

Cross-Border Investments in Private Firms: The Benefits of Comparability for Foreign Investors

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Abstract: We examine whether and how more comparable financial information affects equity investors identification of and investments in private firms. Exploiting a large-sample quasi-experimental setting, we document that firms affected by a major accounting reform experienced a greater increase of 2-6% in foreign ownership than firms that were not affected after the reform compared to before. Cross-sectional results confirm that the effect is stronger for smaller, highly profitable, intangible-intensive, and more stable firms. Additional analyses suggest that shareholders with private information channels benefit less from the increased comparability in public information, while those with greater familiarity with the new standards benefit more. The findings are robust to different forms of matching procedures and a placebo-test. Our large sample evidence based on the historical shareholder information of private firms provides insights on the economic effects of increasing the comparability of local GAAP for foreign-direct investments in private firms. Additionally, our findings are relevant to standard setters as more countries continue their convergence towards and endorsement of International Financial Reporting Standards and update and improve their local GAAP.

Keywords: accounting comparability, private firms, economic effects, cross-border investment

JEL Classifications: G14; M40; M41; M48

Data availability: The data used in this paper is publicly available from the sources indicated in the text.

1. INTRODUCTION

In this study we examine whether an increase in accounting comparability of local financial reporting practices (i.e., country-level GAAP), relative to International Financial Reporting Standards (hereafter IFRS), leads to increased cross-border investment of foreign investors for private firms. While comparability can be difficult to define, the general notion is that information about a reporting entity is more useful if it can be compared with similar information about other entities and with similar information about the same entity over time. That is, comparability enables users to identify and understand similarities in, and differences among, items (IFRS 2.24-25 and FASB SFAS 8). While there is ample evidence on the benefits of IFRS adoption (Amiram 2012, Covrig et al. 2007, Daske et al. 2013, Florou and Pope 2012), critical papers claim that, rather than comparability, reporting incentives, enforcement requirements, and the regulatory environment are the primary drivers of the observed effects (Christensen et al. 2013, 2015, Khurana and Michas 2011). This prior research largely focuses on public firms with scarce empirical evidence for private firms. Our study contributes to the rich evidence on the benefits of comparability and convergence to IFRS for public firms by identifying whether increasing comparability has an economic effect on cross-border investments in private firms.

Most countries worldwide still do not require, and in some cases even prohibit, IFRS for private firms. This is primarily because local GAAP is considered to be less costly due to lower disclosure requirements and given that it is often the basis to calculate taxable income (and dividends) (Gross 2016, De Simone 2016, Watrin et al. 2014). Yet, private firms constitute most of the economy for almost every country in the world. Within the U.S. alone, there are approximately 27.9 million small private businesses in operation that represent 99.7 percent of all employer firms. These small businesses employ about half of all private sector employees,

represent 60 to 80 percent of private-sector job growth annually, and about half of the non-farm gross domestic product (Allee and Yohn 2009, SBA 2021). Given the economic significance of this group of firms, understanding the effects that a change in accounting has for them is crucial when the regulation increases the comparability of the private firms through use of accounting standards, and with publicly traded firms. In a recent study on M&A transactions in the European Union, Bourveau et al. (2022) show that greater accounting comparability between private and public firms is related to increased value relevance of the private firms' financial information. Based on semi-structured interviews with M&A professionals, they suggest investors apply public peer information (such as multiples) directly to private firms when their accounting is comparable. Hence, in international contexts, accounting comparability is instrumental in decreasing (some amount of) valuation uncertainty.

Cross-border investments are an essential component of security markets (Stulz 1999). For example, in the U.S. approximately one-third of equity securities are owned by foreign investors, and foreign investment can enable growth and decrease firms' cost of equity (Blanchard et al. 2000, Bump 2017, Henry 2000, Lizardo and Mollick 2009). However, investors face economic frictions and other impediments when investing abroad and research examining these frictions is also predominantly based on public firms. These frictions can include (1) legal barriers (e.g., capital controls), (2) information asymmetries, (3) behavioral factors, (4) language barriers, and (5) accounting differences, like those we examine in this study (Beugelsdijk and Frijns 2010, Chan et al. 2005, French and Poterba 1991, Kang and Stulz 1997, Karolyi and Stulz 2003, Lundholm et al. 2018).

