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Kenichi Ueda

University of Tokyo, TCER, and CEPR

Somnath Sharma

University of Tokyo and Reserve Bank of India

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# Listing Advantages Around the World\*

Kenichi Ueda<sup>†</sup>

Somnath Sharma<sup>‡</sup>

May 25, 2020

## Abstract

Using the firm-level data of 33 countries over 10 years (2008–2017), we find that the listed firms have lower returns on assets than the similar unlisted firms, in most countries. The result is associated with a higher capital-labor ratio of listed firms, implying that the listed firms face less financial constraints. Moreover, we investigate the institutional factors that exacerbate or mitigate the listing advantages (i.e., ROA difference) across the countries. Compared to English origin, German and Scandinavian law countries strongly narrow the listing advantages but the French law origin shows mixed results. Overall, the listing advantages seem narrowed with stronger creditor's rights but show unclear associations with the strength of corporate governance.

**Keywords:** Listing advantages; financial friction; corporate governance; creditor's rights; financial development

**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 33 countries over 10 years (from 2008–2017) for both listed and unlisted firms, we find that, in most countries, listed firms have lower returns on assets (*ROA*) than similar unlisted firms. This result is associated with higher capital-to-labor ratios of listed firms, consistent with diminishing marginal returns of capital. In other words, lower *ROA* reflects less financial constraint of listed firms. We, thus, refer to the *ROA* difference as *listing advantages*.

More specifically, for each country, we estimate the listing advantages by the average treatment effect on the return on asset (*ROA*), using the propensity score matching technique. We find that, for the majority of the countries in our study, listing lowers *ROA*, which is proportional to the marginal products of capital under typical assumptions on production functions.

This finding supports a simple theory, which says that listing firms should be less financially constrained. 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. Indeed, in many countries, listing is negatively correlated with debt-to-asset ratio, implying that equity finance works as a source of financing. Furthermore, maintaining lower leverage makes listed firms less likely to hit the prohibitive borrowing constraints.<sup>1</sup>

Next, we investigate the institutional factors behind different levels of listing advantages across countries. We find that stronger creditor’s rights tends to narrow the listing advantages, while corporate governance seems to play mixed roles. Notably, legal origins of countries show robust effects. Compared to Anglo-Saxon origin, German and Scandinavian law countries strongly narrow the listed advantages, consistent with creditor’s right’s effect.

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<sup>1</sup>Ueda et al. (2019) more robustly find these results in a detailed study focusing on Japanese firms.

On the other hand, French law origin shows mixed effects. Note that creditor's rights are said to be protected more in German and Scandinavian law countries than others.

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. French et al. (2020), in their study using Japanese firm-level data, find similar results with even more detailed investigations. 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 Tailard (2016), based on panel regressions, show that listed natural gas firms in the U.S. 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 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 the tightening of financial constraints. Stein (1989) argues 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 (2019) also shows that the US listing firms in chemical industries have a lower sensitivity of capacity investment on demand shocks.

Mixed evidences are sometimes reported by several authors. For British firms, Brav (2009) shows that listed firms have lower leverage, but with lower fluctuations in the 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 listed and the unlisted firms is more pronounced in countries with stronger creditor's rights. For Japanese firms, Orihara (2014) presents univariate pictures that show 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.

In another strand of the literature, based on listed firms' data, many authors have explained the cross-country differences in financial frictions associated with the differences in 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 from 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 institutional factors on financial constraints between the listed and the unlisted firms using the cross-country panel data. In this paper, using both listed and unlisted firms data, we, thus, try to find extensive margins of institutional factors on listing-related financial frictions, compared to intensive margins found so far in previous studies among listed-firms in cross-country setting.

## 2 Data

### 2.1 Firm-Level Data

We use two levels of data—country-wise firm-level and country-level data. For the country-wise firm-level data, we use the ORBIS database which is provided commercially by Bureau van Dijk (BvD). The ORBIS database includes balance sheets and income statements together with some information on firms’ ownership structures for over 300 million companies across the world. In terms of 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. Originally, it contains financial information on about 38 million firms.

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. We estimate the  $ROA$  by earnings before interest and tax payments (EBIT) divided by *Total Assets*(TA), that is,  $ROA = EBIT/TA$ .<sup>2</sup>

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 usually yield low returns. If so, it makes sense to exclude liquid assets from the *Total Assets* (TA) and to focus on the return on fixed assets ( $ROK$ , %) as another proxy for the marginal products of capital, that is,  $ROK = EBIT/Fixed Assets$ .

We use dummy  $Listing = 1$  if the firm is listed on the stock market and  $Listing = 0$  otherwise. This is the listing variable. We use *Total Assets* as a measure of the *Size* of a

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<sup>2</sup>The  $ROA$  given in the ORBIS database is profit and loss before tax but after the interest payments. So, we recalculate it.

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*). We restrict our attention to the firms with at least two years of consecutively available data points. Apparently, this data set is an unbalanced panel. About 13 million non-financial firms have those variables.

Moreover, we exclude firms whose shares are more than 50 percent owned by one entity. This is because some of the unlisted companies are subsidiaries of bigger firms. We do not want to include them because they are likely to face different financial constraints and behavioral principles compared to independent firms. Many other unlisted firms may be owned by one or two large shareholders (e.g., a small restaurant). These, typically small firms with concentrated ownership, are likely to be quite different from listed firms with dispersed ownership in terms of agency frictions. In any case, they are not qualified to be listed with their small sales and assets. Therefore, we drop about 3 million firms that do not have ownership concentration information and then eliminate firms if owned by a single entity with more than 50 percent. As a result, we have about 2 million firms.

Furthermore, we drop outliers based on *ROA* and *ROK*. 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*). In the end, we focus on manufacturing firms only from 33 countries between 2008–2017. We present the number of firm-year observations by country, totalling about 1.5 million, in Table 1a. We report the country-wise summary statistics and correlation tables of these variables in Appendix Tables A1.

## 2.2 Country-Year-Level Data

At the country-level, for each year, we take several institutional indicators for legal origin, corporate governance, institutional quality, product market competition, and financial development from various sources. They are explained below and summarized in Table 1b. We present the correlation table in Table 1c. Notably, Table 1c shows that the average difference of *ROA* between the listed and the unlisted firms is negatively associated with many institutional indicators.

### 2.2.1 Legal Origin

We also use legal origin from La Porta et. al. (2008). Countries are classified into English, French, German, Scandinavian, and Socialist origins.<sup>3</sup> Note that in our sample, socialist origin refers to just one country, Ukraine, so that it represents just country fixed effect for the Ukraine.

### 2.2.2 Corporate Governance

For corporate governance, we use six different indicators, namely, Self-dealing Index, Corporate Governance Quality Index, Anti-Directors Rights Index, Extent of Directors Liability, Corporate Board Efficacy Index, and Protection of Minority Shareholders Index.

- **Self-Dealing Index:** The Self-Dealing Index is provided by Djankov et al. (2008). It is a measure of legal protection of minority shareholders against expropriation by corporate insiders (e.g., owner’s transactions with related parties). This index predicts a variety of stock market outcomes, and is generally known to work better than other measures of corporate governance, for example, anti-director rights.
- **Corporate Governance Quality Index:** We take this data from De Nicolò et al. (2008). It is a composite indicator related to accounting transparencies. It measures

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<sup>3</sup>In our sample of countries there are 17 English origin, 10 French origin, 10 German origin, five Scandinavian origin and one Socialist origin countries.



the strength of auditing and accounting standards conflict of interest regulation and shareholder governance.

- **Anti-Director Rights Index:** We take this indicator of minority shareholder’s protection from Spamann (2009) which is a revised and improved version of La Porta et al. (1998). It has six components. Three are concerned with shareholder voting—voting by mail, voting without blocking of shares, and calling an extraordinary meeting, and, three with shareholders’ voices—proportional board representation, preemptive rights, and judicial remedies.
- **Protection of Minority Shareholders:** This indicator measures how well minority shareholders are protected by the legal system of the country. This is constructed on the basis of opinion surveys of business leaders around the world. We take this indicator from World Economic Forum.
- **Corporate Board Efficacy:** This indicator measures how accountable the management is to the investors and boards. This index is also constructed on the basis of opinion surveys of business leaders. We take this indicator from World Economic Forum.
- **Extent of Director’s Liability:** The Extent of Director’s Liability index measures when board members can be held liable for harm caused by related-party transactions and what sanctions are available. We take this indicator from World Bank’s Doing Business Reports.

### 2.2.3 Creditor’s Rights

We use four different indicators of Creditor’s Rights. They are, Creditor’s Rights, Strength of Legal Rights, Strength of Insolvency Framework, and Time to Resolve Insolvency (years).

- **Creditor’s Rights:** We use the creditor’s rights as given in the Djankov et al. (2008). The Creditor Rights Index was first proposed by La Porta et al. (1998). 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.

- **Strength of Legal Rights:** We take this indicator from the World Bank's Doing Business Reports. This index measures the degree to which collateral and bankruptcy laws protect the rights of borrowers and lenders and, thus, facilitate lending. This measure puts higher weights on borrower side protection compared to Creditor's Rights.
- **Strength of Insolvency Framework:** Strength of Insolvency Framework index measures the time, cost, and outcome of insolvency proceedings involving domestic entities, as well as the strength of the legal framework applicable to judicial liquidation and reorganization proceedings. We take this indicator from the World Bank's Doing Business Reports.
- **Time to Resolve Insolvency (years):** This is the number of years from the filing for insolvency in court until the resolution of distressed assets. We take this indicator from the World Bank's Doing Business Reports. This one, and the one above, measure the overall efficiency of bankruptcy procedures, which is supposed to help creditors more than borrowers.

#### 2.2.4 General Institutional Quality

We use three different indicators of General Institutional Quality. They are, Property Rights, Rule of Law, and Trust in People.

- **Property Rights:** 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 the survey of different stakeholders across the world. It takes into account the protection of property rights including financial assets.
- **Rule of Law:** This indicator captures the perceptions of the extent to which agents have confidence in, and abide by, the rules of society, and in particular the quality

of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence. We take this from the World Governance Indicators published by the World Bank.

- **Trust in People:** We take this data from two different waves of the World Value Surveys (Wave 5 (2005-2009) and Wave 6 (2010-2014)). The World Value Survey publish time series investigation of human beliefs and values across countries. We take the indicator constructed by response of the respondents on whether most people can be trusted in your country.

### 2.2.5 Financial Development

We take four different indicators of financial development. They are, Credit-to-GDP Ratio, Sum of Stock Market Capitalization, Private Bond Market Capitalization, and Bank Credit to Private Sector (% of GDP), Market Capitalization (% of GDP), and Prevalence of Foreign Ownership.

- **Credit-to-GDP Ratio:** We take private sector Credit-to-GDP ratio (%) from the World Bank database. Here, credit refers to the domestic credit to private sector which includes financial resources provided to the private sector by financial institutions through loans, purchases of non-equity securities, and trade credits and other accounts receivable, which establish a claim for repayment.
- **Market Capitalization (% of GDP):** We take this data from the World Bank and the CEIC Database. Market Capitalization (also known as market value) is the share price times the number of shares outstanding (including their several classes) for listed domestic companies.
- **Sum of Stock Market Capitalization, Private Bond Market Capitalization and Bank Credit to Private Sector (% of GDP):** We take bank credit to private

non-financial sector data and outstanding corporate debt securities issued by the private non-financial corporations data given by the Bank for International Settlements (BIS) and market capitalization of the listed companies data from the World Bank and CEIC Database and take the sum of them and divide it by current GDP at market price of that year to obtain this ratio.

- **Prevalence of Foreign Ownership:** We use Prevalence of Foreign Ownership index provided by the World Economic Forum. It is constructed on the basis of responses from the survey of the stakeholders in each country on how prevalent foreign ownership of companies is in their respective countries.

### 2.2.6 Product Market Competition

We take three different indicators of Product Market Competition. They are, New Business Registered, Cost of Starting a Business, and Trade Barriers.

- **New Business Registered:** We take new business registrations in the calendar year per 1,000 people in the age group of 15-64 years, published by the World Bank. Business refers to limited liability corporations. This measure captures easiness of starting up business, together with the measure below.
- **Cost of Starting a Business (% of income per capita):** We take this data from the World Bank. This is constructed by normalizing the cost to register a business by the Gross National Income (GNI) per capita.
- **Trade Barriers:** This index is constructed based on the responses of the stakeholders in each country to the question—to what extent do non-tariff barriers (e.g., health and product standards, technical and labeling requirements, etc.) limit the ability of imported goods to compete in the domestic market? We take this data from the World Economic Forum.

### 2.2.7 Macroeconomic Volatility

We take three measures of macroeconomic volatility—Standard Deviation of Inflation from Last 5 Years Average Inflation, Standard Deviation of GDP Growth from Last 5 Year Average GDP Growth, and Coefficient of Variation of Exchange Rate. We use the annual average consumer price index to calculate inflation. For calculating the GDP growth, we use GDP at constant market price in USD. We take nominal effective exchange rate to calculate the coefficient of variation of the exchange rate. We use the World Bank database to obtain these variables.

## 3 Within-Country Estimation of Average Treatment Effect on Treated: Propensity Score Matching

### 3.1 Benchmark Within-Country Estimation

Following the Ueda et al. (2019) study on Japanese firms, we conduct a propensity score matching estimation (PSM) to identify the listing advantages for each year for each of the 33 countries. Specifically, we first predict the probability of firms to be listed based on several firm characteristics. Those are *Size* (total asset), *Age*, and *Industry* (2-digit level). We also include lagged *Leverage* (*D/A Ratio*) to control for possible default risks, debt overhang, and ROE targeting behaviors. However, the leverage is not as much of an important control variable, as discussed below. Second, we match the listed and unlisted firms, one to one, if they share the (almost) same probability of being listed.<sup>4</sup> We confirm that covariates are well-balanced in matched samples (report omitted).

We then compare the difference in the marginal product of capital between two matched samples to determine the effects of *Listing*, taking value one if listed and zero otherwise. The

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<sup>4</sup>We use STATA 14 command `psmatch2` with caliper 0.1.

marginal product of capital is proxied by the return on asset ( $ROA$ ).

In Table 2, we present the average treatment effect on treated (ATT of listing on  $ROA$ ), which is the average difference in the  $ROA$  as a result of being listed, for each country using all sample years data (see country specific descriptive statistics and correlation tables in Appendix Tables A1). We also show it in the left side of Figure 1, based on at least 10% level of significance. Insignificant coefficients are plotted as zero. On the right side, we also report  $ROA$  ATT without controlling for leverage. Overall, controlling for leverage does not change the results much (correlation of 0.721, as reported in Table 1c).<sup>5</sup>

Surprisingly, in Figure 1, we find that the difference of the  $ROA$  as a result of *Listing* is negative for almost all the countries. In other words, on average, the listed firms tend to have a lower  $ROA$  compared to the unlisted firms, almost anywhere in the world. This difference is more pronounced in the case of Australia, France, Romania, Sweden, the UK, and the US. For some countries like Brazil, India, Taiwan, and Vietnam, this difference is not found to be statistically significant. There are few exceptions like Iceland, where this difference turns out to be positive.<sup>6</sup>

### 3.2 Robustness Checks for Within-Country Estimation

For the first robustness check, we use fixed capital to assess the return ( $ROK$ ). The correlation of ATT of listing on  $ROK$  and  $ROA$  is high based on country-level all years sample, 0.569 with leverage control and 0.587 without it (Table 3).

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

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<sup>5</sup>Table 1c reports the correlation estimate of 0.721 at the country-year-level, while Table 3 reports correlation estimate of 0.882 using all years' data at country-level.

<sup>6</sup>Similar results are obtained when we pool all years observations for each country.

on *Listing*. On the other hand, *Size* (total asset) may be endogenous to *Listing*. However, it is a slow-moving variable which is less likely to affect the *Listing* decision in each year. As some growing firms may be more likely to seek listing, we control for EBIT Growth. The result remains quite similar, with correlation of 0.691 (Table 3) and see Figure 2, left panel. Also, we restrict our sample to firms that are more than five years of age from incorporation or IPO to eliminate young firms, which are more likely to face the listing decision. We do not find any difference in our results, with correlation of 0.678 (Table 3) and see Figure 2, the right panel.

Moreover, we care about another possible endogeneity of *Listing*. We note that the treated and the controlled are switched, in a sense, at 50 percent probability of being listed. For firms higher than a 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 firms not being listed, though they should be. On the other hand, for firms lower than a 50 percent score, they should not be listed according to the statistical model. They may pick up distressed firms, which may exaggerate the benefits of *Listing*. Also, these listed firms may be close to being delisted, so, even though listed, they have difficulties in obtaining funds. Hence, the bias is uncertain. In other words, randomness of *Listing* seems to appear more clearly among those samples above the 50 percent threshold.

Note that the underlying assumption for justifying propensity score matching estimation is that the listing status is not based on economic reasons, at least not on current economic factors. Additionally, 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, consider a case where 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. These firms

appear more when we take firms with 50 percent or more propensity score of *Listing*.

We investigate whether the beneficial effects based on all firms are similarly found in firms with more than a 50 percent propensity score (see Appendix Tables A2.1). We find similar result with the correlation of 0.783 (see Table 3). That is, among the firms with higher than a 50 percent propensity score, the listing effects are very close to our benchmark results. This is also in line with Ueda et al. (2019), which is able to control a few more variables by focusing on Japanese data. Therefore, although the random assignment assumption of listing status might not be perfect, theoretically, we can regard the benchmark result based on all firms as if it is based on a random assignment.

Depending on the macroeconomic conditions, listing advantages may change. Indeed, Ueda et al. (2019) report using Japanese firms data with more variables, that the listing advantage is more pronounced in recessions but less obvious in booms. The estimates of this paper does not differentiate between the recession-boom effects; thus, they are likely to be under biased. Also, we surmise that the institutional changes over time may matter. Below, we use the yearly estimates in cross-country panel regressions to allow for these time-varying possibilities, wherever possible.

### **3.3 Robustness Check Using Fixed-Effect Panel Estimation**

As another robustness check, we also run a fixed-effect panel estimation for listing advantages 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>7</sup> This asymmetric distribution potentially causes bias to fixed-effect-regression estimates because the error terms of the listed and the unlisted might not be randomly distributed even with *Listing* binary variable and other control variables in the regressions:

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<sup>7</sup>See Appendix 1 where country-wise correlation tables are reported.



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

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

In Figure 3, we present the estimates (statistically significant) of  $\beta^M$  (the marginal effect of *Listing* on the *MPK*).<sup>8</sup> The estimation results show that the listed firms face less financial frictions as in PSM estimates of ATT in many countries. 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 correlated, with correlation coefficient 0.602 with leverage control and 0.792 without it (Table 3).<sup>9</sup>

## 4 Meaning of Lower ROA

Whatever the interpretation is, we have established the stylized fact that the ROA of listed firms are lower than similar unlisted firms in most countries. A question is the meaning of the lower ROA.

In a typical investment theory, we can view the marginal product of capital (MPK) as the measure of financial constraints. Let us assume a firm's production function to be homogeneous degree of one function  $f(k, l)$  of capital inputs  $k$  and labor inputs  $l$ . We would like to focus on capital inputs so that we assume a perfect labor market. Moreover, for now, we also assume a competitive equilibrium in product markets. If the capital market is

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<sup>8</sup>Appendix A3 reports the country-wise results for manufacturing firms. The robust standard errors are reported with clustering at the two-digit industry level. The coefficients on the listing are significantly negative for almost all the countries when we control for *Size*, *Age* and *Leverage*.

