FINANCIAL REPORTING QUALITY WITHIN BUSINESS GROUPS

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Abstract

Using a large dataset of Business Groups where the apex firm is based in Europe and controls all the affiliates through ownership stakes, we analyse how financial reporting quality varies within Business Groups, and relate this variation to the conflict of interests between the controlling owner at the group level and the smaller owners of the organization.

Evidence found suggests that (1) Business Groups provide lower financial reporting quality in affiliates where the controlling owners have a higher economic interest, (2) financial reporting quality increases in affiliates that the group does not fully own, and (3) the level of the financial reporting quality of the Business Group´s apex firm is positively related to the reporting quality of all the affiliated firms, owned directly or indirectly by the apex firm, suggesting the existence of a group-level policy concerning firm transparency.

Overall, our evidence is consistent with the controlling owners of the Business Group balancing the positive effects of lower-quality financial reporting for their private benefits, with the protection of the investments of noncontrolling shareholders (both at the group and affiliate level) in making decisions about the financial reporting quality of each firm within the Business Group.

We contribute to the literature on the quality of accounting information, showing evidence of systematic variations in financial reporting quality within Business Groups, and to the corporate governance literature, providing theory and evidence to understand how financial reporting quality is used as a corporate governance mechanism at the Business Group level.

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1- INTRODUCTION

Business groups (BG) are a set of legally independent firms connected through formal and informal links operating in a coordinated manner to achieve group-level objectives (Granovetter, 1995; Khanna & Rivkin, 2001; Aguilera, Federo, Justo, Mérida, Pascual-Fuster, 2024). There are thus clear financial, control, and managerial advantages to organizing economic activity into BGs (Masulis, Pham & Zein 2011), that could explain their prevalence worldwide (Carney, Van Esse, Estrin, & Shapiro, 2018; Enriques & Volpin 2007). For example, individual firms within BGs benefit from synergies (and trust) between the companies and can share resources efficiently; subsidiaries have access to capital (Almeida, Kim & Kim 2015), cash flow, supply chains, human resources, and know-how that can be easily transferred within the group (Huneeus, Larrain, Larrain & Prem 2021); and BGs can mitigate market risks (Faccio, Morck & Yavuz 2021) so that their capital allocation decisions are more economically efficient. Yet, there is a dark side to organizing the economic activity into business groups. Albeit powerful elements for growth, the concentration of power within BGs and the complexity of their organizational structures can facilitate self-dealing transactions that are difficult to detect by outsiders (Dau, Morck & Yeung, 2021; Baek, Kang & Lee, 2006). Having these motivations in mind, Khanna & Yafeh (2007) present the *entrenchment/exploitation hypothesis* that sees BGs as opaque structures designed to extract surplus from noncontrolling shareholders, to the benefit of their controlling owners (Carney et al, 2018).

We posit that financial reporting quality (FRQ) is key to preventing these conflicts of interest as the role of financial reporting is to reduce information asymmetry among various users of financial information (Bushee, Goodman, & Sunder, 2019). In this paper, we examine whether, and how, FRQ systematically responds to the incentives of different types of owners and their power within the business group (BG). To do so, we examine the conflicting interests of the BG controlling owners and those of noncontrolling shareholders, both at the group level and the affiliate firms. Ultimately, we aim to shed light on how different users of financial information interact and how FRQ emerges as a response to the incentives of the owners and the conflicts between them.

For our analysis, we develop a theoretical framework and empirically test two distinct research questions. First, we analyse how the incentives and power of controlling and non-controlling shareholders (at affiliate level) influence the FRQ of affiliate firms. Second, we investigate whether the FRQ practices of the apex firm of the BG influence FRQ of affiliate firms, reflecting a BG-wide policy on FRQ that emerges from the interaction between the interests of the BG's controlling

shareholders and the non-controlling shareholders of the apex firm. Specifically, we investigate how FRQ of affiliated firms is influenced by two distinct type-2-agency conflicts: the horizontal agency conflict (between the largest and smaller owners of the group) and a vertical agency conflict (between the owners of the BG and the smaller owners of the affiliate firms).

For our empirical analysis, we construct a dataset of all affiliates worldwide of BGs where the apex firm is headquartered in a subset of 12 Western European countries. In all, our dataset contains 330.370 firm-year observations across 45 different subsidiary countries for the years 2015-2021. Following (Kim & Yi 2006), we use the amount of unsigned discretionary accruals as a proxy for poor FRQ. Since BGs are composed of legally independent firms, each firm reports its accounting information separately, and we are able to compute a measure of the quality of the accounting information of each affiliated firm separately. As in Bonacchi, Marra & Zarowin (2019), we focus on the unconsolidated accounts of all affiliate firms within BGs. This approach enables the identification of variations in reporting quality across firms, including those that engage in intragroup transactions. These types of transactions may serve as a significant source of accruals variability among firms within the group, that might be used by the controlling owners to orchestrate a BG-wide FRQ strategy.

Three key empirical regularities are found in our research. First, we find that the FRQ of the affiliate firms is significantly related to the ownership structure, both at the group and the affiliate level. We find a positive and significant relation between the proportion of ownership rights of BG's ultimate owners over the cash flow generated by each affiliated firm and its FRQ. Second, we find that affiliates with at least one additional noncontrolling shareholder have significantly better FRQ. Third, we find evidence of decisions about FRQ made at the BG level, as the FRQ of the apex firm of the BG, is significantly and positively related to the FRQ of the affiliates. This suggests that the FRQ of affiliated firms responds to the level of FRQ that results from the interaction between the interest of the controlling and the noncontrolling shareholders of the apex firm of the BG.

In general, our results are in line with the notion that the largest ultimate owners, in an attempt to protect their private control benefits, prefer to provide financial information of lower quality in the affiliates that are economically more relevant for them, protecting their benefits of control. In BGs with not-fully-owned affiliates (which are common in Europe), the relevant conflicts of interest and the relevant asymmetry of information that FRQ may address appear between the BG ultimate owners and the noncontrolling shareholders of the affiliates, who prefer high FRQ to protect their investments in the BG. Also, our findings are consistent with the BG implementing overall strategies in terms of FRQ. Given that all the activities of the BG- from reallocation of resources and earnings to outright rent extraction- are decided at the apex firm, non-controlling shareholders (both at the apex and affiliate level) care about the FRQ of all the affiliate firms. Therefore, the outcome, in terms of FRQ,

of the balance between the interest of the BG ultimate owners and the noncontrolling shareholders of the apex firm spreads over all affiliate firms of the BG.

This paper contributes to different strands of literature. First, it adds to the finance and management literature on the functioning and internal organization of business groups (See Aguilera, et al, 2024 for a survey). Such studies examine the internal organization of BGs (Almeida, Park, Subrahmanyam, & Wolfenson, 2011), their vertical and horizontal integration (Belenzon, Hashai & Patacconi, 2019), and their group strategy in terms of capital requirements (Faccio, Morck & Yavuz, 2021; Almeida, Kim & Kim, 2015), risk allocation (Kahna & Yafeh, 2005) or internal labour markets (Huneeus, Larrain, Larrain, & Prem, 2021). We contribute to this strand of the literature by looking at the conflict of interests between the controlling owners at the apex of the BG and the smaller owners in the apex and the affiliate, and how this conflict varies depending on the Group ownership structure, the level of the organization at which the company is located, and the overall structure of the organization.

It also adds to the accounting literature that examines the link between firm characteristics and FRQ (Firth, Lin & Wong, 2019; Krishnan, Myllymäki, & Nagar, 2020; García Lara, García Osma & Penalva, 2019) and to the literature on financial reporting quality and the informativeness of earnings (Christensen, Huffman, Lewis-Western & Scott, 2021; Leuz, Nanda, & Wyxocki, 2003; Amin & Cumming, 2021; Leuz et al. (2002) and Bansal (2023).

Finally, we add to the niche of studies that examine the quality of financial information within BGs (Kim & Yi, 2006; Bonacchi, Cipollini & Zarowin, 2018; Bonacchi, Marra & Zarowin, 2019; Beuselinck, Cascino, Deloof, & Vanstraelen, 2019; Haw, Hu, Hwang, & Wu, 2004). In a seminal paper, Kim & Yi (2006) examine whether and how the deviation of controlling shareholders' control from ownership, business group affiliation and listing status affect the extent of earnings management. They find that the magnitude of (unsigned) discretionary accruals is greater for group-affiliated firms. Also, Bonacchi, Marra & Zarowin (2019) find that private BGs have higher earnings quality than stand-alone firms. We contribute to this literature by examining the within-group allocation of FRQ and by analysing separately two different types of agency conflicts that arise in BGs: horizontal agency conflicts (between controlling and non-controlling shareholders at the group level) and vertical agency conflicts (between group owners and non-controlling shareholders of the affiliate firms).

The remainder of the paper is structured as follows. In Section 2 we review the literature and present the testable hypotheses. In Section 3 we present the data and the methodology. In Section 4 we present the empirical results and Section 5 discuss the results and concludes.

2- LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1. FRQ and the interest of different types of owners

Recent literature focuses on BGs articulated through ownership links of control (Belenzon, Hashai, & Patacconi, 2019; Faccio, Morck, & Yavuz, 2021; Faccio & O'Brien, 2020; Masulis, Pham, & Zein, 2011), where the apex firm of the BGs (parent firm) controls all the affiliates through controlling ownership stakes (higher than 20% in the case of public firms, and 50% in the case of private firms). The controlling shareholder of this type of BG is the controlling shareholder of the apex firm, and in the case of widely held apex firms, is the apex firm itself. Given the nature of this type of BG, the controlling shareholder of the BG controls all firms within the BG. This means that there is someone (the controlling shareholder) with strong decision-making power over the quality of the financial information disclosed by all firms within the BG, not just the apex firm.

