OWNERSHIP STRUCTURE AND EXPROPRIATION IN STOCK EXCHANGE LISTED FIRMS

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Abstract

This paper analyses firms' ownership structure and corporate governance in seven countries, with an emphasis on stock exchange listed firms. This focus is, in our view, important because these firms are more representative of the economies of countries included in our sample. Our results indicate that in Canada, Europe and East-Asia, ownership structure is highly concentrated. Most of the firms are controlled by at least one large shareholder who reinforces his or her control with devices such as multiple voting right shares, pyramidal structures, cross ownership, and reciprocal holding. In the U.S., firms' ownership structure is more diffuse. The use of means to separate ownership from control is less present and the control of the large shareholder is lower than in the other sample countries. Being listed on the stock exchange can explain the firm's ownership structure. Exchange-listed firms, which are generally larger in size than unlisted firms, tend to have more diffused ownership. Further, the legal system hypothesis formulated by La Porta, Lopez-De-Silanes, Shleifer & Vishny (1998) does not hold for the countries we analysed.

Keywords: Ownership Structure, Governance, Stock Exchanges, International Comparison

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Introduction

Since Berle & Mean's research (1932), studies of firms' ownership structure has always garnered attention in the literature on finance. Through their analyses, researchers sought to know not only how firms' ownership structure was organized around the world, but what could explain different ownership structures in various countries. The general trend suggests that while U.S. firms' ownership structure is diffuse, in other countries it varies and is concentrated. While several studies have been realized on the topic, there is still room for further analyses.

The goal of this paper is to shed light on ownership structure and corporate governance by focusing on stock exchange listed firms in our view. This focus is necessary and important, for, to our knowledge, such a study has not been done before. Previous research usually has randomly selected samples in the countries analyzed, with the result that these samples where not necessarily representative of countries' economies. Conversely, stock exchanges are usually composed so as to include firms from various industries that are the most representative firms in the economy. Therefore, our exchange listed firms which highly characterize the economies of the countries included in the sample.

Our results indicate that in Canada, Europe, and East-Asia, ownership structure is highly concentrated. Most of the firms are controlled by at least one large shareholder who reinforces his or her control with devices such as multiple voting right shares, pyramidal structures, cross- ownership, and reciprocal holdings. In the U.S., ownership structure is more diffuse. The various means of separating ownership from control is less present, and control over the large shareholder is lower than in the other sample countries. There is however a large percentage of firms managed by a family member. In this country, agency problems likely stem from shareholder-management conflicts. In East-Asia and France, agency problems mainly come from conflicts opposing the large shareholder to minority shareholders, since diffuse-owned firms are less present. Most of the firms are controlled by families who appoint one of their members as management. German and Japanese firms are usually controlled by widely-held financial institutions that are able to monitor man-

agement decisions. Furthermore, the legal system hypothesis formulated by La Porta, Lopez-De-Silanes, Shleifer & Vishny (1998) does not hold for the countries analysed in this study.

The paper will proceed as follows: section 2 is a review of the literature written on the subject, section 3 presents our data, section 4 reports and discusses our results and Section 5 presents our conclusions of the study.

2. Literature review

2.1. Ownership Diffusion and Shareholder – Manager Agency Costs

Agency cost theories assume that the separation of ownership and control induces an agency problem between shareholders and managers. Although shareholders have the ultimate control rights through their votes, they are too small and too numerous to exercise this control on a day-to-day basis. They are also not usually qualified or informed enough to decide what to do. They therefore hire managers to whom they delegate the day-to-day decisions of the firm. The second issue related to a dispersed ownership is that individually, shareholders have little incentive to monitor management (Hart, 1995). Monitoring is a public good, and when one shareholder's monitoring improves company performance, all shareholders benefit. Since monitoring is costly, each shareholder free-rides in the hope that others will do the monitoring. Consequently, managers end up with substantial residual control rights over firm decisions and lack monitoring. They therefore have discretion to pursue their own interest at the expense of that of shareholders. They can, for instance, undertake projects which do not necessarily contribute to shareholders wealth maximization but from which they nonetheless derive personal benefit.[1]

