

Corporate Control around the World*

Supplementary Online Appendix

Gur Aminadav
London Business School

Elias Papaioannou
London Business School, NBER and CEPR

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Abstract

In this Appendix we discuss listed firms' corporate ownership and patterns of corporate control (widely-held corporations with or without equity blocks, controlled firms by the state, families/individuals, and other entities] for 11 countries. The *G-7* group of industrial countries (United States, United Kingdom, Germany, France, Italy, Japan, and Canada) and the *BRICs* (Brazil, Russia, India, and China). Besides providing an autopsy of corporate control for these countries over the period 2004 – 2012 we discuss differences and similarities with previous case-study works.

Keywords: Corporate Control, Ownership Concentration, Law and Finance, Family Firms, Government Ownership

JEL classification Numbers: .G30, K00, N20

*Gur Aminadav. London Business School. Regent's Park. London, NW1 4SA, United Kingdom. Email. gaminadav@london.edu. Elias Papaioannou. London Business School. Regent's Park. London, NW1 4SA, United Kingdom. Email. eliaspapaioannou@london.edu. We thank Julian Franks, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer for useful suggestions and comments. All errors are our sole responsibility.

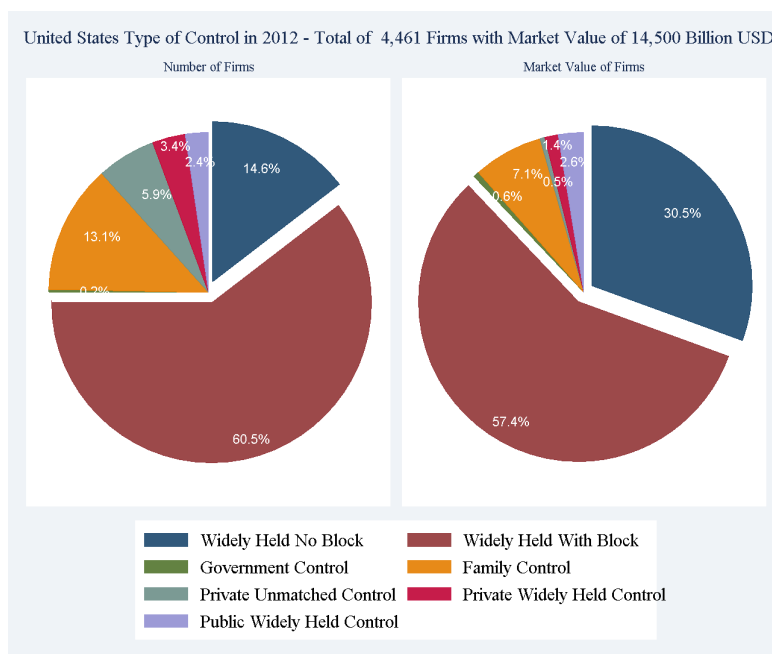
1 United States

Our sample in 2012 (2007) includes 4,461 (5,027) firms incorporated in the US with a total market value of 14,500 billion USD (16,404 billion USD). We miss many typically small firms that are traded over-the-counter. Thus we match 42% in 2007 and 41% in 2012 of all listed firms; since our sample includes most large, medium, and very large firms, in terms of market capitalization coverage is around 87%. As shown below in Appendix Figure 1a approximately 25% of the firms in our sample are classified as "controlled"; as these firms are on average small and medium-size, they represent about 12% of the total market capitalization. About 53% of controlled firms have a controlling family/individual at the top (or 13% of all firms which account for 7.1% of total market value of US firms in our sample). For example Berkshire Hathaway Inc. is ultimately controlled by Warren E. Buffett, Comcast Corporation is ultimately controlled by Brian L Roberts and GAP Inc. is controlled by the Fisher family. State control is tiny, 0.2% of the firms (or 0.6% of total market value); state controlled firms in the US in 2012 include the American International Group Inc. (rescued in the financial crisis) and General Motors Company (following its bankruptcy).

Roughly 75% of US firms (and 88% of the total market value) are classified as "widely-held" and the remaining 25% as controlled. Examples of large controlled US firms include Walmart Stores, Inc. (ultimately controlled by Sam Walton and the Walton Family), Las Vegas Sands (ultimately controlled by Sheldon Adelson and his family) and Liberty Media LLC (ultimately controlled by John C. Malone and Family); Apple Inc., Exxon Mobil Corp, Microsoft Corp, IBM, 3M and General Electric are classified as widely held, as no shareholder has enough voting power to exercise control.

Yet, about 80% of the widely held firms (and 60% of all firms) have at least one non-controlling block-holder (a shareholder holding at least 5% of the shares), a result that is similar with Holderness (2009), who however documents a somewhat higher share of firms with a block. Examples include Apple Inc (in which FMR LLC or Fidelity Investments, an American multinational financial services corporation, holds about 6.6% of the voting rights); Microsoft Corporation (in which William Gates holds 6.4% of the voting rights), and IBM (where Berkshire Hathaway Inc., an American multinational conglomerate holding company, holds 5.4% of the voting rights).

Our estimates of controlled versus widely-held firms are similar though slightly higher than La Porta *et al.* (1999), who find that 80% of US firms are widely-held. La Porta *et al.* (1999) focus on the 20 largest US corporations, while our sample represents both very large, big, medium, and even small publicly traded firms. When we focus on the 20 largest US corporations in 2012 we find that 85% are widely-held.



Appendix Figure 1a - United States

The average equity share of the three (five) largest shareholders in 2012 is 30% (34%), while the average stake of the single largest shareholder is 21%. These estimates are considerably lower than the cross-country averages (see Table 2). Our estimate of the ownership stake of the largest shareholder(s) is -close though slightly lower than- the 26% reported in Holderness (2009), who hand-collected block ownership data on 375 randomly selected, CRSP- and Compustat-listed firms from 1995. Ownership is more concentrated among smaller (in terms of market capitalization) firms; the size-weighted $C1$, $C3$ and $C5$ measures in 2012 are 13%, 22%, and 27%, respectively.

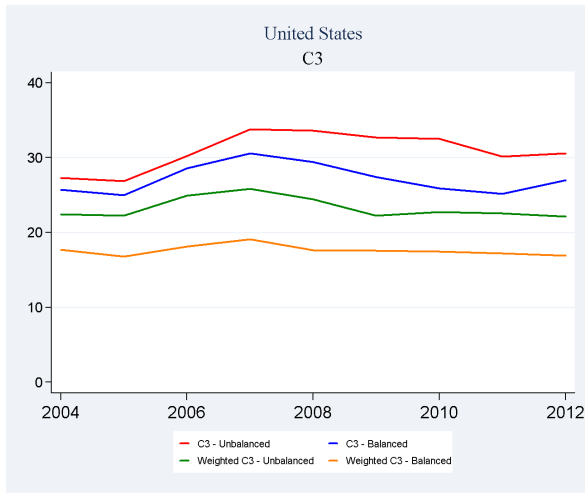
The level of protecting investors measured by the Anti Self Dealing Index is 0.65 which is in the top quartile, while the average Anti Self Dealing Index is 0.46 (and the median is 0.42). Breaking the Anti Self Dealing Index into components, the Ex Post Private Self Dealing is 0.98 which is very high compared to a country-level mean of 0.55, whereas the Ex Ante Private Self Dealing is 0.33 which is lower than the country-level mean of 0.37. The Revised Anti Director Index is 3 which is lower than the country-level mean of 3.46 (and median of 3.50). Concentrating on the parallel measures from the World Bank's Doing Business, the level of the Protecting Investors Index is 83.33 which is also in the top quartile, while the average is 55.09 (and the median is 53.33). The components of the Protecting Investors Index are also relatively high: the Ease of Shareholder Suits which equals 9 (compared to an average of 5.92), the Director Liability which is 9 (compared to an average of 4.82), and the Disclosure index which is 7 (compared to an average of 5.78). The level of enforcement is high, the days to enforce a contract (days to solve a commercial sale dispute) is 250 (300), while the average is 343.2 (513.2) and the median is 325 (510).

The measure of the protection of labor and employment laws is 0.218, which is in the lower quartile, and lower than the average of 0.48 (median of 0.47). The protection of collective relations laws index is

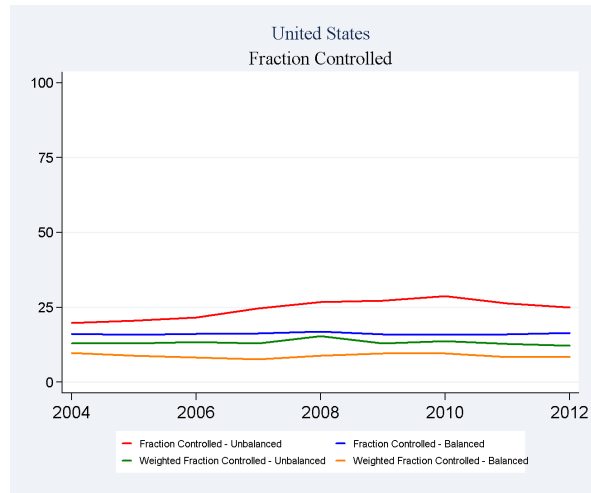
0.259 (in the lower quartile), which is lower than the mean (and median) of 0.45. Social security benefit index is 0.646 which is slightly higher than the mean of 0.62 but lower than the median of 0.70.

When looking at the regulation of entry, the World Bank’s Doing Business (based on Djankov 2002) measures 3 days to start a business and 3.2 procedures, which are shorter and less than the country-level average of 35.89 days and 8.68 procedures, respectively (and medians of 29 days and 9 procedures, respectively).

We also examined the evolution of ownership concentration and corporate control in the US during 2004–2012, so as to examine the impact of the Great Recession. Appendix Figures 1b–1c plot the evolution of the C3 index and the identifier (dummy variable) for "controlled" firms in the United States over the period 2004 – 2012. For both measures the graph plots the simple average and the market value weighted average. As ORBIS coverage fluctuates every year, the graph reports the corresponding statistics both for the unbalanced sample and for a balanced sample that includes 2,554 firms that are covered throughout the sample period. In spite of the crisis, ownership concentration and control is quite persistent.



Appendix Figure 1b - United States



Appendix Figure 1c - United States

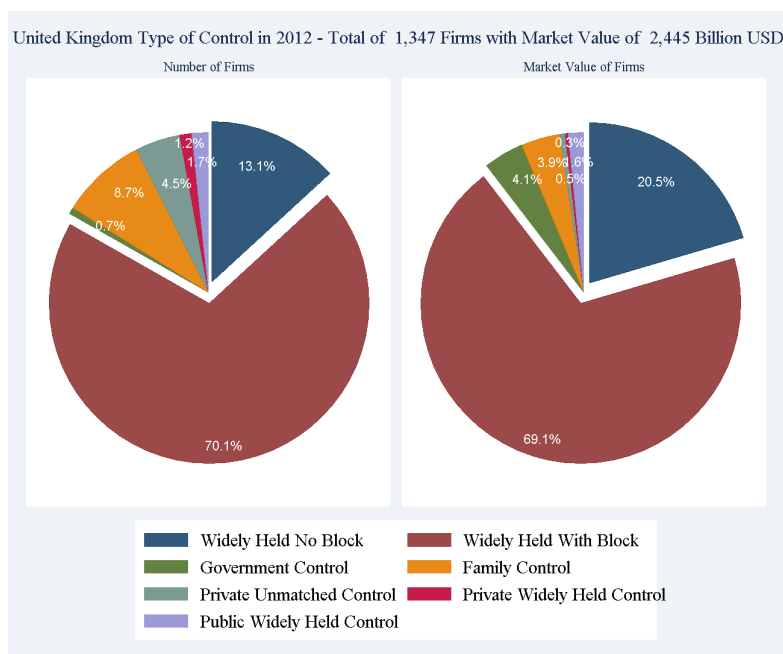
2 United Kingdom

Our sample in 2012 (2007) includes 1347 (1955) firms from the UK of total market value of 2445 billion USD (3310 billion USD). We have quite high coverage of Datastream in 2012 (76% of the matched firms in Datastream reflecting roughly 93% of UK’s stock market capitalization reported in Datastream, and about 83% of the aggregate market capitalization reported by the World Bank¹). Approximately 17% of these firms that account for 10% of market capitalization are classified as "controlled", mostly by

¹In order to compare our sample to the world bank we create a subsample of firms by including only firms that correspond to the world bank definition, i.e. listed domestic companies, while excluding investment funds, unit trusts, and mutual funds – excluding every firm with SIC 2 digits code of 62 and 67. If the trading country is missing from datastream, or if the SIC code is missing, then we drop the firm from the subsample.

families/individuals. For example Associated British Foods is controlled by the Weston Family via a complex ownership/control structure. Fresnillo's plc (one of the largest precious metal firms in the world) largest shareholder is Mexico-city based Peñoles, which is a subsidiary company of Grupo Bal, which in turn is owned and controlled by the family of Alberto Bailleres Gonzalez. Mulberry Group plc is controlled by Melissa Ong and her parents Ong Beng Seng and Christina Ong through Challices Ltd.

The vast majority of UK firms, 83%, are widely held (e.g. HSBC Holdings, Glaxosmithkline) with the remaining classified as "controlled". Most of widely-held firms (84% of the total number of widely held firms and 70% of all firms in our sample) have a non-controlling block-holder. Examples include: AstraZeneca plc, a multinational pharmaceutical and biologics company (in which BlackRock, Inc., the American global investment management corporation, holds 7.8% of the votes), Anglo American plc, a multinational mining company (in which Public Investment Corporation, which manages funds on behalf of public sector workers in South Africa, holds about 5.9% of the voting rights), and Barclays plc, a multinational banking and financial services company (in which Qatar Holding LLC a subsidiary of Qatar Investment Authority - Qatar's sovereign wealth fund, is holding 6.7% of the votes). Similar estimates are reported in Franks *et al.* (2012) who find that 85.3% of 272 closely-examined publicly listed UK firms are widely held in 1996. Franks *et al.* (2012) also report that 7.7% of the 272 listed firms in their sample are family controlled, whereas we find that roughly 8.7% are family controlled. Our estimates are also similar to the numbers in La Porta *et al.* (1999), who focusing in 1995 find that all 20 Largest UK listed firms were widely held; our estimates in 2012 suggest that 18 of the 20 largest British corporations (90%) are widely held in 2012. State control is small, 0.7%, again similar to the estimate of 0.4% in Franks *et al.* (2012). Examples of government controlled firms include Lloyds Banking Group and the Royal Bank of Scotland Group plc that were both rescued during the recent financial crisis.



Appendix Figure 2a - United Kingdom

Ownership in the UK is relatively dispersed; the single largest shareholder owns 19%, while the $C3$ and $C5$ measures are 32% and 37%, respectively, much lower than the world means (31.5%, 41.7% and 44.6%). Ownership is more concentrated among smaller firms; hence, the size-weighted $C1$, $C3$ and $C5$ measures are lower (17%, 28%, and 34%, respectively). Our estimates on ownership concentration are quite similar (though slightly higher) to the statistics in Franks, Mayer, and Renneboog (2001), who however focus on 1988 – 1993 ($C1$ and $C5$ measures of 13.7% – 16.5% and 29.7% – 36.7% respectively).

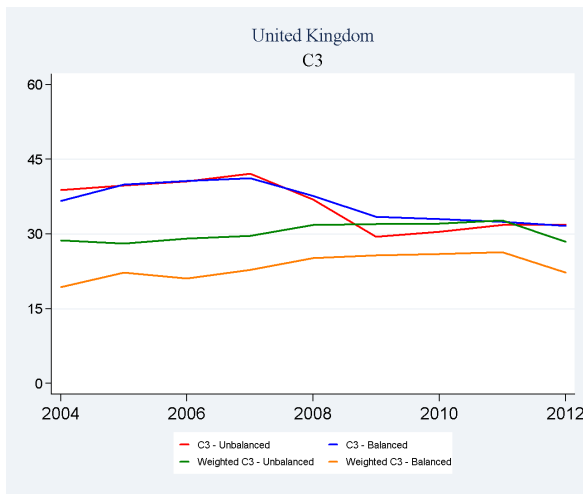
The level of protecting investors measured by the Anti Self Dealing Index is 0.95 which is in the top 5th percentile, while the average Anti Self Dealing Index is 0.46 (and the median is 0.42). Breaking the Anti Self Dealing Index into components, the Ex Post Private Self Dealing is 0.90 which is very high compared to a country-level mean of 0.55, whereas the Ex Ante Private Self Dealing is 1.0 which is the maximum and much higher than the country-level mean of 0.37. The Revised Anti Director Index is 5 which is the maximum level and higher than the country-level mean of 3.46 (and median of 3.50). Concentrating on the parallel measures from the World Bank’s Doing Business, the level of the Protecting Investors Index is 80 which is also in the upper quartile, while the average is 55.09 (and the median is 53.33). The components of the Protecting Investors Index are also relatively high: the Ease of Shareholder Suits which equals 7 (compared to an average of 5.92), the Director Liability which is 7 (compared to an average of 4.82), and the Disclosure index which is 10 which is the highest possible (compared to an average of 5.78). The level of enforcement is high, the days to enforce a contract (days to solve a commercial sale dispute) is 288 (404), while the average is 343.2 (513.2) and the median is 325 (510).

The measure of the protection of labor and employment laws is 0.282, which is in the lower quartile, and lower than the average of 0.48 (median of 0.47). The protection of collective relations laws index is

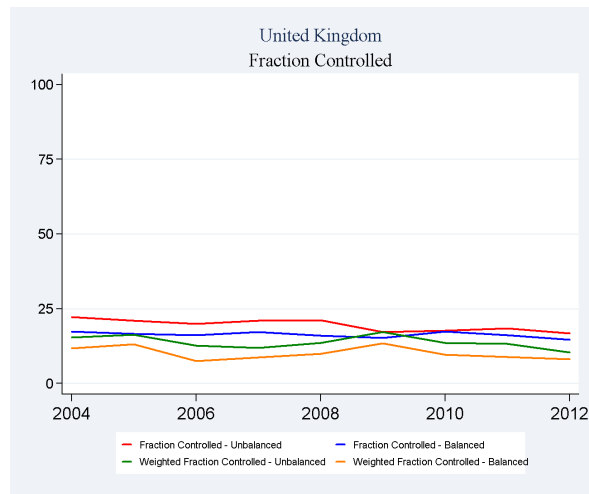
0.188 (in the lowest percentile), which is much lower than the mean (and median) of 0.45. Social security benefit index is 0.692 which is slightly higher than the mean of 0.62 and similar to the median of 0.70.

When looking at the regulation of entry, the World Bank’s Doing Business (based on Djankov 2002) measures 12 days to start a business and 6 procedures, which are shorter and less than the country-level average of 35.89 days and 8.68 procedures, respectively (and medians of 29 days and 9 procedures, respectively).

Appendix Figures 2b – 2c plot the evolution of the C3 index and the identifier (dummy variable) for controlled firms for British firms over the period 2004 – 2012. As the sample of firms changes every year, we report the corresponding statistics both for the unbalanced sample and for a balanced sample of 665 firms. Though the world financial crisis hit hard the British economy, ownership concentration and control appear persistent. However, we do see a slight decrease in the overall concentration and a slight increase in the weighted measure (mainly during 2004 – 2011 which is followed by a slight drop in 2012). This suggests that there is some convergence, with ownership in large firms becoming somewhat more concentrated and in smaller firms more dispersed. At the same time, the proportion of controlled firms appears quite persistent.



Appendix Figure 2b - United Kingdom



Appendix Figure 2c - United Kingdom

3 Germany

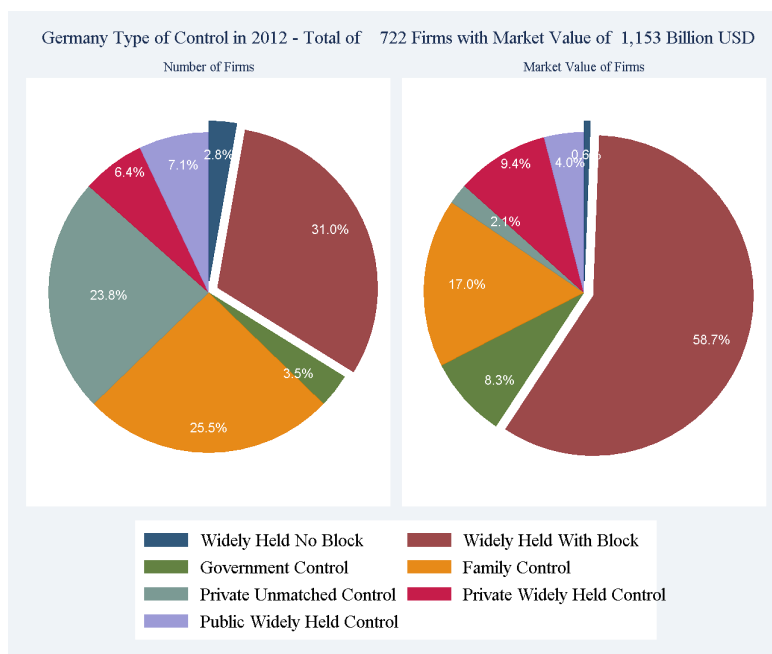
Our sample in 2012 (2007) includes 722 (988) German firms (we match 667 (887) of them to a total of 1148 (1283) firms in 2012 (2007) in DataStream); the total market value of our sample is 1153 billion USD (1912 billion USD in 2007). We match 58% of all German firms in Datastream which represent 85% of the total market value there in 2012. In 2007 we match 70% out of the Germany-incorporated firms in Datastream reflecting 85% of total market capitalization there.

Approximately two-thirds (66%) of these firms are controlled (or 40% of the total market value) and the remaining 35% are classified as “widely held” [Appendix Figure 3a]. About 90% of the widely held firms (or 31% of all firms) have at least one non-controlling blockholder (a shareholder holding at least 5% of the shares). Examples of large widely-held German corporations without a major controlling shareholder include Siemens, Bayer, e.on, Allianz, and Daimler AG², while examples of controlled firms are Metro AG (ultimately controlled by Haniel family) and Continental AG (ultimately controlled by Schaeffler family). Many of the controlled German firms are linked to families and wealthy individuals. Our algorithm implies that 184 firms (or 25.5% out of the total of 722 firms in 2012) are controlled by families/individuals. Examples include Volkswagen (ultimately controlled by the Porsche-Piëch family) and Merck KGAA (ultimately controlled by the Merck family)³. State-control is not trivial, around 3.5% (or 8.3% of market value). Governments holds sizable equity stakes and controls some large firms like Deutsche Telecom and Deutsche Post. When looking at the 20 largest firms (by stock market capitalization of equity at 2012) in our sample, we have 2 firms that are ultimately controlled by the German government. In the sample of La Porta *et al.* (1999) and using a 20% cutoff there are 4 government controlled firms⁴ Our results on state control are also smaller than Franks *et al* (2012), who estimate that 12.7% are controlled by the state. Yet their sample is way smaller than ours as they use information on just 134 firms from Bureau Van Dijk’s Amadeus database in 2006.

²Compared to La Porta et al. (1999), where Deutsche Bank held 24.4% of the voting rights in 1995 – 6 in Daimler AG and was assigned as the controlling shareholder by La Porta et al. (1999), in our data in 2012 the largest direct shareholder in Deutsche Bank is the Kuwait Investment Authority that holds 5.7% of the voting rights; our algorithm that takes into account the voting rights of other shareholders suggests that this equity block is insufficient for the Kuwait Investment Authority to exercise control. Therefore Daimler AG is classified as a “widely held” corporation with a block shareholder.

³When we add the 187 firms in the “unmatched” ultimate owner category – in which almost all are ultimately controlled by a family we get that 46% of the firms are controlled by families. This is higher than La Porta, Lopez-de-Silanes, and Shleifer (1999) who focusing on the 19 largest German corporations in the 1990s find that 34% of the firms are controlled by families. Our estimate is also quite similar to Franks, Mayer, Volpin, and Wagner (2012), who focus on the largest 1000 German firms document that 38.6% are controlled by families

⁴1. Volkswagen – it is controlled today by a the Porsche-Piëch family; 2. RWE AG is widely held in our sample and not even part of the 20 largest in 2012; 3. VIAG AG (merged with VEBA in 2000 to form E.ON, which we also identified as government controlled); and 4. VEW AG merge with RWE in 2000



Appendix Figure 3a - Germany

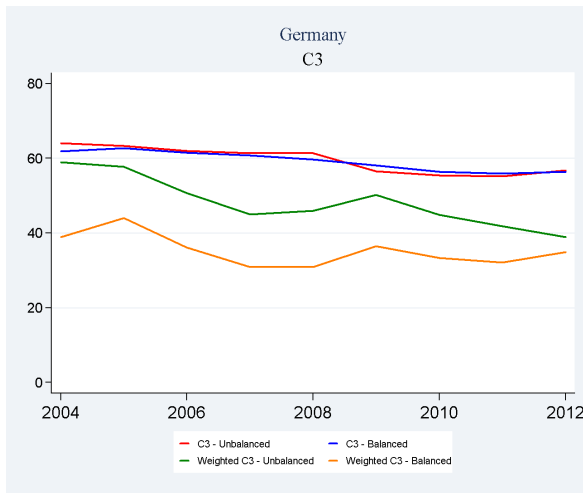
Ownership concentration in Germany, as reflected in the $C1$, $C3$, and $C5$ measures, is close (slightly higher) to the world average (45%, 57% and 59%, respectively). Yet, as with corporate control, ownership is more dispersed for large firms. This is revealed by a simple comparison of the simple and value-weighted concentration measures, which is sizable; the corresponding value-weighted $C1$, $C3$, and $C5$ measures are 27%, 39%, and 43%. The low concentration of large German corporations is further revealed by a simple comparison of the value-based concentration measures with the corresponding world sample weighted-averages, which are considerably larger.

