,5370
Capital Goods	23	0,4712	0,5660	0,2510	0,8520	0,0230
Commercial Services & Supplies	5	0,5054	0,5970	0,2626	0,7170	0,0490
Consumer Durables & Apparel	10	0,5744	0,5905	0,0759	0,6790	0,4550
Consumer Services	7	0,3839	0,2670	0,2760	0,7680	0,0640
Food & Staples Retailing	4	0,4545	0,5550	0,2795	0,6650	0,0430
Food Beverage & Tobacco	13	0,4995	0,4840	0,1737	0,7330	0,2180
Health Care Equipment & Services	3	0,3993	0,5780	0,3261	0,5970	0,0230
Materials	17	0,4958	0,5860	0,2605	0,7720	0,0010
Media	20	0,5201	0,6020	0,2527	0,8210	0,0090
Real Estate	7	0,6057	0,6170	0,1571	0,7900	0,3830
Retailing	4	0,3928	0,3535	0,1858	0,6450	0,2190
Software & Services	9	0,6707	0,6830	0,1505	0,8660	0,4380
Technology Hardware & Equipment	5	0,5954	0,6490	0,1680	0,7520	0,4030
Telecommunication Services	9	0,3898	0,3430	0,2322	0,6580	0,0740
Transportation	9	0,4320	0,5710	0,2803	0,6920	0,0020

Section III: German civil law industry CGQ summary statistics

Table 15 reports the summary statistics (averages, median, standard deviation maximum and minimum) of CGQ score for the German small and large cap samples by industry in alphabetic order. The CGQ scores ranks the corporate governance performance in 2004. Number of observations in each sample is denoted by n.

Table 15. CGQ summary statistics for large cap firms

Industry	n	means	median	st.dev	max	min
Automobiles & Components	3	0,6190	0,5890	0,1385	0,7700	0,4980
Capital Goods	11	0,7144	0,7050	0,1013	0,8750	0,5840
Commercial Services & Supplies	3	0,7197	0,7030	0,0397	0,7650	0,6910
Consumer Durables & Apparel	5	0,5540	0,5740	0,1140	0,6960	0,4380
Health Care Equipment & Services	8	0,7575	0,7865	0,0913	0,8680	0,6340
Household & Personal Products	3	0,6413	0,6990	0,1501	0,7540	0,4710
Materials	16	0,6118	0,6625	0,2954	0,9200	0,0070
Pharmaceuticals & Biotechnology	6	0,6017	0,6155	0,1457	0,8200	0,4390
Retailing	3	0,6097	0,6710	0,1582	0,7280	0,4300
Transportation	5	0,4904	0,6040	0,2735	0,6620	0,0060

Section IV: Scandinavian civil law industry CGQ summary statistics

Table 16 reports the summary statistics (averages, median, standard deviation maximum and minimum) of CGQ score for the Scandinavian small and large cap samples by industry in alphabetic order. The CGQ scores ranks the corporate governance performance in 2004. Number of observations in each sample is denoted by n.

Table 16. CGQ summary statistics for large cap firms

Industry	n	means	median	st.dev	max	min
Capital Goods	13	0,5032	0,4660	0,1285	0,7600	0,2780
Food Beverage & Tobacco	4	0,4693	0,4645	0,0987	0,5910	0,3570
Health Care Equipment & Services	4	0,2783	0,2845	0,2025	0,4690	0,0750
Materials	13	0,4777	0,5670	0,2967	0,8150	0,0310
Media	3	0,3170	0,2910	0,3098	0,6390	0,0210
Real Estate	4	0,2898	0,2420	0,2401	0,6030	0,0720
Telecommunication Services	5	0,4438	0,5120	0,2424	0,7100	0,0550
Transportation	3	0,4220	0,5340	0,3248	0,6760	0,0560

Appendix 9: Summary statistics of firm leverage by legal system

Table 17 and 18 reports the summary statistics (averages, median, standard deviation, maximum and minimum) of leverage for the small and large cap samples by legal system in alphabetic order. Leverage is defined as long term debt to common equity in 2005. Number of observations in each sample is denoted by n.