2.2. Ownership Concentration as a Solution to the Shareholder – Manager Agency Problem

Several authors have argued that the presence of a large shareholder in the firm's ownership structure whose wealth greatly depends on firm performance is an effective means of controlling managers' actions. With a great proportion of his or her wealth invested in the firm, he or she is more motivated to control managers' actions and prevent opportunistic behavior. Shleifer & Vishny (1986) develop a model explaining the role played by large shareholders in a firm, arguing that they can effectively increase managers' efficiency through three mechanisms; first, they can make a public offer, take control of the firm, and replace inefficient managers; second, they can help outside investors take control of the firm and replace inefficient managers; Third, they can advise management on strategies that improve efficiency and increase firm value. Tosi & Gomez-Mejia (1994) show that in firms with large shareholders, the level of management control is high, and management decisions are more aligned to those of shareholders. Zeckhauser & Pound (1990) reach the same conclusion. According to them, firms with a large shareholder perform better than other firms when control of the large shareholder on managers' decisions is effective. Monitoring managers can be even more effective when the large shareholder is an institutional investor (Schleifer & Vishny, 1986). Compared to other investors, institutional investors have better expertise and can monitor managers at lower cost. This results in a positive relation between the firm value and institutional investors' percentage of firm capital. Barclay & Holderness (1990) find a positive abnormal return around announcements of acquisition of large block of share by external investors. McConnel & Servaes (1990) report a concave relation between firm value and large ownership which indicates that all agency problems are not necessarily solved by ownership concentration. However, La Porta, Lopez-De-Silanes & Schleifer (1999), and Facio & Lang (2000) among others, show that in firms with concentrated ownership, agency costs are not eliminated, they oppose the large shareholder to minority shareholders rather than shareholders to managers.

2.3. Ownership Concentration and Large Versus Minority Shareholders Agency Costs

The largest shareholder can inflict several costs on minority shareholders. He or she may put forward his or her own interests (which generally do not coincide with those of minority shareholders), and subsequently derive private benefits from control over firm decisions. Several techniques can be used to separate the firm's ownership from its control and increase the likelihood of minority shareholders' expropriation. Among these are:

Stock with multiple voting rights: These stocks confer more than one voting right to their owner, and are considered a means to separate ownership from control since they allow their owner to have more control over the firm's decisions than their percentage of the firm's share. Let us consider a shareholder who holds 60 shares (with 10 voting rights each) on a total of 100 in this category, and 10 shares (with 1 voting right each) on a total of 100 in this second category. His or her ownership percentage of the firm is 35% [(60+10)/(100+100], while the voting right percentage is 55.45% [(60*10 + 10*1)/(100*10 + 100*1)]. He or she then controls the firm's decisions even thought he or she does not own the majority of the firm's shares (more then 50%). Stocks with

[1] Private benefits represent perquisites of control and diversion of resources from security holders, which benefit only company insiders, such as the large shareholder or other block holders.

multiple voting rights are usually sold at premium. According to Zingales (1995) and Nenova (1999), this is evidence of the presence of private benefits enjoyed by owners at the expense of minority shareholders.

Pyramidal structure: A pyramidal structure allows a shareholder to have voting rights in a firm without necessarily holding its shares: control is practiced through another firm. If, for instance, a family directly controls 50% of firm X which in turn controls 20% of firm Y, the family will then have 20% of firm Y's voting rights [Min (50%, 20%)] and 10% of its ownership [50% * 20%]. Wolfenzon (1999) interprets the existence of pyramidal structures as a means of expropriating minority interests, as it creates a wedge between cash flow and control rights for the controlling shareholders. The separation of ownership and control in pyramidal groups generates strong incentives for the controlling shareholder to divert resource for his or her own benefit. There is evidence of such resources diversion. For instance, Bertrand, Mehta and Mullainathan (2000) report that in Indian pyramidal business groups, the diversion of resources follows the lines of ownership, flowing from firms near the bottom of the pyramid to firms near the top of the pyramid. Similar results are found by Bigelli and Mengoli (1999) for Italy. It may be surmised that external investors regard the presence of pyramids in an ownership structure as a signal of expropriation.