The level of protecting investors measured by the Anti Self Dealing Index is 0.28 which is the bottom quartile, while the average Anti Self Dealing Index is 0.46 (and the median is 0.42). Breaking the Anti Self Dealing Index into components, the Ex Post Private Self Dealing is 0.43 which is lower compared to a country-level mean of 0.55, whereas the Ex Ante Private Self Dealing is 0.14 which is also lower than the country-level mean of 0.37. The Revised Anti Director Index is 3.50 which is similar to the country-level mean of 3.46 (and median of 3.50). Concentrating on the parallel measures from the World Bank's Doing Business, the level of the Protecting Investors Index is 50.00 which is in the second quartile, while the average is 55.09 (and the median is 53.33). The components of the Protecting Investors Index relatively average and below average: the Ease of Shareholder Suits which equals 5 (compared to an average of 5.92), the Director Liability which is 5 (compared to an average of 4.82), and the Disclosure index which is 5 (compared to an average of 5.78). The level of enforcement is high, the days to enforce a contract (days to solve a commercial sale dispute) is 184 (394), while the average is 343.2 (513.2) and the median is 325 (510).

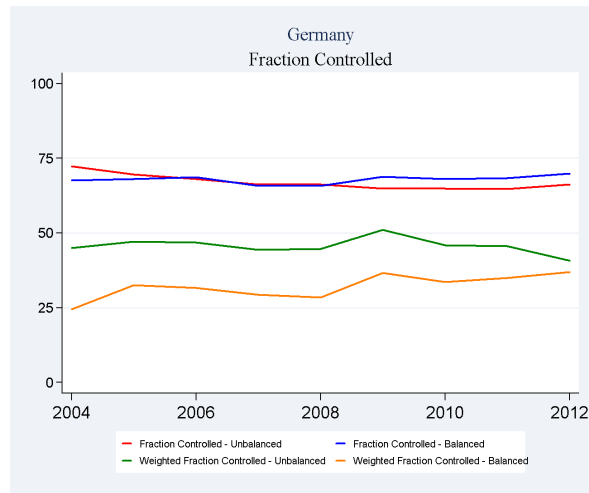
The measure of the protection of labor and employment laws is 0.701, which is in the top quartile, and much higher than the average of 0.48 (median of 0.47). The protection of collective relations laws index is 0.607 (in the top quartile), which is also higher than the mean (and median) of 0.45. Social security benefit index is 0.67 which is slightly higher than the mean of 0.62 but lower than the median of 0.70.

When looking at the regulation of entry, the World Bank’s Doing Business (based on Djankov 2002) measures 22 days to start a business and 9 procedures, which are shorter and less than the country-level average of 35.89 days and 8.68 procedures, respectively (and medians of 29 days and 9 procedures, respectively).

Appendix Figures 3b – 3c graph the evolution of the *C3* index and the controlled firms indicator for Germany-incorporated corporations over the period 2004 – 2012. For both measures the Figures report a simple average and a market value weighted average. As the sample of firms changes every year, the Figures graph the corresponding statistics for both the unbalanced sample and for a balanced sample that includes 395 firms that we have coverage throughout 2004 – 2012. Ownership structure appears quite persistent on average. When looking at the weighted measures we see that the market value weighted concentration (*C3*) and controlled measures are both decreasing before the financial crisis and then increasing again after 2007 – 8.



Appendix Figure 3b - Germany

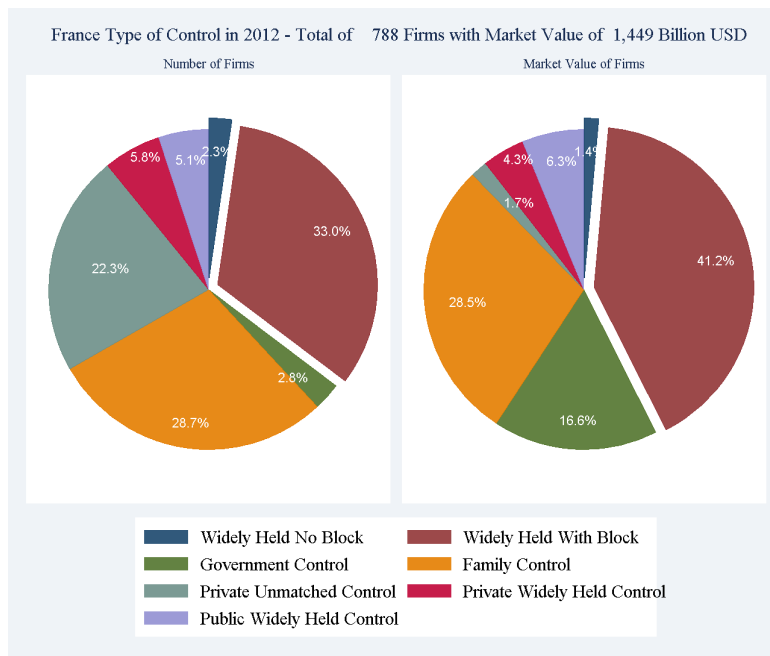


Appendix Figure 3c - Germany

4 France

Our sample in 2012 (2007) includes 788 (1031) French with a total market capitalization of 1449 billion USD (2780 billion). Coverage in terms of the number of listed firms (as reported in Datastream) is around 86% – 88%, while in terms of market capitalization coverage is 90%. Approximately two-thirds (65%) of the listed French listed firms in our sample are “controlled” and the remaining 35% are classified as “widely held” [Appendix Figure 4a]. Yet, in almost all "widely held" we detect a blockholder. Examples

of large widely-held French corporations without a major controlling shareholder include BNP Paribas, AXA, and Veolia Environment, while examples of controlled firms include L'oreal (ultimately controlled by Bettencourt Family) and Sodexo (ultimately controlled by Pierre Bellon and his Family). Many of the controlled French firms are linked to families and wealthy individuals. For example PPR S.A. is ultimately controlled by the Pinault Family and Remy Countreau S.A. is ultimately controlled by the family of Heriard Dubreuil through Orpar SA – their holding company. Our algorithm implies that 226 (out of the total of 788 firms in 2012) are controlled by families/individuals; this is about 29% of the total number of French firms accounting for almost 30% of the total market value. If we add the “unmatched” category which almost entirely includes small in terms of market capitalization family controlled firms, then family and unmatched comprises 50% of the total number of French firms.⁵ State-control is not trivial in France; while the government controls just 2.8% of listed firms in terms of market capitalization it controls 16.6% of the total market capitalization in our sample. This is because the French state holds sizable equity stakes and controls some large firms, like GDF Suez, Electricite De France SA – EDF, and France Telecom SA.⁶



Appendix Figure 4a - France

Ownership concentration is somewhat higher than the world average; the $C1$, $C3$, and $C5$ measures are 46%, 60% and 63%, respectively. Ownership is more disperse for large firms. This is shown by a simple

⁵Our estimate is much higher than La Porta, Lopez-de-Silanes, and Shleifer (1999) who focusing on the 20 largest French corporations in the 1990s find that only 20% of the firms are controlled by families. When we restrict our sample only on the 20 largest French firms in 2012 we find that 25% of them are controlled by families. So the key difference with La Porta *et al.* (1999) is driven by firm size and sample. Our estimate on the share of family-controlled firms is quite similar to Franks, Mayer, Volpin, and Wagner (2012), who focusing on the largest 1,000 French firms document that 48.5% are controlled by families

⁶When looking at the 20 largest firms (by stock market capitalization in 2012) in our sample, we identify 4 firms that are ultimately controlled by the French government. This is comparable to La Porta *et al.* (1999) who identify 3 state-controlled firms among the 20 largest French corporations in the mid-1990s.

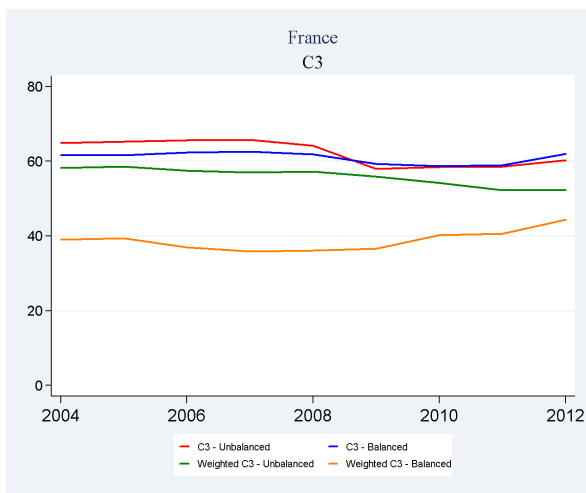
comparison of the simple and value-weighted concentration measures (the corresponding value-weighted $C1$, $C3$, and $C5$ measures are 39%, 52%, and 57%).

The level of protecting investors measured by the Anti Self Dealing Index is 0.38 which is in the second quartile, while the average Anti Self Dealing Index is 0.46 (and the median is 0.42). Breaking the Anti Self Dealing Index into components, the Ex Post Private Self Dealing is 0.68 which is higher than the country-level mean of 0.55, whereas the Ex Ante Private Self Dealing is 0.08 which is the minimum in our sample and much lower than the country-level mean of 0.37. The Revised Anti Director Index is 3.5 which is similar to the country-level mean of 3.46 (and median of 3.50). Concentrating on the parallel measures from the World Bank's Doing Business, the level of the Protecting Investors Index is 56.67 which is close to the average is 55.09 (and the median is 53.33). The components of the Protecting Investors Index are: the Ease of Shareholder Suits which equals 5 which is lower than the average of 5.92, the Director Liability is 3 which is lower than the average of 4.82, and the Disclosure index is 9 that is relatively high when compared to an average of 5.78. The level of enforcement is high, the days to enforce a contract (days to solve a commercial sale dispute) is 75 (390), while the average is 343.2 (513.2) and the median is 325 (510).

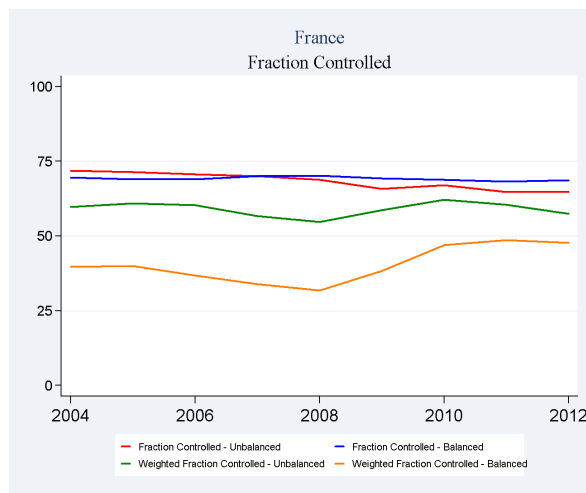
The measure of the protection of labor and employment laws is 0.744, which is in the top 5th percentile, and higher than the average of 0.48 (median of 0.47). The protection of collective relations laws index is 0.667 (in the top 5th percentile), which is higher than the mean (and median) of 0.45. Social security benefit index is 0.784 which is higher than the mean of 0.62 and the median of 0.70.

When looking at the regulation of entry, the World Bank's Doing Business (based on Djankov 2002) measures 7 days to start a business and 5 procedures, which are shorter and less than the country-level average of 35.89 days and 8.68 procedures, respectively (and medians of 29 days and 9 procedures, respectively).

In Appendix Figures 4b – 4c we graph the evolution of the $C3$ index and the identifier variable for controlled firms in France over the period 2004 – 2012. For both measures we present a simple average and a market value weighted average. As the sample of firms changes every year, we report the corresponding statistics for both the unbalanced sample and for a balanced sample that includes 494 firms. Ownership and control seem very persistent. In 2008 there is a drop in the weighted measure of controlled firms (market cap of controlled firms) but the measure bounces back to its level before the crises at 2010.



Appendix Figure 4b - France

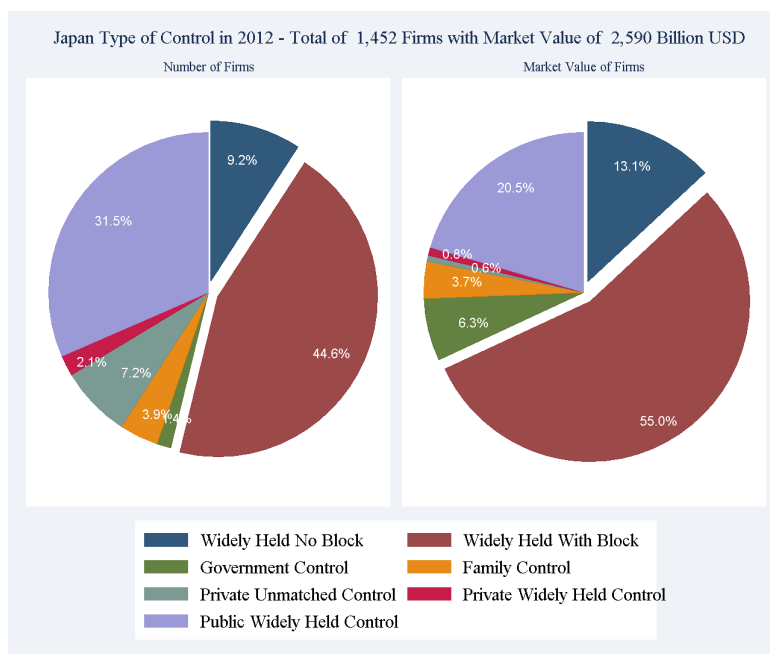


Appendix Figure 4c - France

5 Japan

Our sample in 2012 (2007) includes 1,452 (1,384) firms incorporated in Japan with a total market value of 2,590 billion USD (3,712 billion USD). We miss many small firms and thus coverage in terms of number of firms is 32% in 2007 and 38% in 2012; yet in terms of market capitalization coverage is around 70%-74%. Approximately 46% of the firms in our sample are classified as “controlled”; these firms reflect approximately 32% of the total market capitalization [Appendix Figure 5a]. The remaining 54% are classified as widely-held. About 83% of the widely held firms (or 45% of all firms) have at least one non-controlling blockholder (a shareholder holding at least 5% of the shares). Examples of large controlled Japanese firms include Nissan Motor Co Ltd. (ultimately controlled by Renault) and Canon Electronics Inc. (ultimately controlled by Canon Inc.). Sumitomo Mitsui Financial Group Inc., Canon Inc., Toshiba Corporation, and Toyota Motor Corporation are widely held, as no shareholder has enough voting power to exercise control.

8.5% of controlled firms (and 4% of total firms) have a controlling family/individual; if we add the “unmatched” category where the vast majority of the firms are actually small family controlled the share of family-controlled firms jumps to 11%. Examples of Japanese family controlled firms include Softbank Crop, ultimately controlled by Masayoshi Son, Chugai Pharmaceutical Co. Ltd., controlled by the F. Hoffmann-La Roche AG, which is ultimately controlled by Hoffmann and Oeri-Hoffmann families, and Hikari Tsushin Inc., controlled by Yasumitsu Shigeta and Family. State ownership in Japan is quite small in terms of number of firms, 1.4%; as the Japanese government controls some large firms, like Nippon Telegraph and Telephone and Tokyo Electric Power, its control in terms of market capitalization is around 6.3%.



Appendix Figure 5a - Japan

The equity share of the three (five) largest shareholders in 2012 is 32% (34%), while the stake of the single largest shareholder is 28%. Ownership is more concentrated among smaller; the size-weighted $C1$, $C3$ and $C5$ measures in 2012 are 21%, 27%, and 30%, respectively. Our estimates of controlled versus widely-held firms seems to differ considerably from La Porta *et al.* (1999), who find that 90% of Japanese firms are widely held. Yet, La Porta *et al.* (1999) focus on the 20 largest Japanese corporations, while our sample represents both very large, big, medium, and small publicly traded Japanese firms. Actually when we focus on the 20 largest Japanese corporations in 2012 our estimate of widely-held firms jumps to 60%. Our estimates are much closer to Franks, Mayer, and Miyajima (2009), who provide a thorough analysis of the ownership of the largest Japanese corporations throughout the past century.

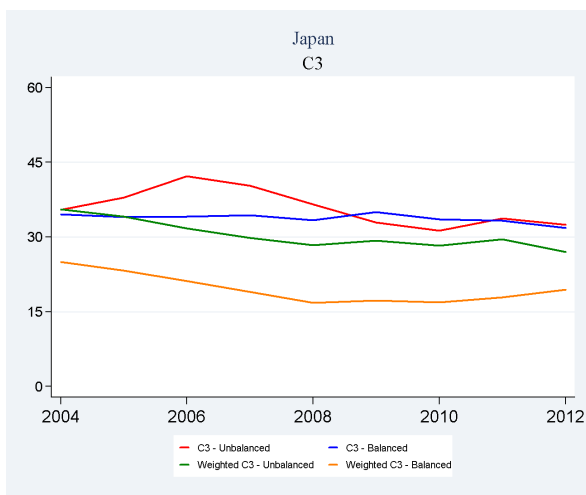
The level of protecting investors measured by the Anti Self Dealing Index is 0.50 which is in the third quartile, while the average Anti Self Dealing Index is 0.46 (and the median is 0.42). Breaking the Anti Self Dealing Index into components, the Ex Post Private Self Dealing is 0.78 which is high compared to a country-level mean of 0.55, whereas the Ex Ante Private Self Dealing is 0.28 which is lower than the country-level mean of 0.37. The Revised Anti Director Index is 4.5 which is higher than the country-level mean of 3.46 (and median of 3.50). Concentrating on the parallel measures from the World Bank's Doing Business, the level of the Protecting Investors Index is 70 which is also in the top quartile, while the average is 55.09 (and the median is 53.33). The components of the Protecting Investors Index are also relatively high: the Ease of Shareholder Suits which equals 8 (compared to an average of 5.92), the Director Liability which is 6 (compared to an average of 4.82), and the Disclosure index which is 7 (compared to an average of 5.78). The level of enforcement is high, the days to enforce a contract (days to solve a commercial sale

dispute) is 60 (360), while the average is 343.2 (513.2) and the median is 325 (510).

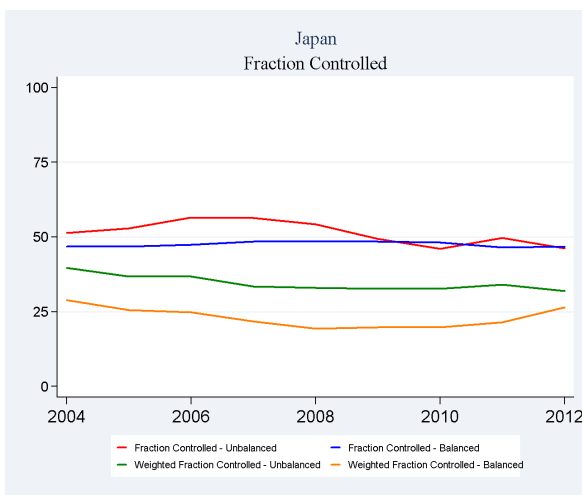
The measure of the protection of labor and employment laws is 0.164, which is in the bottom 5th percentile, and lower than the average of 0.48 (median of 0.47). The protection of collective relations laws index is 0.628 (in the top quartile), which is higher than the mean (and median) of 0.45. Social security benefit index is 0.642 which is roughly similar to the mean of 0.62 but lower than the median of 0.70.

When looking at the regulation of entry, the World Bank’s Doing Business (based on Djankov 2002) measures 20 days to start a business and 7.2 procedures, which are shorter and less than the country-level average of 35.89 days and 8.68 procedures, respectively (and medians of 29 days and 9 procedures, respectively).

Appendix Figures 5b – 5c plot the evolution of the C3 index and the identifier for controlled firms for Japan over the period 2004 – 2012. For both measures we graph the simple and the market value weighted average for both the unbalanced sample and for a balanced sample that includes 378 firms. Ownership structure appears quite persistent, in line with the detailed evidence in Franks *et al.* (2009) who also show a high degree of inertia after the 1960s. The plot shows that before 2008 there is a drop in the market cap weighted measure of C3 but this measure increases again after 2008. In addition, the proportion of controlled firms appears very persistent.



Appendix Figure 5b - Japan



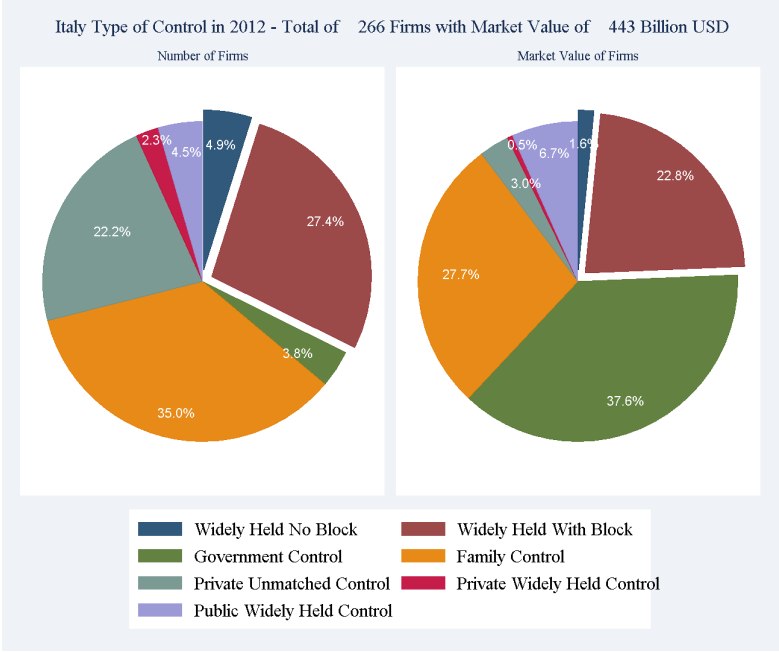
Appendix Figure 5c - Japan

6 Italy

Our sample in 2012 (2007) includes 266 (310) Italian firms. The total stock market capitalization in the end of 2012 was 443 billion USD representing 91% of total market cap of all Italian firms in DataStream. Appendix Figure 6a shows that approximately two-thirds (68%) of the Italian listed firms in our sample are “controlled” (or 76% of total market capitalization) and the remaining third are classified as “widely held”. About 85% of the widely held firms (and 27% of all firms) have at least one non-controlling blockholder

(a shareholder holding at least 5% of the shares). Examples of large widely-held Italian corporations without a major controlling shareholder include Intesa Sanpaolo, Unicredit SPA, and Mediobanca SPA, while examples of controlled firms are ENI SPA (ultimately controlled by the Italian Government) and Luxottica Group SPA (ultimately controlled by Leonardo Del Vecchio and Family).

The vast majority of the controlled Italian firms are linked to families and wealthy individuals. Our algorithm implies that 93 firms are controlled by families/individuals (representing 35% of total number of firms). If we add to this the firms in the category of “unmatched” ultimate owner, which contains almost exclusively small family controlled firms, we will have that 57% of Italian firms are controlled by families/individuals. Further examples of family controlled firms include Atlantia S.P.A. (ultimately controlled by the Benetton family) and TOD’S (ultimately controlled by the Della Valle family).⁷ In our sample the 3.8% of the firms are controlled by the government, but this represent 38% of total market value, as the Italian state controls large firms, like ENI SPA, Saipem SPA, and Enel SPA.⁸



Appendix Figure 6a - Italy

⁷Our estimate of widely held firms is higher than that of La Porta, Lopez-de-Silanes, and Shleifer (1999) who focusing on the 20 largest Italian corporations in the 1990s find that only 20% of the firms in their sample are widely held. Our estimate is also higher than that of Faccio and Lang (2002) who find that only 13% of the 208 Italian firms in their 1997 sample are widely held. At the same time, our estimate of family controlled firms is much higher that of LLS who find that only 15% of the firms in their sample are controlled by families. When we restrict our sample only on the 20 largest Italian firms in 2012 we find that only 20% of them are widely held, and estimate which is closer to LLS. However, in our sample out of the 20 largest Italian firms, 40% are controlled by families. Our estimate of family controlled firms is in line with that of Faccio and Lang who report 59.6% of identified family control in their sample. It is also similar (albeit somewhat smaller) to Franks, Mayer, Volpin, and Wagner (2012), who focus on the largest 1000 Italian firms and document that 66% are controlled by families.

