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LISTING ADVANTAGES AROUND THE WORLD

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### **ABSTRACT**

Using the firm-level data of 33 countries over 10 years (from 2008-2017), we find that the listed firms, on average, have lower marginal products of capital (measured by return on assets) than the unlisted firms in many countries. This implies that the listed firms face less financial constraints. Moreover, we investigate the institutional factors that exacerbate or mitigate the listing advantages across the countries. The listing advantages seem enlarged with better corporate governance and narrowed with stronger creditor's rights.

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# 1 Introduction

Using the firm-level data of 33 countries of 10 years (from 2008–2017) for both listed and unlisted firms, we find that the listed firms, on average, have lower marginal products of capital than the unlisted firms in many countries. We call it *listing advantages*.

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. In other words, the marginal product of capital of the listed firms are lower than those of the unlisted firms that have similar characteristics.

This finding supports a simple theory, which says that the 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. And, firms maintain lower leverage, which 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 better corporate governance tends to improve the listing advantages, while stronger creditor’s rights, and perhaps easiness of starting up business, seem to narrow them.

Although cross-country studies are rare, several country-specific studies, so far, identify

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

the advantages of listing. Ueda et al. (2019), using Japanese firm-level data over the period 1995–2014, find that listing can mitigate the financial constraints of firms. Compared to a similar unlisted firm, a listed firm has a lower marginal product of capital, especially in recessions. Schoubben and Van Hulle (2011), using the Belgian firm-level data (from 1992 to 2005) with consolidated financial statements, find that listing provides more flexibility in financing and reduces the financial constraints. Gilje and Taillard (2016), based on panel regressions, show that listed natural gas firms in the 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 the listed firms have higher investment sensitivity on growth opportunities (proxied by sales growth) and such tendencies are higher for countries with more developed stock markets.

Other authors find that listing results in tightening of financial constraints. Stein (1989), argue that it may be possible theoretically as a result of the worsening of agency problems under sparse ownership. For the U.S. firms, Asker et al. (2014), show that U.S.-listed firms are more short-termist in nature, that is, they are less sensitive to growth opportunities (proxied by sales growth). Sheen (2016), also shows that the U.S. 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 the listed and the unlisted firms are more pronounced in countries with stronger creditor's rights. For Japanese firms, Orihara (2014) presents univariate pictures

that show the listed firms have lower investments on average but with lower fluctuations in investment over business cycles. Orihara and Isobe (2014), report that the listed firms have lower leverage, though with minimal control variables in their regressions.

Based on listed firms' data, many authors have explained the cross-country differences in financial frictions based on 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 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, compared to intensive margins found so far in previous studies based on listed-firm panel data 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 information on firms' ownership structures for over 300 million companies across

the world. In terms of downloading and cleaning the data from ORBIS, we follow Kalemli-Ozcan et al. (2015) as much as possible to prepare nationally representative data with minimal missing information. For our purpose, we use the data from 33 countries for manufacturing firms from 2008–2017. We restrict our attention to the firms with at least 2 years of consecutively available data points. In other words, this data set is an unbalanced panel. We also eliminate the pure subsidiaries, i.e., if a firm’s immediate shareholder owns more than 50 percent of the shares.

Following the literature (Hayashi, 1982), we take it as granted that the marginal product of capital (MPK) is proxied by the average product of capital, assuming typical production functions exhibiting constant returns to scale in factor inputs. We use the return on assets (*ROA*, %) as a benchmark proxy for the average and marginal products of capital because a firm should utilize all the assets efficiently. We estimate the *ROA* by earnings before interest and tax payments (*EBIT*) divided by *Total Assets*(*TA*), i.e.  $ROA = EBIT/TA$ .<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 yield very low returns in general. 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* a measure of the *Size* of a firm and the total number of years from the year of incorporation as the *Age* of the firm. For *Leverage*, we use the debt-to-asset ratio (*D/A Ratio*).

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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.

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*). We present the number of firm-year observations by country in Table 1a.

## 2.2 Country-level Data

At the country-level, for each year, we take several institutional indicators for 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 for the cross-country analysis in two parts in Table 1c (part a and b). Notably, Table 1c shows that the average difference of marginal products of capital between the listed and the unlisted firms is negatively associated with the majority of the institutional indicators. We report the country-wise summary statistics and correlation tables of these variables in Appendix A1.

### 2.2.1 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:** Self-dealing index provided by Djankov et al. (2008). It is a measure of legal protection of minority shareholders against expropriation by corporate insiders (for example, 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 e.g. 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

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 is a measure of whether 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 well we can characterize corporate board by investors and boards of directors. 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.

### 2.2.2 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 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 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 weigh borrower side 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 World Bank’s Doing Business Reports.
- **Time to Resolve Insolvency (years):** It is the number of years from the filing for insolvency in court until the resolution of distressed assets. We take this indicator from World Bank’s Doing Business Reports. This one and the one above measures overall efficiency of bankruptcy procedures.

### 2.2.3 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 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.

#### 2.2.4 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. Credit here refers to the domestic credit to private sector which includes financial resources provided to the private sector by financial corporations through loans, purchases of non-equity securities, and trade credits and other accounts receivable, which establish a claim for repayment.
- **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.

- **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.
- **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 is foreign ownership of companies in their respective countries.

### 2.2.5 Product Market Competition

We take three different indicators of product market competition. They are, New Business Registered (new registrations per 1,000 people ages 15-64), Cost of starting a Business(% of income per capita), and Trade Barriers.

- **New Business Registered:** We take new business registrations in the calendar year per 1000 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.

### 2.2.6 Macro 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 million). 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 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 *Size* (total asset), *Age*, *Industry* (2-digit level) and *Leverage* (*D/A Ratio*). Second, we match the listed and the unlisted firms, one to one, if they share the (almost) same probability of being listed.<sup>3</sup> We confirm that covariates are well balanced in matched samples (report omitted). Third, we compare the difference in the variables of interest i.e *ROA* between two matched samples to determine the effects of listing.

The marginal product of capital, is proxied by the return on asset (*ROA*). The key variable is the binary variable, *Listing*, taking value one if listed and zero otherwise. For the matching conditions, we use *Size* and *Age*. We also include lagged *Leverage* to control

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<sup>3</sup>We use STATA 14 command `psmatch2` with caliper 0.1.

for possible default risks, debt overhang, and ROE targeting behaviors.

In Table 2, we present the average treatment effect on treated (ATT) which is the average difference of in the *ROA* as a result of being listed, for each year and each country. In Figure 1, we report the year-average ATT for each country based on at least 10% level of significance.

We find that, on average, the difference of the *ROA* as a result of *Listing* is mostly negative for almost all the countries. In other words, on an average, the listed firms tend to have a lower *ROA* compared to the unlisted firms. This difference is more pronounced in the case of Australia, Ireland, Romania, Sweden, the U.S. and the U.K.. For some countries like Brazil, Finland, Hungary, Greece, India, Malaysia, Norway and Taiwan, this difference is not found to be statistically significant. There are few exceptions (namely, Vietnam and Iceland), where this difference turns out to be positive.<sup>4</sup>

### 3.2 Robustness Checks for Within-Country Estimation

We notice a caveat for our propensity score matching estimates. On the one hand, *Age* and *Industry* can be regarded as pre-determined or almost exogenous to the firm's decision on *Listing*. On the other hand, *Size* (total asset) may be endogenous to *Listing*. However, it is a slow-moving variable which is less likely to affect the *Listing* decision in each year. We restrict our sample to firms that are more than 5 years of age to eliminate young firms, which are more likely to face the listing decision. We do not find any difference in our results.

Still, we care about 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 50 percent score, they should be listed according to the statistical model. The differ-

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<sup>4</sup>Similar results are obtained when we pool all years observations for each country.

ence 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 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 the economic reasons, at least not on the current economic factors. And, assignment of such non-economic reasons across firms are assumed to be random, at least on the basis of observed characteristics (*Age, Size, Industry, and Leverage*). For example, some owner-managers of the unlisted firms may enjoy non-economic benefits and adamantly refuse to be listed. The assignment of these non-economic benefits to owner-managers of firms can be considered as random. 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 50 percent propensity score. We find that correlation coefficient between the overall ATT and the ATT estimated based on more than 50 percent propensity score is around 0.861. These estimates are reported in Appendix Tables A2.1–2.3. Among the firms with higher than 50 percent propensity score, the listing effects are broadly consistent with our benchmark results. This is also in line with Ueda et al. (2019) on Japanese data. Therefore, theoretically, although the random assignment assumption of listing status might not be perfectly solid, we can regard the benchmark results based on all firms as if it is having a random assignment.

