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Abstract:

We assess the importance of industry peers for a firm's own decision making strategy, using a rich sample of data covering 47 countries and 87 different industries between 1990 and 2011. Following the instrumental variable approach suggested by Leary and Roberts (2014), we find that, similar to U.S. firms, foreign firms do follow their peers when they make financial policy decisions. A standard deviation increase in peer firms' average leverage leads to about 5 percentage points increase in a firm's own leverage. We also find evidence that firms are more likely to follow their peers when investor protection laws including information disclosure and minority shareholder protection are weak, when creditor rights laws are strong, and when equity markets are more developed, suggesting that peers matter the most when firms have the greatest need to learn and to demonstrate their quality. These results hold even when we perform the analysis on a matched sample of firms.

JEL Classification: G2, G32

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1. Introduction

Until recently, the academic literature assumed that firms made financial decisions in isolation, considering only their own characteristics and ignoring those of other firms. However, current research has shown that peer firms play an important role in determining firms' decision making strategies. To the best of our knowledge, Leary and Roberts (2014) are the first to address this topic empirically. They explore peer effects[1] in financial policy decision-making and show that U.S. firms follow their industry peers when they determine capital structure levels. That is, when one firm makes changes to its financial policies, other firms operating in its industry adjust their financial policies accordingly. In turn, the firm adjusts to the changes made by its peers. Leary and Roberts (2014) find that in the U.S. a standard deviation increase in peer firms' average leverage leads to a 10 percentage point increase in a firm's own leverage, which is an economically significant effect. They further show that smaller, unrated, non-dividend-paying and financially constrained firms with less experienced and lower paid CEOs are the ones who follow the leaders in the industry. This suggests that peer effects are present when firms have "the greatest learning motive and perhaps the greatest need to build reputation" (Leary and Roberts, 2014).

After this first attempt to quantify the importance of peer firm decisions in addition to their characteristics, a stream of related papers emerged. Popadak (2013) examines 7,156 dividend change events in the U.S. between 1975 and 2011 and shows that managers adjust the timing and levels of their firms' dividends based on the dividend policies of their industry peers. She further shows that investors can earn 7.4% per year for the whole sample period if they

[1] According to Manski (1993), in different disciplines peer effects are also referred to as "social norms", "peer influences", "neighbourhood effects", "conformity", "imitation", "contagion", "epidemics", "bandwagons", "herd behaviour", "social interactions", or "interdependent preferences".

adjust their portfolios according to dividend signals. Chen and Chang (2013) look at 2,855 U.S. firms between 1980 and 2011 and find that peer firms' cash holdings are an important determinant of a firm's cash holding levels, especially when a firm is financially constrained or when it has high R&D levels. Kaustia and Rantala (2013) use a sample of NYSE-listed U.S. firms between 1983 and 2009 to show that firms are more likely to split their stocks if their sell-side analyst-based peers split their stocks and especially if those peer stock splits are profitable. The probability of splitting after a peer stock split is equivalent to that after a 45% stock price increase during the previous year.

The above discussion shows that the decisions of peers are essential for the decision-making process of a firm and that they can be material to various stakeholders. Therefore, understanding peer effects is important[2]. Nevertheless, the current literature has focused on peer effects in a single country, the U.S., ignoring the potential importance of country-level characteristics in shaping peer effects. Evidence that the findings on peer effects can be generalized to multiple markets around the world can help understand how many firms make decisions. More importantly, exploring when and where firms follow their peers can shed light on the motives for mimicking.

The academic literature suggests multiple motives for following one's peers among which reputational, learning, strategic and behavioral ones[3]. The reputational motive suggests that managers mimic their peers in order to improve their reputation in the labor market. Also, firms can build reputation in order to improve their cost or access to financing. The learning

[2] It is important to mention here that 'peer effects' refers to a situation in which a firm takes an action solely because its peers took the same action. It is not to be confused with 'common (correlated) effects', which refers to a situation where firms behave similarly due to a common reason, or 'contextual effects', which refers to a situation where firms behave similarly due to the fact that they exhibit similar characteristics. See Manski (1993) and Popadak (2013) and Masciandaro et al. (2013) fo more detailed distinction.

[3] See Popadak (2013) for a short overview of each of the mentioned motives.

motive presumes that firms can use the information of their peers' actions to make better decisions themselves. The strategic motive suggests that firms may collude against competitors. The behavioral motive suggests that certain behavioral biases can make executives follow their peers. Although we do not distinguish between the various motives, we use them to build our hypotheses and explain our results. The strategic and behavioral motives are unlikely to persist, so they are difficult to detect. Therefore, we focus on the reputational and learning ones.[4]

Our analysis explores peer effects in financial policy decision-making around the world. According to Fan, Titman and Twite (2012), the country in which a firm is located explains more of the variation in financial policy decisions than the industry in which it operates. They suggest that "country-level institutional factors are likely to have a 1st-order effect on capital structure choices". Thus, after ascertaining that peer effects persist internationally, we test in what legal environments and market conditions they are more likely to mimic. Knowing the circumstances in which firms do or do not follow their peers further allows us to infer the actual motives for mimicking.

First, we look at how the strength and enforcement of investor protection laws shape the behavior of firms. According to La Porta, Lopez-de-Silanes and Shleifer (2006), effective investor protection laws look after the interests of minority shareholders and stimulate issuers to collect and disclose information. When the law protects shareholders well issuers face high noncompliance costs, so they have an incentive to be transparent and attend to the interests of their investors. On the one hand, in countries with strong investor protection laws, mimicking to

[4] It is important to mention here that firms that mimic their peers do not necessarily do so to improve or to exhibit their quality. Low quality ("bad") firms can appear to be of high quality ("good") by simply mimicking "good" firms and not by learning or improving quality, leading to poor capital allocation and destroying value. In the context of capital structure, it may be too costly for "bad" firms to mimic "good" firms. Even if this effect is accomplished initially, it is unlikely to persist. However, if "bad" firms can easily pretend to be "good" without improving their quality, it is likely that "good" firms will look for alternative mechanisms to distinguish themselves.

build reputation is less likely since firms have other channels for signaling their quality. However, when more detailed information is available publicly, it easier to learn and build reputation by following the industry leaders. On the other hand, if investor protection is weak it may be easier for firms to mimic. However, it may not be as beneficial to do so if information quality is poor.

Next we turn to creditor rights laws which aim to protect creditors in case of bankruptcy or reorganization (La Porta et al., 1997, Chan-Lau, H). If creditors are well-protected, firms will have a higher incentive to follow their peers in order avoid or mitigate the costs of financial distress. If creditor rights laws are weak, firms will not have an incentive to signal good quality. On the other hand, due to the nature of debt markets, firms may have low incentives to continuously show evidence of their quality, thus follow their peers, once they obtain the financing they needed.

Finally, we ask how the importance of peers varies based on the availability of equity and debt financing. It is important to mention that there is an essential difference between equity and debt markets. In equity markets, investors reevaluate firms constantly and it is easy for prices and investment levels to adjust frequently. Banks and bond-holders, however, evaluate firms when they decide if and at what price to finance them. It is very difficult to walk away before debt matures, especially at no cost. Based on these observations, we hypothesize that firms from countries with larger equity markets are more likely to follow their peers, since they can gain access to lower cost financing if they learn and build reputation. When equity financing is unavailable, firms will not make an effort to attract investors. Also, if banks are reluctant to supply credit, lower quality and more opaque firms will have greater incentives to improve or to look like their peers. If banks lend to everyone, mimicking may not prove as beneficial in

obtaining a loan, but it may still help negotiate better loan conditions. Since there is no clear theoretical prediction on when peer effects are more likely to persist, we try to answer this question empirically.

The first step in our analysis is to ascertain that peer effects in financial policy do exist outside of the U.S. We follow Leary and Roberts's (2014) econometric approach and test if the financial policy decisions of home-country industry peers affect a firm's own financial policy. We use a rich sample of data covering 47 emerging and developed countries and 87 different industries, resulting in 1581 unique country-industry combinations, between 1990 and 2011. We find that, on average, a foreign firm increases its market(book) leverage by 5.2(4.6) percentage points for each standard deviation increase in its peer firms' average leverage. Although this effect is about half as large as that in the U.S., it is still statistically and economically significant.

Next, we ask in what conditions peer effects are stronger and examine why this is the case. To answer these questions, we split our sample based on the strength of investor protection and creditor rights laws, and based on the availability of debt and equity financing in a country. Then we re-estimate our model for each subsample of firms (strong vs. weak laws, small vs. large markets). We find that peers matter more when investor protection laws are weak and creditor rights laws are strong. We also find that peers are important regardless of the availability of credit provided by banks, but only when equity financing is readily available. These results are in line with the recent peer literature, which suggests that the most opaque firms and the firms which have the greatest need to learn and build reputation are the ones who mimic their peers. In order to test the robustness of our results and verify that institutional differences, rather than firm characteristics, determine peer effects, we match each firm operating in the weak legal(low availability of funds) environment to a similar firm in the corresponding strong

legal(high availability of funds) environment. We repeat our analysis using the matched samples of firms and find very similar results.

Our paper contributes to the peer effects literature by providing evidence that peers do matter outside of the U.S., especially in particular institutional environments. In addition, it contributes to the international capital structure literature by providing evidence that peer firm leverage is a statistically and economically significant determinant of a firm's leverage level. It also adds to the law and finance literature and to the market development literature by demonstrating that laws and markets matter for the decision-making processes of firms. Finally, by exploring peer effects in multiple institutional and market environments, our paper sheds light on why firms follow their peers.

The rest of the paper is organized as follows. Section II describes the sample construction, data collection and methods, Section III presents our results, and Section IV concludes.

2. Data and Methods

2.1. Sample Construction

We collect market and accounting data for all firms in the Datastream universe between 1990 and 2011 from the Thomson Reuters' Datastream and Worldscope databases, respectively. Following the literature, we exclude financial firms and utilities (ICB codes 7000-8999). We require full data to be available for the levels and first differences of our main accounting variables (described in Appendix A) for firms and their 4-digit Industry Classification

Benchmark (ICB)[5] industry peers. We need a minimum of 24 months of market returns in the period t-6 to t-2 years before the estimation period and monthly market returns for at least 1 month in year t-1. Firms with total assets of less than $10 million and those with 0 or negative market capitalization are also excluded. At least 2 firms per industry and at least 30 observations per country are required. Our final sample is an unbalanced panel consisting of 155,677 firm-year observations, representing 21,398 firms from 47 different countries, operating in 87 different industries, forming 1581 unique industry-country combinations.[6] The average number of peers in a group is about 6.

Table 1 summarizes the number of firms, firm-years, industries and average number of peers for each country in our sample. There are between 11 and 4005 firms, representing between 4 and 77 industries per country, respectively, in Luxembourg and Japan. The average number of peers in a country ranges between 2.4 in Argentina and 31 in Japan.

[Insert Table 1 about here]

With respect to country-level variables, annual GDP growth and inflation data is collected from the World Bank's World Development Indicators Database (WDI) and the International Monetary Fund's International Financial Statistics Database (IFS). Market

[5] This is the 4-digit industry classification available in Worldscope data. It is similar to the SIC classification, however, not as detailed. Therefore, we use highest level detail of the classification.

[6] We recognize that due to the nature of Datastream/Worldscope data and the multiple data filters applied in the construction of our sample, we do not know why firms are added or dropped from out sample. For example, when a firm is added to our sample, we do not know whether it has grown, it has become public, or for whatever other reason sufficient data has become available. Similarly, when a firm is dropped from our sample, we do not know whether it has merged/been acquired, it has filed for bankruptcy/been liquidated, or data has not been reported/collected for it, among other reasons. The latter point suggests that our data may suffer from survival bias. On the one hand, firms that are dropped due to bankruptcy/liquidation may have been the ones that mimicked the most (in different aspects), therefore they could not differentiate enough to survive the competition. On the other hand, those firms could be the ones that mimicked the least, therefore they could not fit into the industry thus ceased to exist. Similar logic can be applied to M&As. Without further information, it is difficult to predict how accounting for survival bias would affect our results.

development data is from Morgan Stanley Capital International (MSCI). Legal development and enforcement data is from La Porta, Lopez-de-Silanes, and Shleifer (2006), Djankov, McLiesh, and Shleifer (2007), Djankov et al. (2008), and the World Bank's WDI.