<sup>9</sup>We also estimate the fixed effects coefficient using ROK, though, in this case, somehow correlation becomes somewhat negative.

perfect, then a firm can maximize its profit  $\pi$  by choosing inputs  $k$  (and  $l$ ) as the following:

$$\max_{k,l} \pi(k,l) = f(k,l) - rk - wl. \quad (2)$$

The first order condition with respect to the capital, is

$$MPK = \frac{\partial f}{\partial k} = r. \quad (3)$$

However, suppose unlisted firms face higher interest rate  $r + \lambda$ . Then, those firms will invest capital up to

$$MPK = r + \lambda. \quad (4)$$

As long as the marginal product of capital is decreasing, which is usually the case, these firms invest less due to higher interest rate.

Similarly, suppose somehow the credit is rationed up to  $K$  for unlisted firms under the same interest rate, then the firm's maximization problem becomes subject to the rationing constraint,

$$k \leq K. \quad (5)$$

If we let  $\mu$  to denote the Lagrange multiplier of this constraint, then the first order condition becomes

$$MPK = r + \mu, \quad (6)$$

which is essentially the same as the higher-interest-rate case (4), explained above. In either case, if unlisted firms face tighter financial frictions, they would choose higher marginal product of capital with lower capital-to-labor ratio.

Even for a more general case with infinite-period going-concern firms, essentially the same

results can be obtained using average Tobin's Q as long as the frictions (i.e., adjustment costs) are proportional to capital-to-labor ratio. See Hayashi (1982), a model without financial frictions, and Claessens et al. (2014), a model with financial frictions. Importantly, in a dynamic model with shocks, what is equated is the expected Q or the discounted sum of the marginal products of capital.

$$MPK = r + \lambda + error. \quad (7)$$

Here, as long as many firm samples are available and firm-level productivity shocks in each year stem from the same probability distribution over time, then the average of ex post difference of ROA between the listed and the unlisted is proportional to the difference in expected ROA.

$$E[MPK] = r + \lambda. \quad (8)$$

Transition is not a problem either. If adjustment to productivity shock takes longer than a year, each year's expected MPK of each firm would not equate to the interest rate in transition as it should be in the steady state.

$$MPK = r + \lambda + \text{transitional term} + error. \quad (9)$$

However, again, as long as productivity shocks for listed and unlisted firms stem from the same probability distribution each year, the number of those firms adjusting from above or below are the same within listed and unlisted firms each year. Hence, the ex-post average difference of ROA between listed and unlisted firms should be proportional to the expected one without adjustment, and captures the effects of financial constraints. That is, equation (8) holds here again. Note that, on the other hand, traditional cash flow sensitivity of investment is known to be a noisy measure of financial constraints; thus, it is not the focus of our study.<sup>10</sup>

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<sup>10</sup>There have been long disputes about the validity of investment-cashflow sensitivity regressions regarding

Suppose now that some industries are monopolistic or oligopolistic or that some firms enjoy extra rents due to better technology or cost structures. In these cases, extra rents can be added in the right-hand-side of the equation (8).

$$MPK = r + \lambda + \text{rents}. \quad (10)$$

These rents, if any, can be observed at the industry level, which we control by industry in the propensity score matching, as well as in fixed effect regressions. Note that country-wide environment for product market competition is controlled in the cross-country panel regressions in the next section.

Suppose there are firm-specific rents and somehow they are larger for unlisted firms.<sup>11</sup> Theoretically, this could happen under the adverse selection in the decision of firms to go public (Myers-Majluf, 1984). For example, Yosha (1995) argues that unlisted firms with good private information about their future prospects choose to remain private. In any case, if the unlisted firms were superior in terms of extra profits, then they should be less financially constrained. If their current profits are about the same but more bright in the future, they should invest more than listed firms. Hence, either way, their capital intensity (i.e., capital-to-labor ratio) should be at least the same as listed firms. We can then use the

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true measurements of growth opportunities and financial constraints (see for example, Claessens, Ueda, and Yafeh (2014) for a brief summary). Still, for listed firms, we could follow an approach taken by Claessens, Ueda, and Yafeh (2014), which, however, require Q (market valuation of stocks), something not available for unlisted firms. In some papers, authors compute predicted Q based on a firm-level panel regression (in a country) using lagged accounting variables with industry and year fixed effects. But, our whole point is that the (lagged) accounting variables (e.g., ROA) are affected by the listing status. Then, the predicted Q violates the theoretical assumption of the growth opportunity—the similar firms, listed or unlisted, should have the same growth opportunity. In the literature, a few papers cleverly define growth opportunities as exogenous shocks. For example, Thaillard (2016) focused only on US natural gas companies and utilizes apparently exogenous movements in gas prices as the growth opportunity for that industry. But, for cross-country setting with limited samples for each country, we do not want to lose many samples by focusing on a narrower sector than manufacturing.

<sup>11</sup>If industry effects prevail at finer than two-digit level categories that we use, then those appear as firm-specific rents in our empirical approach. Theoretically, these finer industry effects can be also treated as firm-specific rents, as we discuss here.

capital-to-labor ratio as a detecting device to see if the higher ROA of the unlisted firms stems from their extra profits and not as a result of financial constraint.

We find that this story of profitable unlisted firms seems unfit to the data. Figure 4 shows the opposite, that there is a clear tendency for listed firms have higher asset-to-labor ratio ( $A/L$ ). The correlation between ATT  $ROA$  and ATT  $A/L$  is sizable,  $-0.292$  with leverage control and  $-0.197$  without it (Table 3). This is the case even when we use fixed capital ( $K/L$ ) with correlations  $-0.264$  and  $-0.161$ , respectively. These results mean that listed firms are more likely to invest in capital per worker, which leads to lower  $ROA$ . We discuss this story further in the cross-country regression section later.

Note that a possible source of unlisted firms' extra rents are the agency problems associated with listed firms. Unlisted firms under concentrated ownership would not face agency problems at the outset or would be subject to stronger monitoring (e.g., by private equity funds) to lower agency problems stemming from dispersed ownership. However, we eliminate unlisted firms with concentrated ownership from our analysis exactly because of these concerns, since ownership issue is something different from listing advantages per se. Perhaps, further control using the number of shareholders or else could be done but the availability of these variables are rare in cross-country databases, creating a trade-off between having more coverage over countries and more detailed study on smaller sets of countries.<sup>12</sup> We chose the former, as we would like to conduct cross-country panel regressions to investigate the effects of various institutions on the listing advantages, as shown in the next section.

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<sup>12</sup>For Japanese firms, using a different and detailed dataset, Ueda et al. (2019) and French et al. (2020), control for these factors more carefully.

## 5 Cross-Country Panel Regressions to Investigate the Underlying Factors

### 5.1 Benchmark Cross-Country Panel Regression

Since the *ATT-ROA* estimates controlling for leverage are shown to be strongly correlated with several alternative measures in the previous sections, we stick to it as the measure of listing advantages. Now, we investigate the factors affecting the listing advantages. Specifically, using cross-country panel regressions, we estimate the effects on the yearly *ATT-ROA* estimates of legal origins, corporate governance, creditor's rights, institutional quality, product market competition, financial market development, macroeconomic volatility, inflation, and interest rates. Our estimate of *ATT-ROA* for each year for each country is reported in Table 4. Note that we did not estimate *ATT* for countries in which more than 90 percent of the sample firms are listed, namely, India, Taiwan, and the US.

$$\begin{aligned} ATT_{k,t} = & \alpha_k + \beta_1 LegalOrigins_k + \beta_2 CorporateGovernance_{k,t} \\ & + \beta_3 Creditor'sRights_{k,t} + \beta_4 InstitutionalQuality_{k,t} \\ & + \beta_5 ProductMarketCompetition_{k,t} \\ & + \beta_6 FinancialMarketDevelopment_{k,t} \\ & + \beta_7 MacroVolatility_{k,t} + \beta_8 Inflation_{k,t} \\ & + \beta_9 InterestRate_{k,t} + \nu_{k,t}, \end{aligned} \tag{11}$$

where  $k$  denotes country and  $t$  year, and  $\alpha_k$  represents the country fixed effect. We report robust standard errors with clustering at the country-level.

We present the benchmark regression results in column 1 of Tables 5a to 5g, for easy comparison with the other specifications. For the benchmark regression, we use the following variables: *Legal Origin*; *Self-Dealing Index* for Corporate Governance; *Creditor's Rights*

for Creditor's Rights; *Property Rights* for Institutional Development; *Credit-to-GDP Ratio* for Financial Development; *Number of New Business Registered* for Product Market Competition; and *Standard Deviation from Last 5 Years Average Inflation* for Macroeconomic Volatility.<sup>13</sup>

We find that the countries with better *Self-Dealing Index* have larger difference in *ROA* due to *Listing*. This implies that in the countries where the legal protection of minority shareholders against expropriation by corporate insiders (for example, owner-manager's related party transactions) is better, the advantage due *Listing* is more. In the countries where the *Creditor's Rights* are stronger, the difference in *ROA* due to *Listing* is smaller. Other variables, that is, general institutional quality, financial market development, product market competition, and macroeconomic volatility are all found to be statistically insignificant.

*Legal Origins* of German and Scandinavian show positively significant effects, that is, they narrow the listing advantages. They are known to be countries with strong creditor's rights, which is said to discipline firms through bank lending rather than through stock markets. Hence, it makes sense that listing advantages are smaller.

Note that *Self-Dealing Index* and *Creditor's Rights* indexes may be strongly affected by *Legal Origins*. Indeed, without these two variables, German origin variables show stronger effects (Table 5a, column 2). However, Scandinavian's effect is weakened and French origin is now positively significant as German origin—this is a bit strange as French law is known to be easy on debt forgiveness or restructuring. Also, the significance of the *Self-Dealing Index* and *Creditor's Rights* are preserved without controlling for *Legal Origins* (Table 5a, column 3). Therefore, we should consider these two variables are somewhat distinctively different from legal origins. We then include all the legal origins, corporate governance, and

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<sup>13</sup>Not all the institutional variables are time varying, specifically, *Anti-director's rights index*, *Corporate Governance Quality Index*, *Self-Dealing Index*, and *Creditor's Rights Index*.

creditor's rights in the regressions for robustness checks below.

Moreover, Table 5a, column 4, shows that ATT-A/L (i.e., proxy for capital-to-labor ratio) shows significant coefficients but opposite signs for *Self-Dealing Index* and *Creditor's Rights* compared to ATT-ROA. This strengthens our theoretical argument that ROA of the listed firms are different from those of the unlisted firms, mainly through the larger capital-to-labor ratio. In other words, unlisted firms tend to have difficulties in raising funds to invest in capital. That is, the ATT-ROA represents listing advantages in financial constraints.

## 5.2 Robustness Checks: Cross-Country Panel Regression

To verify that our results are not driven by the specific firm and country measures, as well as by the characteristics 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 with the benchmark.

In the benchmark, we use the ATT-ROA estimates using the propensity score matching 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 for those firms 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).

Next, we use five more indicators for corporate governance, they are, *Corporate Governance Quality Index*, *Anti-Director's Rights Index*, *Extent of Director's Liability*, *Corporate Board Efficacy Index*, and *Protection of Minority Shareholders Index*, in addition to the *Self-Dealing Index*. Results are shown in Table 5b, columns 4–8. Overall, estimates do not seem robust. Although the *Self Dealing Index* is negative, the *Corporate Governance Quality In-*



*dex* and *Corporate Board Efficacy Index* have positive effects. The other two are insignificant.

For creditor's rights, we use four different indicators—*Creditor's Rights*, *Strength of Legal Rights*, *Strength of Insolvency Framework*, and *Time to Resolve Insolvency* (years). The results are shown in Table 5c. Recall that the *Strength of Legal Rights* reflects not only creditor's rights but also (and puts more weights on) borrower's rights, which does not have significant effects. *Strength of Insolvency Framework* is also insignificant but *Time to Resolve Bankruptcy*, which capture the key efficiency of the bankruptcy procedure, shows a significantly positive effect at 10 percent level. Together with strongly positive effects of *Creditor's Rights*, it is broadly confirmed that empowering creditors narrow the listing advantages.

Other variables are all statistically insignificant. For institutional quality, we use the *Rule of Law* or *Trust in People* instead of *Property Rights* and find the same insignificant results (Table 5d). 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*. Table 5e shows insignificant results.

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*, but we do not find these variables to significantly affect the listing advantages (Table 5f). For the macroeconomic conditions, any macro volatility measures, the level of the real interest rates, and inflation do not matter (Table 5g).

However, in Tables 5a to 5g, countries with German legal origin, which includes Japan, Korea, and China, and countries with Scandinavian legal origin, have positively significant coefficients for almost every variant of regressions. The robust effects of narrowing financial

constraints for unlisted firms, after controlling for various measures of corporate governance and creditor's rights, imply something deeply embedded in the countries with these legal origins, perhaps culture of disciplining borrowers.

## 6 Conclusion

We estimate the average treatment effect on treated (ATT) on return on assets (*ROA*) based on propensity score matching for annual data for each of 33 sample countries for 2008-2017. We find that listed firms have lower *ROA* compared to unlisted firms in most countries after size, industries, and leverage are controlled. The result is essentially the same without controlling for leverage. The result is also robust when using return of fixed capital (*ROK*). The fixed-effect regressions broadly replicate these findings, too. Moreover, the effect is similar for those supposedly less endogenous samples, that is, the set of firms with 50 percent or more propensity of being listed. Note that samples are limited to firms in manufacturing industries, with two-year consecutively available data, and without concentrated ownership.

The lower returns of listed firms are found to be highly associated with larger capital-to-asset ratio. This implies that the listed firms face less financial constraints (i.e., listing advantages). In other words, the reasons for higher returns of unlisted firms does not stem from less agency problems or more monopolistic rents. We surmise that, in the majority of countries, the private firm owners adamantly resisting listing would have some private benefits to do so, but at the same time, we confirm that they face tighter financial constraints.

We then investigate factors behind the listing advantages based on cross-country panel regressions. The listing advantages seem narrowed with stronger creditor's rights but show unclear associations with the strength of corporate governance. Compared to English origin, German and Scandinavian law countries strongly narrow the listed advantages, while the French law origin shows mixed results. Other factors, like general institutional quality,

product market competition, and macroeconomic conditions, have no significant effects.

In essence, the listing advantages we find are the extensive margin of the financial constraints. The determinants of the extensive margin are in contrast partially with those of the intensive margin, found in a study on credit allocation efficiency among listed firms reported by Claessens, Ueda, and Yafeh (2014). They show that the primary factors affecting financial frictions for listed firms are country-specific corporate governance, as well as the positive impact of product market competition, but they find no effect of creditor's rights.

The flip side of the coin to the listing advantages is the cost for a firm remaining private. Our results show that such a wedge exists almost everywhere in the world. Importantly, the wedge between the listed and the unlisted seems less extensive in a country with German and Scandinavian origin and with countries having stronger creditor's rights. This suggests that bank-based monitoring of corporates is the significant factor to lowering the financial constraints for unlisted firms, but at the same time, it seems to be the key factor to keep a firm to remain private.

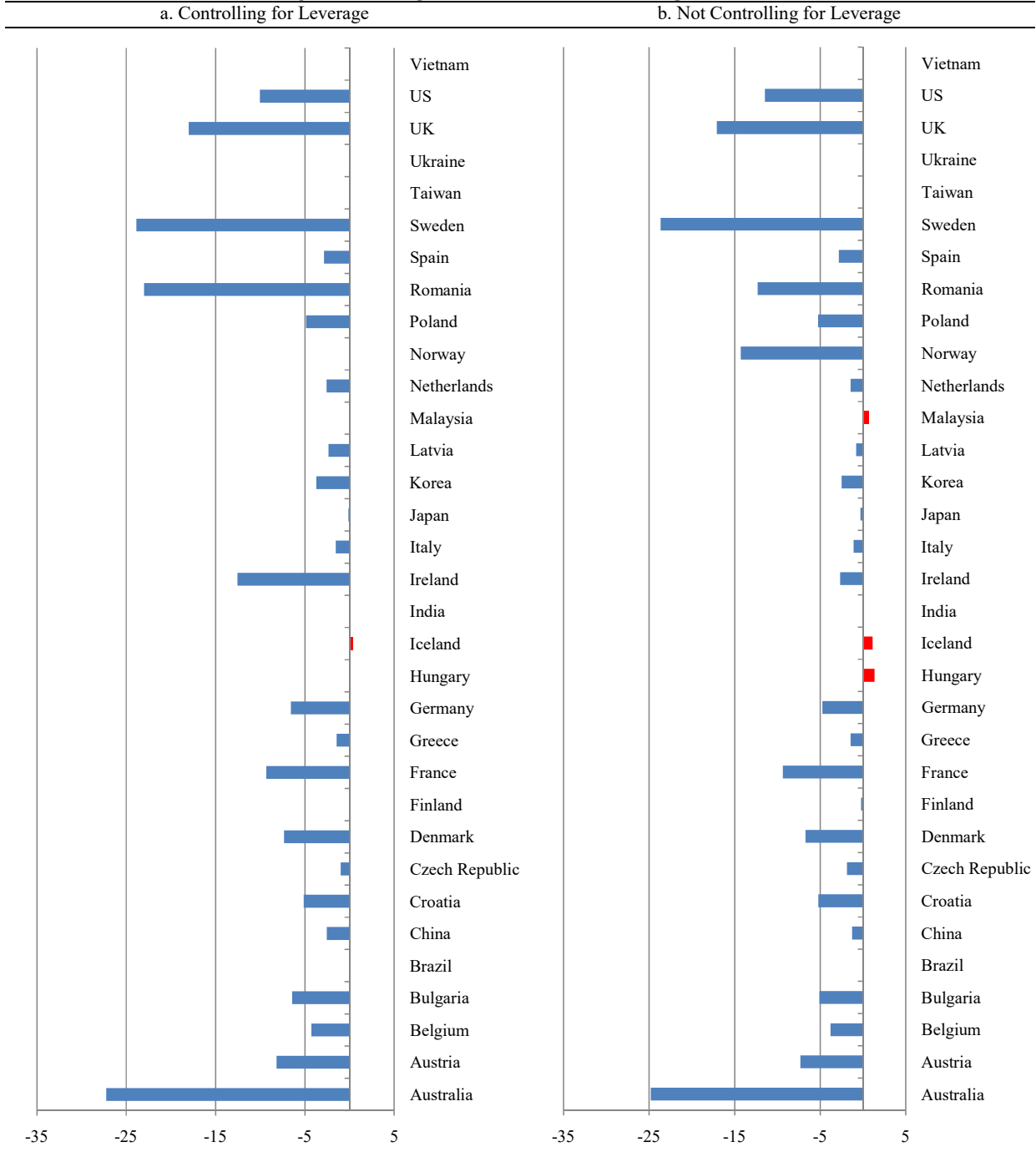
## References

- Abiad, A., Oomes, N., and Ueda, K. (2008). The quality effect: Does financial liberalization improve the allocation of capital? *Journal of Development Economics*, 87(2):270–82.
- Asker, J., Farre-Mensa, J., and Ljungqvist, A. (2014). Corporate investment and stock market listing: A puzzle? *The Review of Financial Studies*, 28(2):342–90.
- Brav, O. (2009). Access to capital, capital structure, and the funding of the firm. *The Journal of Finance*, 64(1):263–308.
- Claessens, S., Ueda, K., and Yafeh, Y. (2014). Institutions and financial frictions: Estimating with structural restrictions on firm value and investment. *Journal of Development Economics*, 110:107–22.
- De Nicolò, G., Laeven, L., and Ueda, K. (2008). Corporate governance quality: Trends and real effects. *Journal of Financial Intermediation*, 17(2):198–228.
- Djankov, S., La Porta, R., Lopez-de Silanes, F., and Shleifer, A. (2008). The law and economics of self-dealing. *Journal of Financial Economics*, 88(3):430–65.
- French, J. J., Fujitani, R., and Yasuda, Y. (2020). Does stock market listing impact investment in Japan? *Journal of the Japanese and International Economies*, current issue.
- Gilje, E. P. and Taillard, J. P. (2016). Do private firms invest differently than public firms? taking cues from the natural gas industry. *The Journal of Finance*, 71(4):1733–78.
- Goyal, V. K., Nova, A., and Zanetti, L. (2011). Capital market access and financing of private firms. *International Review of Finance*, 11(2):155–79.
- Hayashi, F. (1982). Tobin’s marginal  $q$  and average  $q$ : A neoclassical interpretation. *Econometrica*, 50:213–24.
- Kalemli-Ozcan, S., Sorensen, B., Villegas-Sanchez, C., Volosovych, V., and Yesiltas, S. (2015). How to construct nationally representative firm level data from the orbis global database. *NBER Working Paper*, No. 21558.
- La Porta, R., Lopez-de Silanes, F., Shleifer, A., and Vishny, R. W. (1998). Law and finance. *Journal of Political Economy*, 106(6):1113–55.
- Mortal, S. and Reisel, N. (2013). Capital allocation by public and private firms. *Journal of Financial and Quantitative Analysis*, 48(1):77–103.
- Myers, S. and Majluf, N. (1984). Corporate financing decisions when firms have investment information that investors do not. *Journal of Financial Economics*, 13(2):187–221.
- Orihara, M. (2014). Jojokigyō to hijojokigyō no setsubitōshi: hojin kigyō tokei wo katsuyo sita kijutsu tokei ni motozuku bunseki. *Finance (September, 2014)*, pages 81–86.
- Orihara, M. and Isobe, S. (2014). Jojokigyō to hijijokigyō no shihon kōsei: Hojin kigyō tokei wo katsuyo shita bunseki. *PRI Discussion Paper*, 14A-07.
- Saunders, A. and Steffen, S. (2011). The costs of being private: Evidence from the loan market. *The Review of Financial Studies*, 24(12):4091–122.
- Schoubben, F. and Van Hulle, C. (2011). Stock listing and financial flexibility. *Journal of Business Research*, 64(5):483–9.
- Sheen, A. (2019). Do public and private firms behave differently? An examination of invest-