Depending on the macroeconomic conditions, listing advantages may change. Indeed, Ueda et al. (2019) report that the listing advantage is more pronounced in recessions. To purge the recession-boom effects, it would be better to look at the annual estimates. Also, we surmise that the institutional changes over time may matter. Below, we use cross-country panel regressions to allow for these time-varying possibilities.

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

As another robustness check, we also run the 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>5</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:

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

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

In Figure 2, we present the estimates (statistically significant) of  $\beta^M$  (the marginal effect of *Listing* on the *MPK*).<sup>6</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 positively correlated, with correlation coefficient 0.614 (Table A2.4, Appendix A2).

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<sup>5</sup>See Appendix 1 where country-wise correlation tables are reported.

<sup>6</sup>Appendix A3 reports the country-wise results for manufacturing firms. The robust standard errors are reported with clustering at the 2-digit industry level. The coefficients on the listing are significantly negative for almost all the countries when we control for *Size*, *Age* and *Leverage*.

## 4 Cross-country Panel Regressions to Investigate the Underlying Factors

### 4.1 Benchmark Cross-country Regression

To investigate the factors affecting listing advantages, we regress the annual ATT estimates on corporate governance, creditor’s rights, institutional quality, product market competition, financial market development, macroeconomic volatility, inflation and interest rates.

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

where  $k$  denotes country and  $t$  year, and  $\alpha_k$  represents the country fixed effect. We report robust standard errors with clustering at the country-level. Note that, for the cross-country study, we did not use ATT for countries in which more than 90 percent of the sample firms are listed, namely, India, Taiwan, and the U.S..

We present the benchmark regression results in the column 1 of Tables 3.a to 3.f for easy comparison with the other formulations. For the benchmark regression (2), we use the following variables: 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>7</sup>

We find that the countries with better self-dealing index have larger difference in *ROA*

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<sup>7</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.

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. The number of new business registered, which measures easiness to start up business, also narrows the listing advantages. This implies easier the of starting up of business, narrower would be the listing advantages. Other variables, that is, general institutional quality, financial market development and macroeconomic volatility are found to be statistically insignificant.

## 4.2 Robustness Checks: Cross-country Regression

To verify that our results are not driven by the specific firm and country measures as well as by the 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 estimates using the propensity score match based on all firms in each country. However, as we discussed above, listed firms with the probability of listing less than 50 percent are likely financially distressed, and low *ROA* 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 Self-dealing Index. Results are shown in Table 3a, columns 2–6. Overall, estimates does not seem robust—some are positive others are negative and the rest are statistically insignifi-

cant. However, among these indicators, (anti-)self dealing index and corporate governance quality index measure more directly the restrictions on owner-manager behaviors. For these direct measures, corporate governance do matter.

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 3b. Recall that the Strength of Legal Rights reflect not only creditor's rights but also borrower's rights, while Strength of Insolvency Framework and Time to Resolve Bankruptcy capture the overall efficiency of the bankruptcy procedure. The result shows that more borrower's rights seems to enlarge the listing advantages. The overall efficiency of bankruptcy procedure seem to narrow the listing advantages. These results are consistent with the benchmark results, that is, the Creditor's Rights have narrowing effect on the listing advantage.

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 3.e).

Other variables are statistically insignificant. For institutional quality, we use the Rule of Law instead of Property Rights and find essentially the same insignificant result (Table 3c, column 10). For the financial market development, we use three different indicators—the Sum of Stock Market Capitalization, Private Bond Market Capitalization and Bank Credit over GDP; The Stock Market Capitalization (over GDP); and Prevalence of Foreign Ownership. Results are given in Table 3d. For the macroeconomic conditions, macro volatilities, the level of the real interest rate and inflation does not seem to matter (Table 3f).

## 5 Conclusion

Based on propensity score matching estimations for annual data for each country, we find that listed firms enjoy greater access to finance, which lowers marginal products of capital on average in 23 countries out of 33 sample countries. Other countries show little listing advantages, except that listed firms in Vietnam (and perhaps, Iceland) seem to have less access to finance. The effect is essentially the same for those less endogenous samples, that is, the set of firms with 50 percent or more propensity of being listed. The fixed-effect regressions broadly replicate these findings too. We surmise that, in the majority of countries, the private firm owners adamantly resisting listing would have some benefits to do so, but at the same time, we confirm that they face tighter financial constraints.

We gauge the listing advantages as the average treatment effect on treated (ATT) on *ROA* for each sample country. We then investigate factors behind the listing advantages based on cross-country panel regressions. Better corporate governance, especially those which directly restrict the owner-manager behaviors, increase the listing advantages. Stronger creditor's rights (and weaker borrower's rights) lower the listing advantages. Easiness of starting up new business has a similar effect. However, other factors like macroeconomic instability and general institutional quality have no significant effects on the listing advantages.

These effects on the extensive margin is partially in line with the intensive margin of credit allocation efficiency among listed firms reported by Claessens et al. (2014), which shows that the primary factors affecting financial frictions for listed firms is country-specific corporate governance as well as the positive impact of product market competition. However, Claessens et al. (2014) find no effect of creditor's rights.

In essence, the listing advantages are the extensive margin of the financial constraints. They are the costs for a firm remaining private. Our results show that such a wedge exists

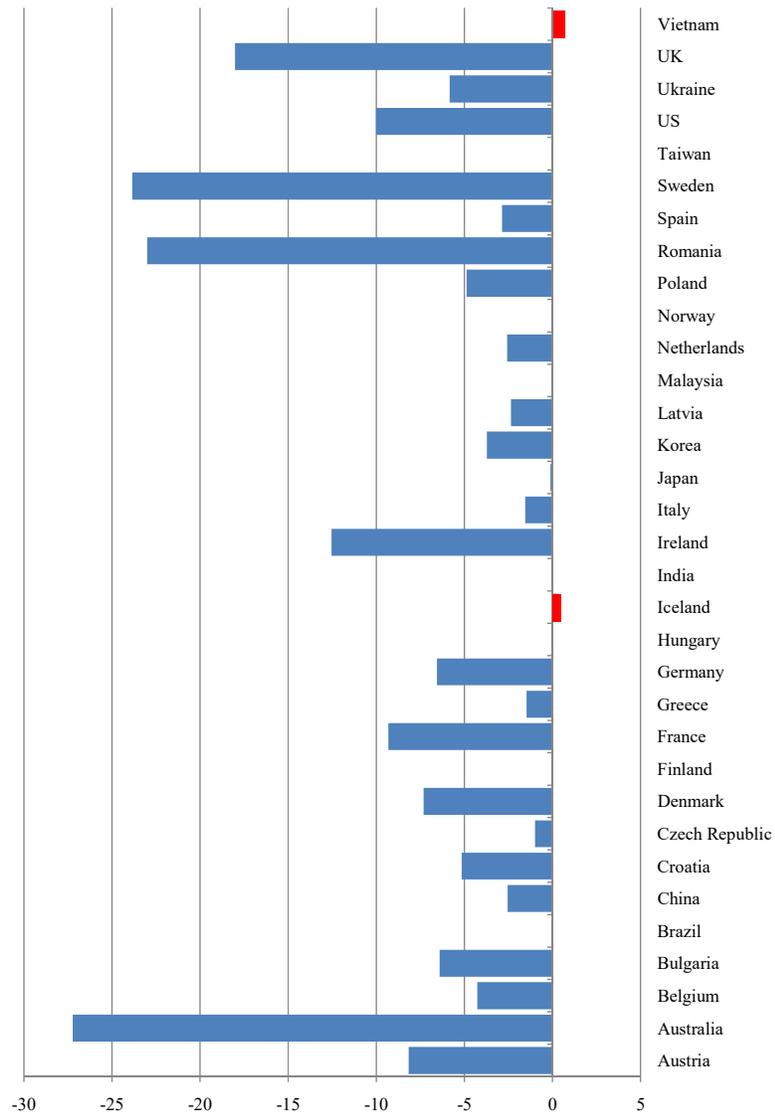
almost everywhere in the world. Moreover, the wedge between the listed and the unlisted seems more extensive in a country with better corporate governance, whereas they are narrower in a country with stronger creditor's rights.