Table 17. Summary statistics of firm leverage for the small cap sample.

ORIGIN	n	means	median	st.dev	max	min
Commom law	242	0,4659	0,2079	0,7913	5,6902	0,0000
French Civil law	61	0,7679	0,4161	1,0362	5,8107	0,0000
German Civil law	25	0,3383	0,3093	0,3758	1,3090	0,0000
Scandinavian Civil law	18	0,1886	0,0546	0,2393	0,7156	0,0000

Table 18. Summary statistics of firm leverage for the large cap sample.

ORIGIN	n	means	median	st.dev	max	min
Commom law	189	0,8230	0,5448	1,0361	6,2912	0,0000
French Civil law	150	0,7531	0,5533	0,7222	3,5983	0,0000
German Civil law	63	0,5863	0,3542	1,3974	11,0226	0,0000
Scandinavian Civil law	49	0,4641	0,4018	0,3118	1,6659	0,0077

Appendix 10: Summary statistics of firm leverage by country

Table 19 and 20 reports the summary statistics (averages, median, standard deviation, maximum and minimum) of leverage for the small and large cap samples by country in alphabetic order. Leverage is defined as long term debt to common equity in 2005. Number of observations in each sample is denoted by n.

Table 19. Summary statistics of firm leverage for the small cap sample

Country	n	means	median	st.dev	max	min
Australia	20	0,4767	0,2501	0,8739	3,9703	0,0000
Austria	2	0,1929	0,1929	0,1646	0,3093	0,0765
Belgium	4	0,6331	0,5251	0,4749	1,2948	0,1873
Denmark	2	0,2153	0,2153	0,2152	0,3675	0,0632
Finland	5	0,2346	0,0169	0,3253	0,7156	0,0000
France	4	0,2826	0,1580	0,3817	0,8146	0,0000
Germany	15	0,3154	0,1112	0,3742	1,0441	0,0000
Greece	21	0,4462	0,3472	0,4687	1,8073	0,0000
Ireland	4	0,7010	0,3195	1,0214	2,1650	0,0000
Italy	10	1,1639	0,7672	1,2292	3,2808	0,0000
Netherlands	7	0,6014	0,4161	0,5595	1,6088	0,1140
New Zealand	3	0,2814	0,2887	0,2085	0,4862	0,0694
Norway	6	0,1133	0,0635	0,1271	0,3094	0,0000
Portugal	3	1,7559	1,8330	1,4333	3,1491	0,2856
Spain	12	1,0580	0,4380	1,6635	5,8107	0,0094
Sweden	5	0,2222	0,0000	0,3049	0,5814	0,0000
Switzerland	8	0,4176	0,4037	0,4313	1,3090	0,0226
UK	215	0,4631	0,2032	0,7879	5,6902	0,0000

Table 20 . Summary statistics of firm leverage for the large cap sample

Country	n	means	median	st.dev	max	min
Australia	60	0,5151	0,4695	0,3546	1,5270	0,0000
Austria	5	0,3018	0,3004	0,2841	0,7509	0,0000
Belgium	11	0,5333	0,3619	0,5559	1,9728	0,0000
Denmark	10	0,6006	0,5743	0,2855	0,9887	0,0768
Finland	12	0,4176	0,4316	0,2483	0,8265	0,0464
France	55	0,6270	0,5000	0,5705	3,0787	0,0000
Germany	35	0,7674	0,3888	1,8426	11,0226	0,0000
Greece	8	0,7147	0,6532	0,5136	1,7253	0,0212
Ireland	6	2,4512	0,9253	2,6123	6,2912	0,5448
Italy	27	0,9047	0,7267	0,8648	3,5983	0,0050
Netherlands	21	0,7700	0,6030	0,6307	2,8132	0,0058
New Zealand	8	1,2526	0,6908	1,8252	5,6782	0,0000
Norway	5	0,4986	0,3919	0,1920	0,7978	0,3509
Portugal	7	1,5665	1,4325	0,9489	2,8269	0,3713
Spain	21	0,7307	0,5087	0,8863	3,5907	0,0000
Sweden	22	0,4195	0,3086	0,3681	1,6659	0,0077
Switzerland	23	0,3726	0,2487	0,3508	1,1668	0,0000
UK	115	0,8688	0,5408	0,9985	5,3363	0,0000

Appendix 11: Summary of industry statistics of firm leverage per legal system

Section I: Summary of industry statistics for Common law

Table 21 and 22 reports the summary statistics (averages, median, standard deviation, maximum and minimum) of leverage for the common law small and large cap samples by legal system in alphabetic order. Leverage is defined as long term debt to common equity in 2005. Number of observations in each sample is denoted by n.

