The puzzle of corporate control

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Abstract

In this research paper the main forces that influence different kinds of corporate control of the largest firms by country are evaluated. Firms controlled by individuals, Government, miscellaneous investors or widely held, exist under different circumstances. While firms controlled by individuals are small, proliferate on civil-law based countries with low levels of economic freedom, firms controlled by Governments multiply under low standards of disclosure, undeveloped financial markets and non catholic environments. On the other hand, the presence of miscellaneous investors is more frequent when stocks are glamorous and small wherein the smaller shareholder can easily use their limited resources and monitoring the management/larger shareholder. Finally, widely held firms are large and are stimulated by an economic freedom behavior.

Keywords

- Corporate control
- Ultimate owner
- Institutional Environment
- Widely Held

JEL classification

- G32; G30

1. Introduction

Corporate ownership of the US firms has been characterized as widely held by small shareholders, since the seminal work of Berle and Means (1932), where the management plays an important role in the control of the firm. This can be explained by several reasons related with the legal system and the responsibility of the State on the economy. However, not even all countries have the same legal system, the same interventionism of the Government on the economy, the same financial infrastructures, the same standards of transparency, the same economic history, and consequently the corporate ownership and the characteristics of shareholders are diffused around the world. The role of economic history is clearly relevant to understand corporate control, for example the Nordic countries historically use dual class shares, in Spain, Italy and Austria the mutualism has been protagonist along their history, in Turkey and Chile the State protected families and in Denmark foundations plays a decisive role in the control of firms. These evidences can´t be ignored to understand how corporate ownership is so different around the world. For example, according to the results of Becht and Roell (1999) the degree of ownership concentration in the UK and in the USA is smaller than in Continental Europe. Faccio and Lang (2002), based on a sample of Western European firms, present similar results, that is, there is a large number of widely held firms in the UK and Ireland, in comparison to continental Europe. They show that smallest firms and industrial firms are more family-owned than financial institutions, and in some countries the State plays a decisive role in the largest firms. Claessens *et al* (2000), using a sample of 2,980 East Asian companies from 9 countries, show how firms from that region are largely family-owned, as well as how corporate wealth is in the hands of a few families.

However, the debate over corporate ownership and the importance of the legal system and other country infrastructures is far from ending. While La Porta et al (1999) confirm the idea that in countries with higher antidirector rights, namely in the US, wherein investors are well protected, the corporate ownership is widely held, on the contrary, countries with low shareholder protection, wherein the State interferes in private business, the largest firms are more family-owned, the voting rights are separate from the cash flow rights, namely through multiple classes of stock, cross-shareholdings, and pyramidal structures, and the ownership is less diffused. More recently this assumption has been refused. Holderness (2009), based on a sample of 23 countries, refutes the idea that corporate ownership in US firms is more diffused than in other countries. His research documents that 96% of the US firms from their sample have blockholders with at least 5% of firm's voting rights. His result contradicts the assumption that the stronger US investor protection rights account for the widely held ownership of US firms. But the debate concerning corporate ownership around the world is not limited to evaluate how concentrated shareholders structures are around the world. For example, La Porta et al (1999) analyzing the ultimate firm owners, based on voting rights, assess whether those depend on the characteristics of the legal system in 27 countries. Basically they define six types of ultimate owners: widely held, family, State, widely held Financial, widely held corporation and miscellaneous. In this research paper it will be analyzed, considering different ultimate owners – mixed, individuals, Government and widely held -, based on voting rights, which variables influence the most each kind of ultimate owner.

In this research paper we pretend to evaluate which variables, firm or country specific, determine the ultimate ownership. Questions like firms being controlled by individuals on undeveloped financial markets or firms controlled by the Government subsisting on Catholic environments are evaluated.

This paper proceeds as follows. Section 2 describes the data and the methodology;. Section 3 presents the results for the definitions, for the variables and for the regressions. Section 4 concludes.

2. Data and methodology

2.1.Data

The data extracted from Factset/Lionshres database includes the ultimate owners of the largest firms 20 firms from 31 countries obtained from Worldscope database (Worldscope item, WC08001) and respects to the end 2005, more precisely to the period between 2005 and March 2006, depending on the information supplied by firms. These data were compared with those obtained from different 620 firm´s websites. We selected firms from the following countries: Australia, Austria, Belgium, Canada, Chile, Denmark, Finland, France, Germany, Greece, Hong Kong, India, Ireland, Italy, Japan, Malaysia, the Netherlands, New Zealand, Norway, Portugal, Singapore, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, the UK, and the US.