2.2. Methods

Our first goal is to test whether firms mimic their industry peers when making financial policy decisions. That is, we are mainly interested in how important peer firm financial policies are in determining a firm's own financial policy. We are not particularly interested in what determines the choice between debt and equity or how other firm- or country-specific factors determine a firm's choice of capital structure.

In line with the capital structure literature, we estimate the following model:

$$y_{ijlt} = \alpha + \beta\, \bar{y}_{-ijlt} + \gamma' \bar{X}_{-ijlt-1} + \lambda' X_{ijlt-1} + \omega' Z_{lt} + \varphi' \eta_l + \delta' \mu_j + \phi' \nu_t + \varepsilon_{ijlt}, \qquad (1)$$

where y_{ijlt} is the leverage level of firm i in industry j from country l in year t, $\bar{y}_{-ijlt}$ is the industry peer firms' average leverage (excluding firm i) in the current year within the same country, X_{ijlt-1} and $\bar{X}_{-ijlt-1}$ are vectors of lagged firm-specific and average peer firm characteristics, Z_{lt} is a vector of country-specific characteristics, and η_l represents country, μ_j industry and ν_t year fixed effects.

Our main variable of interest is $\bar{y}_{-ijlt}$. The firm-specific and peer firm capital structure determinants included in X_{ijlt-1} and $\bar{X}_{-ijlt-1}$ are measures of tangibility, market-to-book ratio, firm size, and profitability. These factors have been shown by Frank and Goyal (2005) to be 'reliably important' determinants of capital structure in the U.S. Additionally, they have been found relevant to other developed countries (Rajan and Zingales, 1995), as well as to emerging

ones (Booth et al., 2001). Finally, in Z_{lt} we include measures of economic growth and inflation, which have also been shown to correlate with capital structure choices (Booth et al., 2001, etc.), as well as a crisis period dummy. Detailed variable definitions are presented in Appendix A. Table 2 presents the summary statistics of the firm and peer firm variables used in equation 1.

[Insert Table 2 about here]

Panel A presents the levels and first differences of the main variables used for estimating equation (1), where firm-specific book and market leverage are dependent variables y_{ijlt}, peer firm book and market leverage are used as the main variable of interest $\bar{y}_{-ijlt}$, and the remaining firm specific and average peer firm variables are used as controls in X_{ijlt-1} and $\bar{X}_{-ijlt-1}$, respectively. The average firms specific book (market) leverage is 0.241(0.304), with a median of 0.212(0.253). Those are similar to the U.S. respective equivalents of 0.238(0.274) and 0.229(0.262), as reported by Leary and Roberts (2014). By construction, the average peer firm leverage coincides with the firm-specific one, while the median book and market peer firm leverage levels are a little higher, 0.231 and 0.294. Table A1 in appendix presents the summary statistics of book and market leverage for each country. It is interesting to point out that the average book leverage in our sample varies from as low as 0.100 in Romania to 0.443 in Portugal, while the market leverage varies from 0.154 in Romania to 0.559 in Cyprus.

The firms in our sample are much larger than those in Leary and Roberts (2014), with average log of sales of 12.026, compared to the U.S. 5.085. Market-to-book ratios, profitability and tangibility in our sample average 1.139, 0.064 and 0.325, respectively, compared to 1.36, 0.108, and 0.317 in the U.S. Again by construction, the peer firm averages deviate less than the firm specific characteristics. Finally, our sample consists of 87 different industries, while each

industry-based peer group has an average(median) of about 10(4) peers. Those are fewer, compared to the 217 industries in the U.S. and the average(median) of 13(8) peers in a group. Finally, our sample consists of 155,677 observations, representing 21,398 firms, which is almost double that in the U.S. study.

Panel B of Table 2 presents the summary statistics of the country-level variables in our analysis, while Table A2 in appendix presents them for each country separately. About 30% of our sample consists of emerging market firms, while 33% of the observations are from the recent crisis period. On average, GDP grows about 3.18% per year, while inflation is about 2.24%. It is interesting to point out that, on average, banks lend to the economy almost twice the value of their home country's GDP, while equity markets provide financing to firms almost equal to their home country's GDP. The remaining variables in this table are commonly used in the literature and we will not discuss them in detail for brevity.

Although estimating equation (1) seems to be very straight forward, there is an essential reflection problem defined by Manski (1993), which arises from the fact that we use the industry averaged peer leverage $\bar{y}_{-ijlt}$ as an explanatory variable in the regression. We hypothesize that firms take into consideration their peers' financial policy decisions when determining their own capital structure. This means that each firm in a peer-group follows the financial policy actions of all other peer-firms, so those firms constantly adjust to each other's decisions. Therefore, the peer firm average leverage is an endogenous regressor in equation (1) since it is determined simultaneously with the dependent variable. In order to overcome this problem, we take an instrumental variable approach.

A good instrument is one that is highly correlated with the endogenous variable and, at the same time, it is not correlated with the error terms. The first condition is easy to test;

however, the second one is untestable and needs strong theoretical justification. In order to instrument for the peer firm average leverage, we follow Leary and Roberts (2014) and use the idiosyncratic return from the following augmented market model:

$$r_{ijlt} = \alpha_{ijlt} + \beta^{m}_{ijlt}\,(rm_{lt} - rf_t) + \beta^{IND}_{ijlt}\,\left(\bar{r}_{-ijlt} - rf_t\right) + \eta_{ijlt} \quad (2)$$

where r_{ijlt} is the total monthly return of firm i in industry j in country l, $(rm_{lt} - rf_t)$ is the excess market return, and $\left(\bar{r}_{-ijlt} - rf_t\right)$ is the excess return on an equal weighted industry portfolio excluding firm i's return. The industry factor added to the traditional market model aims to remove the variation in returns that is common to all firms within a peer group.

Equation (2) is estimated annually on a rolling basis using a minimum of 24 and a maximum of 60 historic monthly returns. In order to estimate the coefficients for year 2000, for example, we need at least 24 monthly returns to be available between January 1995 and December 1999. Once we estimate the equation coefficients, we calculate the expected and idiosyncratic monthly returns using the monthly data between January 2000 and December 2000 as follows:

$$\text{Expected Return}_{ijlt} \equiv \hat{r}_{ijlt} = \hat{\alpha}_{ijlt} + \hat{\beta}^{m}_{ijlt}\,(rm_{lt} - rf_t) + \hat{\beta}^{IND}_{ijlt}\,\left(\bar{r}_{-ijlt} - rf_t\right) \quad (3)$$

$$\text{Idiosyncratic Return}_{ijlt} \equiv \hat{\eta}_{ijlt} = r_{ijlt} - \hat{r}_{ijlt} \quad (4)$$

Table 3 presents the summary statistics of the estimated coefficients, number of observations and adjusted R-squares of equation (2), as well as the average monthly returns, expected returns and idiosyncratic returns. Table A3 in appendix presents the summary statistics for each country in our sample separately.

[Insert Table 3 about here]

In the U.S., the market factor has a coefficient of 0.399, which is lower than the 0.616 coefficient of the industry factor, similar to the situation in the U.S. However, it is interesting to point out that in the majority of the countries in our sample the market factor in the augmented market model loads higher that the added industry factor. Only in 14 of the 47 countries, industry returns have higher betas than market returns. On the other hand, Panel B shows that, on average, the market and industry coefficients are somewhat similar to those in the U.S., respectively 0.309 and 0.651. In our sample, there are an average(median) of 58(60) monthly observations used in each regression. The average(median) adjusted R-squared is 0.275(0.252), which is a little higher than the 0.228(0.207) reported for the U.S.

Once we have estimated the monthly idiosyncratic returns in equation (4), we compound them continuously on an annual basis. Finally, we average them across industries, excluding a firm's own idiosyncratic return in order to obtain our instrument for the particular firm's peer firm average leverage.

Following Leary and Roberts (2014), we take an additional step to ensure that our peer firm leverage instrument (the average peer firm idiosyncratic return shock) does not correlate with omitted firm characteristics. Table 4 shows the results from the contemporaneous and the one-period lead regression of the peer firm average idiosyncratic return shocks on firm specific and industry peer average characteristics.

[Insert Table 4 about here]

Only a firm's market-to-book ratio and tangibility in model have some explanatory power. This suggests that our peer firm leverage instrument carries some information about the present or the future capital structure decisions of a firm. Although this is undesirable, it is not a problem, since we control for firm-specific characteristics in all our regressions. Additionally, the correlation between a firm's idiosyncratic shock and its peer firms' average idiosyncratic shock is 0.069, which is quite low. Still, we include the firm specific idiosyncratic shock in our estimations of equation (1) in order to make sure that this remaining correlation between our instrument and our firm specific characteristics is absorbed.

3. Results

Our next step is to estimate equation (1). First, we estimate the reduced form of the equation using OLS regression, presented in models (1) and (2) of Table 5, then we present the estimates obtained by two-stage least squares (2SLS) in models (3) - (6) of Table 5. Since we do not want to assume that industries are structured in the same way in all countries, we group all firms within the same industry in the same country and we estimate an industry-country fixed effects model. Standard errors are also clustered by industry-country in all estimations.

[Insert Table 5 about here]

From models (1) and (2), we can see that the coefficient of the peer firm average equity shock is negative and significant, exactly as is the case in the U.S. The sign is the same as that of the firm specific peer firm equity shock, which suggests that the direction of their effect is the same. However, it is hard to interpret the exact meaning of these coefficients. In order to obtain more meaningful estimates for the effect of peer firm financial decisions on a firm's own financial policy, we move on to our estimates in models (3) to (6). Models (3) and (4) use our

full sample of observations, while models (5) and (6) exclude the recent crisis period for the sake of robustness. In additional robustness tests, we use data from Laeven and Valencia's (2012) updated systemic banking crises database to identify crisis years for our sample countries. Our results (available upon request) suggest that peer effects transpire in quiet times but not during crises. Since we do not exclude crisis periods from our analysis, the peer effect estimates we report are conservative.

In order to make coefficients easier to interpret and compare across regressions, we scale all continuous independent variables by their standard deviations. Based on models (3) and (4), a standard deviation increase of 0.15(0.11) in peer firms' average market(book) leverage leads to 5.6(3.9) percentage point increase in a firm's own leverage. This is lower than the 10 percentage point impact reported by Leary and Roberts's (2014) in the U.S. However, it is still economically significant. If we turn to models (5) and (6), which exclude the current crisis period, we can see that for a standard deviation increase in the average peer market(book) leverage, a firm's own leverage increases by 7.9(5.3) percentage points. Other peer firm characteristics have much lower impact on a firm's leverage levels. The most pronounced ones are peer firm tangibility and profitability. For a standard deviation increase in peer firm tangibility, a firm decreases its leverage by 1 to 2 percentage points, while for a standard deviation increase in peer firm profitability, a firm increases its leverage by 0.9 to 1.4 percentage points. Peer firm sales and market-to-book ratios are not as important determinants of leverage. Finally, macroeconomic conditions also affect a firm's leverage. Particularly, GDP growth is negatively related to leverage, while inflation is positively related to it.

After showing that firms pay attention to their peers in making financial policy decisions, we ask what institutional factors make those peer effects more pronounced. We collect country-

level data on the strength of the legal environment and on the level of development of capital markets and we test how these characteristics affect the relationship between a firm's leverage and the leverage of its industry peers. Country level variables and data sources are described in detail in Appendix A. For each characteristic, we split our sample into two sub-samples based on whether a country falls below or above the characteristic's sample median. Once again, we look at both book and market leverage, which exhibit similar behaviors.

We start by testing if and how the strength of investor protection laws in a country shapes the relationship between firms and their peers. Good investor protection laws need to stimulate timely and accurate information disclosure and protect the rights of minority shareholder. First, we use two variables that measure the strength of the information environment in each country: *Disclosure,* which measures the degree of information disclosure required by law and *Liability*, which measures the ease with which investors can pursue security issuers, distributors and accountants for withholding material information or disclosing inaccurate information. Both of these variables are important for the proper functioning of markets. According to La Porta et al. (2006), the availability and accuracy of information "make it easier for investors to value companies and therefore [they are] more willing to invest", while higher liability standards benefit markets as they "reduce the uncertainties and the private costs of litigation". In the context of peer effects, we want to know in what information environments firms benefit more from mimicking their peers. In order to find out, we split our sample into two based on the median values of *Disclose* and *Liability* and re-estimate equation (1) by 2SLS. Results are presented in Table 6.