- ment in the chemical industry. *Journal of Financial and Quantitative Analysis*, forthcoming.
- Spamann, H. (2009). The Anti-Director Rights Index revisited. *The Review of Financial Studies*, 23(2):467–86.
- Stein, J. C. (1989). Efficient capital markets, inefficient firms: A model of myopic corporate behavior. *The Quarterly Journal of Economics*, 104(4):655–69.
- Ueda, K., Ishide, A., and Goto, Y. (2019). Listing and financial constraints. *Japan and the World Economy*, 49:1–16.
- Yosha, O. (1995). Information disclosure costs and the choice of financing source. *Journal of Financial Intermediation*, 4(1):3–20.

# Figures and Tables

Figure 1: Average Treatment Effect of Listing on ROA



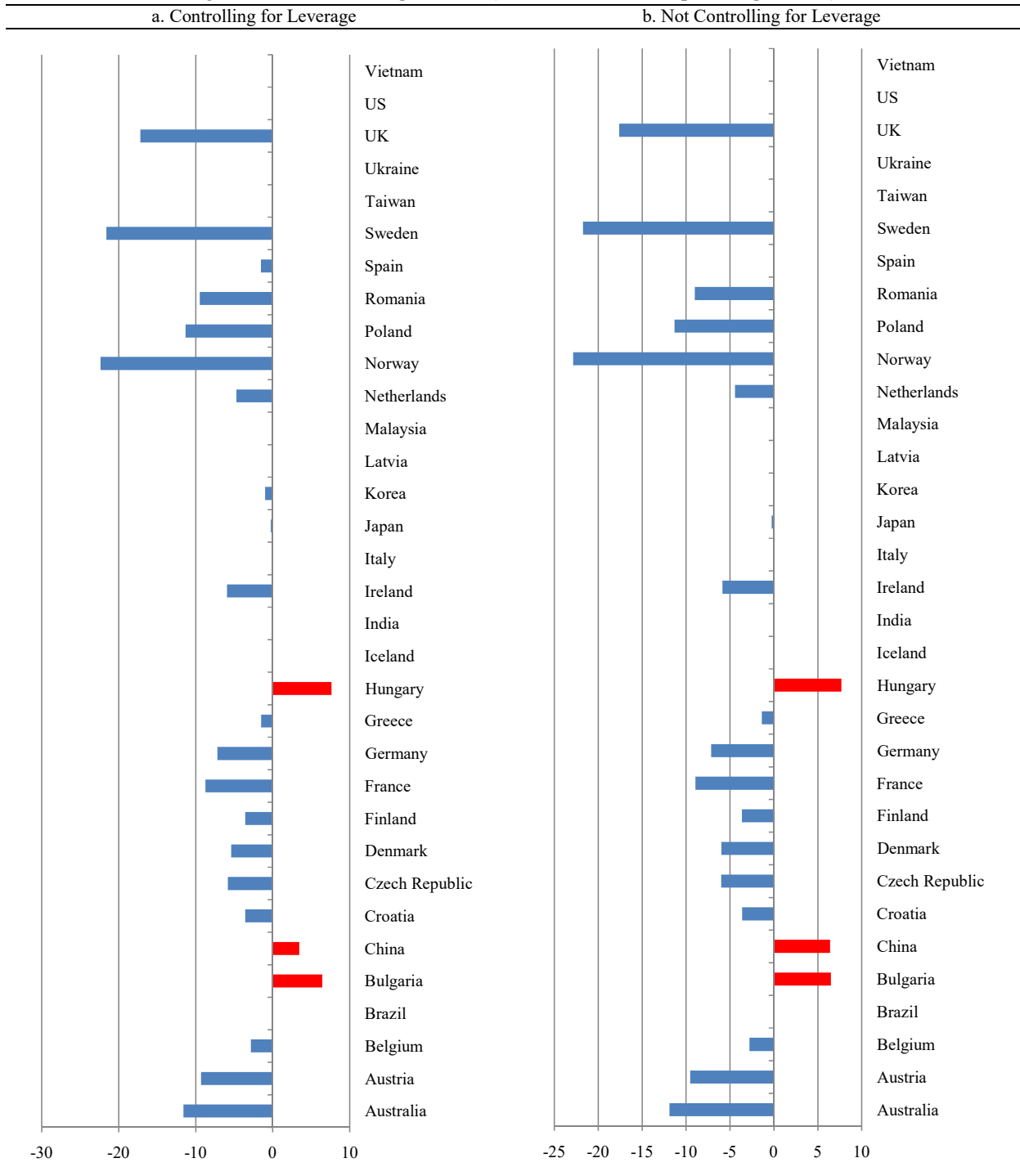
Note: ATT estimates are based on the country-level using all years sample. Statistically insignificant coefficients are represented as zero.

Figure 2: Average Treatment Effect of Listing on ROA



Note: ATT estimates are based on the country-level using all years sample  
 ATT estimates presented here are estimated controlling for leverage  
 Statistically insignificant coefficients are represented as zero.

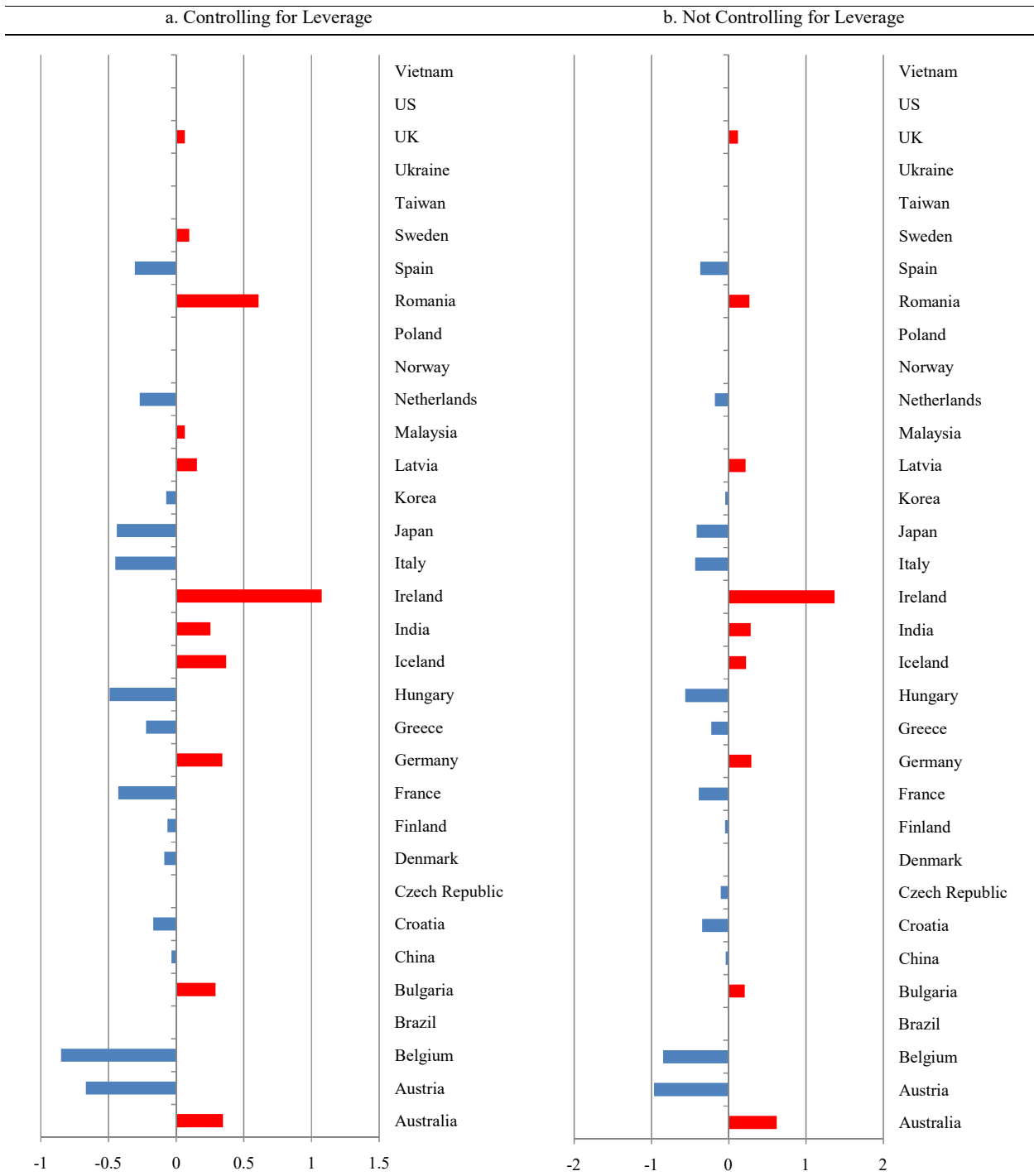
Figure 3: Effect of Listing on ROA (Based on fixed effect panel regressions)



Note: ATT estimates are based on the country-level using all years sample  
 Statistically insignificant coefficients are represented as zero.



Figure 4: Average Treatment Effect of Listing on A/L Ratio



Note: ATT estimates are based on the country-level using all years sample  
 Statistically insignificant coefficients are represented as zero.

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

Countries	Total No. of Firms on ORBIS	Manufacturing Firms	Firms with Data on Operating Revenue	Firms with Data on Total Assets	Firms with Data on Number of Employees
Australia	757,041	36,510	33,193	2,155	1,414
Austria	92,630	11,349	4,397	4,236	4,123
Belgium	83,883	6,610	3,879	3,879	3,606
Brazil	15,675,344	1,414,669	1,414,646	1,892	1,800
Bulgaria	490,046	33,290	28,701	26,805	26,375
China	1,773,155	652,090	643,611	643,504	214,669
Croatia	114,156	12,432	12,432	12,432	10,974
Czech Republic	1,497,026	161,832	161,711	22,473	18,977
Denmark	77,291	2,671	1,292	1,292	896
Finland	503,296	24,688	23,886	11,376	9,214
France	3,062,318	157,458	155,999	61,950	43,235
Germany	611,032	81,412	30,841	28,977	28,734
Greece	32,717	4,959	4,959	4,959	4,778
Hungary	381,144	30,777	28,771	28,767	25,158
Iceland	31,076	1,714	1,586	1,586	1,131
India	68,479	23,440	22,986	22,938	1,644
Ireland	33,389	1,155	631	629	527
Italy	2,915,862	268,107	261,612	124,956	112,494
Japan	1,269,024	183,691	183,605	50,564	50,519
Korea	316,058	104,378	104,142	104,142	57,360
Latvia	120,630	9,188	9,188	9,188	9,187
Malaysia	162,121	6,153	5,756	5,755	530
Netherlands	35,337	1,981	1,164	1,164	1,130
Norway	306,295	10,596	10,596	10,596	10,093
Poland	150,404	20,524	19,864	19,862	16,022
Romania	676,325	56,561	56,561	56,561	56,553
Spain	812,493	77,925	74,664	74,664	71,484
Sweden	1,011,397	42,682	41,716	21,556	21,287
Taiwan	3,273	1,791	1,791	1,791	1,502
Ukraine	374,421	36,213	31,582	29,595	29,595
UK	1,331,939	54,753	45,389	14,668	12,173
US	8,748,930	571,576	571,576	2,494	2,189
Vietnam	60,663	60,662	60,662	60,662	55,322
Total	43,579,195	4,163,837	4,053,389	1,468,068	904,695

Note: Data on firms with known values for at least one of the selected period between 2008-2017 have been taken. Firms with no recent financial data have been excluded.

**Table 1b: Country-year-level Variables Descriptions**

	<b>Variable</b>	<b>Sources</b>	<b>Obs</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>
<b>Treatment Effect</b>	Average Treatment Effect on Treated (Effect on ROA due to Listing)	Authors' estimations based on Propensity Score Matching (with leverage)	285	-6.354	9.213	-85.823	2.491
<b>Corporate Governance</b>	Self Dealing Index	Djankov et al. 2008	320	0.447	0.22	0.081	0.95
	Corporate Governance Quality Index	De Nicol'o et al. (2008)	250	0.934	1.487	0.282	9.656
	Anti-director Rights Index	Holger Spamann, 2006	210	3.976	2.185	2	14
	Protection of minority shareholders (1-7(best))	World Economic Forum	320	4.579	0.782	2.704	6.209
	Corporate Board Efficacy (1-7(Best))	World Economic Forum	320	4.945	0.672	3.725	6.272
	Extent of Director's Liability (1-10(Best))	World Bank, Doing Business Project	330	4.201	2.156	0	9
<b>Creditor's Rights</b>	Strength of Legal Rights(1-12(Strong))	World Bank, Doing Business Project	160	6.081	2.342	2	11
	Creditor's Rights	Djankov et al. 2008	320	2.031	0.919	0	4
	Time Resolve Insolvency (Years)	World Bank, Doing Business Project	320	1.788	1.248	0.000	4
	Strength of Insolvency Framework	World Bank	330	64.707	28.667	9.480	99.920
<b>Institutional Quality</b>	Property Rights (1-7(Best))	World Economic Forum	320	5.019	0.977	2.511	6.638
	Rule of Law (-2.5 to 2.5)	World Bank	330	0.977	0.819	-0.819	2.100
	Trust in People	World Value Survey	240	33.985	17.714	8.150	73.700
<b>Financial Development</b>	Credit to GDP Ratio (Credit to Pvt. Sector)	World Bank	318	101.157	43.560	26.510	201.259
	Sum of stock market capitalization, private bond market capitalization and bank credit to pvt. Sector (% of GDP)	World Bank, BIS, CEIC	303	7501.104	5865.692	249.701	28555.423
	Market Capitalization (% of GDP)	World Bank, CEIC	323	60.962	40.790	3.206	181.885
	Prevalence of Foreign Ownership(1-7(Best))	World Economic Forum	320	4.950	0.730	3.065	6.515
<b>Product Market Competition</b>	New Business Registered (new registrations per 1,000 people ages 15-64)	World Bank	243	4.466	3.667	0.065	15.742
	Cost of starting a Business(% of income per capita)	World Bank	315	5.263	5.831	0.000	41.500
	Trade Barriers (1-7(Best))	World Economic Forum	320	4.695	0.579	3.336	6.168
<b>Macro Volatility</b>	Std. Deviation of Inflation from Last 5 Years Average Inflation	Own Estimation Using World Bank data	330	1.810	2.208	0.235	20.167
	Std. Deviation of GDP growth from Last 5 Year Average GDP Growth	Own Estimation Using World Bank data	330	2.608	2.004	0.212	11.540
	Coefficient of variation of exchange rate	Own Estimation Using World Bank data	326	4.981	5.452	0.654	41.910
<b>Inflation Rate</b>	Inflation (CPI Inflation)	World Bank	330	2.830	4.264	-1.676	48.684
<b>Interest Rate*</b>	Interest Rate	Datastream, CEIC	319	5.721	8.004	-0.695	52.100

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

Table 1c (Part 1): Correlation among the Country-year-level Variables

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
ATT on ROA due to Listing	[1]	1							
ATT on ROA (without leverage)	[2]	0.721	1						
English Legal Origin	[3]	-0.041	-0.061	1					
French Legal Origin	[4]	0.274	0.293	-0.499	1				
German Legal Origin	[5]	0.086	0.086	-0.238	-0.263	1			
Scandinavian Legal Origin	[6]	-0.335	-0.335	-0.359	-0.397	-0.189	1		
Self Dealing Index	[7]	-0.053	-0.046	0.882	-0.470	-0.275	-0.235	1	
Corporate Governance Quality Index	[8]	-0.132	-0.273	0.298	-0.167	-0.075	-0.084	0.427	1
Anti-director Rights Index	[9]	0.101	0.092	0.237	0.136	-0.258	-0.225	0.200	0.476
Extent of Director's Liability (1-10(Best))	[10]	0.268	0.416	0.113	0.024	0.045	-0.187	0.262	0.189
Corporate Board Efficacy (1-7(Best))	[11]	-0.405	-0.464	-0.011	-0.536	0.090	0.561	0.118	0.038
Protection of minority shareholders (1-7(best))	[12]	-0.327	-0.326	0.073	-0.694	0.027	0.697	0.208	0.140
Creditor's Rights	[13]	-0.070	-0.023	0.587	-0.418	0.289	-0.391	0.577	0.412
Strength of Legal Rights(1-12(Strong))	[14]	-0.316	-0.442	0.632	-0.741	0.026	0.130	0.608	0.135
Strength of Insolvency Framework (0-7(Strong))	[15]	-0.354	-0.406	-0.246	-0.329	0.285	0.437	-0.024	0.248
Time Resolve Insolvency (Years)	[16]	0.244	0.243	0.118	0.225	-0.228	-0.218	-0.225	-0.182
Property Rights (1-7(Best))	[17]	-0.350	-0.461	-0.097	-0.536	0.222	0.557	0.103	0.263
Rule of Law (-2.5 to 2.5)	[18]	-0.473	-0.627	-0.249	-0.398	0.230	0.562	-0.097	0.203
Trust in People	[19]	-0.533	-0.584	-0.183	-0.514	0.062	0.749	-0.181	-0.022
Credit to GDP Ratio (Credit to Pvt. Sector)	[20]	-0.433	-0.525	0.073	-0.202	-0.111	0.235	0.348	0.285
Sum of stock market capitalization, private bond market capitalization and bank credit to pvt. Sector (% of GDP)	[21]	-0.135	-0.247	-0.353	0.366	0.028	-0.049	-0.153	0.453
Market Capitalization (% of GDP)	[22]	-0.172	-0.403	0.421	-0.507	-0.246	0.300	0.539	0.223
Prevalence of Foreign Ownership(1-7(Best))	[23]	-0.405	-0.568	0.224	-0.402	0.042	0.181	0.343	0.384
New Business Registered (new registrations per 1,000 people ages 15-64)	[24]	-0.584	-0.765	0.368	-0.338	-0.262	0.177	0.418	0.440
Cost of starting a Business(% of income per capita)	[25]	0.368	0.517	0.271	0.032	0.052	-0.377	0.071	-0.191
Trade Barriers (1-7(Best))	[26]	-0.140	-0.179	0.182	-0.441	-0.252	0.496	0.360	0.112
Std. Deviation of Inflation from Last 5 Years Average Inflation	[27]	0.432	0.511	0.092	0.203	-0.113	-0.250	-0.081	-0.039
Std. Deviation of GDP growth from Last 5 Year Average GDP Growth	[28]	0.221	0.155	-0.332	0.145	0.026	0.183	-0.317	-0.041
Coefficient of variation of exchange rate	[29]	-0.055	0.034	0.231	-0.129	-0.059	-0.063	0.028	-0.148
Inflation (CPI Inflation)	[30]	0.174	0.278	0.325	-0.056	-0.127	-0.202	0.074	-0.038
Interest Rate	[31]	0.186	0.265	0.044	0.278	-0.163	-0.246	-0.120	-0.111

Note: Correlation estimates presented here are based on the ATT on ROA estimations for each year and for each country.