2.2. Methodology

2.2.1. Definitions of Variables

2.2.1.1. Dependent variables

While voting rights determine corporate control, cash flow rights are used to evaluate corporate ownership. It is important to distinguish both concepts because they usually present different results, particularly when the shareholdings are based on pyramidal structures, a way wherein large shareholders obtain control with the least amount of capital. For example, if investor A holds 5% of the shares of firm X, and simultaneously 20% of shares of the firm Y, which in its turn also owns 10% of firm X, then we may say that A has 7% (5%+20%*10%) of cash flow

rights and controls 15% of voting rights (min(10%,20%)+5%). Moreover, differences between voting rights and cash flow rights are particularly sensitive to dual class voting shares. For example, Berkshire Hathaway Inc., the US holding company managed by Warren Buffet, has two classes of common stock, Class A and Class B. A share of Class B common stock has the rights of 1/30th of a share of Class A common stock except that a Class B share has 1/200th of the voting rights of a Class A share (rather than 1/30th of the vote). Considering that Berkshire Hathaway Inc. has issued 1,261 million and 8,407 million Class A and B shares respectively, we conclude that the 0,498 million Class A shares owned by Warren Buffet represent 32% of cash flow rights and 38% of voting rights.

In this research, we do not consider some mechanisms used by firms to impede takeovers such as voting caps, golden shares, and voting blocks. We have collected only ultimate owners that own more than 5% of voting rights of a firm. We define a threshold of 20%, that means if the sum of ultimate owners with more than 5% of voting rights does not exceed a threshold of 20%, we define the corporate ownership of that firm as widely held. These figures are in line with recent research, for example, Holderness (2009) and La Porta *et al* (1999) who chose 5%, 10%, and 20%, respectively. The blockholder percentage of voting rights takes into account the American Depositary Receipts (ADRs) stakes. There are few examples of shareholders in possession of a qualified participation as a result of a simultaneous investment in common stocks and ADRs.

We define the following ultimate owners:

- Widely Held – a firm without any ultimate owner is defined as widely held, that is, when there is no ultimate owner with more than 5% of total voting rights. Such is the case of Banco Santander Central Hispano, the largest Spanish bank;
- Individual - when a given person (or a group of given people) is the sole shareholder who controls a significant percentage of voting rights, we define that firm as

individually controlled. For example, Great West Lifeco, a Canadian insurance company, is owned by Power Financial Corp (74.9% of total voting rights). Power Financial Corp, in turn, is owned by Sir Paul Desmarais (66.4% of total voting rights). Thus, we can say that Sir Paul Desmarais has 66.4% of total voting rights of Great West Lifeco. In these cases we are in the presence of a pyramidal structure. The use of this type of strategy has been analyzed and criticized because it is an interesting way for the large shareholders, particularly families, to maintain control of a firm and simultaneously to expropriate private benefits from minority shareholders (see Almeida and Wolfenzon (2006));

- Government - when a State is the sole shareholder that controls a significant percentage of voting rights, a firm is Government owned. For example, Hafslund ASA, a Norwegian electric utility, has two shareholders who own more than 5% of voting rights. One is Oslo Kommune, a Norwegian Government institution with 58.5% of total voting rights, the other is Fortum Oyj, a Finnish public company with 32.8% of total voting rights, whose main shareholder (with more than 5% of voting rights) is the Finnish Government with 51.5% of voting rights. Thus, Finnish Government controls 32.8% of total voting rights of Hafslund ASA;
- Miscellaneous – whenever a structure differed from the previous, we define it as mixed. It is possible to observe such structures when a company is dominated by a number of different financial institutions. For example, Fosters Group, an Australian beverages firm, has the following shareholders with more than 5% of voting rights: Mondrian Investment Partners Ltd with 7.3% (Investment Advisor); Capital Research & Management Co with 7.2% (Investment Advisor); Colonial First State Investments Ltd with 6.1% of voting rights (Bank Management Division); and, Maple-Brown Abbot Ltd with 6% (Investment Advisor). In this case we are in the presence of four financial

institutions that own more than 20% of voting rights. But also when the main ultimate owners belong to different business areas. For example, PT Telekomunikasi Indonesia, a telecommunications company in Indonesia, is controlled by the government (51.2% of total voting rights), although Capital Research & Management Co also owns 8.8% of total voting rights.