[Insert Table 6 about here]

We find that firms in low disclosure and low liability countries do follow their peers when making financial policy decisions. However, high disclosure and liability country firms do not. More specifically, the market(book) leverage of a low disclosure country firm increases by 7.7(5.5) percentage points for each standard deviation increase in its peers' leverage. Similarly, a low liability firm increases its book(market) leverage by 6.9(5.2) percentage points. One way to interpret these findings is that when laws fail to motivate the production of information, therefore make raising funds more difficult, firms need to find alternative ways to get access to affordable funding. They are in greater need of building reputation and one way to achieve that is through mimicking their peers and learning from them. An alternative interpretation suggests that firms operating in low liability countries may simply aim not to stand out, regardless of their quality. This would be the case if firms are afraid that being different from their competitors (industry peers) may provoke the authorities to deliberately try to find irregularities associated with them, thus make their position more unfavorable.

Second, we explore the importance of minority shareholder protection laws. According to La Porta et al. (1997; 1998) and Djankov et al. (2008), among others, these laws aim to protect outside investors from expropriation by corporate insiders, which makes investors more confident and facilitates the development of capital markets. We use *Protect* and *Anti-self* to measure the levels of minority shareholder protection. Both of these variables measure the strength and enforcement of minority shareholder rights, while *Protect* also reflects the information environment in a country. We report our results in Table 7.

[Insert Table 7 about here]

In line with our information environment measures, we find that peers matter when investor protection is low, but not when it is high. In weak investor protection environments, market(book) leverage increases by 7.9(5.6) percentage points for a standard deviation increase in peer firms' leverage. When anti-self-dealing laws are weak, a standard deviation increase in peer firm leverage is associated with an 8.7(6.1) percentage point increase in a firm's own leverage. These results suggest that when investors' interests are not protected well, mimicking one's peers is more worthwhile for firms because they either learn and build reputation or they simply disguise themselves to avoid possible danger. Our findings also support the conjecture that mimicking is a mechanism that firms use to alleviate the consequences of poor legal protection when raising capital.

Next, we turn our attention to creditor laws. We use *Creditor rights* and *Legal rights* as measures of the strength of creditor protection laws in a country. *Creditor rights* measures the level of creditor protection in case of reorganization or bankruptcy, while *Legal rights* measures how well collateral and bankruptcy laws protect the interests of borrowers and lenders. Similar to investors, creditors are more likely to provide funding to firms if they are well informed about the quality of borrowers and if they are better protected by law (Djankov et al., 2007). Based on the above findings, it is logical to predict that peers matter more if creditor rights are well protected. However, it is worth reiterating that equity markets and debt markets are substantially different. While investors can easily withdraw their capital from a firm at any point in time, debtors usually cannot divest until maturity. This suggests that creditor protection strength may have different impact on peer effects. We test this empirically and report results in Table 8.

[Insert Table 8 about here]

We find that peers matter when creditor rights are well-protected, but not otherwise. When *Creditor rights* and *Legal rights* are high, a standard deviation increase in market(book) leverage leads to, respectively a 9.6(6.2) and a 8.3(5.4) percentage point increase in a firm's own leverage. Intuitively, it is likely that, regardless of the institutional environment, firms will mimic their peers to improve their quality and build reputation in order to obtain better debt conditions. However, the peer effect will not persist unless firms have a reason to continuously signal their quality. As we find, peer effects are more pronounced when creditors are better protected and they have more power in times of distress.

Finally, we test if *Bank Market Size* and *Equity Market Size* matter for the relationship between peer firm financial policies and a firm's own financial policies. Market size, measured as proportion of GDP, is a proxy for that market's development. If a market is underdeveloped and unlikely to provide firms with the funding that they need, it is unlikely that they will make an effort to get access to funding by improving and signaling quality through peer effects or otherwise. If markets are more developed, the opposite logic may apply. We empirically test the relationship between market size and peer effects and report results in Table 9.

[Insert Table 9 about here]

We find that peers matter for financial policy decisions, regardless of the bank market size. A standard deviation increase in peer firm book or market leverage is associated with a 4 to 6.3 percentage point increase in a firm's own leverage regardless of the size of the bank market. This is not surprising, since firms all around the world rely on loan financing, even if they do not have access to equity markets. On the other hand, peers only matter in large (developed) equity markets, which once again shows that peer effects are present when firms have the highest need

to exhibit good quality. When equity markets are well-developed, a standard deviation increase in peer firm market(book) leverage is associated with an 8.8(4.7) percentage point increase in a firm's own leverage.

A caveat to keep in mind is that our country-level variables are time-invariant and their variability is low, therefore, many of the values equal the median. Therefore, often a very high proportion of the observations belong to either the low or the high sub-sample. This suggests that the results of the larger sub-sample might be driven by the big number of observations, which have median values. Alternatively, introducing higher variation in our country-level variables may strengthen our results and provide more robust insights.

3.1. Robustness Tests

In order to balance the subsamples based on the above- and below-median values of each of the eight institutional variables that we explore, we create matched samples of firms and re-estimate all regressions in tables 6-9. We use propensity score matching to find firms with similar characteristics in the two sub-samples of each country-level variable. For example, if our 'treatment' variable is *Disclose*, we consider below-median values to be the 'control' group and above-median values to be the 'treated' group. Then, we use a probit model to estimate the propensity of each firm in our sample to be in the 'treated' or in the 'control' group and eliminate those firms, that strictly belong to one of the two groups. In technical terms, we require 'common support'. Our goal is to find firms with similar leverage, which belong to each of the two groups. Therefore, we use the predictors of leverage (firm size, market-to-book ratio, tangibility and profitability) as well as industry dummies to predict the probability of a firm being 'treated', that is, to estimate its propensity score. Since we are trying to create a balanced sample of firms from each group and we are equally interested in each of the two groups, we perform one-to-one

propensity score matching within caliper. We want to use each firm only once, so we perform the matching without replacement. We end up with a 'treated' and a 'control' group of equal sizes, where each firm in one of the groups is matched to exactly one firm in the other group. In order to obtain better matches, we do the matching procedure on a year-by-year basis. The set of matched firms in each sub-group have very similar characteristics. Even if sometimes the differences in certain characteristics' means are statistically significant, they are economically indistinguishable. We report our results based on the matched subsamples in Table 10.

[Insert Table 10 about here]

Our results are very similar to those obtained using the full sample of firms.

As additional robustness test, we combine our investor protection and creditor rights in order to see how the overall quality of institutions in a country contributes to peer effects. We construct four subgroups. First, we classify a country into the *Strong Institutions* subgroup if it scores above average on at least one investor protection variable (*Protect* and/or *Anti-self*), one information environment (*Disclosure* and/or *Liability*) variable, and one creditor rights variable (*Creditor rights* and/or *Legal rights*). Second, we classify a country into the *Strong Investor Protection* group if it scores above average on at least one investor protection and one informational environment measure but low on both creditor rights measures. Third, a country is in the *Strong Creditor Protection* group if it scores below average on all investor protection and informational environment measures but high on at least one creditor rights measure. All other countries are classified under *Weak Institutions*. We estimate our results for each sub-group separately and report them in Table 11.

[Insert Table 11 about here]

We find that peer effects are strongest when only creditor protection is strong (investor protection is weak). We do not find evidence of peer effects when only investor protection is strong (creditor protection is weak) or when all institutions are weak.

4. Conclusion

The importance of peers in a number of areas has been explored, including capital structure (Leary and Roberts, 2014), dividend policy (Popadak, 2012), investment policies (Foucault and Fresard, 2013), cash holdings (Chen and Chang, 2013), and stock splits (Kaustia and Rantala, 2013), among others. However, all of the mentioned studies have been conducted using U.S. data. Following Leary and Roberts's (2014) instrumental variable approach, we test if peer effects in capital structure hold internationally and if so, when. We use a rich sample of data spanning over 47 countries and 87 different industries in 1990-2011. We find that peer firms' financial policy decisions are an important determinant of a firms own financial policy. Especially, we find some evidence that this is the case when investor protection laws, including information disclosure and minority shareholder protection laws and their enforcement are weak, when creditor rights laws are strong, and when equity markets are more developed. These results reconfirm the notion that firms follow their peers when they are motivated to learn from them and to build reputation.

We provide evidence that peer effects are important even in international settings and we make a first attempt to find out when peer firms' decisions matter the most. A lucrative next step to build upon our analysis would be to ascertain what drives peer effects, as well as whether and, if so, how these effects are materialized.

Appendix A: Variable Definitions

Firm-Level Variables

The sample represents the Worldscope universe between 1990 and 2011 with sufficient data. That is, annual accounting data for the years t and t-1, a minimum of 24 monthly market returns in the years t-6 to t-2, and monthly market returns for at least 1 month in the year t-1. Financial and utility firms (ICB codes 7000 to 8999) are excluded from the sample. Firms with total assets of less than $10 million and those with 0 or negative market capitalization are also excluded. At least 2 firms per industry and at least 30 observations per country are required. Source: Thompson Reuter's Worldscope and Datastream. Variable definitions follow Leary and Roberts (2014).

Book Leverage = Total Debt / Total Book Assets

Market Value of Assets = Market Value of Equity + Total Debt

Market Leverage = Total Debt / Market Value of Assets

Firm Size = log(Sales)

Tangibility = Net Property, Plant and Equipment / Total Book Assets

Profitability = EBITDA / Total Book Assets

Market-to-Book Ratio = Market Value of Assets / Total Book Assets

Country-Level Variables

GDP growth: GDP percentage growth rate. Data frequency: Annual. Source: World Bank's WDI Database Online and IMF's IFS Database.

Inflation: Percentage change of prices in the economy as a whole (GDP deflator-based). Data frequency: Annual. Source: World Bank's WDI Database Online and IMF's IFS Database.

Emerging market: A dummy equal to 1 if a country's market is classified as emerging or frontier and 0 if a market is classified as developed. Source: Morgan Stanley Capital International (MSCI).

Crisis: A dummy variable equal to 1 for years 2008 to 2011, 0 otherwise.

Bank Market Size: The average value of the domestic credit provided by the banking sector to the private sector as proportion of the country's GDP between 2004 and 2011. This variable measures the size of the banking market. Data frequency: Time-invariant. Source: World Bank's WDI Database Online; data item: FS.AST. PRVT.GD.ZS.

Equity Market Size: The average value of the market capitalization of listed stocks as proportion of the country's GDP between 2004 and 2011. This variable measures the size of the equity market. Data frequency: Time-invariant. Source: World Bank's WDI Database Online; data item: CM.MKT.LCAP.GD.ZS.

Disclosure: An index, equal to the average of six sub-indices, which measure if securities issuers are legally obliged to publicly disclose the following information before they can issue securities: 1) a prospectus, which includes specific information about 2) insiders' compensation, 3) large shareholder ownership (10% or more), 4) inside ownership, 5) irregular contracts (outside the normal course of business), and 6) transactions between the issuer and its insiders or large shareholders. Ranges between 0 and 1 and higher values indicate higher degrees of required information disclosure. Data frequency: Time-invariant. Source: La Porta, Lopez-de-Silanes, and Shleifer (2006).

Liability: An index, equal to the average of three sub-indices, which measure the ease with which an investor can pursue a security's: 1) issuer and its directors, 2) distributors, and 3) accountants for losses due to misleading statements in a prospectus. Ranges between 0 and 1 and higher values indicate higher issuer liability. Data frequency: Time-invariant. Source: La Porta, Lopez-de-Silanes, and Shleifer (2006).

Protect: An index, which measures the strength of investor protection laws and their enforcement. It is the principal component of *Disclose*, *Liability*, and an index of anti-director rights developed by La Porta et al. (1998), which measures how well minority shareholders' rights are protected. Ranges between 0 and 10 and higher values mean better investor protection. Data frequency: Time-invariant. Source: La Porta, Lopez-de-Silanes, and Shleifer (2006).

Anti-self: An index, which captures the strength and enforcement of anti-self-dealing laws. These laws aim to protect minority shareholders from corporate insiders who can act in their own interest and against the interests of shareholders. The index is formed as the average of two sub-indices, which measure the ex-ante and ex-post private control of self-dealing. It ranges from 0 to 1 and higher levels indicate better anti-self-dealing laws and enforcement, therefore, better investor protection. Data frequency: Time-invariant. Source: Djankov et al. (2008).