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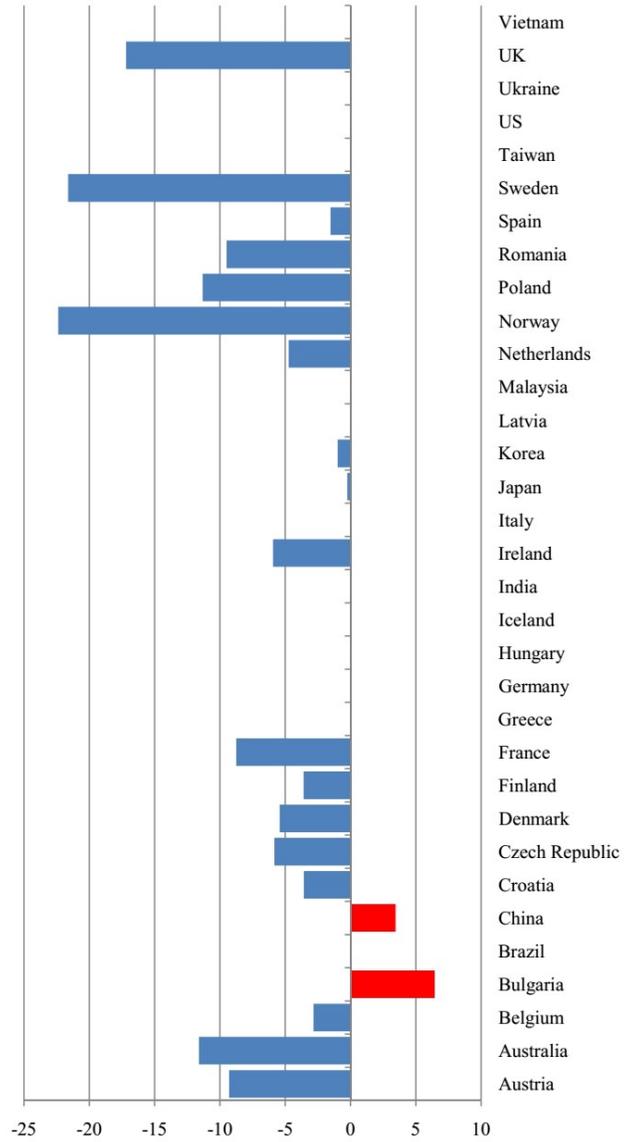
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# Figures and Tables

Figure 1: Average of Annual Average Treatment Effect on Treated



**Figure 2: Effect of Listing on ROA based on Fixed Effect Panel Regressions**



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

Countries	Number of Observations
Austria	1337
Australia	1192
Belgium	51852
Bulgaria	75667
Brazil	69
China	279384
Croatia	41054
Czech Republic	60701
Denmark	1536
Finland	22748
France	62809
Greece	22722
Germany	34162
Hungary	93164
Iceland	1672
India	1428
Ireland	1786
Italy	425534
Japan	132846
Korea	109704
Latvia	15685
Malaysia	357
Netherlands	1484
Norway	2980
Poland	14116
Romania	123180
Spain	317753
Sweden	35217
Taiwan	5298
US	7607
Ukraine	110105
UK	18602
Vietnam	28038

Table 1b: Country Level Variables Descriptions

	Variable	Sources	Obs	Mean	Std. Dev.	Min	Max
<b>Treatment Effect</b>	Average Treatment Effect on Treated (Effect on ROA due to Listing)	Authors' estimations based on Propensity Score Matching	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	6.5
	Strength of Insolvency Framework (0-7(Strong))	World Bank	330	64.707	28.667	9.48	99.92
<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	2.1
	Trust in People	World Value Survey	240	33.985	17.714	8.15	73.7
<b>Financial Development</b>	Credit to GDP Ratio (Credit to Pvt. Sector)	World Bank	318	101.157	43.56	26.51	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	40.79	3.206	181.885
	Prevalence of Foreign Ownership(1-7(Best))	World Economic Forum	320	4.95	0.73	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
	Trade Barriers (1-7(Best))	World Economic Forum	320	4.695	0.579	3.336	6.168
	Cost of starting a Business(% of income per capita)	World Bank	315	5.263	5.831	0	41.5
<b>Macro Volatility</b>	Std. Deviation of Inflation from Last 5 Years Average Inflation	Own Estimation Using World Bank data	330	1.81	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	11.54
	Coefficient of variation of exchange rate	Own Estimation Using World Bank data	326	4.981	5.452	0.654	41.91
<b>Inflation Rate</b>	Inflation (CPI Inflation)	World Bank	330	2.83	4.264	-1.676	48.684
<b>Interest Rate*</b>	Interest Rate	Datastream, CEIC	319	5.721	8.004	-0.695	52.1

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

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

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	
Average Treatment Effect on Treated (Effect on ROA due to Listing)	[1]	1												
Self Dealing Index	[2]	-0.053	1											
Corporate Governance Quality Index	[3]	-0.132	0.427	1										
Anti-director Rights Index	[4]	0.101	0.200	0.476	1									
Protection of minority shareholders (1-7(best))	[5]	-0.327	0.208	0.140	-0.128	1								
Corporate Board Efficacy (1-7(Best))	[6]	-0.405	0.118	0.038	-0.205	0.875	1							
Extent of Director's Liability (1-10(Best))	[7]	0.268	0.262	0.189	0.552	-0.042	-0.147	1						
Strength of Legal Rights(1-12(Strong))	[8]	-0.316	0.608	0.135	-0.135	0.509	0.546	-0.224	1					
Creditor's Rights	[9]	-0.070	0.577	0.412	0.101	0.007	-0.050	0.266	0.428	1				
Time Resolve Insolvency (Years)	[10]	0.244	-0.225	-0.182	0.436	-0.459	-0.547	0.055	-0.378	-0.330	1			
Strength of Insolvency Framework (0-7(Strong))	[11]	-0.354	-0.024	0.248	-0.427	0.509	0.528	-0.263	0.373	0.296	-0.859	1		
Property Rights (1-7(Best))	[12]	-0.350	0.103	0.263	-0.289	0.856	0.875	-0.208	0.475	0.052	-0.709	0.739	1	
Rule of Law (-2.5 to 2.5)	[13]	-0.473	-0.097	0.203	-0.400	0.702	0.786	-0.396	0.455	0.011	-0.724	0.859	0.909	1
Trust in People	[14]	-0.533	-0.181	-0.022	-0.429	0.644	0.597	-0.532	0.402	-0.001	-0.410	0.720	0.652	0.782
Credit to GDP Ratio (Credit to Pvt. Sector)	[15]	-0.433	0.348	0.285	-0.095	0.413	0.464	0.059	0.387	0.273	-0.713	0.645	0.535	0.573
Sum of stock market capitalization, private bond market capitalization and bank credit to pvt. Sector (% of GDP)	[16]	-0.135	-0.153	0.453	-0.064	0.031	0.232	-0.059	-0.197	-0.066	-0.459	0.365	0.398	0.447
Market Capitalization (% of GDP)	[17]	-0.172	0.539	0.223	-0.040	0.591	0.542	0.126	0.543	0.118	-0.305	0.201	0.525	0.372
Prevalence of Foreign Ownership(1-7(Best))	[18]	-0.405	0.343	0.384	-0.013	0.657	0.773	-0.071	0.621	0.182	-0.567	0.507	0.766	0.728
New Business Registered (new registrations per 1,000 people ages 15-64)	[19]	-0.584	0.418	0.440	0.037	0.375	0.452	-0.327	0.648	0.387	-0.456	0.540	0.470	0.576
Trade Barriers (1-7(Best))	[20]	-0.140	0.360	0.112	-0.336	0.655	0.543	-0.108	0.478	0.163	-0.563	0.514	0.622	0.501
Cost of starting a Business(% of income per capita)	[21]	0.368	0.071	-0.191	-0.041	-0.473	-0.620	-0.069	-0.247	0.164	0.516	-0.499	-0.597	-0.677
Std. Deviation of Inflation from Last 5 Years Average Inflation	[22]	0.432	-0.081	-0.039	0.188	-0.468	-0.591	0.138	-0.293	-0.077	0.555	-0.419	-0.610	-0.575
Std. Deviation of GDP growth from Last 5 Year Average GDP Growth	[23]	0.221	-0.317	-0.041	0.189	-0.070	-0.243	0.161	-0.296	-0.171	0.177	-0.052	-0.103	-0.119
Coefficient of variation of exchange rate	[24]	-0.055	0.028	-0.148	0.522	-0.038	-0.094	0.117	0.000	-0.040	0.538	-0.448	-0.289	-0.367
Inflation (CPI Inflation)	[25]	0.174	0.074	-0.038	0.642	-0.114	-0.274	0.206	-0.133	0.010	0.711	-0.645	-0.413	-0.569
Interest Rate	[26]	0.186	-0.120	-0.111	0.755	-0.324	-0.350	0.342	-0.322	-0.148	0.660	-0.660	-0.532	-0.606