2.2.1.2. Independent variables

To determine which variables influence the most kind of corporate control firm-level variables and country-level variables are assessed (see tables I and II):

Firm level variables

- Size – We expect a negative relationship between firm size and fraction of corporate control, *ceteris paribus*. Wealth constraints, in addition to risk aversion imply that an ultimate owner is less able to accomplish as a firm becomes larger (Demsetz and Lehn (1985), Prowse (1992) and Holderness (2009)). We use the (natural logarithm) market capitalisation, dollar denominated, to control the size of a firm (Worldscope Item, WC07211);
- Volatility - A firm with more volatile profit rate is more difficult to monitor and to control, and as a result the level of ownership concentration is expectably higher, in order to avoid eventual abuses by management. The results obtained by Prowse (1992) for the Japanese market confirm the previous relationship for independent firms, but not for keiretsu firms. In fact, not even the expected relationship is found. While Demsetz and Lehn (1985) find a positive relationship, Himmelberg *et al* (1999) document a negative relationship. Datastream (DS) weekly prices, dollar denominated, were used to calculate the annualised standard deviation of weekly stock market rates of return during 2000-2005;

- Market-to-Book - This variable is seen as a proxy for the growth opportunities of a firm. We presume that a firm with more growth opportunities, and also with more doubts by investors, would develop easily in a developed capital market. Kahn and Winton (1998) and Goergen (1998), show in theoretical and empirical terms respectively, that the ownership retention by the initial shareholders will be lower, after an IPO, on firms characterised by growth opportunities with need of external finance. Market-to-book is defined as total assets (Worldscope Item, WC 02999) minus book equity - defined as total assets minus total liabilities (WC 03351) and preferred stock (WC 03451) plus deferred taxes (WC 03263) and convertible debt (WC 18282) - plus market capitalisation (WC 08001), local currency denominated, divided by total assets.

Country level variables

- Legal Environment – Legal country origin is a measure of legal environment. Country origin is divided in the two main important legal families, common and civil law origins. Civil law origins, on the other hand, produced three variants of law: French, German, and Scandinavian legal environment. La Porta *et al* (1997, 1998) find a positive relationship between common law-based countries and capital markets development, based on accounting standards, shareholders' rights and creditors' rights present higher standards. However, this evidence has been denied by recent research that found non time series evidence (Rajan and Zingales (2003)). A positive relationship between diffuse corporate ownership structures and common law-based countries is expected, particularly when management and shareholder are agent and principal, respectively (see La Porta et al (1999));
- Corporate Disclosure – We expect that more diffused ownership structures to prevail in countries where accounting and financial disclosure presents higher standards (La Porta *et al* (1998)). In fact, in that case it is easier to monitor the management (and large

shareholders decisions) and consequently to avoid the expropriation of wealth from minority shareholders. However, that relationship must be taken with caution. For example, Guedhami and Pittman (2006), for a group of privatised firms from 31 countries, found weak evidence between ownership concentration and disclosure standards. Disclosure level[1] is from Bhattacharya *et al* (2003) and the original source is the Center for International Financial Analysis and Research (CIFAR);

- Private credit – We expect more concentrated corporate ownership structures under an environment where financial system is comparatively more developed than the local capital market. Shareholders in these cases presumably resist to undertake public offers and to share control with others. Private credit is provided by World Bank measured by banking sector % of GDP;
- Religion - Local beliefs produce impacts on different areas of economy. Weber (1905) in his distinguished book, "The Protestant Ethic and the Spirit of Capitalism", found that Protestantism, particularly Calvinism, was a means of explaining capitalism. In the Renaissance period, contrary to Catholic religion which defended a fairly luxurious way of life, a group of reformists emerged in the 16th century, namely Martin Luther and John Calvin belonging to the Catholic church and who started a religious movement, later designated as the Protestant Reformation. Protestants defended that hard work led to prosperity and a life without luxury. This asceticism resulted in an accumulation of capital, which inspired the beginning of capitalism;
- Economic Freedom – We expect more diffused corporate control structures under an environment of business freedom, financial freedom and freedom from corruption. We use the index of economic freedom from Heritage Foundation.