Creditor Rights: An index aggregating creditor rights, similar to the one used in La Porta et al. (1998). A score of one is added when each of the following four conditions is met: 1) there are certain restrictions for debtors to file for reorganization, 2) if reorganization is approved, secured creditors can still seize collateral, 3) in case of liquidation, secured creditors are paid first, and 4) management does not run the business during

reorganization. The index ranges from 0 to 4 and higher scores indicate better creditor protection. Data frequency: Time-invariant. Source: Djankov, McLiesh, and Shleifer (2007).

Legal Rights: The average value of an index (between years 2004 and 2011), measuring the extent to which collateral and bankruptcy laws protect borrowers' and lenders' rights. Ranges from 0 to 10 "with higher scores indicating that these laws are better designed to expand access to credit" (World Bank's WDI Database). Data frequency: Time-invariant. Source: World Bank's WDI Database Online; data item: IC.LGL.CRED.XQ.

Table A1: Book and Market Leverage by Country

Table A1 describes the book and market leverage variables, as defined in Appendix A, country by country. The sample represents the Worldscope universe between 1990 and 2011 with sufficient data. That is, accounting data for the years t and t-1, a minimum of 24 monthly market returns in the years t-6 to t-2, and monthly market returns for at least 1 month in the year t-1. Financial and utility firms are excluded from the sample. Firms with total assets of less than $10 million and those with 0 or negative market capitalization are also excluded. Finally, at least 2 firms per industry and at least 30 observations per country are required.

	Book Leverage			*Market Leverage*		
Country	Mean	Median	SD	Mean	Median	SD
ARGENTINA	0.202	0.153	0.201	0.275	0.201	0.251
AUSTRALIA	0.197	0.152	0.236	0.195	0.130	0.214
AUSTRIA	0.259	0.238	0.197	0.346	0.335	0.254
BELGIUM	0.224	0.219	0.157	0.299	0.285	0.219
BERMUDA	0.294	0.234	0.176	0.486	0.468	0.192
BRAZIL	0.328	0.268	0.316	0.371	0.339	0.261
BULGARIA	0.212	0.104	0.303	0.346	0.319	0.297
CANADA	0.250	0.202	0.280	0.241	0.174	0.243
CHILE	0.195	0.206	0.146	0.229	0.215	0.190
CHINA	0.286	0.274	0.206	0.222	0.176	0.190
CYPRUS	0.286	0.268	0.182	0.559	0.594	0.300
DENMARK	0.268	0.248	0.194	0.321	0.299	0.237
EGYPT	0.164	0.100	0.180	0.152	0.080	0.187
FINLAND	0.247	0.220	0.210	0.257	0.201	0.225
FRANCE	0.228	0.211	0.171	0.316	0.291	0.234
GERMANY	0.203	0.160	0.204	0.258	0.201	0.246
GREECE	0.342	0.347	0.199	0.509	0.539	0.278
INDIA	0.313	0.310	0.238	0.376	0.340	0.297
INDONESIA	0.304	0.268	0.290	0.354	0.320	0.288
IRELAND	0.260	0.289	0.144	0.269	0.271	0.176
ISRAEL	0.291	0.270	0.245	0.363	0.327	0.295
ITALY	0.284	0.280	0.176	0.418	0.407	0.251
JAPAN	0.248	0.223	0.197	0.351	0.327	0.263
KOREA (SOUTH)	0.285	0.269	0.218	0.422	0.415	0.295
LUXEMBOURG	0.172	0.136	0.153	0.230	0.223	0.186
MALAYSIA	0.253	0.219	0.241	0.339	0.296	0.278
MEXICO	0.255	0.248	0.187	0.301	0.242	0.245
NETHERLANDS	0.228	0.214	0.167	0.263	0.239	0.199
NEW ZEALAND	0.237	0.206	0.241	0.235	0.183	0.220
NORWAY	0.357	0.364	0.234	0.408	0.408	0.283
PAKISTAN	0.290	0.276	0.230	0.364	0.309	0.313
PERU	0.194	0.172	0.161	0.267	0.203	0.246
PHILIPPINES	0.238	0.223	0.194	0.354	0.310	0.295
POLAND	0.176	0.155	0.164	0.227	0.162	0.214
PORTUGAL	0.443	0.420	0.238	0.545	0.576	0.253
ROMANIA	0.100	0.015	0.126	0.154	0.015	0.204
RUSSIAN FEDERATION	0.266	0.252	0.206	0.326	0.272	0.276
SAUDI ARABIA	0.268	0.292	0.170	0.218	0.199	0.170
SINGAPORE	0.207	0.175	0.194	0.272	0.218	0.240
SOUTH AFRICA	0.167	0.123	0.197	0.214	0.130	0.235
SPAIN	0.335	0.326	0.172	0.360	0.321	0.233
SRI LANKA	0.203	0.199	0.166	0.276	0.233	0.240
SWEDEN	0.179	0.139	0.178	0.193	0.124	0.209
SWITZERLAND	0.239	0.228	0.160	0.275	0.250	0.210
TAIWAN	0.213	0.194	0.180	0.262	0.214	0.231
THAILAND	0.232	0.194	0.215	0.289	0.239	0.262
TURKEY	0.233	0.165	0.269	0.255	0.199	0.238
UNITED KINGDOM	0.194	0.163	0.200	0.217	0.164	0.210
Total	*0.241*	*0.212*	*0.213*	*0.305*	*0.253*	*0.259*

Table A2: Country-level Variables by Country

Table A2 describes the country-level variables, as defined in Appendix A, for each country. The sample represents the Worldscope universe between 1990 and 2011 with sufficient data. That is, accounting data for the years t and t-1, a minimum of 24 monthly market returns in the years t-6 to t-2, and monthly market returns for at least 1 month in the year t-1. Financial and utility firms are excluded from the sample. Firms with total assets of less than $10 million and those with 0 or negative market capitalization are also excluded. Finally, at least 2 firms per industry and at least 30 observations per country are required.

Country	*Emerging Market*	*Crisis*	*GDP Growth*	*Inflation*	*Bank Market Size*	*Equity Market Size*	*Disclose*	*Liability*	*Protect*	*Anti-self*	*Creditor Rights*	*Legal Rights*
Argentina	1	0.33	5.65	11.86	13.51	24.18	0.50	0.22	4.51	0.34	1	4.00
Australia	0	0.35	3.12	3.66	117.82	119.35	0.75	0.66	6.86	0.76	3	9.00
Austria	0	0.12	2.35	1.52	117.86	32.44	0.25	0.11	1.03	0.21	3	7.00
Belgium	0	0.19	1.80	1.99	87.07	65.72	0.42	0.44	0.48	0.54	2	6.00
Brazil	1	0.57	3.93	7.10	45.78	62.32	0.25	0.33	2.91	0.27	1	3.00
Bulgaria	1	1.00	1.22	4.04	59.69	21.74				0.65	2	9.00
Canada	0	0.33	2.07	2.48	11.14	121.55	0.92	1.00	9.72	0.64	1	7.00
Chile	1	0.58	4.05	5.79	76.65	115.25	0.58	0.33	6.29	0.63	2	4.25
China	1	0.61	10.84	5.43	117.42	78.01				0.76	2	4.13
Cyprus	1	0.72	1.15	1.62	249.05	48.06						9.00
Denmark	0	0.16	1.75	2.04	197.82	66.31	0.58	0.78	4.44	0.46	3	8.75
Egypt	1	0.65	5.46	10.74	42.89	61.26	0.50	0.22	2.26	0.20	2	3.00
Finland	0	0.53	1.44	1.68	84.45	85.19	0.50	0.66	4.89	0.46	1	8.00
France	0	0.21	1.57	1.65	104.71	79.14	0.75	0.22	4.24	0.38	0	6.13
Germany	0	0.22	1.49	1.19	109.15	44.23	0.42	0.00	0.10	0.28	3	7.50
Greece	0	0.56	-0.43	2.56	95.22	45.21	0.33	0.44	2.44	0.22	1	4.00
India	1	0.43	7.42	6.49	44.79	80.12	0.92	0.66	8.56	0.58	2	7.38
Indonesia	1	0.58	5.83	11.84	27.23	36.67	0.50	0.66	3.76	0.65	2	5.00
Ireland	0	0.15	5.61	2.93	192.24	46.15	0.67	0.55	6.20	0.79	1	9.00
Israel	0	0.58	4.11	2.71	91.43	92.01	0.67	0.66	5.45	0.73	3	9.00
Italy	0	0.25	0.75	2.95	103.74	33.53	0.67	0.22	1.71	0.42	2	3.00
Japan	0	0.26	0.78	-0.97	181.37	82.68	0.75	0.66	6.86	0.50	2	6.88
Korea (South)	1	0.42	4.23	2.67	141.18	86.14	0.75	0.66	4.61	0.47	3	8.00
Luxembourg	0	0.47	2.44	3.93	166.20	180.14				0.28		4.00
Malaysia	1	0.35	4.92	4.05	106.77	137.68	0.92	0.66	7.43	0.95	3	10.00
Mexico	1	0.31	2.56	7.12	20.75	32.71	0.58	0.11	1.05	0.17	0	5.13
Netherlands	0	0.15	2.37	2.14	185.60	86.03	0.50	1.00	4.92	0.20	3	6.00
New Zealand	0	0.66	1.02	3.04	134.20	40.71	0.67	0.44	5.83	0.95	4	10.00
Norway	0	0.26	2.12	4.33	81.44	60.33	0.58	0.44	5.54	0.42	2	6.00
Pakistan	1	0.62	3.69	14.36	25.38	27.65	0.58	0.44	6.67	0.41	1	6.00

Peru	1	0.33	5.64	3.69	21.35	55.13	0.33	0.66	4.32	0.45	0	6.00
Philippines	1	0.28	4.37	5.70	29.82	53.24	0.83	1.00	7.18	0.22	1	4.00
Poland	1	0.68	4.34	2.81	42.07	33.39				0.29	1	8.38
Portugal	0	0.58	0.26	1.65	166.79	39.12	0.42	0.66	4.60	0.44	1	3.00
Romania	1	0.69	2.51	9.68	34.49	18.60				0.44	2	8.63
Russian Federation	1	0.79	2.82	12.96	37.63	67.72				0.44	2	3.00
Saudi Arabia	1	1.00	5.26	-0.28	36.92	95.63					3	3.50
Singapore	0	0.40	6.10	1.32	96.10	184.37	1.00	0.66	7.72	1.00	3	10.00
South Africa	1	0.22	3.19	7.96	150.69	216.89	0.83	0.66	8.27	0.81	3	7.00
Spain	0	0.54	1.25	2.18	183.11	88.94	0.50	0.66	6.01	0.37	2	6.00
Sri Lanka	1	0.68	6.64	10.22	30.18	24.37	0.75	0.44	4.99	0.39	2	3.50
Sweden	0	0.33	2.39	1.70	122.42	107.60	0.58	0.33	4.05	0.33	1	7.25
Switzerland	0	0.20	1.64	1.12	163.57	223.32	0.67	0.44	3.58	0.27	1	8.00
Taiwan	1	0.63	10.80	5.37			0.75	0.66	5.74	0.56	2	
Thailand	1	0.65	2.98	3.75	113.09	68.18	0.92	0.33	4.07	0.81	2	5.00
Turkey	1	0.57	4.90	7.71	32.28	31.78	0.50	0.22	2.26	0.43	2	4.00
United Kingdom	0	0.18	2.26	2.69	182.69	124.38	0.83	0.66	8.27	0.95	4	10.00
Overall	*3.18*	*2.24*	*0.31*	*0.33*	*133.78*	*95.28*	*0.75*	*0.60*	*6.30*	*0.60*	*2*	*7.41*

Table A3: Stock Return Factor Regression Results by Country

The sample represents the Worldscope universe between 1990 and 2011 with sufficient data. That is, accounting data for the years t and t-1, a minimum of 24 monthly market returns in the years t-6 to t-2, and monthly market returns for at least 1 month in the year t-1. Financial and utility firms are excluded from the sample. Firms with total assets of less than $10 million and those with 0 or negative market capitalization are also excluded. Finally, at least 2 firms per industry and at least 30 observations per country are required.