Cross ownership: A third tool that main shareholders can use to expropriate minority shareholders is cross-ownership. This form of ownership structure is a mix between the direct ownership of stock and indirect ownership through a pyramid. From the above example, if additionally the family directly holds 5% of firm Y's shares, it will then control 25% of its voting rights [Min (50%, 20%) + 5%] and own 15% of its shares [50% * 20% + 5%]. As proposed by Faccio & Lang (2000) and Gadhoum (2000), large shareholders use cross ownership and pyramidal structures to reinforce the control of their firms. Reciprocal holding: Reciprocal holding consists of reciprocal ownership between two firms; that is, firm X holds part of firm Z that, in turn, holds some rights in firm X. This remains an important mechanism used by ultimate shareholders to expropriate minority shareholders.

2.4. A General Look at Ownership Structure around the World

Early in 1932, Berle & Mean showed that U.S. firms' ownership structure is diffuse. Firms are usually widely held, with no investor holding important stakes and no effective control. This reality has certainly evolved with time. Holderness, Kroszner, and Sheehan (1999) find that managers' ownership in U.S. firms is now higher than in Berle & Mean's sample period. However, Holderness & Sheehan (1988) find that only a few hundred U.S. firms have a shareholder who directly owns more than 51% of shares. Ownership diffusion remains a predominant feature in the U.S. context, and several studies conducted in other international settings seem to conclude that ownership structure around the world is more concentrated than it is in the U.S..

La Porta, Lopez-De-Silanes, and Shleifer (1999) analyze ownership structure in 27 countries and conclude that in most of them, ownership structure is concentrated, with the majority of firms been controlled by families. Seventy-three percent (73%) of firms are managed by a family member, and 78.7% have a unique large shareholder. In most countries, ultimate owner voting rights are higher than their ownership rights.

Faccio & Lang (2000), analyze the ownership structure of 3740 firms in five European countries and also find a concentrated ownership in their sample. Direct or indirect control is exercised by a limited number of families (43.9%). In Canada, Rao & Lee-Sing (1995), Gadhoum (1995, 2000) and Gadhoum & Zhegal (1999) conducted similar analyses and reported that Canadian firms ownership structure is far from being diffuse. Most Canadian firms are directly or indirectly controlled by at least one large shareholder who holds more than 50% of voting rights. Concentration is more effective in family or group-affiliated firms. Gadhoum (1995) reported that Canadian firms' ownership structure is similar to that of the large Keiretsu Japanese group, and is characterized by inter-firm links exclusively controlled by a few individuals from the same family. Claessens, Djankov, Fan, and Lang (2000) extend that analysis to 2980 East-Asian firms and find that two-thirds of firms in their sample are controlled by a unique large shareholder who was also the manager. In Indonesia and the Philippines, they find that the 10 largest families controlled more than half of firms' assets (57.7% and 52.5%, respectively). An important question is what explains firm ownership structures around the world. La Porta, Lopez-de-Silanes, Shleifer and Vishny (1998) provided the legal system hypothesis. According to them, countries can be broadly classified into two categories: Common-law countries, whose legal systems are similar to those present in the United States, United Kingdom, Canada, and the former British colonies; and civil-law countries, with a legal system similar to that in France.

Common-law countries usually have a strong legal system that protects minority shareholders' interests. Consequently, it discourages ownership concentration. There is no interest in holding a large proportion of firm capital, since legal protections in place assure that voting rights cannot confer private benefits to the large shareholder. Conversely, in civil-law countries, minority shareholders' protections in the legal system are weak. This encourages block holders to increase their ownership in order to exploit minority interests.

The nature of our sample of countries, which includes both common-law and civil-law countries, allows us to test this hypothesis.

3. Data

The stock exchange listed sample of firms used in this paper consists of 1182 firms composing stock indexes in seven countries: Among them are 500 firms from the U.S. S&P500, 300 firms from the Canadian TSE300, 40 firms from the French CAC40, 30 firms from the Germany DAX, 225 firms from the Japan NIKKEI 225, 32 firms from the Hong Kong HANG SENG, and 55 firms from the Singapore STI[2]. In each country, we also consider a countrywide sample of firms for comparative purposes. We then use 3969 firms for the U.S., 1120 firms for Canada, 607 firms for France, 704 firms for Germany, 1749 firms for Japan, 583 firms for Hong Kong, and 266 firms for Singapore. All data are for 1996.