Disclosing financial information is costly for any organization (also for firms within BGs). There are direct costs (the administrative costs of gathering and summarizing the information) and indirect costs (the loss of the informative advantage that this information gives to insiders) that increase with the quality of financial information. We argue that in the case of BGs based on controlling ownership links, the relevant insiders who may lose informational advantages by releasing high-quality financial information are the controlling owners of the BGs. Furthermore, since BGs consist of multiple firms, each producing its unique financial information, this potential informative advantage arises in as many instances as there are firms within the group. The controlling owners of the group become the relevant insiders in each affiliated firm as they have control over the management of the affiliate companies thanks to their controlling ownership stakes (Schleifer, & Vishny, 1997; Laporta, Lopez de Silanes, & Shleifer, 1999). Controlling owners of BGs have economic incentives not to disclose financial information to outsiders (e.g., noncontrolling shareholders in the affiliated firm), as long as this information is known to them via the BG´s internal control mechanisms (Verrecchia, 1983).

However, the economic interests of the controlling owner in different affiliated firms within a business group can vary significantly, which may lead to varying incentives for the controlling owners to limit the disclosure of financial information to outsiders. The economic interest of the controlling owners over the different affiliates varies with the cash flow rights from each affiliate (La Porta, Lopez-de-Silanes, & Shleifer, 2002, Claessens, Djankov, Fan, & Lang, 2002, Lemmon & Lins 2003). Consequently, we expect the BG ultimate owners to be especially focused on those affiliates where they have a higher economic interest, limiting the disclosure of financial information released

by these BG-affiliated firms to minimize the cost of losing informational advantages with respect to outsiders. Therefore, we formulate the following hypothesis:

Hypothesis 1. *We expect to find a negative relationship between Financial Reporting Quality (FRQ) and the controlling shareholder´s economic interest in the affiliated firms of the BG.*

In BGs based on ownership links, the primary conflict often arises between the controlling shareholders of the BG and noncontrolling shareholders of different firms within the BGs. This is the case, as the large ownership stakes of the controlling owners provide them with the right to implement mechanisms to control managers (e.g., nominating board members to protect their specific interest). However, this high control by the controlling owners of the BG allows them to implement other BG strategies, such as resource reallocation, income shifting or even rent extraction, that can be specially damaging for non-controlling shareholders in the affiliate firms (Dau, Morck, & Yeung, 2021; Johnson, LaPorta, Lopez-de-Silanes, & Shleifer, 2000; Bertrand, Mehta & Mullainathan, 2002; Baek, Kang, & Lee, 2006). A relevant mechanism at the hands of non-controlling shareholders to protect their interest is to pay a lower price for their investments in BG-affiliated firms, discounting the controlling owner´s informational advantage (Almeida, Park, Subrahmanyam, Wolfenzon, 2011). To minimize this discount the BG controlling shareholders have incentives to generate higher FRQ on such affiliates, to provide noncontrolling shareholders at the affiliate level with better information to detect any rent extraction activity, and to better evaluate any risk of their investments in the BG. Therefore, the need for the noncontrolling shareholders' external funding at the affiliate level creates incentives for the BG controlling shareholders to improve the affiliate firm´s FRQ (Haw, Hu, Hwang & Wu 2004). Therefore, we formulate the following hypothesis:

Hypothesis 2. *We expect to find a positive relation between Financial Reporting Quality (FRQ) and the presence of noncontrolling shareholders at the affiliate level.*

2.3. FRQ of the apex firm of the BG

The ownership links typical of BGs give controlling owners the power to decide over the FRQ of all affiliate firms, since they have controlling stakes in all affiliates. However, non-controlling shareholders may also affect the FRQ of several firms within the BG, not only the firm where they invest directly. Non-controlling shareholders (both at the apex and the affiliate level) may affect the FRQ of the firm where they invest directly (as stated in hypothesis 2), but also of all firms owned directly and indirectly by this firm. Since the profits of lower-level affiliates (those owned by other affiliates) belong to upper-level affiliates, reaching the apex firm of the BG, any risk affecting affiliate firms hurts the economic interests of the parent company´s non-controlling shareholders. Consequently, non-controlling shareholders at the apex firms will pay a discounted price for their

investment in the BG, factoring in these risks, unless they have mechanisms to detect and avoid such activities throughout the entire BG. Higher FRQ in the apex firm and all affiliates owned directly and indirectly by the apex firm can reduce such price discounts. As a result, BGs with high FRQ in the apex firm as a result of the interaction between the interest of controlling and non-controlling shareholders of the apex firm, will tend to push up the FRQ of all affiliate firms. By the same logic, BGs with low FRQ at the apex firm will tend to push down the FRQ of all affiliate firms. Therefore, we should expect a positive correlation between the FRQ in the apex firm and the FRQ of all affiliate firms. Therefore, we formulate the following hypothesis:

Hypothesis 3. *We expect a positive relation between the FRQ in the apex firm of the BG and the FRQ in affiliates.*

3- THE DATA AND EMPIRICAL METHODOLOGY

3.1. Description of the data

To construct the dataset, we obtain information from Orbis. From Orbis, we have collected detailed information on the ownership structure of every firm in the year 2020. From this initial effort, we have been able to identify and track the ownership of 1.075.643 companies (listed and non-listed) that belong to Business Groups headquartered in a set of twelve European countries. These countries are Austria, Belgium, Denmark, Finland, France, Germany, Italy, Ireland, Luxembourg, the Netherlands, Spain and the UK. For these listed and non-listed companies (the headquarters in Europe and all their subsidiaries worldwide) we compile financial data covering the years 2014-2021. In all, this initial panel data contains 3.191.643 observations. After having dropped companies within the financial and utilities sector; observations for which we do not have information to construct our measures of financial reporting quality, observations for which we do not have information to construct control variables, and companies that are the apex firm in each of the BGs, we end up with a database containing 330.370 firm-year observations. The description of this sample is presented in Table 1.

<INSERT TABLE 1 HERE>

For each of these companies, we collect company information, ownership and financial data. Company and ownership information are used to create and map the business group structures. Financial data are used to create measures of financial reporting quality and firm-level controls. The definition of the variables included in the analysis is presented in Table 2.

<INSERT TABLE 2 HERE>

Our measure of financial reporting quality *absDA* is based on discretionary accruals. We use the modified Jones model developed by Kohtari, Leone and Wasley (2005) to characterize discretionary accruals. Discretionary accruals are calculated using Equation 1

$$\frac{WC\_ACC_{it}}{AT_{t-1}} = \alpha_0 + \beta_0 \frac{1}{AT_{t-1}} + \beta_1 \frac{(\Delta Sales - \Delta AR)_{it}}{AT_{t-1}} + \beta_2 \frac{PPE_{it}}{AT_{t-1}} + \beta_3 \frac{NI_{it}}{AT_{t-1}} + \varepsilon_{it}$$

Where non-cash working capital accruals (WW_ACC_{it}) is defined as the change in current assets, minus the change in cash plus the change in short term debt in year t; AT_{t-1} is total assets at the beginning of the year; $\Delta Sales_t$ refers to change in sales from year t to year t-1; ΔAR_t if change in accounts receivables; PPE_t is property, plant and equipment and NI_t is net income.

We use discretionary accruals to measure the quality of financial information as the Jones (1991) and modified Jones model developed by Dechow, Sloan, and Sweeney (1995) are the most extensively used in the literature (Bushee, Goodman, & Sunder, 2019). The only difference between them and our model specification based on Kothari et al (2005) is the inclusion of changes in accounts receivables in the modified Jones model. In addition, following Kothari, Leone, and Wasley (2005), we include a performance measure, i.e., return on assets, to control for the impact of firm performance on unexpected accruals. We require at least 10 observations in the same industry-year. This modified Jones model is estimated cross-sectionally, using all firm-year observations in the same industry. We use the residuals of this equation as an expression of discretionary accruals, DA. Larger values of discretionary accruals (in absolute value) indicate poorer FRQ. Thus, our measure of (poor) FRQ -*absDA*- is defined as follows:

$$absDA_t = \left| \frac{WC\_ACC_{it}}{AT_{t-1}} - \frac{\widehat{WC\_ACC}_{it}}{AT_{t-1}} \right|$$

For every affiliated firm in our dataset we collect the information to construct key explanatory and control variables. We use three key explanatory variables in our study: *CF*, *co_owned* and *absDA_HQ*. The variable *CF* is a continuous variable that measures the proportion of cash flow rights at the hands of the BG´s ultimate owner. It is calculated as the product of the cash flow rights of the largest owner of the BG across the ownership chain, from the affiliate that we are observing up to the the BG´s apex. The variable *co_owned* is a binary variable that takes the value one if the affiliate has at least two different owners. The variable *absDA_HQ* measures the level of unsigned discretionary accruals at the apex of the BG. As in the case of absDA it is calculated using unconsolidated data.