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

	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	
Trust in People	[14]	1												
Credit to GDP Ratio (Credit to Pvt. Sector)	[15]	0.358	1											
Sum of stock market capitalization, private bond market capitalization and bank credit to pvt. Sector (% of GDP)	[16]	-0.013	0.267	1										
Market Capitalization (% of GDP)	[17]	0.190	0.576	0.017	1									
Prevalence of Foreign Ownership(1-7(Best))	[18]	0.337	0.658	0.431	0.653	1								
New Business Registered (new registrations per 1,000 people ages 15-64)	[19]	0.558	0.644	0.194	0.398	0.614	1							
Trade Barriers (1-7(Best))	[20]	0.472	0.395	0.118	0.572	0.439	0.410	1						
Cost of starting a Business(% of income per capita)	[21]	-0.385	-0.533	-0.488	-0.337	-0.642	-0.482	-0.287	1					
Std. Deviation of Inflation from Last 5 Years Average Inflation	[22]	-0.326	-0.507	-0.348	-0.377	-0.541	-0.446	-0.368	0.409	1				
Std. Deviation of GDP growth from Last 5 Year Average GDP Growth	[23]	-0.044	-0.169	-0.069	-0.090	-0.226	-0.271	-0.042	0.022	0.049	1			
Coefficient of variation of exchange rate	[24]	-0.059	-0.168	-0.578	-0.159	-0.177	-0.025	-0.437	0.205	0.192	0.033	1		
Inflation (CPI Inflation)	[25]	-0.292	-0.436	-0.527	-0.211	-0.286	-0.223	-0.397	0.450	0.305	0.143	0.806	1	
Interest Rate	[26]	-0.405	-0.446	-0.374	-0.365	-0.421	-0.236	-0.530	0.167	0.269	0.226	0.736	0.794	1

**Table 2: Year-wise ATT**

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
US	-16.615	0.000	-17.709	-9.785	-5.957					
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
Vietnam	1.713	0.985	0	0	0	0	1.907	0	1.526	

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

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

**Table 3a: Results-Changing the Corporate Governance Indicators**

	[1]	[2]	[3]	[4]	[5]	[6]
Self Dealing Index	-76.470*** (-11.540)					
Corporate Governance Quality Index		-4.603*** (-11.540)				
Anti-director Rights Index			0.107 (0.180)			
Protection of minority shareholders interests				1.939 (1.480)		
Corporate Board Efficacy					2.361** (2.180)	
Extent of Director's Liability						0.0001 (0.00)
Creditor's Rights	23.450*** (13.710)	53.740*** (14.760)	9.334** (3.020)	-30.950*** (-6.280)	-27.930*** (-6.550)	-28.220*** (-6.790)
Property Rights	0.267 (0.410)	0.267 (0.410)	-0.278 (-0.250)	-0.481 (-0.560)	-0.472 (-0.630)	0.268 (0.400)
Credit to GDP Ratio	0.022 (0.800)	0.022 (0.800)	0.033 (1.130)	0.017 (0.680)	0.034 (1.270)	0.022 (0.800)
New Business Registered	0.333* (1.890)	0.333* (1.890)	0.586** (2.230)	0.341* (1.850)	0.251 (1.480)	0.333* (1.880)
Std Deviation Inflation	-0.017 (-0.130)	-0.017 (-0.130)	-1.727 (-1.570)	-0.006 (-0.040)	0.103 (0.850)	-0.017 (-0.130)
Inflation (CPI Inflation)	0.011 (0.290)	0.011 (0.290)	0.065 (0.340)	0.012 (0.300)	0.001 (0.040)	0.011 (0.290)
Interest Rate	-0.063 (-0.340)	-0.063 (-0.340)	0.137 (0.700)	-0.138 (-0.760)	-0.030 (-0.150)	-0.063 (-0.340)
Constant	-48.070*** (-11.620)	116.900*** (8.170)	-65.470*** (-5.650)	52.560*** (5.560)	38.130*** (3.520)	49.050*** (5.540)
Observations	195	195	127	195	195	195
Adjusted R-squared	0.921	0.921	0.935	0.922	0.926	0.921

t statistics in parentheses

\*denotes significance at 10%, \*\* at 5% and \*\*\* at 1%

**Table 3b: Results-Changing the Creditor's Rights Indicator**

	[1]	[7]	[8]	[9]
Self Dealing Index	-76.470*** (-11.540)	-41.040*** (-6.820)	-45.930** (-2.550)	-42.570*** (-6.590)
Creditor's Rights	23.450*** (13.710)			
Strength of Legal Rights		0.204* (1.870)		
Strength of Insolvency Framework			-1.635** (-2.120)	
Time Resolve Insolvency				0.015 (0.580)
Property Rights	0.267 (0.410)	0.297 (0.470)	1.042 (0.590)	0.285 (0.450)
Credit to GDP Ratio	0.022 (0.800)	0.022 (0.980)	0.014 (0.250)	0.021 (0.970)
New Business Registered	0.258* (1.89)	-0.557* (1.680)	0.333 (-0.760)	0.275 (1.530)
Std. Deviation Inflation	-0.017 (-0.130)	-0.019 (-0.140)	0.139 (0.850)	-0.007 (-0.050)
Inflation	0.011 (0.290)	0.018 (0.480)	0.141** (2.370)	0.013 (0.360)
Interest Rate	-0.063 (-0.340)	-0.113 (-0.690)	-1.815** (-2.320)	-0.097 (-0.570)
Constant	-48.070*** (-11.620)	-3.798 (-1.580)	37.970** (2.080)	-3.517 (-1.450)
Observations	195	202	86	202
Adjusted R-squared	0.921	0.922	0.917	0.922

t statistics in parentheses

\* p&lt;0.05, \*\*p&lt;0.01, \*\*\*p&lt;0.001

Table 3c: Results-Changing the Institutional Quality Indicators

	[1]	[10]	[11]
Self Dealing Index	-76.470*** (-11.540)	-79.640*** (-4.660)	-86.330*** (-6.410)
Creditor's Rights	23.450*** (13.710)	24.310*** (6.760)	27.960*** (4.350)
Property Rights	0.267 (0.410)		
Rule of Law		0.956 (0.280)	
Trust in People			0.085 (0.560)
Credit to GDP Ratio	0.022 (0.800)	0.021 (0.680)	0.005 (0.430)
New Business Registered	0.333* (1.89)	0.326* (1.660)	0.463** (2.930)
Std. Deviation Inflation	-0.017 (-0.130)	-0.022 (-0.160)	0.056 (0.550)
Inflation	0.011 (0.290)	0.013 (0.400)	0.015 (0.660)
Interest Rate	-0.063 (-0.340)	-0.043 (-0.270)	-0.120 (-0.730)
Constant	-48.070*** (-11.620)	-48.280*** (-15.170)	-56.160** (-3.370)
Observations	195	195	144
Adjusted R-squared	0.921	0.921	0.969