Table 1c (Part 2): Correlation among the Country-year-level Variables

		[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
Anti-director Rights Index	[9]	1								
Extent of Director's Liability (1-10(Best))	[10]	0.552	1							
Corporate Board Efficacy (1-7(Best))	[11]	-0.205	-0.147	1						
Protection of minority shareholders (1-7(best))	[12]	-0.128	-0.042	0.875	1					
Creditor's Rights	[13]	0.101	0.266	-0.050	0.007	1				
Strength of Legal Rights(1-12(Strong))	[14]	-0.135	-0.224	0.546	0.509	0.428	1			
Strength of Insolvency Framework (0-7(Strong))	[15]	-0.427	-0.263	0.528	0.509	0.296	0.373	1		
Time Resolve Insolvency (Years)	[16]	0.436	0.055	-0.547	-0.459	-0.330	-0.378	-0.859	1	
Property Rights (1-7(Best))	[17]	-0.289	-0.208	0.875	0.856	0.052	0.475	0.739	-0.709	1
Rule of Law (-2.5 to 2.5)	[18]	-0.400	-0.396	0.786	0.702	0.011	0.455	0.859	-0.724	0.909
Trust in People	[19]	-0.429	-0.532	0.597	0.644	-0.001	0.402	0.720	-0.410	0.652
Credit to GDP Ratio (Credit to Pvt. Sector)	[20]	-0.095	0.059	0.464	0.413	0.273	0.387	0.645	-0.713	0.535
Sum of stock market capitalization, private bond market capitalization and bank credit to pvt. Sector (% of GDP)	[21]	-0.064	-0.059	0.232	0.031	-0.066	-0.197	0.365	-0.459	0.398
Market Capitalization (% of GDP)	[22]	-0.040	0.126	0.542	0.591	0.118	0.543	0.201	-0.305	0.525
Prevalence of Foreign Ownership(1-7(Best))	[23]	-0.013	-0.071	0.773	0.657	0.182	0.621	0.507	-0.567	0.766
New Business Registered (new registrations per 1,000 people ages 15-64)	[24]	0.037	-0.327	0.452	0.375	0.387	0.648	0.540	-0.456	0.470
Cost of starting a Business(% of income per capita)	[25]	-0.041	-0.069	-0.620	-0.473	0.164	-0.247	-0.499	0.516	-0.597
Trade Barriers (1-7(Best))	[26]	-0.336	-0.108	0.543	0.655	0.163	0.478	0.514	-0.563	0.622
Std. Deviation of Inflation from Last 5 Years Average Inflation	[27]	0.188	0.138	-0.591	-0.468	-0.077	-0.293	-0.419	0.555	-0.610
Std. Deviation of GDP growth from Last 5 Year Average GDP Growth	[28]	0.189	0.161	-0.243	-0.070	-0.171	-0.296	-0.052	0.177	-0.103
Coefficient of variation of exchange rate	[29]	0.522	0.117	-0.094	-0.038	-0.040	0.000	-0.448	0.538	-0.289
Inflation (CPI Inflation)	[30]	0.642	0.206	-0.274	-0.114	0.010	-0.133	-0.645	0.711	-0.413
Interest Rate	[31]	0.755	0.342	-0.350	-0.324	-0.148	-0.322	-0.660	0.660	-0.532

Table 1c (Part 3): Correlation among the Country-year-level Variables

		[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]
Rule of Law (-2.5 to 2.5)	[18]	1								
Trust in People	[19]	0.7818	1							
Credit to GDP Ratio (Credit to Pvt. Sector)	[20]	0.5729	0.3582	1						
Sum of stock market capitalization, private bond market capitalization and bank credit to pvt. Sector (% of GDP)	[21]	0.45	-0.01	0.27	1					
Market Capitalization (% of GDP)	[22]	0.37	0.19	0.58	0.017	1				
Prevalence of Foreign Ownership(1-7(Best))	[23]	0.73	0.34	0.66	0.431	0.653	1			
New Business Registered (new registrations per 1,000 people ages 15-64)	[24]	0.58	0.56	0.64	0.194	0.398	0.614	1		
Cost of starting a Business(% of income per capita)	[25]	-0.68	-0.38	-0.53	-0.488	-0.337	-0.642	-0.482	1	
Trade Barriers (1-7(Best))	[26]	0.50	0.47	0.39	0.118	0.572	0.439	0.410	-0.287	1
Std. Deviation of Inflation from Last 5 Years Average Inflation	[27]	-0.575	-0.326	-0.507	-0.348	-0.377	-0.541	-0.446	0.409	-0.368
Std. Deviation of GDP growth from Last 5 Year Average GDP Growth	[28]	-0.119	-0.044	-0.169	-0.069	-0.090	-0.226	-0.271	0.022	-0.042
Coefficient of variation of exchange rate	[29]	-0.367	-0.059	-0.168	-0.578	-0.159	-0.177	-0.025	0.205	-0.437
Inflation (CPI Inflation)	[30]	-0.569	-0.292	-0.436	-0.527	-0.211	-0.286	-0.223	0.450	-0.397
Interest Rate	[31]	-0.606	-0.405	-0.446	-0.374	-0.365	-0.421	-0.236	0.167	-0.530

Table 1c (Part 4): Correlation among the Country-year-level Variables

		[27]	[28]	[29]	[30]	[31]
Std. Deviation of Inflation from Last 5 Years Average Inflation	[27]	1				
Std. Deviation of GDP growth from Last 5 Year Average GDP Growth	[28]	0.049	1			
Coefficient of variation of exchange rate	[29]	0.192	0.033	1		
Inflation (CPI Inflation)	[30]	0.305	0.143	0.806	1	
Interest Rate	[31]	0.269	0.226	0.736	0.794	1

**Table 2: Within-Country Estimates Using All Sample Years**

	ATT ROA With Leverage	ATT ROA Without Leverage	ATT ROK With Leverage	ATT ROK Without Leverage	ATT AL With Leverage	ATT AL Without Leverage	ATT KL With Leverage	ATT KL Without Leverage	ATT ROA EBIT Growth	ATT ROA IPO Age	FE ROA with Leverage	FE ROA without Leverage	FE ROK with Leverage	FE ROK without Leverage
Australia	-27.233	-24.788	-0.268	-0.194	0.346	0.620	0.529	0.821	-24.085	-21.537	-11.600	-11.890	0.000	0.000
Austria	-8.170	-7.292	-5.682	-5.341	-0.667	-0.965	-0.359	-0.570	0.000	0.000	-9.298	-9.538	-0.965	-1.005
Belgium	-4.265	-3.778	-0.289	-0.336	-0.851	-0.847	-0.818	-0.855	-5.242	0.000	-2.833	-2.796	0.000	0.000
Brazil	0.000		-0.350	-0.203						0.000	0.000	0.000	0.000	0.000
Bulgaria	-6.405	-5.096			0.291	0.207	0.513	0.470	-6.628	-6.645	6.449	6.486	1.929	1.894
China	-2.551	-1.264	-0.046	0.000	-0.035	-0.038	-0.103	-0.008	-2.326	-4.716	3.450	6.410	0.000	0.000
Croatia	-5.144	-5.216	-0.181	-0.099	-0.168	-0.342	-0.088	-0.311	-8.487	-7.375	-3.575	-3.619	0.000	0.000
Czech Republic	-0.990	-1.844	-0.041	-0.083	0.000	-0.102	0.000	0.039	-4.539	0.000	-5.828	-6.010	0.000	0.000
Denmark	-7.320	-6.728	-3.552	-3.454	-0.088	0.000	-0.211	-0.170	-6.206	0.000	-5.414	-5.985	-4.169	-4.166
Finland	0.000	-0.234	0.000	0.000	-0.064	-0.047	0.000	0.000	0.000	0.000	-3.583	-3.652	0.000	0.000
France	-9.316	-9.357	-0.195	-1.092	-0.427	-0.388	-0.193	-0.037	-9.945	-4.649	-8.743	-8.947	-6.951	-6.494
Germany	-6.557	-4.721	-0.113	-0.184	0.342	0.294	0.623	0.637	-7.410	-6.339	-7.182	-7.151	0.000	0.000
Greece	-1.466	-1.448	-0.625	-0.214	-0.223	-0.225	0.056	0.008	0.000	0.000	-1.528	-1.366	0.477	0.526
Hungary	0.000	1.364	0.020	0.000	-0.492	-0.562	-0.581	-0.673	4.062	0.000	7.645	7.683	0.000	0.000
Iceland	0.356	1.137	0.014	0.019	0.369	0.227	0.517	0.271	2.454	3.282	0.000	0.000	0.000	0.000
India	0.000	0.000	0.000	0.000	0.252	0.284	0.630	0.566	0.000	0.000	0.000	0.000	0.000	0.000
Ireland	-12.532	-2.663	-1.100	-1.060	1.076	1.372	1.952	2.453	-25.907	-28.006	-5.930	-5.842	-3.999	-3.998
Italy	-1.543	-1.081	-0.407	-0.400	-0.449	-0.434	-0.058	-0.021	-1.826	0.000	0.000	0.000	0.000	0.000
Japan	-0.117	-0.288	-0.050	-0.065	-0.440	-0.416	-0.493	-0.484	0.000	0.000	-0.253	-0.262	0.000	0.000
Korea	-3.716	-2.482	-0.109	-0.085	-0.073	-0.045	-0.019	-0.066	-3.586	-6.816	-0.985	0.000	0.124	0.177
Latvia	-2.352	-0.786	0.000	-0.121	0.154	0.219	0.312	0.380	0.000	-6.353	0.000	0.000	0.000	0.000
Malaysia	0.000	0.751	-0.228	-0.120	0.064	-0.008	0.293	0.190	0.000	0.000	0.000	0.000	0.000	0.000
Netherlands	-2.568	-1.443	0.000	-0.126	-0.270	-0.177	0.000	0.000	0.000	0.000	-4.728	-4.446	0.000	0.000
Norway	0.000	-14.276	0.000	0.000	0.000	0.000	0.000	0.000	-27.267	-21.704	-22.380	-22.870	-160.100	-160.300
Poland	-4.871	-5.231	0.000	0.102	0.000	0.000	0.018	0.000	-5.457	-5.895	-11.320	-11.330	0.000	0.000
Romania	-23.007	-12.307	-0.274	-0.276	0.609	0.268	0.521	0.461	-9.988	0.000	-9.481	-9.015	0.000	0.000
Spain	-2.860	-2.806	-0.082	-0.095	-0.306	-0.366	0.036	-0.094	-3.113	-2.527	-1.540	0.000	0.000	0.000
Sweden	-23.857	-23.636	-4.962	-5.549	0.098	0.000	0.427	0.354	-24.560	-18.582	-21.620	-21.760	-5.929	-5.973
Taiwan	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Ukraine									0.000	0.000	0.000	0.000	0.000	0.000
UK	-18.022	-17.079	-9.403	-8.532	0.064	0.121	0.263	0.315	-14.679	-13.500	-17.180	-17.630	-7.131	-7.290
US	-10.013	-11.458	-5.297	-4.060	0.000	0.000	-1.066	-0.122	-30.737	-20.872	0.000	0.000	0.000	0.000
Vietnam									0.000	0.000	0.000	0.000	0.000	0.000

Note: For all those years in which ATT takes the value zero are the statistically insignificant values. The non-zero values are the ATT values which were significant at 10 percent level of significance.

In the cases where the ATT was not estimated, we put that value as missing.

**Table 3: Correlation Table of ROA, ROK, A/L, K/L, ROA Upper Half and ROK Upper Half**

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	
ATT ROA With Leverage	[1]	1															
ATT ROA Without Leverage	[2]	0.882	1														
ATT ROK With Leverage	[3]	0.569	0.554	1													
ATT ROK Without	[4]	0.606	0.587	0.990	1												
ATT AL With Leverage	[5]	-0.292	-0.143	0.014	0.027	1											
ATT AL Without Leverage	[6]	-0.338	-0.173	0.045	0.058	0.973	1										
ATT KL With Leverage	[7]	-0.264	-0.054	0.105	0.074	0.839	0.823	1									
ATT KL Without Leverage	[8]	-0.384	-0.161	0.004	-0.004	0.908	0.930	0.921	1								
ATT ROA EBITGrowth	[9]	0.691	0.781	0.399	0.396	-0.424	-0.461	-0.203	-0.446	1							
ATT ROA IPO Age	[10]	0.678	0.699	0.326	0.319	-0.557	-0.598	-0.377	-0.593	0.942	1						
FE ROA With Leverage	[11]	0.602	0.798	0.447	0.501	-0.178	-0.169	-0.233	-0.214	0.635	0.564	1					
FE ROA Without Leverage	[12]	0.597	0.792	0.453	0.506	-0.175	-0.166	-0.227	-0.210	0.629	0.551	0.996	1				
FE ROK With Leverage	[13]	-0.106	0.291	-0.051	-0.048	-0.044	-0.042	0.004	0.010	0.424	0.389	0.534	0.529	1			
FE ROK Without Leverage	[14]	-0.106	0.291	-0.050	-0.047	-0.045	-0.043	0.003	0.010	0.424	0.389	0.534	0.529	1	1		
ATT ROA Upper Half	[15]	0.785	0.665	0.299	0.285	-0.429	-0.490	-0.250	-0.481	0.777	0.783	0.300	0.294	-0.048	-0.047	1	
ATT ROK Upper Half	[16]	0.409	0.423	0.407	0.336	-0.141	-0.172	0.273	-0.078	0.632	0.539	0.021	0.029	-0.054	-0.053	0.652	1

Note: Correlation estimates based on the country-level using all years sample



**Table 4: Country-year-level ATT-ROA**

Countries	ATT2008	ATT2009	ATT2010	ATT2011	ATT2012	ATT2013	ATT2014	ATT2015	ATT2016	ATT2017
Austria		-12.614		-8.387	-8.873	-8.942	-8.104	0	-10.270	
Australia	-28.568	-28.414	-30.392	-29.452	-27.908	-28.145	-23.989	-27.387	-23.029	-25.047
Belgium	-4.121	-3.468	-4.008	-4.097	-3.877	-4.076	-6.273	-4.299	-4.171	
Bulgaria	-5.349	-5.323	-7.319	-5.730	-7.090	-11.291	-5.284	-4.877	-5.379	
Brazil							0	0	0	
China	-0.978	-1.379	0	-2.222	-2.542	-3.680	-1.837	-4.962	-5.355	
Croatia	-4.745	-4.477	-4.821	-4.436	-4.575	-5.816	-5.681	-5.973	-5.775	
Czech Republic	0	0	-2.562	-3.321	0	0	0	0	-3.026	
Denmark					0	-9.371	-9.936	-8.239	-8.020	-8.354
Finland	0	0	0	0	0	0	0	0	0	0
France	-9.529	-8.924	-9.049	-8.408	-8.297	-8.890	-9.982	-8.240	-9.130	-12.710
Greece	-1.048	-1.022	-1.721	-1.572	-1.740	-1.732	-1.732	-2.097	-1.995	0
Germany	-6.692	-6.627	-6.367	-6.688	-6.601	-6.801	-6.384	-6.589	-6.905	-5.919
Hungary	0	0	0	0	0	0	0	0	0	
Iceland	0		2.491		0	0	0	0	0	
India	0	0	0	0	0	0	0	0	0	
Ireland	0	-8.410	-19.085	-20.238	-19.488	-6.982	-16.855	-8.820	-12.906	
Italy	-1.575	-1.212	-1.269	-1.759	-1.389	-2.062	-1.402	-1.793	-1.430	
Japan	0	0	0	-0.544	0	0	0.000	0	0	-0.623
Korea	-4.769	-3.930	-4.527	-4.218	-3.563	-3.678	-3.150	-3.068	-3.472	-2.789
Latvia	0	0	0	-7.260	0	-7.914	0	-5.999	0	
Malaysia	0	0	0	0	0	0	0	0	0	0
Netherlands	0	-10.726	-6.638	-8.320	0	0	0	0	0	0
Norway								-85.823	0	
Poland	-3.739	-4.882	-5.573	-5.376	-5.119	-5.110	-4.388	-5.740	-3.913	
Romania	-21.056	-25.229	-24.506	-23.557	-21.876	-27.109	-26.871	-24.401	-12.454	
Spain	-3.003	-3.267	-3.915	-2.889	-3.140	-3.604	-2.781	-2.781	-3.219	0
Sweden	-23.536	-23.554	-23.850	-23.532	-24.176	-23.388	-24.134	-24.417	-24.594	-23.385
Taiwan	0	0.000	0	0	0	0	0	0	0	0
Ukraine	-6.373	-6.213	-6.256	-5.747	-5.963	-6.027	-4.378	-5.276	-6.347	
UK	-17.988	-18.407	-18.024	-17.597	-18.569	-17.323	-17.687	-18.111	-18.206	-18.307
US	-16.615	0.000	-17.709	-9.785	-5.957					
Vietnam	1.713	0.985	0	0	0	0	1.907	0	1.526	

Note: For all those years in which ATT takes the value zero are the statistically insignificant values. The non-zero values are the ATT values which were significant at 10 percent level of significance.

In the cases where the ATT was not estimated, we put that value as missing.