⁸Franks et al (2012), report 18.8% state control in 1996, while Faccio and Lang (2002) report that 10.3% of the Italian firms in their 1997 sample are controlled by the state. When looking at the 20 largest firms (by stock market capitalization of equity at 2012) in our sample, we have 5 firms (25%) that are ultimately controlled by the Italian government. This is lower of what LLS (1999) report (40%) for 1995

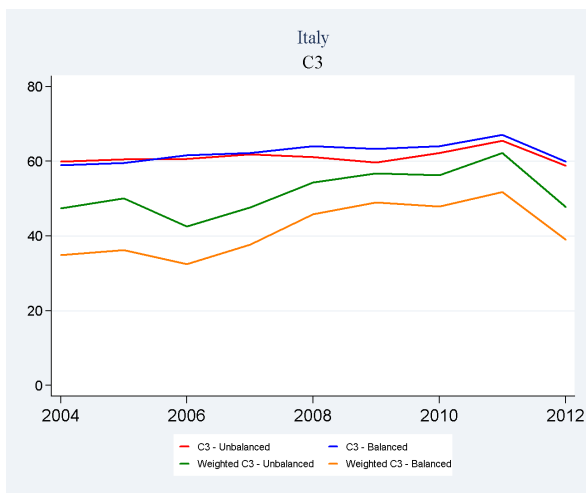
Ownership concentration, as reflected in the $C1$, $C3$, and $C5$ measures, is similar to slightly higher than the world average (44%, 59% and 63%, respectively). These estimates are very similar to the ones reported by Aganin and Volpin (2005) in their thorough analysis of ownership structure in Italy after World War II. [They report average (median) $C1$ in 2011 of 48% (52%)]. Yet, as with control, ownership is more disperse for large firms. This is shown by a simple comparison of the simple and value-weighted concentration measures (the corresponding value-weighted $C1$, $C3$, and $C5$ measures are 38%, 48%, and 52%).

The level of protecting investors measured by the Anti Self Dealing Index is 0.42, while the average Anti Self Dealing Index is 0.46 (and the median is 0.42). Breaking the Anti Self Dealing Index into components, the Ex Post Private Self Dealing is 0.68 which is higher than the country-level mean of 0.55, whereas the Ex Ante Private Self Dealing is 0.17 which is the in the second quartile and is lower than the country-level mean of 0.37. The Revised Anti Director Index is 2 which is low relative to the country-level mean of 3.46 (and median of 3.50). Concentrating on the parallel measures from the World Bank's Doing Business, the level of the Protecting Investors Index is 60 which is higher than the average is 55.09 (and the median is 53.33). The components of the Protecting Investors Index are: the Ease of Shareholder Suits which equals 7 which is higher than the average of 5.92, the Director Liability is 4 which is lower than the average of 4.82, and the Disclosure index is 7 that is relatively high when compared to an average of 5.78. The level of enforcement is relatively very low, the days to enforce a contract is 1390 which is the longest time in our sample, while the average is 343.2 and the median is 325.

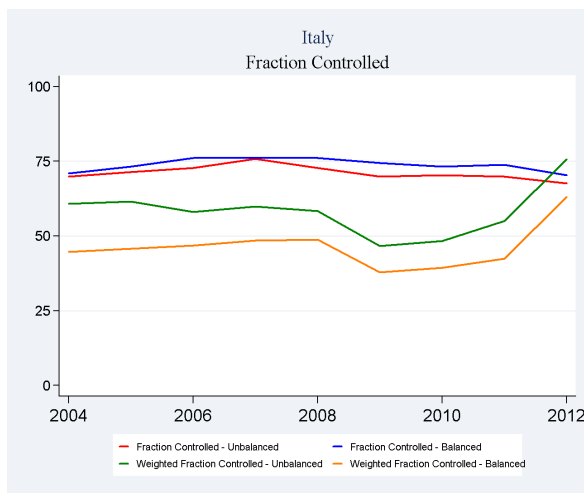
The measure of the protection of labor and employment laws is 0.65, which is in the top quartile, and higher than the average of 0.48 (median of 0.47). The protection of collective relations laws index is 0.631 (in the top quartile), which is higher than the mean (and median) of 0.45. Social security benefit index is 0.757 which is higher than the mean of 0.62 and the median of 0.70.

When looking at the regulation of entry, the World Bank's Doing Business (based on Djankov 2002) measures 13 days to start a business which is longer than the country-level average of 35.89 days (median of 29 days), but starting a business takes about 9 procedures which is more than the average of 8.68 procedures (and a median of 9 procedures).

In Appendix Figures 6b – 6c we graph the evolution of the $C3$ index and the identifier for controlled firms in Italy over the period 2004 – 2012 for an unbalanced samples of firms and a balanced sample of 172 firms that we have coverage throughout 2004 – 2012. The fraction of controlled firms seems to remain constant, but the weighted fraction (the controlled market cap) drops between 2008 – 2009 but then exhibits a dramatic increase from 2009 onwards, from about 50% to about 78%. The average ownership concentration measure ($C3$) also seems quite stable and persistent, but the weighted measure increases from 2006 – 2011 and then drops at 2012.



Appendix Figure 6b - Italy



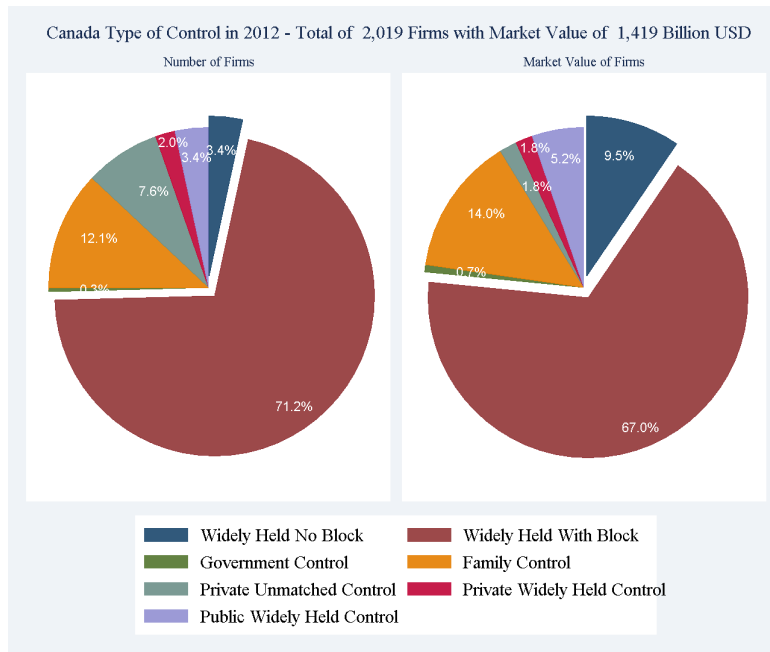
Appendix Figure 6c - Italy

7 Canada

Our sample in 2012 (2007) consists of 2,019 (900) firms incorporated in Canada with a total market value of 1,419 billion USD (1,401 billion USD). While we miss many small firms that are traded over-the-counter and thus coverage in terms of number of firms that we match is 20.3% in 2007 and 50.4% in 2012, in terms of market capitalization, we cover 64% in 2007 and 75% in 2012. Approximately a quarter (25%) of the firms in our sample are classified as “controlled” (24% of total market capitalization), with the remaining 75% being widely-held [Appendix Figure 7a]. About 95% of the widely held firms (and 71% of all firms) have at least one non-controlling blockholder (a shareholder holding at least 5% of the shares). Examples of large “controlled” Canadian firms include Turquoise Hill Resources Ltd. (controlled by Rio Tinto Group), Quebecor Inc. (ultimately controlled by Erik and Pierre Karl Peladeau) and Canada Bread Company Ltd. (ultimately controlled by Wallace, Allison, Michael McCain and Family). Examples of widely-held corporations include the Bank of Nova Scotia – Scotiabank, Potash Corporation of Saskatchewan, and Bank of Montreal.

About 48% of controlled firms have a controlling family/individual at the top (and about 12% of all firms). When we add the “unmatched” ultimate owner category, which includes almost exclusively small firms, we get that about 20% of all firms are controlled by families. This estimate is similar, though somewhat smaller than the estimates of Morck, Percy Tian, and Yeung (2005) from the late 1990s. Examples of family controlled firms are: Great-West Lifeco Inc. and Power Financial Corp. that are both ultimately controlled by Paul Desmarais and Family, Shaw Communications Inc. ultimately controlled by Shaw J.R. and Celestica Inc. controlled by Gerald W. Schwartz. State control is tiny, 0.3% and mostly

reflects control by foreign governments.⁹ Examples include Uranium Once Inc. (controlled by the Russian Government) and Petrokazakhstan Inc. controlled by the Chinese government.



Appendix Figure 7a - Canada

The average equity share of the three (five) largest shareholders in 2012 is 31.6% (32.2%), while the average stake of the single largest shareholder is 25.5%. Ownership is equally concentrated among smaller (in terms of market capitalization) firms as it is in larger firms (even marginally more concentrated in larger firms); the size-weighted $C1$, $C3$ and $C5$ measures in 2012 are 23%, 32%, and 33%, respectively. Our estimates of controlled versus widely-held firms seem slightly higher than La Porta *et al.* (1999), who find that only 60% of Canadian firms are widely-held. Yet La Porta *et al.* (1999) focus on the 20 largest Canadian corporations, while our sample represents both very large, big, medium, and even small publicly traded Canadian firms¹⁰.

The level of protecting investors measured by the Anti Self Dealing Index is 0.64 which is in the top quartile, while the average Anti Self Dealing Index is 0.46 (and the median is 0.42). Breaking the Anti Self Dealing Index into components, the Ex Post Private Self Dealing is 0.95 which is very high compared to a country-level mean of 0.55, whereas the Ex Ante Private Self Dealing is 0.33 which is lower than the country-level mean of 0.37. The Revised Anti Director Index is 4 which is higher than the country-level mean of 3.46 (and median of 3.50). Concentrating on the parallel measures from the World Bank's Doing

⁹ As discussed in Morck *et al.* (2005) state ownership and control, which was non-negligible, fell after the privatizations that start in the late 1980s.

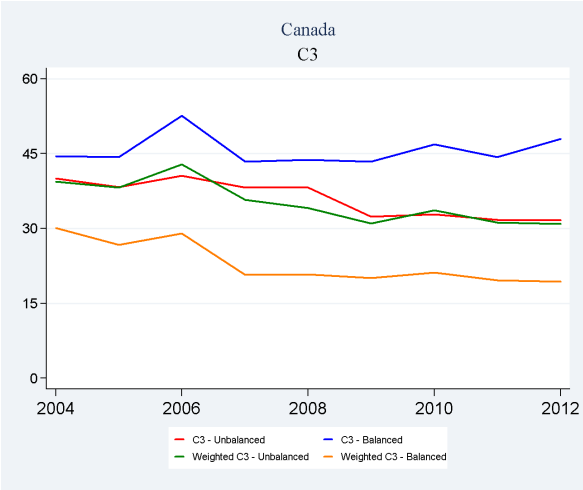
¹⁰ When we focus on the 20 largest Canadian corporations in 2012 we also classify 75% of them as widely-held, which is actually higher than the estimates of La Porta *et al.* (1999). The estimates of family control in the sample of the twenty largest Canadian firms in 2012 is 20% similar to the 25% estimate of La Porta *et al.* (1999).

Business, the level of the Protecting Investors Index is 83.33 which is also in the upper quartile, while the average is 55.09 (and the median is 53.33). The components of the Protecting Investors Index are also relatively high: the Ease of Shareholder Suits which equals 8 (compared to an average of 5.92), the Director Liability which is 9 (compared to an average of 4.82), and the Disclosure index which is 8 (compared to an average of 5.78). The level of enforcement is average to below average, the days to enforce a contract (days to solve a commercial sale dispute) is 346 (570), while the average is 343.2 (513.2) and the median is 325 (510).

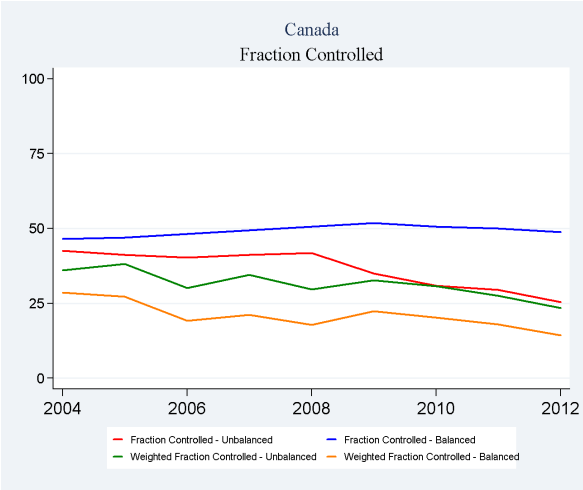
The measure of the protection of labor and employment laws is 0.262, which is in the lower quartile, and lower than the average of 0.48 (median of 0.47). The protection of collective relations laws index is 0.196 (in the bottom 5th percentile), which is lower than the mean (and median) of 0.45. Social security benefit index is 0.787 which is in the top quartile, and is higher than the mean of 0.62 but lower than the median of 0.70.

When looking at the regulation of entry, the World Bank’s Doing Business (based on Djankov 2002) measures 3.5 days to start a business and 3 procedures, which are shorter and less than the country-level average of 35.89 days and 8.68 procedures, respectively (and medians of 29 days and 9 procedures, respectively).

Appendix Figures 7b – 7c plot the evolution of the C3 index and the dummy variable that identifies controlled firms over 2004 – 2012. The graph plots simple and market value weighted averages. In spite of the crisis, ownership concentration is persistent. As the sample of firms changes every year, as ORBIS coverage fluctuates, in each graph we report the corresponding statistics both for the unbalanced sample and for a balanced sample that includes 168 firms that we have coverage throughout 2004 – 2012. For the 168 firms that appear in our sample in all nine years, both measures of ownership concentration and control appear stable. For the total firms in the sample there appears to be a slight drop in concentration (C3) and control in both simple and weighted measures from 2008.



Appendix Figure 7b - Canada



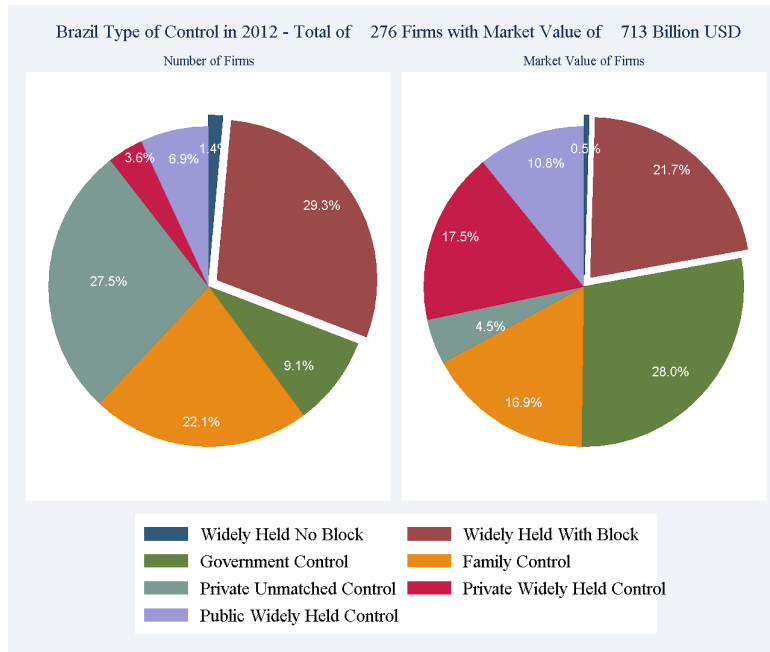
Appendix Figure 7c - Canada

8 Brazil

Our sample in 2012 (2007) includes 276 (183) firms incorporated in Brazil with a total market value of 713 billion USD (487 billion USD). The coverage in terms of number of firms is 50% in 2007 and 84% in 2012; in terms of market capitalization, we cover around 78% in 2012 and 48% in 2007. As shown in Appendix Figure 8a, approximately 70% of the firms in our sample are classified as “controlled”, with the remaining 30% classified as widely-held. Yet almost all (95%) of widely-held firms have at least one non-controlling blockholder (a shareholder holding at least 5% of the shares). Examples of large controlled Brazilian firms include Ultrapar Participacoes S.A. (controlled by the Igel Family), Telefonica Brasil S.A. (ultimately controlled by Telefonica SA), and Alpargatas S.A. (ultimately controlled by Regina, Renata and Rosana Camargo); Lojas Renner SA, Companhia De Bebidas Das Americas – AMBEV, and BR Malls Participacoes S.A. are examples of large widely-held Brazilian corporations.

About 31% of controlled firms (and about 22.1% of all firms) have a controlling family/individual at the top; which accounts for 17% of total market capitalization in 2012. If we add the “unmatched ultimate owner” category which contains almost exclusively small family controlled firms, we reach almost 50% of family control. This estimate accords well with Okimura, Silveira and Rocha (2004), who document similar percentages (48.1%) of family-controlled firms in 2002. Example of family controlled firms are Duratex S.A., Redecard S.A. and Porto Seguro S.A. that are ultimately controlled by Roberto Egydio Setubal and his Family, Gerdau S.A. that is controlled by Gerdau Family, Multiplus S.A. that is ultimately controlled by the Aamaro Family, and Iochpe Maxion SA that is ultimately controlled by Ivoncy Brochmann Ioschpe and family. State control is also quite sizable.

Federal and state governments hold controlling blocks in 9.1% of listed firms; since the federal government controls large companies, such as Petrobras and COPASA, in terms of market capitalization it controls roughly 28% of the total market capitalization.



Appendix Figure 8a - Brazil

The average equity share of the one, three, and five largest shareholders in 2012 is 47%, 61% and 63.2%, respectively. Ownership is equally concentrated among smaller (in terms of market capitalization) and larger firms. These numbers are smaller than the estimates of Carvalho da Silva (2004), who examining 225 Brazilian listed firms in 2000 and finds that ownership concentration is even higher in Brazilian firms as they report $C1$, $C3$ and $C5$ measures of 72%, 85% and 87%, respectively. Yet our $C1$ index is comparable to the estimate of 54.6% that Okimura, Silvera and Rocha (2004) reach for Brazilian firms in 2002.

Ownership concentration is somewhat higher than the world average; the $C1$, $C3$, and $C5$ measures are 46%, 60% and 63%, respectively. Ownership is more disperse for large firms. This is shown by a simple comparison of the simple and value-weighted concentration measures (the corresponding value-weighted $C1$, $C3$, and $C5$ measures are 39%, 52%, and 57%).

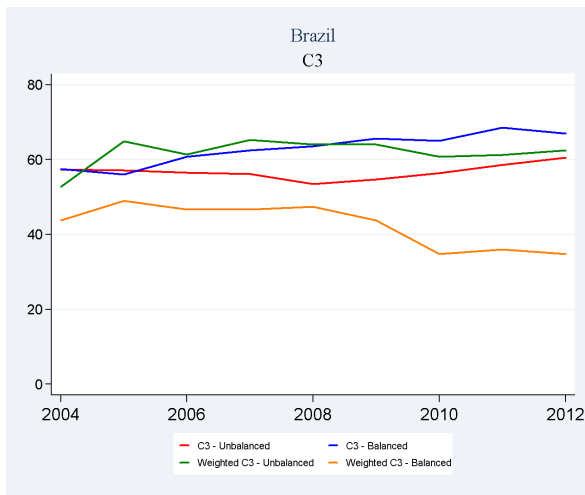
The level of protecting investors measured by the Anti Self Dealing Index is 0.27 which is in the bottom quartile, while the average Anti Self Dealing Index is 0.46 (and the median is 0.42). Breaking the Anti Self Dealing Index into components, the Ex Post Private Self Dealing is 0.33 which is lower than the country-level mean of 0.55, whereas the Ex Ante Private Self Dealing is 0.22 which is lower than the country-level mean of 0.37. The Revised Anti Director Index is 5 which is the highest possible, while the country-level mean of 3.46 (and median of 3.50). Concentrating on the parallel measures from the World Bank's Doing Business, the level of the Protecting Investors Index is 53.33 which is close to the average is 55.09 (and the median is 53.33). The components of the Protecting Investors Index are: the Ease of

Shareholder Suits which equals 3 which is lower than the average of 5.92, the Director Liability is 8 which is higher than the average of 4.82, and the Disclosure index is 5 that is lower than the average of 5.78. The level of enforcement is low, the days to enforce a contract (days to solve a commercial sale dispute) is 566 (731), while the average is 343.2 (513.2) and the median is 325 (510).

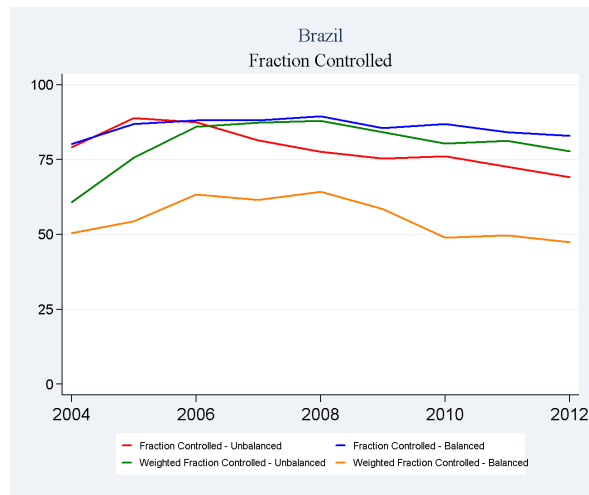
The measure of the protection of labor and employment laws is 0.568, which is higher than the average of 0.48 (median of 0.47). The protection of collective relations laws index is 0.378 which is lower than the mean (and median) of 0.45. Social security benefit index is 0.547 which is lower than the mean of 0.62 and the median of 0.70.

When looking at the regulation of entry, the World Bank’s Doing Business (based on Djankov 2002) measures 95 days to start a business (in the top quartile) and 10 procedures, which are longer and more than the country-level average of 35.89 days and 8.68 procedures, respectively (and medians of 29 days and 9 procedures, respectively).

Appendix Figures 8b – 8c plot the evolution of the concentration index reflecting the equity share of the three largest shareholders and the identifier (dummy variable) for controlled firms in Brazil over the period 2004 – 2012. For both measures we plot a simple average and a market value weighted average. As the sample of firms changes every year, as ORBIS coverage fluctuates, in each graph we report the corresponding statistics both for the unbalanced sample and for a balanced sample that includes 76 firms that we have coverage throughout 2004 – 2012. In spite of the crisis, ownership concentration and control is quite persistent.



Appendix Figure 8b - Brazil

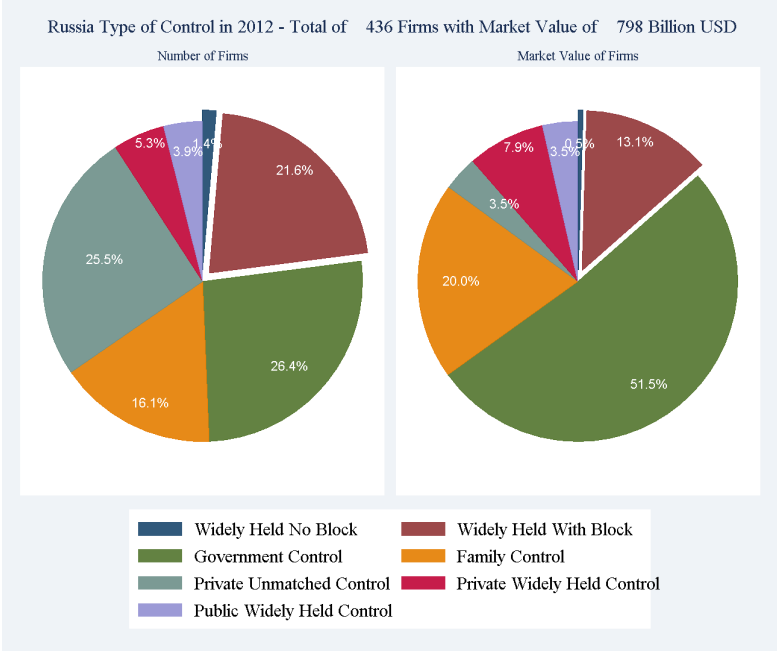


Appendix Figure 8c - Brazil

9 Russia

Our sample in 2012 (2007) includes 436 (338) Russian firms of total market value of 798 billion USD (1,130 billion USD). Our coverage of Datastream in 2012 and in 2007 is quite high (84% of the matched firms

in Datastream reflecting roughly 96% of the stock market capitalization of Russian firms in Datastream). Approximately 77% of these firms are controlled and the rest 23% are widely held [Appendix Figure 9a]. Reassuringly these estimates are close to the ones reported in Chernykh (2009). About 94% of the widely held firms or 22% of all firms have at least one non-controlling blockholder (a shareholder holding at least 5% of the shares). About 16% of the firms (representing 20% of the total market capitalization) are controlled by families/individuals; if we add the “unmatched” category which includes small family controlled firms, then the share of family firms in Russia is around 42%. Examples of family controlled firms include Norlisk Nickel, which is ultimately controlled by Vladimir Potanin, United Company Rusal ultimately controlled by Oleg Deripaska, and Novolipetsk Steel which is controlled by Vladimir Lisin. The state controls 26% of all firms; since state-controlled firms are large (e.g., Gazprom, Sberbank, Rosneft, Tatneft, Rostelecom and VTB Bank) state’s influence is 52% of the total market cap. Our estimate on state ownership is comparable to Chernykh’s (2008) detailed analysis of the ownership structure of publicly-traded Russian firms. He reports that the federal and regional governments are the largest direct shareholders in 14% of all Russian publicly traded firms; yet when he accounts for indirect ownership via “nominees”, “private firms”, and pyramid-style state-owned holding firms, Russian government stakes’ reaches 46%.



