SECTION 2
CORPORATE
OWNERSHIP

OWNERSHIP STRUCTURE AND PERFORMANCE: A COMPARISON
OF DIFFERENT CORPORATE GOVERNANCE SYSTEMS*

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Abstract

This paper analyses how the main institutional factors characterizing corporate governance systems around the world affect the relationship between ownership structure and firm performance. Our analysis gives rise to the following remarks. First, ownership concentration and insider ownership levels are determined by several institutional features such as investor protection, development of capital markets, activity of the market for corporate control, and effectiveness of boards. Second, the relationship between ownership concentration and performance is not directly affected by these institutional factors. Third, there is, however, a direct influence of corporate governance characteristics on the relationship between insider ownership and performance.

Keywords: ownership concentration, insider ownership, corporate governance systems, firm performance

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1. Introduction

The basic agency problem, formulated in terms of the separation of ownership from control, has given rise to an interesting research field on corporate governance and, particularly, on the efficiency of the various mechanisms for solving this problem and mitigating the costs associated with the resulting conflict of interests. Financial literature proposes ownership structure as one of the main corporate governance mechanisms and, therefore, one of the most important determinants of firm performance.127

The discussion on ownership structure and its influence on performance can not be separated from other institutional factors characterizing the different corporate governance systems. Specifically, there are five key features that allow us to classify these systems around the world: the legal protection of investors, the level of ownership concentration, the development of capital markets, the market for corporate control, and the effectiveness of boards of directors.

Taking into account the current state of research, Denis and McConnell (2003) distinguish two generations of international corporate governance research. On the one hand, the first generation is concerned with how a mechanism (for example, ownership concentration or insider ownership) affects performance. This approach first gave rise to a large body of research based on US firms, which was afterwards extended to other well-developed countries. On the other hand, the second generation focuses on how institutional issues affect corporate governance. Within this context, the aim of our paper is to explain how the different corporate governance systems affect the relationship between ownership structure and performance. Consequently, our paper belongs to the second generation of international corporate governance, and it represents a nexus between the aforementioned generations, since it is strongly based on the results obtained by several papers belonging to the so-called first generation. Therefore, the purpose of our study is to shed light on the role played by corporate governance in the ownership-performance relation by relying on previous empirical evidence of such a relationship. As a result, our comparative analysis can only be applied to countries where the relationship between ownership structure and performance has already been studied. As far as we know, six strongly representative countries of the different corporate governance systems around the world comply with this requisite; namely, the United States, the United Kingdom, Australia, Japan, Germany and Spain.128 This approach is narrower than the ones in La Porta et al. (1998) on legal and institutional issues, and La Porta et al. (1999a) on corporate ownership. Our study relates both topics and it is the only one, as far as we know, that in addition considers firm performance.

[Insert Table 1 about here]

The comparison performed in this paper gives rise to the following conclusions. First, ownership concentration and insider ownership are determined to some extent by several institutional features. Second, there is no direct influence of institutional factors on the relationship between ownership concentration and performance. Third, the relationship between insider ownership and performance is, however, affected by the corporate governance system.

To achieve the above-mentioned aim the remainder of this paper is as follows: Section 2 describes the main institutional factors characterizing the corporate governance systems of the countries dealt with in our study. In Sections 3 and 4, we analyse how these institutional features affect the relationship between ownership concentration and performance, and between insider ownership and performance, respectively. Finally, the concluding remarks are presented in Section 5.

2. Comparative Corporate Governance Systems

Corporate governance systems are affected by several institutional factors, allowing us to classify these systems according to five key features: the legal protection of investors, the level of ownership concentration, the development of capital markets, the role of the market for corporate control and the effectiveness of boards. In this section we compare the main corporate governance systems, which act as a basis for explaining how ownership structure affects performance.

2.1. The Legal Protection of Investors

One of the most widely accepted explanations for the different patterns of corporate governance across countries is based on the role played by laws in protecting investors (La Porta et al., 1998, 2000). In short, these authors conclude that common law countries protect investors better than those with civil law. Following this general idea, scholars have tried to identify the main legal features using several indices in order to measure the effectiveness of laws across countries. Tables 1 and 2 present those indices

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127 The monitoring (Berle and Means, 1932) and the expropriation (Shleifer and Vishny, 1997; Faccio and Lang, 2002) hypotheses account for the positive and negative effects, respectively, of ownership concentration. On the other hand, the convergence-of-interests (Jensen and Meckling, 1976) and the entrenchment (Fama and Jensen, 1983) hypotheses explain the benefits and costs, respectively, associated with insider ownership.