The variable *Level* refers to the hierarchical level at which the company is located within the BG. As in Belenzon, Hashai, & Patacconi (2019), *Level* measures the organizational distance between each affiliate firm and the apex firm. The apex firm is located at level zero, and affiliates directly owned by the apex are located at level one. Companies at level two are directly owned by companies at level one. Consequently, companies at level three are owned directly by companies at level two, and so on. In all, we have tracked up to 17 levels of ownership. However, as most companies are located in levels one, two, and three, our variable *Level* takes values one to four, level 4 meaning that the company is located at level 4th or beyond in the corporate hierarchy. For every company, we also measure the distance in kilometres from the subsidiary to the apex (*Geo_dist*), and the distance in terms of industry sector (*Ind_dist*). Industry distance is measured using the industry NACER.Rev2 classification. It is a categorical variable that takes the values zero (minimum distance) to four (maximum distance). A value of zero indicates that the apex and the affiliate are in the same industry classification. A value of one indicates that the apex and the affiliate differ only in the last digit of the industry classification. A value of four indicates the furthest distance as apex and affiliate differ in the first digit of the industry classification.

The institutional context is also relevant for the FRQ at the subsidiary level, as controlling owners and managers of firms from weak legal institutions enjoy private benefits of control and may face higher proprietary costs when increasing transparency than those from strong legal institutions (Doidge et al., 2007; Durnev, Errugnza, & Molchanov, 2009). We characterize the institutional constraints using the WorldWide Governance Indicators, as in Kaufmann, Kraay & Mastruzzi (2010). According to Leuz, Nanda & Wyxocki (2003), earnings management decrease with country-level investor protection. We use their estimation of Regulatory Quality (*Reg Quality*) to control for the affiliate institutional framework. Finally, we include firm size - measured by the affiliate's total assets- leverage- total debt scaled by total assets- and ROA -earnings before interest and taxes divided by total assets – as these variables that have been documented to affect accrual choices (Beuselinck, Cascino, Deloof & Vanstraelen, 2019).

To characterize the business groups, we use the following variables: *Country_apex* is defined by the location of the apex firm. *#Firms* is a continuous variable that shows the number of companies that belong to the BG. These two variables are defined at the group level (they take the same value across all companies within the BG).

Descriptive statistics for the variables used in the analysis are presented in Table 3

<INSERT TABLE 3 HERE>

The average value of unsigned discretionary accruals of affiliate firms (*absDA*) in our sample is 0.113, which is in line with previous studies, such as (Beuselinck, Cascino, Deloof, & Vanstraelen, 2019), that report a value of unsigned discretionary accruals of 0.130 for a sample of multinational corporations from 89 different countries. The average unsigned discretionary accruals of the apex firms in our sample (*absDA_apex)* is 0.08 which is significantly lower than that of the affiliates and might be an indication of higher financial reporting quality -on average- at the apex companies.

We find that most companies are relatively close to their apexes, both in terms of geographical distance and industry location. The average distance to the apex firm is 300 km (for ease of exposition we have scaled the variable *Geo_dist* by 10th.), although in many cases the apex and affiliate are located in the same country, being the distance zero in that case. Also, the average industry distance is close to three, although the most common cases are those with a distance of four (which means that the apex and affiliate differ by the first digit) and zero (meaning same industry). It is also worth noting the dispersion in terms of the number of recorded affiliates *(#Firms*). The mean number of affiliates is 28.86 (winsorized values) but few large groups drive this average upwards (hence a standard deviation of 73.4), while the most common occurrence is groups with one to three affiliates.

<INSERT TABLE 4 HERE >

In Table 4, we present the correlation matrix of the key variables in the analysis. We find the strongest correlation between the unsigned discretionary accruals of the affiliate firm (*absDA*) and the unsigned discretionary accruals of the apex firm (*absDA_apex*), in line with the suggestion, which we explore later, that FRQ at the apex of the group is a good predictor of FRQ of affiliate firms. The correlation matrix also provides a first insight into plausible cofounding effects between explanatory variables. In this case, the correlation matrix shows low to moderate correlations between the explanatory variables, which do not exceed in any case the 0.7 threshold. We find a moderate correlation between variables that characterize the Business Group: #Firms is significantly correlated to the variable Level (0.5396), and to Geo_dist (0.1031), Reg quality (0.1597) and ROA (0.1746); while Level is also moderately correlated with Reg Quality and variables measuring distance.

3.2. Regression analysis

Based on the hypotheses presented in Section 2, we perform the following regression analysis:

$$AbsDA_{it} = \alpha_0 + \alpha_1 CF_{it} + \alpha_2 co\ owned_{it} + \alpha_3 AbsDA\ apex_{it} + \alpha_4 Level_{it} + \alpha_5 Geo\ dist_{it} + \alpha_6 Ind\ dist_{it} + \alpha_7 Reg\ Quality_{it} + \alpha_8 Ln\ Assets_{it} + \alpha_9 ROA_{it} + \alpha_{10} Leverage_{it} + \alpha_{11} \#\ Subs_{it} + \alpha_{12-21} Country\ apex_{it} + \alpha_{22-27} year_{it} + \varepsilon_{it}$$

Where the dependent variable $AbsDA_{it}$ is the amount of unsigned performance-matched discretionary accruals as in Kohtari, Leone, & Wasley, 2005. We use unsigned discretionary accruals as Jones, Krishnan, and Melendrez (2008) show that these accrual measures have the power to predict both small and large accounting frauds.[1] Larger values of unsigned discretionary accruals (*AbsDA*) indicate poorer FRQ.

As key explanatory variables, we include the proportion of cash flow rights at the hand of the group shareholders (*CF)*; a binary variable that takes the value one if the company is not fully owned by the subsidiary *(co_owned*); and a variable measuring the unsigned discretionary accruals of the company at the apex of the organization (*AbsDA_apex*).

To characterize the position of the company within the BG we include three variables: the organizational distance between the apex company and the affiliate (*Level*); the distance in km (*Geo_dist*); and the industry distance (*Ind_dist*). We include as additional control variables firm size (ln assets); ROA (net income scaled by total assets), leverage (total debt scaled by total assets); regulatory quality of the affiliate country (Req Quality); a dummy for the country of the apex firm (Country_ apex); and year dummies.

4. RESULTS

4.1 . Main Results

Results from the baseline model specification are presented in Table 5. In table 5 column 1 we present a regression with the control variables alone, in columns 2 to 4 we introduce sequentially our key explanatory variables, and in column 5 we present the full model.

<INSERT TABLE 5 HERE >

Two main empirical regularities emerge from this table. First, we find that affiliates with at least one additional co-owner (*co_owned*) show lower levels of unsigned discretionary accruals (proxy for higher FRQ). Second, we find that FRQ at the apex firm of the BG is highly related to the FRQ of the affiliate companies: the coefficient of the variable *absDA_apex* is positively and significantly related to the dependent variable (*absDA)* that measures the level of unsigned

[1] We discuss alternative meaures of FRQ in the section dedicated to robustness tests

discretionary accruals of the affiliate. These empirical regularities hold for different model specifications and are robust to the inclusion of a battery of control variables. These empirical regularities give support to hypotheses 2 and 3.

We also find evidence of a positive relationship between the level of unsigned discretionary accruals (that measures poor financial reporting quality), and the cash flow rights held by the ultimate owners of the BG (*CF*) in line with hypothesis 1. that predicts poorer quality in companies where the controlling owner has a higher economic interest. However, the coefficient of this variable remains significant but close to zero when other key explanatory variables are included simultaneously.

In addition to these key results, we observe that financial reporting is of higher quality in bigger firms (measured by the logarithm of total assets), and in firms located close to the apex (firms where the variables *Level a*nd *Geo_dist* are low). We also find that the quality of financial information is related to the institutions of the country where the affiliate is incorporated (measured by the variable *Reg Quality*). These results suggest that owners provide financial information of higher quality in affiliates where the chances of poor quality being detected are higher. We also find a positive relation between *absDA* and *leverage*, in line with findings by Anagnostopoulu & Tsekrekos (2017) and Jha, Shankar & Prakash (2015), suggesting that intense bank monitoring increases earnings management, as firms attempt to meet stringent financial covenants or expectations.

In all, our results are in line with the argument that owners are reluctant to disclose financial information unless needed by their requirements for external funding, which shows both at the individual firm and at the group level. Proprietary costs of disclosure might also be relevant for the affiliate FRQ, as owners might choose to provide a lower FRQ in affiliates where they have more CF rights and thus higher proprietary costs.

4.2. Robustness Tests

In addition to our main results, we include a battery of robustness tests, designed to address two key concerns. First, we test the validity of the use of unsigned discretionary accruals to measure financial reporting quality. Our second set of robustness tests is designed to rule out alternative explanations for the empirical regularities found.

In our first robustness test, we address the concerns pointed out by Chen, Hribar & Melessa (2022) about the use of unsigned discretionary accruals as the dependent variable in an OLS regression. Chen et al (2022) note that including residuals in a second step as a dependent variable might lead to inconsistent and potentially biased estimates of the coefficients in the models whenever the regressors in the first and second steps are not orthogonal. As Chen et al (2022) point out, the problem with the two-step procedure -commonly used in accounting studies- is that it does not

properly account for the covariances among the independent variables included in the two separate regressions, and if the regressors in the first and second step are not orthogonal, coefficients might not only be biased, but also inconsistent (ie. they do not converge to their true values when the sample size increases). Chen et al. propose the use of a one-step procedure where the regressors of the first step and second step are included simultaneously. They propose using *Total Accruals* (the dependent variable in the first step) as the dependent variable in this one-step regression, and include, as regressors, all the first-step and second-step explanatory variables (together with a set of multiplicative variables to guarantee the orthogonality of independent variables). Using this methodology, one could observe the sign and significance of the relation between key explanatory variables and *Total Accruals*, but we would not be able to discern the extent of the discretion on the level of accruals[2]. To circumvent this analytical shortcoming, Zhang, Ko & Karathanasopoulos (2022) propose a two-step model, where the regressors of the first step are included in the second step quantile regression, together with all the second step regressors. We present results for the Zhang et al (2022) two-step model in Table 6. Our results from the two-step quantile regression are in line with our main results and allow us to maintain our previous interpretation. We find that having at least one co-owner is negatively related to the magnitude of unsigned discretionary accruals, and we also find a positive and significant relation between the presence of unsigned discretionary accruals at the apex and affiliate firms. As in our main results, we also find limited evidence suggesting that cash flow at the hands of the group owner is significantly related to the levels of unsigned discretionary accruals at the affiliate firm.