Appendix Figure 9a - Russia

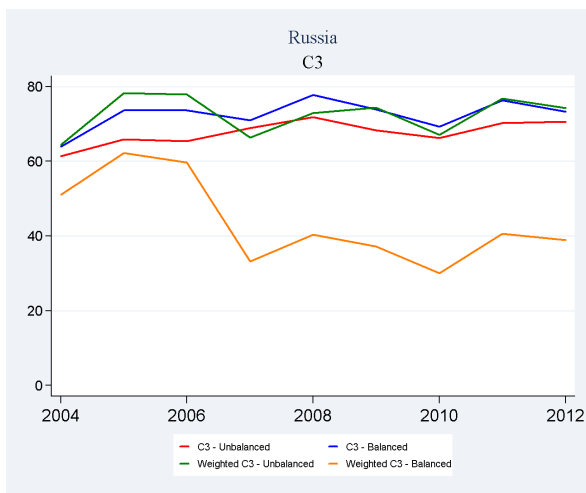
Ownership concentration in Russia is high; the single largest shareholder owns 53% of total equity, while the *C3* and *C5* concentration measures are 71% and 74%, respectively. These estimates are close to the in-depth analysis of the complexity and obscurity of publicly-traded Russian firms of Chernykh (2008), who focusing on 2000 – 2002 estimates *C1* and *C3* of 46% and 67%. Ownership concentration is high both for small and large firms.

The level of protecting investors measured by the Anti Self Dealing Index is 0.44, while the average Anti Self Dealing Index is 0.46 (and the median is 0.42). Breaking the Anti Self Dealing Index into components, the Ex Post Private Self Dealing is 0.08 which is the minimum in our sample and much lower than the country-level mean of 0.55, whereas the Ex Ante Private Self Dealing is 0.81 which is in the top quartile and is higher than the country-level mean of 0.37. The Revised Anti Director Index is 4, while the country-level mean of 3.46 (and median of 3.50). Concentrating on the parallel measures from the World Bank's Doing Business, the level of the Protecting Investors Index is 46.67 which is lower than the average of 55.09 (and the median is 53.33). The components of the Protecting Investors Index are: the Ease of Shareholder Suits which equals 6 and is slightly higher than the average of 5.92, the Director Liability is 2 which is in the bottom quartile and is lower than the average of 4.82, and the Disclosure index is 6 that is slightly higher than the average of 5.78. Comparing the level of enforcement, the days to enforce a contract (days to solve a commercial sale dispute) is 330 (281), while the average is 343.2 (513.2) and the median is 325 (510).

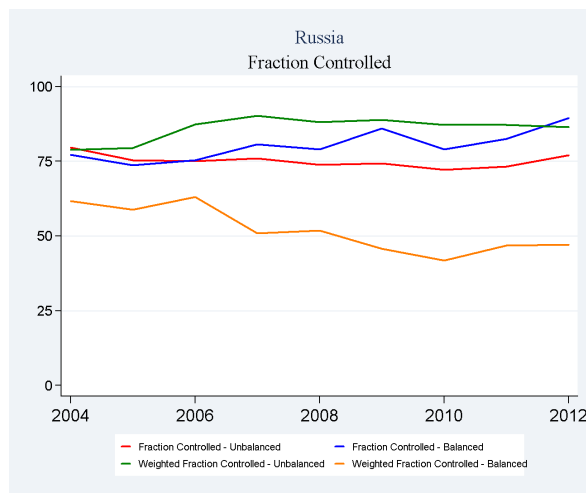
The measure of the protection of labor and employment laws is 0.828, which is in the top 5th percentile, and is much higher than the average of 0.48 (median of 0.47). The protection of collective relations laws index is 0.577 which is in the top quartile, while the mean (and median) is 0.45. Social security benefit index is 0.847 (in the top 5th percentile), which is higher than the mean of 0.62 and the median of 0.70.

When looking at the regulation of entry, the World Bank's Doing Business (based on Djankov 2002) measures about 20 days to start a business and 5.6 procedures, which are less than the country-level average of 35.89 days and 8.68 procedures, respectively (and medians of 29 days and 9 procedures, respectively).

Appendix Figures 9b – 9c plot the evolution of the C3 index and the identifier for controlled firms for Russia over the period 2004 – 2012. As before the graph gives the simple and the market-cap weighted average both for the unbalanced sample and for a balanced sample of 57 firms. Ownership concentration is high and persistent, though there are some weak evidence of a fall in ownership concentration in the balanced weighted sample occurring between 2006 – 2007 (which is mainly attributed to the change of the ownership structure of the very large firm Gazprom). For most the of the period the various measures of ownership and control are very persistent.



Appendix Figure 9b - Russia

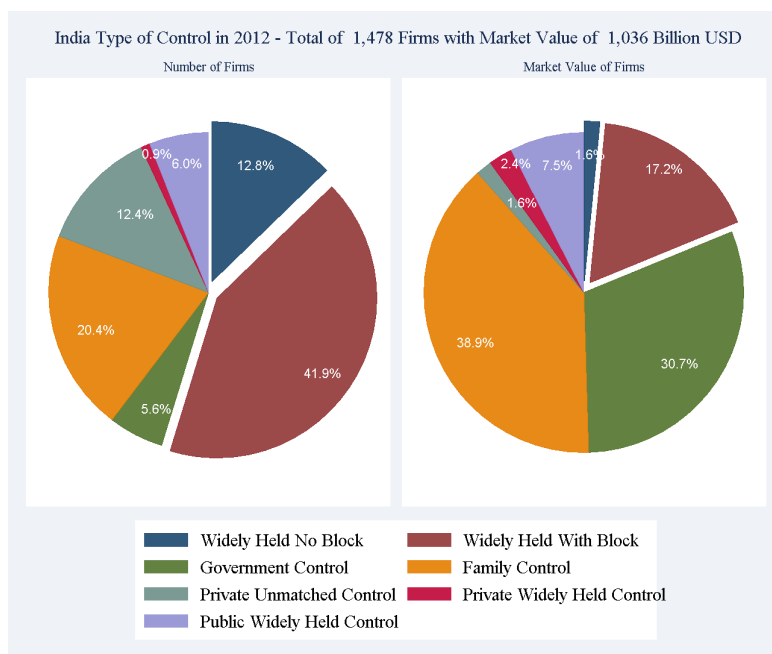


Appendix Figure 9c - Russia

10 India

Our sample in 2012 (2007) includes 1478 (702) firms incorporated in India with a total market value of 1035 billion USD (976 billion USD). The coverage in terms of number of firms that we match to Datastream is 56% in 2007 and 39% in 2012; as we typically miss small firms in terms of market capitalization coverage is around 80% – 90% throughout the sample period. Our algorithm reveals that approximately 45% of the firms representing 81% of the total market capitalization are controlled, with the remaining 55% of the firms (capturing 19% of market capitalization) being widely-held [Appendix Figure 10a]. About 76% of the widely held firms (and 42% of all firms) have at least one non-controlling blockholder. Examples of large controlled Indian firms include Tata Consultancy controlled by the Tata family, Kotak Mahindra Bank Ltd. ultimately controlled by Uday Suresh Kotak, Reliance Industries Ltd. and Reliance power Ltd. ultimately controlled by Anil Ambani and Godrej Consumer Products Ltd. ultimately controlled by Jamshyd Godrej. Larsen & Toubro Ltd. and Infosys Ltd. are classified as "widely held", as no shareholder has enough voting power to exercise control.

About 44% of controlled firms (20% of all Indian firms) are family firms. If we add the “unmatched ultimate owner” category, we get that 33% of the total number of Indian firms are under family control. Examples of family controlled firms are Essar Oil Limited (ultimately controlled by Ravi Ruia, Prashant Ruia and Ruia Family), Ashok Leyland Ltd. (ultimately controlled by the Satya Ashok Hinduja). State control is quite sizable; about 6% of all India firms representing almost a third (31%) of the total market capitalization, are controlled by the federal government, state agencies, or the 29 states (e.g., Oil & Natural Gas Corporation Ltd. and Coal India Ltd).



Appendix Figure 10a - India

The average equity share of the three (five) largest shareholders in 2012 is 36% (38%), while the average stake of the single largest shareholder is 27%; these estimates are lower than the world or the regional averages, reflecting among others the common-law tradition. If anything, ownership is more concentrated among larger (in terms of market capitalization) firms as it is in smaller firms, reflecting among others the considerable presence of the state in large firms; the size-weighted $C1$, $C3$ and $C5$ measures in 2012 are 46%, 57%, and 60%, respectively.

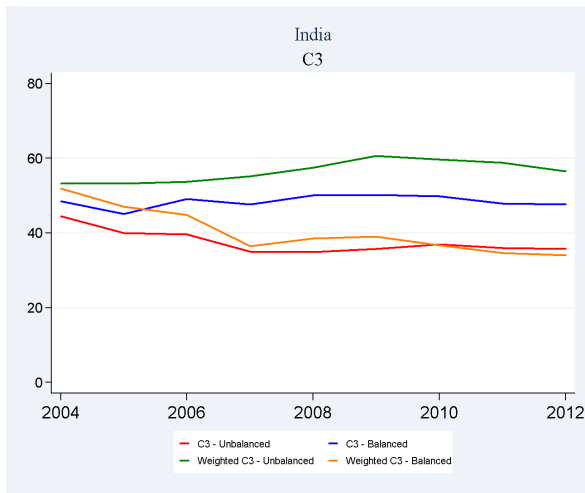
The level of protecting investors measured by the Anti Self Dealing Index is 0.58, while the average Anti Self Dealing Index is 0.46 (and the median is 0.42). Breaking the Anti Self Dealing Index into components, the Ex Post Private Self Dealing is 0.83 which is in the top quartile, and higher than the country-level mean of 0.55, whereas the Ex Ante Private Self Dealing is 0.33 which is slightly lower than the country-level mean of 0.37. The Revised Anti Director Index is 5 which is the highest possible in our sample, while the country-level mean of 3.46 (and median of 3.50). Concentrating on the parallel measures from the World Bank's Doing Business, the level of the Protecting Investors Index is 56 which is similar to the average is 55.09 (and slightly higher than the median of 53.33). The components of the Protecting Investors Index are: the Ease of Shareholder Suits which equals 7 which is higher than the average of 5.92, the Director Liability is 4 which is lower than the average of 4.82, and the Disclosure index is 6 that is slightly higher when compared to an average of 5.78. The level of enforcement is relatively low, as the days to enforce a contract are 425, while the average is 343.2 and the median is 325.

The measure of the protection of labor and employment laws is 0.443, while the average is 0.48 (median of 0.47). The protection of collective relations laws index is 0.384, which is lower than the mean

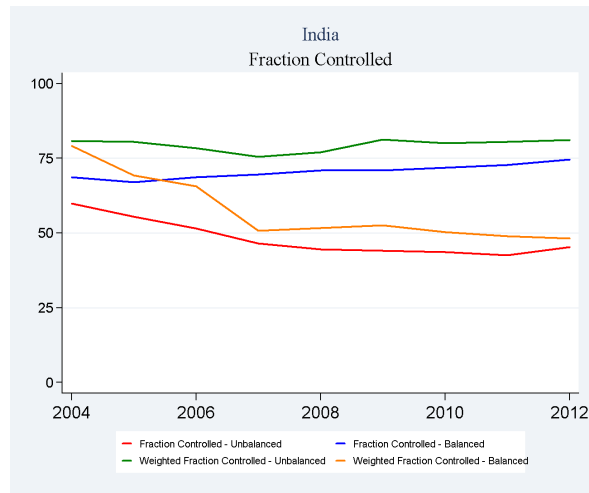
(and median) of 0.45. Social security benefit index is 0.4 which is lower than the mean of 0.62 and the median of 0.70.

When looking at the regulation of entry, the World Bank’s Doing Business (based on Djankov 2002) measures 43.7 days to start a business which is longer than the country-level average of 35.89 days (median of 29 days), but starting a business takes about 6 procedures which is less than the average of 8.68 procedures (and a median of 9 procedures).

Appendix Figures 10*b* – 10*c* plot the evolution of the *C3* index and the identifier for controlled firms in the India over the sample period. As the sample of firms changes every year, as ORBIS coverage fluctuates, in each graph we report the corresponding statistics both for the unbalanced sample and for a balanced sample that includes 224 firms that we have coverage throughout 2004 – 2012. In spite of the crisis, ownership concentration is stable and persistent. The only measure of ownership and control that experiences a decrease from 2004 – 2007 is the market-cap-weighted average in the balanced sample. Between 2004 – 2007 there is a decrease from about 75% to about 50% for market value controlled and from 50% to 40% for market value weighted *C3* and these measures remain stables around the new levels for the rest of the years 2007 – 2012.



Appendix Figure 10*b* - India



Appendix Figure 10*c* - India

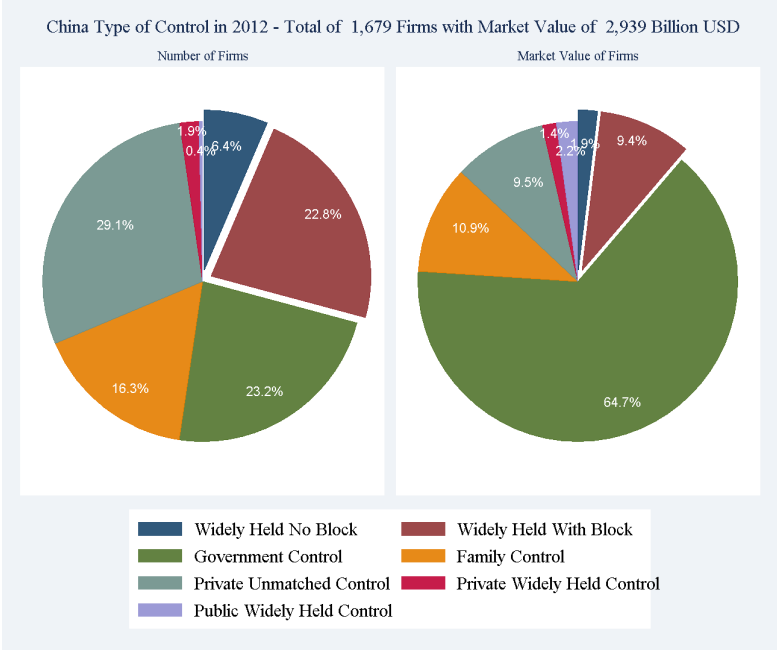
11 China

Our sample in 2012 (2007) includes 1679 (812) firms incorporated in China with a total market value of 2939 billion USD (1628 billion USD). The coverage in terms of number of firms that we match is 46% in 2007 and 60% in 2012; in terms of market capitalization, we cover around 70% in 2012 and 53% in 2007.

Approximately 71% of the firms in our sample are classified as “controlled”; these firms represent 89% of the total market capitalization, with the remaining 29% of the firms reflecting 11% of market capitalization being widely-held. About 79% of the widely held firms (and 23% of all firms) have at

least one non-controlling blockholder (a shareholder holding at least 5% of the shares). Examples of large controlled Chinese firms include China Construction Bank controlled by the Chinese Government, Sany Heavy Industry ultimately controlled by Liang Wen Gen. China Minsheng Banking Corp Ltd., and Yantai Jereh Oilfield Services Group Co Ltd. are classified as widely held, as no shareholder has enough voting power to exercise control.

About 23% of controlled firms (or about 16% of all firms) have a controlling family/individual at the top. The “unmatched ultimate owner” category is quite large about 29% of firms accounting for 9.5% of total market capitalization. So if we add the two categories we get that about 45% of Chinese firms are family controlled. Examples include Goertek Incorporated Company ultimately controlled by Jiang Bin and New Hope Liuhe Co., Ltd. controlled by Liu Yonghao. State control is very high; about 23% of all firms reflecting 65% of the total market capitalization are state controlled (e.g., Petrochina, Bank of China, CNOOC).



Appendix Figure 11a - China

The average equity share of the three (five) largest shareholders in 2012 is 48% (50%), while the average stake of the single largest shareholder is 37%, very close to the world average. These estimates are comparable (though slightly lower) to the ones obtained by Gul, Kim and Qiu (2010) who analyzed ownership for approximately 1000 Chinese listed firms over 1996 – 2003. They found that the average stake of the single largest shareholder is 42%. Our estimates are also similar to Wei (2007), who examining 1224 listed Chinese firms in 2002 reports *C1* and *C5* concentration measures of 43% and 53%.

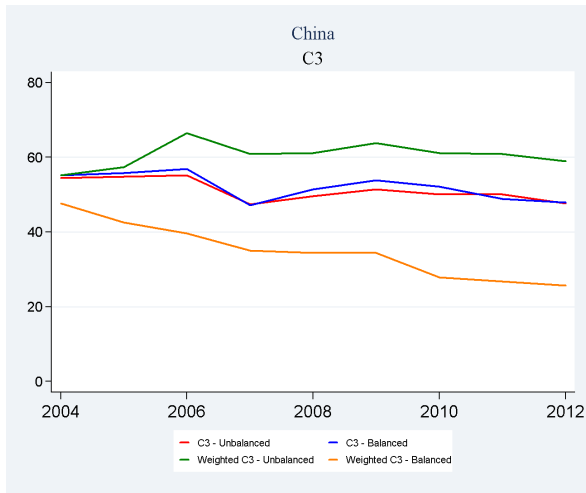
The level of protecting investors measured by the Anti Self Dealing Index is 0.76 (in the top quartile), while the average Anti Self Dealing Index is 0.46 (and the median is 0.42). Breaking the Anti Self Dealing

Index into components, the Ex Post Private Self Dealing is 0.53, quite similar to the country-level mean of 0.55, whereas the Ex Ante Private Self Dealing is 1.0 which is the highest possible value, while the country-level mean is 0.37. The Revised Anti Director Index is 1 which is the lowest possible in our sample, while the country-level mean of 3.46 (and median of 3.50). Concentrating on the parallel measures from the World Bank's Doing Business, the level of the Protecting Investors Index is 43.33 which is lower than the average of 55.09 (and the median of 53.33). The components of the Protecting Investors Index are: the Ease of Shareholder Suits which equals 2 which is lower than the average of 5.92, the Director Liability is 1 which is the lowest possible value and lower than the average of 4.82, and the Disclosure index is 10 which is the highest possible value, while the average is 5.78. The level of enforcement is relatively high, the days to enforce a contract (days to solve a commercial sale dispute) is 241 (406), while the average is 343.2 (513.2) and the median is 325 (510).

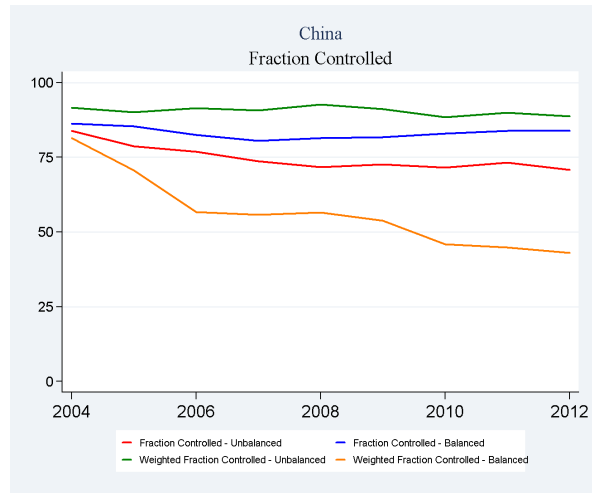
The measure of the protection of labor and employment laws is 0.432, while the average is 0.48 (median of 0.47). The protection of collective relations laws index is 0.33, which is lower than the mean (and median) of 0.45. Social security benefit index is 0.76 which is higher than the mean of 0.62 and quite similar to the median of 0.70.

When looking at the regulation of entry, the World Bank's Doing Business (based on Djankov 2002) measures 24.6 days to start a business which is quicker than the country-level average of 35.89 days (median of 29 days), also starting a business takes about 7.2 procedures which is less than the average of 8.68 procedures (and a median of 9 procedures).

Appendix Figures 11b – 11c plot the evolution of the *C3* index and the share of controlled firms in China over the period 2004 – 2012. Ownership concentration is stable and persistent. And the crisis and the associated large fiscal stimulus program pursued by Chinese authorities has little if anything impact. As the sample of firms changes every year, in each graph we report the corresponding statistics both for the unbalanced sample and for a balanced sample that includes 492 firms that we have coverage throughout 2004 – 2012. When looking at the balanced firm sample we see that a decrease from around 75% around 50% for market value controlled and from 50% to 25% for market value weighted ownership of the three largest owners. This trend echoes Wu, Xu and Yuan (2009) who studying 546 Chinese listed firms show that ownership concentration (measured by the Herfindahl index of the 5 largest owners) decreases from 1994 to 2003.