**Table 5a: Cross-country panel regression to explain the differences in ATT-ROA and A/L Ratio across countries**

	ATT-ROA [1]	ATT-ROA [2]	ATT-ROA [3]	ATT_AL
French Legal Origin	-6.612 (-0.590)	25.810*** (15.070)		2.018*** (4.200)
German Legal Origin	26.960*** (4.500)	28.260*** (9.200)		0.480 (1.380)
Scandinavian Legal Origin	11.770*** (4.490)	3.860** (2.550)		-0.306 (-1.230)
Socialist Legal Origin	-65.860* (-1.900)	29.510*** (6.710)		
Self Dealing Index	-214.900*** (-3.190)		-76.470*** (-11.540)	14.950*** (5.200)
Creditor's Rights	49.180*** (3.400)		23.450*** (13.710)	-3.160*** (-4.970)
Property Rights (1-7(Best))	0.854 (1.000)	0.805 (0.980)	0.267 (0.410)	0.094* (1.660)
Credit to GDP Ratio (Credit to Pvt. Sector)	0.034 (1.190)	0.030 (1.320)	0.022 (0.800)	-0.001 (-0.680)
New Business Registered (new registrations per 1000 people ages 15-64)	0.297 (1.560)	0.232 (1.300)	0.333* (1.890)	0.006 (0.420)
SDevInf	0.019 (0.130)	0.017 (0.120)	-0.017 (-0.130)	-0.019 (-0.670)
Inflation (CPI Inflation)	0.0380 (0.850)	0.039 (0.870)	0.011 (0.290)	-0.006 (-0.510)
Interest Rate	-0.123 (-0.880)	-0.159 (-1.150)	-0.063 (-0.340)	-0.008 (-0.690)
Constant	-24.550* (-1.760)	-37.850*** (-6.160)	-48.070*** (-11.620)	-1.918** (-2.800)
Observations	197	204	195	183
Adjusted R-squared	0.721	0.727	0.921	0.854

Note: t statistics in parentheses; \*denotes significance at 10%, \*\* at 5% and \*\*\* at 1%; robust standard errors are estimated clustering at the country level

**Table 5b: Cross-country panel regressions on ATT-ROA by changing the corporate governance indicators**

	[1]	[4]	[5]	[6]	[7]	[8]
French Legal Origin	-6.612 (-0.590)	15.550*** (3.360)	38.390*** (5.000)	35.000*** (12.060)	35.910*** (12.630)	34.980*** (10.010)
German Legal Origin	26.960*** (4.500)	16.610 (1.870)	42.280*** (6.160)	45.670*** (12.840)	48.180*** (12.610)	45.250*** (12.260)
Scandinavian Legal Origin	11.770*** (4.490)	-29.700** (-2.420)	22.120*** (2.740)	20.760*** (4.920)	20.710*** (4.980)	19.760*** (4.610)
Socialist Legal Origin	-65.860* (-1.900)	54.300*** (12.250)		38.340*** (9.780)	38.150*** (10.000)	38.680*** (10.000)
Self Dealing Index	-214.900*** (-3.190)					
Corporate Governance Quality Index		2.048*** (3.190)				
Anti-director Rights Index			-0.012 (-0.020)			
Extent of Director's Liability (1-10(Best))				-0.080 (-0.660)		
Corporate Board Efficacy (1-7(Best))					2.745** (2.470)	
Protection of minority shareholders interests (1-7(Best))						0.763 (0.490)
Creditor's Rights	49.180*** (3.400)	-12.360** (-2.540)	7.443** (2.040)	8.076*** (4.960)	8.416*** (5.330)	7.807*** (4.460)
Property Rights (1-7(Best))	0.854 (1.000)	0.854 (1.000)	0.936 (0.490)	0.856 (1.000)	0.016 (0.020)	0.531 (0.420)
Credit to GDP Ratio (Credit to Pvt. Sector)	0.034 (1.190)	0.034 (1.190)	0.044 (1.380)	0.034 (1.180)	0.048* (1.750)	0.031 (1.120)
New Business Registered (new registrations per 1000 people ages 15-64)	0.297 (1.560)	0.297 (1.560)	0.674* (1.830)	0.297 (1.550)	0.179 (0.960)	0.301 (1.560)
SDevInf	0.019 (0.130)	0.019 (0.130)	-0.495 (-0.250)	0.016 (0.110)	0.160 (1.150)	0.026 (0.180)
Inflation (CPI Inflation)	0.038 (0.850)	0.038 (0.850)	0.612 (1.430)	0.040 (0.870)	0.027 (0.610)	0.0336 (0.750)
Interest Rate	-0.123 (-0.880)	-0.123 (-0.880)	-0.143 (-0.670)	-0.125 (-0.890)	-0.090 (-0.620)	-0.124 (-0.860)
Constant	-24.550* (-1.760)	-142.200*** (-5.840)	-69.360*** (-3.660)	-63.790*** (-11.550)	-76.460*** (-8.790)	-64.910*** (-9.230)
Observations	197	197	129	197	197	197
Adjusted R-squared	0.721	0.721	0.673	0.720	0.724	0.720

Note: t statistics in parentheses; \*denotes significance at 10%, \*\* at 5% and \*\*\* at 1%; robust standard errors are estimated clustering at the country level

**Table 5c: Cross-country panel regressions on ATT-ROA by changing the creditor's rights indicator**

	[1]	[9]	[10]	[11]
French Legal Origin	-6.612 (-0.590)	35.290* (1.760)	40.660*** (9.780)	40.720*** (9.890)
German Legal Origin	26.960*** (4.500)	44.180* (1.750)	47.060*** (13.210)	46.030*** (12.960)
Scandinavian Legal Origin	11.770*** (4.490)	8.865 (0.440)	20.180*** (4.380)	20.240*** (4.440)
Socialist Legal Origin	-65.860* (-1.900)	54.050** (2.130)	56.910*** (12.650)	55.340*** (12.920)
Self Dealing Index	-214.900*** (-3.190)	18.990 (0.690)	38.480*** (4.570)	39.230*** (4.710)
Creditor's Rights	49.180*** (3.400)			
Strength of Legal Rights(1-12(Strong))		-0.146 (-0.210)		
Strength of Insolvency Framework (0-16(Strong))			0.021 (0.810)	
Time Resolve Insolvency (Years)				0.381* (1.730)
Property Rights (1-7(Best))	0.854 (1.000)	3.342 (0.830)	0.857 (1.020)	0.701 (0.840)
Credit to GDP Ratio (Credit to Pvt. Sector)	0.034 (1.190)	0.094 (0.950)	0.030 (1.320)	0.030 (1.350)
New Business Registered (new registrations per 1000 people ages 15-64)	0.297 (1.560)	0.305 (0.330)	0.214 (1.180)	0.250 (1.400)
SDevInf	0.019 (0.130)	0.168 (0.710)	0.026 (0.190)	0.004 (0.030)
Inflation (CPI Inflation)	0.038 (0.850)	0.009 (0.140)	0.039 (0.850)	0.041 (0.930)
Interest Rate	-0.123 (-0.880)	-0.272 (-1.020)	-0.152 (-1.100)	-0.160 (-1.160)
Constant	-24.550* (-1.760)	-72.790* (-1.830)	-68.930*** (-12.750)	-67.620*** (-13.560)
Observations	197	91	204	204
Adjusted R-squared	0.721	0.480	0.726	0.726

Note: t statistics in parentheses; \*denotes significance at 10%, \*\* at 5% and \*\*\* at 1%; robust standard errors are estimated clustering at the country level

Table 5d: Cross-country panel regressions on ATT-ROA by changing the institutional quality indicators

	[1]	[12]	[13]
French Legal Origin	-6.612 (-0.590)	-8.175 (-0.550)	-6.506 (-0.310)
German Legal Origin	26.960*** (4.500)	26.700*** (3.290)	29.730 (1.100)
Scandinavian Legal Origin	11.770*** (4.490)	12.910*** (5.030)	14.800 (1.080)
Socialist Legal Origin	-65.860* (-1.900)	-72.120* (-1.680)	-72.370** (-2.610)
Self Dealing Index	-214.900** (-3.190)	-226.000** (-2.970)	-230.60*** (-4.610)
Creditor's Rights	49.180*** (3.400)	51.740*** (3.330)	52.990*** (3.470)
Property Rights (1-7(Best))	0.854 (1.000)		
Rule of Law (-2.5 to 2.5)		0.455 (0.130)	
Trust in People			0.011 (0.030)
Credit to GDP Ratio (Credit to Pvt. Sector)	0.034 (1.190)	0.034 (1.080)	0.034 (1.170)
New Business Registered (new registrations per 1000 people ages 15-64)	0.297 (1.560)	0.331 (1.560)	0.596** (2.390)
SDevInf	0.0192 (0.130)	-0.005 (-0.030)	0.162 (1.110)
Inflation (CPI Inflation)	0.038 (0.850)	0.050 (1.080)	0.022 (0.600)
Interest Rate	-0.123 (-0.880)	-0.081 (-0.740)	-0.130 (-1.050)
Constant	-24.550* (-1.760)	-20.510 (-1.260)	-23.600 (-0.550)
Observations	197	197	141
Adjusted R-squared	0.721	0.721	0.735

Note: t statistics in parentheses; \*denotes significance at 10%, \*\* at 5% and \*\*\* at 1%; robust standard errors are estimated clustering at the country level

Table 5e: Cross-country panel regressions on ATT-ROA by changing the financial development indicators

	[1]	[14]	[15]	[16]
French Legal Origin	-6.612 (-0.590)	-6.099 (-0.400)	-16.710* (-1.890)	-16.400** (-2.200)
German Legal Origin	26.960*** (4.500)	27.830*** (4.100)	20.950*** (4.310)	21.050*** (5.350)
Scandinavian Legal Origin	11.770*** (4.490)	17.110*** (4.140)	11.540*** (3.750)	11.820*** (4.280)
Socialist Legal Origin	-65.860* (-1.900)	-75.700 (-1.790)	-97.750*** (-3.780)	-95.800*** (-4.240)
Self Dealing Index	-214.900** (-3.190)	-234.300** (-2.680)	-274.000*** (-5.490)	-272.800*** (-6.320)
Creditor's Rights	49.180*** (3.400)	55.360*** (3.090)	61.940*** (5.830)	61.760*** (6.810)
Property Rights (1-7(Best))	0.854 (1.000)	0.512 (0.590)	1.140 (1.170)	0.728 (0.760)
Credit to GDP Ratio (Credit to Pvt. Sector)	0.034 (1.190)			
ln_mktcap_bnkcap_pvtcred		-0.198 (-0.230)		
Market Capitalization (% of GDP)			0.002 (0.070)	
Prevalence of Foreign Ownership(1-7(Best))				0.796 (1.150)
New Business Registered (new registrations per 1000 people ages 15-64)	0.297 (1.560)	0.350* (1.860)	0.139 (0.730)	0.124 (0.690)
SDevInf	0.019 (0.130)	-0.105 (-1.030)	0.201 (0.370)	0.0181 (0.140)
Inflation (CPI Inflation)	0.038 (0.850)	0.070 (1.630)	0.136 (0.900)	0.031 (0.710)
Interest Rate	-0.123 (-0.880)	-0.014 (-0.160)	-0.078 (-0.540)	-0.040 (-0.310)
Constant	-24.550* (-1.760)	-21.800 (-1.140)	-14.350 (-1.200)	-16.320* (-1.700)
Observations	197	183	192	199
Adjusted R-squared	0.721	0.694	0.719	0.721

Note: t statistics in parentheses; \*denotes significance at 10%, \*\* at 5% and \*\*\* at 1%; robust standard errors are estimated clustering at the country level

**Table 5f: Cross-country panel regressions on ATT-ROA by changing the product market competition indicators**

	[1]	[17]	[18]
French Legal Origin	-6.612 (-0.590)	-12.070 (-1.180)	-12.290 (-1.200)
German Legal Origin	26.960*** (4.500)	20.960*** (4.140)	21.460*** (4.060)
Scandinavian Legal Origin	11.770*** (4.490)	8.664** (3.240)	8.354** (2.970)
Socialist Legal Origin	-65.860* (-1.900)	-77.560** (-2.430)	-78.580** (-2.490)
Self Dealing Index	-214.900*** (-3.190)	-232.000*** (-3.710)	-235.300*** (-3.820)
Creditor's Rights	49.180*** (3.400)	52.330*** (3.890)	52.960*** (3.990)
Property Rights (1-7(Best))	0.854 (1.000)	1.381 (1.600)	1.309 (1.700)
Credit to GDP Ratio (Credit to Pvt. Sector)	0.034 (1.190)	0.019 (0.730)	0.018 (0.720)
New Business Registered (new registrations per 1000 people ages 15-64)	0.297 (1.560)		
Trade Barriers (1-7(Best)) (Prevalence of trade)		-0.359 (-0.550)	
Cost of starting a Business(% of income per capita)			-0.057 (-1.420)
SDevInf	0.019 (0.130)	0.036 (0.270)	0.014 (0.100)
Inflation (CPI Inflation)	0.038 (0.850)	0.037 (0.840)	0.041 (0.930)
Interest Rate	-0.123 (-0.880)	-0.137 (-0.970)	-0.144 (-1.060)
Constant	-24.550* (-1.760)	-16.390 (-1.320)	-16.930 (-1.360)
Observations	197	234	234
Adjusted R-squared	0.721	0.742	0.742

Note: t statistics in parentheses; \*denotes significance at 10%, \*\* at 5% and \*\*\* at 1%; robust standard errors are estimated clustering at the country level

**Table 5g: Cross-country panel regressions on ATT-ROA by changing the macro-volatility indicators**

	[1]	[19]	[20]
French Legal Origin	-6.612 (-0.590)	-6.516 (-0.590)	-5.992 (-0.540)
German Legal Origin	26.960*** (4.500)	27.280*** (4.550)	26.890*** (4.570)
Scandinavian Legal Origin	11.770*** (4.490)	12.540*** (4.670)	11.240*** (4.040)
Socialist Legal Origin	-65.860* (-1.900)	-66.070* (-1.940)	-64.530* (-1.880)
Self Dealing Index	-214.900*** (-3.190)	-216.400*** (-3.330)	-211.800** (-3.200)
Creditor's Rights	49.180*** (3.400)	49.700*** (3.590)	48.290*** (3.370)
Property Rights (1-7(Best))	0.854 (1.000)	0.758 (0.920)	1.002 (1.100)
Credit to GDP Ratio (Credit to Pvt. Sector)	0.034 (1.190)	0.034 (1.190)	0.035 (1.230)
New Business Registered (new registrations per 1000 people ages 15-64)	0.297 (1.560)	0.292 (1.540)	0.289 (1.520)
SDevInf	0.019 (0.130)		
Std. Deviation of GDP growth from Last 5 Year		-0.091 (-0.530)	
Coefficient of variation of exchange rate			0.086 (1.190)
Inflation (CPI Inflation)	0.038 (0.850)	0.036 (0.920)	0.023 (0.710)
Interest Rate	-0.123 (-0.880)	-0.104 (-0.790)	-0.148 (-1.020)
Constant	-24.550* (-1.760)	-24.460* (-1.820)	-25.490* (-1.850)
Observations	197	197	197
Adjusted R-squared	0.721	0.722	0.722

Note: t statistics in parentheses; \*denotes significance at 10%, \*\* at 5% and \*\*\* at 1%; robust standard errors are estimated clustering at the country level



## Appendix A1. Countrywise Descriptive Statistics

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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	1899	0.34	0.474	0	1
ROA (EBIT/TA, %)	1887	-1.718	44.946	-1283.302	109.256
ROK (EBIT)	1877	-1.529	21.63	-447	268.667
ROA (P/L before tax, %)	1853	1.297	20.559	-96.66	86.53
ROK	1843	-26.962	1382.121	-18962.6	40842.16
D/A (ratio)	1899	0.431	0.243	0	0.992
Age	1899	27.967	24.318	1	157
Total Assets	1899	372374.535	1251179.143	248	11731606
Number of Workers	1899	819.735	2933.308	1	33868

Australia: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	-0.353	1							
(3) ROK (EBIT)	-0.095	0.277	1						
(4) ROA (P/L before tax, %)	-0.42	0.833	0.205	1					
(5) ROK	-0.069	0.221	0.779	0.247	1				
(6) D/A (ratio)	-0.371	0.152	0.026	0.161	0.019	1			
(7) Age	0.055	0.165	0.03	0.185	0.017	0.039	1		
(8) Total Assets	0.291	0.076	0.015	0.077	0.009	0.121	0.438	1	
(9) Number of Workers	0.257	0.092	0.015	0.098	0.009	0.12	0.412	0.852	1

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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	1884	0.058	0.234	0	1
ROA(EBIT/TA, %)	1879	4.095	123.324	-5257.721	564.141
ROK (EBIT/Fixed Asset, %)	1878	0.072	16.999	-715.05	100.387
ROA(P/L before tax, %)	1876	6.569	11.845	-82.88	95.78
ROK	1875	47.198	379.757	-4877.153	10203.679
D/A(ratio)	1884	0.572	0.225	0.008	0.997
Age	1884	42.327	44.979	1	413
Total Assets	1884	174897.143	1222311.431	55	18577708
Number of Workers	1884	575.721	3336.254	1	47186

Austria: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	-0.073	1							
(3) ROK (EBIT)	-0.027	0.290	1						
(4) ROA (P/L before tax, %)	-0.074	0.980	0.290	1					
(5) ROK	-0.027	0.288	1	0.292	1				
(6) D/A (ratio)	-0.079	-0.188	-0.096	-0.243	-0.101	1			
(7) Age	0.154	-0.073	-0.046	-0.079	-0.047	-0.031	1		
(8) Total Assets	0.455	-0.009	-0.010	-0.014	-0.010	-0.023	0.031	1	
(9) Number of Workers	0.545	-0.02	-0.013	-0.027	-0.014	-0.009	0.046	0.972	1

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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	62780	0.004	0.063	0	1
ROA (EBIT/TA, %)	62779	6.223	14.703	-544.444	1161.017
ROK(EBIT/FIXED ASSET, %)	62044	0.789	7.985	-328	846
ROA (P/L before tax, %)	62707	4.870	12.274	-99.630	99.800
ROK	61980	72.336	840.683	-33088.762	79532.570
D/A (ratio)	62780	0.597	0.250	0	1
Age	62780	20.808	15.601	1	238
Total Assets	62780	31957.819	1777117.338	4	258381000
Number of Workers	62780	48.322	1791.944	1	206633

Belgium: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	-0.029	1							
(3) ROK (EBIT)	-0.008	0.218	1						
(4) ROA (P/L before tax, %)	-0.034	0.953	0.22	1					
(5) ROK	-0.007	0.193	0.904	0.215	1				
(6) D/A (ratio)	-0.011	-0.083	-0.033	-0.174	-0.047	1			
(7) Age	0.16	-0.128	-0.026	-0.1	-0.017	-0.281	1		
(8) Total Assets	0.249	0.002	-0.001	0.001	-0.001	0.003	0.029	1	
(9) Number of Workers	0.314	0.001	-0.002	0	-0.002	0.004	0.054	0.978	1

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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	1324	0.088	0.284	0	1
ROA (EBIT/TA, %)	1324	3.228	21.091	-425.869	73.538
ROK(EBIT/FIXED ASSET, %)	1321	0.234	3.184	-29	73.875
ROA (P/L before tax, %)	1312	2.164	16.231	-93.38	74.71
ROK	1309	25.941	341.145	-2281.5	8327.443
D/A (ratio)	1324	0.512	0.259	0	0.996
Age	1324	33.548	18.763	1	125
Total Assets	1324	391558.443	2034492.625	8	26258178
Number of Workers	1324	1371.4	5204.178	2	120096