The correlations between the first-stage regressors and second-stage regressors are presented in Table 6 Panel B. We observe correlations below 1% (with the exception of the correlation between assets and x1=1/ lagged assets). The correlations between the first-stage regressors and the key explanatory variables are lower than 1% in all cases. Given that the concerns about bias and inconsistency of the second-step regression coefficients arise due to the possible correlation between first-stage and second stage-regression, this evidence adds robustness to our results.

Unsigned discretionary accruals have long been recognized as a measure of financial reporting quality (Bansal, 2022) and recent research by Christensen et al. (2021) demonstrates that discretionary accruals possess predictive power for both future operating performance and future cash flows—two key indicators of firm health and financial transparency.

Alternative metrics such as accounting conservatism (García Lara, García Osma & Penalva, 2019) or financial statement comparability (De Franco, Kohtari, & Verdi, 2011) rely on market-based

[2] Results for this regression analysis are not presented here, but are available upon request

data, which limits their use to listed companies. As BGs in Europe are mainly composed of non-listed companies, this limitation rules out the possibility of including such measures in our analysis.

Further, other proposals based on the textual contents of financial information, such as disaggregation quality (Chen, Miao, & Shevlin, 2015) and the Fog index (Loughran & McDonald, 2014) are constrained by access to detailed financial statement notes and narrative disclosures (e.g., 10-K filings or annual reports). In the case of small and privately held firms, these documents are either unavailable or difficult to obtain due to lower regulatory disclosure requirements. Thus, methods dependent on narrative analysis or extensive note disclosures cannot be reliably applied either.

In contrast, unsigned discretionary accruals offer a widely used, purely accounting-based alternative that does not depend on external market data or extensive financial disclosures. More importantly, unsigned discretionary accruals isolate the discretionary component of accruals—often linked to managerial judgment—and provide a direct lens into the quality of financial reporting. Unlike real earnings management (REM), which often requires operational intervention, accrual manipulation can occur independently of a firm's actual business activities, making unsigned discretionary accruals an adequate proxy for reporting practices without confounding operational interventions.

Finally, concerns about the validity of unsigned discretionary accruals are addressed by recent literature. Cade, Gunn, and Vandenberg (2025) reveal that as many as 6.6% of executives in their US-based sample acknowledge manipulating accruals, suggesting that discretionary accruals are not merely theoretical constructs but reflect real-world managerial behaviour. In settings where data access is limited, accounting practices are not homogeneous, and alternative proxies based on market values are infeasible, unsigned discretionary accruals thus remains a viable, empirically supported proxy for financial reporting quality (Bhandari, Mammadov, Thevenot & Vakilzadeh, 2022; Beaver, Cascino, Correira, & McNichols, 2024)

Given these constraints and empirical validations, we argue that unsigned discretionary accruals stand as a robust measure of financial reporting quality for our dataset of predominantly unlisted European BGs.

In this context, we argue that unsigned discretionary accruals serve as a valid and informative proxy for financial reporting quality. To empirically validate this metric, we exploit a quasi-natural experiment in the form of a regulatory shift: the implementation of the Shareholders' Rights Directive

II (SRD II) [3] in Europe. This directive significantly enhanced transparency in intra-group transactions and raised the standard of investor protection. Notably, it mandated ex-ante approval of certain related-party transactions—a marked shift from the previous ex-post requirement—thereby reducing reporting discretion and increasing the cost of obfuscating financial information.

Our findings, presented in Table 7, show a statistically significant decline in unsigned discretionary accruals following the adoption of SRD II, suggesting an improvement in financial reporting quality. Moreover, we observe that the association between discretionary accruals at the group apex and its subsidiaries strengthens post-regulation. This can be interpreted as evidence of reduced proprietary costs and greater alignment in financial disclosures across the corporate structure, consistent with higher-quality reporting.

Therefore, the observed reduction in unsigned discretionary accruals following a regulatory intervention that increases investor protection strengthens our argument that this metric captures meaningful changes in reporting behavior. Our metric of FRQ reacts as predicted to exogenous changes in the institutional environment. With this test, we provide evidence suggesting that unsigned discretionary accruals are not only theoretically valid but empirically responsive to variations in regulatory quality, supporting their adequacy as a measure of financial reporting quality.

Our second set of robustness tests is designed to rule out alternative explanations for the empirical evidence found and to assess whether our results are sensitive to changes in the sample. First, we divide the sample into two subsamples based on the level of ownership concentration at the apex of the business group (BG). Specifically, we distinguish between BGs with concentrated ownership—where the ultimate owner holds more than 20% of the apex firm—and BGs with dispersed ownership—where the ultimate owner holds less than 20%.

This distinction is theoretically important, as we expect Type II agency conflicts (between controlling and minority shareholders) to be more pronounced in BGs with concentrated ownership. Based on this, we hypothesise that the relationship between FRQ and our key explanatory variables—cash flow (*CF*), co-ownership (*co_owned*), and absolute discretionary accruals at the apex (*absDA_apex*)—will be specially significant in the context of concentrated ownership. The results for this specification are reported in Table 9. We find that our main results are robust across both ownership structures and do hold in contexts of concentrated ownership, where Type II agency

[3] Directive (EU) 2017/828 of the European Parliament and of the Council of 17 May 2017 amending Directive 2007/36/EC as regards the encouragement of long-term shareholder engagement, commonly referred to as SRD II or the Revised Shareholders' Rights Directive. This directive was formally adopted in 2017 but came into effect across EU member states in 2019. It introduced several reforms to enhance transparency and encourage long-term shareholder engagement, including stricter rules on related party transactions, proxy advisors, and executive remuneration.

problems can be prevalent. Additionally, in columns 3 and 4 of Table 9, we examine the impact of the listing status of the apex firm. As in the previous test, we show that the relations found do hold in groups where the apex is privately held (where type II agency problems might be more difficult to detect), and disclosure requirements are not to strict.

Finally, in Table 9, we look at characteristics of the affiliates that might be driving our results, and rule out alternative explanations for the empirical regularities found. In columns 1 and 2 of Table 9, we split the sample by the listing status of the affiliate firm. We find that, while the key relationships identified in the main analysis do not vary with the listing status of the apex firm, the listing status of the affiliate firm appears to play a significant role. Specifically, the core relationships only hold for unlisted affiliates, suggesting that the stricter transparency and disclosure requirements imposed on listed companies may mitigate the mechanisms we document. It is important to note that the number of listed affiliates in our sample is relatively small, representing less than 1% of the total observations. Due to this limited representation, we argue that our main results hold for non-listed companies belonging to European groups.

In table 9 columns 3 and 4 we look at the location of the affiliate firm. We find that our main results hold for both foreign and domestic affiliates, which helps to rule out tax-motivated income shifting as the primary explanation for the observed differences in earnings quality.

Results not reported here include regressions with *absDA_apex* calculated using the observations of apex firms alone. It is calculated using a sample that contains non-consolidated information of the companies that are the apex of the BG. We choose to construct the variables absDA and absDA_apex using different samples (the first variable using information on affiliates alone and the second variable using only observations from firms that are at the apex of a BG) because of the way discretionary accruals are constructed. Discretionary accruals are calculated as the standard errors of regression equations and the value of absDA for one observation depends on the variables of the remaining firms in the sample. If they were calculated within the same sample, the assumption of exogeneity of the regressors would not hold. (even when the assumption of exogeneity is not validated (further tests will be needed and presented in the results section), we take this cautionary step to avoid the simultaneous determination of regressands and regressors. Results are consistent across model specifications.

6. Conclusions

Financial Reporting Quality is a key instrument to alleviate the asymmetry of information between decision-makers within a company and other stakeholders. In the case of Business Groups, the key decision-maker is the largest owner of the company at the apex of the organization, as they

have a disproportionate power over all the affiliates within the organization. As a result, the largest owners at the apex of the organization might have an interest in disclosing financial information of lower quality to maintain the benefits of control at the group level.

In this research, we study the quality of financial information within BGs and relate it to the potential conflict of interest between the largest owner at the apex of the BGs, and smaller owners, both at the BG level and within individual affiliated companies. To address these issues, we expand the classical principal-agent models to include the most relevant conflict, between controlling and noncontrolling shareholders (Enriques & Volpin, 2007), both at the apex of the organization (horizontal agency conflict) and the affiliate level (vertical agency conflict).

We measure the horizontal principal-principal conflict of interest in BGs using the proportion of cash flow rights at the hands of the ultimate owners of the BG. This proportion serves as an indicator of the concentration of power at the hands of the largest owner, and we link this concentration of power to the quality of financial information. We base our analysis on the notion that insiders, in an attempt to protect their private control benefits, may use poor FRQ to conceal firm information from outsiders (Leuz, Nanda, & Wysocki, 2003). We argue that, when providing financial information at the subsidiary level, the controlling owners must weigh the costs of disclosing proprietary group information against the benefits of accessing the external capital markets (Fang & Wong, 2002; Jiang, Ma, Wang, 2020). Given that controlling owners have an incentive not to disclose proprietary information, we hypothesize that subsidiaries within BGs with a higher concentration of power (measured by the cash flow of the largest owners) will report financial information of lower quality.