t statistics in parentheses

\*denotes significance at 10%, \*\* at 5% and \*\*\* at 1%

**Table 3d: Results-Changing the Financial Development Indicators**

	[1]	[12]	[13]	[14]
Self Dealing Index	-76.470*** (-11.54)	-75.680*** (-14.280)	-70.850*** (-9.810)	-72.130*** (-11.120)
Creditor's Rights	23.450*** (13.710)	26.100*** (12.090)	23.870*** (11.880)	23.500*** (14.320)
Property Rights	0.267 (0.410)	-0.417 (-0.880)	0.404 (0.520)	-0.175 (-0.270)
Credit to GDP Ratio	0.022 (0.800)			
Sum of stock market capitalization and private bond market capitalization and bank credit over GDP		-0.574 (-0.760)		
Market Capitalization (% of GDP)			-0.010 (-0.630)	
Prevalence of Foreign Ownership				1.175** (1.970)
New Business Registered	0.333* (1.890)	0.482** (2.830)	0.173 (0.960)	0.179 (1.020)
Std. Deviation Inflation	-0.017 (-0.130)	-0.091 (-0.930)	-0.063 (-0.130)	0.005 (0.040)
Inflation	0.011 (0.290)	0.030 (0.910)	-0.012 (-0.110)	0.003 (0.070)
Interest Rate	-0.063 (-0.340)	0.085 (0.680)	0.053 (0.290)	0.031 (0.170)
Constant	-48.070*** (-11.620)	-47.730*** (-10.570)	-49.330*** (-11.640)	-51.520*** (-11.220)
Observations	195	181	190	197
Adjusted R-squared	0.921	0.923	0.919	0.920

t statistics in parentheses

\*denotes significance at 10%, \*\* at 5% and \*\*\* at 1%

**Table 3e: Results-Changing the Product Market Competition Indicators**

	[1]	[15]	[16]
Self Dealing Index	-76.470*** (-11.540)	-69.260*** (-12.100)	-68.980*** (-11.920)
Creditor's Rights	23.450*** (13.710)	21.720*** (12.520)	21.680*** (12.560)
Property Rights	0.267 (0.410)	0.721 (1.300)	0.746 (1.530)
Credit to GDP Ratio	0.0220 (0.800)	0.006 (0.270)	0.007 (0.270)
New Business Registered	0.333* (1.890)		
Cost of starting a business		-0.014 (-0.790)	
Trade Barriers			-0.079 (-0.130)
Std. Deviation Inflation	-0.017 (-0.130)	-0.011 (-0.090)	-0.004 (-0.030)
Inflation	0.011 (0.290)	0.011 (0.320)	0.009 (0.280)
Interest Rate	-0.063 (-0.340)	-0.101 (-0.570)	-0.099 (-0.49)
Constant	-48.070*** (-11.620)	-44.300*** (-10.680)	-44.180*** (-10.960)
Observations	195	231	231
Adjusted R-squared	0.921	0.923	0.923

t statistics in parentheses

\*denotes significance at 10%, \*\* at 5% and \*\*\* at 1%

**Table 3f: Results-Changing the Macro-Volatility Indicators**

	[1]	[17]	[18]
Self Dealing Index	-76.470*** (-11.540)	-77.550*** (-11.010)	-76.270*** (-11.190)
Creditor's Rights	23.450*** (13.710)	24.120*** (15.230)	23.370*** (14.220)
Property Rights	0.267 (0.410)	0.160 (0.270)	0.303 (0.480)
Credit to GDP Ratio	0.022 (0.800)	0.0220 (0.800)	0.022 (0.820)
New Business Registered	0.333* (1.890)	0.329* (1.910)	0.331* (1.870)
Std. Deviation Inflation	-0.017 (-0.130)		
Std. Deviation GDP growth		-0.140 (-0.860)	
Coefficient of variation of exchange rate			0.009 (0.300)
Inflation	0.011 (0.290)	-0.003 (-0.090)	0.005 (0.180)
Interest Rate	-0.063 (-0.340)	-0.022 (-0.120)	-0.066 (-0.360)
Constant	-48.070*** (-11.620)	-48.730*** (-11.510)	-48.240*** (-10.810)
Observations	195	195	195
Adjusted R-squared	0.921	0.922	0.921

t statistics in parentheses

\*denotes significance at 10%, \*\* at 5% and \*\*\* at 1%

## Appendix A1. Countrywise Descriptive Statistics

**Table A1.a:** 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.b:** 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.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:** 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.e:** 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.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:** 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.m:** 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.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:** 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.p:** 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.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 before tax, %)	-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 before tax, %)	-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:** 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.ae:** 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.af:** 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.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. Propensity Score Match

Table A2.1: Propensity Score Matching Estimates

Propensity scores for the listing probability are used to match the treated (i.e., the listed) to the controlled (i.e., the unlisted), based on one-to-one nearest neighbour matching restricting to the common support. Size (logarithm of total assets), Age (the years since incorporation), and Industry (2-digit level) are used to compute propensity scores. Differences (ATT) of MPK (ROA) between the treated and controlled are reported here. 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)
Austria	Overall	-1.419	1.689	-0.840	954	50	0	39
	Upper Half	1.940	1.958	0.990	20	26	0	37
	Lower Half	-4.275	1.863	-2.290	934	19	0	7
Australia	Overall	-27.031	3.505	-7.710	978	527	0	16
	Upper Half	-31.373	4.699	-6.680	67	350	0	12
	Lower Half	-18.428	3.648	-5.050	911	176	0	5
Belgium	Overall	-4.082	1.943	-2.100	44,999	225	0	22
	Upper Half	0.866	1.247	0.690	38	111	0	27
	Lower Half	-9.560	2.965	-3.220	44,961	108	0	1
Bulgaria	Overall	-4.966	1.390	-3.570	61,008	210	0	13
	Upper Half	-2.313	2.135	-1.080	35	48	0	13
	Lower Half	-5.752	1.566	-3.670	60,973	162	0	0
Brazil	Overall	3.250	3.978	0.820	414	13	0	17
	Upper Half							
	Lower Half	3.250	3.978	0.820	412	13	0	1
China	Overall	-2.536	0.527	-4.810	445,882	20,229	0	0
	Upper Half	-2.037	1.000	-2.040	4,175	11,032	0	0
	Lower Half	-3.142	0.511	-6.150	441,707	9,196	0	1
Croatia	Overall	-7.213	0.905	-7.970	33,934	282	0	71
	Upper Half	-6.201	1.894	-3.270	77	72	0	71
	Lower Half	-7.547	0.953	-7.920	33,857	210	0	0
Czech Republic	Overall	-2.606	1.682	-1.550	36,671	51	0	15
	Upper Half	2.382	0.976	2.440	12	3	0	15
	Lower Half	-2.917	1.783	-1.640	36,659	48	0	0
Denmark	Overall	-4.475	2.476	-1.810	2,381	133	0	76
	Upper Half	-2.141	2.278	-0.940	46	92	0	72
	Lower Half	-10.088	5.676	-1.780	2,335	37	0	8
Finland	Overall	-0.728	1.182	-0.620	30,390	438	0	46
	Upper Half	0.217	1.283	0.170	54	330	0	67
	Lower Half	-6.162	2.260	-2.730	30,336	83	0	4