Table 3 presents the average factor loadings, observations, and adjusted R^2s from the following regression:

$$r_{ijlt} = \alpha_{ijlt} + \beta^{m}_{ijlt}\,(rm_{lt} - rf_t) + \beta^{IND}_{ijlt}\,(\bar{r}_{-ijlt} - rf_t) + \eta_{ijlt},$$

where r_{ijlt} is the total monthly return of firm i in industry j in country l, $(rm_{lt} - rf_t)$ is the excess market return, and $(\bar{r}_{-ijlt} - rf_t)$ is the excess return on an equal weighted industry portfolio excluding firm i's return. The equation is estimated annually on a rolling basis using a minimum of 24 and a maximum of 60 historic monthly returns in the years t-5 to t-1. Once we estimate the equation coefficients, we calculate the expected and idiosyncratic monthly returns using the monthly data in year t as follows:

$$\text{Expected Return}_{ijlt} \equiv \hat{r}_{ijlt} = \hat{\alpha}_{ijlt} + \hat{\beta}^{m}_{ijlt}\,(rm_{lt} - rf_t) + \hat{\beta}^{IND}_{ijlt}\,(\bar{r}_{-ijlt} - rf_t)$$

$$\text{Idiosyncratic Return}_{ijt} \equiv \hat{\eta}_{ijlt} = r_{ijlt} - \hat{r}_{ijlt}.$$

Table A3 presents variable means by country.

Country	α_{it}	β_{it}^{M}	β_{it}^{IND}	N	Adj. R^2	Average Monthly Return	Expected Monthly Return	Idiosyncratic Monthly Return
ARGENTINA	0.006	0.282	0.447	58	0.303	0.018	0.020	-0.002
AUSTRALIA	0.001	0.552	0.427	57	0.124	0.011	0.014	-0.003
AUSTRIA	0.001	0.626	0.203	58	0.211	0.007	0.008	-0.001
BELGIUM	0.002	0.613	0.244	59	0.264	0.008	0.009	-0.001
BERMUDA	0.003	0.900	0.226	59	0.720	0.018	0.020	-0.002
BRAZIL	0.012	0.435	0.295	56	0.158	0.022	0.028	-0.007
BULGARIA	-0.005	0.513	0.340	45	0.215	0.011	0.004	0.007
CANADA	0.001	0.531	0.462	58	0.151	0.013	0.016	-0.003
CHILE	0.005	0.530	0.241	56	0.178	0.011	0.015	-0.005
CHINA	0.001	0.167	0.838	56	0.471	0.031	0.029	0.002
CYPRUS	0.002	0.659	0.178	60	0.195	-0.003	-0.001	-0.001
DENMARK	0.003	0.463	0.277	58	0.144	0.009	0.011	-0.002
EGYPT	0.005	0.487	0.376	58	0.284	0.027	0.024	0.002
FINLAND	0.004	0.297	0.511	57	0.257	0.009	0.012	-0.003
FRANCE	0.003	0.478	0.399	58	0.195	0.009	0.010	-0.001
GERMANY	0.002	0.364	0.459	58	0.163	0.009	0.008	0.000
GREECE	-0.004	0.574	0.538	57	0.390	0.001	-0.003	0.004
INDIA	0.002	0.262	0.728	59	0.376	0.024	0.026	-0.002
INDONESIA	-0.004	0.493	0.257	56	0.127	0.023	0.018	0.005
IRELAND	0.003	0.523	0.378	58	0.315	0.015	0.014	0.001
ISRAEL	0.002	0.589	0.336	58	0.211	0.015	0.017	-0.002
ITALY	0.001	0.566	0.426	57	0.351	0.003	0.004	-0.001
JAPAN	0.003	0.133	0.852	59	0.310	0.003	0.004	0.000
KOREA (SOUTH)	0.001	0.226	0.756	58	0.307	0.016	0.016	0.000
LUXEMBOURG	0.006	0.507	0.299	57	0.300	0.020	0.023	-0.003
MALAYSIA	-0.001	0.435	0.604	58	0.376	0.009	0.008	0.001
MEXICO	0.006	0.443	0.332	57	0.258	0.018	0.019	-0.001
NETHERLANDS	0.002	0.525	0.378	59	0.251	0.009	0.010	-0.001
NEW ZEALAND	0.002	0.627	0.179	55	0.112	0.005	0.005	0.000
NORWAY	0.000	0.517	0.429	57	0.246	0.010	0.011	0.000
PAKISTAN	0.005	0.335	0.514	58	0.302	0.011	0.016	-0.005
PERU	0.008	0.437	0.258	57	0.112	0.033	0.027	0.005

PHILIPPINES	0.003	0.622	0.217	58	0.219	0.016	0.018	-0.002
POLAND	0.005	0.516	0.453	55	0.218	0.019	0.020	-0.001
PORTUGAL	0.000	0.801	0.147	57	0.245	0.003	0.004	-0.001
ROMANIA	0.028	0.389	0.162	58	0.150	0.007	0.033	-0.025
RUSSIAN FEDERATION	0.006	0.676	0.291	52	0.353	0.019	0.028	-0.010
SAUDI ARABIA	0.003	0.494	0.480	44	0.573	-0.005	-0.005	0.000
SINGAPORE	-0.002	0.583	0.524	57	0.317	0.013	0.010	0.003
SOUTH AFRICA	0.005	0.495	0.319	58	0.195	0.020	0.020	0.000
SPAIN	0.004	0.575	0.330	57	0.260	0.005	0.008	-0.004
SRI LANKA	0.004	0.359	0.567	59	0.296	0.037	0.039	-0.002
SWEDEN	0.001	0.473	0.415	57	0.235	0.011	0.012	-0.001
SWITZERLAND	0.002	0.484	0.406	59	0.235	0.009	0.009	0.000
TAIWAN	0.002	0.168	0.832	56	0.367	0.018	0.017	0.001
THAILAND	0.003	0.321	0.501	56	0.200	0.014	0.015	-0.001
TURKEY	0.002	0.364	0.560	57	0.398	0.025	0.025	0.000
UNITED KINGDOM	0.002	0.341	0.608	58	0.192	0.008	0.008	0.000
Total	*0.002*	*0.309*	*0.651*	*58*	*0.275*	*0.010*	*0.011*	*0.000*

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Tables

Table 1. Sample Description

Table 1 presents the number of firms, firm-year observations, industries and average number of industry peers per country. The data represents the Worldscope universe between 1990 and 2011 with sufficient data. That is, accounting data for the years t and t-1, a minimum of 24 monthly market returns in the years t-6 to t-2, and monthly market returns for at least 1 month in the year t-1. Financial and utility firms are excluded from the sample. Firms with total assets of less than $10 million and those with 0 or negative market capitalization are also excluded. At least 2 firms per industry and at least 30 observations per country are required.

Country	Firms	Firm-years	Industries	Average Peers
Argentina	34	197	12	2.43
Australia	1,171	6,390	72	7.40
Austria	70	468	17	3.39
Belgium	99	708	25	3.12
Brazil	183	704	31	4.60
Bulgaria	32	46	11	2.56
Canada	1,504	8,122	76	8.19
Chile	83	395	23	3.19
China	1,489	7,410	69	18.21
Cyprus	47	127	10	4.10
Denmark	136	1,116	27	3.51
Egypt	35	138	7	3.63
Finland	79	393	18	3.85
France	855	6,158	67	6.41
Germany	808	6,490	66	7.49
Greece	243	1,188	36	5.74
India	908	6,202	50	10.73
Indonesia	167	771	35	4.24
Ireland	39	272	12	2.78
Israel	225	910	33	3.99
Italy	227	1,535	39	3.69
Japan	4,005	45,183	77	30.99
Korea (South)	1,433	10,391	59	14.16
Luxembourg	11	59	4	2.57
Malaysia	902	7,273	62	9.08
Mexico	90	621	22	2.97
Netherlands	159	1,342	34	3.31
New Zealand	56	206	17	2.86
Norway	179	908	26	4.99
Pakistan	80	431	15	4.95
Peru	51	321	14	3.15
Philippines	91	620	24	3.25
Poland	204	715	34	4.86
Portugal	26	132	8	2.64
Romania	18	64	8	2.06
Russian Federation	70	153	18	3.26
Saudi Arabia	23	41	5	3.15
Singapore	548	3,758	53	6.46
South Africa	380	2,133	48	4.43
Spain	65	307	20	3.04
Sri Lanka	92	447	16	5.73
Sweden	368	2,142	47	5.00
Switzerland	176	1,475	30	4.20
Taiwan	1,151	6,256	53	18.56
Thailand	363	1,724	46	6.63
Turkey	157	894	28	5.48
United Kingdom	2,266	18,341	77	12.94
Overall	21,398	155,677	34	6.04

Table 2. Descriptive Statistics

Table 2 describes the main variables used in the analysis. The data represents the Worldscope universe between 1990 and 2011 with sufficient data. That is, accounting data for the years t and t-1, a minimum of 24 monthly market returns in the years t-6 to t-2, and monthly market returns for at least 1 month in the year t-1. Financial and utility firms are excluded from the sample. Firms with total assets of less than $10 million and those with 0 or negative market capitalization are also excluded. At least 2 firms per industry and at least 30 observations per country are required. Panel A presents the levels and first differences of the firm-level variables used for estimating equation (1):

$$y_{ijlt} = \alpha + \beta\, \bar{y}_{-ijlt} + \gamma' \bar{X}_{-ijlt-1} + \lambda' X_{ijlt-1} + \omega' Z_{lt} + \varphi' \eta_l + \delta' \mu_j + \phi' \nu_t + \varepsilon_{ijt},$$

Firm-specific book and market leverage are dependent variables y_{ijlt}, peer firm book and market leverage are used as the main variable of interest $\bar{y}_{-ijlt}$, and the remaining firm specific and average peer firm variables are used as controls in X_{ijlt-1} and $\bar{X}_{-ijlt-1}$, respectively. Z_{lt} consists of measures of economic growth, inflation, emerging market dummy and crisis dummy. Vectors η_l, μ_j and ν_t represent, respectively, country, industry and year fixed effects. Sample and industry characteristics are also described here. Panel B presents the summary statistics of the country-level variables. Detailed variable descriptions are provided in Appendix A.

Panel A: Firm-level characteristics

	Levels			First Differences		
	Mean	Median	SD	Mean	Median	SD
Firm Specific Factors						
Book Leverage	0.241	0.212	0.213	0.000	-0.001	0.046
Market Leverage	0.304	0.253	0.259	0.005	0.003	0.073
Log(Sales)	12.026	12.051	2.053	0.066	0.080	0.223
Market-to-Book	1.139	0.812	1.337	-0.028	-0.018	0.537
EBITDA / Total Assets	0.064	0.086	0.230	-0.004	-0.002	0.085
Net PPE / Total Assets	0.325	0.297	0.216	-0.002	-0.002	0.032
Peer Firm Averages						
Book Leverage	0.241	0.231	0.107	0.000	0.000	0.110
Market Leverage	0.304	0.294	0.154	0.005	0.000	0.128
Log(Sales)	12.026	12.123	1.437	0.066	0.072	0.426
Market-to-Book	1.139	0.937	0.774	-0.028	-0.016	1.031
EBITDA / Total Assets	0.064	0.076	0.114	-0.004	-0.001	0.218
Net PPE / Total Assets	0.325	0.312	0.155	-0.002	-0.002	0.073
Industry Characteristics						
# of Firms per Industry-Year	9.866	4.000	17.538			
Total # of Industries	87					
Sample Characteristics						
Observations	155,677					
Firms	21,398					

Panel B: Country-level characteristics				
	N	Mean	Median	SD
GDP growth	155,677	3.182	2.528	3.806
Inflation	155,677	2.238	1.988	3.346
Emerging Market	155,677	0.309	0.000	0.462
Crisis	155,677	0.331	0.000	0.470
Bank Market Size	149,421	133.8	141.2	53.8
Equity Market Size	149,421	95.3	82.7	35.8
Disclose	147,062	0.754	0.750	0.139
Liability	147,062	0.605	0.660	0.209
Protect	147,062	6.304	6.860	2.217
Anti-self	155,509	0.599	0.500	0.217
Creditor Rights	155,491	2.301	2.000	0.966
Legal Rights	149,421	7.409	7.000	1.741

Table 3. Stock Return Factor Regression Results

The sample represents the Worldscope universe between 1990 and 2011 with sufficient data. That is, accounting data for the years t and t-1, a minimum of 24 monthly market returns in the years t-6 to t-2, and monthly market returns for at least 1 month in the year t-1. Financial and utility firms are excluded from the sample. Firms with total assets of less than $10 million and those with 0 or negative market capitalization are also excluded. At least 2 firms per industry and at least 30 observations per country are required.