Brazil: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	0.088	1							
(3) ROK(EBIT/FIXED ASSET, %)	-0.002	0.331	1						
(4) ROA (P/L before tax, %)	0.08	0.88	0.315	1					
(5) ROK	-0.006	0.282	0.976	0.314	1				
(6) D/A (ratio)	0.095	-0.047	-0.042	-0.227	-0.076	1			
(7) Age	0.267	0.077	-0.057	0.081	-0.055	0.003	1		
(8) Total Assets	0.477	0.036	-0.006	0.04	-0.008	0.095	0.17	1	
(9) Number of Workers	0.558	0.049	-0.005	0.049	-0.007	0.063	0.22	0.624	1

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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	100618	0.002	0.047	0	1
ROA (EBIT/TA, %)	100618	13.531	31.215	-2866.667	2511.765
ROK(EBIT/FIXED ASSET, %)	79579	2.009	13.443	-1871	1472
ROA (P/L before tax, %)	100068	12.265	21.355	-100	100
ROK	79319	190.507	1154.933	-18765.9	146819.766
D/A (ratio)	100618	0.407	0.312	-0.02	1
Age	98609	10.171	8.408	1	168
Total Assets	100618	881.131	7057.107	1	790180
Number of Workers	100618	23.662	66.899	1	4543

Bulgaria: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	-0.028	1							
(3) ROK (EBIT)	-0.009	0.27	1						
(4) ROA (P/L before tax, %)	-0.028	0.98	0.273	1					
(5) ROK	-0.009	0.266	0.989	0.276	1				
(6) D/A (ratio)	-0.013	-0.233	-0.084	-0.272	-0.09	1			
(7) Age	0.265	-0.166	-0.068	-0.163	-0.066	-0.1	1		
(8) Total Assets	0.187	-0.021	-0.013	-0.021	-0.012	0.014	0.136	1	
(9) Number of Workers	0.203	0.011	-0.018	0.009	-0.016	0.026	0.237	0.638	1

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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	470805	0.043	0.204	0	1
ROA (EBIT/TA, %)	470805	15.663	67.063	-4508.403	19450.686
ROK(EBIT/FIXED ASSET, %)	469995	0.774	12.393	-1447.128	3375
ROA (P/L before tax, %)	325392	9.416	18.266	-100	100
ROK	324979	51.153	1472.016	-99042.906	779355.625
D/A (ratio)	470805	0.542	0.282	-46.571	1
Age	466439	8.24	5.673	1	116
Total Assets	470805	41279.528	471325.137	-625	53719639
Number of Workers	470805	294.389	1800.102	1	200000

China: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	-0.064	1							
(3) ROK(EBIT/FIXED ASSET, %)	-0.01	0.147	1						
(4) ROA (P/L before tax, %)	-0.045	0.953	0.143	1					
(5) ROK	0.004	0.051	0.381	0.058	1				
(6) D/A (ratio)	-0.118	-0.202	-0.014	-0.225	-0.011	1			
(7) Age	0.251	-0.081	-0.012	-0.077	-0.001	-0.032	1		
(8) Total Assets	0.247	-0.024	-0.005	-0.02	-0.001	0.011	0.122	1	
(9) Number of Workers	0.274	-0.023	-0.006	-0.018	-0.002	0.002	0.139	0.765	1

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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	50892	0.007	0.083	0	1
ROA (EBIT/TA, %)	50892	7.628	21.304	-900	623.077
ROK(EBIT/FIXED ASSET, %)	47315	1.223	9.625	-209	1040
ROA (P/L before tax, %)	50637	7.313	16.164	-99.33	99.74
ROK	47135	113.847	858.463	-16789.85	97952.258
D/A (ratio)	50892	0.581	0.265	0	1
Age	50675	13.514	9.44	1	319
Total Assets	50892	2150.091	18732.167	1	944563
Number of Workers	50892	23.284	136.052	1	6706

Croatia: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	-0.037	1							
(3) ROK(EBIT/FIXED ASSET, %)	-0.011	0.266	1						
(4) ROA (P/L before tax, %)	-0.044	0.925	0.263	1					
(5) ROK	-0.011	0.262	0.979	0.279	1				
(6) D/A (ratio)	-0.041	-0.181	-0.054	-0.227	-0.063	1			
(7) Age	0.338	-0.083	-0.033	-0.096	-0.033	-0.183	1		
(8) Total Assets	0.437	-0.016	-0.01	-0.025	-0.011	-0.004	0.283	1	
(9) Number of Workers	0.466	-0.01	-0.012	-0.02	-0.013	-0.012	0.31	0.873	1

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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	77284	0.001	0.029	0	1
ROA (EBIT/TA, %)	77284	8.656	42.674	-1266.667	7500
ROK(EBIT/FIXED ASSET, %)	70267	1.221	8.796	-130	699
ROA (P/L before tax, %)	76921	7.357	16.765	-98.68	100
ROK	70061	108.603	789.671	-17430.6	48971.441
D/A (ratio)	77284	0.439	4.528	-1148	1
Age	77284	12.657	6.983	1	71
Total Assets	77284	2682.272	15402.264	-26423	1231431
Number of Workers	77284	38.719	103.848	3	4500

Czech Republic: Correlation Table

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	-0.012	1							
(3) ROK(EBIT/FIXED ASSET, %)	-0.004	0.304	1						
(4) ROA (P/L before tax, %)	-0.011	0.972	0.301	1					
(5) ROK	-0.004	0.3	0.984	0.309	1				
(6) D/A (ratio)	-0.006	-0.176	-0.061	-0.211	-0.067	1			
(7) Age	0.036	-0.14	-0.057	-0.127	-0.052	-0.243	1		
(8) Total Assets	0.22	-0.023	-0.017	-0.016	-0.015	-0.012	0.069	1	
(9) Number of Workers	0.265	-0.036	-0.03	-0.031	-0.028	-0.023	0.177	0.636	1



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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	3342	0.093	0.29	0	1
ROA (EBIT/TA, %)	3342	9.171	22.924	-318.914	244.828
ROK(EBIT/FIXED ASSET, %)	3155	1.193	14.937	-471	328
ROA (P/L before tax, %)	3327	8.773	18.919	-96.42	98.38
ROK	3142	130.33	1277.863	-28817.045	32694.199
D/A (ratio)	3342	0.545	0.238	-0.067	0.997
Age	3342	21.688	23.224	1	224
Total Assets	3342	95196.066	548972.96	5	8529015
Number of Workers	3342	313.672	1699.901	1	27350

Denmark: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	-0.115	1							
(3) ROK(EBIT/FIXED ASSET, %)	-0.087	0.282	1						
(4) ROA (P/L before tax, %)	-0.122	0.934	0.295	1					
(5) ROK	-0.089	0.271	0.99	0.292	1				
(6) D/A (ratio)	-0.104	-0.113	-0.046	-0.182	-0.054	1			
(7) Age	0.475	-0.058	-0.064	-0.05	-0.066	-0.12	1		
(8) Total Assets	0.351	-0.009	-0.02	-0.017	-0.018	0.024	0.224	1	
(9) Number of Workers	0.401	0.015	-0.02	0.012	-0.018	0.011	0.223	0.909	1

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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	33193	0.015	0.12	0	1
ROA (EBIT/TA, %)	33193	8.538	24.568	-1600	988.889
ROK(EBIT/FIXED ASSET, %)	32063	0.989	6.915	-227	283
ROA (P/L before tax, %)	33069	8.016	17.861	-100	100
ROK	31990	97.569	692.157	-9770.58	28769.398
D/A (ratio)	33193	0.493	0.282	-1	0.999
Age	33193	20.29	15.947	1	183
Total Assets	33193	46063.786	887704.811	1	55086242
Number of Workers	33193	130.349	2081.013	1	132427

Finland: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	-0.028	1							
(3) ROK(EBIT/FIXED ASSET, %)	-0.016	0.271	1						
(4) ROA (P/L before tax, %)	-0.028	0.985	0.274	1					
(5) ROK	-0.016	0.263	0.988	0.271	1				
(6) D/A (ratio)	0.027	-0.21	-0.087	-0.272	-0.096	1			
(7) Age	0.303	-0.089	-0.046	-0.076	-0.043	-0.121	1		
(8) Total Assets	0.392	-0.012	-0.007	-0.011	-0.006	0.016	0.169	1	
(9) Number of Workers	0.422	-0.009	-0.007	-0.007	-0.007	0.021	0.174	0.92	1

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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	107482	0.011	0.102	0	1
ROA (EBIT/TA, %)	107482	7.179	22.035	-818.069	5491.256
ROK(EBIT/FIXED ASSET, %)	106523	1.135	43.121	-258.889	7886
ROA (P/L before tax, %)	107392	6.558	13.544	-99.96	99.93
ROK	106440	78.054	594.753	-75438.211	37508.418
D/A (ratio)	107482	0.563	0.225	-3.444	1
Age	107482	18.304	16.009	1	352
Total Assets	107482	71258.332	1998977.319	1	132483238
Number of Workers	107482	168.137	4079.177	1	324000

France: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	-0.074	1							
(3) ROK(EBIT/FIXED ASSET, %)	-0.005	0.044	1						
(4) ROA (P/L before tax, %)	-0.083	0.982	0.034	1					
(5) ROK	-0.035	0.272	0.097	0.283	1				
(6) D/A (ratio)	-0.019	-0.141	0.007	-0.195	-0.073	1			
(7) Age	0.197	-0.113	-0.002	-0.09	-0.012	-0.277	1		
(8) Total Assets	0.334	-0.004	-0.001	-0.004	-0.004	0.006	0.169	1	
(9) Number of Workers	0.368	-0.003	0	-0.005	-0.005	0.01	0.236	0.87	1

**Table A1.1:** Germany: Descriptive Statistics

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	50397	0.027	0.163	0	1
ROA (EBIT/TA, %)	45812	10.603	45.305	-177.466	7013.468
ROK(EBIT/FIXED ASSET, %)	45349	2.312	43.847	-338	4659.667
ROA (P/L before tax, %)	50346	9.176	12.833	-97.92	99.46
ROK	49889	206.282	4038.987	-39853.441	441459.75
D/A (ratio)	50397	0.61	0.239	0	1
Age	50368	41.794	42.844	1	733
Total Assets	50397	246570.549	5081694.763	4	306546968
Number of Workers	50397	594.868	8597.175	1	427000

Germany: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	-0.092	1							
(3) ROK(EBIT/FIXED ASSET, %)	-0.009	0.068	1						
(4) ROA (P/L before tax, %)	-0.086	0.983	0.069	1					
(5) ROK	-0.009	0.069	0.998	0.071	1				
(6) D/A (ratio)	-0.075	-0.118	-0.002	-0.187	-0.006	1			
(7) Age	0.104	-0.047	-0.012	-0.042	-0.012	0.003	1		
(8) Total Assets	0.256	-0.016	-0.002	-0.013	-0.002	0.011	0.05	1	
(9) Number of Workers	0.289	-0.018	-0.003	-0.016	-0.003	0.012	0.069	0.836	1

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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	27761	0.022	0.146	0	1
ROA (EBIT/TA, %)	27761	3.886	11.321	-602.381	210.096
ROK(EBIT/FIXED ASSET, %)	27631	0.664	4.952	-179.5	219.5
ROA (P/L before tax, %)	27747	2.375	9.612	-93.52	82.45
ROK	27623	51.155	488.239	-19281.35	21935.102
D/A (ratio)	27761	0.515	0.248	0	0.999
Age	27412	23.873	16.554	1	156
Total Assets	27761	14653.368	104531.848	1	4445213
Number of Workers	27761	48.011	246.234	1	9314

Greece: Correlation Table

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	-0.029	1							
(3) ROK(EBIT/FIXED ASSET, %)	-0.018	0.322	1						
(4) ROA (P/L before tax, %)	-0.049	0.979	0.32	1					
(5) ROK	-0.015	0.316	0.938	0.323	1				
(6) D/A (ratio)	0.053	0.016	0.029	-0.08	0.007	1			
(7) Age	0.122	-0.042	-0.054	-0.046	-0.048	-0.106	1		
(8) Total Assets	0.382	0.012	-0.013	0.003	-0.01	0.039	0.133	1	
(9) Number of Workers	0.406	0.026	-0.015	0.015	-0.012	0.04	0.109	0.721	1

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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	123852	0.001	0.024	0	1
ROA (EBIT/TA, %)	123814	8.455	35.275	-2562.963	4878.571
ROK(EBIT/FIXED ASSET, %)	114087	0.918	7.567	-247	928.667
ROA (P/L before tax, %)	122833	8.188	19.168	-99.77	100
ROK	113481	89.315	676.227	-12511.711	85663.266
D/A (ratio)	123852	0.453	0.34	-66.357	1
Age	123849	12.88	7.919	1	117
Total Assets	123852	2071.954	27302.84	-18	3311281
Number of Workers	123852	26.392	138.942	1	11820

Hungary: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	-0.002	1							
(3) ROK(EBIT/FIXED ASSET, %)	-0.003	0.28	1						
(4) ROA (P/L before tax, %)	-0.002	0.983	0.281	1					
(5) ROK	-0.003	0.281	0.988	0.288	1				
(6) D/A (ratio)	-0.002	-0.102	-0.006	-0.139	-0.013	1			
(7) Age	0.095	-0.122	-0.061	-0.116	-0.06	-0.188	1		
(8) Total Assets	0.372	-0.008	-0.006	-0.008	-0.006	0.007	0.139	1	
(9) Number of Workers	0.399	-0.014	-0.01	-0.015	-0.01	0.026	0.184	0.743	1

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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	2549	0.024	0.153	0	1
ROA (EBIT/TA, %)	2549	14.962	31.887	-210	940
ROK(EBIT/FIXED ASSET, %)	2367	1.379	6.671	-49.5	149
ROA (P/L before tax, %)	2527	12.556	21.975	-86.14	96.58
ROK	2351	125.772	656.833	-6605.39	13965.12
D/A (ratio)	2549	0.531	0.268	0	0.998
Age	2549	17.433	13.96	1	109
Total Assets	2549	10595.965	83329.068	1	1727711
Number of Workers	2549	35.332	256.455	1	4912

Iceland: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	-0.04	1							
(3) ROK(EBIT/FIXED ASSET, %)	-0.031	0.371	1						
(4) ROA (P/L before tax, %)	-0.034	0.944	0.36	1					
(5) ROK	-0.029	0.362	0.97	0.395	1				
(6) D/A (ratio)	0.042	-0.134	-0.082	-0.219	-0.108	1			
(7) Age	0.423	-0.09	-0.042	-0.067	-0.039	-0.038	1		
(8) Total Assets	0.585	-0.038	-0.024	-0.037	-0.023	0.022	0.153	1	
(9) Number of Workers	0.537	-0.037	-0.023	-0.038	-0.022	0.026	0.157	0.965	1

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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	3079	0.974	0.158	0	1
ROA (EBIT/TA, %)	3079	7.411	9.936	-133.333	168.078
ROK(EBIT/FIXED ASSET, %)	3070	0.028	11.5	-627.741	78.5
ROA (P/L before tax, %)	3075	5.671	10.234	-85.8	76.98
ROK	3066	0.112	945.913	-49299.746	8357.625
D/A (ratio)	3079	0.548	0.228	0	0.999
Age	3079	36.546	22.126	1	141
Total Assets	3079	934477.406	5089997.387	7	109009446
Number of Workers	3079	2612.867	7613.794	1	86548

India: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	0.02	1							
(3) ROK(EBIT/FIXED ASSET, %)	-0.005	0.146	1						
(4) ROA (P/L before tax, %)	0.006	0.814	0.108	1					
(5) ROK	-0.006	0.15	0.966	0.158	1				
(6) D/A (ratio)	-0.018	-0.099	-0.021	-0.337	-0.039	1			
(7) Age	-0.012	0.031	-0.015	0.074	-0.007	-0.012	1		
(8) Total Assets	0.025	0.005	0.002	0.006	0.002	0.074	0.133	1	
(9) Number of Workers	0.037	0.079	0.004	0.06	0.005	0.099	0.253	0.614	1



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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	2545	0.102	0.303	0	1
ROA (EBIT/TA, %)	2545	3.254	19.122	-363.38	100
ROK(EBIT/FIXED ASSET, %)	2456	1.345	18.823	-81	564
ROA (P/L before tax, %)	1950	4.131	15.004	-83.44	95.87
ROK	1886	172.22	2116.822	-7330.4	55946.516
D/A (ratio)	2545	0.465	0.271	0	0.998
Age	2545	23.809	20.208	1	177
Total Assets	2545	1037657.31	6929072.976	2	135840700
Number of Workers	2545	2113.597	11442.182	1	209000

Ireland: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	-0.061	1							
(3) ROK(EBIT/FIXED ASSET, %)	-0.035	0.134	1						
(4) ROA (P/L before tax)	-0.085	0.945	0.131	1					
(5) ROK	-0.035	0.134	0.999	0.136	1				
(6) D/A (ratio)	0.052	0.035	0.002	0.001	-0.002	1			
(7) Age	0.276	-0.031	-0.039	-0.025	-0.04	0.001	1		
(8) Total Assets	0.431	0.005	-0.013	-0.009	-0.014	0.056	0.24	1	
(9) Number of Workers	0.511	0.044	-0.016	0.029	-0.016	0.106	0.276	0.683	1

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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	546402	0.001	0.027	0	1
ROA (EBIT/TA, %)	546402	5.388	32.092	-19261.549	8259.259
ROK(EBIT/FIXED ASSET, %)	542873	0.904	7.555	-961.5	1220
ROA (P/L before tax, %)	546226	4.259	9.793	-99.97	99.13
ROK	542709	77.444	721.659	-39582.75	121701.18
D/A (ratio)	546402	0.717	0.218	-3.636	1
Age	546401	18.846	14.378	1	144
Total Assets	546402	7095.184	172914.108	1	43916703
Number of Workers	546402	21.636	301.277	1	75197

Italy: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	-0.002	1							
(3) ROK(EBIT/FIXED ASSET, %)	-0.004	0.249	1						
(4) ROA (P/L before tax, %)	-0.008	0.336	0.243	1					
(5) ROK	-0.004	0.085	0.972	0.255	1				
(6) D/A (ratio)	-0.014	-0.071	-0.047	-0.264	-0.061	1			
(7) Age	0.054	-0.033	-0.043	-0.087	-0.04	-0.274	1		
(8) Total Assets	0.319	-0.002	-0.003	-0.006	-0.003	-0.008	0.052	1	
(9) Number of Workers	0.336	-0.002	-0.004	-0.005	-0.004	-0.007	0.065	0.964	1

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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	182306	0.069	0.254	0	1
ROA (EBIT/TA, %)	182306	2.744	9.224	-871.429	206.579
ROK(EBIT/FIXED ASSET, %)	181834	0.233	3.353	-129	468.667
ROA (P/L before tax, %)	182217	3.414	8.113	-99.850	97.100
ROK	181751	27.639	337.928	-10357.950	50840.047
D/A (ratio)	182306	0.641	0.248	0	1
Age	182306	37.986	20.155	1	184
Total Assets	182306	197752.211	3640856.891	2	435075307
Number of Workers	182306	472.151	6196.925	1	384586

Japan: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	0.038	1							
(3) ROK(EBIT/FIXED ASSET, %)	-0.013	0.244	1						
(4) ROA (P/L before tax, %)	0.015	0.892	0.228	1					
(5) ROK	-0.016	0.22	0.975	0.238	1				
(6) D/A (ratio)	-0.197	-0.079	-0.006	-0.139	-0.014	1			
(7) Age	0.304	-0.034	-0.057	-0.053	-0.064	-0.270	1		
(8) Total Assets	0.182	0.01	-0.002	0.005	-0.003	-0.018	0.092	1	
(9) Number of Workers	0.250	0.016	-0.003	0.007	-0.004	-0.029	0.133	0.790	1