Table 21. Summary statistics of firm leverage for small cap firms

Industry	n	means	median	st.dev	max	min
Automobiles & Components	4	0,4290	0,3312	0,5206	1,0538	0,0000
Capital Goods	32	0,3386	0,3386	0,2724	0,8751	0,0000
Commercial Services & Supplies	30	0,6025	0,3458	0,8329	3,8069	0,0000
Consumer Durables & Apparel	14	0,1180	0,0554	0,1706	0,6196	0,0000
Consumer Services	9	0,9101	0,1639	1,8316	5,6902	0,0000
Food Beverage & Tobacco	11	0,6013	0,4574	0,6479	2,1650	0,0000
Health Care Equipment & Services	7	0,7486	0,1217	1,0879	2,7224	0,0000
Materials	16	0,6874	0,5390	0,8702	3,5425	0,0000
Media	14	0,5898	0,2684	1,0453	3,9703	0,0000
Pharmaceuticals & Biotechnology	12	0,4803	0,0040	1,0881	3,7362	0,0000
Real Estate	16	0,8025	0,6003	0,6238	2,3241	0,0274
Retailing	17	0,2827	0,0793	0,3815	1,0858	0,0000
Software & Services	24	0,1423	0,0021	0,2470	0,8806	0,0000
Technology Hardware & Equipment	20	0,1435	0,0299	0,1864	0,5814	0,0000
Telecommunication Services	6	0,3775	0,1470	0,4983	1,1889	0,0000
Transportation	10	0,9214	0,3299	1,6222	5,2837	0,0003

Table 22. Summary statistics of firm leverage for large cap firms.

Industry	n	means	median	st.dev	max	min
Capital Goods	17	0,9789	0,6027	1,0615	3,6962	0,1168
Commercial Services & Supplies	11	0,8868	0,5513	1,1879	3,3796	0,0000
Consumer Durables & Apparel	13	0,2612	0,2261	0,2326	0,8969	0,0000
Consumer Services	16	1,6903	0,8737	1,9239	5,6782	0,0000
Food & Staples Retailing	6	0,5768	0,3717	0,5279	1,2615	0,0013
Food Beverage & Tobacco	10	0,7692	0,8370	0,3652	1,2274	0,1427
Health Care Equipment & Services	8	0,5625	0,3500	0,6784	2,0414	0,0000
Materials	30	0,4795	0,4627	0,3126	1,2449	0,0000
Media	19	1,1781	0,8008	1,1588	5,2904	0,0075
Pharmaceuticals & Biotechnology	3	2,2586	0,4835	3,5006	6,2912	0,0012
Real Estate	16	0,5393	0,3984	0,3257	1,0366	0,0795
Retailing	14	0,7577	0,3603	1,0812	4,1736	0,0000
Software & Services	4	0,2816	0,1746	0,3408	0,7763	0,0008
Technology Hardware & Equipment	3	0,2905	0,2797	0,2961	0,5919	0,0000
Telecommunication Services	3	1,2555	1,2250	0,8306	2,1010	0,4406
Transportation	16	0,9070	0,7920	0,5028	2,1758	0,4028

Section II: Summary for industry statistics for French civil law

Table 23 and 24 reports the summary statistics (averages, median, standard deviation, maximum and minimum) of leverage for the French small and large cap samples by legal system in alphabetic order. Leverage is defined as long term debt to common equity in 2005. Number of observations in each sample is denoted by n.

Table 23. Summary statistics of firm leverage for small cap firms.