We follow Leuz' (2022) call for a designed-based approach and do not restrict ourselves to using a difference-in-difference analysis in a quasi-experimental setting. Instead, for

identification, we also provide strong insights into the institutional setting that allows us to examine the effect of an increase in accounting comparability within local GAAP on cross-border investment of foreign investors in private firms. Specifically, we analyze an accounting regime change in Germany in 2010, which was the largest German GAAP reform since 1985.¹ The reform's main objective was to increase the comparability between (local) German GAAP and IFRS in order to compete with international accounting standards. Benefits for small and medium-sized enterprises through this less complex, low-cost but still fully sufficient alternative to IFRS were expected by the German Federal Government due to the increased pressure to move towards IFRS like the public firms a few years earlier (German Federal Ministry of Justice 2008). We employ a difference-in-differences research design using this quasi-experimental setting that does not suffer from many of the confounding effects facing prior studies (Brüggemann et al. 2013). Specifically, our setting allows us to single out and investigate the economic effect of comparability on cross-border investment of foreign investors in private firms.² Local GAAP evolves in response to unique features of the local environment and mandating shared accounting global standards potentially eliminates the treatment of differences which exist for valid reasons (Lang et al. 2010). However, our setting allows an examination where the convergence to IFRS within a regime, but not its adoption, allows for unique identification.

Using the GAAP reform in Germany towards IFRS for all (private) firms we find a significant relative increase in cross-border investment by foreign investors in German (private) firms compared to the pre-period and our control group of Austrian (private) firms following the

¹ The official name of the legal basis for accounting regulation in Germany is the German Commercial Code (*Handelsgesetzbuch*, HGB). For brevity, we refer to German GAAP.

² We recognize that our findings may also reflect a change in accounting quality, rather than accounting comparability per se. In later analyses we document that comparability is most likely the underlying reason for our findings, although documenting how an increase in accounting quality can help cross-border investments in private firms is also a worthwhile contribution left for future studies in this area.

change. We document that this investment can take the form of (increased) foreign ownership of a partial stake in German private firms or, often in the case of smaller private firms, control acquisitions by foreign investors. Our results are robust to various specifications and controls. For example, we also perform an entropy balanced (Hainmueller 2012), a coarsened exact matching procedure (Iacus et al. 2012), and propensity score matched (Shipman et al. 2017) comparison between German and Austrian firms prior to and following the German GAAP reform and find economically and statistically similar results. Hence, we infer that the increase in foreign investment is driven by the increase in accounting comparability. This is consistent with Wang (2014), but with a sample of private firms, suggesting accounting comparability as a direct mechanism for harmonizing accounting standards to facilitate the transfer of transnational information. The observed increase in cross-border investment is also economically significant with about 2 to 6 percentage points more marginal foreign investment for the affected German private firms compared to those not affected, all else equal, following the accounting regime change.

We also perform additional analyses comparing foreign investments in German private firms to an alternative control group of German public firms. As with the prior analyses we perform entropy balanced, coarsened exact, and propensity score matches with these German public firms. The number of German private firms vastly outweighs the number of public firms. However, an examination between these groups provides further evidence of the benefits associated with comparability increases in private firms' financial reports and rules out alternative explanations for our findings associated with economic, cultural, and other differences between German and Austrian firms. That is, the public firms were already required to provide IFRS financial statements for their group reports prior to the 2010 accounting regime change in Germany and, thus, we expect

to find no relative change in publicly traded firms in cross-border investment after the German accounting reform (which essentially did not directly affect them). However, if private firms experienced the hypothesized increase in accounting comparability, we expect to find increased cross-border investments for German private firms when compared to German public firms. Consistent with our hypothesis we find, on average, an economically large and statistically significantly greater increase in foreign ownership of about 2 to 6 percentage points for German private firms compared to German public firms following the accounting reform.