In Canada, we collected data from various sources, including The Financial Post (FP), Survey of Industrials, Survey of Mines and Energy Resources, "Liens de parenté entre sociétés (LP)", and the Stock Guide's "Corporate Profile" section. In the U.S., we used two information sources: the Securities Exchange Commission (SEC) web site and Worldscope Global database. For the other countries, we used Worldscope database and firms' own websites. For each firm in the sample, we followed the ownership chain in order to identify the ultimate owner. The ultimate owner is defined as being a shareholder who has control of a firm (minimum 10% of voting rights) without being controlled by someone else. If a firm did not have an ultimate shareholder, it was defined as being a widely held firm. The ultimate owner can be different from the largest shareholder, since part of its control may be indirect. Additionally, the largest shareholder may be controlled, while this is not the case for the ultimate owner who is at the end of the control line. In several cases, the ultimate shareholder is an entity (firm or financial institution). In such cases, we followed the ownership line of this entity until we reached an individual or a widely-held entity. When the ultimate owner was an unlisted firm, we considered it as a family[3]. The exception is an unlisted financial institution that we classified as a widely-held financial institution. In East-Asian countries, there are many firms controlled by anonymous shareholders. This does not allow us to compute all variables in these countries. Finally, we do not separate families from individuals.

Ownership and control are respectively related to rights on cash flows and voting rights. These two measures may be different due to the devices used, such as multiple voting shares, pyramidal structures, cross ownership, and reciprocal holdings.

We classify ultimate owners into five categories: 1- family (which include individuals and families) 2- government, 3- widely held financial institutions, 4- widely held firms, and 5- miscellaneous investor (i.e., a charity, a voting trust, a cooperative, a minority foreign investor, to name few).

The definition of variables used in the paper is presented in the following table:

Take in Table 1

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4. Results Analysis

Results analysis is organized as follows: First, we present the ownership structure of firms in our sample. Second, we look at the means used in the sample countries to separate firms' ownership from their control. Finally, we analyze the role of the second-ultimate owner in protecting minority shareholders from expropriation. When possible, we compared our results to those of previous studies.

4.1. Ownership Structure in the Sampled Countries

Table 2 reports the ownership structure of firms in the seven countries analyzed in this paper.

Take in Table 2

We notice from Table 2 that 25.71% of the Canadian TSE300, 18.75% of the French CAC40, and 17% of the German DAX firms are widely held firms - against 60.25% for U.S. firms. For East-Asian firms, the percentage of widely held firms is lower (6.51% in Japan, 0% in Hong Kong and 0% in Singapore). We conclude that the ownership structure in the sample countries is highly concentrated; in these countries, investors usually buy stocks in order to control firms rather than diversify their risk. It is only in the U.S. that the ownership structure is diffuse and where investors seek diversification.

Families represent the most important type of ultimate owner. On average, they control 44.08% of Canadian firms, 21.33% of U.S. firms, 21.88% of French firms, 84% of Hong Kong firms, and 82.76% of Singapore firms. In Germany and Japan, it is mostly financial institutions that control exchange listed firms, with 38% and 85.80% of ownership respectively. In Canada, financial institutions control 20% of sample firms. The percentage is 16.36% in U.S. firms and 9.37% in French CAC40 firms.

Government controls only 0.21% of U.S. firms, while the percentage is 68.97% in Singapore. Glob-

[2] The Canadian Toronto Stock Exchange index has been renamed TSX.

[3] This happens because we generally cannot identify the owners of unlisted companies. As La Porta et al., (1999) and Claessens et al. (2000), we recognize that this procedure biases our measure of ultimate ownership.

ally, government's role is minor, but its importance varies from one country to another. In Singapore, public authorities highly intervene in the economy in order to regulate market and control economic aggregates. However, in the U.S., Canada, and Japan, such intervention is insignificant.

Widely held firms represent a relatively important ultimate owner in Canada and Hong Kong as compared to the U.S., France, Germany and Japan. Specifically, they control 11.48% and 31 of Canadian and Hong Kong exchange listed firms, compared to 1.65 % in the U.S., 3.13% in France, 0% in Germany, and 3% in Japan.