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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	168946	0.018	0.132	0	1
ROA (EBIT/TA, %)	168934	7.837	28.998	-6200	3800
ROK(EBIT/FIXED ASSET, %)	168568	0.441	2.483	-167	222.087
ROA (P/L before tax, %)	168608	7.047	11.38	-99.74	100
ROK	168268	43.871	285.538	-35169.598	51693.449
D/A (ratio)	168946	0.576	0.222	-7.722	1
Age	168245	11.813	8.701	1	119
Total Assets	168946	10340.757	54616.658	1	6237490
Number of Workers	168946	34.701	75.001	1	6002

Korea: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	-0.048	1							
(3) ROK(EBIT/FIXED ASSET, %)	-0.019	0.354	1						
(4) ROA (P/L befor )	-0.065	0.843	0.321	1					
(5) ROK	-0.018	0.239	0.762	0.292	1				
(6) D/A (ratio)	-0.075	-0.192	-0.084	-0.305	-0.091	1			
(7) Age	0.174	-0.092	-0.076	-0.098	-0.062	-0.206	1		
(8) Total Assets	0.231	-0.032	-0.02	-0.033	-0.017	-0.021	0.16	1	
(9) Number of Workers	0.287	-0.054	-0.04	-0.059	-0.034	-0.015	0.289	0.712	1

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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	21501	0.006	0.078	0	1
ROA (EBIT/TA, %)	21501	10.107	36.147	-700	1028.571
ROK(EBIT/FIXED ASSET, %)	18558	1.107	7.217	-167	339
ROA (P/L before tax, %)	21096	9.229	24.326	-98.47	99.99
ROK	18355	100.942	672.693	-22227.549	33845.758
D/A (ratio)	21501	0.546	0.29	-1	1
Age	21501	10.541	8.677	1	150
Total Assets	21501	1447.181	11686.931	1	494248
Number of Workers	21501	21.953	62.354	1	1679

Latvia: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	-0.03	1							
(3) ROK(EBIT/FIXED ASSET, %)	-0.013	0.32	1						
(4) ROA (P/L befor )	-0.032	0.956	0.32	1					
(5) ROK	-0.012	0.298	0.982	0.317	1				
(6) D/A (ratio)	-0.053	-0.194	-0.073	-0.219	-0.076	1			
(7) Age	0.464	-0.098	-0.041	-0.098	-0.036	-0.18	1		
(8) Total Assets	0.243	-0.016	-0.011	-0.02	-0.011	-0.007	0.156	1	
(9) Number of Workers	0.407	-0.015	-0.024	-0.021	-0.025	-0.02	0.382	0.599	1

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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	594	0.157	0.364	0	1
ROA (EBIT/TA, %)	594	7.052	12.883	-50.353	102.585
ROK(EBIT/FIXED ASSET, %)	594	0.862	5.968	-3.8	132
ROA (P/L before tax, %)	592	6.338	12.001	-55.36	94.92
ROK	592	79.239	484.79	-361.027	10100.46
D/A (ratio)	594	0.518	0.23	0.027	0.998
Age	594	22.606	13.051	1	67
Total Assets	594	98592.15	239639.832	79	2529464
Number of Workers	594	700.463	1747.562	1	12000

Malaysia: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	0.089	1							
(3) ROK(EBIT/FIXED ASSET, %)	-0.046	0.296	1						
(4) ROA (P/L before tax, %)	0.079	0.968	0.245	1					
(5) ROK	-0.053	0.309	0.991	0.27	1				
(6) D/A (ratio)	-0.197	-0.077	-0.014	-0.153	-0.026	1			
(7) Age	-0.007	0.157	-0.115	0.195	-0.122	-0.198	1		
(8) Total Assets	0.481	0.09	-0.035	0.107	-0.037	-0.162	0.105	1	
(9) Number of Workers	0.517	0.064	-0.04	0.074	-0.044	-0.184	-0.011	0.66	1

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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	2005	0.17	0.376	0	1
ROA (EBIT/TA, %)	1999	8.726	30.691	-518.455	325
ROK(EBIT/FIXED ASSET, %)	1929	3.268	47.513	-174.5	1887
ROA (P/L before tax, %)	1947	7.701	14.77	-97.82	96.09
ROK	1882	311.031	4642.671	-11834.76	185728.5
D/A (ratio)	2005	0.495	2.194	-95	0.998
Age	2005	38.097	35.458	1	252
Total Assets	2005	2239017.389	12194362.89	-17	136644596
Number of Workers	2005	4116.639	20531.757	1	238162

Netherlands: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	-0.076	1							
(3) ROK(EBIT/FIXED ASSET, %)	-0.031	0.13	1						
(4) ROA (P/L before tax, %)	-0.094	0.784	0.096	1					
(5) ROK	-0.03	0.087	0.985	0.102	1				
(6) D/A (ratio)	0.022	-0.149	0.009	-0.199	0.007	1			
(7) Age	0.17	-0.058	-0.012	-0.069	-0.013	0.005	1		
(8) Total Assets	0.381	-0.045	-0.013	-0.056	-0.012	0.167	0.089	1	
(9) Number of Workers	0.406	-0.054	-0.014	-0.068	-0.013	0.146	0.16	0.932	1

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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	6412	0.04	0.197	0	1
ROA (EBIT/TA, %)	6412	7.65	30.512	-588.235	1000
ROK(EBIT/FIXED ASSET, %)	5854	-0.633	81.75	-3831	490.5
ROA (P/L before tax, %)	6368	7.664	20.608	-100	99.71
ROK	5824	65.972	5426.704	-362353.188	49896.883
D/A (ratio)	6412	0.531	0.287	-6.543	0.998
Age	6412	16.266	19.024	1	362
Total Assets	6412	55947.843	778111.718	-49	22129215
Number of Workers	6412	120.168	1264.833	1	32026

Norway: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	-0.134	1							
(3) ROK(EBIT/FIXED ASSET, %)	-0.115	0.124	1						
(4) ROA (P/L before tax)	-0.135	0.962	0.118	1					
(5) ROK	-0.113	0.123	0.996	0.123	1				
(6) D/A (ratio)	-0.073	0.017	0.036	-0.047	0.029	1			
(7) Age	0.377	-0.018	0.007	-0.012	0.007	-0.103	1		
(8) Total Assets	0.344	-0.013	-0.001	-0.017	-0.001	-0.02	0.579	1	
(9) Number of Workers	0.426	-0.013	-0.001	-0.019	-0.001	-0.003	0.722	0.875	1



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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	24597	0.024	0.153	0	1
ROA (EBIT/TA, %)	24570	9.816	67.827	-8800	800
ROK(EBIT/FIXED ASSET, %)	23588	1.294	19.618	-387	2399
ROA (P/L before tax, %)	24420	9.223	17.21	-100	100
ROK	23484	125.085	1915.158	-28112	232948.516
D/A (ratio)	24597	0.463	0.373	-43	1
Age	24597	17.08	19.076	1	253
Total Assets	24597	13901.688	293227.377	-16	17257016
Number of Workers	24597	114.238	471.551	1	22956

Poland: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	-0.065	1							
(3) ROK(EBIT/FIXED ASSET, %)	-0.007	0.146	1						
(4) ROA (P/L befor )	-0.069	0.956	0.145	1					
(5) ROK	-0.005	0.145	0.994	0.151	1				
(6) D/A (ratio)	0.006	-0.194	-0.014	-0.266	-0.02	1			
(7) Age	0.151	-0.103	-0.028	-0.098	-0.027	-0.086	1		
(8) Total Assets	0.162	-0.013	-0.003	-0.012	-0.003	0.006	0.069	1	
(9) Number of Workers	0.282	-0.025	-0.011	-0.027	-0.011	0.003	0.177	0.827	1

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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	160172	0.006	0.08	0	1
ROA (EBIT/TA, %)	160172	13.394	38.512	-4337.5	6000
ROK(EBIT/FIXED ASSET, %)	143468	1.22	8.275	-258	1231
ROA (P/L before tax, %)	158404	11.64	22.239	-99.71	100
ROK	142563	112.559	736.823	-19038.801	124511.398
D/A (ratio)	160172	0.498	6.616	-2628	1
Age	160172	11.667	6.907	1	144
Total Assets	160172	1037.558	12287.089	-75	2345003
Number of Workers	160172	25.407	114.776	1	33809

Romania: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	-0.039	1							
(3) ROK(EBIT/FIXED ASSET, %)	-0.012	0.29	1						
(4) ROA (P/L before tax, %)	-0.04	0.982	0.291	1					
(5) ROK	-0.012	0.288	0.989	0.296	1				
(6) D/A (ratio)	-0.048	-0.234	-0.077	-0.264	-0.082	1			
(7) Age	0.165	-0.148	-0.075	-0.148	-0.074	-0.166	1		
(8) Total Assets	0.106	-0.015	-0.008	-0.018	-0.008	0.008	0.062	1	
(9) Number of Workers	0.078	0.006	0.005	-0.001	0.004	-0.006	0.079	0.286	1

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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	390890	0.001	0.034	0	1
ROA (EBIT/TA, %)	390887	2.685	18.279	-6808.85	639.13
ROK(EBIT/FIXED ASSET, %)	382739	0.437	7.023	-1923.5	669
ROA (P/L before tax, %)	390289	1.686	11.417	-99.95	99.97
ROK	382229	37.309	570.76	-65573.758	63810.758
D/A (ratio)	390890	0.569	0.265	-2.554	1
Age	390799	17.595	11.113	1	136
Total Assets	390890	4180.871	79059.894	1	13096668
Number of Workers	390890	15.979	148.927	1	26083

Spain: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	0.002	1							
(3) ROK(EBIT/FIXED ASSET, %)	-0.002	0.238	1						
(4) ROA (P/L befor )	0.002	0.972	0.235	1					
(5) ROK	-0.002	0.234	0.939	0.243	1				
(6) D/A (ratio)	-0.007	-0.051	-0.022	-0.117	-0.035	1			
(7) Age	0.102	-0.089	-0.04	-0.07	-0.036	-0.283	1		
(8) Total Assets	0.477	0.008	-0.002	0.009	-0.001	-0.005	0.08	1	
(9) Number of Workers	0.484	0.015	-0.002	0.015	-0.002	-0.007	0.096	0.843	1

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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	40814	0.04	0.197	0	1
ROA (EBIT/TA, %)	40799	8.304	18.532	-471.311	852.632
ROK(EBIT/FIXED ASSET, %)	39875	1.451	17.37	-2360	595
ROA (P/L before tax, %)	40684	7.827	16.059	-99.82	99.32
ROK	39765	149.184	1287.455	-94502.656	60239.188
D/A (ratio)	40814	0.541	0.236	-0.538	0.999
Age	40798	21.569	17.851	1	327
Total Assets	40814	56157.783	1105597.744	9	53679911
Number of Workers	40814	169.829	2830.419	1	118055

Sweden: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	-0.236	1							
(3) ROK(EBIT/FIXED ASSET, %)	-0.069	0.241	1						
(4) ROA (P/L befor )	-0.228	0.969	0.238	1					
(5) ROK	-0.069	0.236	0.984	0.245	1				
(6) D/A (ratio)	-0.073	-0.193	-0.054	-0.266	-0.064	1			
(7) Age	0.148	-0.054	-0.025	-0.037	-0.021	-0.164	1		
(8) Total Assets	0.242	-0.007	-0.006	-0.007	-0.005	0.016	0.214	1	
(9) Number of Workers	0.276	-0.005	-0.006	-0.005	-0.006	0.018	0.247	0.938	1

**Table A1.ac:** Taiwan: Descriptive Statistics

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	6998	0.945	0.227	0	1
ROA (EBIT/TA, %)	6998	4.086	10.61	-161.165	77.302
ROK(EBIT/FIXED ASSET, %)	6997	0.172	1.255	-69.615	24.315
ROA (P/L before tax, %)	6991	3.135	11.402	-94.52	96.61
ROK	6990	15.439	108.171	-4307.175	2674.671
D/A (ratio)	6998	0.423	0.188	0.004	0.992
Age	6998	25.234	13.121	1	70
Total Assets	6998	549146.182	2373492.734	107	58437272
Number of Workers	6998	3573.246	24239.422	1	961000

Taiwan: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	0.024	1							
(3) ROK(EBIT/FIXED ASSET, %)	0.023	0.383	1						
(4) ROA (P/L before tax, %)	0.003	0.914	0.337	1					
(5) ROK	0.021	0.437	0.916	0.46	1				
(6) D/A (ratio)	-0.023	-0.144	-0.04	-0.193	-0.082	1			
(7) Age	-0.047	0.038	-0.032	0.063	-0.028	0.127	1		
(8) Total Assets	0.018	0.039	-0.002	0.041	0	0.138	0.115	1	
(9) Number of Workers	0.025	0.029	0.002	0.03	0.003	0.106	0.062	0.57	1

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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	147324	0.007	0.085	0	1
ROA (EBIT/TA, %)	147324	7.93	269.697	-39675	90700
ROK(EBIT/FIXED ASSET, %)	125665	1.34	16.297	-1705	2721
ROA (P/L before tax, %)	144205	6.949	22.478	-100	100
ROK	123897	121.769	1069.173	-27575.592	148172.422
D/A (ratio)	147324	0.401	0.313	-2.833	1
Age	137708	11.96	10.588	1	466
Total Assets	147324	1393.083	17869.065	1	1802272
Number of Workers	147324	43.902	280.702	1	27688

Ukraine: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	-0.016	1							
(3) ROK(EBIT/FIXED ASSET, %)	-0.009	0.209	1						
(4) ROA (P/L befor )	-0.021	0.988	0.21	1					
(5) ROK	-0.01	0.213	0.982	0.216	1				
(6) D/A (ratio)	0.003	-0.063	0.017	-0.074	0.013	1			
(7) Age	0.283	-0.022	-0.027	-0.029	-0.028	-0.06	1		
(8) Total Assets	0.154	-0.001	0.003	-0.007	-0.002	0.045	0.118	1	
(9) Number of Workers	0.197	0.012	-0.006	0.003	-0.007	0.047	0.197	0.809	1

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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	23707	0.12	0.324	0	1
ROA (EBIT/TA, %)	23698	7.273	32.981	-806.305	2937.302
ROK(EBIT/FIXED ASSET, %)	23363	0.718	38.466	-1119.333	3826.667
ROA (P/L before tax, %)	23439	6.969	15.843	-98.78	100
ROK	23166	120.723	3860.978	-102737.117	383348.531
D/A (ratio)	23707	0.498	0.238	0	1
Age	23703	29.144	27.057	1	218
Total Assets	23707	369223.241	6172565.771	1	305690000
Number of Workers	23707	706.743	5740.418	1	174381

UK: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	-0.22	1							
(3) ROK(EBIT/FIXED ASSET, %)	-0.039	0.112	1						
(4) ROA (P/L before tax)	-0.248	0.898	0.117	1					
(5) ROK	-0.036	0.1	0.977	0.111	1				
(6) D/A (ratio)	-0.103	0.047	0.005	-0.006	0.002	1			
(7) Age	0.124	-0.009	-0.012	0	-0.011	-0.207	1		
(8) Total Assets	0.155	0.003	-0.002	0.003	-0.002	0.038	0.082	1	
(9) Number of Workers	0.266	0.016	-0.003	0.013	-0.003	0.068	0.116	0.623	1

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

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	8944	0.996	0.062	0	1
ROA (EBIT/TA, %)	8944	-138.258	11031.192	-1031163.625	164.67
ROK(EBIT/FIXED ASSET, %)	8924	-9.292	191.582	-12153.333	455.886
ROA (P/L before tax, %)	8694	-0.901	22.751	-99.77	94.94
ROK	8688	-695.377	18386.518	-1267476.75	45592.902
D/A (ratio)	8944	0.451	0.232	-0.464	1
Age	8944	29.529	27.526	1	141
Total Assets	8944	6550319.367	30993592.27	2	797769000
Number of Workers	8944	9826.254	26987.762	1	349600

US: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	-0.012	1							
(3) ROK(EBIT/FIXED ASSET, %)	-0.002	0.117	1						
(4) ROA (P/L befor )	-0.01	0.911	0.123	1					
(5) ROK	-0.002	0.114	0.999	0.122	1				
(6) D/A (ratio)	-0.02	0.099	0.032	0.057	0.031	1			
(7) Age	0.045	0.21	0.025	0.221	0.024	0.154	1		
(8) Total Assets	0.013	0.075	0.008	0.086	0.008	0.156	0.24	1	
(9) Number of Workers	0.021	0.137	0.014	0.143	0.014	0.287	0.279	0.689	1



**Table A1.ag:** Vietnam: Descriptive Statistics

	Obs. Number	Mean	Std. Dev.	Min	Max
Listing (dummy)	70833	0.015	0.122	0	1
ROA (EBIT/TA, %)	70833	-0.915	58.961	-11200	736.752
ROK(EBIT/FIXED ASSET, %)	51389	0.152	6.347	-109	743
ROA (P/L before tax, %)	70576	-0.833	9.75	-99.92	99.38
ROK	51295	4.229	595.303	-6997.44	70946.414
D/A (ratio)	70833	0.398	0.363	-24.5	1
Age	70624	5.914	7.228	1	1002
Total Assets	70833	3639.419	39854.336	-25	4260011
Number of Workers	70833	71.595	481.021	1	36904

Vietnam: Correlation Table

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Listing (dummy)	1								
(2) ROA (EBIT/TA, %)	0.111	1							
(3) ROK(EBIT/FIXED ASSET, %)	0.003	0.205	1						
(4) ROA (P/L befor )	0.115	0.876	0.182	1					
(5) ROK	0.005	0.18	0.954	0.199	1				
(6) D/A (ratio)	0.017	0.086	0.026	0.028	0.013	1			
(7) Age	0.355	0.179	0.024	0.17	0.024	0.128	1		
(8) Total Assets	0.177	0.058	0.004	0.056	0.004	0.054	0.115	1	
(9) Number of Workers	0.24	0.098	0.003	0.09	0.004	0.062	0.197	0.37	1

## Appendix A2. Country-wise ATT of Listing on ROA based on Propensity Score Matching using All Years Sample

**Table A2:** 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. Upper Half refers to  $50\% \leq \text{Propensity Score} \leq 75\%$  and the Lower Half refers to  $50\% \leq \text{Propensity Score}$ .