128 Table 1 summarizes the relevant literature on the ownership-performance relation across these countries.
that have been the most widely used to understand how law affects corporate governance. Specifically, we have considered three kinds of indices: i) indices referring to protection of minority shareholders; ii) indices related to creditor protection; and iii) indices dealing with legal enforcement.

**[Insert Table 2 about here]**

Table 2 summarizes the differences in the protection of minority shareholders across countries, by means of seven indices that account for the main mechanisms that favour minority shareholders and protect them from abuses by managers and controlling owners. Like other previous papers, such as Demirgüç-Kunt and Maksimovic (2002) and Leuz et al. (2003), we follow La Porta et al. (1998) in order to construct these indices. Note, however, that the score of Germany in the Proxy by Mail Allowed index reported by La Porta et al. (1998) has been corrected. In fact, although German shareholders are not allowed to vote by mail, most of them follow this practice, when necessary, through their bank (see Vagts, 2002). The score of the US in the Cumulative Voting or Proportional Representation index reported by La Porta et al. (1998) has been corrected here as well, since cumulative voting is not mandatory in Delaware corporate law, and it is rarely observed by American firms (Roe, 2002).

**[Insert Table 3 about here]**

Concerning creditor rights, we follow Pindado and Rodrigues (2003), who provide a deeper analysis of the insolvency law than La Porta et al. (1998) and also correct some of their indices. As shown in Table 3, the score of the United States in the Absolute Priority and Reorganization with Creditors’ Consent indices, and the score of Spain in the Absolute Priority index, have been corrected according to their respective insolvency laws. The score of Australia in the Harsh Code index has also been adjusted following Keay and Murray (2002).

All the above-described measures of investor protection may have different effectiveness depending on their legal enforcement. Scholars have usually considered two indices to proxy the degree of enforcement of a country’s laws: the Law and Order index and the Efficiency of Judicial System index (see La Porta et al., 1998; Beck and Levine, 2002; Leuz et al., 2003; Giannetti, 2003). As shown in the two last columns of Table 3, the degree of enforcement is high in all the analysed countries. Nevertheless, common law countries show a higher degree of enforcement than those with civil law.

In accordance with the three kinds of indices (shareholders’ rights, creditors’ rights, and enforcement) we can conclude that investor protection is stronger in common law countries than in those with civil law. These differences in investor protection across countries will be used in the following section to analyse how the laws affect the relation between ownership structure and performance.

### 2.2. The Level of Ownership Concentration

The level of ownership concentration has also been used in financial literature as a comparative feature of two different systems (see, for instance, Mayer and Sussman; 2001). The first one, associated with the US and the UK, is characterized by dispersed shareholdings. The second, associated with Continental Europe and Japan, has as its main feature concentrated ownership. The differences in ownership concentration between Anglo-Saxon and Continental European countries have been widely documented in previous financial literature (see, for instance, Franks and Mayer, 1997; Becht and Röell, 1999; Mayer and Sussman, 2001). Following La Porta et al. (1998), we have constructed an index measuring Ownership Concentration in Table 4, which reveals a high level of ownership dispersion in common law countries.

**[Insert Table 4 about here]**

### 2.3. Development of Capital Markets

An additional characteristic broadly used to establish institutional differences across countries is the development of capital markets. Following Demirgüç-Kunt and Maksimovic (2002), we have constructed the Market index to account for the dichotomy Market-versus Bank-Based Systems. As shown in the third column of Table 4, there is an almost total coincidence between the legal origin and the market orientation, which is confirmed by Demirgüç-Kunt and Maksimovic (2002), showing the positive correlation that exists between the level of development of capital markets and the strength of the legal protection of investors.

To study in depth the development of capital markets we have defined two new indices: Market Capitalization to GDP and Total Value Traded to GDP (see Beck and Levine, 2002). As shown in Table 4, common law countries are characterized by higher market capitalization and liquidity than those with civil law.