In most exchange listed firms, there is a unique ultimate owner. The proportion of firms is 90.04% in the U.S., 66.12% in Canada, 76.92% in France and 37.50% in Germany. In East-Asia, this percentage is 68.55%, 55.56% in Japan, and 17.02% in HongKong and Singapore.

This first analysis shows that ownership structure is concentrated in Canada as well as in European and Asian countries. The majority of firms are family firms. In the U.S., families also control an important number of firms, but ownership is less concentrated. U.S. firms' ownership structures tend to be diffuse, and there are less block holders. In several countries, mainly in Japan and Germany, financial institutions control a high number of stock exchange listed firms.

Demsetz & Lehn (1985) show that firms' size is negatively related to concentration. The percentage of stock needed to effectively control firms decrease as size increases. Consequently, when large shareholders are individuals with limited resources and higher diversification needs, one expects a negative relation between size and concentration. Furthermore, exchange listed firms are more available to investors and possess a large number of outstanding stocks. Since these firms rely highly on external financing, their ownership structure should be less concentrated than that of unlisted firms.

U.S., European, and Japanese stock exchange listed firms seem to have a less concentrated ownership structure than the overall firms in each of these countries. Gadhoum, Lang & Young (2001) find that 38.97% of their U.S. sample firms have a diffuse ownership. Focusing on S&P500 firms, we report a diffusion percentage of 60.25%. The difference is due to the higher number and the easiness of transactions when firms are listed on exchanges. Moreover, exchange listed firms are usually larger in size than other unlisted firms. This increases the diffusion of their ownership.

Family control decreases in exchange listed firms in North America, Europe and Japan: 21.33% (44.08%) of S&P500 (TSE300) listed firms are controlled by families, against 38.27% (56.17%) of firms in the whole U.S. (Canadian) sample. These percentages are 21.88% against 70.44% in France, 10.00% against 71.64% in Germany, and 5.9% against 13.1% in Japan. However, in Hong Kong and Singapore, the proportion of exchange listed firms controlled by families is higher, at 84.00% against 64.70% in Hong Kong, and 82.76% against 52.00% in Singapore.

Excluding the U.S. and France, financial institutions hold a higher proportion of exchange listed firms than in the whole country sample. The highest percentages are found in Germany (38% of DAX firms, against 10.43% for the whole sample), and in Japan (85.80% of Nikkei firms against 38.5%). Similarly, in all countries but the U.S., government holds a higher percentage of exchange listed firms than in the whole country sample.

To conclude this section, we can globally say that stock exchange listed firms'ownership structure is less concentrated than that of the countrywide sample of firms. Family control of firms decreases and financial institutions control increases in exchange listed firms. This can be explained by the availability of their shares on financial markets (which favor diffusion) and their large size (which make them difficult to be controlled by an individual).

4.2. Means Used to Separate Ownership From Control

Table 3 reports the different means used by sample firms to separate firms' ownership from their control.

Take in Table 3

The use of multiple voting right shares is generally limited for firms in the sample. Gadhoum, Lang & Young (2001) find that only 15.98% (6.83%) of Canadian (U.S.) firms use this mean, while Faccio & Lang (2000) find 2.64% for France and 17.61% for Germany. In this paper, we also find lower percentages which are still slightly higher than those reported in these previous studies. Multiple voting right shares are used by 10.86% of S&P500 firms, 23.36% of TSE300 firms, 15.63% of CAC40 firms and 34% of DAX firms.

Pyramidal structure, cross ownership, and reciprocal holding are current means used to separate ownership from control in concentrated ownership countries. Pyramidal structure are used by 34.84% of TSE300 firms (Canada), 11.54% of CAC40 firms (France), 20.83% of DAX firms (Germany), 64.50% of NIKKEI firms (Japan), 37% of Hang Seng firms (Hong Kong) and 68.97% of STI firms (Singapore). These results are significantly higher than in the U.S. S&P500 10.35%. Cross ownership is used in 13.93% of TSE300 firms and 12.5% of DAX firms, while it is almost inexistent in the U.S. (0.83%) and France (0.00%). In the U.S., Canada, and France, the use of reciprocal holding is low, while it accounts for 12.5% of German firms. Compared to Faccio & Lang (2000), Gadhoum, Lang & Young (2001), Claessens, Djankov, and Fan & Lang (1999), our

results show that more exchange listed firms use means to separate ownership from control.