Table A2.2: Propensity Score Matching Estimates

Propensity scores for the listing probability are used to match the treated (i.e., the listed) to the controlled (i.e., the unlisted), based on one-to-one nearest neighbour matching restricting to the common support. Size (logarithm of total assets), Age (the years since incorporation), and Industry (2-digit level) are used to compute propensity scores. Differences (ATT) of MPK (ROA) between the treated and controlled are reported here. 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.		Obs.	
					Untreated (on support)	Obs. Treated (on support)	Untreated (off support)	Obs. Treated (off support)
France	Overall	-9.381	1.533	-6.120	96,700	1,113	0	22
	Upper Half	-1.485	1.904	-0.780	164	649	0	57
	Lower Half	-22.397	2.169	-10.330	96,536	428	0	1
Greece	Overall	0.351	0.617	0.570	25,914	597	0	2
	Upper Half	4.439	0.919	4.830	92	254	0	10
	Lower Half	2.886	0.666	-4.330	25,822	335	0	0
Germany	Overall	-6.461	0.645	-10.020	43,180	1,343	0	22
	Upper Half	-1.456	0.882	-1.650	180	453	0	24
	Lower Half	-9.004	0.773	-11.650	43,000	888	0	0
Hungary	Overall	4.673	1.503	3.110	40,598	55	0	14
	Upper Half	-0.016	4.429	-0.000	9	3	0	14
	Lower Half	4.967	1.593	3.120	40,589	51	0	1
Iceland	Overall	0.043	0.016	2.680	871	28	0	33
	Upper Half	0.040	0.020	1.970	15	22	0	29
	Lower Half	0.069	0.011	6.170	856	5	0	5
India	Overall	-1.153	7.007	-0.160	76	1,413	0	229
	Upper Half	-1.246	7.207	-0.170	63	1,406	0	229
	Lower Half	10.484	8.001	1.310	13	7	0	0
Ireland	Overall	-22.559	4.706	-4.790	1,629	115	0	111
	Upper Half	-21.233	4.820	-4.410	12	87	0	113
	Lower Half	-28.519	8.891	-3.210	1,617	24	0	2
Italy	Overall	-2.807	0.790	-3.550	439,632	378	0	10
	Upper Half	0.093	0.886	0.100	37	115	0	12
	Lower Half	-4.119	0.970	-4.250	439,595	261	0	0
Japan	Overall	-0.330	0.254	-1.300	169,676	12,579	0	9
	Upper Half	0.262	0.314	0.830	1,539	9,267	0	11
	Lower Half	-1.975	0.260	-7.590	168,137	3,310	0	0
Korea	Overall	-4.481	0.839	-5.340	162,122	2,980	0	1
	Upper Half	-4.498	5.017	-0.900	315	532	0	1
	Lower Half	-4.438	0.412	-10.770	161,807	2,448	0	0

Table A2.3: Propensity Score Matching Estimates

Propensity scores for the listing probability are used to match the treated (i.e., the listed) to the controlled (i.e., the unlisted), based on one-to-one nearest neighbour matching restricting to the common support. Size (logarithm of total assets), Age (the years since incorporation), and Industry (2-digit level) are used to compute propensity scores. Differences (ATT) of MPK (ROA) between the treated and controlled are reported here. 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.		Obs.	
					Untreated (on support)	Obs. Treated (on support)	Untreated (off support)	Obs. Treated (off support)
	Overall	-2.252	2.923	-0.770	14,223	40	0	93
Latvia	Upper Half	5.769	2.597	2.220	3	2	0	93
	Lower Half	-2.963	3.007	-0.990	14,220	36	0	2
	Overall	2.968	3.717	0.800	243	31	0	27
Malaysia	Upper Half	10.172	5.662	1.800	13	4	0	32
	Lower Half	2.663	4.863	0.550	230	20	0	2
	Overall	-2.560	3.335	-0.770	1,182	288	0	37
Netherlands	Upper Half	-1.864	2.042	-0.910	36	207	0	60
	Lower Half	-5.535	4.917	-1.130	1,146	58	0	0
	Overall	-12.873	7.608	-1.690	5,610	62	0	16
Norway	Upper Half	-2.748	9.198	-0.300	10	46	0	15
	Lower Half	-35.871	15.465	-2.320	5,600	14	0	3
	Overall	-4.524	0.957	-4.730	22,178	529	0	51
Poland	Upper Half	-1.553	1.513	-1.030	82	177	0	50
	Lower Half	-5.984	1.019	-5.870	22,096	350	0	3
	Overall	-8.444	4.743	-1.780	149,998	935	0	82
Romania	Upper Half	24.611	44.403	0.550	8	29	0	104
	Lower Half	12.264	4.981	-2.460	149,990	884	0	0
	Overall	-2.838	0.803	-3.540	323,691	443	0	7
Spain	Upper Half	-3.163	1.543	-2.050	66	207	0	7
	Lower Half	-2.510	0.705	-3.560	323,625	235	0	1
	Overall	-26.453	1.462	-18.09	37,604	1,570	0	31
Sweden	Upper Half	-14.255	1.8889291	-7.55	206	803	0	63
	Lower Half	-40.954	2.009	-20.39	37,398	735	0	0
	Overall	-1.173	1.027	-1.14	383	6,130	0	18
Taiwan	Upper Half	-1.177	1.038	-1.130	359	6,120	0	18
	Lower Half	1.226	4.695	0.260	24	10	0	0
	Overall	-21.075	4.530	-4.650	34	1,065	0	193
US	Upper Half	-21.075	4.530	-4.650	34	1,065	0	193
	Lower Half	-5.948	0.767	-7.760	125,547	1,047	0	10
	Overall	-0.066	1.813	-0.040	125	76	0	10
Ukraine	Upper Half	-6.408	0.817	-7.840	125,422	971	0	0
	Lower Half	-16.808	1.205	-13.940	20,797	2,793	0	34
	Overall	-5.614	2.523	-2.220	337	1,216	0	34
UK	Upper Half	-25.443	1.475	-17.250	20,460	1,569	0	8
	Lower Half	1.530	0.480	3.190	69,446	1,006	0	1
	Overall	2.483	0.996	2.490	225	344	0	2
Vietnam	Upper Half	1.071	0.531	2.020	69,221	661	0	0
	Lower Half							
	Overall							

Table A2.4: Correlation between the ATT Estimates and the Fixed Effects Coefficients

	ATT ROA	ATT ROA Upper Half	ATT ROK	ATT ROK Upper Half	Fixed Effect Coeff
ATT ROA	1				
ATT ROA Upper Half	0.861	1			
ATT ROK	0.595	0.620	1		
ATT ROK Upper Half	0.569	0.654	0.979	1	
Fixed Effect Coeff	0.614	0.318	0.106	0.046	1

## Appendix A3. Countrywise Benchmark Panel Regressions

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

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

	Australia				Austria				Belgium			
	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)
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)
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)
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* (-2.360)	-9.914*** (-7.740)	-88.660** (-2.740)	0.354 (1.490)	-0.738*** (-4.930)	-4.160*** (-19.390)	-135.300*** (-8.360)
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)
Observations	1192	1187	1175	1170	1337	1337	1335	1335	51852	51267	51811	51231
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

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

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

	Brazil				Bulgaria				China			
	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)	6.725 (0.710)	-0.720 (-0.690)	2.566 (0.220)	-67.420 (-0.710)	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)
L.Size	-2.236 (-1.550)	-0.203 (-1.290)	-1.260 (-0.700)	-17.720 (-1.230)	-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)
Age	0.005 (0.100)	-0.004 (-0.640)	0.0354 (0.570)	-0.270 (-0.540)	-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)
L.D/A (ratio)	-3.083 (-0.210)	-2.390 (-1.520)	-7.236 (-0.400)	-210.100 (-1.470)	-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)
Constant	39.910 (1.990)	4.879* (2.220)	30.010 (1.210)	432.300* (2.170)	25.190 (1.300)	88.980*** (13.690)	29.100* (2.290)	244.200** (14.580)	50.190* (1.960)	2.609 (0.510)	17.430** (2.870)	109.200 (0.500)
Observations	69	69	69	69	75667	61636	75450	61533	279384	278865	150955	150788
Adjusted R-squared	0.331	-0.219	0.360	-0.138	0.027	0.022	0.069	0.024	0.016	0.000	0.072	0.000

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

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

	Croatia				Czech Republic				Denmark			
	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)	-3.575** (-3.010)	0.333 (0.660)	-1.910* (-2.080)	25.850 (0.600)	-5.828* (-2.130)	-0.130 (-0.110)	-5.253* (-2.570)	-15.820 (-0.160)	-5.414** (-2.800)	-4.169*** (-3.430)	-6.348*** (-3.340)	-462.400*** (-3.440)
L.Size	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)	0.724** (2.840)	-0.005 (-0.030)	0.720** (2.870)	4.968 (0.270)
Age	-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)	-0.007 (-0.330)	-0.029* (-2.270)	-0.006 (-0.310)	-3.791** (-2.700)
L.D/A (ratio)	-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)	6.792** (3.170)	-0.034 (-0.020)	1.177 (0.560)	-55.800 (-0.360)
Constant	-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)	1.465 (0.190)	5.560 (1.170)	3.261 (0.440)	607.000 (1.160)
Observations	41054	38481	40931	38399	60701	56097	60497	55976	1536	1476	1534	1474
Adjusted R-squared	0.022	0.007	0.043	0.010	0.069	0.006	0.042	0.008	0.122	0.036	0.097	0.033