### 2.4. The Role of the Market for Corporate Control

There are significant differences in the role played by the market for corporate control among the various corporate governance systems. On the one hand, Market-Based Systems are generally characterized by highly active markets for corporate control. Actually, a substantial number of takeovers take place in the US and the UK (Wyneeersch, 1998); and the
percent of unfriendly bids is not negligible in these countries (see Cottner et al., 1997 and Franks and Mayer, 1996, respectively). There is, however, an exception in the case of Australia, where the market for corporate control is less active, especially since 1986 when Australian firms were allowed to amend their articles to substantially eliminate the threat of a takeover (Craswell et al., 1997).

On the other hand, an active market for corporate control is virtually absent in Bank-Based Systems\textsuperscript{129}. For instance, the strength of cross-shareholdings and the influence of banks typical of keiretsus represent the main structural barriers to takeovers in Japan (see Kaplan, 1994). Takeovers are relatively rare in Germany, too.

Franks and Mayer (1997) point to only four recorded cases of hostile takeovers in Germany since World War II\textsuperscript{130}. In Spain the market for corporate control is incipient, to a large extent due to the lack of clear legal regulation on these matters, and it was not until 1991, when the Spanish takeover law was passed, that takeovers became a phenomenon to take into account. However, although the number of recorded takeovers rose significantly between 1990 and 1994 (Ocaña et al., 1997), it has not reached a level comparable to the Anglo-Saxon case. Furthermore, as in other Bank-Based Systems, hostile takeovers are an unusual event in Spain (Fernandez and Gomez-Anson, 1999). Considering the described particularities, we have constructed the Corporate Control index. As shown in Table 4, the coincidence between this and the Market index defined in the previous section is complete, with the exception of Australia. In fact, the usefulness of the market for corporate control is based on the premise that stock prices reflect managerial inefficiencies, thus creating the threat of a takeover.

2.5. The Effectiveness of Boards of Directors

One of the central topics related to the effectiveness of boards in corporate governance concerns the existence of unitary versus two-tier boards. Firms in Anglo-Saxon countries (specifically the US, the UK and Australia) and in most European countries except Germany have adopted the unitary structure; i.e., there is no distinction between managing and supervisory functions. In contrast, in systems with a two-tier structure, the existence of both an executive and a supervisory board guarantees that the areas of competence of each of the bodies have been more clearly defined. For example, according to German law, a public company is obligated to have a two-tier board (see Kaplan, 1997; Schilling, 2001). The independence of the supervisory board is thus assured, since none of its members are allowed to be a member of the managing board at the same time (Kostyuk, 2003). In Japan, although there is a more complex structure of various committees, the most relevant one acts as a supervisory board, since it is composed of external experts and representatives of the main companies in the keiretsu (see Kojima, 1994). Another important factor that must be taken into account besides the board structure is the designation of independent or non-executive directors. This practice seems to be increasingly widespread in UK and US firms (Belcher, 2003; Kostyuk, 2003)\textsuperscript{131}, as well as in Australian firms (Craswell et al., 1997). However, boards of directors in most European Continental countries are rarely composed of independent directors. In fact, although Codes of Best Practice that recommend the independence of board members have been issued in a number of European Continental countries, the greater presence of controlling shareholders there makes it difficult to comply with these voluntary requirements. For example, despite the recommendations of the Olivencia and the recently published Aldama reports on best boards’ practices, Spanish boards of directors are still far from being an effective governance mechanism (Ricart et al., 1999). To account for the independence of directors we have constructed the Board index. As shown in the last column of Table 4, Spain is the only country scoring zero in this index, while Germany and Japan score 1 because of the imposed two-tier structure, and the US, the UK and Australia also score 1 in these cases due to the presence of non-executive directors on boards.

3. Ownership Concentration and Performance

As we have previously mentioned, ownership patterns vary widely across countries around the world. Hill and Snell (1989) and Agrawal and Mandelker (1990), among others, empirically confirm that concentrated ownership solves the free-riding problem and makes manager monitoring easier, and it thus positively affects corporate performance. The following question thus arises: Why do firms in some countries show low levels of ownership concentration? Our purpose here is to offer an explanation based on the institutional characteristics described in the previous section.