The percentage of managers coming from the family which control the firm is 48.96% in the U.S., 11.6% in Canada, 60% in France, 0% in Germany, 17.7% in Japan, 41% in HongKong and 65.52 % in Singapore. From the results for exchange listed firms in the U.S., Canada, France, Germany and Japan, we notice that when the use of means to separate ownership from control is higher (Canada, Germany and Japan), families are not obliged to name one of their member as management. The percentage of managers coming from the family which control the firm is 11.60% in Canada, 0% in Germany and 17.75% in Japan. Conversely, in countries where the use of means to separate ownership from control is low (the U.S. and France), the manager usually comes from the controlling family (48.96% of U.S. firms and 60.00% of French firms). Therefore, while in Canada, Germany, and Japan the agency costs will mainly oppose the large shareholder to minority shareholders, in the U.S. and France, it will mainly be a shareholders-managers problem. The percentage of managers coming from the family which control the firm is lower in exchange listed firms than in the overall sample in all countries. This can be explained by the fact that exchange listed firms possess a very complicated management system that commands a recourse to experimented external managers.

4.3. Expropriation and the Role of a Second Large Shareholder

In firms with concentrated ownership, the large shareholder exacts several costs on the firm and minority shareholders. He or she might favor his or her own interests, which generally do not coincide with those of minority shareholders. For instance, the control of voting rights by the large shareholder enables him or her to direct the firm's projects towards those that converge with his or her personal interests; he or she thus generates private benefits for his or her own account. This creates conflicts of interest with minority shareholders. Table 4 indicates that in the U.S. and Japan, the first large shareholder controls only a small proportion of S&P500 and Nikkei225 firms' voting rights (7.31% in the U.S. and 7.93% in Japan). In the other countries, however, control of voting rights is higher: 29.77% in Canada, 32.54% in France, 25.28% in Germany, 22.81% in Hong Kong, and 22.94% in Singapore.

The ratio of ownership rights over voting rights allows us to evaluate the level of separation of ownership from control. As the separation of ownership from control increases, the ratio decreases. In Table 4, the ratio for the first larger shareholder shows that the separation of ownership from control is higher in Canada, Germany, Japan, and Singapore (0.71, 0.74, 0.60 and 0.77, respectively). France records the lowest separation of ownership from control, with a ratio of 0.92; it is followed by the U.S. and Hong Kong (0.83). In several countries, the separation of ownership from control gives the first large shareholder the means to expropriate minority interests. Does he or she always succeed in this enterprise? Gomez & Novaes (1999) argue that the existence of a second large shareholder is a good means to control the first large shareholder in his or her potential opportunistic behavior. Ownership and voting rights allow him or her to take part in ordinary and extra-ordinary shareholders' meetings, and vote in a way that protects his or her own interests. By doing so, he or she indirectly protects the other shareholders against potential expropriation by the first large shareholder. Table 4 shows that in exchange listed firms, the persuasive power of the second large shareholder is limited. The ratio of the control of the first large shareholder over the control of the second large shareholder ranges from 1.34 to 2.82 times, which means that the first large shareholder always dominates the second in term of voting rights. Further, the ratio of ownership over voting rights of the second large shareholder mimics that of the first large shareholder. This means that the second large shareholder also widely benefits from means to separate ownership from control, and may also be attracted by the expropriation of minority shareholders.

5. Conclusion

This paper contributes to corporate governance literature by examining firms' ownership structure and expropriation in seven countries, with an emphasis on stock exchange listed firms. Results indicate that in Canada, Europe, and East-Asia, the ownership structure is highly concentrated. Most of the firms are controlled by at least one large shareholder who reinforces his or her control with devices such as multiple voting right shares, pyramidal structures, cross ownership and reciprocal holding.

In East-Asia and France, agency problems mainly come from conflicts opposing the large shareholder to minority shareholders, since diffuse owned firms are less present and most firms are controlled by families who appoint one of their members to management. German and Japanese firms are usually controlled by widely held financial institutions that are able to monitor management decisions.

In the U.S., firms' ownership structure is more diffuse. The use of means to separate ownership from control is less present and the control of the large shareholder is lower than in the other sampled countries. There is however a large percentage of firms managed by a family member. In this country, agency problems likely stem from shareholder-management conflicts.