Industry	n	means	median	st.dev	max	min
Automobiles & Components	4	0,9371	0,7672	0,7385	1,9285	0,2856
Capital Goods	14	0,8435	0,5912	0,9457	3,0040	0,0000
Consumer Durables & Apparel	5	0,6788	0,6496	0,6065	1,6088	0,0109
Consumer Services	3	0,3534	0,2361	0,4152	0,8146	0,0094
Food Beverage & Tobacco	4	0,4897	0,3768	0,3137	0,9497	0,2553
Health Care Equipment & Services	3	1,2718	0,3472	1,7417	3,2808	0,1873
Materials	12	1,1984	0,4899	1,7366	5,8107	0,0000
Media	5	0,1889	0,0889	0,2263	0,4966	0,0000
Retailing	3	0,3515	0,5161	0,3046	0,5384	0,0000
Technology Hardware & Equipment	4	0,0979	0,0871	0,0854	0,1974	0,0201
Transportation	4	1,0721	1,0237	0,5730	1,8073	0,4337

Table 24. Summary statistics of firm leverage for large cap firms

Industry	n	means	median	st.dev	max	min
Automobiles & Components	5	0,8024	0,7647	0,3572	1,2671	0,3074
Capital Goods	23	0,8185	0,7030	0,6528	2,0224	0,0002
Commercial Services & Supplies	5	0,3634	0,3080	0,2719	0,6621	0,0007
Consumer Durables & Apparel	10	0,4497	0,3976	0,3575	0,9944	0,0238
Consumer Services	7	0,8646	0,7699	0,7079	2,3045	0,0212
Food & Staples Retailing	4	1,2019	1,2414	0,2354	1,4325	0,8923
Food Beverage & Tobacco	13	0,8998	0,6354	0,7722	2,8132	0,0233
Health Care Equipment & Services	3	0,5247	0,4435	0,3064	0,8636	0,2670
Materials	17	0,5385	0,6411	0,2728	0,9333	0,0330
Media	20	0,7089	0,4064	1,0542	3,5983	0,0000
Real Estate	7	0,7465	0,5557	0,3441	1,4012	0,4848
Retailing	4	0,7162	0,4266	0,8634	1,9728	0,0389
Software & Services	9	0,2837	0,2702	0,2787	0,8555	0,0000
Technology Hardware & Equipment	5	0,2421	0,2964	0,1556	0,4415	0,0552
Telecommunication Services	9	1,3322	1,0197	0,9938	2,8269	0,0000
Transportation	9	1,3901	1,1060	1,0054	3,0787	0,3283

Section III: Summary of industry statistics for German civil law

Table 25 reports the summary statistics (averages, median, standard deviation, maximum and minimum) of leverage for the German small and large cap samples by legal system in alphabetic order. Leverage is defined as long term debt to common equity in 2005. Number of observations in each sample is denoted by n.

Table 25. Summary statistics of firm leverage for large cap firms

Industry	n	means	median	st.dev	max	min
Automobiles & Components	3	0,7150	0,5673	0,5406	1,3142	0,2636
Capital Goods	11	0,4163	0,3591	0,3229	1,1292	0,0482
Commercial Services & Supplies	3	0,5764	0,3410	0,7187	1,3832	0,0049
Consumer Durables & Apparel	5	0,1357	0,0903	0,1571	0,3888	0,0000
Health Care Equipment & Services	8	0,4901	0,5438	0,4124	1,0753	0,0000
Household & Personal Products	3	0,2746	0,3542	0,2230	0,4468	0,0227
Materials	16	0,4671	0,4637	0,2848	1,1668	0,0358
Pharmaceuticals & Biotechnology	6	0,2011	0,1347	0,1969	0,4960	0,0288
Retailing	3	3,7714	0,2887	6,2813	11,0226	0,0030
Transportation	5	0,6135	0,2905	0,9218	2,2131	0,0000

Section IV: Summary of industry statistics for Scandinavian civil law

Table 26 reports the summary statistics (averages, median, standard deviation, maximum and minimum) of leverage for the Scandinavian small and large cap samples by legal system in alphabetic order. Leverage is defined as long term debt to common equity in 2005. Number of observations in each sample is denoted by n.