The extent of legal protection of investors in a country is one of the most important determinants of the choice between concentrated and dispersed own-
ership of corporate shares. As shown in the second column of Table 4, Spanish firms exhibit the highest level of ownership concentration, closely followed by German firms. On the other hand, Australian, UK and US companies are the ones with more dispersed shareholdings. This observed sequence suggests that there is a link between the presence of controlling shareholders and the strength of the legal rules protecting creditors and shareholders. Confirming this intuition, La Porta et al. (1998, 1999b) show that, in fact, large shareholders are usual when investor protection is weak, whereas more dispersed shareholdings are typical whenever the law strongly protects shareholders’ and creditors’ rights. Spain, as is true of other civil law countries, is characterized by having one of the weakest legal systems for investor protection. Apart from the indices for creditors’ and shareholders’ rights, the Enforcement indices show that Spanish investors are the least protected. As shown in the two last columns of Table 3, the Spanish Law and Order index is the lowest, and its Efficiency of Judicial System is far from those of the other countries. This lack of legal protection explains why Spanish firms exhibit higher levels of ownership concentration as compared to common law countries, and even to Germany and Japan.

An exception can be found, however, in the case of Japan. The civil origin of Japanese law makes us expect high levels of ownership concentration. However, a great level of dispersion is observed in the second column of Table 4, even greater than in US and UK firms. This deviation can be explained if we take into account the level of development of the Japanese financial market. In fact, an effective financial system is important in this context because well-developed markets facilitate access to external sources of capital for firms, and this may result in lower levels of ownership concentration. Although Japan belongs to the so-called Bank-Based System, the Japanese stock market is highly developed, as shown by the Market Capitalization to GDP ratio in the fourth column of Table 4. However, the Total Value Traded to GDP ratio is relatively low in Japan, which can be explained if we take into account that a noticeable percentage of Japanese firms belongs to a keiretsu. As a result, the market liquidity is lower than in other countries characterized by dispersed shareholdings, such as the US or the UK.

The level of activity of corporate control is another institutional factor that may influence the ownership concentration of firms, since this market represents an alternative way of limiting the control that managers and controlling shareholders can exert on minority owners. In fact, as Pagano and Volpin (2001) point out, minority shareholders tend to restrict the inclusion of poison pills and other anti-takeover defences in corporate charters, since they are likely to gain from the existence of a takeover threat. Following this reasoning we can explain why firms in the US and the UK, where the market for corporate control is active and hostile takeovers are a common event, exhibit low levels of ownership concentration, whereas in Germany and Spain, where this market is incipient, more concentrated structures are required to compensate for this inefficiency. In addition, the practically inexistent takeover market in Australia justifies the higher levels of ownership concentration in Australian firms, as compared to those of the US and the UK. In Japan the market for corporate control is also virtually absent, which is probably due to the stability of the intercorporate shareholdings that characterize keiretsus.

Finally, as shown in the eighth column in Table 4, there are noteworthy differences in the role played by boards of directors, especially between Spain and the remaining countries analyzed. Actually, Spain is the only one scoring zero on the Board index, which may also be related to the level of ownership concentration in Spanish firms. Thus, higher stakes are needed to protect Spanish shareholders from abuses by managers and other controlling owners, since one can not completely trust monitoring by boards.

Overall, these arguments allow us to conclude that institutional factors determine to some extent the differences that exist in ownership patterns across countries. But an interesting question remains: Do the aforementioned characteristics influence the relationship between ownership concentration and performance?

To start with, there is no consensus in previous literature on the effects of ownership concentration on valuation, and prior results are so discrepant that it is difficult to obtain noteworthy conclusions from them. As shown in panel A of Table 1, which summarizes the relevant literature on the ownership concentration-performance relation across countries, most US-, Japan- and Germany-based studies show the existence of a positive linear relation between ownership concentration and performance (see, for instance, Hill and Snell, 1989 and Agrawal and Mandelker, 1990 for the US; Kaplan and Minton, 1994 and Morck et al., 2000 for Japan; Edwards and Weichenrieder, 1999 and Gorton and Schmid, 2000 for Germany). However, there is also some evidence on the lack of a relation (Holderness and Sheehan, 1988 and Mehran, 1995 for the US; Prowse, 1992 for Japan) or a negative relationship (Lehmann and Weigand, 2000 for Germany) between the two variables in the above-mentioned countries.