We also run a placebo-test with 2008 instead of 2010 as the date for the shock, but do not observe a significant increase in foreign ownership. This allows us to lessen the concern that a major corporate tax reform in Germany in 2008 may drive the results. Additional analyses suggest that variation in firm characteristics – such as firm performance, position, and risk – is associated with our observed effect in line with our predictions. Furthermore, in an online appendix to the paper we show that the effect is mainly driven by firms from the consumer durables, manufacturing and other industries (including construction and hotels), and shareholders with higher familiarity of IFRS who benefit more from the increased comparability than those with private information channels.

These findings contribute to the extant literature in several ways. Primarily, they provide direct evidence on the economic effect of comparability improvements for cross-border investments in private firms. While prior literature provides evidence of the benefits of mandatory IFRS adoption on the appearance of comparability, in terms of co-movement of earnings, and on foreign investment, these inferences are principally focused on public firms. For example, Yu and Wahid (2014) find that mutual funds increase their holdings of public firms with similar accounting standards after adopting IFRS.

Due to the scarcity of academic research on private firms' financial reporting (Allee and Yohn 2009, Ole Kristian Hope et al. 2013, Zeff 2007), and yet the clear significance of this group of businesses to the global economy, our research is informative to (local) standard setters and to cross-border investors as to the benefits of comparability in financial accounting. That is, many countries worldwide still do not require, and in some cases even prohibit, IFRS for private firms (De Simone 2016, Watrin et al. 2014). However, our evidence suggests that this is potentially harmful to the liquidity, value, and investor base of these firms. Given the economic significance of this group of firms, it is vital to understand the effects that a change in accounting has for these entities when the regulation becomes more comparable with (or differs from) international accounting standards. Our large-scale sample comprises historical ownership data for both public and private firms providing unique insights into an under-researched yet significant set of economic agents in the global economy.

Our study also contributes to earlier evidence on IFRS adoption. The unique setting allows the use of a quasi-experimental research design that does not suffer from some of the confounding effects identified in prior studies. That is, previous research finds that benefits of IFRS adoption are dependent on the implementation and enforcement. For example, Yu and Wahid (2014) find that portfolio allocations of mutual funds after adopting IFRS are confined to public firms from countries with strong legal enforcement. Our study allows us to focus directly on the comparability effect given that there is no change in enforcement for our treatment group of private firms. Moreover, our institutional setting allows us to have a tight research design given that the accounting change occurred in only one country, i.e., for German private firms, unlike the IFRS adoption in multiple countries. Our research design is further strengthened due to our primary

control group of Austrian private firms with strong juridical and cultural commonalities to the German private firms, subject to nearly identical accounting standards before the regime change.

We further contribute to research that looks into “within comparability” (i.e. the comparability between firms of the same country) showing the benefits of local GAAP changes in line with IFRS which has not been achieved through the mandatory adoption of IFRS, per se (Yip and Young 2012). In fact, Cascino and Gassen’s (2015) findings suggest that mandating IFRS results in a decrease in comparability between public and private firms in Germany and Italy. Our study provides evidence that introducing even limited guidance for firms in line with IFRS, likely increasing within comparability as well as general comparability, results in positive economic effects via increased cross-border investments by foreign shareholders. This also addresses calls to examine the real effects of accounting, e.g., Leuz and Wysocki (2016). That is, Leuz and Wysocki (2016) suggest that we need more empirical research on the presence (and magnitude) of real effects with respect to the association between firm disclosure and accounting practices and investment decisions, and other real economy actions. We document the real effects of the accounting regime change in Germany in 2010, reducing information asymmetries (via modified disclosure and reporting practices of private firms in Germany), lessening cross-border frictions, and raising external capital for investment. Thus, more comparable reporting improves monitoring by outside parties, even distant parties such as foreign investors, making cross-border investment more palatable.

Finally, while the U.S. is unlikely to ever abolish U.S. GAAP and replace it with IFRS (Rouse 2014), over the last decade the International Accounting Standards Board (IASB) and Financial Accounting Standards Board (FASB) have jointly worked on numerous projects such as Financial Instruments, Lease Agreements, and Revenue Recognition to further an ongoing

convergence between the two standards. Our evidence on increasing comparability between local GAAP and IFRS provides significant insights toward an understanding of the effect of a country not adopting IFRS but its local GAAP becoming more comparable with the international accounting standards.