1 An índex creted by examiningc the firms'annual reports on their inclusion or omission of 90 items.

2.2.2. Multivariate Regressions

A Logit regression model is used to examine the relationship between the probability of a firm's with a specific ultimate owner switch to another one, conditional on a vector of explanatory independent X. The dependent variable is 1 for a given class of ultimate owner and 0 for the remaining. This relationship can be expressed as following where

$$P\{S = 1|X\} = \frac{1}{1 + e^{-(\alpha+\beta'X+\mu_{jt})}}$$

The β′ is the parameter estimated from the sample data for each independent variable and X represents the explanatory variables, including market capitalization, market-to book, volatility, legal system, disclosure level, private credit, economic freedom and religion.

3. Results

Table III identifies the number of firms by country, considering the different categories of ultimate owners. The results, comparing countries with common and civil legal regimes, show that only exist differences statistically significant when we are in the presence of firms controlled by individuals. On average, there are 3.74 and 1.58 firms owned by individuals on Civil and Common law based countries (t-stat = 2.79). In this case we are in the presence of a conflict of interest between minority shareholders and a larger block shareholder that simultaneously controls management which tries to expropriate wealth from minority shareholders (vd.for example Bebchuk (1999)). But the legal system can´t be the panacea for this problem. For example, the economic history of each country must not be ignored as we will see further on.

In fact, the role of individuals is particularly expressive in emerging countries namely in Chile and Turkey. These economies have suffered recently due to profound changes. In Chile, old families (Angelini, Matte and Luksic) that grew during the 20th century based on the policy of import substitution, which ended with the trade liberalization carried out during 1974-1979, changed from declining manufacturing industries to natural resource processing sectors. These groups, contrary to the techniques used in other countries, namely in Asia, of cross shareholdings, prohibited by Chilean law, adopted practices based on pyramidal structures. In Turkey, an economy predominantly agricultural country inherited from the Ottoman empire, there are many individuals (for example, Dogan, Koç and Sabanci families) that created truly giant business groups during the previous century, particularly after the 60s, period in which the State not also had a decisive weight in the economy but has allocated resources to the private sector. As Chilean families the Turkish used pyramidal structures to control their businesses. In Sweden, a Social democratic country, the Government has adopted measures, the legalization of dual class shares, to defend employment, sometimes contrarily to the idea of profit maximization. That was the reason why some individuals, namely the old Wallenberg family, control many important firms. In Portugal and Spain, on the other hand, the transition to democracy during the 70s and the development of their capital markets gave rise to major economic groups with family characteristics.

Even when we compare the importance of Governments on the control of firms, considering different legal regimes, we observe the importance of the economic history. The results presented in table III do not show any statistical difference between the number of firms controlled by Government in countries with different legal regimes (t-stat = -0.51). There are 1.84 and 2.33 firms, on average, controlled by Governments respectively in Civil and Common law based regimes. However, if we exclude Asian countries, the results

change to 1.84 and 0.43 with 5% statistical significance (t- stat = 2.77). It seems that the interference of the Government on economy is not similar in all Common law based countries.

In fact, the most common is the largest companies being controlled by managers (widely held), or, alternatively, said control is carried out by shareholders with different characteristics (miscellaneous, as we defined in section 2.1.1.), but for different reasons. The correlation coefficient between the number of firms widely held by country and the median market capitalization is 0.64. Thus, when we are in the presence of countries whose firms are large (Australia, Canada, France, Germany, Japan, the UK and the USA (vd. Table I) the control is exercised by managers, firms are widely held, and there are conflict of interests between managers and shareholders. The simple explanation to understand the reasons why a firm is widely held can´t be extended when we are in face of miscellaneous ultimate owners. Firstly because there is a correlation of -0.57 between the market capitalization of the companies and the number of companies owned by diverse shareholders. In fact, this type of corporate ownership exists in small capital markets – Austria, Belgium, Denmark, Portugal, Sweden, Ireland, Malaysia, and New Zealand – where companies, in general, present a small market capitalization. However, the structure of corporate ownership is not the same in those countries. While Austrian and Malaysian firms are owned by the Government in parallel with other shareholders, in Denmark the foundations have an important role in the corporate ownership, in Portugal firms are owned by different categories of shareholders (private firms, holdings, financial intermediaries, and Government) and in Ireland and in New Zealand there are many financial intermediaries controlling a firm.