Our empirical results are in line with this argumentation. We find a positive relation between the affiliated company's unsigned discretionary accruals (our proxy for poor financial quality) and the cash flow rights at the hand of the business group's largest owners. We also find that the presence of at least one additional owner at the affiliate company is associated with improved financial reported quality. Regarding organizational factors, we observe higher levels of unsigned discretionary accruals in affiliate companies situated at lower levels of the organization, and in companies located far from the business group's headquarters.

Understanding financial reporting quality at the group level is relevant to prevent rent extraction, which might be very difficult to detect by analysing a single company (or even group consolidated) reports alone. Such rent extraction can lead to losses of millions to smaller owners and other stakeholders within the group. Further research is needed to provide insights into how Business Groups orchestrate their financial reporting and to explore strategies for enhancing transparency at all levels of the organization.

REFERENCES

Aguilera, R, Federo, R, Justo, R, Merida, AL, & Pascual-Fuster B. (2024). The corporate governance of business groups around the world: A review and agenda for future research. *Corporate Governance: An International Review* , 0:1-28. doi https://doi.org/10.1111/corg_12603.

Aguilera, R.V., & Desender, K.A. (2021). Bridging Accounting and Corporate Governance: New Avenues of Reseach. *International Journal of Accounting* , DOI: 10.1142/S1094406021800019.

Almeida, H., Kim, C.S., & Kim, H.B. (2015). Internal Capital Markets in Business Groups: Evidence from the Asian Financial Crisis . *The Journal of Finance*, 20 (6): 2539-2586.

Almeida, H., Park, S.Y., Subrahmanyam, M.G., & Wolfenson,D. (2011). The structure and formation of business groups: Evidence from Korean Chaebols. *Journal of Financial Economics* , 99(2): 447-75.

Altomonte, C., & Rugi, A. (2013). Business Groups as hierarchies of firms: determinants of vertical integration and performance. *ECB Working Paper*, WP1554.

Altomonte, C., Ottaviano, G., Rungi, A., & Sonno, T. (2021). Business groups as knowledge-based hierarchies of firms. *Centre for Economic Performance, DP*, No 1804, October 2021.

Amin, QA, & Cumming D. (2021). Blockholders and real earnings management-the emerging markets context. *Journal of International Financial Markets, Institutions & Money* , 75, 101434.

An, Z., Li, D., & Yu, J. (2016). Earnings management, capital structure, and the role of institutional environments. *Journal of Banking and Finance*, 68: 131-152.

Anagnostopoulu, SC, & Tsekrekos, AE. (2017). The effect of financial leverage on real and accrual-based earnings managers. *Accounting and Business Research* , 47(2):191-236.

Baek, J-S., Kang, J-K, & Lee, I. (2006). Business groups and tunneling: Evidence from private securities offerings by Korean chaebols. *Journal of Finance*, 61(5): 2415-2449.

Bahia Gama, M.A., & Bandeira-de-Mello, R. (2021). The effect of affiliation structure on the performance of pyramidal business groups. *Journal of Business Research*, 124:24-37.

Bansal, M. (2022). Earnings management: a three-decade analysis and future prospects. *Journal of Accounting Literature* , 46(4): 630-670.

Bao, BH, & Bao, DH. (2004). Income smoothing, earnings quality and firm valuation. *Journal of Business, Finance and Accounting*, 31(9-10): 1525-57.

Bassemir, M. (2018). Why do private firms adopt IFRS? *Accounting Business Research*, 48(3):237-263.

Beaver, W, Cascino, S, Correira, M, & McNichols, M. (2024). Bankruptcy in groups. *Review of Accounting Studies* , 29: 3449-3496.

Belenzon, S., Hashai, N., & Patacconi, A. (2019). The architecture of attention: Group structure and subsidiary autonomy. *Strategic Management Journal*, 40(10): 1610-1643.

Bertrand, M., Mehta, P., & Mullainathan, S. (2002). Ferreting out tunneling: An application to Indian business groups. *Quarterly Journal of Economics*, 117(1): 121-148.

Beuselinck, C., Blanco, B., & García Lara, JM. (2019). The role of foreign shareholders in disciplining financial reporting . *Journal of Business Finance & Accounting* , 44 (5/6): 558-592.

Beuselinck, C., Cascino, S., Deloof, M., & Vanstraelen, A. (2019). Earnings management within multinational corporations. *The Accounting Review* , 94(4): 45-76.

Bhandari, A, Mammadov, B, Thevenot, M, & Vakilzadeh, H. (2022). Corporate culture and financial reporting quality. *Accounting Horizons*, 36(1): 1-24.

Bonacchi, M., Cipollini, F., & Zarowin, P. (2018). Parents' use of subsidiaries to "Push Down" earnings management: evidence from Italy . *Contemporary Accounting Research*, 35 (3).
Bonacchi, M., Marra, A., & Zarowin, P. (2019). Organizational Structure and Earnings Quality of private and public firms. *Review of accouting studies* , 24: 1066-1113.
Bruggemann, U., Hitz, J., & Sellhorn, T. (2013). Intended and unintended consequences of mandatory IFRS adoption: a review of extant evidence and suggestions for future research. *European Accounting Review*, 1: 1-37.
Bushee, B.J., Goodman, T.H., & Sunder, S.V. (2019). Financial reporting quality, investment horizon, and institutional investor trading strategies. *The Accounting Review*, 94(3): 87-112.
Bushee, BJ, Goodman, T.H., & Sunder, S.V. (2019). Financial reporting quality, investment horizon, and institutional investor trading strategy. *The Accounting Review*, 94(3): 87-112.
Cade, N, Gunn; JL, & Vandenberg, AJ. (2025). Measuring the prevalence of earnings manipulations: a Novel Approach. *Journal of Accounting Research*, 63(1): 123-164.
Carney, M., Van Esse, M., Estrin, S., & Shapiro, D. (2018). Business Groups reconsidered: Beyond paragons and parasites. *Academy of Management Perspectives*, 32 (4): 493-516.
Chen, S, Miao, B, & Shevlin, T. (2015). A new measure of disclosure quatliy: the level of disaggregation of accounting data in annual reports. *Journal of Accounting research*, 53(5): 1017-1054.
Chen, W, Hribar, P, & Melessa, SM. (2022). On the use of residuals as dependent variables. *Journal of Financial Reporting*, 69-83.
Choi, JJ, Jo, H., Kim, J, & Kim, MS. (2016). Business Groups and Corporate Social Responsibility. *Journal of Business Ethics*, 153:931-954.
Christensen, T.E., Huffman, A., Lewis-Western, M.L., & Scott, R. (2021). Accruals earnings management proxies: Prudent business decisions or earnings manipulation? . *Journal of Business Finance & Accounting*, 49 (3-4): 536-587.
Colpan, A.M., & Hikino, T. (2018). *Business Groups in the West: Origins, Evolution and Resilience.* Oxford: Oxford University Press.
Dau, L.A., Morck,R., & Yeung, B. (2021). Business groups and the study of international business: A Coasean synthesis and extension. *Journal of International Business Studies* , 52:161-211.
De Franco, G., Kohtari, S.P., & Verdi, R. (2011). The benefits of financial statement comparability. *Journal of Accounting Research*, 49(4): 895-931.
Dechov, P.M., & Dichev, I.D. (2002). The quality of accruals and earnings: the role of accrual estimation errors. *The Accounting Review* , 22 (Sppl.): 35-39.
Dechow, P., Ge, W., & Schrand, C. (2010). Understanding earnings quality: a review of the proxies, their determinants and their consequences. *Journal of Accounting and Economics*, 18(1): 3-32.
Dharwadkar, R., George, G., & Brandes, P. (2000). Privatization in emerging economies: An agency theory perspective. *Academy of Management Review*, 25: 117-140.
Enriques, L., & Volpin, P. (2007). Corporate Governance Reforms in Europe. *Journal of Economic Perspectives* , 21(1): 117-140.
Faccio, M., Morck, R., & Yavuz, M.D. (2021). Business groups and the incorporation of firm-specific shocks into stock prices. *Journal of Financial Economics* , 139: 852-871.
Filip, A., & Raffournier, B. (2013). Financial Crisis and Earnings Management: The European Evidence. *The International Journal of Accounting* , 49: 455-478.
Firth, M, Lin, C, & Wong, SMI. (2019). Hello, is anybody there? Corporate accessibility for outside shareholders as a signal of agency problems. *Review of Accounting Studies* , 24:1317-1358.
Francis, J.R. , LaFond, R., Olsson, P., & Schipper, K. (2005). The market pricing of accruals quality. *Journal of Accounting and Economics* , 39(2). 295-327.
Francis, JR, Khurana, IK, & Pereira, R. (2005). Disclosure incentives and effects on cost of capital around the world. *The Accounting Review*, 80(4): 1125-1162.