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

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

	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
Listing (dummy)	-3.583** (-2.660)	-0.187 (-0.520)	-2.106* (-2.270)	-26.210 (-0.720)	-8.743*** (-8.950)	-6.951*** (-4.410)	-8.359*** (-17.040)	-189.3*** (-10.32)	-1.528** (-2.89)	0.477* (2.12)	-2.089*** (-4.80)	49.90* (2.20)
L.Size	0.719*** (7.490)	-0.004 (-0.160)	0.417*** (6.290)	2.072 (0.770)	0.269** (3.210)	0.958*** (7.030)	0.155*** (3.700)	2.101 (1.33)	-0.0637 (-1.01)	-0.339*** (-12.60)	-0.268*** (-5.17)	-30.49*** (-11.23)
Age	-0.094*** (-8.760)	-0.018*** (-6.200)	-0.087*** (-11.830)	-1.962*** (-6.780)	-0.077*** (-10.520)	-0.023 (-1.930)	-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)	-1.530** (-2.600)	-1.252*** (-7.910)	-5.704*** (-14.060)	158.900** (-9.880)	-1.425** (-2.860)	3.118*** (3.870)	-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	74.690** (3.150)	12.720* (2.030)	77.940*** (4.780)	1270.80* (2.000)	6.477 (0.430)	-5.352 (-0.220)	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	22748	22110	22691	22077	62809	62318	62759	62271	22722	22655	22713	22650
Adjusted R-squared	0.010	0.013	0.025	0.014	0.009	-0.001	0.035	0.013	0.038	0.021	0.051	0.015

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

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

	Germany				Hungary				Iceland			
	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)	-7.182*** (-5.50)	-2.433 (-1.63)	-6.199*** (-16.26)	-233.1 (-1.71)	7.645* (2.07)	1.262 (1.44)	8.539*** (3.75)	124.7 (1.47)	2.765 (0.77)	0.147 (0.14)	3.422 (0.98)	8.901 (0.09)
L.Size	-0.0264 (-0.15)	0.133 (0.65)	-0.248*** (-5.33)	11.50 (0.68)	0.192*** (3.53)	-0.0929*** (-6.73)	-0.237*** (-7.01)	-9.449*** (-7.08)	-1.205*** (-3.46)	-0.351*** (-3.43)	-1.280*** (-3.81)	-31.32** (-3.13)
Age	-0.00883 (-1.76)	-0.0124* (-2.17)	-0.00597*** (-4.12)	-1.111* (-2.14)	-0.247*** (-19.63)	-0.0358*** (-11.66)	-0.228*** (-29.31)	-3.533*** (-11.90)	-0.0120 (-0.27)	0.00270 (0.21)	0.0230 (0.55)	0.404 (0.32)
L.D/A (ratio)	-1.023 (-1.09)	1.007 (0.93)	-5.669*** (-21.62)	0.523 (0.01)	2.629*** (9.96)	0.443*** (6.91)	0.637*** (3.91)	31.71*** (5.12)	1.041 (0.50)	-1.108 (-1.79)	-5.513** (-2.74)	-144.1* (-2.38)
Constant	9.504 (0.34)	-1.676 (-0.05)	12.53 (1.51)	-84.32 (-0.03)	1.446 (0.05)	1.425 (0.21)	5.817 (0.34)	145.6 (0.23)	26.40*** (5.16)	7.111*** (4.42)	27.93*** (5.66)	676.8*** (4.32)
Observations	34162	33864	37646	37349	93164	87711	92730	87416	1672	1589	1668	1586
Adjusted R-squared	0.001	-0.001	0.037	-0.001	0.011	0.005	0.028	0.006	0.045	0.122	0.049	0.119

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

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

	India				Ireland				Italy			
	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)	0.396 (0.25)	-0.192 (-0.44)	-0.0995 (-0.06)	-60.00 (-0.71)	-5.930** (-3.02)	-3.999* (-1.99)	-4.513** (-2.95)	-368.2 (-1.54)	0.0383 (0.04)	0.0848 (0.22)	-0.158 (-0.32)	2.157 (0.06)
L.Size	0.828*** (6.77)	-0.0109 (-0.33)	0.686*** (5.60)	4.950 (0.76)	0.984*** (4.62)	0.154 (0.69)	0.619*** (3.35)	6.198 (0.21)	-0.241*** (-12.43)	-0.169*** (-19.65)	-0.241*** (-21.69)	-14.17*** (-16.72)
Age	-0.0207 (-1.87)	-0.000958 (-0.32)	-0.00336 (-0.31)	0.207 (0.35)	-0.00507 (-0.23)	-0.0220 (-1.01)	-0.0291 (-1.76)	-2.597 (-1.02)	-0.0725*** (-37.52)	-0.0159*** (-18.69)	-0.0762*** (-68.97)	-1.675*** (-19.97)
L.D/A (ratio)	-3.324** (-2.74)	0.0818 (0.25)	-12.60*** (-10.36)	-22.37 (-0.35)	4.257** (2.68)	0.213 (0.13)	1.162 (0.86)	15.31 (0.07)	-6.125*** (-52.97)	-1.406*** (-27.56)	-9.026*** (-136.39)	-180.6*** (-35.89)
Constant	-3.009 (-0.33)	0.304 (0.12)	-0.0588 (-0.01)	26.78 (0.06)	-13.75 (-1.41)	2.765 (0.28)	-5.226 (-0.72)	356.7 (0.32)	12.62*** (3.69)	2.398 (1.60)	12.61*** (6.45)	174.2 (1.18)
Observations	1428	1426	1426	1424	1786	1744	1431	1401	425534	423162	425437	423071
Adjusted R-squared	0.094	-0.077	0.175	-0.081	0.027	-0.017	0.063	-0.042	0.016	0.006	0.069	0.006

**Table A3.7: Benchmark Panel Regressions for MPK**

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

	Japan				Korea				Latvia			
	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)	-0.253*	0.0235	-0.00428	8.477*	-0.985*	0.124**	-1.968***	9.940	-0.371	-0.314	-0.0240	-74.17
	(-2.45)	(0.61)	(-0.05)	(2.19)	(-2.14)	(3.02)	(-9.41)	(1.86)	(-0.11)	(-0.43)	(-0.01)	(-1.03)
L.Size	0.649***	0.00330	0.406***	-1.956**	-1.268***	-0.157***	-1.393***	-17.15***	0.688***	-0.0445	0.355***	-3.903
	(38.76)	(0.53)	(26.37)	(-3.11)	(-23.93)	(-32.98)	(-57.83)	(-27.78)	(4.95)	(-1.35)	(3.57)	(-1.21)
Age	-0.0468***	-0.00728***	-0.0496***	-0.800***	-0.0208*	-0.00585***	-0.0256***	-0.464***	-0.161***	-0.0273***	-0.191***	-2.265**
	(-35.13)	(-14.76)	(-40.50)	(-16.04)	(-2.37)	(-7.43)	(-6.40)	(-4.54)	(-4.62)	(-3.52)	(-7.65)	(-2.98)
L.D/A (ratio)	0.0750	-0.0677*	-2.241***	-23.47***	-3.286***	-0.450***	-7.807***	-57.69***	1.692	-0.741***	-1.065	-65.20**
	(0.83)	(-2.02)	(-26.90)	(-6.91)	(-10.35)	(-15.83)	(-54.21)	(-15.65)	(1.83)	(-3.47)	(-1.61)	(-3.11)
Constant	-0.640	0.407*	3.294***	76.36***	6.931	1.027	10.80	118.1	1.841	1.338	4.951	112.4
	(-1.15)	(1.97)	(6.45)	(3.66)	(0.32)	(0.53)	(1.10)	(0.47)	(0.40)	(1.36)	(1.51)	(1.17)
Observations	132846	132674	132817	132645	109704	109609	109571	109480	15685	13910	15517	13814
Adjusted R-squared	0.034	0.002	0.038	0.004	0.013	0.021	0.087	0.015	0.013	0.031	0.015	0.026