Table 26. Summary statistics of firm leverage for large cap firms

Industry	n	means	median	st.dev	max	min
Capital Goods	13	0,3387	0,2976	0,2088	0,8144	0,0464
Food Beverage & Tobacco	4	0,5932	0,5166	0,2777	0,9887	0,3509
Health Care Equipment & Services	4	0,6035	0,7165	0,3651	0,9043	0,0768
Materials	13	0,4620	0,4018	0,2409	0,8265	0,0803
Media	3	0,1636	0,1155	0,1846	0,3674	0,0077
Real Estate	4	0,4967	0,3824	0,2908	0,9214	0,3006
Telecommunication Services	5	0,3766	0,2944	0,1910	0,5849	0,1615
Transportation	3	1,0612	0,9409	0,5545	1,6659	0,5766

Appendix 12: Regression results

Table 27 reports the result of our regressions per legal system for both the small as well as large samples respectively. The independent variable leverage is defined as long term debt to common equity in 2005. The regression model consist of the following dependent variables: Control variables, firm level corporate governance score, quality of judicial system and an interaction between the judicial system and firm level governance. We collected 2004 data for all of our dependent variables except for leverage where data covering 2005 were collected. Numbers in parentheses are probability levels at which the null hypothesis of zero coefficient can be rejected. Coefficients significant at least at the 10% level are in boldface.

Table 27. Regression results

<i>Dependent Variable</i>	<i>Common</i>		<i>French</i>		<i>German</i>		<i>Scandinavia</i>	
	<i>Small</i>	<i>Large</i>	<i>Small</i>	<i>Large</i>	<i>Small</i>	<i>Large</i>	<i>Small</i>	<i>Large</i>
<i>TANG</i>	0,7186 (0,000)	0,3553 (0,193)	0,8890 (0,162)	0,6512 (0,018)	-0,0226 (0,978)	0,0180 (0,967)	0,6712 (0,050)	0,6880 (0,001)
<i>GROW</i>	0,0060 (0,859)	0,0844 (0,339)	-0,1874 (0,445)	0,0351 (0,547)	-0,1830 (0,174)	-0,0484 (0,401)	-0,1504 (0,045)	0,0650 (0,120)
<i>PROF</i>	-1,6218 (0,005)	-6,0163 (0,000)	-0,2050 (0,254)	-1,1470 (0,014)	0,0464 (0,812)	-8,3854 (0,000)	0,4148 (0,376)	-1,4650 (0,005)
<i>SIZE</i>	0,1347 (0,001)	0,0757 (0,277)	0,3305 (0,024)	0,1647 (0,003)	0,0957 (0,136)	0,1336 (0,069)	-0,0098 (0,837)	0,0758 (0,079)
<i>CGQ</i>	-11,8439 (0,025)	-2,1859 (0,526)	0,9812 (0,730)	4,1524 (0,012)	-1,1266 (0,601)	-3,0768 (0,158)	-1,0077 (0,422)	3,0927 (0,018)
<i>LAW</i>	-0,8401 (0,029)	0,0038 (0,991)	0,2005 (0,248)	0,3225 (0,020)	-0,1043 (0,739)	-0,5474 (0,158)	-0,1720 (0,008)	0,2635 (0,005)
<i>INTER</i>	1,4678 (0,027)	0,2713 (0,566)	-0,3337 (0,584)	-0,8665 (0,007)	0,3176 (0,551)	0,8879 (0,124)	0,1821 (0,383)	-0,4921 (0,029)
<i>CONS</i>	5,4035 (0,077)	-0,0687 (0,977)	-4,4463 (0,025)	-3,4591 (0,006)	-0,3009 (0,865)	0,7937 (0,681)	1,4611 (0,059)	-2,5350 (0,005)
<i>D</i>	Yes	Yes	Yes	Yes	No	Yes	No	Yes
<i>adj. R²</i>	0,1312	0,1070	0,1273	0,1221	0,1156	0,8556	0,6722	0,3437
<i>Number of firms</i>	242	189	61	150	25	63	18	49