

# Listing Advantages Around the World\*

Kenichi Ueda<sup>†</sup>

Somnath Sharma<sup>‡</sup>

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## Abstract

Using the firm-level data of 29 countries of 10 years (from 2008–2017) for both listed and unlisted firms, we find that the listed firms, on an average, tend to have lower marginal products of capital (measured by return on assets) in comparison with the unlisted firms. This implies that the listed firms face less financial constraints. Moreover, we investigate the institutional factors that exacerbate or mitigate the listing advantages across the countries. The listing advantages are enlarged with product market competition and macroeconomic instability, which are factors raising profit volatilities. General institutional quality seems to belong to these factors. On the other hand, the listing advantages are lowered with financial developments and creditor's rights, which are factors easing financial constraints. We, however, do not find robust effects from corporate governance, perhaps because there is a trade-off between easing financial constraints and lowering owners' benefits to go public.

**Keywords:** Listing, financial constraints, financial frictions, institutional factors, marginal product of capital

**JEL Codes:** G32, E22

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<sup>†</sup>University of Tokyo, TCER, and CEPR

<sup>‡</sup>University of Tokyo and Reserve Bank of India

# 1 Introduction

Using the firm-level data of 29 countries of 10 years (from 2008–2017) for both listed and unlisted firms, we find that the listed firms, on an average, tend to have lower marginal products of capital (measured by return on assets) in comparison with the unlisted firms. This implies that the listed firms face less financial constraints. Moreover, we investigate the institutional factors that exacerbate or mitigate the listing advantages across the countries. The listing advantages are enlarged with product market competition and macroeconomic instability, which are factors raising profit volatilities. General institutional quality seems to belong to these factors. On the other hand, the listing advantages are lowered with financial developments and creditor’s rights, which are factors easing financial constraints. We, however, do not find robust effects from corporate governance, perhaps because there is a trade-off between easing financial constraints and lowering owners’ benefits to go public.

Although, cross-country studies are rare, several country specific studies, so far, identify the advantages of listing. Ueda et al. (2019), using Japanese firm-level data over the period 1995–2014, find that listing can mitigate the financial constraints of firms. Compared to a similar unlisted firm, a listed firm has a lower marginal product of capital, especially, in recessions. Schoubben and Van Hulle (2011), using the Belgian firm-level data (from 1992 to 2005) with consolidated financial statements, find that listing provides more flexibility in financing and reduces the financial constraints. Gilje and Taillard (2016), based on panel regressions, show that listed natural gas firms in the US have a higher sensitivity to gas price movements (i.e., growth opportunities) than the unlisted rivals in the same industry. The difference is more pronounced in shale gas investments, which are more capital intensive. For British firms, Saunders and Steffen (2011) find that the listed firms enjoy lower bank loan rates. In their European cross-country study, Mortal and Reisel (2013) report that the listed firms have higher investment sensitivity on growth opportunities (proxied by sales growth) and such tendencies are higher for countries with more developed stock markets.

Other authors find that listing results in tightening of financial constraints. Stein (1989), argue that it may be possible theoretically as a result of the worsening of agency problems under sparse ownership. For US firms, Asker et al. (2014), show that US-listed firms are more short-termist in nature, that is, they are less sensitive to growth opportunities (proxied by sales growth). Sheen (2016), also shows that the US listing firms in chemical industries have a lower sensitivity of capacity investment on demand shocks.

Mixed evidence sometimes is reported by some authors. For British firms, Brav (2009), shows that listed firms have lower leverage, but with lower fluctuations in capital structure. In their European cross country study, Goyal et al. (2011) also report that listed firms have lower leverage, but with more active management on leverage. They find that this difference between the listed and the unlisted firms are more pronounced in countries with stronger creditor's rights. For Japanese firms, Orihara (2014) presents univariate pictures that show the listed firms have lower investments on average but with lower fluctuations in investment over business cycles. Orihara and Isobe (2014), report that the listed firms have lower leverage, though with minimal control variables in their regressions.

Cross-country differences of financial frictions have been explained by institutional factors. Claessens et al. (2014), using an improved version of the standard investment model, estimate how institutions affect financial frictions at the firm (micro) level and, through the required rate of return, at the country (macro) level. Based on listed firm-level panel data from 40 countries over the period 1990 to 2007, they show that shareholder rights affect financial frictions while creditor's rights do not. Abiad et al. (2008), show that the cross-sectional dispersion of listed-firms' Tobin's Q, which is regarded as a measure of the ex-ante efficiency of capital allocation, improves with financial liberalizations. Few, if not none, so far, have studied the role of several institutional factors on financial constraints between the

listed and the unlisted firms using the cross-country panel data.

## 2 Data

We use two levels of data—country-wise firm-level and country-level data. For the country-wise firm-level data we use ORBIS database which is provided commercially by Bureau van Dijk (BvD). The ORBIS database provides balance sheets and income statements together with information on firms' ownership structures for over 300 million companies across the world. In terms of downloading and cleaning the data from ORBIS, we follow Kalemli-Ozcan et al. (2015) as much as possible to prepare nationally representative data with minimal missing information. For our purpose, we use the data from 29 countries for manufacturing firms from 2008–2017. We restrict our attention to the firms with at least 2 years of available data points. We also eliminate the pure subsidiaries, i.e., if a firm's immediate shareholder owns more than 50 percent of the shares.

Following the literature (Hayashi, 1982), we take it as granted that the marginal product of capital (MPK) is proxied by the average product of capital, assuming typical production functions exhibiting constant returns to scale in factor inputs. We use the return on assets ( $ROA$ , %) as a benchmark proxy for the average and marginal products of capital because a firm should utilize all the assets efficiently. In reality, to ease the financing constraints, especially for possible liquidity needs in case of distress, firms may save and hold some amounts of cash and equivalents, which yield very low returns in general. If so, it makes sense to exclude liquid assets from the *Total Assets* and to focus on the return on fixed assets ( $ROK$ , %) as another proxy for the marginal products of capital. We also estimate and report our results using  $ROK$ . We drop outliers, that is, samples showing smaller (or larger) values than three standard deviations from the averages in terms of the return on asset ( $ROA$ ) and the return on fixed assets ( $ROK$ ). The number of firm-year observations by country is

provided in Table 1a.

We use dummy  $d = 1$  if the firm is listed on the stock market and  $d = 0$  otherwise. We use *Total Assets* a measure of the *Size* of a firm and the total number of years from the year of incorporation as the *Age* of the firm. For *Leverage*, we use the debt-to-asset ratio (*D/A Ratio*). The country-wise summary statistics and correlation tables of these variables are given in Appendix Table A1.

For each country, we estimate the listing advantages by the average treatment effect using the propensity score matching technique. We find that, for the majority of the countries in our study, *Listing* lowers *ROA* and *ROK*. That is, the marginal products of capital of the listed firms are lower than those of the unlisted firms that have similar characteristics. This finding seems to be consistent with a simple theory. As long as diminishing marginal returns prevail, any financial constraints limiting investments raise the marginal product of capital of a firm more than its unconstrained level. In other words, the listing firms should be less financially constrained. Indeed, in many countries *Listing* is negatively correlated with *D/A Ratio*, implying that equity finance works as a source of financing. And, firms maintain lower leverage, which makes listed firms less likely to hit the prohibitive borrowing constraints.

Next, we investigate the factors behind different levels of listing effects on *ROA* across countries. We call the average treatment effects (taking listing as treated) as listing advantages for each country. We take several institutional indicators from various sources, which are described in Table 1b. The correlation table for the cross-country analysis is given in Table 1c. Notably, Table 1c shows that the average difference of marginal products of capital between the listed and the unlisted firms is negatively associated with the majority of the indicators of corporate governance, institutional quality, product market competition, and

financial development.

### 3 Results

#### 3.1 Estimation of Average Treatment Effect on Treated: Propensity Score Matching

Following Ueda et al. (2019), we conduct a propensity score matching estimation (PSM) to identify the listing advantages for each country. Specifically, we first predict the probability of firms to be listed based on *Size* (total asset), *Age*, *Industry* (2-digit level) and *Leverage* (*D/A Ratio*). Second, we match the listed and the unlisted firms, one to one, if they share the (almost) same probability of being listed.<sup>1</sup> We confirm that covariates are well balanced in matched samples (report omitted). Third, we compare the difference in the variables of interest i.e *ROA* between two matched samples to determine the effects of listing.

The dependent variable, marginal product of capital, is proxied by the return on asset (*ROA*) in most of our analysis. The regressor is the binary variable, *Listing*, taking value one if listed and zero otherwise. The control variables are *Size* and *Age*. We also include lagged *Leverage* to control for possible default risks, debt overhang, and ROE targeting behaviors.

We notice a caveat for our propensity score matching estimates. On the one hand, *Age* and *Industry* can be regarded as pre-determined or almost exogenous to the firm's decision on *Listing*. On the other hand, *Size* (total asset) may be endogenous to *Listing* but it is a slow-moving variable which is less likely to affect the *Listing* decision in each year.

In Figure 1, we present the average treatment effect on treated (ATT), that is, the av-

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<sup>1</sup>We use STATA 15 command `psmatch2` with caliper 0.1 and collect the propensity scores.

erage difference of in the *ROA* as a result of being listed. We find that on an average the difference of the *ROA* as a result of *Listing* is mostly negative for almost all the countries (i.e. on an average the listed firms tend to have a lower *ROA* as compared to the unlisted firms). This difference is more pronounced in the case of the US, UK, Turkey, Sweden, Ireland, France and Australia. For some of the developing countries like Austria, Greece, Hungary, India, Malaysia and Netherlands, this difference is not found to be statistically significant. Whereas, only for China, this difference turns out to be positive.

The treated and the controlled are switched, in a sense, at 50 percent probability of being listed. For firms higher than 50 percent score, they should be listed according to the statistical model. The difference between the listed and the unlisted can be interpreted as the opportunity loss for the unlisted not being listed, though they should be. On the other hand, for firms lower than 50 percent score, they should not be listed according to the statistical model. The difference between the listed and the unlisted in this case can be interpreted as the extra benefits of being listed when they should not be.

Note that the underlying assumption for justifying propensity score matching estimation is that the listing status is not based on the economic reasons, at least not on the current economic factors. And, assignment of such non-economic reasons across firms are assumed to be random, at least on the basis of observed characteristics (*Age, Size, Industry, and Leverage*). For example, some owner-managers of the unlisted firms may enjoy non-economic benefits and adamantly refuse to be listed. The assignment of these non-economic benefits to owner-managers of firms can be considered as random. On the other hand, managers of some listed firms may care about reputation risks of delisting on their careers. Hence, some firms may well be listed based on an economic basis, although they are placed under the 50 percent propensity score threshold. This reputation consideration may be associated with low current return (i.e., not a random assignment). Hence, theoretically, non-economic

reasons should appear more clearly among those samples above the 50 percent threshold.

We investigate whether the beneficial effects based on all firms are similarly found in firms with more than 50 percent propensity score (Appendix Tables A2.1–2.3). Among the firms with higher than 50 percent propensity score, the listing effects are broadly consistent with our benchmark results. This is also in line with Ueda et al. (2019) on Japanese data. Therefore, theoretically, although the random assignment assumption of listing status might not be perfectly solid, we can regard the benchmark results based on all firms as if it is having a random assignment.

### 3.2 Robustness Check

As a robustness check, we also run the fixed-effect regressions for each country. Note that the distribution of the listed firms is skewed towards larger ones while that of the unlisted is towards smaller ones.<sup>2</sup> This asymmetric distribution potentially causes bias to fixed-effect-regression estimates as the error terms of the listed and the unlisted might not be randomly distributed even with *Listing* binary variable and other control variables are used in the regressions.

$$MPK_{i,j,t} = \alpha_j^M + \beta^M Listing_{i,j,t} + \gamma_1^M Size_{i,j,t-1} + \gamma_2^M Age_{i,j,t} + \gamma_3^M Leverage_{i,j,t-1} + \epsilon_{i,j,t}^M, \quad (1)$$

where  $i$  denotes each firm,  $j$  industry, and  $t$  year.