Appendix Figure 11b - China



Appendix Figure 11c - China

Appendix Table 1: Sample and Coverage in 2012

	Firms in 2012 Sample	Firms in Datastream in 2012	Matched 2012 Sample	Coverage Rate in 2012	Market Cap in 2012 Sample (Billion USD)	Market Cap in Datastream (billion USD) in 2012	Market Cap of Matched Sample (Billion USD) in 2012	Coverage Rate (Market Cap) in 2012	Included 2007 Sample
Panel A: Coverage in the 2012 Baseline Sample									
1 Argentina	79	79	72	91.1	33.3	28.9	28.6	98.9	1
2 Australia	1347	1928	1278	66.3	1069.1	1160.6	935.9	80.6	1
3 Austria	96	96	80	83.3	93	86.1	85.5	99.3	1
4 Bahrain	41	41	38	92.7	16.5	16.3	15.9	97.3	1
5 Bangladesh	46	267	46	17.2	12.1	24.4	12.1	49.7	0
6 Belgium	161	170	141	82.9	305.4	246	243.1	98.8	1
7 Bosnia & Herz.	83	133	72	54.1	2.6	3.4	2.4	68.3	0
8 Botswana	7	23	7	30.4	3	4.3	3	70.5	0
9 Brazil	276	191	161	84.3	713	522.4	407.6	78	1
10 Bulgaria	77	240	69	28.8	4.3	5.9	3.5	59.6	1
11 Canada	2019	3849	1932	50.2	1418.2	1729.2	1301.1	75.2	1
12 Chile	182	194	163	84	272.1	288.6	262	90.8	1
13 China	1679	2735	1629	59.6	2938.9	4011	2818	70.3	1
14 Colombia	35	60	32	53.3	197.2	222.7	196.3	88.2	1
15 Croatia	174	186	151	81.2	20.3	20.1	19.4	96.5	1
16 Cyprus	68	109	66	60.6	7.3	5.4	4.5	83.4	1
17 Czech Republic	21	16	9	56.3	41.6	35.6	35.1	98.5	1
18 Cote D'Ivoire	14	36	14	38.9	2	4.3	2	46.3	0
19 Denmark	156	181	144	79.6	176.3	179.3	172.8	96.4	1
20 Egypt	87	129	82	63.6	41.7	52.4	38.6	73.6	1
21 Estonia	15	15	15	100	1.8	1.8	1.8	100	1
22 Finland	113	124	105	84.7	126	129.7	122.1	94.1	1
23 France	788	849	732	86.2	1448	1423.9	1292.8	90.8	1
24 Germany	722	1148	667	58.1	1152.8	1207.6	1023.2	84.7	1
25 Ghana	14	29	13	44.8	1.9	2.5	1.8	75	0

26 Greece	229	239	206	86.2	33.1	23.2	19.3	83.2	1
27 Hong Kong	694	1095	682	62.3	1251.6	1339.1	1239.9	92.6	1
28 Hungary	39	48	34	70.8	19.2	19	18.7	98.2	1
29 Iceland	19	8	6	75	5.6	2.6	2.2	82.4	1
30 India	1478	3649	1435	39.3	1035.4	1108.8	1029.4	92.8	1
31 Indonesia	250	447	246	55	311.5	407.1	311.4	76.5	1
32 Ireland	65	64	56	87.5	145.4	119.6	118.5	99.1	1
33 Israel	457	591	441	74.6	109.5	153	105.3	68.8	1
34 Italy	266	280	245	87.5	442.8	422.4	382.9	90.6	1
35 Japan	1452	3654	1386	37.9	2589.9	3488.8	2437.5	69.9	1
36 Jordan	119	231	116	50.2	22.7	25.9	22.6	87.2	1
37 Kenya	19	53	19	35.8	8.1	12.3	8.1	66.1	1
38 Korea	817	1828	810	44.3	857	1019.3	853	83.7	1
39 Kuwait	155	198	150	75.8	82.3	96.9	81.5	84	1
40 Latvia	27	15	14	93.3	0.8	0.8	0.8	100	1
41 Lebanon	6	10	6	60	4.3	6.7	4.3	65	1
42 Lithuania	34	33	32	97	4.5	3.7	3.7	99.9	1
43 Luxembourg	44	53	39	73.6	116.2	113.6	111.4	98	1
44 Macedonia	8	31	8	25.8	1.1	1.5	1.1	76.1	0
45 Malaysia	528	955	511	53.5	369.5	444.2	359.2	80.9	1
46 Malta	17	21	17	81	4.1	4.8	4.1	86.3	1
47 Mexico	52	119	40	33.6	273.2	413.4	249.2	60.3	1
48 Montenegro	161	146	92	63	1.9	1.4	1.1	77	0
49 Morocco	58	77	56	72.7	56.9	53.9	51.6	95.6	1
50 Namibia	5	6	4	66.7	1.1	1.3	1.1	85.1	1
51 Netherlands	133	148	117	79.1	639.5	608	466.1	76.7	1
52 New Zealand	100	137	99	72.3	39.4	52.1	39	75	1
53 Nigeria	38	169	35	20.7	30.3	43.3	29.7	68.6	0
54 Norway	201	214	189	88.3	224.7	232.4	221.9	95.5	1
55 Oman	41	106	41	38.7	17.4	22.7	17.4	76.8	1
56 Pakistan	102	241	92	38.2	20.2	37.7	20	53.1	1
57 Papua New Guinea	4	3	3	100	21.9	11	11	100	1
58 Peru	129	129	97	75.2	89.4	95.5	79.7	83.4	1
59 Philippines	57	238	56	23.5	122.6	204.1	122.6	60.1	1
60 Poland	713	806	696	86.4	143.7	148.6	142.5	95.9	1
61 Portugal	54	55	45	81.8	50.8	49.8	44.5	89.3	1

62 Qatar	28	42	27	64.3	87.6	123.4	87.2	70.7	1
63 Romania	152	170	139	81.8	14.1	15.2	13.9	91	1
64 Russia	436	390	326	83.6	797.9	778.7	743.6	95.5	1
65 Saudi Arabia	119	155	119	76.8	342.5	359.9	342.5	95.2	1
66 Serbia	106	95	66	69.5	3.1	3	2.5	83.2	0
67 Singapore	511	713	498	69.8	419.2	458.3	411.7	89.8	1
68 Slovakia	41	51	31	60.8	3.8	3.4	3.3	96	1
69 Slovenia	54	51	47	92.2	6.2	5.2	5.1	99.1	1
70 South Africa	206	331	197	59.5	427.1	479.1	421.4	88	1
71 Spain	182	161	149	92.5	524	464.2	452.1	97.4	1
72 Sri Lanka	74	265	73	27.5	6.9	14.4	6.9	48	0
73 Sweden	337	493	302	61.3	458.7	452.1	435	96.2	1
74 Switzerland	276	313	248	79.2	1186.6	1076.2	984.8	91.5	1
75 Taiwan	962	1726	953	55.2	512.7	762.6	503.7	66.1	1
76 Thailand	126	568	118	20.8	205	338.6	202.8	59.9	1
77 Tunisia	32	56	31	55.4	7.5	9.3	7.3	78.9	1
78 Turkey	296	374	295	78.9	237.5	257.2	237.5	92.3	1
79 Uganda	4	8	4	50	0.7	0.9	0.7	78.5	0
80 Ukraine	102	91	52	57.1	23	17.2	14.3	83.5	1
81 United Arab Emirates	94	105	85	81	110.3	109.8	107.1	97.5	1
82 United Kingdom	1347	1721	1308	76	2444.4	2554.7	2363.2	92.5	1
83 United States	4461	10607	4369	41.2	14499	16431.3	14268.9	86.8	1
84 Venezuela	14	27	11	40.7	11.1	13	10.6	81	1
85 Zambia	12	19	12	63.2	2	2.9	2	67.2	0

	Firms in 2007 Sample	Firms in Datastream in 2007	Matched 2007 Sample	Coverage Rate in 2007	Market Cap in 2007 Sample (Billion USD)	Market Cap in Datastream (billion USD) in 2007	Market Cap of Matched Sample (Billion USD) in 2007	Coverage Rate (Market Cap) in 2007	Included 2012 Sample
Panel B: Coverage in the 2007 Baseline Sample									
1 Argentina	56	81	50	61.7	50.5	55.1	47	85.4	1
2 Australia	1423	1862	1344	72.2	1171.8	1344.9	1134.2	84.3	1
3 Austria	116	114	90	78.9	198.5	238.6	187.2	78.5	1
4 Bahrain	37	42	37	88.1	22.4	22.6	22.4	99.3	1
5 Belgium	183	204	157	77	433.1	417.4	411.1	98.5	1
6 Brazil	183	163	82	50.3	486.5	444.6	214.3	48.2	1
7 Bulgaria	226	281	217	77.2	12.1	23	12	52.2	1
8 Canada	900	3909	794	20.3	1401.1	2019.4	1296.4	64.2	1
9 Chile	97	196	86	43.9	221.1	281.5	216.1	76.8	1
10 China	812	1710	778	45.5	1628.4	2898.3	1538.7	53.1	1
11 Colombia	29	58	27	46.6	78.9	98.4	78.4	79.6	1
12 Croatia	50	72	42	58.3	138.1	149.4	137.9	92.3	1
13 Cyprus	72	132	70	53	29	33.2	28.9	87.2	1
14 Czech Republic	45	22	16	72.7	60.3	51.8	51.7	99.8	1
15 Denmark	192	197	164	83.2	237.9	232.6	221.1	95.1	1
16 Egypt	71	144	57	39.6	83	97.8	82.4	84.2	1
17 Estonia	20	18	17	94.4	7.2	7.1	7	99.8	1
18 Finland	145	137	129	94.2	311	312.4	302	96.7	1
19 France	1031	989	871	88.1	2779.8	2774.2	2487.4	89.7	1
20 Germany	988	1283	887	69.1	1911.8	1982.4	1675.7	84.5	1
21 Greece	280	297	261	87.9	178.4	232.4	162.7	70	1
22 Hong Kong	627	923	607	65.8	1037.2	1169.5	1032.6	88.3	1
23 Hungary	30	42	20	47.6	50.9	50.4	49.5	98.1	1
24 Iceland	38	26	23	88.5	54.6	55.3	53.3	96.4	1
25 India	702	1169	659	56.4	975.6	1224.9	970.7	79.2	1
26 Indonesia	292	356	280	78.7	161.1	174.6	156.8	89.8	1

27 Ireland	82	77	64	83.1	157.7	175.4	146.1	83.3	1
28 Israel	130	676	123	18.2	98.8	177.8	95.5	53.7	1
29 Italy	310	308	274	89	1118.8	1064.1	1020.5	95.9	1
30 Japan	1384	4058	1296	31.9	3711.7	4872	3620.4	74.3	1
31 Jordan	162	216	161	74.5	29.9	31.8	29.9	94	1
32 Kazakhstan	2	2	2	100	2.6	2.6	2.6	100	0
33 Kenya	13	48	13	27.1	6.3	12	6.3	52.6	1
34 Korea	1631	1767	1579	89.4	1015.4	1056.9	1007.8	95.4	1
35 Kuwait	129	177	129	72.9	91.9	178.7	91.9	51.4	1
36 Latvia	30	21	18	85.7	2.7	2.6	2.6	100	1
37 Lebanon	6	10	6	60	3.3	5.8	3.3	57.5	1
38 Lithuania	43	43	42	97.7	10.7	11.1	10.7	96.7	1
39 Luxembourg	39	48	32	66.7	192.8	185.4	179.7	96.9	1
40 Malaysia	926	1037	898	86.6	315.8	311.5	302.9	97.2	1
41 Malta	7	14	7	50	4.1	4.9	4.1	82.3	1
42 Mexico	53	121	41	33.9	239	395.7	225.9	57.1	1
43 Morocco	53	71	52	73.2	59	67.7	58.9	87	1
44 Namibia	2	2	2	100	0.1	0.1	0.1	100	1
45 Netherlands	191	184	150	81.5	956.6	1055.5	827.1	78.4	1
46 New Zealand	108	159	105	66	51.4	52.9	48.2	91.1	1
47 Norway	270	244	215	88.1	357.3	359.1	343.1	95.5	1
48 Oman	49	120	48	40	14.4	15.9	14.4	90.8	1
49 Pakistan	74	252	70	27.8	49.5	66.3	48.9	73.8	1
50 Papua New Guinea	4	5	4	80	10.2	10.4	10.2	97.6	1
51 Peru	126	136	96	70.6	58.2	64.6	52	80.5	1
52 Philippines	184	225	168	74.7	89.1	94.4	88.7	94	1
53 Poland	317	327	289	88.4	207.7	211.9	205	96.8	1
54 Portugal	72	68	54	79.4	111.7	135.9	101.7	74.9	1
55 Qatar	26	38	26	68.4	60.9	72.4	60.9	84.2	1
56 Romania	32	70	29	41.4	32.4	39.3	32.4	82.4	1
57 Russia	338	305	266	87.2	1129.5	1112.4	1072.3	96.4	1
58 Saudi Arabia	73	109	72	66.1	299.7	329.2	299.4	91	1
59 Singapore	556	685	532	77.7	390.3	437.7	385.4	88	1
60 Slovakia	14	61	13	21.3	4.7	5.2	4.4	85.4	1
61 Slovenia	22	87	19	21.8	19.5	28.8	19.1	66.4	1
62 South Africa	235	375	216	57.6	417.3	453.6	409.8	90.3	1

63 Spain	190	166	152	91.6	1109.2	1117.6	1014.7	90.8	1
64 Sweden	415	491	351	71.5	569	570.5	531	93.1	1
65 Switzerland	287	297	253	85.2	1484.7	1553.5	1455.1	93.7	1
66 Taiwan	1303	1289	1235	95.8	754.5	771.7	738.3	95.7	1
67 Thailand	170	521	163	31.3	130.4	170.4	128.3	75.3	1
68 Tunisia	8	9	8	88.9	0.6	0.7	0.6	96.7	1
69 Turkey	128	310	128	41.3	191.3	225	191.3	85	1
70 Ukraine	75	127	74	58.3	84.8	107.4	84.7	78.9	1
71 United Arab Emirates	62	97	62	63.9	144.5	196.7	144.5	73.5	1
72 United Kingdom	1955	2336	1858	79.5	3310.1	3827.8	3289.4	85.9	1
73 United States	5027	11759	4943	42	16404.1	18645.9	16138.7	86.6	1
74 Venezuela	18	46	16	34.8	5.3	7.8	5.2	66.6	1

	GDP PC (Current USD)	Employment Laws	Collective Relations	Social Security	Time to Start a Business	N. Procedures to Start a Business	Revised Anti Director Index	Anti Self Dealing Index	Ex Post Private Self Dealing	Ex Ante Private Self Dealing	Public Enforcement	Protecting Investors	Ease Shareholder Suits	Director Liability	Disclosure	Days to enforce a contract	Days to Solve Commercial Sale Dispute
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Panel C: Laws in the 2012 Baseline Sample

1	Argentina	14436.6	0.34	0.58	0.72	30	13	2	0.34	0.35	0.33	0	50.0	6	2	7	520	590
2	Australia	67511.8	0.35	0.37	0.78	3	3	4	0.76	0.63	0.89	0.5	56.7	7	2	8	157	395
3	Austria	48348.2	0.50	0.36	0.71	25	8	2.5	0.21	0.43	0	1	50.0	5	5	5	374	397
4	Bahrain	23063.1																
5	Bangladesh	858.9				40.2	7						66.7	7	7	6	365	
6	Belgium	44818	0.51	0.42	0.62	34	4	3	0.54	0.7	0.39	0.5	70.0	7	6	8	112	505
7	Bosnia & Herz.	4415.9				93	13						46.7	5	6	3	330	595
8	Botswana	6935.6				125	11						43.3	3	2	8	154	987
9	Brazil	11922.7	0.57	0.38	0.55	95.2	10.4	5	0.27	0.33	0.22	0.5	53.3	3	8	5	566	731
10	Bulgaria	7198.5	0.52	0.44	0.76	39	12	3	0.65	0.48	0.83	0	60.0	6	2	10	440	564
11	Canada	52733.5	0.26	0.20	0.79	3.5	3	4	0.64	0.95	0.33	1	83.3	8	9	8	346	570
12	Chile	15253.3	0.47	0.38	0.69	42	9	4	0.63	0.75	0.5	1	63.3	6	6	7	305	480
13	China	6264.6	0.43	0.33	0.76	26.4	7.2	1	0.76	0.53	1	0	43.3	2	1	10	241	406
14	Colombia	7885.1	0.34	0.49	0.81	40	11	3	0.57	0.31	0.83	0	63.3	8	2	9	363	
15	Croatia	1281.4				45	11						33.3	3	1	6	525	770
16	Cyprus	13236	0.49	0.45	0.68	29	11	2.5	0.25	0.33	0.17	0.5	40.0	5	6	1	415	561
17	Czech Republic	28868.3																
18	Cote D'Ivoire	19670.4	0.52	0.34	0.70	40	10	4	0.33	0.5	0.17	1	50.0	8	5	2	300	653
19	Denmark	57636.1	0.57	0.42	0.87	6	4	4	0.46	0.68	0.25	0.75	63.3	7	5	7	83	380
20	Egypt	3068.2	0.37	0.41	0.76	22	10	3	0.2	0.33	0.08	0	33.3	3	3	4	410	
21	Estonia	17132.2				35	6						56.7	6	3	8		425
22	Finland	47415.6	0.74	0.32	0.79	14	3	3.5	0.46	0.78	0.14	0	56.7	7	4	6	240	235

23	France	40850.4	0.74	0.67	0.78	7	5	3.5	0.38	0.68	0.08	0.5	56.7	5	3	9	75	390
24	Germany	43931.7	0.70	0.61	0.67	22	9	3.5	0.28	0.43	0.14	1	50.0	5	5	5	184	394
25	Ghana	1641.8	0.29	0.48	0.16	17	11	5	0.67	0.68	0.67	0	63.3	7	5	7	200	552
26	Greece	22494.4	0.52	0.49	0.74	38	15	2	0.22	0.35	0.08	0.5	30.0	5	3	1	151	819
27	Hong Kong	36707.7	0.17	0.46	0.81	11	5	5	0.96	0.93	1	0	90.0	10	8	9	211	211
28	Hungary	12784.3	0.38	0.61	0.73	39	7	2	0.18	0.36	0	0	43.3	7	4	2	365	335
29	Iceland	44377.4				5	5	4.5	0.26	0.38	0.14	0	53.3	7	5	4		393
30	India	1449.7	0.44	0.38	0.40	43.7	6.1	5	0.58	0.83	0.33	0.5	56.7	7	4	6	425	
31	Indonesia	3700.5	0.68	0.39	0.18	127.9	10.1	4	0.65	0.5	0.81	0	56.7	3	5	9	570	498
32	Ireland	48391.3	0.34	0.46	0.71	18	4	5	0.79	0.8	0.78	0	86.7	9	7	10	217	515
33	Israel	32514.4	0.29	0.31	0.81	19	5	4	0.73	0.95	0.5	1	83.3	9	9	7	585	890
34	Italy	34854.4	0.65	0.63	0.76	13	9	2	0.42	0.68	0.17	0	60.0	7	4	7	1390	
35	Japan	46679.3	0.16	0.63	0.64	20.2	7.2	4.5	0.5	0.78	0.22	0	70.0	8	6	7	60	360
36	Jordan	4896.7	0.70	0.38	0.21	16	10	1	0.16	0.16	0.17	0	30.0	1	4	4	342	689
37	Kenya	1184.9	0.37	0.23	0.31	54	14	2	0.21	0.25	0.17	0	50.0	10	2	3	360	465
38	Korea	24454	0.45	0.55	0.68	17	10	4.5	0.47	0.69	0.25	0.5	60.0	7	4	7	75	230
39	Kuwait	50896.5				35	13						50.0	2	9	4	390	566
40	Latvia	14031.8	0.72	0.53	0.70	16	5	4	0.32	0.5	0.14	1	56.7	8	4	5	189	279
41	Lebanon	9729.3	0.50	0.41	0.40	53	9						50.0	5	1	9	721	721
42	Lithuania	14333.2	0.62	0.50	0.75	26	8	4	0.36	0.58	0.14	0	50.0	6	4	5	154	210
43	Luxembourg	106022.8						2	0.28	0.4	0.17	1						
44	Macedonia	4709.5				49	14						43.3	3	6	4	509	509
45	Malaysia	10507.8	0.19	0.19	0.20	37	10	5	0.95	0.9	1	1	86.7	7	9	10	300	600
46	Malta	21176.3																
47	Mexico	9721.1	0.59	0.58	0.51	26.1	7.5	3	0.17	0.15	0.19	0.5	33.3	4	0	6	421	415
48	Montenegro	6519.2																
49	Morocco	2860.9	0.26	0.49	0.52	12	6	2	0.56	0.38	0.75	1	26.7	1	2	5	240	510
50	Namibia	5681.6				95	10						53.3	6	5	5	270	500
51	Netherlands	49128.1	0.73	0.46	0.63	9	7	2.5	0.2	0.35	0.06	0	43.3	6	4	3	48	514
52	New Zealand	39573.8	0.16	0.25	0.72	12	2	4	0.95	0.9	1	0	96.7	10	9	10	50	216
53	Nigeria	2739.9	0.19	0.21	0.35	27.7	6.9	4	0.43	0.7	0.17	0	53.3	5	7	4	730	730
54	Norway	101563.7	0.69	0.65	0.83	8	5	3.5	0.42	0.43	0.42	1	66.7	7	6	7	87	310
55	Oman	21533.8				35	11						50.0	2	5	8	455	598
56	Pakistan	1266.4	0.34	0.31	0.47	15	8.4	4	0.41	0.65	0.17	0.75	63.3	7	6	6	395	880
57	Papua New Guinea	2151.2				52	6						56.7	8	5	4	295	591
58	Peru	6388.8	0.46	0.71	0.42	104	10	3.5	0.45	0.65	0.25	0.25	56.7	5	5	7	441	549

59 Philippines	2606.2	0.48	0.52	0.49	47	17	4	0.22	0.38	0.06	0	43.3	8	3	2	380	842
60 Poland	13036.4	0.64	0.57	0.65	52	10	2	0.29	0.33	0.25	1	56.7	8	2	7	1000	980
61 Portugal	20577.4	0.81	0.65	0.74	48	11	2.5	0.44	0.75	0.14	1	60.0	7	5	6	320	577
62 Qatar	94236.1																
63 Romania	8445.3	0.33	0.56	0.74	11	6	5	0.44	0.55	0.33	1					335	
64 Russia	14078.8	0.83	0.58	0.85	20.3	5.6	4	0.44	0.08	0.81	1	46.7	6	2	6	330	281
65 Saudi Arabia	24883.2				70	17						56.7	3	7	7	360	635
66 Serbia	5659.4				23	11						46.7	4	6	4		635
67 Singapore	54578.2	0.31	0.34	0.46	6	6	5	1	1	1	1	93.3	9	9	10	69	120
68 Slovakia	17151.4	0.66	0.45	0.73	27	9	3	0.29	0.53	0.06	0	46.7	7	4	3	565	565
69 Slovenia	22488.7	0.74	0.49	0.78	61.5	11						63.3	8	8	3	1003	
70 South Africa	7592.2	0.32	0.55	0.58	53	9	5	0.81	0.63	1	0	80.0	8	8	8	277	600
71 Spain	28985.3	0.75	0.59	0.77	70	10	5	0.37	0.53	0.22	1	53.3	5	6	5	169	515
72 Sri Lanka	2921.7	0.47	0.51	0.19	46	9	4	0.39	0.7	0.08	0	53.3	7	5	4	440	
73 Sweden	57134.1	0.74	0.54	0.85	16	3	3.5	0.33	0.5	0.17	1	43.3	7	4	2	208	508
74 Switzerland	83295.3	0.45	0.42	0.82	18	6	3	0.27	0.45	0.08	0.75	30.0	4	5	0	170	417
75 Taiwan	21269.6	0.45	0.32	0.75	65	8	3	0.56	0.71	0.42	0	53.3	5	4	7	210	510
76 Thailand	5448.8	0.41	0.36	0.47	34	9	4	0.81	0.63	1	0	60.0	6	2	10	390	479
77 Tunisia	4197.5	0.82	0.38	0.71	11	9	3	0.15	0.3	0	1	33.3	6	4	0	27	565
78 Turkey	10646	0.40	0.47	0.48	7	7	3	0.43	0.53	0.33	0	53.3	4	4	8	330	420
79 Uganda	670.2	0.35	0.38	0.11	36	17	3	0.41	0.58	0.25	0.5	46.7	6	5	3	209	535
80 Ukraine	3855.4	0.66	0.58	0.85	34	15	3	0.08	0.16	0	1	33.3	6	3	1	269	354
81 United Arab Emirates	41587.5				19	10						40.0	2	6	4	614	537
82 United Kingdom	41050.8	0.28	0.19	0.69	12	6	5	0.95	0.9	1	0	80.0	7	7	10	288	404
83 United States	51456.7	0.22	0.26	0.65	3	3.6	3	0.65	0.98	0.33	0	83.3	9	9	7	250	300
84 Venezuela	12771.6	0.65	0.54	0.73	143	16	1	0.09	0.1	0.08	0	23.3	2	2	3	445	510
85 Zambia	1686.6	0.15	0.29	0.11	36	7						56.7	7	6	4	274	471

The table reports country-level characteristics for the 2012 and 2007 sample. Panel A reports for 2012 and gives the number of firms in our sample (based on Bureau Van Dyck ORBIS databases), the number of firms in Datastream, the matched sample, coverage rate (defined as the ratio of matched firms to the number of firms in Datastream), the market capitalization (in billion of US dollars) of the ORBIS sample, the Datastream sample, and the matched (ORBIS – Datastream) sample, and the coverage rate in terms of market capitalization (defined as the ratio of the sum of market capitalization of all matched firms to the sum of market capitalization in Datastream). The final column reports whether the country is included also in the 2007 sample. Panel B reports for 2007 and gives similar statistics as Panel A. Panel C gives GDP Per Capita in 2012, and proxies for labour market laws, regulation of entry, protecting investors, public enforcement, and contract enforcement. The Data Appendix gives detailed variable definitions and sources. Section 2 gives details on data construction.