Table IV shows the explanatory factors of different corporate structures, i.e., variables that influence firms owned by individuals, by the Government, by different categories of shareholders (miscellaneous), as well as widely held firms.

In panel A is done the analysis for individuals, and it is possible to conclude that market capitalization influences negatively such corporate structures, i.e., these companies generally present a small size. On the other hand, in line with La Porta et al (1999), these corporate structures seem to be more observed in civil law based countries. The explanation that appears to be more plausible for this is related with the countries´ economic history. In some of them, with smaller companies, the State promoted the delivery of vital sectors of its economy to local groups. This is particularly true for many countries, e.g. Chile, Portugal and Turkey.

For companies owned by the Government (panel B), it should be noted that this type of financial structure is more visible in countries whose disclosure level is more limited, particularly in Greece, India and Thailand. Probably this is a result of these countries present a less developed financial system, as well as less transparent and where the State wants to continue playing a decisive role in the economy. This class of firm structures is more visible in non catholic based countries. Asian countries where Catholic religion is poorly disseminated is fundamental for such result.

In panel C are presented companies whose shareholder structure is diffuse, usually characterized by having more than one shareholder, the largest and a smaller, the latter with a role in the decisions of the management as a monitor. Usually the monitor is a financial intermediary (bank, hedge fund or asset manager), finding out growth firms (glamorous stocks) where the role of monitoring is crucial, particularly in terms of investment decisions made by the management. This occurs most frequently on banking based countries, and probably less on capital market based countries where shareholders are better protected.

Such corporate ownership structures are also more frequent on small firms (see panel C) where it gets easier to be the second largest shareholder, with a role of monitoring the largest one. In fact, asset managers find out glamorous small stocks for their portfolios as a way of controlling the investments made by management/largest shareholder.

Finally regressions for widely held firms are reported in panel D, and the results of regressions were expected, market capitalization and economic freedom play an important and positive role in that category of firms. Widely held firms present large market capitalization and proliferate in an environment where the role of the private sector is defended, i.e., in countries characterized by economic freedom, giving the opportunity to be created larger capital markets with thousands of shareholders.

4. Conclusion

This research paper aims to assess the main forces that influence corporate ownership, more precisely the determinants of a firm owned by individuals, Government, miscellaneous of investors and widely held.

Firms owned by individuals, Government, miscellaneous investors or widely held, exist under different circumstances. While firms owned by individuals are small, proliferate on civil-law based countries with low levels of economic freedom, firms owned by Governments multiply under low standards of disclosure, emergent financial markets and non-civil-law environments. On the other hand, the presence of miscellaneous investors is more frequent when stocks are glamorous and small wherein the smaller shareholder can easily use their limited resources and monitoring the management/larger shareholder. Finally, widely held firms are large and are stimulated by an economic freedom behavior.

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Table I - Firm – Level Variables

The median market capitalisation of the 20 largest firms by country, million dollar denominated, is from Worldscope (WS Item, WC07211). The median market-to-book of the 20 largest firms by country is also Worldscope. Market-to-book is defined as total assets (Worldscope Item, WC 02999) minus book equity - defined as total assets minus total liabilities (WC 03351) and preferred stock (WC 03451) plus deferred taxes (WC 03263) and convertible debt (WC 18282) - plus market capitalisation (WC 08001), local currency denominated, divided by total assets. The median annualised volatility of the 20 largest firms by country is calculated using Datastream data, dollar denominated, considering weekly returns during 2000-2005

Country	Market Capitalisation (median)	Market-to-Book (median)	Volatility (median)
Austria	4.077	1,23	0,27
Belgium	6.896	1,34	0,25
Chile	2.763	1,24	0,27
Denmark	4.014	1,51	0,29
Finland	4.067	1,5	0,31
France	47.826	1,19	0,29
Germany	32.799	1,07	0,34
Greece	4.483	1,38	0,3
Italy	17.247	1,13	0,28
Japan	49.882	1,11	0,34
Netherlands	14.195	1,39	0,34
Norway	3.125	1,51	0,35
Portugal	2.360	1,18	0,26
South Korea	12.919	1,2	0,46
Spain	16.121	1,31	0,23
Sweden	13.464	1,36	0,3
Switzerland	16.367	1,74	0,32
Taiwan	9.321	1,41	0,35
Turkey	2.919	1,23	0,56
Civil Law Countries Average	13.939	1,32	0,32
Australia	15.219	1,41	0,22
Canada	28.917	1,35	0,24
Hong Kong	13.974	1,14	0,3
India	10.914	1,72	0,41
Ireland	2.979	1,57	0,27
Malaysia	4.206	1,22	0,2
New Zealand	1.084	1,49	0,26
Singapore	4.108	1,15	0,28
South Africa	10.106	1,56	0,35
Thailand	2.814	1,24	0,36
UK	71.490	1,62	0,26
USA	155.476	1,93	0,27
Common Law Countries Average	26.774	1,45	0,29
t-stat	-0,96	-1,65	1,47