The estimation results based on (1) show that the listed firms face less financial frictions as in PSM estimates for ATT. Appendix A3 reports the country-wise results for manufacturing firms. The robust standard errors are reported with clustering at the 2-digit industry level. The coefficients on the listing are significantly negative for almost all the countries when we control for *Size*, *Age* and *Leverage*.

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<sup>2</sup>See Appendix 1 where country-wise correlation tables are reported.

In Figure 2, we present the estimates (statistically significant) of  $\beta^M$  (the marginal effect of *Listing* on the *MPK*). We also find that the average difference of *MPK* due to the listing based on ATT of PSM and coefficient of listing in the fixed effect regression (i.e.  $\beta^M$  in equation (1)) are strongly positively correlated, with correlation coefficient 0.668.

## 4 Cross-country Regression

### 4.1 Benchmark Cross-country Regression

To investigate the factors affecting listing advantages, we regress the ATT (where the listing is used as the treatment) on corporate governance, creditors' rights, institutional quality, product market competition, financial market development, macroeconomic volatility, inflation and interest rates.

$$\begin{aligned}
 ATT_{k,t} = & \alpha_i + \beta_1 CorporateGovernance_{k,t} + \beta_2 Creditor'sRights_{k,t} \\
 & + \beta_3 InstitutionalQuality_{k,t} + \beta_4 ProductMarketCompetition_{k,t} \\
 & + \beta_5 FinancialMarketDevelopment_{k,t} + \beta_6 MacroVolatility_{k,t} \\
 & + \beta_7 Inflation_{k,t} + \beta_8 InterestRate_{k,t} + \nu_{k,t},
 \end{aligned} \tag{2}$$

where  $k$  denotes country and  $t$  year. Table 1b lists all the indicators for the institutional variables. For the benchmark regression (2), we use the following variables:<sup>3</sup>

- **Corporate Governance:** We use the self-dealing index provided by Djankov et al. (2008) as an indicator of *Corporate Governance*. Self-dealing index is a measure of legal protection of minority shareholders against expropriation by corporate insiders. This index is calculated on the basis of legal rules prevailing in 2003, and focuses on private enforcement mechanisms, such as disclosure, approval, and litigation, that

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<sup>3</sup>Not all the variables are time varying, specifically, Anti-director's rights index, Corporate Governance Quality Index, Self-dealing Index, and Creditor's Rights Index.

govern a specific self-dealing transaction. This index predicts a variety of stock market outcomes, and generally works better than other measures of corporate governance e.g. anti-director rights.

- **Creditor's rights:** We use the creditor's rights as given in the Djankov et al. (2008). The creditor rights index first proposed by Porta et al. (1998), for every year during this period. The index measures the legal rights of creditors against defaulting debtors in different jurisdictions and has been previously interpreted as a measure of creditor power.
- **Institutional Quality:** We use the property rights index data published by the World Economic Forum. This data is part of Global Competitiveness Report and is collected through survey of different stakeholders across the world. It takes into account the protection of property rights including financial assets. Score of 1 means property rights are not protected all and score of 7 means it is protected to a great extent.
- **Financial Development:** As a benchmark measure of financial development we take private-sector-credit-to-GDP ratio (%) given by the World Bank.
- **Product Market Competition:** We take new business registrations per 1000 people in the age group of 15-64 years (World Bank) as a benchmark measure of product market competition.
- **Macro Volatility:** As a measure of macroeconomic volatility we estimate the standard deviation of inflation from the last 5 year average CPI inflation.
- **Inflation Rate:** We take the annual average of year-on-year CPI inflation data from the Global Economic Monitor Database of the World Bank.
- **Interest Rate:** As a measure of interest rate we take the 3-month average Treasury-Bill rate or prime lending rate or 3-month average lending rate, whichever is available for each country from Datastream.

The regression result (Table 2a column 1) shows that corporate governance is negatively associated with the difference of *ROA*. In other words, in the countries with better self-dealing index, the listing advantages tend to be larger. We find the opposite result with creditor's rights. In the countries where the creditor's rights are stronger, the difference in *ROA* due to listing is smaller. The general institutional quality works similarly to corporate governance, enlarging the listing advantages. The financial market development, tends to narrow the difference in *ROA*.

## 4.2 Robustness Checks: Cross-country Regression

To verify that our results are not driven by the specific firm and country measures as well as by the characteristic of the sample, we examine a number of alternative specifications. For this, we change the indicators of each of the variables one-by-one and compare the results.

In the benchmark, we use the ATT estimates using the propensity score match based on all firms in each country. However, as we discussed above, listed firms with the probability of listing less than 50 percent are likely financially distressed and low *ROA* might not be regarded as random assignment. So, we run a regression focusing only on firms with a probability of listing more than 50 percent. We obtained almost the same result (report omitted).

For corporate governance, we use six different indicators, namely, Corporate Governance Quality Index, Anti-Directors Rights Index, Extent of Directors Liability, Corporate Board Efficacy Index and Protection of Minority Shareholders Index. These details are described in Table 1b. Results are shown in Table 2a, columns 2–6. Overall, estimates are not robust—some are positive others are negative and the rest are statistically insignificant.

For creditor's rights, we use three different indicators—Creditor's Rights, Strength of Insolvency Framework and Time to Resolve Insolvency (years). The results are shown in

Table 2b. These alternative indicators reflect not only creditor’s rights but also borrower’s rights as well as the overall efficiency of the bankruptcy procedure. The result shows that more borrower’s rights seems to enlarge the listing advantages. This seems consistent with the positive coefficient on the Creditor’s Rights in the benchmark regression.

For institutional quality, we use the Rule of Law instead of Property Rights and find essentially the same result (Table 2c, column 10). When we use Trust in People, results become statistically insignificant.

For the financial market development, we use three different indicators—the Sum of Stock Market Capitalization, Private Bond Market Capitalization and Bank Credit over GDP; The Stock Market Capitalization (over GDP); and Prevalence of Foreign Ownership. Results are given in Table 2d. All the benchmark results essentially hold except for the Foreign Ownership, which is statistically insignificant.

For the product market competition, we use two other indicators that reflect the ease of market entry, namely, the Cost of Starting Business and Trade Barriers. Overall, the benchmark results hold. Note that the higher cost of starting a business means more barriers to entry while a higher score of trade barrier index means lower barriers to trade.

For the macroeconomic conditions, macro volatilities seem to robustly enlarge the listing advantages as do the level of the real interest rate. Inflation does not seem to matter (Table 2f).

## 5 Conclusion

Based on propensity score matching estimations, we find that listed firms enjoy greater access to finance, which lowers marginal products of capital on average in 22 countries out of 29 sample countries. Other countries show no listing advantages, except that listed firms in China seem to have less access to finance. The effect is essentially the same when we compare listed and unlisted firms from the set of firms with 50 percent or more propensity of being listed. The fixed-effect regressions broadly replicate these findings. We surmise that the private firm owners adamantly resisting listing would have some benefits to do so but at the same time we confirm that they face tighter financial constraints.

We define the listing advantages as the average treatment effect on treated (ATT) on *ROA* for each sample country. We then investigate factors behind the listing advantages based on cross-country regressions. Stronger creditor's rights (and weaker borrower's rights) seem to lower the listing advantages. The same effect is associated with financial market developments. These are often regarded as factors easing financial constraints of firms. However, corporate governance does not affect the listing advantages robustly. On the other hand, product market competition and macroeconomic instability seem to enlarge the listing advantages. These are often regarded as factors raising firm-level profit volatility or risks. General institutional quality has the same effect, perhaps also providing more competitive environment for firms. These effects on the extensive margin are in contrast to the intensive margin of listed firms reported by Claessens et al. (2014), which shows the primary factor affecting financial frictions for listed firms is country-specific corporate governance rules.

The listing advantages are the extensive margin of the financial constraints. They are the costs for a firm remaining private. Our results show that such a wedge between the listed and the unlisted seems wider in a country with riskier business environment i.e., competitive in micro and unstable in macro. They are narrower in a country with easier access to

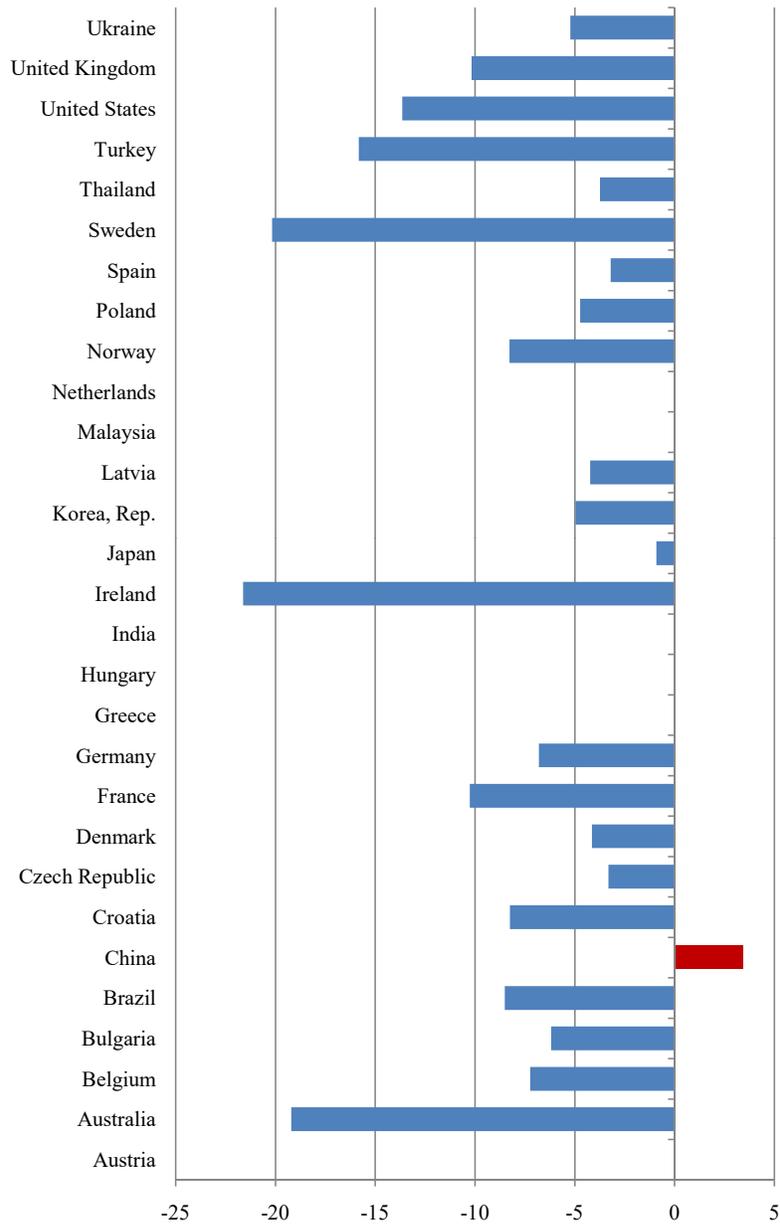
finance i.e., stronger creditor's rights and developed financial markets. However, while it is likely to ease financial constraints, strong corporate governance does not appear relevant. A countervailing force is perhaps private benefits of owners. Strong corporate governance lowers the benefits of majority shareholders (i.e., owners) if publicly traded, and thus it should adversely incentivize firm owners to remain private.