Our results also show that being listed on the stock exchange can explain a firm's ownership structure. Exchange listed firms, which are generally larger in size than unlisted firms, tend to have a more diffuse ownership.

La Porta, Lopez-De-Silanes, Shleifer & Vishny (1998) attempt to explain firm ownership structure around the world through the legal system. Our results contradict this hypothesis. Canada and the U.S. belong to common law countries, however Canadian firms' ownership structure is far from being diffuse (as in the U.S.), and the use of means to separate ownership from control is frequent. Gadhoum, Lang & Young (2001) show that Canadian ownership structure is closer to that of France, than to that of U.S. or U.K. firms.

Furthermore, there is a difference in ownership structure between France and Germany, which are both civil law countries. In France, the use of means to separate ownership from control is limited, and the role of financial institutions is weak. Conversely, in Germany, the use of means to separate ownership from control is higher, and financial institutions are more present in ownership structure.

Overall, while this paper sheds light on ownership structure research, further research is necessary. A complete explanation requires complex models which associate micro and macro economic variables.

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Appendices

Table 1. List of Variables and Their Definitions

Variables	Definition
Widely held ownership	Firms with no shareholder who holds more than 10% of voting rights. This variable takes the value 1 if this is the case, or 0 otherwise.
Ultimate owner	An entity (individual or widely held firm) that holds more than 10% of voting rights in a firm.
Concentrated ownership	Firms that possess at least one ultimate owner. This variable takes the value 1 if this is the case, or 0 otherwise.
Family	This variable takes the value 1 if the ultimate owner is a family or an individual, or 0 otherwise.
Government	This variable takes the value 1 if the ultimate owner is a provincial, federal or municipal authority, or 0 otherwise.
Widely held financial institution	This variable takes the value 1 if the ultimate owner is a widely held financial institution, or 0 otherwise.
Widely held firms	This variable takes the value 1 if the ultimate owner is a widely held firm, or 0 otherwise.
First large shareholder's ownership	Ownership rights (i.e., rights on cash flows) of the first large shareholder of the firm.
First large shareholder's control	Control rights (i.e, voting rights) of the first large shareholder of the firm.
Second large shareholder's control	Control rights (i.e, voting rights) of the second large shareholder of the firm.
Pyramidal structure (%)	Is present if a firm is indirectly controlled by a firm or an individual through another firm. This variable takes the value 1 if the ultimate owner control the firm through a pyramidal structure, and zero otherwise.
Cross ownership (%)	This happens when a firm is directly and indirectly controlled by the same entity. This variable takes the value 1 if the ultimate owner control the firm through cross ownership, and zero otherwise.
Reciprocal ownership (%)	This happens when a firm X control firm Y, which in turn controls firm X. This variable takes the value 1 if there is a reciprocal holding in the firm's ownership structure, and zero otherwise.
Manager from the family which controls the firm	Takes the value 1 if the firm manager comes from the controlling family, or zero otherwise

Table 2. Distribution of Ownership in Sample Country Firms

The exchange listed sample consists of a total of 1182 stock exchange listed firms. These include the U.S. 500 S&P500 firms, the Canadian 300 TSE300 firms, the French 40 CAC40 firms, the German 55 DAX firms, the Japanese 225 NIKKEI 225 firms, the Hong Kong 32 Hang Seng firms and the Singapore 55 STI firms. In each country, we also consider a full sample of firms, for comparative purposes.