2. INSTITUTIONAL BACKGROUND, PRIOR LITERATURE, AND HYPOTHESES

A. Prior Literature

Comparability is a key characteristic of financial reporting and the financial reporting environment and plays a vital role in the capital markets. Helping investors and other stakeholders to compare similar economic transactions across companies, industries, and geographical borders is a fundamental concern of standard setters. In fact, a key factor in achieving the IASB's vision for IFRS to become the global standard is rooted in the global capital markets' demand for improved financial statement similarity of economically similar transactions (Barth 2007).

Comparability leads to better capital market outcomes, i.e., lower cost of capital and increased liquidity, because costs of preparing and interpreting financial statements will decrease, and investors will face less information risk as accounting quality improves (Barth 2007, Hail et al. 2010). Neel (2017) is the first to differentiate between comparability and accounting quality and their relative importance on economic consequences of mandatory IFRS adoption. He shows that greater comparability has a first-order effect on factors such as liquidity and forecast accuracy while reporting quality only plays a minor role and only has an economic effect when comparability increases at the same time. That is, increasing comparability alone should also make it easier for investors to acquire and process information. In line with this, prior research finds that accounting comparability improves risk sharing and lowers cost of capital (Armour et al. 2016,

Stulz 1981), while differences due to different accounting standards hamper cross-border investment (Aggarwal et al. 2005, Bradshaw et al. 2004).

Early research on mandatory IFRS adoption generally finds supportive evidence for the benefits of IFRS adoption due to the replacement of unfamiliar country-specific reporting standards.³ In these studies, IFRS are perceived as being of higher quality, and increasing the visibility of remote investments when only one global reporting standard is in place (e.g., Amiram 2012, Barth 2007, Covrig et al. 2007, Florou and Pope 2012, Hail et al. 2010).

However, Brüggemann et al. (2013) note that much of this positive capital market evidence may be overstated due to identification problems as the research design cannot rule out confounding effects from concurrent economic changes. In addition, they show that these prior studies mainly use databases comprising larger firms, which more likely enjoy the benefits from IFRS adoption (Christensen et al. 2007). Furthermore, researchers have found that the benefits attributed to the IFRS implementation are most likely driven by reporting incentives of the firms or stricter enforcement requirements (Christensen et al. 2013, 2015). Reinforcing these doubts, Khurana and Michas (2011) find no evidence that IFRS adoption improved investment decisions except for countries with a strong regulatory environment. Finally, Fang et al. (2015) suggest a reverse causality channel between investors and comparability and find that U.S. institutional ownership drives convergence in accounting practices. Hence, investors' information demand precedes accounting comparability.

Overall, most IFRS findings to date have been questioned because of confounding events, e.g., stricter enforcement, self-selection of firms based on their reporting incentives, or reverse causality effects of investors (Brüggemann et al. 2013, Christensen et al. 2013, Fang et al. 2015).

³ See De George et al. (2016) for an overview of the IFRS adoption literature.

Therefore, while there is a common notion that increased comparability is a key desirable financial reporting characteristic, and that comparability should increase cross-border capital flows by allowing investors to assess similar economic transactions and spot dissimilar economic events to find remote investments (Barth 2007, De George et al. 2016, Hail et al. 2010), empirical evidence to support this view has been difficult to attain.

B. Institutional Background

German financial accounting regulation is characterized by a dual reporting environment, comparable to a large number of countries in the world, e.g. France, Italy, or Japan (Goncharov et al. 2009). Single financial statements of legal entities must be prepared under German GAAP as determined by the commercial code, i.e., the “Handelsgesetzbuch” (HGB). However, since 2005, German public firms, as well as listed firms in all EU member countries based on EU regulation (EC) No. 1606/2002, are mandated to use IFRS, as adopted by the EU for their (consolidated) financial statements. As a consequence, German GAAP and IFRS simultaneously coexist in the German accounting environment, where single financial statements of German legal entities are prepared under German GAAP and group financial statements of listed firms have to follow IFRS.⁴

The requirement to use German GAAP for single financial statements is attributable to the fact that group and single financial statements have different functions in the German accounting environment. Group financial statements are solely to inform stakeholders about the economic performance of the firm. Single financial statements not only inform stockholders about the financial performance of each legal entity, but they also are the basis to determine taxable income