Appendix Table 2: Summary Statistics. Ownership and Control by Country in 2007

	Firms	Market Cap (billion USD)	GDP p.c.	Ownership Concentration Measures						Number of Listed Firms Controlled by					
				Mean C1	Weighted C1	Mean C3	Weighted C3	Mean C5	Weighted C5	Controlled Firms	State	Families - Individuals	Private Firms (unmatched owners)	Widely-Held Private Firms	Widely-Held Public Firms
Argentina	56	50.5	8250.2	52.8	61.8	61.6	69.8	62.3	71.2	49	5	13	16	2	13
Australia	1423	1171.8	40976.5	24.2	23.3	38.9	42.4	45.9	55.2	318	7	67	150	17	77
Austria	116	198.5	46586.6	50.4	45.5	66.6	61.7	67.8	64.4	83	9	16	39	9	10
Bahrain	37	22.4	21167.6	29.1	30.7	46.5	57.2	49.5	63.3	17	5	5	6	1	0
Belgium	183	433.1	44449.7	44.7	34.9	59.2	46.7	62.2	51	119	6	30	52	12	19
Brazil	183	486.5	7241.1	49.4	51.4	56.1	65.3	56.5	65.8	149	25	25	75	4	20
Bulgaria	226	12.1	5783.4	51.8	62.7	70.4	79.5	71.9	81.2	167	12	34	103	2	16
Canada	900	1401.1	44328.5	34.1	28.7	38.2	35.8	38.5	37.7	371	3	110	148	36	75
Chile	97	221.1	10513.5	42.2	29.9	49.8	39.1	51.4	39.9	67	1	17	25	2	22
China	812	1628.4	2673.3	39.4	51.4	47.5	60.9	48.8	62.9	598	283	89	194	22	10
Colombia	29	78.9	4674.2	49.9	44.2	57.3	50.6	58.3	51.9	21	4	7	6	0	4
Croatia	50	138.1	13544.2	59.8	76	78	78.4	83	78.7	37	2	12	15	6	2
Cyprus	72	29	30915.5	43.7	50.3	52.6	62.3	53.8	66.5	46	1	27	14	3	1
Czech Republic	45	60.3	18333.9	75	61.3	82.3	64.6	82.4	65.2	36	8	4	12	3	9
Denmark	192	237.9	58501.1	36.9	37.3	51.3	57.8	55.3	62.7	74	0	13	41	10	10
Egypt	71	83	1681.3	49	50.5	55.9	59	57.7	60.2	53	9	8	15	11	10
Estonia	20	7.2	16581	55.1	53.7	75.2	77.9	80.9	82.2	15	0	4	7	2	2
Finland	145	311	48288.6	37.1	27.7	55.3	43	61.7	48.3	73	11	18	27	10	7
France	1031	2779.8	41600.6	52.5	44	65.8	57	68.9	60.4	723	25	286	279	75	59
Germany	988	1911.8	41762.9	48.8	32.6	61.4	45	64	48.7	654	28	267	236	54	69
Greece	280	178.4	28548.3	45.1	39.4	61.8	51.8	65	55	203	8	141	25	9	20
Hong Kong	627	1037.2	30594	41.9	52.9	57.2	66.6	61	70	372	31	164	155	3	19
Hungary	30	50.9	13781.1	56.9	27.8	69.1	46.5	71.3	54.1	23	5	3	10	3	2
Iceland	38	54.6	68835.3	42.2	37.8	64.4	62.2	71.2	70.1	19	0	8	11	0	0
India	702	975.6	1050	27.1	45.7	35.1	55.2	37.6	58	327	63	133	67	9	55
Indonesia	292	161.1	1860.6	47.7	56.2	63.9	66.6	66.9	67.4	208	15	34	131	4	24
Ireland	82	157.7	61218.6	32.3	25	43.6	34.8	48.4	39.8	35	0	13	12	6	4
Israel	130	98.8	24606.2	38.9	43.3	44.2	55	45.1	57.7	84	3	52	17	0	12
Italy	310	1118.8	37716.4	47	34	61.9	47.7	66.8	53.2	235	15	107	80	11	23
Japan	1384	3711.7	34033.7	34.6	22.6	40.3	29.8	42	33.6	780	37	119	91	40	493
Jordan	162	29.9	3022.5	31.8	30	48.2	58.4	51.5	64.6	69	10	26	17	4	12
Kazakhstan	2	2.6	6771.4	60	91.7	73.7	97.2	79.5	97.8	1	0	0	0	0	1
Kenya	13	6.3	857.9	47.8	50.2	64.5	69.1	67.9	72.3	8	1	0	3	1	3
Korea	1631	1015.4	23101.5	29.2	30	43.3	48.1	47.2	54.8	867	20	644	95	18	90
Kuwait	129	91.9	45157.1	29.6	28.1	38.4	36.9	39.9	39.5	63	11	18	16	2	16
Latvia	30	2.7	14064.2	47.2	48.7	68.3	84.3	71.1	89.3	25	1	11	13	0	0

Lebanon	6	3.3	6015.8	50.7	44	64.2	65	71.1	74	5	0	3	2	0	0
Lithuania	43	10.7	12298.2	59	64.3	76	78.6	82.1	81	30	6	9	10	3	2
Luxembourg	39	192.8	102523.4	49	73.4	60.4	76.5	62.5	77.1	26	0	10	5	9	2
Malaysia	926	315.8	7240.7	26.1	46.1	33.8	55.9	35.5	58.9	383	44	125	168	12	34
Malta	7	4.1	18357	48.4	52	67.3	60.7	72.8	62.1	4	1	1	1	1	0
Mexico	53	239	9222.9	52	45.2	56.3	57.2	56.4	57.3	48	1	16	20	4	7
Morocco	53	59	2389.7	54.5	49.7	86.3	80.6	92.8	87.5	37	2	10	16	3	6
Namibia	2	0.1	4195.9	54.8	33	57.3	34.1	57.3	34.1	2	0	1	0	1	0
Netherlands	191	956.6	50861.1	45.3	39.4	58.9	48.8	64.6	53	101	2	24	44	13	18
New Zealand	108	51.4	32382.3	25.6	37.7	38.5	57.3	42.6	63.5	26	3	6	11	2	4
Norway	270	357.3	85128.7	36.5	41	53.2	55.3	60.3	61.2	112	14	42	37	6	13
Oman	49	14.4	16225.7	34	35.1	51.4	51.1	55.1	56.8	27	6	11	7	0	3
Pakistan	74	49.5	953.8	46.7	57.4	58.5	71.5	60.9	74.4	53	15	11	3	5	19
Papua New Guinea	4	10.2	992.7	34.6	21.6	48.2	32.9	54.8	40	2	1	0	0	0	1
Peru	126	58.2	3611.3	48.5	58	61.6	73	63.7	76.4	86	0	31	30	6	19
Philippines	184	89.1	1678.9	49.7	43.6	76	75.9	83.6	82.9	75	0	10	37	3	25
Poland	317	207.7	11247.6	46.3	54.2	61.8	64.6	64.5	66.5	209	13	97	66	11	22
Portugal	72	111.7	22780.1	50.2	41.9	66.6	66	72.1	75.3	51	2	25	17	4	3
Qatar	26	60.9	67612.5	29.4	46.5	33.5	51.6	34.3	52.2	11	9	0	0	2	0
Romania	32	32.4	8170	56.6	57.2	67.2	80.8	68.6	85.5	25	7	8	6	3	1
Russia	338	1129.5	9101.3	50.5	53.4	68.9	66.4	71.7	70.4	257	109	36	82	25	5
Saudi Arabia	73	299.7	15947.4	35.4	61.6	44.5	77	45.1	77.4	44	15	8	8	10	3
Singapore	556	390.3	39223.5	34.7	44.1	47.5	62.2	51.3	69.7	283	30	108	117	4	24
Slovakia	14	4.7	16006.9	62.6	83	68.5	91.3	68.6	91.3	11	2	1	4	1	3
Slovenia	22	19.5	23841.3	27.3	17	35	28.1	38.6	33.7	9	4	1	2	0	2
South Africa	235	417.3	6153.7	38.5	39.6	50.4	54.6	53.2	59.4	118	1	20	38	32	27
Spain	190	1109.2	32709.4	42.1	34.3	61.2	52.3	69.5	61.3	91	2	46	23	7	13
Sweden	415	569	53324.4	35	30.6	45.6	47.1	49.3	52.9	200	6	70	86	11	27
Switzerland	287	1484.7	63223.5	39.9	28.7	51.7	42.1	55	45.5	146	24	49	46	14	13
Taiwan	1303	754.5	17780.9	16.7	20.6	29	35.2	35.6	41.7	267	19	46	101	14	87
Thailand	170	130.4	3722.1	34.4	31.4	41.4	40.4	43.2	42.5	100	24	29	15	3	29
Tunisia	8	0.6	3805.3	43.6	52.3	70	75.3	77.1	81.6	3	1	0	1	0	1
Turkey	128	191.3	9309.5	53.8	58.2	65.1	72.7	65.7	73.5	104	5	35	22	25	17
Ukraine	75	84.8	3068.6	48.7	49.3	67.6	69.8	72	76.7	43	15	8	15	4	1
United Arab Emirates	62	144.5	42913.8	38.5	47.6	48.3	56.9	49.6	57.8	44	24	12	5	3	0
United Kingdom	1955	3310.1	48319.9	25.3	17.3	42.1	29.6	50.1	36.6	411	3	215	111	27	55
United States	5027	16404.1	48061.5	21.9	14.6	33.8	25.8	39.8	32.9	1241	1	662	278	152	148
Venezuela	18	5.3	8325.2	58.1	58.3	66.7	63.5	68.8	63.7	13	1	2	6	1	3

The table reports the number of firms, their total market capitalization, real GDP per capita, the simple and the market-value-weighted average of the C1, C3 and C5 ownership concentration measures, the total number of controlled firms and the number of firms in each ownership category (Family controlled, Government controlled, controlled by a private firm with an unmatched ultimate owner, controlled by a widely held private firm, controlled by a widely held public firm, Widely Held with at least one blockholder (stake >5%), and widely Held without any blockholder - dispersed) for all 74 countries in the 2007 sample

Appendix Table 3A: Firm-Level Summary Statistics in 2007

	Obs.	mean	st. dev.	min	p5	p25	median	p75	p95	max
C1 (Ownership Concentration Index, Largest Shareholder)	25976	32.99	25.51	0.01	4.3	11.2	25.5	51	91	95
C3 (Ownership Concentration Index, Three Largest Shareholders)	25976	45.36	27.43	0.01	5.94	22.51	43.33	64.98	98	100
C5 (Ownership Concentration Index, Five Largest Shareholders)	25976	49.63	27.66	0.01	6.1	27.76	50	70.24	98.6	100
Controlled Binary Index	25976	0.45	0.5	0	0	0	0	1	1	1
Mean Ownership Stake of Controlling Block	11650	54.82	22.12	20	23.5	39	51	67.1	100	100
Ultimate owner is State/Government	25976	0.04	0.2	0	0	0	0	0	0	1
Ultimate owner is Individual/Family	25976	0.17	0.37	0	0	0	0	0	1	1
Ultimate owner is Private Firm without a matched Owner	25976	0.14	0.35	0	0	0	0	0	1	1
Ultimate owner is Widely Held Private Firm	25976	0.03	0.17	0	0	0	0	0	0	1
Ultimate owner is Widely Held Public Firm	25976	0.07	0.26	0	0	0	0	0	1	1
Widely Held Corporation with at least one blockholder (>5%)	25976	0.49	0.5	0	0	0	0	1	1	1
Widely Held Corporation Without blockholders (dispersed)	25976	0.06	0.24	0	0	0	0	0	1	1
Market Capitalisation (Billion USD)	25976	1.89	9.91	0	0	0.04	0.16	0.72	6.75	472.52
Age of Firm (in years)	23553	31.72	34.03	0	3	10	20	40	105	624

The table reports summary at the firm-level for the 2007 sample.

Appendix Table 3B: Country-Level Summary Statistics in 2007 Sample

	Obs.	mean	st. dev.	min	p5	p25	median	p75	p95	max
Average C1 (Ownership Concentration, Largest Shareholder)	74	43.11	11.12	16.72	25.34	34.65	44.89	50.4	59.78	75.03
Market-Cap Weighted C1 (Ownership Concentration Largest Shareholder)	74	43.84	15.29	14.64	20.62	31.39	44.04	52.95	73.4	91.69
Average C3 (Ownership Concentration, Three Largest Shareholders)	74	56.24	12.99	29.02	33.83	46.5	57.29	66.55	76.05	86.27
Market-Cap Weighted C3 (Ownership Concentration, Three Largest Shareholders)	74	58	15.8	25.84	29.79	47.14	57.56	69.11	80.83	97.24
Average C5 (Ownership Concentration, Five Largest Shareholders)	74	59.63	13.44	34.31	37.55	49.53	60.96	68.88	82.42	92.78
Market-Cap Weighted C5 (Ownership Concentration, Five Largest Shareholders)	74	61.93	15.33	32.92	34.11	52.86	62.4	73.48	87.51	97.79
Average Share of Controlled Firms	74	60	17.43	20.49	24.07	48.19	62.71	72.5	83.33	100
Market-Cap Weighted Share of Controlled Firms	74	60.16	23.17	11.66	13.19	46.44	59.96	80.51	95.27	100
Average Share of State Controlled Firms	74	8.03	9.18	0	0	1.23	4.8	13.51	32.25	38.71
Market-Cap Weighted Share of State Controlled Firms	74	18.95	20.08	0	0	0.95	10.74	32.23	58.61	73.87
Average Share of Family/Individual Controlled Firms	74	17.99	11.71	0	0	10.96	15.7	24.21	40	50.36
Market-Cap Weighted Share of Family/Individual Controlled Firms	74	16.24	15.49	0	0	6.17	12.77	21.44	41.95	77.06
Average Share of Controlled Firms by Unmatched Private Firms	74	19.45	10.82	0	0	10.96	19.72	25.81	40.98	45.58
Market-Cap Weighted Share of Controlled Firms by Unmatched Private Firms	74	9.08	8.76	0	0	3.68	6.88	11.96	26.16	53.55
Average Share of Controlled Firms by Widely-Held Private Firms	74	5.47	7.02	0	0	1.37	3.63	7.14	15.49	50
Market-Cap Weighted Share of Controlled Firms by Widely-Held Private Firms	74	6.68	9.07	0	0	0.63	2.09	9.7	25.5	42.98
Average Share of Controlled Firms by Widely-Held Public Firms	74	9.07	8.67	0	0	4	6.89	12.4	25	50
Market-Cap Weighted Share of Controlled Firms by Widely-Held Public Firms	74	9.22	13.65	0	0	1.12	5.3	12.68	28.33	95.27
Average of Widely Held Corporations with a Block	74	36.25	16.28	0	12.5	24	32.84	47.59	68.69	73.35
Market-Cap Weighted Average of Widely Held Corporations with a Block	74	35.82	21.99	0	4.73	15.02	35.24	49.31	73.72	88.34
Average of Widely Held Corporations without a Block	74	3.74	4.17	0	0	0	2.41	5.96	10.97	19.23
Market-Cap Weighted Average of Widely Held Corporations without a Block	74	4	6.84	0	0	0	0.92	4.45	21.52	32.42
Average Ownership Stake of Controlling Blockholder	74	59.2	10.59	40.15	46.11	52.15	57.82	64.22	78.77	100
GDP Per Capita (in Current USD)	74	24484	22478.7	857.93	1050	6153.7	16403.3	41601	67612	102523

The table reports summary at the country-level for the 2007 sample.

Appendix Table 4A: Correlation Structure at the Firm-Level

	C1	C3	C5	Controlled	Individual/Family Control	State Control
Panel A: Correlation Matrix Firm-Level 2012						
C1 (Ownership Concentration Index, Largest Shareholder)	1					
C3 (Ownership Concentration Index, Three Largest Shareholders)	0.912***	1				
C5 (Ownership Concentration Index, Five Largest Shareholders)	0.862***	0.987***	1			
Controlled Binary Index	0.727***	0.638***	0.584***	1		
Individual/Family Control	0.304***	0.285***	0.264***	0.479***	1	
State Control	0.192***	0.168***	0.155***	0.250***	-0.0938***	1
Panel B: Correlation Matrix Firm-Level 2007						
C1 (Ownership Concentration Index, Largest Shareholder)	1					
C3 (Ownership Concentration Index, Three Largest Shareholders)	0.902***	1				
C5 (Ownership Concentration Index, Five Largest Shareholders)	0.832***	0.980***	1			
Controlled Binary Index	0.716***	0.597***	0.515***	1		
Individual/Family Control	0.271***	0.240***	0.208***	0.493***	1	
State Control	0.184***	0.147***	0.124***	0.230***	-0.0928***	1

The table reports the correlation structure (at the firm-level) of the key variables employed in the empirical analysis in 2012 (Panel A) and in 2007 (Panel B).

*** indicate statistical significance at the 1% level.

Appendix Table 4B: Correlation Structure at the Country-Level

	C1	Weighted C1	C3	Weighted C3	C5	Weighted C5	Share Controlle	Weighted Share Controlled
Panel A: Correlation Matrix Country-Level 2012								
Average C1 (Concentration, Largest Shareholder)	1							
Market-Cap Weighted C1	0.784***	1						
Average C3 (Concentration, Three Largest Shareholders)	0.916***	0.679***	1					
Market-Cap Weighted C3	0.783***	0.893***	0.809***	1				
Average C5 (Concentration, Five Largest Shareholders)	0.866***	0.632***	0.991***	0.791***	1			
Market-Cap Weighted C5	0.748***	0.836***	0.813***	0.988***	0.809***	1		
Average Share of Controlled Firms	0.880***	0.700***	0.747***	0.640***	0.679***	0.586***	1	
Market-Cap Weighted Share of Controlled Firms	0.684***	0.769***	0.609***	0.663***	0.564***	0.599***	0.780***	1
Panel B: Correlation Matrix Country-Level 2007								
Average C1 (Concentration, Largest Shareholder)	1							
Market-Cap Weighted C1	0.693***	1						
Average C3 (Concentration, Three Largest Shareholders)	0.905***	0.620***	1					
Market-Cap Weighted C3	0.637***	0.900***	0.700***	1				
Average C5 (Concentration, Five Largest Shareholders)	0.838***	0.555***	0.986***	0.665***	1			
Market-Cap Weighted C5	0.584***	0.827***	0.698***	0.985***	0.684***	1		
Average Share of Controlled Firms	0.787***	0.509***	0.602***	0.428***	0.493***	0.349**	1	
Market-Cap Weighted Share of Controlled Firms	0.588***	0.680***	0.425***	0.552***	0.330**	0.462***	0.642***	1

The table reports the correlation structure (at the country-level) of the key variables employed in the empirical analysis in 2012 (Panel A) and in 2007 (Panel B). *** indicate statistical significance at the 1% level.

Appendix Table 4C: Correlation Structure at the Country-Level - Laws

	Log GDP Per Capita	Employment Laws	Collective Relations	Social Security	Time to Start a Business	N. Procedures to Start a Business	Revised Anti Director Index	Anti Self Dealing Index	Ex Post Private Self Dealing	Ex Ante Private Self Dealing	Public Enforcement	Protecting Investors	Days to enforce a contract	Days to Solve Commercial Sale Dispute	Creditors Rights
Log GDP Per Capita	1														
Employment Laws	0.188	1													
Collective Relations	0.146	0.478***	1												
Social Security	0.682***	0.304*	0.275*	1											
Time to Start a Business	-0.304**	0.204	0.140	-0.251*	1										
N. Procedures to Start a Business	-0.432***	0.149	0.197	-0.294*	0.534***	1									
Revised Anti Director Index	0.0701	-0.296*	-0.140	-0.102	-0.125	-0.324**	1								
Anti Self Dealing Index	0.144	-0.582***	-0.406**	-0.0865	-0.174	-0.414***	0.518***	1							
Ex Post Private Self Dealing	0.253*	-0.513***	-0.382**	-0.0568	-0.269*	-0.485***	0.550***	0.769***	1						
Ex Ante Private Self Dealing	0.0273	-0.466***	-0.310*	-0.0856	-0.0593	-0.251*	0.355**	0.892***	0.397**	1					
Public Enforcement	0.218	0.274*	0.0959	0.228	-0.151	-0.123	0.104	-0.117	-0.0424	-0.139	1				
Protecting Investors	0.296**	-0.481***	-0.306*	0.00773	-0.233*	-0.458***	0.619***	0.813***	0.819***	0.586***	-0.0276	1			
Days to enforce a contract	-0.174	0.101	0.0574	-0.103	0.230*	0.261*	-0.240	-0.143	-0.123	-0.117	-0.154	-0.0966	1		
Days to Solve Commercial Sale Dispute	-0.385***	-0.00186	-0.0953	-0.264*	0.386***	0.442***	-0.177	-0.228	-0.184	-0.204	0.0951	-0.251*	0.548***	1	
Creditors Rights	0.166	-0.223	-0.377**	-0.0177	0.0582	-0.0370	0.261*	0.340**	0.317*	0.264*	-0.0507	0.308**	0.0135	-0.164	1

The table reports the correlation structure (at the country-level) of the key law variables employed in the empirical analysis in 2012. *** indicate statistical significance at the 1% level.

Appendix Table 5. Types of Control - Multinomial Logit - Marginal Effects
Panel A: Large Firms 2012

Type of Corporate Control	Model (1)					Model (2)				
	<u>State</u>	<u>Family /</u>	<u>Private</u>	<u>Widely-Held</u>	<u>Widely-Held</u>	<u>State</u>	<u>Family /</u>	<u>Private</u>	<u>Widely-Held</u>	<u>Widely-Held</u>
	(1a)	<u>Individual</u>	<u>Unidentified</u>	<u>Private Firms</u>	<u>Public Firms</u>	(2a)	<u>Individual</u>	<u>Unidentifie</u>	<u>Private Firms</u>	<u>Public Firms</u>
French Legal Origin	0.0666*** (0.0239)	0.0981*** (0.0272)	0.0981*** (0.0292)	0.0380*** (0.00818)	0.0511*** (0.0124)	0.0146 (0.0198)	0.0254 (0.0388)	0.0977*** (0.0307)	0.0120 (0.00895)	0.0965*** (0.0365)
German Legal Origin	0.0856 (0.0560)	-0.00491 (0.0355)	0.0624 (0.0612)	0.00208 (0.00749)	0.0728 (0.0654)	0.0545* (0.0310)	-0.0318 (0.0392)	0.0340 (0.0403)	0.00596 (0.0100)	0.0478 (0.0319)
Scandinavian Legal Origin	0.0288 (0.0233)	-0.00232 (0.0389)	0.0215 (0.0238)	0.0162 (0.0109)	0.00314 (0.0160)	0.0618 (0.0466)	-0.0419 (0.0512)	0.0839** (0.0372)	0.00118 (0.0126)	0.0239 (0.0297)
Log GDP Per Capita						-0.0413*** (0.0117)	-0.0411*** (0.0138)	-0.0288* (0.0159)	-0.00693 (0.00443)	0.0201 (0.0176)
Firm-level Controls	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
Regional Fixed-Effects	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes

Appendix Table 5. Types of Control - Multinomial Logit - Marginal Effects
Panel B: Small Firms 2012

Type of Corporate Control	Model (1)					Model (2)				
	<u>State</u>	<u>Family /</u>	<u>Private</u>	<u>Widely-Held</u>	<u>Widely-</u>	<u>State</u>	<u>Family /</u>	<u>Private</u>	<u>Widely-</u>	<u>Widely-Held</u>
	(1a)	<u>Individual</u>	<u>Unidentified</u>	<u>Private Firms</u>	<u>Held</u>	(2a)	<u>Individual</u>	<u>Unidentifie</u>	<u>Held Private</u>	<u>Public Firms</u>
	(2a)	(3a)	(4a)	(5a)		(2b)	(2c)	(2d)	(2e)	
French Legal Origin	0.0470*	0.0952**	0.172***	0.0144*	0.0100	0.0262*	0.0411	0.148***	0.0136*	0.0301*
	(0.0245)	(0.0374)	(0.0280)	(0.00759)	(0.0128)	(0.0142)	(0.0403)	(0.0448)	(0.00727)	(0.0174)
German Legal Origin	0.0153*	0.0316	0.0841**	0.00282	0.0369	0.00541	0.0169	0.0493	0.00998	0.0326
	(0.00920)	(0.0430)	(0.0428)	(0.00806)	(0.0337)	(0.0106)	(0.0438)	(0.0501)	(0.00877)	(0.0259)
Scandinavian Legal Origin	-0.00743**	-0.0376**	0.101***	0.0165**	-0.0167	-0.00643	-0.0695**	0.0996*	0.0189*	0.00699
	(0.00364)	(0.0172)	(0.0263)	(0.00786)	(0.0120)	(0.00915)	(0.0336)	(0.0601)	(0.0104)	(0.0176)
Log GDP Per Capita						-0.00737*	-0.0128	-0.00708	0.00197	0.00114
						(0.00383)	(0.0118)	(0.0107)	(0.00359)	(0.00772)
Firm-level Controls	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
Regional Fixed-Effects	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes

The table reports firm-level multinomial logit model (maximum likelihood) estimates (marginal effects). In Panel A and Panel B we restrict estimation on small and large firms, respectively, using as a cut-off the (world-sample) median value of market capitalization. The dependent variable is a categorical variable that identifies (i) widely-held firms without a dominant controlling shareholder; (ii) controlled by the state firms; (iii) controlled by families or individuals firms; (iv) controlled firms by privately held firms with a disperse ownership base; and (v) controlled firms by listed widely-held corporations. The key explanatory variables are legal origin indicator variables that take the value of one for French civil-law, German civil-law, and Scandinavian civil-law countries, respectively, with British-origin common law serving as the omitted category. In all specifications, we control for the logarithm of real GDP p.c. in 2012. All specifications include regional fixed effects (constants not reported). The Data Appendix gives detailed variable definitions and sources. Heteroscedasticity adjusted and clustered at the country-level standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

**Appendix Table 6. Corporate Control and Legal Origin
Alternative Estimation Techniques**

Panel A: Linear Probability Model Estimates in 2012

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
French Legal Origin	0.3413*** (0.0451)	0.3042*** (0.0348)	0.3060*** (0.0576)	0.2675*** (0.0573)	0.3066*** (0.0656)	0.2480*** (0.0574)	0.2552*** (0.0628)
German Legal Origin	0.1951** (0.0800)	0.1678** (0.0654)	0.1327 (0.0926)	0.1424* (0.0806)	0.1299 (0.0980)	0.1390* (0.0753)	0.1437* (0.0808)
Scandinavian Legal Origin	0.0557 (0.0441)	0.1124*** (0.0362)	0.0662 (0.0860)	0.0791 (0.0880)	0.0723 (0.0899)	0.0700 (0.0882)	0.0834 (0.0909)
Log Market Capitalization					0.0095 (0.0092)		0.0086 (0.0101)
Log Age					0.0062 (0.0152)		-0.0019 (0.0122)
Log GDP Per Capita		-0.0695*** (0.0160)		-0.0618*** (0.0215)		-0.0555*** (0.0206)	-0.0592*** (0.0213)
Regional Fixed Effects	No	No	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	No	No	No	No	No	Yes	Yes
R-squared	0.07	0.09	0.09	0.10	0.09	0.11	0.12
Observations	26843	26843	26843	26843	21751	26843	21751
Countries	85	85	85	85	85	85	85