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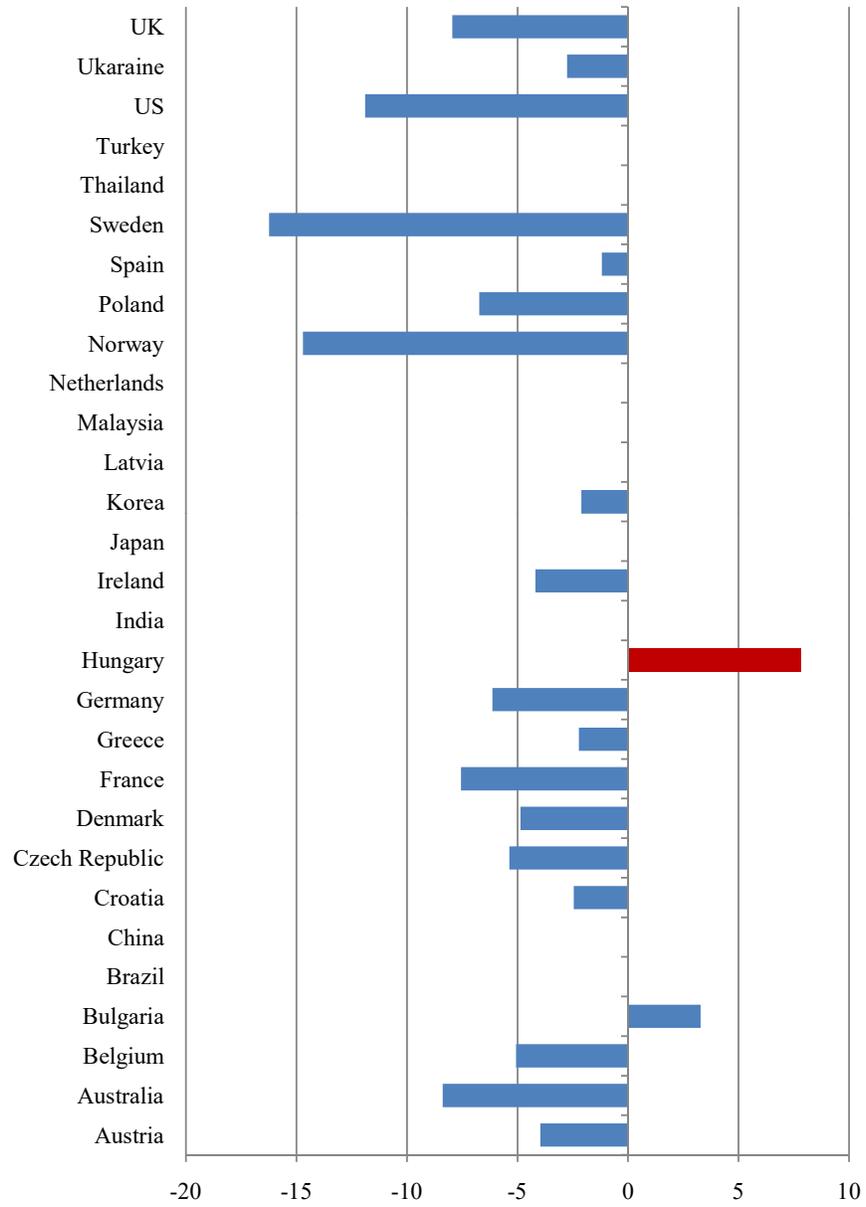
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# Figures and Tables

**Figure 1: Average Treatment Effect on Treated**



**Figure 2: Marginal Effect of Listing on ROA**



**Table 1a:** Number of Observations by Country

Countries	Number of Observations
Austria	1,881
Australia	1,895
Belgium	62,750
Bulgaria	101524
Brazil	1,310
China	20,336
Croatia	50,182
Czech Republic	76,223
Denmark	3,307
France	107,072
Germany	50,342
Greece	27,632
Hungary	121,787
India	3,072
Ireland	1,940
Japan	181,774
Korea, Rep.	168,080
Latvia	20,868
Malaysia	590
Netherlands	1,945
Norway	6,336
Poland	24,306
Spain	389,034
Sweden	90,410
Thailand	743
Turkey	497
United States	8,684
United Kingdom	24901
Ukraine	142,648

Table 1b: Country Level Variables Descriptions

	Variables	Sources	Obs	Mean	Std. Dev.	Min	Max
<b>Treatment Effect</b>	<b>Average Treatment Effect on Treated (Effect on ROA due to Listing)</b>	Authors estimations based on Orbis Data	290	-6.451	6.398	-21.618	3.449
<b>Corporate Governance</b>	<b>Anti-director Rights Index</b>	Holger Spamann, 2006	210	3.786	1.723	2.000	14.000
	<b>Corporate Governance Quality Index</b>	De Nicolo et al. 2008	250	56.099	7.065	28.23	65.6
	<b>Self Dealing Index</b>	Djankov et al. 2008	250	0.485	0.233	0.180	0.950
	<b>Extent of Director's Liability (1-10(Best))</b>	World Bank Doing Business	260	4.821	1.906	1	9
	<b>Corporate Board Efficacy (1-7(Best))</b>	World Economic Forum	290	4.962	0.642	3.725	6.272
	<b>Protection of minority shareholders interests (1-7(Best))</b>	World Economic Forum	290	4.604	0.718	2.704	6.066
<b>Creditors' rights</b>	<b>Strength of Legal Rights(1-12(Strong))</b>	World Bank, Doing Business project	290	6.034	2.929	0	11
	<b>Creditor's Rights</b>	Djankov et al. 2007	250	1.960	1.041	0	4
	<b>Time Resolve Insolvency (Years)</b>	World Bank, Doing Business project	236	1.915	1.084	0.400	6.500
	<b>Strength of Insolvency Law (0-16(Strong))</b>	World Bank	87	11.414	2.202	6.0	15.0
<b>Institutional quality</b>	<b>Property Rights (1-7(Best))</b>	World Economic Forum	290	4.992	0.957	2.511	6.638
	<b>Rule of Law (-2.5 to 2.5)</b>	World Governance Indicator, World Bank	261	0.944	0.825	-0.819	2.096
	<b>Trust in People</b>	World Value Survey	190	31.729	17.777	4.800	73.700
<b>Financial Development</b>	<b>Credit to GDP Ratio (Credit to Pvt. Sector)</b>	World Bank	288	102.782	44.408	33.219	201.259
	<b>Sum of stock market capitalization and private bond market capitalization and bank credit over GDP</b>	Datastream	61	199.357	90.666	54.126	429.387
	<b>Market Capitalization (% of GDP)</b>	World Bank	276	63.172	38.444	3.206	164.845
	<b>Prevalence of Foreign Ownership(1-7(Best))</b>	World Economic Forum	290	5.044	0.653	3.216	6.515
<b>Product Market Competition</b>	<b>New Business Registered (new registrations per 1,000 people ages 15-64)</b>	World Bank	234	3.997	3.658	0.065	15.742
	<b>Trade Barriers (1-7(Best)) (Prevalence of trade barriers)</b>	World Economic Forum	290	4.700	0.548	3.336	6.168
	<b>Cost of starting a Business(% of income per capita)</b>	World Bank	260	6.272	6.162	0.100	41.500
<b>Macro Volatility</b>	<b>Std. Deviation of Inflation from Last 5 Year Average Inflation</b>	Global Economic Monitor, World Bank, Own Estimation	290	1.595	2.0427	0.224	19.031
	<b>Std. Deviation of GDP growth from Last 5 Year Average GDP Growth</b>	Global Economic Monitor, World Bank, Own Estimation	290	2.622	2.0093	0.212	11.540
	<b>Coefficient of variation of exchange rate</b>	Global Economic Monitor, World Bank, Own Estimation	290	4.612	3.3503	0.381	17.186
<b>Inflation Rate</b>	<b>Inflation (CPI Inflation)</b>	Global Economic Monitor, World Bank	290	2.679	3.9732	-2.535	43.313
<b>Interest Rate*</b>	<b>Interest Rate</b>	Datastream	280	5.732	8.3657	-0.695	52.100

\*: 3 Month Average T-Bill Rate, PLR or 3 Month Avg. Lending Rate

Table 1c: Correlation among the Country-level Variables

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	
Average Treatment Effect on Treated (Effect on ROA due to L	1																										
Anti-director Rights Index	0.439	1																									
Corporate Governance Quality Index	-0.398	0.234	1																								
Self Dealing Index	0.259	0.290	0.076	1																							
Extent of Director's Liability (1-10(Best))	0.805	0.512	-0.669	0.034	1																						
Corporate Board Efficacy (1-7(Best))	0.116	0.440	0.684	0.539	0.181	1																					
Protection of minority shareholders interests (1-7(Best))	0.613	0.553	0.394	0.580	0.181	0.835	1																				
Strength of Legal Rights(1-12(Strong))	0.060	0.283	0.315	0.838	-0.339	0.722	0.507	0.748	1																		
Creditor's Rights	-0.089	0.020	-0.399	-0.737	0.190	-0.751	-0.844	0.925	0.925	1																	
Time Resolve Insolvency (Years)	-0.358	-0.122	-0.399	-0.737	0.190	-0.751	-0.844	0.925	0.925	0.019	1																
Strength of Insolvency Law (0-16(Strong))	0.048	0.076	0.455	-0.518	-0.188	-0.071	0.088	-0.354	-0.575	-0.768	-0.004	1															
Property Rights (1-7(Best))	0.107	-0.080	0.512	0.306	-0.355	0.815	0.693	0.731	0.559	-0.683	0.236	0.899	1														
Rule of Law (-2.5 to 2.5)	-0.170	0.010	0.833	0.213	-0.608	0.841	0.606	0.731	0.559	-0.648	0.443	0.496	0.731	1													
Trust in People	-0.285	-0.132	0.777	0.302	-0.756	0.472	0.360	0.460	0.417	-0.648	0.443	0.496	0.731	0.689	1												
Credit to GDP Ratio (Credit to Pvt. Sector)	0.480	0.151	0.366	0.572	-0.104	0.556	0.803	0.554	0.441	-0.922	0.298	0.593	0.556	0.689	0.689	1											
Sum of stock market capitalization and private bond market capitalization and bank credit over GDP	0.629	0.860	0.061	0.872	0.354	0.663	0.851	0.748	0.659	-0.775	-0.334	0.421	0.259	0.144	0.668	0.668	1										
Market Capitalization (% of GDP)	0.885	0.492	0.139	0.894	0.238	0.665	0.859	0.758	0.680	-0.850	-0.242	0.451	0.324	0.298	0.772	0.985	0.985	1									
Prevalence of Foreign Ownership(1-7(Best))	0.089	0.317	0.732	0.575	-0.344	0.971	0.838	0.922	0.744	-0.854	0.031	0.847	0.895	0.654	0.701	0.648	0.691	0.691	1								
New Business Registered (new registrations per 1,000 people a	-0.664	0.086	0.824	0.341	-0.768	0.599	0.153	0.624	0.609	-0.321	-0.046	0.365	0.657	0.669	0.138	0.091	0.152	0.631	0.631	1							
Trade Barriers (1-7(Best)) (Prevalence of trade barriers)	0.141	0.290	-0.147	0.872	0.183	0.419	0.340	0.671	0.790	-0.409	-0.841	0.152	-0.003	-0.106	0.134	0.735	0.682	0.354	0.267	1							
Cost of starting a Business(% of income per capita)	-0.157	-0.776	-0.730	-0.352	0.061	-0.658	-0.667	-0.485	-0.931	0.455	-0.409	-0.230	-0.481	-0.515	-0.519	-0.497	-0.536	-0.663	-0.503	-0.101	1						
Std. Deviation of Inflation from Last 5 Year Average Inflation	-0.180	0.016	-0.209	-0.881	0.117	-0.669	-0.644	-0.869	-0.931	0.898	0.430	-0.360	-0.450	-0.481	-0.481	-0.693	-0.768	-0.816	-0.742	-0.390	-0.704	0.211	1				
Std. Deviation of GDP growth from Last 5 Year Average GDP	0.025	-0.604	-0.504	-0.117	-0.068	-0.630	-0.387	-0.392	-0.104	0.099	0.749	0.286	0.314	0.133	0.085	-0.472	-0.440	-0.024	-0.270	-0.876	-0.056	0.491	-0.098	1			
Coefficient of variation of exchange rate	0.074	-0.247	0.224	-0.741	-0.131	-0.064	0.020	-0.346	-0.544	0.099	0.749	0.286	0.314	0.133	0.085	-0.472	-0.440	-0.024	-0.270	-0.876	-0.056	0.491	-0.098	0.427	1		
Inflation (CPI Inflation)	-0.212	-0.834	-0.477	-0.018	-0.200	-0.261	-0.375	-0.028	0.250	0.034	-0.553	0.193	-0.080	-0.198	-0.220	-0.225	-0.235	-0.232	-0.187	-0.154	0.874	-0.245	0.874	-0.245	0.874	1	
Interest Rate	-0.265	0.224	-0.144	-0.721	0.249	-0.500	-0.598	-0.676	-0.745	0.918	0.189	-0.679	-0.515	-0.574	-0.820	-0.655	-0.721	-0.639	-0.198	-0.431	0.096	0.925	-0.329	0.168	-0.318	0.168	1