García Lara, J., García Osma, B., & Penalva, F. (2009). Accounting conservatism and corporate governance. *Review of Accounting Studies*, Vol 14: 161-201.
García Lara, J., García Osma, B., & Penalva, F. (2019). Conditional Conservatism and the Limits to Earnings Management. *SSRN Working Paper Series*, WP 2165694.
Garcia Lara, JM, Garcia Osma, B, & Penalva, F. (2009). Accounting Conservatism and Corporate Governance. *Review of Financial Studies*, 14:161-201.
Givoli, D., Hayn, C.K., & Katz, S.P. (2010). Does public ownership of equity improve earnings quality? *The Accounting Review*, 85(1): 195-225.
Haw, I-M, Hu, B., Hwang, L-S, & Wu, W. (2004). Ultimate ownership, income management and legal and extra-legal institutions. *Journal of Accounting Research* , 42(2): 423-462.
He, J., Mao, X., Rui, O.M., & Zha, X. (2013). Business groups in China. *Journal of Corporate Finance*, 22:166-192.
Huneeus, F., Larrain, B., Larrain, M., & Prem, M. (2021). The internal labor markets of business groups. *Journal of Corporate Finance*, 69:102017.
Jha, A., Shankar, S., & Prakash, A. (2015). The effect of bank monitoring on earnings management of the borrowing firm: An empirical investigation. *Journal of Financial Research*, 38(3): 395-412.
Johnson, S., LaPorta, R., Lopez-de-Silanes, F., & Shleifer, A. (2000). Tunneling. *American Economic Review* , 90(2): 22.
Jones, K.L., Krishnan, G.V., & Melendrez, K.D. (2008). Do models of discretionary accruals detect actual cases of fraudulent and restated earnings? An empirical analysis. *Contemporary Accounting Review*, 25(2): 499-531.
Kahna, T., & Yafeh, Y. (2005). Business groups and risk sharing around the world . *The Journal of Business*, 78(1): 301-340.
Kahnna, T. , & Yafeh, Y. (2007). Business Groups in emerging markets: Paragons or parasites? . *Journal of Economic Literature* , 45:331-372.
Kaufmann, D., Kraay, A., & Mastruzzi, M. (2010). The Worldwide governance indicators: A summary of methodology, data and analytical issues. *World Bank Policy Research Working Paper No 5430*.
Kim, J.B., & Yi, C.H. (2006). Ownership structure, business group affiliation, listing status and earnings management: Evidence from Korea. *Contemporary Accounting Research*, 23(2): 427-64.
Kim, K-J. (2009). Financial reporting by business groups and the market´s ex ante valuation of tunneling: Evidence from Korean Chaebols. *Asia-Pacific Journal of Financial Studies*, 38(4): 575-610.
Kohtari, S.P., Leone, A.J., & Wasley, C.E. . (2005). Performance matched discretionary accruals measures . *Journal of Accounting and Economics* , 39(1): 163-197.
Krishnan, G, Myllymäki, E-R, & Nagar, N. (2020). Does financial reporting quality vary across firm life cycle? . *Journal of Business Finance and Accounting*, 48 (5-6): 954-987.
Krishnan, G., & Peytcheva, M. (2019). The risk of fraud in family firms: Assessments of external auditors. *Journal of Business Ethics*, 157 (1): 261-278.
Lafond, R., & Roychowdhury, S. (2008). Managerial Ownership and Accounting Conservatism. *Journal of Accounting Research*, Vol. 46(1): 101-135.
Laporta, R., Lopez de Silanes, F., & Shleifer, A. (1999). Corporate ownership around the world. *Journal of Finance*, 54(2): 471-517.
Leuz, C. (2010). Different approaches to corporate reporting regulation: : how jurisdictions differ and why. *Accounting and Business Research*, 40(3):229-256.
Leuz, C., & Wysocki, P. (2016). The Economics of Disclosure and Financial Reporting Regulation: Evidence and Suggestions for Future Research. *Journal of Accounting Research*, 54(2): 525-622.

Leuz, C., Nanda, D., & Wysocki, P. (2003). Earnings management and investor protection: An international comparison. *Journal of Financial Economics*, 69: 505-527.
Leuz, Ch., Nanda, D., & Wyxocki, P.D. (2003). Earnings management and investor protection: An international comparison. *Journal of Financial Economics* , 69: 505-527.
Li, S. ((2010)). Does Mandatory Adoption of International Financial Reporting Standards in the European Union Reduce the Cost of Equity Capital? *The Accounting Review* , 85(2): 607–636.
Li, X., Ahmed, R., Than, E.T., Ishaque, M., & Huynh, T.I.D. (2021). Gender diversity of boards and executives on real earnings management in the bull or bear period: Empirical evidence from China. *International Journal of Finance & Economics* , 52:172-193.
Loughran, T, & McDonald, B. (2014). Measuring readability in financial disclosures . *The Journal of Finance*, 69(4): 1643-1671.
Martin, G., Tchmann Campbell, J., & Gomez-Mejia, L. (2016). Family control, socioemotional wealth, and earnings management in publicly traded firms. *Journal of Business Ethics*, 133: 453-469.
Masulis, R, Pham, P.K., & Zein, J. (2011). Family business groups around the world: Financing advantages, control motivations, and organizational choices. *Review of Financial Studies*, 24(11): 3556-3600.
Nobes, C. (2008). Accounting classification in the IFRS era. *Australian Accounting Review*, 18(3): 191-198.
Schleifer, A., & Vishny, R. (1997). A survey of corporate governance. *Journal of Finance*, 52:737-89.
Shi, Y., Magnan, M., & Kim, J.B. (2012). Do countries matter for voluntary disclosure? Evidence from cross-listed firms in the US. *Journal of International Business Studies* , 43: 143-165.
Tate, G., & Yang, L. (2015). The bright side of corporate diversification: evidence from internal labor markets. *Review of Financial Studies*, 28:2203-2249.
Thesing, J., & Velte, P. (2021). Do fair value measurements affect accounting-based earnings quality? A literature review with a focus on corporate governance as moderator. *Journal of Business Economics*, Vol. 91(7): 965-1004.
Verrecchia, R. (1983). Discretionary disclosure. *Journal of Accounting and Economics* , 5: 179-194.
Young, M.N, PEng, M.W., Bruton, G.D,, & Yi, J. (2008). Corporate governance in emerging economies: A review of the principal-principal perspective. *Journal of Management Studies*, 45(1): 196-220.
Zhang, MH, Ko, S IM , & Karathanasopoulos, A. (2022). A two-step quantile regression method for discretionary accounting. *Review of Quantitative Finance and Accounting*, 59:1-22.

Table 1 Sample Selection and Distribution

Panel 1A. Sample Selection	Observations removed	Observations remaining
Initial Sample[1]		3.191.643
Exclude financial sector	(549.801)	2.641.842
Exclude utilities sector	(101.136)	2.540.706
Exclude firms with missing industry	(97.239)	2.443.467
Exclude firms with incomplete data	(1.897.297)	**546. 260**

Exclude parent firms of BGs	(215.890)	**330.370**
Panel 1B. Country Distribution of Final Sample		
Austria		2.502
Belgium		16.635
Germany		13.439
Denmark		2.223
Spain		70.026
Finland		14.601
France		80.732
United Kingdom		6.645
Ireland		1.102
Italy		120.715
Luxembourg		1.516
Netherlands		234

[1] The initial sample includes all listed and non-listed companies that belong to BGs with the apex firm located in one of the twelve Western European presented here

Table 2. Variable Definition

Variable	Definition
AbsDA	Absolute value of discretionary accruals (DA), calculated using the performance-matched modified Jones model (Kohtari, Leone & Wasley, 2005), winsorized at the 1st and 99th percentiles
AbsDA_ apex	Abs DA of the parent firm within the BG, winsorized at the 1st and 99th percentiles
CF	Proportion of cash flow rights held by the ultimate shareholder of the business group, aggregated through the ownership chain up to the parent firm.
Co-owned	=1 if the affiliate has at least two different owners; otherwise 0
Level	Organizational level of the company within the business group hierarchy (1 = directly owned by parent, up to level 5 indicating the fourth or deeper level)
Geo_dist	Geographical distance (in thousand km) between the affiliate firm and the BG´s parent firm location; 0 if in the same country
Ind_dist	Industry distance between the affiliates and the parent firm, measured using NACE 4-digit industry codes: 1 = same industry, 2 = differs in the last digit, up to 4 indicating differing in all digits.
Reg Quality	Perception of regulatory quality in the affiliate's country as measured by the World Bank's governance indicators (Kaufmann, Kraay & Mastruzzi, 2010)
Assets	Total assets in thousand euros
ROA	Ratio of net income (before tax) divided by lagged total assets
Leverage	Ratio of total debt (Short term plus long term debt) to total assets
Industry	2 digit Nacer rev 2 industry codes
#Firms	Number of affiate within the BG
Country_apex	Country of incorporation of the BG´s parent firm

Table 3. Descriptive Statistics

Descriptive statistics of the main variables in the analysis. The number of observations is presented in the first column, the mean and standard deviation are presented in the second and third columns. In columns 4 and 5 we present the minimum and maximu values

Variable	Obs	Mean	St Dev	Min	Max

Abs DA	330.370	0.1173	0.1581	0.0007	1.7384
AbsDA_apex	330.370	0.08328	0.126	0.0005	1.6026
CF	251.261	52.8557	29.2791	0	100
Co-owned	330.370	0.3946	0.4888	0	1
Level	330.370	1.4097	0.7489	1	4
Geo_dist	330.370	0.3016	0.9745	0	1.0951
Ind_dist	330.370	2.987	1.5592	0	4
Reg Quality	328.655	0.9836	0.4009	-0.7326	2.2553
Assets	330.370	24033	233448	0.0006	4.40e+7
ROA	330.370	0.06594	1.91	-0.46	0.82
Leverage	308.356	0.1495	0.2081	0	1.7999
#Firms	330.370	28.86	73.4	1	373