Table 3 presents the average factor loadings, observations, and adjusted R^2s from the following regression:

$$r_{ijlt} = \alpha_{ijlt} + \beta^{m}_{ijlt}\,(rm_{lt} - rf_t) + \beta^{IND}_{ijlt}\,(\bar{r}_{-ijlt} - rf_t) + \eta_{ijlt},$$

where r_{ijlt} is the total monthly return of firm i in industry j in country l, $(rm_{lt} - rf_t)$ is the excess market return, and $(\bar{r}_{-ijlt} - rf_t)$ is the excess return on an equal-weighted industry portfolio excluding firm i's return. The equation is estimated annually on a rolling basis using a minimum of 24 and a maximum of 60 historic monthly returns in the years t-5 to t-1. Once we estimate the equation coefficients, we calculate the expected and idiosyncratic monthly returns using the monthly data in year t as follows:

$$\text{Expected Return}_{ijlt} \equiv \hat{r}_{ijlt} = \hat{\alpha}_{ijlt} + \hat{\beta}^{m}_{ijlt}\,(rm_{lt} - rf_t) + \hat{\beta}^{IND}_{ijlt}\,(\bar{r}_{-ijlt} - rf_t)$$

$$\text{Idiosyncratic Return}_{ijt} \equiv \hat{\eta}_{ijlt} = r_{ijlt} - \hat{r}_{ijlt}.$$

	Mean	Median	SD
α_{it}	0.002	0.002	0.017
β_{it}^{M}	0.309	0.274	0.648
β_{it}^{IND}	0.651	0.586	0.557
Observations per Regression	58	60	5
Adjusted R^2	0.275	0.252	0.205
Average Monthly Return	0.010	0.000	0.148
Expected Monthly Return	0.011	0.009	0.081
Idiosyncratic Monthly Return	0.000	-0.008	0.133

Table 4. Peer Firm Return Shock Properties

The sample represents the Worldscope universe between 1990 and 2011 with sufficient data. That is, accounting data for the years t and t-1, a minimum of 24 monthly market returns in the years t-6 to t-2, and monthly market returns for at least 1 month in the year t-1. Financial and utility firms are excluded from the sample. Firms with total assets of less than $10 million and those with 0 or negative market capitalization are also excluded. At least 2 firms per industry and at least 30 observations per country are required.
The dependent variable is the peer firm average equity shock in years t and t+1, as specified in the table headings. The independent variables are measured in year t. The table presents the estimated coefficients and t-statistics robust to heteroskedasticity and within industry-country dependence. Peer firm averages are the averages of all firms except for firm i, within the same 4-digit ICB industry in the same country and year. Statistical significance at the 10%, 5% and 1% is denoted by +, *, and **, respectively.

	Home Peer Firm Average Equity Shock	
	Contemporaneous Independent Vars	1-Period Lead Independent Vars
Firm Specific Factors		
Log(Sales)	-0.0006	-0.0005
	(-1.228)	(-1.021)
Market-to-Book	0.00285**	0.00316*
	(2.905)	-2.0410
EBITDA / Assets	0.002	0.0081
	(0.426)	-1.6120
Net PPE / Assets	0.001	-0.00972+
	(0.183)	(-1.848)
Peer Firm Averages		
Log(Sales)	-0.0145**	(0.000)
	(-3.329)	(-0.092)
Market-to-Book	0.0646**	0.0657**
	(6.970)	(7.640)
EBITDA / Assets	0.312**	0.341**
	(8.811)	(10.375)
Net PPE / Assets	-0.043	-0.134**
	(-1.242)	(-3.799)
Country Characteristics		
GDP growth	0.000	-0.001
	(0.301)	(-0.862)
Inflation	-0.00718**	-0.00523**
	(-5.439)	(-4.115)
Firm Equity Return Shock	Yes	Yes
Industry-Country Fixed Effects	Yes	Yes
Year Fixed Effects	Yes	Yes
Obs	155,677	155,677
adj. R-sq	0.047	0.049

Table 5. Peer Effects in Financial Policy around the World

The sample represents the Worldscope universe between 1990 and 2011 with sufficient data. That is, accounting data for the years t and t-1, a minimum of 24 monthly market returns in the years t-6 to t-2, and monthly market returns for at least 1 month in the year t-1. Financial and utility firms are excluded from the sample. Firms with total assets of less than $10 million and those with 0 or negative market capitalization are also excluded. At least 2 firms per industry and at least 30 observations per country are required.

In this table we present the results from estimating equation (1):

$$y_{ijlt} = \alpha + \beta\, \bar{y}_{-ijlt} + \gamma' \bar{X}_{-ijlt-1} + \lambda' X_{ijlt-1} + \omega' Z_{lt} + \varphi' \eta_l + \delta' \mu_j + \phi' \nu_t + \varepsilon_{ijt},$$

Firm-specific book and market leverage are dependent variables y_{ijlt}, peer firm book and market leverage are used as the main variable of interest $\bar{y}_{-ijlt}$, and the remaining firm specific and average peer firm variables are used as controls in X_{ijlt-1} and $\bar{X}_{-ijlt-1}$, respectively. Z_{lt} controls for country-specific factors, η_l, μ_j and ν_t represent country, industry and year fixed effects, respectively.

The dependent variable in models (1), (3) and (5) is market leverage, and that in models (2), (4) and (6) is book leverage. Models (1) and (2) are estimated using OLS, and models (3) - (6) are estimated using 2SLS. Models (1) – (4) include the full sample of firms, while models (5) and (6) exclude the recent crisis period (2008-2011). All independent variables are lagged 1 year, except for the peer firm average leverage in models (3) – (6). Peer firm averages are the averages of all firms except for firm i, within the same 4-digit ICB industry in the same country and year. The table presents the estimated coefficients and t-statistics robust to heteroskedasticity and within industry-country dependence. All continuous variables in models (3) – (6) are scaled by their corresponding standard deviations for easier interpretation of coefficients. Statistical significance at the 10%, 5% and 1% is denoted by +, *, and **, respectively.

	OLS		2SLS			
			Full Sample		Excluding Crisis Period	
	Market Leverage	Book Leverage	Market Leverage	Book Leverage	Market Leverage	Book Leverage
	(1)	(2)	(3)	(4)	(5)	(6)
Peer Firm Averages						
Equity Shock	-0.00209**	-0.00131*				
	(-3.037)	(-2.149)				
Leverage			0.0557**	0.0386*	0.0785**	0.0525**
			(3.828)	(2.444)	(5.717)	(3.071)
Log(Sales)	0.00574+	0.0114**	-0.00481	0.00167	-0.00920*	-0.000673
	(1.858)	(4.337)	(-1.336)	(0.374)	(-2.541)	(-0.129)
Market-to-Book	-0.00353*	-0.00511**	0.00644+	-0.00475**	0.0116**	-0.000926
	(-2.124)	(-3.145)	(1.861)	(-2.581)	(3.522)	(-0.551)
EBITDA / Assets	0.00316*	0.0015	0.0104**	0.00930**	0.0140**	0.0114**
	-2.579	-1.185	(4.685)	(2.731)	(5.955)	(2.969)
Net PPE / Assets	0.00167	-0.00815**	-0.00930*	-0.0156**	-0.0134**	-0.0190**
	-0.562	(-3.149)	(-2.381)	(-4.013)	(-3.109)	(-4.580)
Firm Specific Factors						
Equity Shock	-0.0104**	-0.00586**	-0.0101**	-0.00568**	-0.0108**	-0.00550**
	(-14.079)	(-9.625)	(-13.488)	(-8.636)	(-10.802)	(-6.229)
Log(Sales)	0.0327**	0.0243**	0.0324**	0.0237**	0.0313**	0.0241**
	(13.170)	(12.180)	(13.078)	(11.666)	(10.661)	(9.941)
Market-to-Book	-0.0449**	0.00429*	-0.0445**	0.00485*	-0.0450**	0.00377
	(-17.786)	(2.153)	(-17.608)	(2.364)	(-14.908)	(1.565)
EBITDA / Assets	-0.0414**	-0.0440**	-0.0417**	-0.0442**	-0.0460**	-0.0467**
	(-15.621)	(-17.691)	(-15.700)	(-17.659)	(-13.862)	(-15.204)
Net PPE / Assets	0.0545**	0.0485**	0.0545**	0.0492**	0.0515**	0.0477**
	(19.132)	(19.641)	(19.325)	(19.634)	(16.679)	(16.104)
Country Characteristics						
GDP growth	-0.0245**	-0.00733**	-0.0157**	-0.00477**	-0.0170**	-0.00588**
	(-11.055)	(-5.027)	(-5.738)	(-3.516)	(-4.582)	(-2.812)
Inflation	0.0141**	0.00897**	0.00921**	0.00588**	0.00693**	0.00756**
	(7.724)	(7.448)	(5.204)	(3.816)	(3.221)	(2.933)
First Stage Instruments						
Peer Firm Avg Equity Shock			-0.0374**	-0.0339*	-0.0423**	-0.0342**
			(-7.34)	(-6.45)	(-6.70)	(-5.88)
Industry-Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	155,677	155,677	155,677	155,677	104,182	104,182
Adj. R^2	0.124	0.086	0.106	0.048	0.094	0.021

Table 6. The Information Environment and the Importance of Peers

The sample represents the Worldscope universe between 1990 and 2011 with sufficient data. That is, accounting data for the years t and t-1, a minimum of 24 monthly market returns in the years t-6 to t-2, and monthly market returns for at least 1 month in the year t-1. Financial and utility firms are excluded from the sample. Firms with total assets of less than $10 million and those with 0 or negative market capitalization are also excluded. At least 2 firms per industry and at least 30 observations per country are required.

We split our sample into two sub-samples, based on *Disclosure* (models (1) – (4)) and *Liability* (models (5) – (8)). *Low* in the model headings indicates the below median subsamples, while *High* indicates the above median ones. Variable definitions are presented in Appendix A. We re-estimate equation (1) using the exact same 2SLS approach described in Table 5, models (3) and (4). The table presents the estimated coefficients and t-statistics robust to heteroskedasticity and within industry-country dependence. Peer firm averages are the averages of all firms except for firm i, within the same 4-digit ICB industry in the same country and year. All continuous variables are scaled by their corresponding standard deviations for easier interpretation and comparability of coefficients. Statistical significance at the 10%, 5% and 1% is denoted by +, *, and **, respectively.

	Disclosure				Liability			
	Market Leverage		Book Leverage		Market Leverage		Book Leverage	
	Low	High	Low	High	Low	High	Low	High
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Peer Firm Averages								
Leverage	0.0769**	0.029	0.0553**	0.000	0.0685**	0.020	0.0518**	-0.053
	(4.448)	(1.243)	(3.259)	(0.013)	(5.047)	(0.479)	(3.176)	(-0.832)
Log(Sales)	-0.008	-0.005	-0.003	0.006	-0.00697+	0.000	-0.002	0.019
	(-1.506)	(-1.033)	(-0.650)	(0.729)	(-1.856)	(-0.001)	(-0.414)	(1.463)
Market-to-Book	0.0104+	0.001	-0.004	-0.00535*	0.00759+	0.005	-0.00412+	-0.004
	(1.811)	(0.255)	(-0.989)	(-2.139)	(1.945)	(0.716)	(-1.709)	(-1.008)
EBITDA / Assets	0.0139**	0.00704+	0.0122**	0.003	0.0130**	0.001	0.0124**	-0.013
	(5.467)	(1.886)	(3.861)	(0.324)	(6.194)	(0.127)	(3.592)	(-0.988)
Net PPE / Assets	-0.007	-0.008	-0.0138**	-0.003	-0.0106**	-0.0161+	-0.0177**	-0.006
	(-1.218)	(-1.236)	(-2.804)	(-0.298)	(-2.632)	(-1.737)	(-4.242)	(-0.373)
Firm Specific Factors								
Equity Shock	-0.00986**	-0.0122**	-0.00521**	-0.00709**	-0.0112**	-0.00999**	-0.00552**	-0.00887**
	(-9.348)	(-9.209)	(-5.628)	(-7.103)	(-13.223)	(-4.993)	(-7.492)	(-4.133)
Log(Sales)	0.0357**	0.0259**	0.0247**	0.0216**	0.0333**	0.0263**	0.0248**	0.0173*
	(9.763)	(8.624)	(2.535)	(1.505)	(11.896)	(5.420)	(11.230)	(2.486)
Market-to-Book	-0.0513**	-0.0404**	0.00748*	0.005	-0.0486**	-0.0262**	0.00613*	0.0102*
	(-13.687)	(-10.249)	(-11.109)	(-12.313)	(-15.251)	(-5.641)	(2.425)	(2.181)
EBITDA / Assets	-0.0438**	-0.0384**	-0.0403**	-0.0450**	-0.0446**	-0.0247**	-0.0441**	-0.0360**
	(-10.581)	(-10.525)	(16.558)	(12.051)	(-13.798)	(-6.404)	(-15.254)	(-6.826)
Net PPE / Assets	0.0644**	0.0465**	0.0567**	0.0436**	0.0589**	0.0315**	0.0524**	0.0318**
	(16.325)	(13.305)	(-5.628)	(-7.103)	(18.999)	(6.196)	(18.812)	(4.817)
Country Characteristics								
GDP growth	-0.0106**	-0.0133**	-0.00312*	-0.00787*	-0.0119**	-0.0471*	-0.00408**	-0.027
	(-3.649)	(-3.521)	(-2.481)	(-2.183)	(-5.120)	(-2.302)	(-2.947)	(-1.424)
Inflation	0.0110**	0.00584*	0.00675**	0.00449+	0.00867**	-0.008	0.00572**	-0.008
	(4.031)	(2.357)	(3.003)	(1.754)	(4.868)	(-1.336)	(3.232)	(-0.906)
Crisis	0.0220**	0.0101+	0.002	-0.0192*	0.0196**	0.0214+	-0.002	0.003
	(4.279)	(1.739)	(1.328)	(-2.318)	(5.420)	(1.869)	(-1.145)	(0.148)
Industry-Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	98,889	48,173	98,889	48,173	135,862	11,200	135,862	11,200