**Table 2a: Results-Changing the Corporate Governance Indicators**

	[1]	[2]	[3]	[4]	[5]	[6]
Self Dealing Index	-6.771*** (-3.550)					
Corporate Governance Quality Index		-1.418*** (-7.040)				
Anti-director Rights Index			1.770*** (7.080)			
Extent of Director's Liability				0.070 (0.270)		
Corporate Board Efficacy					0.968 (0.850)	
Protection of minority shareholders interests						2.628* (2.490)
Creditor's Rights	2.121*** (5.170)	2.016*** (5.390)	3.039*** (7.590)	2.440*** (5.260)	1.948*** (4.630)	2.064*** (4.960)
Property Rights	-2.460*** (-3.950)	1.812* (2.200)	0.216 (0.320)	-3.232*** (4.600)	-2.807*** (-3.400)	-3.884*** (-4.420)
Credit to GDP Ratio	0.0247* (2.110)	0.007 (0.690)	0.015 (1.260)	0.004 (0.300)	0.013 (1.140)	0.008 (0.700)
New Business Registered	-0.940*** (-7.200)	-0.524*** (-3.790)	-1.527*** (-12.480)	-0.930*** (-6.380)	-1.087*** (-7.750)	-1.083*** (-8.310)
Std. Deviation of Inflation	0.435 (0.480)	-0.975 (-1.210)	-1.697* (-1.980)	-1.521 (-1.440)	-0.145 (-0.160)	-0.214 (-0.240)
Inflation	0.154 (0.880)	-0.639*** (-3.500)	-0.061 (-0.370)	-0.437* (-2.030)	0.054 (0.300)	-0.044 (-0.250)
Interest Rate	-0.152** (-2.710)	-0.050 (-0.960)	-0.043 (-0.820)	-0.185* (-2.550)	-0.129* (-2.230)	-0.144* (-2.530)
Constant	5.535 (1.420)	64.38*** (7.020)	-15.760*** (-3.380)	10.73* (2.360)	2.103 (0.400)	0.719 (0.170)
Number of Observations	193	193	166	176	193	193
Adjusted R-Sq	0.404	0.498	0.582	0.403	0.366	0.384

**Table 2b: Results-Changing the Creditor's Rights Indicators**

	[1]	[7]	[8]	[9]
Self Dealing Index	-6.771*** (-3.550)	-5.640** (-2.720)	-6.122** (-2.890)	-7.132 (-1.710)
Creditor's Rights	2.121*** (5.170)			
Strength of Legal Rights		0.007 (0.030)		
Insolvency Time			-0.764 (-1.250)	
Strength of Insolvency Law				-0.931* (-2.040)
Property Rights	-2.460*** (-3.950)	-2.704*** (-4.020)	-3.720*** (-4.850)	-2.086 (-1.560)
Credit to GDP Ratio	0.025* (2.110)	0.038** (3.070)	0.031* (-2.380)	0.066** (3.130)
New Business Registered	-0.940*** (-7.200)	-0.843*** (-5.190)	-0.756*** (-5.100)	-0.917*** (-4.350)
Std. Deviation of Inflation	0.435 (0.480)	-0.661 (-0.710)	-1.704 (-1.550)	1.517 (0.840)
Inflation	0.154 (0.880)	0.112 (0.580)	-0.088 (-0.380)	-0.763 (-1.910)
Interest Rate	-0.152** (-2.710)	-0.136* (-2.120)	-0.145 (-1.820)	-0.199* (-2.610)
Constant	5.535 (1.420)	10.100* (2.280)	18.79*** (3.580)	14.160 (1.340)
Number of Observations	193	193	178	59
Adjusted R-Sq	0.404	0.317	0.323	0.452

**Table 2c: Results-Changing the Institutional Quality Indicators**

	[1]	[10]	[11]
Self Dealing Index	-6.771*** (-3.550)	-12.270*** (-5.800)	1.076 (0.430)
Creditor's Rights	2.121*** (5.170)	2.403*** (6.080)	0.562 (1.020)
Property Rights	-2.460*** (-3.950)		
Rule of Law		-5.701*** (-5.560)	
Trust in People			-0.068 (-1.920)
Credit to GDP Ratio	0.025* (2.110)	0.025* (2.270)	0.011 (0.600)
New Business Registered	-0.940*** (-7.200)	-0.534*** (-3.420)	-0.960*** (-6.110)
Std. Deviation of Inflation	0.435 (0.480)	0.159 (0.190)	2.096* (2.010)
Inflation	0.154 (0.880)	-0.118 (-0.660)	-0.168 (-0.810)
Interest Rate	-0.152** (-2.710)	-0.279*** (-4.760)	-0.215** (-3.310)
Constant	5.535 (1.420)	1.309 (0.540)	-5.251 (-1.930)
Number of Observations	193	193	135
Adjusted R-Sq	0.404	0.446	0.363

Table 2d: Results-Changing the Financial Development Indicators

	[1]	[12]	[13]	[14]
Self Dealing Index	-6.771*** (-3.550)	0.170 (0.030)	-7.938*** (-3.690)	-5.455** (-2.980)
Creditor's Rights	2.121*** (5.170)	-12.270*** (-4.310)	2.342*** (5.840)	2.313*** (5.650)
Property Rights	-2.460*** (-3.950)	0.046 (0.040)	-2.184*** (-3.600)	-2.183*** (-3.340)
Credit to GDP Ratio	0.0247* (2.110)			
Sum of stock market capitalization and private bond market capitalization and bank credit over GDP		0.077*** (6.990)		
Market Capitalization (% of GDP)			0.029* (2.110)	
Prevalence of Foreign Ownership				0.088 (0.090)
New Business Registered	-0.940*** (-7.200)	-0.315 (-1.80)	-0.944*** (-7.210)	-0.919*** (-6.090)
Std. Deviation of Inflation	0.435 (0.480)	1.549 (1.270)	0.536 (0.590)	0.202 (0.220)
Inflation	0.154 (0.880)	0.245 (0.980)	0.115 (0.670)	0.064 (0.370)
Interest Rate	-0.152** (-2.710)	-0.388*** (-5.170)	-0.165** (-2.940)	-0.155** (-2.680)
_cons	5.535 (1.420)	4.383 (0.800)	4.941 (1.260)	5.595 (1.030)
N	193	49	193	193
adj. R-sq	0.404	0.806	0.404	0.39

Table 2e: Results-Changing the Product Market Competition Indicators

	[1]	[15]	[16]
Self Dealing Index	-6.771*** (-3.550)	-8.033*** (-4.370)	-7.956*** (-4.180)
Creditor's Rights	2.121*** (5.170)	2.021*** (4.980)	1.995*** (4.860)
Property Rights	-2.460*** (-3.950)	-4.013*** (-6.310)	-2.991*** (-4.580)
Credit to GDP Ratio	0.025* (2.110)	0.016 (1.440)	0.010 (0.840)
New Business Registered	-0.940*** (-7.200)		
Cost of starting a Business		0.333*** (4.330)	
Trade Barriers			-2.824*** (-3.360)
Std. Deviation of Inflation	0.435 (0.480)	-1.599 (-1.740)	1.04 (1.230)
Inflation	0.154 (0.880)	-0.778*** (-3.480)	0.218 (1.180)
Interest Rate	-0.152** (-2.710)	-0.174** (-2.820)	-0.225*** (-3.890)
_cons	5.535 (1.420)	13.77** (3.300)	20.73*** (4.510)
N	193	214	243
adj. R-sq	0.404	0.383	0.267

**Table 2f: Results-Changing the Macro-Volatility Indicators**

	[1]	[17]	[18]
Self Dealing Index	-6.771*** (-3.550)	-4.912** (-2.810)	-6.402*** (-3.500)
Creditor's Rights	2.121*** (5.170)	1.846*** (4.970)	2.095*** (5.340)
Property Rights	-2.460*** (-3.950)	-2.584*** (-4.910)	-2.850*** (-5.010)
Credit to GDP Ratio	0.025* (2.110)	0.019 (1.750)	0.029* (2.460)
New Business Registered	-0.940*** (-7.200)	-0.926*** (-7.660)	-0.887*** (-6.820)
Std. Deviation of Inflation	0.435 (0.480)		
Std. Deviation of GDP growth		-1.309*** (-5.560)	
Coefficient of variation of exchange rate			-0.350* (-2.510)
Inflation	0.154 (0.880)	0.180 (1.140)	0.182 (1.080)
Interest Rate	-0.152** (-2.710)	-0.133** (-2.970)	-0.078 (-1.470)
_cons	5.535 (1.420)	10.01*** (3.510)	8.437** (2.770)
N	193	193	193
adj. R-sq	0.404	0.489	0.423

# Appendix A1. Countrywise Descriptive Statistics

**Table A1.a:** Austria: Descriptive Statistics

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	1,881	0.059	0.236	0	1
ROA(%)	1,881	6.573	11.759	-82.880	95.780
ROK	1,880	48.807	359.837	-3244.150	10203.680
D/A (ratio)	1,881	0.573	0.224	0.008	0.997
Age	1,881	42.329	44.996	1	413
Total Assets	1,881	178054.300	1226077	45	18600000
Number of Workers	1,881	584.954	3347.282	1	47186

Austria: Correlation Table

	Listing (dummy)	ROA(%)	ROK	D/A (ratio)	Age	Total Assets	Number of Workers
Listing (dummy)	1						
ROA(%)	-0.074	1					
ROK	-0.030	0.268	1				
D/A (ratio)	-0.077	-0.242	-0.100	1			
Age	0.150	-0.078	-0.052	-0.033	1		
Total Assets	0.459	-0.014	-0.012	-0.022	0.030	1	
Number of Workers	0.548	-0.028	-0.015	-0.008	0.044	0.972	1

**Table A1.b:** Australia: Descriptive Statistics

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	1,895	0.318	0.466	0	1
ROA(%)	1,895	1.294	20.185	-96.660	80.800
ROK	1,885	-31.549	900.521	-18962.600	13568.630
D/A (ratio)	1,895	0.439	0.244	0	0.992
Age	1,895	28.154	24.342	1	157
Total Assets	1,895	376926.700	1256741	371	11700000
Number of Workers	1,895	825.445	2935.370	1	33868

## Australia: Correlation Table

	Listing (dummy)	ROA(%)	ROK	D/A (ratio)	Age	Total Assets	Number of Workers
Listing (dummy)	1						
ROA(%)	-0.418	1					
ROK	-0.115	0.213	1				
D/A (ratio)	-0.369	0.160	0.069	1			
Age	0.051	0.187	0.035	0.029	1		
Total Assets	0.293	0.076	0.015	0.114	0.435	1	
Number of Workers	0.258	0.097	0.015	0.114	0.410	0.852	1

**Table A1.c:** Belgium: Descriptive Statistics

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing(dummy)	62,750	0.004	0.063	0	1
ROA(%)	62,750	4.810	12.037	-99.630	99.800
ROK	62,085	62.967	565.599	-33088.760	40105.410
D/A (ratio)	62,750	0.598	0.250	0	1
Age	62,750	20.821	15.613	1	238
Total Assets	62,750	31979.060	1777542	4	258000000
Number of Workers	62,750	48.388	1792.372	1	206633

## Belgium: Correlation Table

	Listing (dummy)	ROA(%)	ROK	D/A (ratio)	Age	Total Assets	Number of Workers
Listing (dummy)	1						
ROA(%)	-0.034	1					
ROK	-0.009	0.231	1				
D/A (ratio)	-0.011	-0.177	-0.073	1			
Age	0.159	-0.099	-0.020	-0.282	1		
Total Assets	0.249	0.001	-0.002	0.003	0.029	1	
Number of Workers	0.315	0.001	-0.002	0.004	0.054	0.978	1

**Table A1.d:** Bulgaria: Descriptive Statistics

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	101524	0.002	0.049	0	1
ROA(%)	101524	10.783	18.484	-100	100
ROK	81636	173.066	912.745	-18766	66083.150
D/A (ratio)	101524	0.416	0.313	-0.020	1
Age	99470	10.223	8.370	1	168
Total Assets	101524	886.065	7027.452	1	790180
Number of Workers	101524	23.762	66.610	1	4543