**Table A3.8: Benchmark Panel Regressions for MPK**

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

	Romania				Malaysia				Netherlands			
	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)	-9.481*** (-9.86)	-0.112 (-0.42)	-3.357*** (-4.80)	-12.52 (-0.49)	0.207 (0.08)	-0.0261 (-0.03)	-0.245 (-0.09)	-4.369 (-0.05)	-4.728* (-2.22)	2.740 (0.46)	-2.579 (-1.76)	285.7 (0.48)
L.Size	-1.050*** (-21.57)	-0.151*** (-10.05)	-1.366*** (-38.55)	-15.58*** (-10.93)	0.702 (1.91)	-0.229 (-1.72)	0.748* (2.08)	-23.85 (-1.86)	0.382 (1.24)	-1.031 (-1.19)	-0.0497 (-0.24)	-105.0 (-1.22)
Age	-0.334*** (-26.79)	-0.0714*** (-19.42)	-0.336*** (-37.08)	-6.609*** (-18.93)	-0.0726 (-1.41)	-0.0431* (-2.30)	-0.0600 (-1.19)	-4.345* (-2.42)	-0.0353* (-2.25)	0.0121 (0.28)	-0.0316** (-2.93)	1.268 (0.29)
L.D/A (ratio)	-3.565*** (-13.57)	-1.056*** (-12.71)	-5.799*** (-30.34)	-112.1*** (-14.19)	-0.389 (-0.14)	-1.667 (-1.62)	-5.454 (-1.96)	-196.7* (-1.99)	-5.506* (-2.06)	5.779 (0.77)	-6.333*** (-3.42)	567.1 (0.76)
Constant	27.10 (1.42)	7.428 (0.98)	29.64* (2.14)	602.3 (0.84)	-27.88** (-2.60)	5.066 (1.30)	-22.98* (-2.19)	545.5 (1.46)	9.639* (1.97)	8.806 (0.64)	13.35*** (3.98)	893.7 (0.65)
Observations	123180	112851	122604	112493	357	357	356	356	1484	1447	1469	1432
Adjusted R-squared	0.033	0.011	0.072	0.012	0.514	-0.135	0.478	-0.062	-0.014	-0.052	0.011	-0.053

**Table A3.9: Benchmark Panel Regressions for MPK**

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

	Norway				Poland				Spain			
	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)	-22.38*** (-5.39)	-160.1*** (-7.27)	-17.05*** (-4.62)	-4704.3** (-3.24)	-11.32* (-2.49)	0.196 (0.33)	-6.417*** (-7.18)	84.92 (1.42)	-1.540* (-2.29)	0.207 (0.65)	-1.005 (-1.86)	11.44 (0.41)
L.Size	0.639* (2.20)	5.088** (3.08)	0.536* (2.10)	304.1** (2.82)	2.420*** (5.41)	-0.383*** (-6.20)	0.124 (1.41)	-41.88*** (-6.71)	0.974*** (54.44)	0.0178* (2.08)	0.867*** (60.11)	3.903*** (5.17)
Age	0.111*** (4.55)	0.183 (1.41)	0.0292 (1.33)	4.316 (0.50)	-0.0910** (-2.67)	-0.0114** (-2.58)	-0.0706*** (-10.56)	-1.044* (-2.34)	-0.121*** (-50.07)	-0.0208*** (-18.24)	-0.122*** (-62.76)	-2.121*** (-21.11)
L.D/A (ratio)	12.63*** (7.27)	8.285 (0.86)	6.933*** (4.54)	-11.42 (-0.02)	0.929 (0.61)	0.296 (1.50)	-1.892*** (-6.39)	11.20 (0.56)	2.716*** (29.49)	-0.163*** (-3.72)	-0.418*** (-5.63)	-43.88*** (-11.36)
Constant	9.096 (0.41)	87.48 (0.75)	14.01 (0.72)	759.9 (0.10)	16.77 (0.37)	3.837 (0.66)	33.60*** (3.82)	417.5 (0.71)	6.838 (1.29)	0.377 (0.15)	7.795 (1.83)	32.91 (0.15)
Observations	2980	2756	2969	2746	14116	13747	14059	13705	317753	312137	317387	311822
Adjusted R-squared	0.112	0.071	0.053	0.099	-0.004	0.011	0.024	0.012	0.043	0.003	0.058	0.004

**Table A3.10: Benchmark Panel Regressions for MPK**

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

	Sweden				Taiwan				US			
	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)	-21.620*** (-39.260)	-5.929*** (-10.000)	-16.920*** (-33.340)	-338.500*** (-8.200)	0.413 (0.620)	0.092 (1.050)	0.111 (0.160)	8.388 (1.200)	-61.280 (-0.170)	-30.740 (-0.840)	-13.600*** (-3.560)	-1509.800 (-0.45)
L.Size	0.177* (2.380)	-0.144 (-1.800)	-0.054 (-0.800)	-26.750*** (-4.840)	1.409*** (13.320)	0.056*** (4.050)	1.433*** (12.590)	5.104*** (4.570)	53.090*** (4.850)	5.247*** (4.660)	3.676*** (30.150)	310.500** (2.890)
Age	-0.012* (-2.190)	-0.006 (-1.100)	-0.021*** (-4.230)	-1.053** (-2.670)	0.020 (1.500)	-0.002 (-1.020)	0.035* (2.510)	-0.108 (-0.790)	-0.846 (-1.080)	0.014 (0.170)	0.054*** (6.390)	1.659 (0.220)
L.D/A (ratio)	-3.575*** (-9.400)	-1.038* (-2.530)	-8.703*** (-25.150)	-212.700*** (-7.540)	-7.693*** (-9.560)	-0.367*** (-3.480)	-10.410*** (-12.030)	-40.580*** (-4.790)	-80.750 (-0.780)	-1.433 (-0.140)	-8.164*** (-7.240)	-40.260 (-0.040)
Constant	10.850 (1.160)	7.466 (0.750)	8.967 (1.050)	634.900 (0.930)	-7.574** (-3.260)	-0.379 (-1.240)	-7.795** (-3.120)	-33.420 (-1.360)	-539.100 (-0.750)	-40.030 (-0.490)	-51.650*** (-5.560)	-3175.400 (-0.390)
Observations	35217	34451	35136	34373	5298	5298	5295	5295	7607	7599	7449	7448
Adjusted R-squared	0.079	0.010	0.082	0.013	0.076	-0.010	0.071	-0.000	0.080	-0.013	0.234	-0.018

**Table A3.11: Benchmark Panel Regressions for MPK**

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

	Ukraine				UK				Vietnam			
	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)	-1.776 (-0.670)	-0.730 (-1.700)	-2.430** (-3.240)	-60.270 (-1.770)	-17.180*** (-29.470)	-7.131*** (-7.430)	-11.480*** (-31.110)	-390.700*** (-4.310)	-0.009 (-0.000)	-0.299 (-0.840)	1.462** (3.280)	-16.130 (-0.460)
L.Size	-0.395*** (-3.400)	0.089*** (4.290)	-0.264*** (-7.990)	5.462** (3.280)	1.231*** (10.870)	0.615** (3.200)	0.697*** (9.710)	12.520 (0.690)	1.657*** (4.300)	0.097** (2.760)	0.908*** (23.340)	8.208* (2.370)
Age	-0.050* (-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)	0.059 (0.580)	-0.006 (-0.700)	0.090*** (8.770)	-0.226 (-0.270)
L.D/A (ratio)	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)	107.500 (0.960)	-1.173 (-0.630)	0.225 (1.320)	-0.656*** (-3.490)	4.161 (0.250)
Constant	-29.740 (-1.620)	0.768 (0.250)	2.082 (0.390)	152.700 (0.610)	-15.330*** (-3.500)	-1.639 (-0.230)	-4.845 (-1.720)	169.800 (0.250)	-11.460 (-0.720)	-0.696 (-0.510)	-7.388*** (-4.580)	-55.250 (-0.420)
Observations	110105	96494	108365	95396	18602	18439	18461	18319	28038	21481	27960	21452
Adjusted R-squared	0.004	0.007	0.037	0.007	0.090	0.008	0.084	0.005	-0.003	-0.003	0.079	-0.004