Table 7. Investor Protection and the Importance of Peers

The sample represents the Worldscope universe between 1990 and 2011 with sufficient data. That is, accounting data for the years t and t-1, a minimum of 24 monthly market returns in the years t-6 to t-2, and monthly market returns for at least 1 month in the year t-1. Financial and utility firms are excluded from the sample. Firms with total assets of less than $10 million and those with 0 or negative market capitalization are also excluded. At least 2 firms per industry and at least 30 observations per country are required.

We split our sample into two sub-samples, based on *Protect* (models (1) – (4)) and *Anti-self* (models (5) – (8)). *Low* in the model headings indicates the below median subsamples, while *High* indicates the above median ones. Variable definitions are presented in Appendix A. We re-estimate equation (1) using the exact same 2SLS approach described in Table 5, models (3) and (4). The table presents the estimated coefficients and t-statistics robust to heteroskedasticity and within industry-country dependence. Peer firm averages are the averages of all firms except for firm i, within the same 4-digit ICB industry in the same country and year. All continuous variables are scaled by their corresponding standard deviations for easier interpretation and comparability of coefficients. Statistical significance at the 10%, 5% and 1% is denoted by +, *, and **, respectively.

	Protect				Anti-self			
	Market Leverage		Book Leverage		Market Leverage		Book Leverage	
	Low	High	Low	High	Low	High	Low	High
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Peer Firm Averages								
Leverage	0.0788**	0.023	0.0558**	-0.004	0.0874**	0.014	0.0611**	0.002
	(4.715)	(0.900)	(3.362)	(-0.104)	(4.480)	(0.553)	(3.191)	(0.064)
Log(Sales)	-0.00843+	-0.004	-0.004	0.008	-0.00995+	0.001	-0.004	0.007
	(-1.677)	(-0.754)	(-0.772)	(0.884)	(-1.741)	(0.087)	(-0.659)	(0.929)
Market-to-Book	0.0108+	0.000	-0.004	-0.00551*	0.0147*	-0.001	-0.004	-0.00590**
	(1.897)	(0.001)	(-1.002)	(-2.143)	(2.095)	(-0.229)	(-0.922)	(-2.803)
EBITDA / Assets	0.0145**	0.006	0.0126**	0.001	0.0213**	0.004	0.0159**	0.003
	(5.747)	(1.473)	(4.019)	(0.146)	(5.723)	(1.227)	(3.691)	(0.595)
Net PPE / Assets	-0.007	-0.006	-0.0136**	-0.002	-0.011	-0.006	-0.0161**	-0.004
	(-1.266)	(-0.930)	(-2.807)	(-0.166)	(-1.554)	(-1.225)	(-2.596)	(-0.509)
Firm Specific Factors								
Equity Shock	-0.00971**	-0.0125**	-0.00519**	-0.00718**	-0.00956**	-0.0103**	-0.00433**	-0.00647**
	(-9.153)	(-9.199)	(-5.657)	(-7.114)	(-8.017)	(-10.313)	(-4.198)	(-7.791)
Log(Sales)	0.0360**	0.0253**	0.0252**	0.0208**	0.0345**	0.0316**	0.0240**	0.0239**
	(9.922)	(8.307)	(9.353)	(6.122)	(7.793)	(12.784)	(7.432)	(9.369)
Market-to-Book	-0.0515**	-0.0400**	0.00742*	0.005	-0.0539**	-0.0390**	0.0117**	0.003
	(-13.838)	(-10.074)	(2.542)	(1.496)	(-11.567)	(-13.449)	(3.204)	(1.093)
EBITDA / Assets	-0.0447**	-0.0373**	-0.0409**	-0.0443**	-0.0634**	-0.0330**	-0.0552**	-0.0404**
	(-10.743)	(-10.420)	(-11.259)	(-12.205)	(-10.837)	(-12.986)	(-12.094)	(-14.040)
Net PPE / Assets	0.0642**	0.0463**	0.0563**	0.0438**	0.0717**	0.0414**	0.0613**	0.0413**
	(16.539)	(12.977)	(16.693)	(11.820)	(16.789)	(14.683)	(16.437)	(14.110)
Country Characteristics								
GDP growth	-0.00994**	-0.0149**	-0.00293*	-0.00851*	-0.0105**	-0.0201**	-0.00387*	-0.00672*
	(-3.666)	(-3.653)	(-2.473)	(-2.178)	(-3.030)	(-4.640)	(-2.240)	(-2.545)
Inflation	0.0111**	0.00643*	0.00687**	0.00469+	0.00890**	0.00731**	0.00634*	0.00347+
	(4.083)	(2.353)	(3.044)	(1.726)	(3.102)	(3.098)	(2.382)	(1.847)
Crisis	0.0206**	0.0135*	0.002	-0.0203*	0.0221**	0.0260**	0.00416+	-0.0180**
	(4.304)	(2.112)	(1.290)	(-2.274)	(3.235)	(3.597)	(1.844)	(-2.682)
Industry-Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	100,613	46,449	100,613	46,449	84,592	70,917	84,592	70,917

Table 8. Creditor Rights and the Importance of Peers

The sample represents the Worldscope universe between 1990 and 2011 with sufficient data. That is, accounting data for the years t and t-1, a minimum of 24 monthly market returns in the years t-6 to t-2, and monthly market returns for at least 1 month in the year t-1. Financial and utility firms are excluded from the sample. Firms with total assets of less than $10 million and those with 0 or negative market capitalization are also excluded. At least 2 firms per industry and at least 30 observations per country are required.

We split our sample into two sub-samples, based on *Creditor rights* (models (1) – (4)) and *Legal rights* (models (5) – (8)). *Low* in the model headings indicates the below median subsamples, while *High* indicates the above median ones. Variable definitions are presented in Appendix A. We re-estimate equation (1) using the exact same 2SLS approach described in Table 5, models (3) and (4). The table presents the estimated coefficients and t-statistics robust to heteroskedasticity and within industry-country dependence. Peer firm averages are the averages of all firms except for firm i, within the same 4-digit ICB industry in the same country and year. All continuous variables are scaled by their corresponding standard deviations for easier interpretation and comparability of coefficients. Statistical significance at the 10%, 5% and 1% is denoted by +, *, and **, respectively.

	Creditor Rights				Legal Rights			
	Market Leverage		Book Leverage		Market Leverage		Book Leverage	
	Low	High	Low	High	Low	High	Low	High
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Peer Firm Averages								
Leverage	-0.037	0.0964**	0.001	0.0620**	-0.017	0.0825**	-0.004	0.0541**
	(-0.676)	(9.259)	(0.029)	(4.840)	(-0.368)	(6.316)	(-0.097)	(3.792)
Log(Sales)	0.005	-0.0140**	0.005	-0.006	0.001	-0.00876*	0.005	-0.002
	(0.616)	(-3.876)	(0.652)	(-1.457)	(0.089)	(-2.122)	(0.648)	(-0.469)
Market-to-Book	-0.007	0.0116**	-0.003	-0.00615*	-0.005	0.0115**	-0.00435+	-0.00372+
	(-0.674)	(3.983)	(-1.303)	(-2.562)	(-0.614)	(3.659)	(-1.768)	(-1.761)
EBITDA / Assets	-0.002	0.0116**	0.004	0.0111**	0.001	0.0100**	0.001	0.0102**
	(-0.174)	(7.060)	(0.381)	(4.337)	(0.160)	(5.489)	(0.052)	(3.855)
Net PPE / Assets	0.021	-0.0220**	-0.003	-0.0191**	0.009	-0.0191**	-0.007	-0.0174**
	(1.476)	(-5.902)	(-0.269)	(-4.923)	(0.868)	(-4.760)	(-0.782)	(-3.985)
Firm Specific Factors								
Equity Shock	-0.00840**	-0.0117**	-0.00438**	-0.00723**	-0.00927**	-0.0113**	-0.00509**	-0.00669**
	(-8.111)	(-9.524)	(-5.833)	(-6.648)	(-8.080)	(-10.547)	(-5.610)	(-7.581)
Log(Sales)	0.0299**	0.0366**	0.0212**	0.0276**	0.0279**	0.0344**	0.0213**	0.0249**
	(7.886)	(11.569)	(7.202)	(10.299)	(6.870)	(11.413)	(6.701)	(9.303)
Market-to-Book	-0.0485**	-0.0389**	0.001	0.0101**	-0.0447**	-0.0436**	0.00534*	0.004
	(-15.374)	(-11.083)	(0.332)	(3.235)	(-13.638)	(-11.839)	(2.117)	(1.306)
EBITDA / Assets	-0.0584**	-0.0301**	-0.0596**	-0.0334**	-0.0551**	-0.0325**	-0.0571**	-0.0356**
	(-10.552)	(-12.185)	(-12.191)	(-12.762)	(-9.319)	(-12.388)	(-11.220)	(-12.887)
Net PPE / Assets	0.0655**	0.0427**	0.0591**	0.0378**	0.0594**	0.0493**	0.0543**	0.0439**
	(15.848)	(14.261)	(16.956)	(12.767)	(12.520)	(15.199)	(13.379)	(13.607)
Country Characteristics								
GDP growth	-0.0324**	-0.00880**	-0.00391+	-0.00463**	-0.0442**	-0.00760**	-0.00475+	-0.00476**
	(-3.169)	(-4.916)	(-1.684)	(-3.253)	(-3.540)	(-4.174)	(-1.701)	(-3.263)
Inflation	0.0151**	0.00606**	0.00862**	0.00441**	0.0106**	0.00677**	0.00573*	0.00631**
	(2.788)	(3.824)	(2.621)	(2.789)	(2.691)	(3.592)	(2.269)	(3.163)
Crisis	0.0584**	0.0103**	0.000	-0.00591*	0.0529**	0.0143**	0.002	-0.00704*
	(3.285)	(3.612)	(-0.065)	(-2.132)	(3.535)	(4.100)	(0.416)	(-2.305)
Industry-Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	96,632	58,859	96,632	58,859	83,110	66,311	83,110	66,311

Table 9. Market Size and the Importance of Peers

The sample represents the Worldscope universe between 1990 and 2011 with sufficient data. That is, accounting data for the years t and t-1, a minimum of 24 monthly market returns in the years t-6 to t-2, and monthly market returns for at least 1 month in the year t-1. Financial and utility firms are excluded from the sample. Firms with total assets of less than $10 million and those with 0 or negative market capitalization are also excluded. At least 2 firms per industry and at least 30 observations per country are required.

We split our sample into two sub-samples, based on *Bank Market Size* (models (1) – (4)) and *Equity Market Size* (models (5) – (8)). *Small* in the model headings indicates the below median subsamples, while *Large* indicates the above median ones. Variable definitions are presented in Appendix A. We re-estimate equation (1) using the exact same 2SLS approach described in Table 5, models (3) and (4). The table presents the estimated coefficients and t-statistics robust to heteroskedasticity and within industry-country dependence. All continuous variables are scaled by their corresponding standard deviations for easier interpretation and comparability of coefficients. Peer firm averages are the averages of all firms except for firm i, within the same 4-digit ICB industry in the same country and year. Statistical significance at the 10%, 5% and 1% is denoted by +, *, and **, respectively.