## Bulgaria: Correlation Table

	Listing (dummy)	ROA(%)	ROK	D/A (ratio)	Age	Total Assets	Number of Workers
Listing (dummy)	1						
ROA(%)	-0.029	1					
ROK	-0.010	0.278	1				
D/A (ratio)	-0.014	-0.271	-0.099	1			
Age	0.261	-0.158	-0.071	-0.105	1		
Total Assets	0.185	-0.019	-0.013	0.014	0.136	1	
Number of Workers	0.196	0.012	-0.016	0.024	0.236	0.637	1

**Table A1.e:** Brazil: Descriptive Statistics

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	1,310	0.089	0.285	0	1
ROA(%)	1,310	2.064	16.039	-93.380	74.710
ROK	1,307	19.169	261.850	-2281.500	8327.443
D/A (ratio)	1,310	0.512	0.259	0	0.996
Age	1,310	33.590	18.791	1	125
Total Assets	1,310	394871.3	2045007	8	26300000
Number of Workers	1,310	1383.702	5230.540	2	120096

Brazil: Correlation Table

Listing (dummy)	1						
ROA(%)	0.083	1					
ROK	0.000	0.317	1				
D/A (ratio)	0.095	-0.225	-0.069	1			
Age	0.267	0.088	-0.035	0.001	1		
Total Assets	0.477	0.041	-0.005	0.095	0.170	1	
Number of Workers	0.558	0.051	-0.003	0.063	0.219	0.624	1

**Table A1.f:** China: Descriptive Statistics

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	20,336	1	0.016	0	1
ROA(%)	20,336	6.212	8.919	-86.950	90.530
ROK	20,336	34.002	542.363	-55293.540	46666.240
D/A (ratio)	20,336	0.430	0.207	0.001	1
Age	20,334	13.702	6.118	1	116
Total Assets	20,336	597004.500	1902039	519	51700000
Number of Workers	20,336	2638.747	7265.758	1	200000

China: Correlation Table

	Listing (dummy)	ROA(%)	ROK	D/A (ratio)	Age	Total Assets	Number of Workers
Listing (dummy)	1						
ROA(%)	0.010	1					
ROK	0.001	0.127	1				
D/A (ratio)	-0.006	-0.279	-0.021	1			
Age	0.005	-0.099	-0.018	0.056	1		
Total Assets	0.005	-0.056	-0.010	0.214	0.116	1	
Number of Workers	0.005	-0.037	-0.012	0.191	0.111	0.753	1

**Table A1.g:** Croatia: Descriptive Statistics

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	50,182	0.007	0.084	0	1
ROA(%)	50,182	6.906	15.053	-97.560	99.410
ROK	46,990	96.916	734.463	-16789.850	97952.260
D/A (ratio)	50,182	0.584	0.264	0	1
Age	50,020	13.558	9.452	1	319
Total Assets	50,182	2177.740	18862.610	1	944563
Number of Workers	50,182	23.548	136.990	1	6706

### Croatia: Correlation Table

	Listing (dummy)	ROA(%)	ROK	D/A (ratio)	Age	Total Assets	Number of Workers
Listing (dummy)	1						
ROA(%)	-0.044	1					
ROK	-0.011	0.231	1				
D/A (ratio)	-0.041	-0.221	-0.052	1			
Age	0.338	-0.095	-0.028	-0.184	1		
Total Assets	0.437	-0.025	-0.010	-0.005	0.283	1	
Number of Workers	0.466	-0.019	-0.013	-0.012	0.311	0.873	1

**Table A1.h:** Czech Republic: Descriptive Statistics

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	76,223	0.001	0.029	0	1
ROA(%)	76,223	7.106	15.627	-98.230	99.800
ROK	69,874	94.584	635.388	-13628.760	48971.440
D/A (ratio)	76,223	0.476	0.295	-10	1
Age	76,223	12.707	6.974	1	71
Total Assets	76,223	2718.043	15505.030	1	1231431
Number of Workers	76,223	39.135	104.465	3	4500

### Czech Republic: Correlation Table

	Listing (dummy)	ROA(%)	ROK	D/A (ratio)	Age	Total Assets	Number of Workers
Listing (dummy)	1						
ROA(%)	-0.011	1					
ROK	-0.004	0.286	1				
D/A (ratio)	-0.006	-0.210	-0.069	1			
Age	0.036	-0.125	-0.055	-0.244	1		
Total Assets	0.220	-0.015	-0.016	-0.012	0.069	1	
Number of Workers	0.265	-0.029	-0.029	-0.024	0.177	0.636	1

**Table A1.h:** Denmark: Descriptive Statistics

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	3,307	0.093	0.291	0	1
ROA(%)	3,307	8.679	18.193	-96.420	98.380
ROK	3,137	105.706	941.341	-28817.04	28069.340
D/A (ratio)	3,307	0.546	0.237	-0.067	0.997
Age	3,307	21.790	23.229	1	224
Total Assets	3,307	96184.460	551786.100	5	8529015
Number of Workers	3,307	316.856	1708.583	1	27350

### Denmark: Correlation Table

	Listing (dummy)	ROA(%)	ROK	D/A (ratio)	Age	Total Assets	Number of Workers
Listing (dummy)	1						
ROA(%)	-0.119	1					
ROK	-0.100	0.270	1				
D/A (ratio)	-0.105	-0.179	-0.041	1			
Age	0.474	-0.043	-0.057	-0.121	1		
Total Assets	0.352	-0.017	-0.020	0.024	0.225	1	
Number of Workers	0.402	0.013	-0.019	0.011	0.223	0.909	1

**Table A1.i:** France: Descriptive Statistics

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	107,072	0.010	0.101	0	1
ROA(%)	107,072	6.487	13.201	-99.960	99.930
ROK	106,230	72.577	521.610	-75438.210	37508.420
D/A (ratio)	107,072	0.564	0.224	-3.444	1
Age	107,072	18.330	16.022	1	352
Total Assets	107,072	71370.780	2002696	2	132000000
Number of Workers	107,072	168.523	4086.759	1	324000

France: Correlation Table

	Listing (dummy)	ROA(%)	ROK	D/A (ratio)	Age	Total Assets	Number of Workers
Listing (dummy)	1						
ROA(%)	-0.078	1					
ROK	-0.026	0.257	1				
D/A (ratio)	-0.019	-0.195	-0.074	1			
Age	0.199	-0.090	-0.010	-0.278	1		
Total Assets	0.336	-0.004	-0.004	0.006	0.169	1	
Number of Workers	0.370	-0.005	-0.005	0.010	0.236	0.870	1

**Table A1.j:** Greece: Descriptive Statistics

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	27,632	0.022	0.146	0	1
ROA(%)	27,632	2.259	9.183	-93.520	76.950
ROK	27,533	41.641	386.320	-16496.830	18230.400
D/A (ratio)	27,632	0.515	0.248	0	0.999
Age	27,283	23.933	16.554	1	156
Total Assets	27,632	14716.240	104771.400	3	4445213
Number of Workers	27,632	48.184	246.794	1	9314

Greece: Correlation Table

	Listing (dummy)	ROA(%)	ROK	D/A (ratio)	Age	Total Assets	Number of Workers
Listing (dummy)	1						
ROA(%)	-0.049	1					
ROK	-0.016	0.265	1				
D/A (ratio)	0.054	-0.087	0.006	1			
Age	0.121	-0.038	-0.042	-0.105	1		
Total Assets	0.382	0.004	-0.010	0.039	0.133	1	
Number of Workers	0.406	0.017	-0.012	0.040	0.109	0.721	1

**Table A1.k:** Germany: Descriptive Statistics

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	50,342	0.027	0.163	0	1
ROA(%)	50,342	9.140	12.725	-97.920	99.460
ROK	49,884	199.903	3959.571	-39853.440	441459.800
D/A (ratio)	50,342	0.610	0.239	0	1
Age	50,312	41.815	42.850	1	733
Total Assets	50,342	246825.400	5084464	6	307000000
Number of Workers	50,342	595.277	8601.850	1	427000

## Germany: Correlation Table

	Listing (dummy)	ROA(%)	ROK	D/A (ratio)	Age	Total Assets	Number of Workers
Listing (dummy)	1						
ROA(%)	-0.083	1					
ROK	-0.009	0.065	1				
D/A (ratio)	-0.074	-0.188	-0.005	1			
Age	0.107	-0.044	-0.012	-0.006	1		
Total Assets	0.256	-0.013	-0.002	0.010	0.051	1	
Number of Workers	0.289	-0.015	-0.003	0.010	0.070	0.836	1

**Table A1.l:** Hungary: Descriptive Statistics

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	121,787	0.001	0.024	0	1
ROA(%)	121,787	7.932	18.098	-99.700	99.920
ROK	113,217	77.724	545.265	-12511.710	85663.270
D/A (ratio)	121,787	0.455	0.268	-2	1
Age	121,787	12.941	7.914	1	117
Total Assets	121,787	2111.351	27636.580	1	3311281
Number of Workers	121,787	26.765	140.078	1	11820

## Hungary: Correlation Table

	Listing (dummy)	ROA(%)	ROK	D/A (ratio)	Age	Total Assets	Number of Workers
Listing (dummy)	1						
ROA(%)	-0.002	1					
ROK	-0.003	0.274	1				
D/A (ratio)	-0.002	-0.140	-0.013	1			
Age	0.096	-0.113	-0.062	-0.189	1		
Total Assets	0.372	-0.008	-0.006	0.007	0.139	1	
Number of Workers	0.399	-0.014	-0.010	0.026	0.184	0.743	1

**Table A1.m:** India: Descriptive Statistics

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	3,072	0.975	0.156	0	1
ROA(%)	3,072	5.692	9.992	-74.640	70.050
ROK	3,064	21.042	172.072	-1790.108	8357.625
D/A (ratio)	3,072	0.548	0.228	0	0.999
Age	3,072	36.565	22.125	1	141
Total Assets	3,072	935517.500	5095491	23	109000000
Number of Workers	3,072	2617.422	7621.780	1	86548

## India: Correlation Table

	Listing (dummy)	ROA(%)	ROK	D/A (ratio)	Age	Total Assets	Number of Workers
Listing (dummy)	1						
ROA(%)	0.006	1					
ROK	-0.013	0.214	1				
D/A (ratio)	-0.018	-0.336	-0.003	1			
Age	-0.012	0.073	-0.010	-0.012	1		
Total Assets	0.025	0.006	-0.009	0.075	0.133	1	
Number of Workers	0.037	0.060	-0.009	0.099	0.253	0.614	1

**Table A1.n:** Ireland: Descriptive Statistics

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	1,940	0.132	0.339	0	1
ROA(%)	1,940	3.914	14.151	-83.440	95.870
ROK	1,886	172.220	2116.822	-7330.400	55946.520
D/A (ratio)	1,940	0.459	0.270	0	0.998
Age	1,940	25.908	21.815	1	177
Total Assets	1,940	1360817	7909050	2	136000000
Number of Workers	1,940	2769.642	13036.960	1	209000

Ireland: Correlation Table

	Listing (dummy)	ROA(%)	ROK	D/A (ratio)	Age	Total Assets	Number of Workers
Listing (dummy)	1						
ROA(%)	-0.085	1					
ROK	-0.035	0.136	1				
D/A (ratio)	0.052	0.001	-0.002	1			
Age	0.276	-0.025	-0.040	0.001	1		
Total Assets	0.431	-0.009	-0.014	0.056	0.240	1	
Number of Workers	0.511	0.029	-0.016	0.106	0.276	0.683	1

**Table A1.o:** Japan: Descriptive Statistics

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	181,774	0.069	0.254	0	1
ROA(%)	181,774	3.366	7.799	-99.850	97.100
ROK	181,414	24.284	267.974	-6524.460	38167.780
D/A (ratio)	181,774	0.641	0.248	0	1
Age	181,774	38.056	20.130	1	184
Total Assets	181,774	198317.700	3646164	7	435000000
Number of Workers	181,774	473.501	6205.935	1	384586