On the other hand, previous UK-based results generally reveal the negative effect of ownership concentration on firms’ performance (see, for instance, Leech and Leahy, 1991 and Mudambi and Nicosia, 1998). Finally, Miguel et al. (2004) find a quadratic relation between the performance of Spanish firms and their level of ownership concentration, which suggests that the performance of Spanish firms’ first rises as ownership concentration increases, and then after a certain breakpoint, firm
performance is negatively affected by ownership concentration.

The expropriation of Spanish minority shareholders in firms with concentrated ownership confirms our intuition that corporate governance characteristics have an influence on the ownership-performance relationship. First, the high level of ownership concentration characterizing Spanish firms creates an agency conflict between controlling owners and minority shareholders, since the former could redistribute wealth in an inefficient way from the latter, whose respective interests need not coincide. Second, in countries with weaker shareholder protection, the expropriation of minority shareholders is more likely to occur (La Porta et al., 1999b), which explains why this phenomenon is observed in Spanish firms while it does not seem to exist in other countries described in previous literature. As an exception, a similar non-linear relationship between ownership concentration and performance is found in McConnell and Servaes (1990) for the US. However, the pronounced institutional differences that exist between the two countries do not allow us to conclude that there is any direct influence of the corporate governance system’s characteristics on the relation between ownership concentration and performance.

4. Insider Ownership and Performance

We are also interested in clarifying whether institutional factors determine the level of insider ownership in firms belonging to different corporate governance systems. Unlike ownership concentration, insider ownership does not follow any observable pattern in its variation across countries, and therefore the above-mentioned relationship is not as obvious as in the previous case.

However, Chen and Steiner (1999) provide evidence pointing to a significant and positive impact of ownership concentration on insider ownership, which suggests that corporate governance characteristics and insider ownership are related through the firm’s ownership concentration. Given this indirect influence, we can conclude that a strong legal system for investor protection, a well-capitalized stock market, an active market for corporate control and an efficient board of directors are all likely to result in lower levels of insider ownership, because of the resulting lower levels of ownership concentration.

Once this premise has been established, we now turn our attention to a more interesting question. How do institutional factors influence the relationship between insider ownership and performance?

Panel B of Table 1 classifies the relevant research on the insider ownership-performance relation across countries. As shown in this table, previous US-based empirical evidence largely supports a cubic relationship between insider ownership and performance. For instance, Morck et al. (1988) find that at low and high levels of insider ownership – less than 5% and more than 25% – any increase in ownership more closely aligns the interests of managers and shareholders, thereby increasing performance. But at moderate levels of insider ownership – between 5% and 25% – any increase in ownership makes managers more entrenched and less subject to market discipline, thereby decreasing performance. Wruck (1989) and Holderness et al. (1999) confirm the entrenchment of US managers owning between 5% and 25% of their firm’s shares.

Confirming the argument that different corporate governance systems determine differences in the relationship between firm performance and insider ownership, Short and Keasey (1999) show evidence on a non-linear relation between the two variables in UK firms, but with higher breakpoints - 12% and 41% - as compared to those of Morck et al. (1988). The results in Mudambi and Nicosia (1998) and Faccio and Lasfer (1999) reveal the entrenchment of UK managers when their ownership ranges from 11% to 25%, and from 12.99% to 41.99%, respectively, and thus confirm that UK managers entrenched at higher ownership levels than their US counterparts. In addition, Craswell et al. (1997) show that Australian insiders get entrenched at ownership levels beyond 26.5 percent, while Morck et al. (2000) find no empirical evidence on the entrenchment of Japanese insiders. Finally, the results in Miguel et al. (2004) reveal that the performance of Spanish firms rises as insider ownership increases from zero to 35 percent and beyond 70 percent, and decreases at insider ownership rises from 35 to 70 percent. This evidence indicates that Spanish insiders get entrenched at higher ownership levels than their US, UK and Australian counterparts.