The table reports firm-level linear probability model OLS estimates. The dependent variable is an indicator that takes on the value of one if a firm is controlled in 2012 (by either an individual/family, a private firm that we could not identify the ultimate controlling family/individual, the government, banks, or institutional investors) and zero when the firm is widely held (with or without a block). The key explanatory variables are legal origin indicator variables that take the value of one for French civil-law, German civil-law, and Scandinavian civil-law countries, respectively, with British-origin common law serving as the omitted category. The specifications in columns (3)-(7) include regional fixed effects (constants not reported). The specifications in columns (6) and (7) include industry fixed effects, using SIC-2 sectoral classifications (85 sectors, constants not reported). The Data Appendix gives detailed variable definitions and sources. Heteroscedasticity adjusted and clustered at the country-level standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

**Appendix Table 6. Corporate Control and Legal Origin
Alternative Estimation Techniques**

Panel B: Logit (Maximum Likelihood) Estimates (Marginal Effects) in 2012

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
French Legal Origin	0.3256*** (0.2046)	0.2892*** (0.1576)	0.2921*** (0.2522)	0.2540*** (0.2510)	0.2922*** (0.2878)	0.2349*** (0.2537)	0.2407*** (0.2788)
German Legal Origin	0.1857** (0.3318)	0.1594*** (0.2725)	0.1220 (0.3864)	0.1338* (0.3433)	0.1186 (0.4111)	0.1300* (0.3249)	0.1350* (0.3525)
Scandinavian Legal Origin	0.0559 (0.1981)	0.1123*** (0.1702)	0.0668 (0.3788)	0.0797 (0.3814)	0.0729 (0.3990)	0.0705 (0.3889)	0.0841 (0.4053)
Log Market Capitalization					0.0098 (0.0409)		0.0089 (0.0457)
Log Age					0.0062 (0.0671)		-0.0019 (0.0562)
Log GDP Per Capita		-0.0663*** (0.0689)		-0.0585*** (0.0959)		-0.0521** (0.0929)	-0.0565*** (0.0977)
Regional Fixed Effects	No	No	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	No	No	No	No	No	Yes	Yes
R-squared	0.05	0.07	0.06	0.07	0.07	0.09	0.09
Observations	26843	26843	26843	26843	21751	26843	21751
Countries	85	85	85	85	85	85	85

The table reports firm-level logit model (maximum-likelihood) estimates (marginal effects). The dependent variable is an indicator that takes on the value of one if a firm is controlled in 2012 (by either an individual/family, a private firm that we could not identify the ultimate controlling family/individual, the government, banks, or institutional investors) and zero when the firm is widely held (with or without a block). The key explanatory variables are legal origin indicator variables that take the value of one for French civil-law, German civil-law, and Scandinavian civil-law countries, respectively, with British-origin common law serving as the omitted category. The specifications in columns (3)-(7) include regional fixed effects (constants not reported). The specifications in columns (6) and (7) include industry fixed effects, using SIC-2 sectoral classifications (85 sectors, constants not reported). The Data Appendix gives detailed variable definitions and sources. Heteroscedasticity adjusted and clustered at the country-level standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

**Appendix Table 7. Corporate Control and Legal Origin
Baseline Cross-Country Estimates in 2007**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
French Legal Origin	0.3420*** (0.0476)	0.3156*** (0.0420)	0.3137*** (0.0609)	0.2750*** (0.0666)	0.3019*** (0.0632)	0.2629*** (0.0673)	0.2543*** (0.0686)
German Legal Origin	0.2179*** (0.0788)	0.2008*** (0.0734)	0.1765** (0.0860)	0.1816** (0.0820)	0.1697* (0.0881)	0.1761** (0.0780)	0.1752** (0.0800)
Scandinavian Legal Origin	0.1310*** (0.0499)	0.1689*** (0.0452)	0.1184 (0.0875)	0.1195 (0.0897)	0.1149 (0.0873)	0.1150 (0.0899)	0.1142 (0.0900)
Log Market Capitalization					-0.0031 (0.0080)		-0.0037 (0.0082)
Log Age					0.0191 (0.0131)		0.0138 (0.0111)
Log GDP Per Capita		-0.0498*** (0.0151)		-0.0511** (0.0224)		-0.0461** (0.0219)	-0.0472** (0.0231)
Regional Fixed-Effects	No	No	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	No	No	No	No	No	Yes	Yes
Observations	25976	25976	25976	25976	23546	25968	23538
Countries	74	74	74	74	74	74	74

The table reports firm-level probit model (maximum-likelihood) estimates (marginal effects). The dependent variable is an indicator that takes on the value of one if a firm is controlled in 2007 (by either an individual/family, a private firm that we could not identify the ultimate controlling family/individual, the government, banks, or institutional investors) and zero when the firm is widely held (with or without a block). The key explanatory variables are legal origin indicator variables that take the value of one for French civil-law, German civil-law, and Scandinavian civil-law countries, respectively, with British-origin common law serving as the omitted category. The specifications in columns (3)-(7) include regional fixed effects (constants not reported). The specifications in columns (6) and (7) include industry fixed effects, using SIC-2 sectoral classifications (85 sectors, constants not reported). The Data Appendix gives detailed variable definitions and sources. Heteroscedasticity adjusted and clustered at the country-level standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 8. Corporate Control and Legal Origin
Baseline Cross-Country Estimates. Pooled Cross-Sectional Estimates 2004-2012

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
French Legal Origin	0.3359*** (0.0464)	0.3107*** (0.0383)	0.3109*** (0.0593)	0.2737*** (0.0629)	0.3094*** (0.0627)	0.2617*** (0.0631)	0.2637*** (0.0652)
German Legal Origin	0.2074*** (0.0798)	0.1910*** (0.0711)	0.1631* (0.0886)	0.1758** (0.0826)	0.1594* (0.0915)	0.1720** (0.0774)	0.1737** (0.0810)
Scandinavian Legal Origin	0.0975** (0.0480)	0.1430*** (0.0418)	0.0928 (0.0890)	0.0985 (0.0908)	0.0952 (0.0890)	0.0927 (0.0903)	0.0988 (0.0902)
Log Market Capitalization					0.0045 (0.0092)		0.0038 (0.0094)
Log Age					0.0113 (0.0145)		0.0048 (0.0119)
Log GDP Per Capita		-0.0563*** (0.0138)		-0.0565** (0.0220)		-0.0501** (0.0213)	-0.0522** (0.0222)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Regional Fixed Effects	No	No	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	No	No	No	No	No	Yes	Yes
Observations	224783	224783	224783	224783	196858	224757	196830
Countries	117	117	117	117	112	117	112

The table reports firm-level probit model (maximum-likelihood) estimates (marginal effects). The dependent variable is an indicator that takes on the value of one if a firm is controlled in a given year during 2004-2012 (by either an individual/family, a private firm that we could not identify the ultimate controlling family/individual, the government, banks, or institutional investors) and zero when the firm is widely held (with or without a block). The key explanatory variables are legal origin indicator variables that take the value of one for French civil-law, German civil-law, and Scandinavian civil-law countries, respectively, with British-origin common law serving as the omitted category. The specifications in columns (3)-(7) include regional fixed effects (constants not reported). The specifications in columns (6) and (7) include industry fixed effects, using SIC-2 sectoral classifications (85 sectors, constants not reported). All specifications include year fixed-effects (constants not reported). The Data Appendix gives detailed variable definitions and sources. Heteroscedasticity adjusted and clustered at the country-level standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

**Appendix Table 9. Corporate Control and Legal Origin
Baseline Cross-Country Estimates Using Country-Averages**

Sample	2012		2007		2004-2012	
	(1)	(2)	(3)	(4)	(5)	(6)
French Legal Origin	0.1311*** (0.0450)	0.1671*** (0.0456)	0.1454*** (0.0451)	0.0909* (0.0514)	0.0836 (0.0524)	0.0721 (0.0585)
German Legal Origin	0.0577 (0.0520)	0.1042* (0.0551)	0.1398** (0.0533)	0.1189** (0.0589)	0.0930 (0.0665)	0.0893 (0.0863)
Scandinavian Legal Origin	-0.1617* (0.0850)	-0.0100 (0.0815)	-0.0534 (0.0799)	-0.0475 (0.0850)	-0.1016 (0.1178)	-0.0983 (0.1390)
Log GDP Per Capita		-0.0571*** (0.0181)		-0.0476** (0.0200)		0.0001 (0.0238)
Regional Fixed Effects	No	Yes	No	Yes	No	Yes
R-squared	0.17	0.49	0.19	0.37	0.04	0.07
Observations	85	85	74	74	117	117
Countries	85	85	74	74	117	117

The table reports country-level OLS estimates. The dependent is the proportion of controlled firms in each country (constructed by averaging the control indicator in each country) in 2012 (columns (1)-(2)), in 2007 (columns (3)-(4)) and in 2004-2012 (in columns (5)-(6)). The control indicator is an indicator variable that takes on the value of one if a firm is controlled (by either an individual/family, a private firm that we could not identify the ultimate controlling family/individual, the government, banks, or institutional investors) and zero when the firm is widely held (with or without a block). The key explanatory variables are legal origin indicator variables that take the value of one for French civil-law, German civil-law, and Scandinavian civil-law countries, respectively, with British-origin common law serving as the omitted category. The specifications in even-numbered columns include regional fixed effects (constants not reported). The Data Appendix gives detailed variable definitions and sources. Heteroscedasticity adjusted standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

**Appendix Table 10. Ownership Concentration and Legal Origin
Baseline Cross-Country Estimates in 2007**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
French Legal Origin	0.2369*** (0.0270)	0.2340*** (0.0259)	0.1718*** (0.0290)	0.1628*** (0.0308)	0.1589*** (0.0294)	0.1551*** (0.0307)	0.1444*** (0.0313)
German Legal Origin	0.0756 (0.0469)	0.0738 (0.0469)	0.0377 (0.0394)	0.0384 (0.0399)	0.0236 (0.0400)	0.0383 (0.0387)	0.0280 (0.0393)
Scandinavian Legal Origin	0.1190*** (0.0314)	0.1223*** (0.0337)	0.0341 (0.0415)	0.0341 (0.0425)	0.0272 (0.0428)	0.0326 (0.0414)	0.0276 (0.0424)
Log Market Capitalization					-0.0003 (0.0036)		-0.0003 (0.0032)
Log Age					0.0160** (0.0078)		0.0136* (0.0074)
Log GDP Per Capita		-0.0044 (0.0103)		-0.0106 (0.0125)		-0.0079 (0.0124)	-0.0092 (0.0139)
Regional Fixed-Effects	No	No	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	No	No	No	No	No	Yes	Yes
R-squared	0.1	0.1	0.14	0.14	0.14	0.15	0.16
Observations	25976	25976	25976	25976	23546	25976	23546
Countries	74	74	74	74	74	74	74

The table reports firm-level OLS estimates. The dependent variable is the C3 index of ownership concentration in 2007. The C3 index reflects the equity stake (voting rights) held by the 3 largest shareholders (while treating family members as one representative shareholder with aggregated voting rights). The key explanatory variables are legal origin indicator variables that take the value of one for French civil-law, German civil-law, and Scandinavian civil-law countries, respectively, with British-origin common law serving as the omitted category. The specifications in columns (3)-(7) include regional fixed effects (constants not reported). The specifications in columns (6) and (7) include industry fixed effects, using SIC-2 sectoral classifications (85 sectors, constants not reported). The Data Appendix gives detailed variable definitions and sources. Heteroscedasticity adjusted and clustered at the country-level standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 11. Ownership Concentration and Legal Origin
Baseline Cross-Country Estimates. Pooled Cross-Sectional Estimates 2004-2012

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
French Legal Origin	0.2392*** (0.0262)	0.2283*** (0.0236)	0.1761*** (0.0323)	0.1594*** (0.0344)	0.1698*** (0.0339)	0.1506*** (0.0336)	0.1482*** (0.0348)
German Legal Origin	0.0706 (0.0486)	0.0639 (0.0464)	0.0331 (0.0431)	0.0373 (0.0419)	0.0230 (0.0446)	0.0381 (0.0402)	0.0317 (0.0423)
Scandinavian Legal Origin	0.1013*** (0.0283)	0.1162*** (0.0293)	0.0308 (0.0477)	0.0328 (0.0494)	0.0270 (0.0486)	0.0305 (0.0467)	0.0298 (0.0476)
Log Market Capitalization					0.0059 (0.0044)		0.0053 (0.0040)
Log Age					0.0093 (0.0089)		0.0063 (0.0078)
Log GDP Per Capita		-0.0193* (0.0101)		-0.0224* (0.0126)		-0.0188 (0.0127)	-0.0194 (0.0138)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Regional Fixed Effects	No	No	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	No	No	No	No	No	Yes	Yes
R-squared	0.1	0.1	0.13	0.14	0.14	0.15	0.17
Observations	224783	224783	224783	224783	196858	224783	196858
Countries	117	117	117	117	112	117	112

The table reports firm-level OLS estimates. The dependent variable is the C3 index of ownership concentration in 2004-2012. The C3 index reflects the equity stake (voting rights) held by the 3 largest shareholders (while treating family members as one representative shareholder with aggregated voting rights) in each year. The key explanatory variables are legal origin indicator variables that take the value of one for French civil-law, German civil-law, and Scandinavian civil-law countries, respectively, with British-origin common law serving as the omitted category. The specifications in columns (3)-(7) include regional fixed effects (constants not reported). The specifications in columns (6) and (7) include industry fixed effects, using SIC-2 sectoral classifications (85 sectors, constants not reported). All specifications include year fixed-effects (constants not reported). The Data Appendix gives detailed variable definitions and sources. Heteroscedasticity adjusted and clustered at the country-level standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

**Appendix Table 12. Ownership Concentration and Legal Origin
Baseline Cross-Country Estimates Using Country-Averages**

Sample	2012		2007		2004-2012	
	(1)	(2)	(3)	(4)	(5)	(6)
French Legal Origin	0.2369*** (0.0270)	0.2340*** (0.0259)	0.1718*** (0.0290)	0.1628*** (0.0308)	0.1589*** (0.0294)	0.1551*** (0.0307)
German Legal Origin	0.0756 (0.0469)	0.0738 (0.0469)	0.0377 (0.0394)	0.0384 (0.0399)	0.0236 (0.0400)	0.0383 (0.0387)
Scandinavian Legal Origin	0.1190*** (0.0314)	0.1223*** (0.0337)	0.0341 (0.0415)	0.0341 (0.0425)	0.0272 (0.0428)	0.0326 (0.0414)
Log GDP Per Capita		-0.0044 (0.0103)		-0.0106 (0.0125)		-0.0079 (0.0124)
Regional Fixed Effects	No	Yes	No	Yes	No	Yes
R-squared	0.22	0.56	0.28	0.56	0.11	0.17
Observations	85	85	74	74	117	117
Countries	85	85	74	74	117	117

The table reports country-level OLS estimates. The dependent variable is the C3 index of ownership concentration averaged in each country in 2012 (columns (1)-(2)), in 2007 (columns (3)-(4)) and in 2004-2012 (in columns ((5)-(6)). The C3 index reflects the equity stake (voting rights) held by the 3 largest shareholders (while treating family members as one representative shareholder with aggregated voting rights) in each year. The key explanatory variables are legal origin indicator variables that take the value of one for French civil-law, German civil-law, and Scandinavian civil-law countries, respectively, with British-origin common law serving as the omitted category. The specifications in even-numbered columns include regional fixed effects (constants not reported). The Data Appendix gives detailed variable definitions and sources. Heteroscedasticity adjusted standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

**Appendix Table 13. Ownership Concentration and Legal Origin
Median (Least Absolute Deviation) Regressions**

Panel A: Ownership Concentration 2012

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
French Legal Origin	0.3309*** (0.0376)	0.3000*** (0.0364)	0.2571*** (0.0383)	0.1991*** (0.0518)	0.2549*** (0.0477)	0.1791*** (0.0554)	0.1864*** (0.0556)
German Legal Origin	0.1440 (0.1032)	0.1079 (0.0799)	0.0522 (0.1056)	0.0392 (0.0840)	0.0372 (0.1083)	0.0364 (0.0830)	0.0296 (0.0801)
Scandinavian Legal Origin	0.0885* (0.0463)	0.1249*** (0.0410)	0.0373 (0.0679)	0.0295 (0.0802)	0.0311 (0.0764)	0.0314 (0.0742)	0.0274 (0.0767)
Log Market Capitalization					0.0074 (0.0076)		0.0090 (0.0069)
Log Age					-0.0014 (0.0138)		-0.0070 (0.0121)
Log GDP Per Capita		-0.0547** (0.0232)		-0.0497** (0.0249)		-0.0419* (0.0228)	-0.0367 (0.0225)
Regional Fixed-Effects	No	No	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	No	No	No	No	No	Yes	Yes
R-squared	0.1	0.11	0.15	0.16	0.17	0.18	0.19
Observations	26843	26843	26843	26843	21751	26843	21751
Countries	85	85	85	85	85	85	85

**Appendix Table 13. Ownership Concentration and Legal Origin
Median (Least Absolute Deviation) Regressions**

Panel B: Ownership Concentration 2007

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
French Legal Origin	0.3019*** (0.0397)	0.2861*** (0.0398)	0.2203*** (0.0271)	0.1951*** (0.0402)	0.2181*** (0.0274)	0.1954*** (0.0397)	0.1851*** (0.0409)
German Legal Origin	0.1154 (0.0772)	0.1067 (0.0667)	0.0523 (0.0600)	0.0498 (0.0614)	0.0425 (0.0602)	0.0450 (0.0548)	0.0380 (0.0560)
Scandinavian Legal Origin	0.1611*** (0.0389)	0.1704*** (0.0427)	0.0612 (0.0485)	0.0558 (0.0540)	0.0582 (0.0508)	0.0486 (0.0554)	0.0470 (0.0577)
Log Market Capitalization					-0.0020 (0.0051)		-0.0036 (0.0047)
Log Age					0.0133 (0.0103)		0.0104 (0.0101)
Log GDP Per Capita		-0.0170 (0.0138)		-0.0202 (0.0200)		-0.0168 (0.0175)	-0.0201 (0.0185)
Regional Fixed Effects	No	No	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	No	No	No	No	No	Yes	Yes
R-squared	0.1	0.1	0.13	0.13	0.14	0.15	0.15
Observations	25976	25976	25976	25976	23546	25976	23546
Countries	74	74	74	74	74	74	74

The table reports least-absolute-deviation (median) regression estimates, associating ownership concentration in 2012 (Panel A) and in 2007 (Panel B) with legal origin. The C3 index reflects the equity stake (voting rights) held by the 3 largest shareholders (while treating family members as one representative shareholder with aggregated voting rights). The key explanatory variables are legal origin indicator variables that take the value of one for French civil-law, German civil-law, and Scandinavian civil-law countries, respectively, with British-origin common law serving as the omitted category. The specifications in columns (3)-(7) include regional fixed effects (constants not reported). The specifications in columns (6) and (7) include industry fixed effects, using SIC-2 sectoral classifications (85 sectors, constants not reported). The Data Appendix gives detailed variable definitions and sources. Heteroscedasticity adjusted and clustered at the country-level standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

**Appendix Table 14. Ownership Concentration and Legal Origin
Using Alternative Equity Concentration Measures (C1 and C5)**

Panel A: C1 (Concentration Index, Largest Shareholder) in 2012

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
French Legal Origin	0.2063*** (0.0222)	0.1922*** (0.0209)	0.1616*** (0.0321)	0.1466*** (0.0334)	0.1647*** (0.0366)	0.1399*** (0.0329)	0.1456*** (0.0358)
German Legal Origin	0.0741* (0.0412)	0.0637 (0.0394)	0.0369 (0.0425)	0.0407 (0.0404)	0.0352 (0.0461)	0.0443 (0.0376)	0.0450 (0.0408)
Scandinavian Legal Origin	0.0414* (0.0216)	0.0631*** (0.0218)	0.0195 (0.0488)	0.0245 (0.0503)	0.0228 (0.0516)	0.0250 (0.0476)	0.0305 (0.0498)
Log Market Capitalization					0.0041 (0.0045)		0.0038 (0.0045)
Log Age					0.0014 (0.0081)		-0.0012 (0.0072)
Log GDP Per Capita		-0.0265** (0.0108)		-0.0240** (0.0107)		-0.0206** (0.0102)	-0.0205* (0.0103)
Regional Fixed Effects	No	No	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	No	No	No	No	No	Yes	Yes
R-squared	0.09	0.1	0.11	0.12	0.13	0.14	0.16
Observations	26843	26843	26843	26843	21751	26843	21751
Countries	85	85	85	85	85	85	85

**Appendix Table 14. Ownership Concentration and Legal Origin
Using Alternative Equity Concentration Measures (C1 and C5)**

Panel B: C5 (Concentration Index, 5 Largest Shareholders) in 2012

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
French Legal Origin	0.2551*** (0.0242)	0.2391*** (0.0252)	0.1713*** (0.0356)	0.1530*** (0.0370)	0.1619*** (0.0394)	0.1415*** (0.0358)	0.1398*** (0.0379)
German Legal Origin	0.0680 (0.0553)	0.0562 (0.0532)	0.0084 (0.0507)	0.0130 (0.0481)	-0.0022 (0.0513)	0.0124 (0.0461)	0.0055 (0.0473)
Scandinavian Legal Origin	0.0733** (0.0335)	0.0977*** (0.0351)	0.0030 (0.0548)	0.0091 (0.0575)	-0.0021 (0.0593)	0.0058 (0.0531)	0.0057 (0.0575)
Log Market Capitalization					0.0100** (0.0047)		0.0102** (0.0045)
Log Age					0.0017 (0.0093)		-0.0020 (0.0080)
Log GDP Per Capita		-0.0299** (0.0149)		-0.0293* (0.0153)		-0.0257* (0.0153)	-0.0239 (0.0145)
Regional Fixed Effects	No	No	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	No	No	No	No	No	Yes	Yes
R-squared	0.1	0.11	0.15	0.16	0.17	0.18	0.2
Observations	26843	26843	26843	26843	21751	26843	21751
Countries	85	85	85	85	85	85	85

The table reports firm-level OLS estimates. The dependent variable in Panel A (C1) reflects the equity stake (voting rights) held by the largest shareholder (while treating family members as one representative shareholder with aggregated voting rights) in 2012. The dependent variable in Panel B (C5) reflects the equity stake (voting rights) held by the five largest shareholders (while treating family members as one representative shareholder with aggregated voting rights) in 2012. The key explanatory variables are legal origin indicator variables that take the value of one for French civil-law, German civil-law, and Scandinavian civil-law countries, respectively, with British-origin common law serving as the omitted category. The specifications in columns (3)-(7) include regional fixed effects (constants not reported). The specifications in columns (6) and (7) include industry fixed effects, using SIC-2 sectoral classifications (85 sectors, constants not reported). The Data Appendix gives detailed variable definitions and sources. Heteroscedasticity adjusted and clustered at the country-level standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 15. Investor Protection, Court System Formalism, and Product and Labour Market Regulation and Legal Origin

	<u>Ex Post</u> <u>Private Self</u> <u>Dealing</u> (1)	<u>Ex Ante</u> <u>Private Self</u> <u>Dealing</u> (2)	<u>Revised</u> <u>Anti</u> <u>Director</u> <u>Index</u> (3)	<u>Creditors</u> <u>Rights</u> (4)	<u>Public</u> <u>Enforcement</u> (5)	<u>Log of days</u> <u>to enforce a</u> <u>contract</u> (6)	<u>Time to</u> <u>Start a</u> <u>Business</u> <u>(Log Days)</u> (7)	<u>N.</u> <u>Procedures</u> <u>to Start a</u> <u>Business</u> <u>(Log)</u> (8)	<u>Employment</u> <u>Laws</u> (9)	<u>Colletctive</u> <u>Relations</u> (9)	<u>Social</u> <u>Security</u> (9)
French Legal Origin	-0.3437*** (0.0595)	-0.3377*** (0.0987)	-1.1336*** (0.2959)	-1.0048*** (0.2960)	0.1230 (0.1323)	0.0715 (0.1905)	0.2897 (0.2507)	0.3014** (0.1240)	0.2732*** (0.0391)	0.1727*** (0.0319)	0.1420** (0.0670)
German Legal Origin	-0.2643*** (0.0570)	-0.3478*** (0.1158)	-1.1748*** (0.3330)	-0.1785 (0.2969)	0.1532 (0.1578)	0.0363 (0.2265)	0.3267 (0.2320)	0.2123* (0.1227)	0.2250*** (0.0445)	0.1365*** (0.0373)	0.2292*** (0.0577)
Scandinavian Legal Origin	-0.2139** (0.0826)	-0.3902*** (0.0976)	-0.4105 (0.2702)	-0.3369 (0.2907)	0.2211 (0.2333)	-0.6900** (0.2762)	-0.9522*** (0.2901)	-0.5823*** (0.1489)	0.3882*** (0.0408)	0.1459** (0.0689)	0.3450*** (0.0586)
R-squared	0.40	0.23	0.23	0.17	0.03	0.05	0.13	0.25	0.47	0.34	0.25
Observations	64	64	64	76	64	76	79	79	65	65	65
Countries	64	64	64	76	64	76	79	79	65	65	65