Table 4. Correlation matrix

In this table we present a pairwise correlation matrix of the main variables in the analysis. The star represents 5% significance level

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
absDA	1											
absDA_ap	0.1806*	1										
CF	0.0135*	0.028*	1									
co_own	-0.035*	-0.0166*	-0.194*	1								
Level	0.0449*	0.0088*	-0.102*	-0.099*	1							
Geo_dist	0.0432*	0.0202*	-0.033*	-0.081*	0.1733*	1						
Ind_dist	-0.010*	-0.0318*	-0.003*	-0.008*	0.1033*	0.0154*	1					
Reg Qual	0.0677*	0.0656*	0.0945*	-0.106*	0.1267*	-0.017*	-0.036*	1				
Ln assets	-0.115*	-0.014*	-0.034*	-0.032*	0.1370*	0.0902*	0.0329*	0.0665*	1			
ROA	0.0477*	0.0149*	0.0095*	-0.008*	0.0152*	0.0501*	-0.009*	0.0552*	-0.045*	1		
Leverage	-0.006*	-0.005*	-0.009*	0.0335*	-0.077*	-0.034*	-0.0002	-0.026*	0.0487*	-0.188*	1	
#Firms	0.0392*	0.0003	0.0237*	-0.067*	0.5396*	0.1031*	0.0654*	0.1597*	0.1746*	0.0061*	-0.083*	1

Table 5. Regression analysis 1. Financial reporting quality and affiliate characteristics

In this table, we present the results from a set of random effects regressions, with the total amount of unsigned discretionary accrual- proxy for poor financial reporting quality- as dependent variable and standard errors clustered by firm. The explanatory variables are the proportion of cash flow rights of the ultimate owner (*CF*); a dummy for whether the affiliate has more than one owner (*co_owned*); the total amount of unsigned discretionary accruals of the BG parent company (absDA_apex); the position of the company within the organizational structure of the BG (*Level*); the distance to apex company in kilometers (*Geo_dist)* and industry (*Ind_dist);* the regulatory quality of the affiliate country (*RegQuality);* company size (*Ln_assets*) , company return on assets (*ROA*) and total debt divided by total assets (*Leverage*); the number of affiliate companies within the BG (*#Firms).* Finally, we include year dummies and a dummy for the country where the BG is incorporated. p-values in parentheses. * p < 0.05, ** p < 0.01, *** p < 0.001

		(1) abs DA	(2) abs DA	(3) abs DA	(4) abs DA	(5) abs DA
CF	+		0.0003*			0.0000
			(0.063)			(0.053)
Co_owned	-			-0.0079***		-0.0067***
				(0.000)		(0.000)
abs DA_apex	+				0.2150***	0.2200***

					(0.000)	(0.000)
Level	+	0.0057***	0.0064***	0.0053**	0.0053***	0.0524***
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Geo_dist	+	0.0682***	0.0667***	0.0657***	0.0656***	0.0597***
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Ind_dist	-	-0.0009***	-0.0009***	-0.0009***	-0.0003	-0.0002
		(0.000)	(0.000)	(0.000)	(0.203)	(0.307)
Reg_Quality	+	0.0024	0.0263	0.0019	0.0022	0.0022
		(0.089)	(0.089)	(0.169)	(0.112)	(0.155)
Ln assets	-	-0.0145***	-0.0144***	-0.0146***	-0.0141***	-0.0143***
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
ROA	+/-	0.0001	0.0001	0.0000	0.0001	0.0001
		(0.549)	(0.601)	(0.554)	(0.528)	(0.566)
Leverage	-	0.0120***	0.0134***	0.0124***	0.0118***	0.0141***
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
# Firms	+/-	-0.0000***	-0.0001***	-0.0001***	-0.0001***	-0.0001***
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Constant		0.2320***	0.2280***	0.2360***	0.1940***	0.1980***
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Year FE		Yes	Yes	Yes	Yes	Yes
Country_apex FE		Yes	Yes	Yes	Yes	Yes
N		306826	234581	306826	306826	306826
R2-within		0.0340	0.0341	0.0340	0.0632	0.0658
R2between		0.0796	0.0781	0.0816	0.108	0.1088
R2overall		0.0503	0.0499	0.0508	0.0789	0.0808

Table 6. Two-step quantile regression method for discretionary accounting

In this table, we present a set of second step quantile regressions (least-absolute value) with the total amount of unsigned discretionary accrual- a proxy for poor financial reporting quality- in quantiles- as dependent variable and standard errors clustered by firm. Regression results for the 10th /25th/ 50th/ 75th / and 90th percentiles are presented in columns 1/2/3/4/5.

The explanatory variables are the proportion of cash flow rights of the ultimate owner (CF); a dummy for whether the affiliate has more than one owner (co_owned); the total amount of unsigned discretionary accruals of the BG parent company (absDA_apex); the position of the company within the organizational structure of the BG (Level); the distance to apex company in kilometers (Geo_dist) and industry (Ind_dist); the regulatory quality of the affiliate country (RegQuality); company size (Ln_assets) , company return on assets (ROA) and total debt divided by total assets (Leverage); the number of affiliate companies within the BG (#Firms). Finally, we include year dummies and a dummy for the country where the BG is incorporated. p-values in parentheses. * p < 0.05, ** p < 0.01, *** p < 0.001. Following (Zhang, MH, Ko, S IM , & Karathanasopoulos, A, 2022), we include as explanatory variables the first step regressors used to calculate the performance and industry adjusted discretionary accruals. These regressors are the inverse of total assets at the beginning of the year ($x1_{it} = \frac{1}{A_{t-1}}$) ; the difference between change in sales and account receivables weighted by total assets ($x2_{it} = \frac{(\Delta Sales - \Delta AR)_{it}}{AT_{t-1}}$); property, plant and equipment weighted by total assets ($x3_{it} = \frac{PPE_{it}}{AT_{t-1}}$); *and net income weighted by total assets (* $x4_{it} = \frac{NI_{it}}{AT_{t-1}}$. Finally, we include year dummies and a dummy for the country where the BG is incorporated. p-values in parentheses. * p < 0.05, ** p < 0.01, *** p < 0.001

	(1)	(2)	(3)	(4)	(5)
	abs DA	abs DA	abs DA	abs DA	abs DA
	Q10	Q25	Q50	Q75	Q90

CF	-0.0000	-0.0000**	-0.0000	-0.0000	-0.0000
	(0.418)	(0.002)	(0.3020)	(0.571)	(0.621)
co_owned	-0.0006***	-0.0022***	-0.0059***	-0.0120***	-0.0131***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
AbsDA_apex	0.0089***	0.0294***	0.1030***	0.2780***	0.4800***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Level	0.0006***	0.0019***	0.0042***	0.0090***	0.0139***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Geo_dist	0.0102***	0.0234***	0.0411***	0.0723***	0.134***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Ind_dist	-0.0000	-0.0000	-0.0002	0.0001	0.0014**
	(0.602)	(0.725)	(0.266)	(0.707)	(0.008)
Reg Quality	0.0004	0.0014**	0.0016	0.0049**	0.0111***
	(0.124)	(0.002)	(0.051)	(0.001)	(0.000)
Ln assets	-0.0015***	-0.0035***	-0.0061***	-0.0101***	-0.0086***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Leverage	-0.0006	0.0004	0.0082***	0.0296***	0.0392***
	(0.064)	(0.561)	(0.000)	(0.000)	(0.000)
#Firms	-0.0000	0.0000	0.0000***	0.0001***	0.0002***
	(0.715)	(0.168)	(0.000)	(0.000)	(0.000)
x1	0.0788**	3.327***	19.87***	41.54***	56.57***
	(0.003)	(0.000)	(0.000)	(0.000)	(0.000)
x2	-0.0001***	-0.0004***	0.0015***	0.0065***	0.0100***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
x3	-0.0001***	-0.0004***	-0.0012***	-0.0027***	-0.0034***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
x4	0.0024***	0.0138***	0.0148***	0.0107***	-0.0016
	(0.000)	(0.000)	(0.000)	(0.000)	(0.186)
_cons	0.0206***	0.0576***	0.0983***	0.167***	0.220***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
N	234581	234581	234581	234581	234581
Pseudo. R^2	0.0037	0.0101	0.0257	0.0533	0.0857
Raw sum of deviations	2631.588	6108.379	10238.24	10898.78	7876.627
Min sum of deviations	2621.914	6046.743	9975.183	10318.27	7201.833
df_m	31	31	31	31	31
df_r	234549	234549	234549	234549	234549
CORR	TA	X1	X2	X3	X4
Abs DA	-0.003*	0.0275*	0.0020*	-0.0001	0.0020*
CF	-0.002*	0.0002	0.0020*	-0.0013	-0.0009
co_owned	-0.0007	-0.002*	-0.004*	-0.001*	-0.003*
AbsDA_apex	0.0022*	0.0058*	0.0020*	-0.0001	0.0011
Level	0.0020*	-0.006*	0.00004	-0.0009	0.0009
Geo_dist	0.0021*	0.0018*	0.0020*	-0.0001	0.0026*
Ind_dist	0.000	-0.0009*	0.0007	0.0012	-0.0004
Reg Quality	-0.005*	-0.008*	0.0020*	0.0023*	0.0084*
Ln assets	0.0054*	-0.106*	0.0044*	0.0045*	0.0030*
Leverage	0.0023*	-0.008*	0.0014	0.0032	-0.0145
#Firms	0.0004*	-0.013*	-0.0005	-0.0009	0.0007