Table II – Country – Level Variables

Disclosure level is from Bhattacharya et al (2003), with higher value indicating more disclosure. The original source is the Center for International Financial Analysis and Research (CIFAR). Private credit is from World Bank and is defined by domestic credit provided by banking sector % of GDP 2004.The index of economic freedom is from Heritage Foundation and varies from 0 and 100. Religion is from http://www.mapsofworld.com/world-religion-map.htm.

Panel A: Country-Level Variables

Country	Disclosure Level	Private Credit	Economic Freedom	Religion
Austria	59,7	1,23	71,9	Catholic
Belgium	67,8	1,12	70,2	Catholic
Chile	72,9	0,7	77,4	Catholic
Denmark	70,6	1,66	78,6	Prothestant
Finland	78,2	0,7	74	Prothestant
France	75,8	1,07	64,6	Catholic
Germany	66	1,43	71,8	Prothestant
Greece	59,8	1,05	60,3	Other
Italy	65,4	1,05	60,3	Catholic
Japan	70,5	1,55	72,8	Other
Netherlands	71,4	1,67	74,7	Catholic
Norway	75,4	0,11	70,3	Prothestant
Portugal	53,7	1,51	64	Catholic
South Korea	67,5	1,01	69,8	Other
Spain	68,2	1,39	70,2	Catholic
Sweden	82,1	1,13	71,9	Prothestant
Switzerland	75	1,75	81,9	Catholic
Taiwan	62,3	1,67	70,8	Other
Turkey	58,6	0,6	64,2	Other
Civil Law Countries Average	68,47	1,18	70,5	
Australia	78,9	1	82,5	Prothestant
Canada	72,5	0,97	80,8	Catholic
Hong Kong	72	1,49	89,7	Other
India	54	0,6	54,6	Other
Ireland	79,1	1,18	78,7	Catholic
Malaysia	76,4	1,34	66,3	Other
New Zealand	77	1,21	82,3	Prothestant
Singapore	76,6	0,8	87,2	Other
South Africa	75	0,85	62,7	Prothestant
Thailand	62,5	1,05	64,7	Other
UK	82,1	1,58	74,5	Prothestant
USA	73	2,71	77,8	Prothestant
Common Law Countries Average	73,26	1,23	75,2	
t-student	-1,70	-0,28	-1,56	

Table III - Ultimate Owners – Number of Firms by Country

This table exhibits the percentage of firms owned by type of ultimate owners, using 20% threshold. Ultimate owners with more than 5% of votes are included on the sample. A firm whose ultimate owners own less than 20% is considered widely held at 20% threshold. Ultimate owner classification is defined in section 2.1.1 . .*, **, and ***, indicate significance at the 10, 5 and 1 percent level.

Country	Miscellaneous	Individuals	Government	Widely Held
Austria	12	2	1	5
Belgium	10	4	2	4
Chile	6	9	0	5
Denmark	11	3	0	6
Finland	7	1	4	8
France	2	1	4	13
Germany	3	4	2	11
Greece	5	4	5	6
Italy	7	3	1	9
Japan	1	0	5	14
Netherlands	7	2	0	11
Norway	8	5	4	3
Portugal	14	5	0	1
South Korea	6	1	3	10
Spain	3	5	0	12
Sweden	10	5	1	4
Switzerland	5	4	2	9
Taiwan	6	2	1	11
Turkey	8	11	0	1
Civil Law Average	6,89	3,74	1,84	7,53
Australia	2	0	1	17
Canada	1	3	0	16
Hong Kong	8	4	5	3
India	8	1	7	4
Ireland	13	0	0	7
Malaysia	16	4	0	0
New Zealand	13	1	2	4
Singapore	4	2	7	7
South Africa	9	0	0	11
Thailand	7	1	6	6
UK	4	0	0	16
USA	0	3	0	17
Common Law Average	7,08	1,58	2,33	9,00
t-student	-0,11	2,79***	-0,51	-0,74