Japan: Correlation Table

	Listing (dummy)	ROA(%)	ROK	D/A (ratio)	Age	Total Assets	Number of Workers
Listing (dummy)	1						
ROA(%)	0.018	1					
ROK	-0.014	0.202	1				
D/A (ratio)	-0.197	-0.143	-0.014	1			
Age	0.304	-0.048	-0.065	-0.271	1		
Total Assets	0.182	0.005	-0.003	-0.018	0.092	1	
Number of Workers	0.251	0.007	-0.004	-0.029	0.133	0.790	1

**Table A1.p:** Korea: Descriptive Statistics

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	168,080	0.018	0.132	0	1
ROA(%)	168,080	6.921	11.036	-99.740	100
ROK	167,805	38.337	188.805	-35169.600	21028.420
D/A (ratio)	168,080	0.578	0.221	-0.090	1
Age	167,409	11.835	8.702	1	119
Total Assets	168,080	10385.330	54751.790	1	6237490
Number of Workers	168,080	34.824	75.150	1	6002

### Korea: Correlation Table

	Listing (dummy)	ROA(%)	ROK	D/A (ratio)	Age	Total Assets	Number of Workers
Listing (dummy)	1						
ROA(%)	-0.065	1					
ROK	-0.022	0.307	1				
D/A (ratio)	-0.076	-0.302	-0.103	1			
Age	0.175	-0.094	-0.076	-0.209	1		
Total Assets	0.231	-0.032	-0.021	-0.021	0.160	1	
Number of Workers	0.287	-0.058	-0.040	-0.016	0.288	0.712	1

**Table A1.q: Latvia: Descriptive Statistics**

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	20,868	0.006	0.080	0	1
ROA(%)	20,868	8.699	22.973	-98.380	99.960
ROK	18,320	92.696	600.009	-22227.550	24103.640
D/A (ratio)	20,868	0.552	0.288	-1	1
Age	20,868	10.683	8.703	1	150
Total Assets	20,868	1488.375	11859.370	1	494248
Number of Workers	20,868	22.492	63.200	1	1679

### Latvia: Correlation Table

	Listing (dummy)	ROA(%)	ROK	D/A (ratio)	Age	Total Assets	Number of Workers
Listing (dummy)	1						
ROA(%)	-0.032	1					
ROK	-0.013	0.311	1				
D/A (ratio)	-0.053	-0.214	-0.069	1			
Age	0.464	-0.096	-0.036	-0.181	1		
Total Assets	0.243	-0.020	-0.011	-0.007	0.156	1	
Number of Workers	0.407	-0.021	-0.028	-0.020	0.382	0.599	1

**Table A1.r: Malaysia: Descriptive Statistics**

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	590	0.156	0.363	0	1
ROA(%)	590	6.215	11.830	-55.360	94.920
ROK	590	55.620	196.855	-361.027	2306.210
D/A (ratio)	590	0.519	0.231	0.027	0.998
Age	590	22.651	12.957	1	67
Total Assets	590	98782.480	240231.900	79	2529464
Number of Workers	590	703.885	1752.790	1	12000

### Malaysia: Correlation Table

	Listing (dummy)	ROA(%)	ROK	D/A (ratio)	Age	Total Assets	Number of Workers
Listing (dummy)	1						
ROA(%)	0.085	1					
ROK	-0.079	0.286	1				
D/A (ratio)	-0.198	-0.154	-0.046	1			
Age	-0.010	0.216	-0.103	-0.200	1		
Total Assets	0.480	0.113	-0.043	-0.162	0.103	1	
Number of Workers	0.517	0.080	-0.061	-0.184	-0.013	0.6596	1

**Table A1.s:** Netherlands: Descriptive Statistics

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	1,945	0.174	0.379	0	1
ROA(%)	1,945	7.631	14.600	-97.820	86.790
ROK	1,882	311.031	4642.671	-11834.760	185728.500
D/A (ratio)	1,945	0.555	0.211	-0.090	0.998
Age	1,945	38.403	35.690	1	252
Total Assets	1,945	2307592	12400000	4	137000000
Number of Workers	1,945	4241.755	20833.640	1	238162

Netherlands: Correlation Table

	Listing (dummy)	ROA(%)	ROK	D/A (ratio)	Age	Total Assets	Number of Workers
Listing (dummy)	1						
ROA(%)	-0.093	1					
ROK	-0.030	0.102	1				
D/A (ratio)	0.023	-0.199	0.007	1			
Age	0.169	-0.070	-0.013	0.004	1		
Total Assets	0.381	-0.056	-0.012	0.167	0.089	1	
Number of Workers	0.406	-0.068	-0.013	0.146	0.160	0.933	1

**Table A1.t:** Norway: Descriptive Statistics

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	6,336	0.039	0.194	0	1
ROA(%)	6,336	7.601	19.936	-100	99.710
ROK	5,821	71.997	5401.790	-362353.2	49896.880
D/A (ratio)	6,336	0.536	0.247	-2.241	1
Age	6,336	16.363	19.097	1	362
Total Assets	6,336	56607.800	782741.700	2	22100000
Number of Workers	6,336	121.510	1272.333	1	32026

Norway: Correlation Table

	Listing (dummy)	ROA(%)	ROK	D/A (ratio)	Age	Total Assets	Number of Workers
Listing (dummy)	1						
ROA(%)	-0.128	1					
ROK	-0.106	0.116	1				
D/A (ratio)	-0.070	-0.050	0.026	1			
Age	0.379	-0.012	0.007	-0.103	1		
Total Assets	0.345	-0.017	-0.001	-0.020	0.579	1	
Number of Workers	0.428	-0.020	-0.001	-0.003	0.722	0.875	1

**Table A1.t:** Poland: Descriptive Statistics

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	24,306	0.024	0.154	0	1
ROA(%)	24,306	9.092	16.489	-100	99.840
ROK	23,464	98.453	848.831	-28112	71523.630
D/A (ratio)	24,306	0.467	0.249	-0.368	1
Age	24,306	17.172	19.132	1	253
Total Assets	24,306	14062.700	294973.800	1	17300000
Number of Workers	24,306	115.354	474.230	1	22956

Poland: Correlation Table

	Listing (dummy)	ROA(%)	ROK	D/A (ratio)	Age	Total Assets	Number of Workers
Listing (dummy)	1						
ROA(%)	-0.068	1					
ROK	-0.006	0.214	1				
D/A (ratio)	0.006	-0.265	-0.026	1			
Age	0.151	-0.097	-0.043	-0.086	1		
Total Assets	0.162	-0.012	-0.004	0.006	0.069	1	
Number of Workers	0.282	-0.027	-0.019	0.003	0.177	0.827	1

**Table A1.u:** Spain: Descriptive Statistics

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	389,034	0.001	0.034	0	1
ROA(%)	389,034	1.617	11.016	-99.950	99.970
ROK	381,628	32.192	433.221	-40227.610	47703.380
D/A (ratio)	389,034	0.569	0.265	-2.554	1
Age	388,944	17.621	11.106	1	136
Total Assets	389,034	4178.357	78349.510	1	13100000
Number of Workers	389,034	15.997	148.153	1	26083

Spain: Correlation Table

	Listing (dummy)	ROA(%)	ROK	D/A (ratio)	Age	Total Assets	Number of Workers
Listing (dummy)	1						
ROA(%)	0.002	1					
ROK	-0.002	0.228	1				
D/A (ratio)	-0.007	-0.116	-0.035	1			
Age	0.102	-0.067	-0.035	-0.284	1		
Total Assets	0.477	0.009	-0.001	-0.005	0.080	1	
Number of Workers	0.484	0.015	-0.002	-0.007	0.096	0.844	1

**Table A1.v:** Sweden: Descriptive Statistics

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	90,410	0.018	0.132	0	1
ROA(%)	90,410	6.624	18.786	-100	100
ROK	82,235	136.376	1114.556	-91080.480	90088.350
D/A (ratio)	90,410	0.512	0.250	-0.429	1
Age	90,394	19.760	15.898	1	327
Total Assets	90,410	25500.930	743352.400	2	53700000
Number of Workers	90,410	77.943	1903.535	1	118055

Sweden: Correlation Table

	Listing (dummy)	ROA(%)	ROK	D/A (ratio)	Age	Total Assets	Number of Workers
Listing (dummy)	1						
ROA(%)	-0.127	1					
ROK	-0.040	0.254	1				
D/A (ratio)	-0.036	-0.243	-0.074	1			
Age	0.128	-0.035	-0.022	-0.170	1		
Total Assets	0.243	-0.002	-0.004	0.013	0.169	1	
Number of Workers	0.277	0.000	-0.004	0.016	0.196	0.938	1

**Table A1.w:** Thailand: Descriptive Statistics

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	743	0.277	0.448	0	1
ROA(%)	743	5.684	10.391	-51.910	55.410
ROK	739	35.102	141.752	-354.775	2906.584
D/A (ratio)	743	0.486	0.262	0.001	0.990
Age	743	20.651	12.126	2	105
Total Assets	743	106320.500	765918.400	29	14100000
Number of Workers	743	851.215	3186.651	1	51100

Thailand: Correlation Table

	Listing (dummy)	ROA(%)	ROK	D/A (ratio)	Age	Total Assets	Number of Workers
Listing (dummy)	1						
ROA(%)	0.026	1					
ROK	-0.069	0.338	1				
D/A (ratio)	-0.134	-0.301	-0.035	1			
Age	0.360	-0.022	-0.091	-0.123	1		
Total Assets	0.187	0.037	-0.018	0.001	0.397	1	
Number of Workers	0.263	0.026	-0.034	0.017	0.410	0.859	1

**Table A1.x:** Turkey: Descriptive Statistics

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	497	0.893	0.309	0	1
ROA(%)	497	2.136	9.938	-47.340	39.600
ROK	497	7.434	37.594	-267.678	424.457
D/A (ratio)	497	0.496	0.225	0.006	0.989
Age	497	33.867	15.521	1	86
Total Assets	497	316653.900	1052776	294	10500000
Number of Workers	497	1269.505	4069.006	2	48050

Turkey: Correlation Table

	Listing (dummy)	ROA(%)	ROK	D/A (ratio)	Age	Total Assets	Number of Workers
Listing (dummy)	1						
ROA(%)	-0.165	1					
ROK	-0.233	0.718	1				
D/A (ratio)	-0.066	-0.323	-0.157	1			
Age	0.338	0.056	0.026	0.021	1		
Total Assets	0.094	0.089	0.030	0.047	0.261	1	
Number of Workers	0.092	0.087	0.036	0.083	0.263	0.888	1

**Table A1.y: US: Descriptive Statistics**

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	8,684	0.996	0.062	0	1
ROA(%)	8,684	-0.804	22.582	-99.770	94.940
ROK	8,679	-363.982	10125.430	-879558.800	45592.900
D/A (ratio)	8,684	0.452	0.231	-0.464	1
Age	8,684	30.061	27.727	1	141
Total Assets	8,684	6745451	31400000	20	798000000
Number of Workers	8,684	10117.020	27335.450	1	349600

**US: Correlation Table**

	Listing (dummy)	ROA(%)	ROK	D/A (ratio)	Age	Total Assets	Number of Workers
Listing (dummy)	1						
ROA(%)	-0.010	1					
ROK	-0.002	0.099	1				
D/A (ratio)	-0.020	0.055	0.041	1			
Age	0.046	0.221	0.025	0.154	1		
Total Assets	0.013	0.086	0.008	0.156	0.240	1	
Number of Workers	0.021	0.143	0.014	0.287	0.279	0.689	1

**Table A1.z: UK: Descriptive Statistics**

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	24901	0.085	0.279	0	1
ROA(%)	24901	7.131	14.899	-99.130	99.880
ROK	24495	141.541	1686.922	-31942.510	133159.300
D/A (ratio)	24901	0.515	0.237	0	1
Age	24901	28.343	26.116	1	217
Total Assets	24901	218800.800	2604493	1	79200000
Number of Workers	24901	582.526	5321.882	1	174381

## UK: Correlation Table

	Listing (dummy)	ROA(%)	ROK	D/A (ratio)	Age	Total Assets	Number of Workers
Listing (dummy)	1						
ROA(%)	-0.174	1					
ROK	-0.038	0.155	1				
D/A (ratio)	-0.071	-0.051	-0.026	1			
Age	0.156	-0.026	-0.026	-0.248	1		
Total Assets	0.248	0.014	-0.006	0.053	0.083	1	
Number of Workers	0.273	0.020	-0.008	0.056	0.109	0.831	1