	Bank Market Size				Equity Market Size			
	Market Leverage		Book Leverage		Market Leverage		Book Leverage	
	Small	Large	Small	Large	Small	Large	Small	Large
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Peer Firm Averages								
Leverage	0.0604**	0.0624**	0.0356*	0.050	-0.030	0.0877**	0.017	0.0470**
	(3.620)	(3.762)	(2.127)	(1.226)	(-0.529)	(7.764)	(0.373)	(3.242)
Log(Sales)	-0.005	-0.006	0.000	0.002	0.005	-0.00989**	0.003	0.000
	(-1.125)	(-1.402)	(0.032)	(0.191)	(0.493)	(-2.852)	(0.341)	(-0.015)
Market-to-Book	0.00735+	0.00913*	-0.00525*	-0.00498*	-0.006	0.0100**	-0.005	-0.00510**
	(1.853)	(2.250)	(-2.246)	(-2.235)	(-0.520)	(3.638)	(-1.537)	(-2.658)
EBITDA / Assets	0.0110**	0.00909**	0.0111**	0.007	0.001	0.00937**	0.010	0.00849**
	(4.284)	(2.918)	(3.394)	(0.702)	(0.057)	(5.448)	(0.804)	(3.017)
Net PPE / Assets	-0.0124**	-0.00948+	-0.0111*	-0.0232**	0.018	-0.0191**	-0.006	-0.0160**
	(-2.732)	(-1.783)	(-2.095)	(-3.893)	(1.214)	(-5.285)	(-0.452)	(-3.960)
Firm Specific Factors								
Equity Shock	-0.0101**	-0.0112**	-0.00601**	-0.00572**	-0.00927**	-0.0113**	-0.00428**	-0.00795**
	(-8.981)	(-10.169)	(-7.103)	(-5.112)	(-8.080)	(-10.547)	(-5.213)	(-7.866)
Log(Sales)	0.0376**	0.0247**	0.0238**	0.0226**	0.0306**	0.0335**	0.0226**	0.0254**
	(13.050)	(5.506)	(9.437)	(6.450)	(7.171)	(12.000)	(6.912)	(9.944)
Market-to-Book	-0.0419**	-0.0449**	0.002	0.0119**	-0.0531**	-0.0327**	0.003	0.0105**
	(-14.548)	(-9.181)	(0.877)	(3.682)	(-15.348)	(-12.068)	(0.898)	(4.118)
EBITDA / Assets	-0.0365**	-0.0515**	-0.0418**	-0.0472**	-0.0811**	-0.0272**	-0.0763**	-0.0333**
	(-13.961)	(-8.000)	(-13.816)	(-10.907)	(-11.307)	(-13.339)	(-12.910)	(-14.568)
Net PPE / Assets	0.0491**	0.0610**	0.0457**	0.0550**	0.0715**	0.0391**	0.0643**	0.0359**
	(15.846)	(11.894)	(15.393)	(12.197)	(16.662)	(14.602)	(17.397)	(12.936)
Country Characteristics								
GDP growth	-0.0134**	-0.0271**	-0.00537**	-0.005	-0.0277**	-0.0110**	-0.003	-0.00683**
	(-4.599)	(-4.801)	(-3.520)	(-1.352)	(-2.922)	(-5.174)	(-1.312)	(-3.642)
Inflation	0.00767**	-0.001	0.00545**	0.008	0.0134*	0.00679**	0.00667*	0.00566**
	(4.200)	(-0.347)	(3.474)	(1.438)	(2.501)	(4.000)	(1.981)	(3.054)
Crisis	0.0289**	0.0114*	-0.00587*	0.001	0.0697**	0.0116**	0.000	-0.00620*
	(4.842)	(2.487)	(-2.059)	(0.340)	(3.179)	(3.844)	(-0.062)	(-2.028)
Industry-Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	78,934	70,487	78,934	70,487	85,949	63,472	85,949	63,472

Table 10. Robustness: Matched Sample Estimates

The sample represents the Worldscope universe between 1990 and 2011 with sufficient data. That is, accounting data for the years t and t-1, a minimum of 24 monthly market returns in the years t-6 to t-2, and monthly market returns for at least 1 month in the year t-1. Financial and utility firms are excluded from the sample. Firms with total assets of less than $10 million and those with 0 or negative market capitalization are also excluded. At least 2 firms per industry and at least 30 observations per country are required.

Matched samples of firms are created for the below- and above-median subsamples of each of the following variables: *Disclose*, *Liability*, *Protect*, *Anti-self*, *Creditor Rights*, *Legal Rights*, *Bank Market Size*, and *Equity Market Size*. We describe the matching procedure in detail in section 3.1. The results reported in Tables 5-9 are re-estimated with the matched samples. Only the relevant market or book peer firm leverage coefficients are reported for brevity. *Small* and *Low* in the model headings indicate the below-median subsamples, while *Large* and *High* indicate the above-median ones. Detailed variable definitions are presented in Appendix A. We re-estimate equation (1) using the exact same 2SLS approach described in Table 5, models (3) and (4). The table presents the estimated coefficients and t-statistics robust to heteroskedasticity and within industry-country dependence. All continuous variables are scaled by their corresponding standard deviations for easier interpretation and comparability of coefficients. Peer firm averages are the averages of all firms except for firm i, within the same 4-digit ICB industry in the same country and year. Statistical significance at the 10%, 5% and 1% is denoted by +, *, and **, respectively.

	Disclose		Protect		Creditor Rights		Bank Market Size	
	Low	High	Low	High	Low	High	Small	Large
Market Leverage	0.103**	0.033	0.0923**	0.031	-0.022	0.101**	0.0624**	0.0981**
	(3.648)	(1.263)	(3.470)	(1.083)	(-0.452)	(8.219)	(3.643)	(5.056)
N	39,099	39,143	37,740	37,792	48,086	48,116	42,585	42,644
	Low	High	Low	High	Low	High	Small	Large
Book Leverage	0.0666**	-0.015	0.0530*	-0.018	-0.011	0.0597**	0.0433**	0.134**
	(2.595)	(-0.332)	(2.218)	(-0.343)	(-0.196)	(4.308)	(2.583)	(2.926)
N	39,099	39,143	37,740	37,792	48,086	48,116	42,585	42,644
	Liability		Anti-self		Legal Rights		Equity Market Size	
	Low	High	Low	High	Low	High	Small	Large
Market Leverage	0.093	0.017	0.0811**	0.0583+	-0.030	0.0956**	0.040	0.0926**
	(0.980)	(0.421)	(2.706)	(1.883)	(-0.539)	(5.751)	(0.532)	(5.971)
N	9,753	9,948	45,698	45,708	50,412	50,437	44,762	44,787
	Low	High	Low	High	Low	High	Small	Large
Book Leverage	0.225	-0.049	0.048	0.013	-0.068	0.0632**	0.084	0.0488**
	(0.785)	(-0.776)	(1.495)	(0.361)	(-0.927)	(3.656)	(1.285)	(2.801)
N	9,753	9,948	45,698	45,708	50,412	50,437	44,762	44,787

Table 11. Robustness: Institutional Strength and the Importance of Peers

The sample represents the Worldscope universe between 1990 and 2011 with sufficient data. That is, accounting data for the years t and t-1, a minimum of 24 monthly market returns in the years t-6 to t-2, and monthly market returns for at least 1 month in the year t-1. Financial and utility firms are excluded from the sample. Firms with total assets of less than $10 million and those with 0 or negative market capitalization are also excluded. At least 2 firms per industry and at least 30 observations per country are required.

We split our sample into four sub-samples, based on *Strong Institutions* (models (1) and (2)), *Strong Investor Protection* (models (3) and (4)), *Strong Creditor Rights* (models (5) and (6)), and *Weak Institutions* (models (7) – (8)). *Small* in the model headings indicates the below median subsamples, while *Large* indicates the above median ones. Variable definitions are presented in Appendix A. We re-estimate equation (1) using the exact same 2SLS approach described in Table 5, models (3) and (4). The table presents the estimated coefficients and t-statistics robust to heteroskedasticity and within industry-country dependence. All continuous variables are scaled by their corresponding standard deviations for easier interpretation and comparability of coefficients. Peer firm averages are the averages of all firms except for firm i, within the same 4-digit ICB industry in the same country and year. Statistical significance at the 10%, 5% and 1% is denoted by +, *, and **, respectively.

	Strong Institutions		*Strong Investor Protection*		*Strong Creditor Protection*		*Weak Institutions*	
	Market Leverage (1)	Book Leverage (2)	Market Leverage (3)	Book Leverage (4)	Market Leverage (5)	Book Leverage (6)	Market Leverage (7)	Book Leverage (8)
Peer Firm Averages								
Leverage	0.0440+	0.0374	0.0253	-0.0554	0.148**	0.0945**	-0.012	-0.00206
	(1.771)	(0.897)	(0.646)	(-0.853)	(4.761)	(3.861)	(-0.183)	(-0.027)
Log(Sales)	-0.00744+	-0.00181	-0.00679	0.0084	-0.0262**	-0.0132	0.00693	0.00557
	(-1.717)	(-0.193)	(-1.097)	(0.934)	(-2.835)	(-1.617)	(0.550)	(0.373)
Market-to-Book	0.00221	-0.00563**	0.0053	-0.00281	0.0312**	0.00568+	-0.00688	-0.00311
	(0.428)	(-2.739)	(0.841)	(-0.941)	(5.138)	(1.702)	(-0.638)	(-0.333)
EBITDA / Assets	0.0105**	0.0122	0.00219	-0.0107	0.0156**	0.0137**	0.0118	0.00856
	(2.667)	(1.237)	(0.383)	(-0.761)	(3.796)	(3.094)	(0.602)	(0.296)
Net PPE / Assets	-0.0085	-0.0126	-0.0118	0.000807	-0.0421**	-0.0332**	0.0222	0.00382
	(-1.300)	(-0.945)	(-1.620)	(0.057)	(-4.377)	(-3.754)	(1.369)	(0.236)
Firm Specific Factors								
Equity Shock	-0.0147**	-0.00689**	-0.00860**	-0.00762**	-0.00308+	-0.00205	-0.0137**	-0.00476**
	(-12.360)	(-5.812)	(-5.005)	(-3.640)	(-1.781)	(-1.458)	(-8.878)	(-3.718)
Log(Sales)	0.0263**	0.0231**	0.0272**	0.0178**	0.0428**	0.0226**	0.0320**	0.0248**
	(17.865)	(14.035)	(11.047)	(5.285)	(18.209)	(10.278)	(22.009)	(19.321)
Market-to-Book	-0.0459**	0.00390+	-0.0260**	0.0101**	-0.0499**	0.00133	-0.0513**	0.0218**
	(-27.433)	(1.917)	(-12.957)	(2.690)	(-13.509)	(0.530)	(-16.484)	(9.185)
EBITDA / Assets	-0.0444**	-0.0490**	-0.0257**	-0.0375**	-0.0361**	-0.0367**	-0.103**	-0.0857**
	(-22.691)	(-17.732)	(-11.947)	(-9.512)	(-12.878)	(-11.387)	(-17.071)	(-16.176)
Net PPE / Assets	0.0499**	0.0458**	0.0355**	0.0356**	0.0690**	0.0539**	0.0780**	0.0687**
	(34.227)	(30.592)	(14.345)	(10.709)	(28.676)	(24.396)	(46.381)	(51.263)
Country Characteristics								
GDP growth	-0.0132**	(0.006)	(0.006)	(0.000)	(0.001)	(0.002)	-0.0425*	(0.011)
	(-3.411)	(-1.417)	(-0.659)	(-0.036)	(-0.150)	(-0.351)	(-2.435)	(-1.352)
Inflation	0.00498*	0.003	0.010	0.003	0.003	0.007	0.0168**	0.011
	(2.020)	(1.138)	(1.423)	(0.581)	(0.166)	(0.520)	(2.576)	(1.482)
Industry-Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	37,707	37,707	10,466	10,466	21,359	21,359	59,164	59,164
Adj. R^2	0.127	0.062	0.075	0.076	0.071	-0.024	0.150	0.117

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