Overall, the observed discrepancies confirm that different corporate governance systems help explain the differences that exist in the relationship between performance and insider ownership across countries. Specifically, the diversity in managerial entrenchment levels across countries can be largely explained by using two indices that account for shareholders’ rights: Cumulative Voting or Proportional Representation and Pre-emptive Rights. Both indices measure how strongly the legal system protects minority shareholders against abuses by managers in the decision-making process. Therefore, we expect these measures to allow us to justify why

132 Additionally, Chen et al. (1993), Cho (1998) and Griffith (1999) find that US managers get entrenched when ownership ranges from 7 to 12 percent, from 7 to 38 percent and from 15 to 50 percent, respectively. Alternatively, a quadratic relation between insider ownership and firm performance has been proposed in the literature (see, for instance, McConnell and Servaes, 1990; Han and Suk, 1998).

133 The reported percentages, however, must be treated as mere illustrative breakpoints and consequently compared with caution.
there is a variation across countries in the level of difficulty for insiders to get entrenched.

First, according to the results in Craswell et al. (1997), Australian insiders get entrenched at relatively low ownership levels. This ease of entrenchment can be explained if we take into account the Cumulative Voting or Proportional Representation and the Pre-emptive Rights measures shown in the fourth and sixth columns of Table 2. Australia scores zero in both indices, which means that the company law significantly constrains the protection of minority shareholders and grants managerial discretion. However, this law-driven argument is not sufficient to explain why US managers need higher stakes to get entrenched when compared to Australian managers, since the US also scores zero in the above-mentioned indices. The higher level of activity of the US market for corporate control may be the key explanation as to why US managers have greater difficulties to get entrenched. Third, previous evidence unanimously reveals that UK managers entrench at higher ownership levels than their US counterparts. Since UK scores one in Pre-emptive Rights, while US scores zero in this index, we can conclude that protecting owners from dispersion is an efficient mechanism of shareholder protection. Finally, according to Miguel et al. (2004), Spanish insiders face the greatest difficulties in their entrenchment. Since Spain scores one in both the Pre-emptive Rights and the Cumulative Voting or Proportional Representation indices, this outcome can be interpreted as evidence of the effective monitoring exerted by Spanish shareholders, who are not only protected from dilution but are also granted representation on boards.

5. Concluding Remarks

This paper describes how the main institutional factors embodied in a Corporate Governance System affect the relationship between ownership structure and performance. Our analysis can be summarized as follows.

First, patterns of ownership concentration across countries are clearly explained by several institutional factors. Specifically, there must be strong investor protection, a greater level of development of capital markets, greater activity of corporate control, and more effectiveness of boards of directors in order to facilitate highly dispersed ownership structures. Moreover, the above-mentioned features also facilitate, although indirectly, low levels of insider ownership because of the positive influence of ownership concentration on insider ownership. Second, besides the lack of consensus on how ownership concentration affects valuation, there seems to be no direct influence of institutional factors on the relationship between ownership concentration and performance. Third, unlike ownership concentration, the relationship between insider ownership and performance is affected by the corporate governance system. Moreover, the more relevant factors are those embodied in the laws, which play an important role in explaining how ownership structure affects firm performance. Overall, our analysis shows only preliminary conclusions, since there are few countries for which the relationship between ownership structure and performance is already known. However, our paper draws attention to the importance of further research in this direction.

References


**Appendices**

Table 1. Relevant literature on the relationship between ownership structure and performance

This table summarizes the most representative studies on the relationship between ownership structure and performance. The rest of the information needed to read this table is: a) positive and linear relationship, b) negative and linear relationship, c) quadratic relationship, d) cubic relationship and e) no relation

<table>
<thead>
<tr>
<th>Panel A: Ownership concentration and performance</th>
<th>US</th>
<th>UK</th>
<th>Japan</th>
<th>Germany</th>
<th>Spain</th>
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<tbody>
<tr>
<td>Panel B: Insider ownership and performance</td>
<td>US</td>
<td>UK</td>
<td>Japan</td>
<td>Germany</td>
<td>Spain</td>
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</tbody>
</table>