Table 7. Regression analysis. Financial reporting quality before and after SDII

In this table, we present the results from a set of random effects regressions, with the total amount of unsigned discretionary accrual- proxy for poor financial reporting quality- as dependent variable and standard errors clustered by firm. The explanatory variables are the proportion of cash flow rights of the ultimate owner (*CF*); a dummy for whether the affiliate has more than one owner (*co_owned*); the total amount of unsigned discretionary accruals of the BG parent company (absDA_apex); a dummy for the years after the implementation of the EU shareholder directive SDII (*SDII*); the position of the company within the organizational structure of the BG (*Level*); the distance to apex company in

kilometers (*Geo_dist)* and industry (*Ind_dist);* the regulatory quality of the affiliate country (*RegQuality);* company size (*Ln_assets*) , company return on assets (*ROA*) and total debt divided by total assets (*Leverage*); the number of affiliate companies within the BG (*#Firms).* Finally, we include year dummies and a dummy for the country where the BG is incorporated. p-values in parentheses. * p < 0.05, ** p < 0.01, *** p < 0.001

	(1) abs DA	(2) abs DA	(3) abs DA	(4) absDA	(5) abs DA	(6) abs DA
CF		**0.0001***			**0.0000***	**-0.0000**
		(0.319)			**(0.053)**	**(0.293)**
CF*SDII		**0.0000**				**-0.0000**
		(0.322)				**(0.227)**
Co_owned			**-0.0069*** **		**-0.0067*** **	**-0.0064*** **
			(0.000)		**(0.000)**	**(0.000)**
Co_onwed*SDII			-0.0023*			-0.0000
			(0.045)			(0.554)
abs DA_parent				**0.1430*** **	**0.220*** **	**0.146*** **
				(0.000)	**(0.000)**	**(0.000)**
absDA_apex*SDII				**0.104*** **		**0.107*** **
				(0.000)		**(0.000)**
SDII	**-0.0203*** **	**-0.0218*** **	**-0.0194*** **	**-0.0239**	**-0.0153*** **	**-0.0227*** **
	(0.000)	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**
Level	**0.00566*** **	**0.00637*** **	**0.00532** **	**0.00517*** **	**0.0524*** **	**0.00513*** **
	(0.000)	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**
Geo_dist	**0.0682*** **	**0.0666*** **	**0.0657*** **	**0.0659*** **	**0.0597*** **	**0.0603*** **
	(0.000)	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**
Ind_dist	-0.000885***	-0.0009***	-0.000898***	-0.000235	-0.000233	-0.000226
	(0.000)	(0.000)	(0.000)	(0.234)	(0.307)	(0.322)
Reg_Q	0.00236	0.0262	0.00190	0.00203	0.0022	0.0021
	(0.089)	(0.090)	(0.172)	(0.142)	(0.155)	(0.175)
Ln assets	**-0.0145*** **	**-0.0144*** **	**-0.0146*** **	**-0.0141*** **	**-0.0141*** **	**-0.0141*** **
	(0.000)	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**
ROA	0.0001	0.00008	0.00001	0.0001	0.00008	0.00008
	(0.549)	(0.602)	(0.552)	(0.535)	(0.566)	(0.575)
Leverage	0.0120***	0.0134***	0.0124***	0.0117***	0.0141***	0.0140***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
#Firms	**-0.00007*** **	**-0.000069*** **	**-0.000073*** **	**-0.0000756*** **	**-0.000077*** **	**-0.000075*** **
	(0.000)	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**
Constant	0.232***	0.228***	0.235***	0.202***	0.198***	0.206***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
BG_Country FE	Yes	Yes	Yes	Yes	Yes	Yes
N	306826	234581	306826	306826	234581	234581
R2-within	0.0340	0.0341	0.0340	0.0632	0.0658	0.0679
R2between	0.0796	0.0781	0.0816	0.108	0.1088	0.109
R2overall	0.0503	0.0499	0.0508	0.0789	0.0808	0.0822

Table 8. Regression analysis III. Business group ownership and listing status

In this table, we present the results from a set of random effects regressions, with the total amount of unsigned discretionary accrual- proxy for poor financial reporting quality- as dependent variable and standard errors clustered by firm. In the first two columns we split the sample into two groups: BG with dispersed/ concentrated ownership where the ultimate owners owns less than/at least 20% of the shares in the apex company. In columns three and four we run separate regressions for groups where the apex company is non-listed /listed. In columns five and six we run separate regressions depending on whether the affiliate is non listed/listed. The explanatory variables are the proportion of cash flow rights of the ultimate owner (*CF*); a dummy for whether the affiliate has more than one owner (*co_owned*); the total amount of unsigned discretionary accruals of the BG parent company (absDA_apex); the position of the company within the organizational structure of the BG (*Level*); the distance to apex company in kilometers (*Geo_dist)* and industry (*Ind_dist);* the regulatory quality of the affiliate country (*RegQuality);* company size (*Ln_assets*) , company return on assets (*ROA*)

and total debt divided by total assets (*Leverage*); the number of affiliate companies within the BG (*#Firms)*. Finally, we include year dummies and a dummy for the country where the BG is incorporated. p-values in parentheses. * p < 0.05, ** p < 0.01, *** p < 0.001. Finally, we include year, industry, and (BG) country fixed effects. pvalues in parentheses. * p < 0.05, ** p < 0.01, *** p < 0.001

	Dispersed Ownership group	Concentrate Ownership group	Non-listed_apex	Listed_apex
	(1)	(2)	(3)	(4)
	abs DA	abs DA	abs DA	abs DA
CF	-0.0003	-0.0000	-0.0000	0.0000
	(0.277)	(0.540)	(0.140)	(0.639)
Co_owned	-0.0065*	-0.0066***	-0.00635***	-0.00636*
	(0.012)	(0.000)	(0.000)	(0.015)
HQ_DA	0.233***	0.219***	0.224***	0.185***
	(0.000)	(0.000)	(0.000)	(0.000)
Level	0.00590**	0.00506***	0.00547***	0.000566
	(0.002)	(0.000)	(0.000)	(0.679)
Geo_dist	0.0400***	0.0632***	0.0649***	0.0385***
	(0.000)	(0.000)	(0.000)	(0.000)
Ind_dist	-0.0000893	-0.000234	0.000132	-0.00469***
	(0.907)	(0.329)	(0.567)	(0.000)
Reg.Quality	-0.000255	0.00249	0.000844	0.00473
	(0.951)	(0.136)	(0.641)	(0.105)
Ln assets	-0.0123***	-0.0144***	-0.0143***	-0.0153***
	(0.000)	(0.000)	(0.000)	(0.000)
ROA	0.0108	0.0000694	0.0000960	0.0000270
	(0.351)	(0.592)	(0.566)	(0.927)
Leverage	0.00746	0.0152***	0.0131***	0.0249***
	(0.261)	(0.000)	(0.000)	(0.000)
#Firms	0.0000892	0.0000787***	0.000129***	0.0000115
	(0.157)	(0.000)	(0.000)	(0.320)
Constant	0.246***	0.198***	0.195***	0.259***
	(0.000)	(0.000)	(0.000)	(0.000)
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
HQ_Country FE	Yes	Yes	Yes	Yes
N	20709	213872	207663	26918
R2-within	0.0733	0.0653	0.0715	0.0382
R2-between	0.0778	0.112	0.0976	0.0934
R2-overall	0.0856	0.0806	0.0854	0.0622

Table 9 . Subsidiary listing status and location

	Non-listed affiliates	Listed affiliates	Local affiliates	Foreign affiliates
	(1)	(2)	(3)	(4)
	abs DA	abs DA	abs DA	abs DA
CF	-0.0000	-0.0003	-0.0000325*	0.00000214
	(0.066)	(0.505)	(0.024)	(0.954)
Co_owned	-0.00684***	0.0183	-0.00681***	-0.00680**
	(0.000)	(0.472)	(0.000)	(0.005)
HQ_DA	0.221***	0.0866	0.230***	0.180***
	(0.000)	(0.187)	(0.000)	(0.000)
Level	0.00525***	0.0147	0.00626***	0.00318**
	(0.000)	(0.181)	(0.000)	(0.008)
Geo_dist	0.0605***	-0.0360	0	0.0540***
	(0.000)	(0.430)	(.)	(0.000)
Ind_dist	-0.000250	-0.00263	0.000165	-0.00227***

	(0.274)	(0.698)	(0.493)	(0.001)
Reg.Quality	0.00205	0.0127	0.00143	0.000569
	(0.184)	(0.509)	(0.778)	(0.761)
Ln assets	-0.0142***	-0.00796	-0.0138***	-0.0163***
	(0.000)	(0.293)	(0.000)	(0.000)
ROA	0.0000812	-0.0465	-0.0000371	0.000589
	(0.561)	(0.394)	(0.527)	(0.266)
Leverage	0.0144***	-0.0790*	0.0117***	0.0259***
	(0.000)	(0.034)	(0.000)	(0.000)
#Firms	0.0000778***	-0.0000576	0.000062***	0.000107***
	(0.000)	(0.553)	(0.000)	(0.000)
Constant	0.199***	0.118	0.301	0.238***
	(0.000)	(0.201)	(0.075)	(0.000)
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
HQ_Country FE	Yes	Yes	Yes	Yes
N	233792	789	192680	41856
R2-within	0.0660	0.0203	0.0690	0.0531
R2-between	0.109	0.216	0.119	0.0818
R2-overall	0.0811	0.0744	0.0831	0.0681