	U.S.		Canada		France		Germany		Japan		Hong Kong		Singapore	
	Index N=500	Country N=3969	Index N=300	Country N=1120	Index N=40	Country N=607	Index N=30	Country N=704	Index N=225	Country N=1749	Index N=32	Country N=583	Index N=55	Country N=266
Widely Held vs. Concentrated Firms														
Widely held firms (%)	60.25	38.97	25.71	17.79	18.75	6.26	17	4.40	6.51	42.00	0	0.6	0	1.4
Concentrated ownership (%)	39.75	60.63	74.29	81.54	81.25	93.74	83	95.60	93.49	58	100	99.4	100	98.6
Distribution in Various Classes														
Family (%)	21.33	38.27	44.08	56.17	21.88	70.44	10	71.64	5.9	13.1	84	64.7	82.76	52
Widely held financial institutions (%)	16.36	19.94	20	17.81	9.37	14.6	38	10.43	85.80	38.5	13	7.1	41.38	10.8
Widely held firms (%)	1.65	4.46	11.48	10.80	3.13	2.66	0	1.21	3	5.3	31	23.9	6.90	12.2
Government (%)	0.21	0.23	5.71	4.42	12.50	5.17	10.00	5.23	2.96	1.1	16	3.7	68.97	23.6
Miscellaneous	60.45	37.10												
Ultimate Owner														
Existence of a unique ultimate owner	90.04	77.33	66.12	62.60	76.92	63.82	37.50	66.73	68.55	87.2	55.56	69.1	17.02	37.60

Table 3. Means for Separating Ownership From Control

The exchange listed sample consists of a total of 1182 stock exchange listed firms. These include the U.S. 500 S&P500 firms, the Canadian 300 TSE300 firms, the French 40 CAC40 firms, the German 55 DAX firms, the Japanese 225 NIKKEI 225 firms, the Hong Kong 32 Hang Seng firms and the Singapore 55 STI firms. In each country, we also consider a full sample of firms, for comparative purposes.

	U.S.		Canada		France		Germany		Japan		Hong Kong		Singapore	
	Index N=500	Country N=3969	Index N=300	Country N=1120	Index N=40	Country N=607	Index N=30	Country N=704	Index N=225	Country N=1749	Index N=32	Country N=583	Index N=55	Country N=266
Pyramidal structure (%)	10.35	8.52	34.84	33.82	11.54	17.75	20.83	24.22	64.50	36.40	37.00	25.10	68.97	55.00
Multiple voting stock (%)	10.86	8.36	23.36	25.98	15.63	2.64	34	17.61	-	-	-	-	-	-
Cross ownership (%)	0.83	1.15	13.93	8.18	0	2.99	12.50	6.84	-	-	-	-	-	-
Reciprocal holding (%)	0.41	0.13	0.369	2.60	0	0	12.5	2.97	-	-	-	-	-	-
Manager coming from the control-ling family (%)	48.96	74.51	11.60	73.46	60	61.99	0	60.40	17.75	37.2	41	53.4	65.52	69.9

Table 4. Image of Minority Shareholders' Expropriation

The exchange listed sample consists of a total of 1182 stock exchange listed firms. These include the U.S. 500 S&P500 firms, the Canadian 300 TSE300 firms, the French 40 CAC40 firms, the German 55 DAX firms, the Japanese 225 NIKKEI 225 firms, the Hong Kong 32 Hang Seng firms and the Singapore 55 STI firms. In each country, we also consider a full sample of firms, for comparative purposes.

	U.S.		Canada		France		Germany		Japan		Hong Kong		Singapore	
	Index N=500	Country N=3969	Index N=300	Country N=1120	Index N=40	Country N=607	Index N=30	Country N=500	Index N=225	Country N=1749	Index N=32	Country N=583	Index N=607	Country N=266
Ownership of first large shareholder (%)	6.12	14.62	19.94	25.61	31.03	46.68	19.12	48.54	5.04	6.9	18.44	24.3	17.35	20.19
Control of the first large shareholder (%)	7.31	16.01	29.77	31.56	32.54	48.32	25.28	54.50	7.93	10.33	22.81	28.08	22.93	27.52
Ratio of owner-ship over control of the fist large shareholder	0.83	0.56	0.71	0.67	0.92	0.93	0.74	0.84	0.59	0.60	0.83	0.88	0.77	0.79
Ownership of the second large share-holder (%)	0.92	4.82	4.42	7.04	11.96		8.97	-	-	-	-	-	-	-
Control of the second large shareholder (%)	1.16	5.83	7.09	9.73	13.80		13.96	-	-	-	-	-	-	-
Ratio of owner-ship over control of the second large shareholder	0.82	0.20	0.66	0.31	0.81		0.62	-	-	-	-	-	-	-
Control of the first over the control of the second large shareholder	1.41	3.42	2.30	57.06	1.34	-	1.69	-	1.29	-	2.82	-	1.73	-