	Parts	ATT	SE	t-stat	Obs. Untreated (on support)	Obs. Treated (on support)	Obs. Untreated (off support)	Obs. Treated (off support)
Australia	Overall	-27.031	3.505	-7.71	978	527	0	16
	Upper Half	-31.373	4.699	-6.68	67	350	0	12
	Lower Half	-18.428	3.648	-5.05	911	176	0	5
Austria	Overall	-1.419	1.689	-0.84	954	50	0	39
	Upper Half	1.940	1.958	0.99	20	26	0	37
	Lower Half	-4.275	1.863	-2.29	934	19	0	7
Belgium	Overall	-4.082	1.943	-2.1	4999	225	0	22
	Upper Half	0.866	1.247	0.69	38	111	0	27
	Lower Half	-9.56	2.965	-3.22	44961	108	0	1
Bulgaria	Overall	-4.966	1.39	-3.57	61008	210	0	13
	Upper Half	-2.313	2.135	-1.08	35	48	0	13
	Lower Half	-5.752	1.566	-3.67	60973	162	0	0
Brazil	Overall	3.250	3.978	0.82	414	13	0	17
	Upper Half							
	Lower Half	3.250	3.978	0.82	412	13	0	1
China	Overall	-2.536	0.527	-4.81	445882	20229	0	0
	Upper Half	-2.037	1.000	-2.04	4175	11032	0	0
	Lower Half	-3.142	0.511	-6.15	441707	9196	0	1
Croatia	Overall	-7.213	0.905	-7.97	33934	282	0	71
	Upper Half	-6.201	1.894	-3.27	77	72	0	71
	Lower Half	-7.547	0.953	-7.92	33857	210	0	0
Czech Republic	Overall	-2.606	1.682	-1.55	36671	51	0	15
	Upper Half	2.382	0.976	2.44	12	3	0	15
	Lower Half	-2.917	1.783	-1.64	36659	48	0	0
Denmark	Overall	-4.475	2.476	-1.81	2381	133	0	76
	Upper Half	-2.141	2.278	-0.94	46	92	0	72
	Lower Half	-10.088	5.676	-1.78	2335	37	0	8
Finland	Overall	-0.728	1.182	-0.62	30390	438	0	46
	Upper Half	0.217	1.283	0.17	54	330	0	67
	Lower Half	-6.162	2.26	-2.73	30336	83	0	4
France	Overall	-9.381	1.533	-6.12	96700	1113	0	22
	Upper Half	-1.485	1.904	-0.78	164	649	0	57
	Lower Half	-22.397	2.169	-10.33	96536	428	0	1
Germany	Overall	-6.461	0.645	-10.02	43180	1343	0	22
	Upper Half	-1.456	0.882	-1.65	180	453	0	24
	Lower Half	-9.004	0.773	-11.65	43000	888	0	0
Greece	Overall	0.351	0.617	0.57	25914	597	0	2
	Upper Half	4.439	0.919	4.83	92	254	0	10
	Lower Half	2.886	0.666	-4.33	25822	335	0	0
Hungary	Overall	4.673	1.503	3.11	40598	55	0	14
	Upper Half	-0.016	4.429	-0.000	9	3	0	14
	Lower Half	4.967	1.593	3.12	40589	51	0	1

	Parts	ATT	SE	t-stat	Obs. Untreated (on support)	Obs. Treated (on support)	Obs. Untreated (off support)	Obs. Treated (off support)
Iceland	Overall	0.043	0.016	2.68	871	28	0	33
	Upper Half	0.040	0.020	1.97	15	22	0	29
	Lower Half	0.069	0.011	6.17	856	5	0	5
India	Overall	-1.153	7.007	-0.16	76	1413	0	229
	Upper Half	-1.246	7.207	-0.17	63	1406	0	229
	Lower Half	10.484	8.001	1.31	13	7	0	0
Ireland	Overall	-22.559	4.706	-4.79	1629	115	0	111
	Upper Half	-21.233	4.820	-4.41	12	87	0	113
	Lower Half	-28.519	8.891	-3.21	1617	24	0	2
Italy	Overall	-2.807	0.790	-3.55	439632	378	0	10
	Upper Half	0.093	0.886	0.1	37	115	0	12
	Lower Half	-4.119	0.970	-4.25	439595	261	0	0
Japan	Overall	-0.330	0.254	-1.3	169676	12579	0	9
	Upper Half	0.262	0.314	0.83	37	1539	0	11
	Lower Half	-1.975	0.260	-7.59	168137	3310	0	0
Korea	Overall	-4.481	0.839	-5.34	162122	2980	0	1
	Upper Half	-4.498	5.017	-0.9	315	532	0	1
	Lower Half	-4.438	0.412	-10.77	161807	2448	0	0
Latvia	Overall	-2.252	2.923	-0.77	14223	40	0	93
	Upper Half	5.769	2.597	2.22	3	2	0	93
	Lower Half	-2.963	3.007	-0.99	14220	36	0	2
Malaysia	Overall	2.968	3.717	0.8	243	31	0	27
	Upper Half	10.172	5.662	1.8	13	4	0	32
	Lower Half	2.663	4.863	0.55	230	20	0	2
Netherlands	Overall	-2.560	3.335	-0.77	1182	288	0	37
	Upper Half	-1.864	2.042	-0.91	36	207	0	60
	Lower Half	-5.535	4.917	-1.13	1146	58	0	0
Norway	Overall	-12.873	7.608	-1.69	5610	62	0	16
	Upper Half	-2.748	9.198	-0.3	10	46	0	15
	Lower Half	-35.871	15.465	-2.32	5600	14	0	3
Poland	Overall	-4.524	0.957	-4.73	22178	529	0	51
	Upper Half	-1.553	1.513	-1.03	82	177	0	50
	Lower Half	-5.984	1.019	-5.87	22096	350	0	3
Romania	Overall	-8.444	4.743	-1.78	149998	935	0	82
	Upper Half	24.611	44.403	0.55	8	29	0	104
	Lower Half	12.264	4.981	-2.46	149990	884	0	0
Spain	Overall	-2.838	0.803	-3.54	323691	443	0	7
	Upper Half	-3.163	1.543	-2.05	66	207	0	7
	Lower Half	-2.510	0.705	-3.56	323625	235	0	1
Sweden	Overall	-26.453	1.462	-18.09	37604	1570	0	31
	Upper Half	-14.255	1.889	-7.55	206	803	0	63
	Lower Half	-40.954	2.009	-20.39	37398	735	0	0
Taiwan	Overall	-1.173	1.027	-1.14	383	6130	0	18
	Upper Half	-1.177	1.038	-1.13	359	6120	0	18
	Lower Half	1.226	4.695	0.26	24	10	0	0
Ukraine	Overall	-5.948	0.767	-7.76	125547	1047	0	10
	Upper Half	-0.066	1.813	-0.04	125	76	0	10
	Lower Half	-6.408	0.817	-7.84	125422	971	0	0
UK	Overall	-16.808	1.205	-13.94	20797	2793	0	34
	Upper Half	-5.614	2.523	-2.22	337	1216	0	34
	Lower Half	-25.443	1.475	-17.25	20460	1569	0	8
US	Overall	-21.075	4.530	-4.65	34	1065	0	193
	Upper Half	-21.075	4.530	-4.65	34	1065	0	193
	Lower Half							
Vietnam	Overall	1.530	0.480	3.19	69446	1006	0	1
	Upper Half	2.483	0.996	2.49	225	344	0	2
	Lower Half	1.071	0.531	2.02	69221	661	0	0

# Appendix A3. Countrywise Fixed Effect Regressions

**Table A3:** 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.D/A is the lagged debt to asset ratio. 2-digit industry fixed effects are included but not reported in the results. The robust t-statistics are reported in the parenthesis corrected for clustering at the industry level: \*denotes significance at 10%; \*\* at 5%; and \*\*\* at 1%.

	Australia				Austria				Belgium				Brazil			
	ROA(EBIT)	ROK(EBIT)	ROA(P/L)	ROK	ROA(EBIT)	ROK(EBIT)	ROA(P/L)	ROK	ROA(EBIT)	ROK(EBIT)	ROA(P/L)	ROK	ROA(EBIT)	ROK(EBIT)	ROA(P/L)	ROK
Listing (dummy)	-11.600*** (-3.990)	-2.593 (-1.090)	-9.095*** (-5.130)	36.150 (0.220)	-9.298*** (-3.350)	-0.965* (-2.390)	-5.655*** (-3.480)	-96.090* (-2.340)	-2.833** (-3.010)	-0.570 (-0.970)	-4.939*** (-5.800)	-73.410 (-1.150)	6.725 (0.710)	-0.720 (-0.690)	2.566 (0.220)	-67.420 (-0.710)
L.Size	5.137*** (7.910)	2.432*** (4.580)	2.259*** (5.550)	82.780* (2.210)	1.992*** (4.080)	0.125 (1.760)	0.809** (2.820)	11.690 (1.610)	0.195*** (4.370)	0.054 (1.910)	0.333*** (8.250)	7.123* (2.330)	-2.236 (-1.550)	-0.203 (-1.290)	-1.260 (-0.700)	-17.720 (-1.230)
Age	0.095* (2.330)	0.004 (0.101)	0.101*** (4.040)	-0.464 (-0.200)	-0.012 (-1.140)	-0.001 (-0.550)	-0.020*** (-3.310)	-0.100 (-0.650)	-0.092*** (-23.190)	-0.017*** (-6.770)	-0.092*** (-25.470)	-1.655*** (-6.110)	0.005 (0.100)	-0.004 (-0.640)	0.0354 (0.570)	-0.270 (-0.540)
L.D/A (ratio)	1.757 (0.370)	-6.248 (-1.600)	0.496 (0.170)	-466.0 (-1.720)	-4.563* (-2.090)	-0.751* (-2.060)	-9.914*** (-7.740)	-88.660** (-2.740)	0.354 (1.490)	-0.738*** (-4.930)	-4.160*** (-19.390)	-135.300*** (-8.360)	-3.083 (-0.210)	-2.390 (-1.520)	-7.236 (-4.000)	-210.100 (-1.470)
Constant	-77.170*** (-9.110)	-22.170** (-3.210)	-44.130*** (-8.270)	-849.0 (-1.730)	-3.851 (-0.220)	0.193 (0.080)	12.130 (1.190)	41.930 (0.160)	7.315 (0.580)	6.684 (0.840)	8.898 (0.780)	686.100 (0.800)	39.910 (1.990)	4.879* (2.220)	30.010 (1.210)	432.300* (2.170)
Observations	1192	1187	1175	1170	1337	1337	1335	1335	51852	51267	51811	51231	69	69	69	69
Adjusted R-squared	0.190	0.011	0.270	-0.043	-0.037	0.012	0.062	0.013	0.024	0.001	0.032	0.003	0.331	-0.219	0.360	-0.138

	Bulgaria				China				Croatia				Czech Republic			
	ROA(EBIT)	ROK(EBIT)	ROA(P/L)	ROK	ROA(EBIT)	ROK(EBIT)	ROA(P/L)	ROK	ROA(EBIT)	ROK(EBIT)	ROA(P/L)	ROK	ROA(EBIT)	ROK(EBIT)	ROA(P/L)	ROK
Listing (dummy)	6.449** (3.00)	1.929** (2.650)	6.083*** (4.300)	187.700** (2.650)	3.450*** (4.460)	0.197 (1.270)	1.028*** (5.210)	8.017 (1.130)	-3.575** (-3.010)	0.333 (0.660)	-1.910* (-2.080)	25.850 (-1.130)	-5.828* (-2.130)	-0.130 (-0.110)	-5.253* (-2.570)	-15.820 (-0.160)
L.Size	-0.545*** (-8.950)	-0.034 (-1.390)	-0.557*** (-13.870)	-2.322 (-0.970)	-2.623*** (-24.050)	-0.187*** (-8.540)	-0.630*** (-18.990)	-7.796*** (-6.530)	0.412*** (7.100)	-0.109*** (-4.150)	-0.270*** (-5.980)	-11.360*** (-5.050)	0.534*** (9.990)	-0.111*** (-4.500)	0.461*** (11.470)	-8.513*** (-3.930)
Age	-0.315*** (-23.860)	-0.088*** (-18.920)	-0.317*** (-36.470)	-8.591*** (-18.930)	-0.368*** (-14.090)	-0.009 (-1.650)	-0.164*** (-19.650)	-0.595* (-1.990)	-0.150*** (-12.990)	-0.032*** (-6.420)	-0.145*** (-16.230)	-2.724*** (-6.410)	-0.264*** (-19.550)	-0.059*** (-9.910)	-0.335*** (-32.540)	-6.050*** (-11.540)
L.D/A (ratio)	-5.470*** (-15.680)	-2.072*** (-15.960)	-8.424*** (-36.610)	-228.500*** (-18.030)	-19.870*** (-38.460)	-0.485*** (-4.660)	-13.160*** (-73.930)	-28.120*** (-4.400)	-4.263*** (-11.508)	-1.126*** (-7.010)	-6.335*** (-22.160)	-114.300*** (-8.290)	4.523*** (56.610)	-1.086*** (-8.390)	-5.247*** (-23.590)	-117.200*** (-10.170)
Constant	25.190 (1.300)	88.980*** (13.690)	29.100* (2.290)	9244.200*** (14.580)	50.190* (1.960)	2.609 (2.510)	17.430** (2.870)	109.200 (0.500)	-0.595 (-0.030)	1.315 (0.160)	4.352 (0.300)	127.700 (0.190)	12.320 (0.600)	7.232 (0.850)	18.220 (1.190)	667.100 (0.890)
Observations	75667	61636	75450	61533	279384	278865	150955	150788	41054	38481	40931	38399	60701	56097	60497	55976
Adjusted R-squared	0.027	0.022	0.069	0.024	0.016	0.000	0.072	0.000	0.022	0.007	0.043	0.010	0.069	0.006	0.042	0.008

	Denmark				Finland				France				Greece			
	ROA(EBIT)	ROK(EBIT)	ROA(P/L)	ROK	ROA(EBIT)	ROK(EBIT)	ROA(P/L)	ROK	ROA(EBIT)	ROK(EBIT)	ROA(P/L)	ROK	ROA(EBIT)	ROK(EBIT)	ROA(P/L)	ROK
Listing (dummy)	-5.414** (-2.800)	-4.169*** (-3.430)	-6.348*** (-3.340)	-462.400*** (-3.440)	-3.583** (-2.660)	-0.187 (-0.520)	-2.106* (-2.270)	-26.210 (-0.720)	-8.743*** (-8.950)	-6.951*** (-4.41)	-8.359*** (-17.04)	-189.3*** (-10.32)	-1.528** (-2.89)	0.477* (2.12)	-2.089*** (-4.80)	49.90* (2.20)
L.Size	0.724** (2.840)	-0.005 (-0.030)	0.720** (2.870)	4.968 (0.270)	0.719*** (7.490)	-0.004 (-0.160)	0.417*** (6.290)	2.072 (0.770)	0.269** (3.210)	0.958*** (7.03)	0.155*** (3.70)	2.101 (1.33)	-0.0637 (-1.01)	-0.339*** (-12.60)	-0.268*** (-5.17)	-30.49*** (-11.23)
Age	-0.007 (-0.330)	-0.029* (-2.270)	-0.006 (-0.310)	-3.791** (-2.700)	-0.094*** (-8.760)	-0.018*** (-6.200)	-0.087*** (-11.830)	-1.962*** (-6.780)	-0.077*** (-10.520)	-0.0228 (-1.93)	-0.0710*** (-19.44)	-0.731*** (-5.35)	-0.0105* (-2.26)	-0.00375 (-1.90)	-0.0139*** (-3.63)	-0.380 (-1.90)
L.D/A (ratio)	6.792** (3.170)	-0.034 (-0.020)	1.177 (0.560)	-55.800 (-0.360)	-1.530** (-2.600)	-1.252*** (-7.910)	-5.704*** (-14.060)	-158.900*** (-9.880)	-1.425** (-2.860)	3.118*** (3.87)	-5.071*** (-20.44)	-98.15*** (-10.53)	3.075*** (10.07)	0.915*** (7.05)	-1.129*** (-4.49)	40.97** (3.12)
Constant	1.465 (0.190)	5.560 (1.170)	3.261 (0.440)	607.000 (1.160)	74.690** (3.150)	12.720* (2.030)	77.940*** (4.780)	1270.80* (2.000)	6.477 (0.43)	-5.352 (-0.22)	9.971 (1.34)	162.3 (0.59)	3.508*** (5.15)	2.800*** (9.64)	6.091*** (10.86)	271.2*** (9.25)
Observations	1536	1476	1534	1474	22748	22110	22691	22077	62809	62318	62759	62271	22722	22655	22713	22650
Adjusted R-squared	0.122	0.036	0.097	0.033	0.010	0.013	0.025	0.014	0.009	-0.001	0.035	0.013	0.038	0.021	0.051	0.015



	Taiwan				Ukraine				UK			
	ROA(EBIT)	ROK(EBIT)	ROA(P/L)	ROK	ROA(EBIT)	ROK(EBIT)	ROA(P/L)	ROK	ROA(EBIT)	ROK(EBIT)	ROA(P/L)	ROK
Listing (dummy)	0.413 (0.620)	0.092 (1.050)	0.111 (0.160)	8.388 (1.200)	-1.776 (-0.670)	-0.73 (-1.700)	-2.430** (-3.240)	-60.27 (-1.770)	-17.180*** (-29.470)	-7.131*** (-7.430)	-11.480*** (-31.110)	-390.700*** (-4.310)
L.Size	1.409*** (13.320)	0.056*** (4.050)	1.433*** (12.590)	5.104*** (4.570)	-0.395*** (-3.400)	0.0893*** (4.290)	-0.264*** (-7.990)	5.462** (3.280)	1.231*** (10.870)	0.615** (3.200)	0.697*** (9.710)	12.52 (0.690)
Age	0.02 (1.500)	-0.002 (-1.020)	0.035* (2.510)	-0.108 (-0.790)	-0.0499* (-2.250)	-0.030*** (-8.260)	-0.061*** (-9.760)	-2.710*** (-9.450)	0.043*** (6.810)	0.003 (0.250)	0.020*** (4.950)	-0.952 (-0.990)
L.D/A (ratio)	-7.693*** (-9.560)	-0.367*** (-3.480)	-10.410*** (-12.030)	-40.580*** (-4.790)	8.254*** (10.790)	1.270*** (9.640)	4.292*** (19.830)	95.640*** (9.110)	9.990*** (13.680)	3.484** (2.900)	2.040*** (4.480)	107.5 (0.960)
Constant	-7.574** (-3.260)	-0.379 (-1.240)	-7.795** (-3.120)	-33.42 (-1.360)	-29.74 (-1.620)	0.768 (0.250)	2.082 (0.390)	152.7 (0.610)	15.330*** (-3.500)	-1.639 (-0.230)	-4.845 (-1.720)	169.8 (0.250)
Observations	5298	5298	5295	5295	110105	96494	108365	95396	18602	18439	18461	18319
Adjusted R-squared	0.076	-0.01	0.071	0.001	0.004	0.007	0.037	0.007	0.090	0.008	0.084	0.005

	US				Vietnam			
	ROA(EBIT)	ROK(EBIT)	ROA(P/L)	ROK	ROA(EBIT)	ROK(EBIT)	ROA(P/L)	ROK
Listing (dummy)	-61.280 (-0.170)	-30.740 (-0.840)	-13.600*** (-3.560)	-1509.800 (-0.450)	-0.009 (-0.001)	-0.299 (-0.840)	1.462** (3.280)	-16.130 (-0.460)
L.Size	53.09*** (4.850)	5.247*** (4.660)	3.676*** (30.150)	310.500** (2.890)	1.657*** (4.300)	0.097** (2.760)	0.908*** (23.340)	8.208* (2.370)
Age	-0.846 (-1.080)	0.014 (0.170)	0.0538*** (6.390)	1.659 (0.220)	0.059 (0.580)	-0.006 (-0.700)	0.090*** (8.770)	-0.226 (-0.270)
L.D/A (ratio)	-80.750 (-0.780)	-1.433 (-0.140)	-8.164*** (-7.240)	-40.260 (-0.040)	-1.173 (-0.630)	0.225 (1.320)	-0.656*** (-3.490)	4.161 (0.250)
Constant	-539.100 (-0.750)	-40.030 (-0.490)	-51.650*** (-5.560)	-3175.400 (-0.390)	-11.460 (-0.720)	-0.696 (-0.510)	-7.388*** (-4.580)	-55.250 (-0.420)
Observations	7607	7599	7449	7448	28038	21481	27960	21452
Adjusted R-squared	0.080	-0.013	0.234	-0.018	-0.003	-0.003	0.079	-0.004