Table 2. Shareholder Indices

Proxy by Mail Allowed equals 1 when shareholders are allowed to mail their proxy vote directly to the firm without showing up in person or without sending an authorized representative to a shareholders’ meeting. Shares not Blocked before Meeting takes value 1 in those cases in which shareholders are not required to deposit their shares in custody for a certain period of time around a general meeting. Cumulative Voting or Proportional Representation equals 1 if minority shareholders can cast their votes for one candidate or name a proportional number of directors. Oppressed Minorities Mechanism takes value 1 when minority shareholders can take legal actions or compel the company to repurchase their shares whenever they oppose certain fundamental decisions of management. Pre-emptive Rights equals 1 if shareholders are given the first chance to buy new issues of stock, a right that can be waived only by a shareholder vote. Percentage to Call an Extraordinary Shareholders’ Meeting ranges from 1 to 33 percent, according to the minimum percentage that entitles a shareholder to call for an extraordinary meeting. Anti-director Rights is the result of adding up the score of the previous six indices; for the last one, a value 1 is taken if the percentage of share capital needed to call an extraordinary shareholders’ meeting is at or below 10 percent, and 0 otherwise.

<table>
<thead>
<tr>
<th>Countries / Indices</th>
<th>Proxy by Mail Allowed</th>
<th>Shares not Blocked before Meeting</th>
<th>Cumulative Voting or Proportional Representation</th>
<th>Oppressed Minorities Mechanism</th>
<th>Pre-emptive Rights</th>
<th>Percentage to Call an Extraordinary Shareholders’ Meeting</th>
<th>Anti-director Rights</th>
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<td>1</td>
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<td>The USA</td>
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<td>0</td>
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Table 3. Creditor Rights and Enforcement Indices

Absolute Priority takes value 1 if the law does not violate the absolute priority rule ranking secured creditors first in the distribution of proceeds. No Automatic Stay takes value 1 if the insolvency law does not impose an automatic stay allowing bondholders to gain possession of their security. Reorganization with Creditors Consent equals 1 if the insolvency code imposes the creditors’ consent to file for reorganization. Control of Reorganization Process takes value 1 if the insolvency law gives control to the creditors when the company files for reorganization. Harsh Code takes value 1 if management does not stay in cases of financial insolvency. Creditor Rights is formed by adding the score of the previous five indices. Law and Order ranges from 0 to 10, low levels denoting less reliance on the legal systems to mediate disputes. Efficiency of Judicial System is scaled from 0 to 10, lower scores pointing out lower efficiency levels of the judicial system.

<table>
<thead>
<tr>
<th>Countries / Indices</th>
<th>Creditor Rights Indices</th>
<th>Enforcement Indices</th>
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<td>United States</td>
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<tr>
<td>Common Law average</td>
<td>0.66</td>
<td>0.33</td>
</tr>
<tr>
<td>Germany</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Japan</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Spain</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Civil Law average</td>
<td>0.66</td>
<td>0.66</td>
</tr>
</tbody>
</table>

Table 4. Other Institutional Indices

Ownership Concentration is measured as the mean value of the ownership by large shareholders of the ten largest non-financial domestic firms. Market takes value 1 if the country is classified as a Market-Based Financial System, and 0 if it is considered a Bank-Based Financial System. Market Capitalization to GDP is defined as the market capitalization of firms quoting in a market over the GDP. Total Value Traded to GDP measures market liquidity, and equals the value of trades of domestic equities on domestic exchanges to GDP. Total Debt to Total Equity is calculated as the average total debt over the average total equity of the companies quoting in a market. Corporate Control takes value 1 in countries where an active market for corporate control exists, and 0 otherwise. Board takes value 1 when a two-tier structure exists or when non-executive directors represent a significant proportion on boards.

<table>
<thead>
<tr>
<th>Ownership Index</th>
<th>Development of Capital Markets Indices</th>
<th>Corporate Control Index</th>
<th>Board Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Countries / Indices</td>
<td>Ownership Concentration</td>
<td>Market</td>
<td>Market Capitalization/GDP</td>
</tr>
<tr>
<td>Australia</td>
<td>0.28</td>
<td>1</td>
<td>0.71</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0.19</td>
<td>1</td>
<td>1.13</td>
</tr>
<tr>
<td>United States</td>
<td>0.20</td>
<td>1</td>
<td>0.80</td>
</tr>
<tr>
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<tr>
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<td>0</td>
<td>0.24</td>
</tr>
<tr>
<td>Japan</td>
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<tr>
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<tr>
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<td>0</td>
<td>0.44</td>
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</tbody>
</table>