The table reports firm-level OLS estimates. The dependent variables are various measures of Investor protection, Court system formalism and Product and labour market regulation. The key explanatory variables are legal origin indicator variables that take the value of one for French civil-law, German civil-law, and Scandinavian civil-law countries, respectively, with British-origin common law serving as the omitted category. The Data Appendix gives detailed variable definitions and sources. Heteroscedasticity adjusted and clustered at the country-level standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 16. Ownership Concentration and Protecting Investors
Cross Country Estimates

Sample	2012			2007			2004-2012		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Revised Anti Director Index	-0.0104 (0.0124)			-0.0006 (0.0138)			-0.0082 (0.0127)		
Creditors Rights	-0.0184 (0.0250)			-0.0241 (0.0210)			-0.0224 (0.0229)		
Anti Self Dealing Index		-0.0448 (0.1009)			-0.1429** (0.0679)			-0.1188 (0.0748)	
Public Enforcement		0.0413 (0.0274)			0.0224 (0.0301)			0.0416 (0.0280)	
Ex Ante Private Self Dealing			0.0559 (0.0564)			-0.0248 (0.0428)			-0.0021 (0.0459)
Ex Post Private Self Dealing			-0.2463*** (0.0714)			-0.2015*** (0.0597)			-0.2286*** (0.0627)
Log GDP Per Capita	-0.0319* (0.0178)	-0.0362 (0.0221)	-0.0285** (0.0116)	-0.0183 (0.0185)	-0.0203 (0.0186)	-0.0120 (0.0154)	-0.0271 (0.0162)	-0.0302 (0.0190)	-0.0211* (0.0124)
Time Fixed Effects	No	No	No	No	No	No	Yes	Yes	Yes
Regional Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.16	0.16	0.18	0.13	0.14	0.14	0.14	0.15	0.15
R-squared Restricted	0.14	0.14	0.14	0.12	0.12	0.12	0.12	0.12	0.12
Difference in R-squared	0.02	0.02	0.04	0.01	0.02	0.02	0.02	0.03	0.03
Observations	25696	25759	25759	25390	25467	25467	215970	216610	216610
Countries	62	64	64	59	61	61	67	69	69

The table reports firm-level OLS estimates. The dependent variable is the C3 index of ownership concentration in 2012 (columns (1)-(3)), in 2007 (columns (4)-(6)) and in 2004-2012 (in columns (7)-(9)). The key explanatory variables are various measures of investor protection. The specifications in columns (7)-(9) include time effects (constants not reported). All the specifications include regional fixed effects (constants not reported) and industry fixed effects, using SIC-2 sectoral classifications (85 sectors, constants not reported). The Data Appendix gives detailed variable definitions and sources. Heteroscedasticity adjusted and clustered at the country-level standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

**Appendix Table 17. Corporate Control and Self Dealing Split by Size
Cross-Country Probit (ML) Estimates**

Sample	2012		2007		2004-2012	
	<u>Small</u>	<u>Large</u>	<u>Small</u>	<u>Large</u>	<u>Small</u>	<u>Large</u>
	(1)	(2)	(3)	(4)	(5)	(6)
Ex Ante Private Self Dealing	-0.0972 (0.1045)	0.0160 (0.0863)	-0.1943** (0.0838)	-0.0769 (0.0993)	-0.1642* (0.0857)	-0.0509 (0.0907)
Ex Post Private Self Dealing	-0.2156 (0.1328)	-0.3324*** (0.1186)	-0.1373 (0.1398)	-0.3147** (0.1452)	-0.1693 (0.1358)	-0.3373** (0.1312)
Log GDP Per Capita	-0.0113 (0.0272)	-0.0867*** (0.0216)	-0.0153 (0.0288)	-0.0689** (0.0303)	-0.0113 (0.0271)	-0.0751*** (0.0257)
Time Fixed Effects	No	No	No	No	Yes	Yes
Regional Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.06	0.12	0.06	0.10	0.05	0.12
Observations	12784	12960	12806	12649	110012	106560
Countries	64	64	61	61	69	69

The table reports firm-level probit model (maximum-likelihood) estimates (marginal effects). The dependent variable is an indicator that takes on the value of one if a firm is controlled (by either an individual/family, a private firm that we could not identify the ultimate controlling family/individual, the government, banks, or institutional investors) and zero when the firm is widely held (with or without a block). The results are reported in 2012 (columns (1)-(2)), in 2007 (columns (3)-(4)) and in 2004-2012 (in columns (5)-(6)). The key explanatory variables are various measures of investor protection. In columns (1), (3) and (5) we focus on small firms, and in columns (2), (4) and (6) we focus on large firms using as a cut-off the (world-sample) median value of market capitalization. The specifications in columns (5)-(6) include time effects (constants not reported). All the specifications include regional fixed effects (constants not reported) and industry fixed effects, using SIC-2 sectoral classifications (85 sectors, constants not reported). The Data Appendix gives detailed variable definitions and sources. Heteroscedasticity adjusted and clustered at the country-level standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 18. Corporate Control / Ownership Concentration - Investor Protection and Legal Origins

Sample	Control			Ordered Index of Control			C3		
	2012	2007	2004-2012	2012	2007	2004-2012	2012	2007	2004-2012
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Ex Ante Private Self Dealing	0.0783 (0.0862)	-0.0041 (0.0836)	0.0258 (0.0821)	0.2178 (0.2294)	0.0078 (0.1937)	0.0848 (0.2047)	0.0680 (0.0488)	0.0009 (0.0383)	0.0228 (0.0433)
Ex Post Private Self Dealing	-0.0665 (0.1547)	0.0141 (0.1464)	-0.0082 (0.1479)	-0.4816 (0.3929)	-0.1833 (0.3169)	-0.3008 (0.3345)	-0.1447* (0.0804)	-0.1196* (0.0661)	-0.1289* (0.0723)
French Legal Origin	0.2429*** (0.0710)	0.2650*** (0.0775)	0.2686*** (0.0743)	0.5406*** (0.2030)	0.6609*** (0.1878)	0.6319*** (0.1896)	0.1298*** (0.0421)	0.1300*** (0.0418)	0.1332*** (0.0411)
German Legal Origin	0.1423* (0.0763)	0.1691* (0.0923)	0.1731** (0.0865)	0.2067 (0.2286)	0.3579 (0.2208)	0.3283 (0.2211)	0.0120 (0.0345)	0.0135 (0.0391)	0.0205 (0.0387)
Scandinavian Legal Origin	0.0837 (0.0959)	0.1193 (0.0887)	0.1067 (0.0891)	0.0935 (0.2442)	0.2274 (0.2043)	0.1913 (0.2160)	-0.0048 (0.0544)	0.0005 (0.0494)	0.0072 (0.0501)
Log GDP Per Capita	-0.0518*** (0.0197)	-0.0417** (0.0196)	-0.0476** (0.0193)	-0.0958** (0.0470)	-0.0718 (0.0441)	-0.0925** (0.0443)	-0.0204** (0.0095)	0.0007 (0.0110)	-0.0127 (0.0102)
Time Fixed Effects	No	No	Yes	No	No	Yes	No	No	Yes
Regional Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.09	0.08	0.08	0.06	0.06	0.06	0.19	0.16	0.17
Observations	25751	25460	216581	25759	25467	216610	25759	25467	216610
Countries	64	61	69	64	61	69	64	61	69

The table reports firm-level probit model (maximum-likelihood) estimates (marginal effects) for control, ordered probit coefficients for the ordered index of control, and OLS estimates for C3. The three dependent variables are: (i) columns (1)-(3): control - an indicator that takes on the value of one if a firm is controlled (by either an individual/family, a private firm that we could not identify the ultimate controlling family/individual, the government, banks, or institutional investors) and zero when the firm is widely held (with or without a block); (ii) columns (4)-(6): An ordered index of corporate control. The trichotomous index takes the value of zero for widely held firms without any shareholder holding a significant block (all shareholders hold less than 5% of firm's voting rights); the index takes the value of one for widely held firms with at least one block shareholder (in excess of 5% and less than 50%), the index equals two for firms with a well-identified controlling shareholder of any type; (iii) columns (7)-(9) The C3 index of ownership concentration in which reflects the equity stake (voting rights) held by the 3 largest shareholders. For each dependent variable the results are reported in 2012 (columns (1),(4),(7)), in 2007 (columns (2),(5),(8)) and in 2004-2012 (in columns (3),(6),(9)). The key explanatory variables are the measures of Investor protection: the Ex Ante- and Ex Post Self Dealing Index, as well as the legal origin indicator variables that take the value of one for French civil-law, German civil-law, and Scandinavian civil-law countries, respectively, with British-origin common law serving as the omitted category. The specifications in columns (3),(6), and (9) include time effects (constants not reported). All the specifications include regional fixed effects (constants not reported) and industry fixed effects, using SIC-2 sectoral classifications (85 sectors, constants not reported). The Data Appendix gives detailed variable definitions and sources. Heteroscedasticity adjusted and clustered at the country-level standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

**Appendix Table 19. Ownership Concentration Product and Entry Market Regulation
Cross-Country OLS Estimates**

Sample	2012			2007			2004-2012		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Time to Start a Business (Log Days)	0.0126 (0.0236)			-0.0097 (0.0202)			-0.0011 (0.0210)		
N. Procedures to Start a Business (Log)		0.0389 (0.0406)			0.0372 (0.0318)			0.0389 (0.0301)	
Cost to Start a Business (% of income pc)			0.0005 (0.0010)			0.0009 (0.0010)			0.0003 (0.0008)
Log GDP Per Capita	-0.0309 (0.0242)	-0.0317 (0.0201)	-0.0335 (0.0226)	-0.0315 (0.0232)	-0.0196 (0.0178)	-0.0177 (0.0201)	-0.0339 (0.0212)	-0.0275* (0.0164)	-0.0303 (0.0192)
Time Fixed Effects	No	No	No	No	No	No	Yes	Yes	Yes
Regional Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.15	0.15	0.15	0.13	0.13	0.13	0.13	0.13	0.13
Observations	26484	26484	26484	25795	25795	25795	220983	220983	220983
Countries	79	79	79	69	69	87	106	106	106

The table reports firm-level OLS estimates. The dependent variable is the C3 index of ownership concentration. The C3 index reflects the equity stake (voting rights) held by the 3 largest shareholders (while treating family members as one representative shareholder with aggregated voting rights). The results are reported in 2012 (columns (1)-(3)), in 2007 (columns (4)-(6)) and in 2004-2012 (in columns (7)-(9)). The key explanatory variables are various measures of product and entry market regulation. The specifications in columns (7)-(9) include time effects (constants not reported). All the specifications include regional fixed effects (constants not reported) and industry fixed effects, using SIC-2 sectoral classifications (85 sectors, constants not reported). The Data Appendix gives detailed variable definitions and sources. Heteroscedasticity adjusted and clustered at the country-level standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 20. Corporate Control / Ownership Concentration and Product and Entry Market Regulation

Panel A: Small Firms

Sample	Control						C3					
	2012		2007		2004-2012		2012		2007		2004-2012	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Time to Start a Business (Log Days)	0.0222 (0.0439)		0.0207 (0.0588)		0.0178 (0.0547)		0.0174 (0.0250)		-0.0127 (0.0240)		-0.0041 (0.0224)	
N. Procedures to Start a Business (Log)		0.1549*** (0.0551)		0.1342*** (0.0450)		0.1474*** (0.0447)		0.0613 (0.0386)		0.0451 (0.0356)		0.0487 (0.0299)
Log GDP Per Capita	-0.0131 (0.0369)	-0.0032 (0.0209)	-0.0114 (0.0493)	0.0032 (0.0247)	-0.0137 (0.0432)	-0.0002 (0.0215)	-0.0083 (0.0213)	-0.0086 (0.0150)	-0.0208 (0.0318)	-0.0029 (0.0229)	-0.0179 (0.0231)	-0.0077 (0.0152)
Time Fixed Effects	No	No	No	No	Yes	Yes	No	No	No	No	Yes	Yes
Regional Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.05	0.06	0.04	0.05	0.04	0.05	0.17	0.18	0.13	0.13	0.12	0.13
Observations	13400	13400	12991	12991	111818	111818	13411	13411	12998	12998	111842	111842
Countries	78	78	68	68	99	99	78	78	68	68	99	99

Appendix Table 20. Corporate Control / Ownership Concentration and Product and Entry Market Regulation

Panel B: Large Firms

Sample	Control						C3					
	2012		2007		2004-2012		2012		2007		2004-2012	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Time to Start a Business (Log Days)	0.0426 (0.0286)		0.0379 (0.0404)		0.0471 (0.0367)		0.0064 (0.0237)		-0.0068 (0.0191)		0.0011 (0.0209)	
N. Procedures to Start a Business (Log)		0.0861* (0.0491)		0.1184** (0.0548)		0.1254** (0.0495)		0.0099 (0.0444)		0.0361 (0.0327)		0.0341 (0.0334)
Log GDP Per Capita	-0.0891*** (0.0301)	-0.0990*** (0.0231)	-0.0712* (0.0369)	-0.0728*** (0.0265)	-0.0733** (0.0316)	-0.0784*** (0.0221)	-0.0563*** (0.0208)	-0.0583*** (0.0184)	-0.0376* (0.0219)	-0.0289 (0.0189)	-0.0477** (0.0195)	-0.0435** (0.0169)
Time Fixed Effects	No	No	No	No	Yes	Yes	No	No	No	No	Yes	Yes
Regional Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.11	0.11	0.09	0.09	0.10	0.11	0.17	0.17	0.14	0.14	0.17	0.17
Observations	13069	13069	12783	12783	109129	109129	13073	13073	12797	12797	109141	109141
Countries	79	79	68	68	102	102	79	79	68	68	102	102

The table reports firm-level probit model (maximum-likelihood) estimates (marginal effects) for control, ordered probit coefficients for the ordered index of control, and OLS estimates for C3. Panel A reports results for small firms (market cap below or equal global median), and Panel B reports results for large firms (market cap above global median). The three dependent variables are: (i) columns (1)-(6): control - an indicator that takes on the value of one if a firm is controlled (by either an individual/family, a private firm that we could not identify the ultimate controlling family/individual, the government, banks, or institutional investors) and zero when the firm is widely held (with or without a block); (ii) columns (7)-(12) The C3 index of ownership concentration in which reflects the equity stake (voting rights) held by the 3 largest shareholders. For each dependent variable the results are reported in 2012 (columns (1),(2),(7),(8)), in 2007 (columns (3),(4),(9),(10)) and in 2004-2012 (in columns (5),(6),(11),(12)). The key explanatory variables are various measures of product and entry market regulation. The specifications in columns (5),(6),(11) and (12) include time effects (constants not reported). All the specifications include regional fixed effects (constants not reported) and industry fixed effects, using SIC-2 sectoral classifications (85 sectors, constants not reported). The Data Appendix gives detailed variable definitions and sources. Heteroscedasticity adjusted and clustered at the country-level standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 21. Corporate Control / Ownership Concentration and Labour Market Regulation - Split by Size

Panel A: Small Firms

Sample	Control			Ordered Index of Control			C3		
	2012	2007	2004-2012	2012	2007	2004-2012	2012	2007	2004-2012
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Employment Laws	-0.2331* (0.1384)	-0.1898 (0.1352)	-0.2412* (0.1401)	-0.6668 (0.4058)	-0.4041 (0.3336)	-0.4929 (0.3453)	-0.0459 (0.1095)	-0.0686 (0.1043)	-0.0255 (0.0967)
Collective Relations	0.9152*** (0.1320)	0.9524*** (0.1347)	0.9664*** (0.1286)	2.4277*** (0.4482)	2.3832*** (0.3397)	2.3782*** (0.3570)	0.4394*** (0.0807)	0.4612*** (0.1016)	0.4242*** (0.0808)
Social Security	-0.3397* (0.1740)	-0.2408* (0.1422)	-0.2174 (0.1589)	-0.8251 (0.5052)	-0.3627 (0.3202)	-0.3852 (0.3707)	-0.0159 (0.1082)	-0.1679 (0.1310)	-0.0424 (0.0878)
Log GDP Per Capita	-0.0103 (0.0266)	-0.0208 (0.0312)	-0.0252 (0.0303)	-0.0054 (0.0659)	-0.0422 (0.0759)	-0.0470 (0.0739)	-0.0177 (0.0270)	-0.0078 (0.0195)	-0.0172 (0.0207)
Time Fixed Effects	No	No	Yes	No	No	Yes	No	No	Yes
Regional Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.09	0.09	0.08	0.06	0.07	0.06	0.17	0.21	0.16
Observations	13049	12882	110081	13060	12888	110108	12888	13060	110108
Countries	65	61	75	65	61	75	61	65	77

Appendix Table 21. Corporate Control / Ownership Concentration and Labour Market Regulation - Split by Size

Panel B: Large Firms

Sample	Control			Ordered Index of Control			C3		
	2012	2007	2004-2012	2012	2007	2004-2012	2012	2007	2004-2012
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Employment Laws	0.2062 (0.1864)	0.0697 (0.1619)	0.1426 (0.1765)	0.4302 (0.5390)	0.3281 (0.4592)	0.5109 (0.4966)	0.1577 (0.1405)	0.2027 (0.1440)	0.2056 (0.1376)
Collective Relations	0.3659** (0.1568)	0.6537*** (0.1422)	0.5483*** (0.1502)	1.0002** (0.4804)	1.4992*** (0.4424)	1.2375*** (0.4607)	0.2232 (0.1369)	0.1523 (0.1283)	0.1878 (0.1303)
Social Security	0.1437 (0.1761)	0.1214 (0.2092)	0.1227 (0.2004)	0.3697 (0.4974)	0.3521 (0.5187)	0.3835 (0.5372)	-0.0179 (0.1069)	0.0165 (0.1051)	0.0219 (0.1104)
Log GDP Per Capita	-0.1153*** (0.0343)	-0.1049*** (0.0356)	-0.1072*** (0.0340)	-0.3042*** (0.0906)	-0.2663*** (0.0939)	-0.2817*** (0.0918)	-0.0255 (0.0181)	-0.0492** (0.0217)	-0.0395** (0.0189)
Time Fixed Effects	No	No	Yes	No	No	Yes	No	No	Yes
Regional Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.13	0.12	0.13	0.08	0.08	0.09	0.16	0.19	0.19
Observations	12704	12516	106399	12708	12530	106410	12530	12708	106410
Countries	65	61	76	65	61	76	61	65	77

The table reports firm-level probit model (maximum-likelihood) estimates (marginal effects) for control, ordered probit coefficients for the ordered index of control, and OLS estimates for C3. Panel A reports results for small firms (market cap below or equal global median), and Panel B reports results for large firms (market cap above global median). The three dependent variables are: (i) columns (1)-(3): control - an indicator that takes on the value of one if a firm is controlled (by either an individual/family, a private firm that we could not identify the ultimate controlling family/individual, the government, banks, or institutional investors) and zero when the firm is widely held (with or without a block); (ii) columns (4)-(6): An ordered index of corporate control. The trichotomous index takes the value of zero for widely held firms without any shareholder holding a significant block (all shareholders hold less than 5% of firm's voting rights); the index takes the value of one for widely held firms with at least one block shareholder (in excess of 5% and less than 50%), the index equals two for firms with a well-identified controlling shareholder of any type; (iii) columns (7)-(9) The C3 index of ownership concentration in which reflects the equity stake (voting rights) held by the 3 largest shareholders. For each dependent variable the results are reported in 2012 (columns (1),(4),(7)), in 2007 (columns (2),(5),(8)) and in 2004-2012 (in columns (3),(6),(9)). The key explanatory variables are various measures of labour market regulation. The specifications in columns (3),(6), and (9) include time effects (constants not reported). All the specifications include regional fixed effects (constants not reported) and industry fixed effects, using SIC-2 sectoral classifications (85 sectors, constants not reported). The Data Appendix gives detailed variable definitions and sources. Heteroscedasticity adjusted and clustered at the country-level standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Appendix Table 22. Corporate Control / Ownership Concentration - Investor Protection, Court System Formalism, and Product and Labour Market Regulation

Sample	Control			Ordered Index of Control			C3		
	2012	2007	2004-2012	2012	2007	2004-2012	2012	2007	2004-2012
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Ex Ante Private Self Dealing	0.1980** (0.0903)	0.1212 (0.0885)	0.1471* (0.0881)	0.6131** (0.2440)	0.3611* (0.2074)	0.4326** (0.2159)	0.1754*** (0.0470)	0.1041** (0.0519)	0.1195** (0.0477)
Ex Post Private Self Dealing	-0.1559 (0.1533)	0.0075 (0.1322)	-0.0501 (0.1347)	-0.6983* (0.3733)	-0.0875 (0.2977)	-0.2897 (0.3080)	-0.1411 (0.0868)	-0.0531 (0.0694)	-0.0718 (0.0686)
Log of days to enforce a contract	-0.0011 (0.0312)	-0.0134 (0.0320)	-0.0203 (0.0308)	0.0233 (0.0766)	-0.0313 (0.0767)	-0.0469 (0.0752)	0.0168 (0.0188)	-0.0062 (0.0176)	-0.0021 (0.0174)
N. Procedures to Start a Business (Log)	0.0635 (0.0654)	0.0622 (0.0505)	0.0770 (0.0537)	0.0257 (0.1636)	0.1576 (0.1107)	0.1473 (0.1210)	-0.0022 (0.0373)	0.0236 (0.0281)	0.0171 (0.0282)
Employment Laws	-0.0344 (0.1897)	0.0021 (0.1558)	0.0046 (0.1627)	-0.3312 (0.5006)	0.1117 (0.3732)	0.1009 (0.4079)	0.0079 (0.1123)	0.0635 (0.1069)	0.0899 (0.1037)
Collective Relations	0.7461*** (0.2105)	0.8724*** (0.2055)	0.8066*** (0.2110)	2.2188*** (0.6686)	2.1678*** (0.5331)	2.0105*** (0.5811)	0.5185*** (0.1206)	0.4311*** (0.1303)	0.4294*** (0.1263)
Social Security	0.0003 (0.1788)	0.0466 (0.1712)	0.0659 (0.1784)	-0.1348 (0.5133)	0.2581 (0.3710)	0.2180 (0.4329)	-0.0792 (0.0970)	0.0199 (0.0787)	0.0171 (0.0771)
Log GDP Per Capita	-0.0703** (0.0329)	-0.0754** (0.0343)	-0.0771** (0.0326)	-0.1736** (0.0879)	-0.1742** (0.0783)	-0.1838** (0.0797)	-0.0326** (0.0162)	-0.0236 (0.0160)	-0.0322** (0.0149)
Time Fixed Effects	No	No	Yes	No	No	Yes	No	No	Yes
Regional Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.09	0.09	0.09	0.07	0.07	0.07	0.20	0.17	0.17
Observations	25688	25383	215941	25696	25390	215970	25696	25390	215970
Countries	62	59	67	62	59	67	62	59	67

The table reports firm-level probit model (maximum-likelihood) estimates (marginal effects) for control, ordered probit coefficients for the ordered index of control, and OLS estimates for C3. The three dependent variables are: (i) columns (1)-(3): control - an indicator that takes on the value of one if a firm is controlled (by either an individual/family, a private firm that we could not identify the ultimate controlling family/individual, the government, banks, or institutional investors) and zero when the firm is widely held (with or without a block); (ii) columns (4)-(6): An ordered index of corporate control. The trichotomous index takes the value of zero for widely held firms without any shareholder holding a significant block (all shareholders hold less than 5% of firm's voting rights); the index takes the value of one for widely held firms with at least one block shareholder (in excess of 5% and less than 50%), the index equals two for firms with a well-identified controlling shareholder of any type; (iii) columns (7)-(9) The C3 index of ownership concentration in which reflects the equity stake (voting rights) held by the 3 largest shareholders. For each dependent variable the results are reported in 2012 (columns (1),(4),(7)), in 2007 (columns (2),(5),(8)) and in 2004-2012 (in columns (3),(6),(9)). The key explanatory variables are various measures of Investor protection, Court system formalism and Product and labour market regulation. The specifications in columns (3),(6), and (9) include time effects (constants not reported). All the specifications include regional fixed effects (constants not reported) and industry fixed effects, using SIC-2 sectoral classifications (85 sectors, constants not reported). The Data Appendix gives detailed variable definitions and sources. Heteroscedasticity adjusted and clustered at the country-level standard errors are reported in parentheses below the estimates. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.