Table IV – Determinants of Ultimate Owner Class

The table reports the results of OLS regressions for a sample of 32 countries, considering 20% threshold. The dependent variable is the ultimate owner class (1 for a given class and 0 for the remaining): Individuals, Government, miscellaneous and widely held. Civil origin, disclosure, private credit, economic freedom and catholic origin are dummy variables. Disclosure, private credit and economic freedom are 1 if above the median. QML Heteroscedasticity-consistent standard errors (Huber/White) are reported in parentheses. .*, **, and ***, indicate significance at the 10, 5 and 1 percent level.

Panel A - Individuals				
Market Capitalization	-0,2508	-0.2280		-0.2414
z-statistic	-2.73***	-2.91***		-2.65***
Market-to-Book	0.0438	0.0238		
z-statistic	0.84	0.49		
Volatility	-0.2274	0.3909		
z-statistic	-0.27	0.49		
Civil Origin	-0.9450		-0.8893	-0.8940
z-statistic	-2.97***		-2.85***	-3.16***
Disclosure	0.2608		0,1964	
z-statistic	0.85		0.65	
Private Credit	-0.0896		-0,1281	
z-statistic	-0.33		-0.47	
Economic Freedom	-0,5658		-0,5401	-0.4642
z-statistic	-1.89*		-1.80*	-1.96**
Catholic Origin	0,1800		0,1311	
z-statistic	0.71		0.54	
Pseudo R^2	0,05	0,01	0,04	0,05
Nº obs	620	620	620	620
Panel B - Government				
Market Capitalization	0,1739	0,0407		
z-statistic	1.41	0.44		
Market-to-Book	-0.1968	-0.1557		
z-statistic	-1.09	-0.86		
Volatility	-0.8390	1.1344		
z-statistic	-0.72	1.50		
Civil Origin	0.2522		0.2479	
z-statistic	0,70		0.74	
Disclosure	-1.0375		-0,9325	-0.5987
z-statistic	-2.37**		-2.15**	-2.17**
Private Credit	-1.3580		-1.1950	-1.0027
z-statistic	-4.00***		-3.94***	-3.44***
Economic Freedom	0,3862		0,4599	
z-statistic	0.98		1.17	
Catholic Origin	-1.2555		-1.0779	-1.1334
z-statistic	-3.21***		-2.95***	-3.12***
Pseudo R^2	0,09	0,01	0,08	0,07
Nº obs	620	620	620	620

Panel C - Miscellaneous				
Market Capitalization	-0.6046	-0,5802		-0.6019
z-statistic	-8.16***	-8.13***		-8.12***
Market-to-Book	0.0916	0.0938		0.0864
z-statistic	2.22**	2.38**		2.14**
Volatility	0.4240	-0.2592		
z-statistic	0,55	-0.36		
Civil Origin	0.0601		0.1988	
z-statistic	0,27		0.51	
Disclosure	0.03253		0.1967	
z-statistic	1.44		0.92	
Private Credit	0.7433		0.5575	0.6629
z-statistic	2.62***		2.99***	3.45***
Economic Freedom	-0.3877		-0.4485	-0.2077
z-statistic	-1.52		-1.64	-1.10
Catholic Origin	0.2370		0.1349	
z-statistic	1.14		0.71	
Pseudo R^2	0,09	0,09	0,01	0,11
Nº obs	620	620	620	620

Panel D - Widely Held				
Market Capitalization	0.6605	0,6616		0.6442
z-statistic	8.66***	8.71***		8.49***
Market-to-Book	-0.0929	-0.0853		
z-statistic	-1.61	-1.57		
Volatility	-0.1220	-0.4736		
z-statistic	-0.17	-0.70		
Civil Origin	0.2056		0.1645	
z-statistic	0.92		0.83	
Disclosure	-0.0840		0.0491	
z-statistic	-0.37		0.24	
Private Credit	-0.2664		-0.0461	
z-statistic	-1.36		-0.25	
Economic Freedom	0.5547		0.5820	0.4875
z-statistic	2.57**		2.89***	2.72***
Catholic Origin	0.0347		0.1219	
z-statistic	0.17		0.66	
Pseudo R^2	0,13	0,12	0,02	0,12
Nº obs	620	620	620	620