**Table A1.aa:** Ukraine: Descriptive Statistics

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	142,648	0.008	0.087	0	1
ROA(%)	142,648	6.451	21.032	-100	100
ROK	123,751	112.914	992.791	-27575.590	148172.400
D/A (ratio)	142,648	0.406	0.313	-0.218	1
Age	133,651	12.023	10.702	1	466
Total Assets	142,648	1436.944	18157.580	1	1802272
Number of Workers	142,648	45.028	285.112	1	27688

	Listing (dummy)	ROA(%)	ROK	D/A (ratio)	Age	Total Assets	Number of Workers
Listing (dummy)	1						
ROA(%)	-0.021	1					
ROK	-0.009	0.199	1				
D/A (ratio)	0.003	-0.072	0.019	1			
Age	0.284	-0.029	-0.027	-0.061	1		
Total Assets	0.154	-0.007	-0.002	0.045	0.118	1	
Number of Workers	0.197	0.004	-0.007	0.047	0.197	0.809	1

## Appendix A2. Propensity Score Match

**Table A2.1: Robustness Check: Propensity Score Matching Estimates**

Propensity scores for the listing probability are used to match the treated (i.e., the listed) to the controlled (i.e., the unlisted), based on one-to-one nearest neighbour matching restricting to the common support. Size (logarithm of total assets), Age(the years since incorporation), and Industry(2-digit level) are used to compute propensity scores. Differences (ATT) of MPK (ROA) between the treated and controlled are reported here. The Upper Half refers to Propensity Score  $\geq 50\%$  and the Lower Half refers to Propensity Score  $\leq 50\%$

	Parts	ATT	SE	t-stat	Obs. Untreated (on support)	Obs. Treated (on support)	Obs. Untreated (off support)	Obs. Treated (off support)
<b>Austria</b>	Overall	-0.632	2.124	-0.300	958	50	0	42
	Upper Half	3.478	3.195	1.090	20	26	0	40
	Lower Half	-3.981	1.985	-2.010	938	20	0	6
<b>Australia</b>	Overall	-19.200	2.040	-9.410	1014	484	0	20
	Upper Half	-21.653	2.267	-9.550	70	310	0	22
	Lower Half	-14.896	2.619	-5.690	944	171	0	1
<b>Belgium</b>	Overall	-7.234	1.878	-3.850	45002	224	0	23
	Upper Half	-2.401	2.858	-0.840	38	110	0	27
	Lower Half	-12.502	2.869	-4.360	44964	109	0	1
<b>Bulgaria</b>	Overall	-6.177	1.383	-4.470	64409	222	0	14
	Upper Half	-2.526	1.914	-1.320	38	52	0	14
	Lower Half	-7.233	1.595	-4.540	64371	170	0	0
<b>Brazil</b>	Overall	-8.507	5.518	-1.540	409	12	0	18
	Upper Half	0.135	3.099	0.040	2	2	0	21
	Lower Half	-8.507	5.518	-1.540	407	12	0	1
<b>China</b>	Overall	3.449	1.173	2.940	5	1422	0	650
	Upper Half	3.449	1.173	2.940	5	1422	0	650
	Lower Half							
<b>Croatia</b>	Overall	-8.247	0.955	-8.630	33502	282	0	71
	Upper Half	-7.013	2.017	-3.480	77	72	0	71
	Lower Half	-8.644	1.007	-8.580	33425	210	0	0
<b>Czech Republic</b>	Overall	-3.306	1.795	-1.840	36205	51	0	15
	Upper Half	-0.327	1.446	-0.230	12	3	0	15
	Lower Half	-3.492	1.910	-1.830	36193	48	0	0
<b>Denmark</b>	Overall	-4.142	2.309	-1.790	2344	143	0	68
	Upper Half	-2.435	2.105	-1.160	45	98	0	66
	Lower Half	-8.737	4.471	-1.950	2299	39	0	4

**Table A2.2: Robustness Check: Propensity Score Matching Estimates**

Propensity scores for the listing probability are used to match the treated (i.e., the listed) to the controlled (i.e., the unlisted), based on one-to-one nearest neighbour matching restricting to the common support. Size (logarithm of total assets), Age(the years since incorporation), and Industry(2-digit level) are used to compute propensity scores. Differences (ATT) of MPK (ROA) between the treated and controlled are reported here. The Upper Half refers to Propensity Score  $\geq$  50% and the Lower Half refers to Propensity Score  $\leq$  50%

	Parts	ATT	SE	t-stat	Obs. Untreated (on support)	Obs. Treated (on support)	Obs. Untreated (off support)	Obs. Treated (off support)
<b>France</b>	Overall	-10.254	1.484	-6.910	96365	1085	0	22
	Upper Half	-4.600	2.119	-2.170	154	651	0	61
	Lower Half	-20.524	1.507	-13.620	96211	394	0	1
<b>Greece</b>	Overall	-0.739	0.586	-1.260	25802	598	0	1
	Upper Half	3.232	0.943	3.430	92	254	0	9
	Lower Half	-3.810	0.615	-6.200	25710	336	0	0
<b>Germany</b>	Overall	-6.798	0.666	-10.210	47584	1339	0	22
	Upper Half	-1.814	0.810	-2.240	179	453	0	24
	Lower Half	-9.296	0.766	-12.130	47405	884	0	0
<b>Hungary</b>	Overall	2.269	2.042	1.110	39981	55	0	14
	Upper Half	-2.383	4.021	-0.590	10	4	0	12
	Lower Half	2.634	2.187	1.200	39971	51	0	2
<b>India</b>	Overall	3.026	2.478	1.220	75	1394	0	239
	Upper Half	3.033	2.358	1.290	62	1387	0	239
	Lower Half	1.431	5.010	-0.290	13	7	0	0
<b>Ireland</b>	Overall	-21.618	4.327	-5.000	1193	113	0	109
	Upper Half	-21.735	4.619	-4.710	10	87	0	112
	Lower Half	-20.274	5.295	-3.830	1183	21	0	2
<b>Japan</b>	Overall	-0.903	0.271	-3.330	169168	12555	0	9
	Upper Half	-0.454	0.351	-1.290	1538	9256	0	9
	Lower Half	-2.160	0.221	-9.780	167630	3299	0	0
<b>Japan#</b>	Overall	-1.063	0.660	-1.610	561	112	0	55
	Upper Half	-1.236	0.831	-1.490	23	74	0	50
	Lower Half	0.000	0.857	0.000	538	32	0	11
<b>Korea</b>	Overall	-4.967	0.412	-12.070	161332	2961	0	1
	Upper Half	-3.134	1.064	-2.950	311	537	0	1
	Lower Half	-5.374	0.447	-12.010	161021	2424	0	0
<b>Latvia</b>	Overall	-4.229	3.460	-1.220	13841	40	0	93
	Upper Half	7.900	1.470	5.370	3	2	0	92
	Lower Half	-4.931	3.526	-1.400	13838	37	0	2
<b>Malaysia</b>	Overall	0.907	4.045	0.220	241	31	0	27
	Upper Half	10.220	5.677	1.800	13	4	0	32
	Lower Half	-0.453	5.390	-0.080	228	20	0	2

#: Using merged Orbis and Kikatsu data

**Table A2.3: Robustness Check: Propensity Score Matching Estimates**

Propensity scores for the listing probability are used to match the treated (i.e., the listed) to the controlled (i.e., the unlisted), based on one-to-one nearest neighbour matching restricting to the common support. Size (logarithm of total assets), Age(the years since incorporation), and Industry(2-digit level) are used to compute propensity scores. Differences (ATT) of MPK (ROA) between the treated and controlled are reported here. The Upper Half refers to Propensity Score  $\geq 50\%$  and the Lower Half refers to Propensity Score  $\leq 50\%$

	Parts	ATT	SE	t-stat	Obs. Untreated (on support)	Obs. Treated (on support)	Obs. Untreated (off support)	Obs. Treated (off support)
<b>Netherlands</b>	Overall	-2.036	2.286	-0.890	1150	288	0	35
	Upper Half	-1.887	1.642	-1.150	33	209	0	57
	Lower Half	-3.457	3.535	-0.980	1117	56	0	1
<b>Norway</b>	Overall	-8.265	7.601	-1.090	5558	55	0	19
	Upper Half	-4.235	10.657	-0.400	11	46	0	17
	Lower Half	-21.402	10.912	-1.960	5547	8	0	3
<b>Poland</b>	Overall	-4.732	0.966	-4.900	21932	526	0	54
	Upper Half	-3.236	1.548	-2.090	82	164	0	53
	Lower Half	5.381	1.091	-4.930	21850	360	0	3
<b>Spain</b>	Overall	-3.196	0.744	-4.300	322191	443	0	6
	Upper Half	-3.242	1.242	-2.610	66	206	0	6
	Lower Half	-3.069	0.790	-3.880	322125	236	0	1
<b>Sweden</b>	Overall	-20.160	1.615	-12.480	84606	1526	0	24
	Upper Half	-10.967	2.521	-4.350	188	771	0	60
	Lower Half	-31.055	1.382	-22.470	84418	718	0	1
<b>Thailand</b>	Overall	-3.739	2.262	-1.650	516	188	0	5
	Upper Half	-2.622	2.792	-0.940	43	138	0	5
	Lower Half	-6.931	3.040	-2.280	473	49	0	1
<b>Turkey</b>	Overall	-15.817	5.177	-3.060	41	26	0	24
	Upper Half	-15.673	4.137	-3.790	8	20	0	22
	Lower Half	-15.612	8.667	-1.800	33	6	0	2
<b>US</b>	Overall	-13.644	4.563	-2.990	34	970	0	207
	Upper Half	-13.644	4.563	-2.990	34	970	0	207
	Lower Half							
<b>Ukraine</b>	Overall	-5.222	0.760	-6.870	121958	1046	0	10
	Upper Half	-0.698	2.051	-0.340	125	76	0	10
	Lower Half	-5.576	0.808	-6.900	121833	970	0	0
<b>UK</b>	Overall	-10.166	0.825	-12.320	22733	2073	0	34
	Upper Half	-1.357	1.433	-0.950	196	798	0	34
	Lower Half	-15.711	0.841	-18.690	22537	1274	0	1

## Appendix A3. Countrywise Benchmark Panel Regressions

**Table A3.1: Benchmark Panel Regressions for MPK**

The dependent variable is MPK, proxied by ROA or ROK. Listing is the binary variable, taking the value of one if a firm is listed and zero otherwise. L.Size is the logarithm of the lagged total assets. Age is the years since incorporation. L.D/A is the lagged debt to asset ratio. 2-digit industry fixed effects are included but not reported in the results. The robust standard errors are reported in the parenthesis corrected for clustering at the industry level: \*denotes significance at 10%; \*\* at 5%; and \*\*\* at 1%.

	Austria		Australia		Belgium		Bulgaria		Brazil	
	ROA	ROK	ROA	ROK	ROA	ROK	ROA	ROK	ROA	ROK
Listing	-3.966*	-44.980	-8.385***	-52.160	-5.064***	-80.72*	3.286**	160.500*	2.566	-289.200
	(-2.550)	(-31.680)	(-1.720)	(-71.010)	(-0.834)	(-39.330)	(1.239)	(65.200)	-11.770	(146.900)
L.Size	0.350	-1.986	1.930***	49.930**	0.347***	7.523***	-0.058	1.011	-1.260	-7.747
	(-1.260)	(-5.655)	(-0.402)	(-16.630)	(-0.040)	(-1.886)	(-0.037)	(2.261)	-1.789	(22.170)
Age	-0.0224***	-0.188	0.100***	0.718	-0.0895***	-1.447***	-0.299***	-7.821***	0.035	0.0152
	(-3.890)	(-0.117)	(-0.024)	(-0.990)	(-0.004)	(-0.167)	(-0.008)	(0.427)	-0.062	(1.033)
L.D/A (ratio)	-9.793***	-111.6***	2.497	136.300	-4.248***	-142.4***	-7.479***	-198.5***	-7.236	337.800
	(-8.000)	(-24.890)	(-2.837)	(-117.700)	(-0.210)	(-9.980)	(-0.206)	(11.900)	-17.880	(398.000)
Constant	16.07	177.900	-40.94***	-534.5*	8.836	684.600	24.790**	6706.500***	30.010	284.300
	(-9.727)	(-197.800)	(-5.224)	(-215.600)	(-11.220)	(-528.8)	(9.320)	(488.800)	-24.900	(152.000)
N	1331	1331	1173	1166	51742	51218	75047	62145	69	69
R-sq	0.163	0.079	0.369	0.212	0.037	0.010	0.062	0.024	0.802	0.975

**Table A3.2: Benchmark Panel Regressions for MPK**

The dependent variable is MPK, proxied by ROA or ROK. Listing is the binary variable, taking the value of one if a firm is listed and zero otherwise. L.Size is the logarithm of the lagged total assets. Age is the years since incorporation. L.D/A is the lagged debt to asset ratio. 2-digit industry fixed effects are included but not reported in the results. The robust standard errors are reported in the parenthesis corrected for clustering at the industry level: \*denotes significance at 10%; \*\* at 5%; and \*\*\* at 1%.

	China		Croatia		Czech Republic		Denmark		France	
	ROA	ROK	ROA	ROK	ROA	ROK	ROA	ROK	ROA	ROK
Listing	2.721 (4.724)	39.070 (344.200)	-2.455** (0.858)	9.558 (35.950)	-5.367** (1.898)	-19.960 (80.350)	-4.860** (1.837)	-153.300** (59.030)	-7.558*** (0.482)	-141.0*** (15.920)
L.Size	-0.195*** (0.044)	-6.478* (3.216)	-0.118** (0.043)	-8.069*** (1.889)	0.502*** (0.037)	-5.974*** (1.743)	0.616* (0.241)	-1.234 (7.949)	0.182*** (0.041)	3.381* (1.361)
Age	-0.085*** (0.012)	-0.647 (0.851)	-0.137*** (0.008)	-2.002*** (0.357)	-0.323*** (0.010)	-5.435*** (0.422)	-0.0014 (-0.019)	-0.478 (0.614)	-0.072*** (0.004)	-0.744*** (0.118)
L.D/A (ratio)	-7.746*** (0.330)	-17.040 (24.010)	-5.210*** (0.269)	-75.640*** (11.580)	-5.427*** (0.218)	-108.300*** (9.653)	0.108 (-2.029)	40.250 (66.990)	-4.897*** (0.242)	-86.720*** (8.028)
Constant	6.458 (5.554)	56.720 (404.700)	3.107 (13.680)	91.740 (571.200)	18 (14.240)	641.4 (602.600)	3.825 (7.103)	165.6 (227.8)	9.759 (7.226)	150.400 (238.500)
N	15832.000	15832	40382.000	38125	59585	55583	1526	1468	62481	62062
R-sq	0.075	0.006	0.043	0.011	0.047	0.011	0.173	0.164	0.037	0.016

**Table A3.3: Benchmark Panel Regressions for MPK**

The dependent variable is MPK, proxied by ROA or ROK. Listing is the binary variable, taking the value of one if a firm is listed and zero otherwise. L.Size is the logarithm of the lagged total assets. Age is the years since incorporation. L.D/A is the lagged debt to asset ratio. 2-digit industry fixed effects are included but not reported in the results. The robust standard errors are reported in the parenthesis corrected for clustering at the industry level: \*denotes significance at 10%; \*\* at 5%; and \*\*\* at 1%.

	Greece		Germany		Hungary		India		Ireland	
	ROA	ROK	ROA	ROK	ROA	ROK	ROA	ROK	ROA	ROK
Listing	-2.217*** (0.418)	27.000 (17.580)	-6.136*** (0.378)	-232.200 (129.200)	7.807*** (2.156)	97.260 (66.410)	-0.495 (1.542)	-7.882 (43.110)	-4.190** (1.479)	-365.600 (240.800)
L.Size	-0.196*** (0.050)	-20.850*** (2.117)	-0.228*** (0.046)	15.310 (15.890)	-0.154*** (0.033)	-6.726*** (1.059)	0.654*** (0.118)	-3.483 (3.294)	0.563** (0.181)	5.847 (30.220)
Age	-0.0120** (0.004)	-0.241 (0.155)	-0.006*** (0.001)	-1.021* (0.491)	-0.214*** (0.008)	-2.870*** (0.237)	-0.006 (0.011)	-0.132 (0.296)	-0.031* (0.016)	-2.614 (2.562)
L.D/A (ratio)	-1.426*** (0.242)	27.830** (10.190)	-5.666*** (0.260)	39.870 (89.090)	0.875*** (0.216)	31.420*** (6.883)	-12.870*** (1.167)	-37.770 (32.720)	1.078 (1.302)	16.310 (211.600)
Constant	5.540*** (0.541)	192.100*** (22.810)	12.34 (8.205)	-148.100 (2801.800)	4.721 (16.290)	107.700 (501.600)	0.667 (8.696)	44.580 (243.100)	-4.922 (6.943)	357.800 (1113.400)
N	22583	22534	37616	37328	91304	86658	1423	1421	1418	1394
R-sq	0.06	0.017	0.041	0.004	0.03	0.007	0.268	0.019	0.174	0.077

**Table A3.4: Benchmark Panel Regressions for MPK**

The dependent variable is MPK, proxied by ROA or ROK. Listing is the binary variable, taking the value of one if a firm is listed and zero otherwise. L.Size is the logarithm of the lagged total assets. Age is the years since incorporation. L.D/A is the lagged debt to asset ratio. 2-digit industry fixed effects are included but not reported in the results. The robust standard errors are reported in the parenthesis corrected for clustering at the industry level: \*denotes significance at 10%; \*\* at 5%; and \*\*\* at 1%.

	Japan		Japan#		Korea		Latvia		Malaysia	
	ROA	ROK	ROA	ROK	ROA	ROK	ROA	ROK	ROA	ROK
Listing	0.000475 (0.092)	7.242* (2.899)	0.850 (1.018)	3.803 (3.461)	-2.115*** (0.203)	6.915* (2.706)	-1.15 (2.281)	-71.560 (61.780)	-0.328 (2.571)	-28.720 (68.020)
L.Size	0.422*** (0.015)	-0.905 (0.472)	0.913** (0.296)	1.385 (1.008)	-1.281*** (0.024)	-13.47*** (0.314)	0.490*** (0.095)	-3.966 (2.799)	0.737* (0.350)	-8.546 (9.258)
Age	-0.050*** (0.001)	-0.728*** (0.037)	-0.024 (0.019)	-0.033 (0.065)	-0.028*** (0.004)	-0.525*** (0.052)	-0.170*** (0.024)	-1.610* (0.656)	-0.066 (0.049)	-3.318* (1.290)
L.D/A (ratio)	-2.309*** (0.081)	-23.370*** (2.544)	-1.000 (1.418)	-9.452 (4.822)	-7.783*** (0.141)	-53.160*** (1.885)	-0.248 (0.627)	-35.74* (18.18)	-6.075* (2.694)	-141.700* (71.270)
Constant	3.208*** (0.495)	62.540*** (15.640)	-12.750* (5.089)	-19.470 (17.300)	10.28 (9.513)	98.430 (126.600)	3.061 (3.060)	85.040 (82.840)	-22.160* (10.110)	302.300 (267.500)
N	132418	132296	281	281	109036	108967	15152	13667	354	354
R-sq	0.043	0.007	0.108	0.045	0.086	0.041	0.027	0.033	0.672	0.339

#: Using merged Orbis and Kikatsu data

**Table A3.5: Benchmark Panel Regressions for MPK**

The dependent variable is MPK, proxied by ROA or ROK. Listing is the binary variable, taking the value of one if a firm is listed and zero otherwise. L.Size is the logarithm of the lagged total assets. Age is the years since incorporation. L.D/A is the lagged debt to asset ratio. 2-digit industry fixed effects are included but not reported in the results. The robust standard errors are reported in the parenthesis corrected for clustering at the industry level: \*denotes significance at 10%; \*\* at 5%; and \*\*\* at 1%.

	Netherlands		Norway		Poland		Spain		Sweden	
	ROA	ROK	ROA	ROK	ROA	ROK	ROA	ROK	ROA	ROK
Listing	-2.465 (1.436)	269.100 (601.700)	-14.710*** (3.624)	-823.900 (675.700)	-6.733*** (0.850)	81.600* (39.610)	-1.179* (0.525)	-0.857 (21.600)	-16.240*** (0.558)	-282.4*** (34.86)
L.Size	-0.019 (0.208)	-102.600 (88.140)	0.611* (0.250)	48.310 (49.580)	0.303*** (0.086)	-33.290*** (4.171)	0.873*** (0.014)	4.169*** (0.587)	0.614*** (0.047)	7.972* (3.118)
Age	-0.029** (0.011)	1.525 (4.425)	0.020 (0.021)	2.308 (4.016)	-0.0781*** (0.006)	-0.775** (0.296)	-0.116*** (0.002)	-1.646*** (0.078)	-0.046*** (0.004)	-2.084*** (0.274)
L.D/A (ratio)	-6.679*** (1.832)	523.800 (766.600)	5.584*** (1.482)	423.400 (287.900)	-8.930*** (0.521)	-7.907 (24.690)	-0.372*** (0.072)	-32.870*** (2.997)	-4.946*** (0.266)	-168.900*** (17.160)
Constant	11.650*** (3.321)	871.500 (1406.500)	11.680 (18.800)	-91.550 (3484.200)	34.020*** (8.345)	356.800 (387.500)	7.622 (4.117)	18.250 (169.500)	1.078 (10.080)	217.900 (621.200)
N	1436	1400	2938	2732	13930	13639	315808	310794	75198	68625
R-sq	0.116	0.066	0.09	0.144	0.054	0.026	0.06	0.006	0.032	0.010

**Table A3.6: Benchmark Panel Regressions for MPK**

The dependent variable is MPK, proxied by ROA or ROK. Listing is the binary variable, taking the value of one if a firm is listed and zero otherwise. L.Size is the logarithm of the lagged total assets. Age is the years since incorporation. L.D/A is the lagged debt to asset ratio. 2-digit industry fixed effects are included but not reported in the results. The robust standard errors are reported in the parenthesis corrected for clustering at the industry level: \*denotes significance at 10%; \*\* at 5%; and \*\*\* at 1%.

	Thailand		Turkey		US		Ukraine		UK	
	ROA	ROK	ROA	ROK	ROA	ROK	ROA	ROK	ROA	ROK
Listing	1.912	14.01	-3.024	7.463	-11.890**	-545.600	-2.754***	-51.750	-7.948***	-95.25*
	-2.928	-16.85	-4.855	-13.38	(3.696)	(300.600)	(0.702)	(30.990)	-0.379	-44.52
L.Size	0.49	-4.228	1.258***	1.242	3.293***	80.740***	-0.086**	4.980**	0.11	-33.50***
	-0.885	-5.094	-0.377	-1.04	(0.121)	(9.862)	(0.032)	(1.530)	-0.0676	-8.192
Age	-0.230*	-0.734	-0.0144	0.0489	0.054***	1.121	-0.057***	-2.359***	0.00737	-1.199**
	-0.102	-0.59	-0.0375	-0.103	(0.008)	(0.662)	(0.006)	(0.262)	-0.00383	-0.45
L.D/A (ratio)	-13.11*	-31.15	-9.008***	-15.34*	-6.851***	326.900***	4.057***	104.900***	0.912*	-177.1***
	-5.422	-31.21	-2.404	-6.624	(1.106)	(89.970)	(0.205)	(9.618)	-0.426	-50.27
Constant	16.49	104.2	-27.91***	-52.41*	-40.17***	-1801.400*	1.180	148.700	3.656***	522.8***
	-10.34	-59.54	-8.104	-22.33	(9.842)	(800.400)	(4.985)	(227.300)	-1.094	-129.9
N	60	60	371	371	7342	7342	105657	94219	19626	19381
R-sq	0.56	0.796	0.435	0.434	0.229	0.066	0.038	0.009	0.046	0.014