⁴ We note that private German firms are permitted to voluntarily prepare group financial statements using IFRS. It is also permitted to additionally prepare and disclose single financial statements using IFRS, but single financial statements are always prepared under local GAAP as well. Given only 0.14% of German private firms utilize this accounting disclosure choice (according to our untabulated analyses using the Orbis database) this is not likely to substantially affect our results. However, we note that given German private firms voluntarily using IFRS should likely attract more foreign investment in pre-event years and this would bias against us finding evidence of a comparability effect in the post-event window.

and distributions (Goncharov et al. 2009, Leuz and Wüstemann 2004). This leads to the conventional understanding that Germany has high book-tax conformity (Hung 2001, Pfaff and Schröder 1996).

The reporting environment changed significantly in 2010 through the introduction of the Accounting Law Modernization Act (“Gesetz zur Modernisierung des Bilanzrechts” or “Bilanzrechtsmodernisierungsgesetz” often abbreviated as BilMoG), which was the largest German GAAP reform since 1985. BilMoG was passed on 29 May 2009 and became effective on 1 January 2010. Firms were allowed to early adopt the new accounting law for the fiscal year 2009. The main objective of the BilMoG reform was to develop a “permanent and full-fledged comparison with IFRS” providing a “lower-cost and simpler alternative” to the existing German accounting standards (Deutscher Bundestag 2008). Through BilMoG, many accounting rules that differed under German GAAP were aligned with IFRS (e.g., the option to capitalize internally generated intangible assets, the measurement of pension provisions, the recognition of deferred taxes, and the abolishment of the pooling-of-interest method for consolidation). Fülbier et al. (2017) demonstrate that a key aspect of introducing BilMoG was to increase comparability of German accounting with international standards. A major consequence from these changes lead to increasing book values of equity and more detailed disclosures in line with IFRS (Pierk and Weil 2016).

Gross (2016) highlights and details the changes in German GAAP and the convergence towards IFRS and finds that the de-facto comparability (considering specific accounting choices) between industry and sized matched private German firms using German GAAP and those using IFRS (voluntary IFRS adopters) increased after the BilMoG accounting reform. Hence, we can confidently assume increased comparability through the use of BilMoG. However, note that

BilMoG did not completely align German GAAP with IFRS as there were concerns about some of the more “costly” IFRS reporting requirements, particularly the IFRS disclosure requirements were not adopted.

In this study, we use Austrian firms as the primary control group due to the strong similarities between the Austrian and German financial reporting systems prior to BilMoG. Particularly the mutual emphasis of the “prudence principle” with a focus on historical costs rather than fair values and timely loss recognition which is ubiquitous in both reporting systems due to high creditor protection as well as book-tax conformity. Before 2010 the Austrian commercial code and Austrian tax law closely followed the corresponding German rules. The similarity of the commercial codes of Austria and Germany has a longstanding history, where the German general commercial code (“Allgemeines Handelsgesetzbuch”), established in 1861, was adopted by Austria in 1863. Major changes to the Austrian Commercial Code in the past, e.g. the Financial Reporting Act (“Rechnungslegungsgesetz”) of 1990, also reflect this tradition of legal transfer and interpretation of accounting law between Germany and Austria (Mandl 1993, McLeay and Merkl 2005). Furthermore, the shared common language, geographic proximity, and the historical interdependencies of Austria and Germany, as well as the shared common legal tradition and existing close trading ties between the countries, made this legal transfer a highly efficient one. Benefits of the application of ready-made German commercial law included a rich source of jurisprudence, available works of reference, as well as, a wide base of academic accounting discussion and research (McLeay and Merkl 2005).

However, this traditional legal transfer of German accounting law into Austrian law did not take place with BilMoG. The first draft of BilMoG was published in November 2007 and there were ongoing discussions regarding a potential adoption of BilMoG changes into Austrian GAAP

the following two years, but the Austrian legislature made negligible accounting rule changes, which had little impact on Austrian accounting requirements (Fülbier et al. 2017). It was not until 2014, through the Accounting Amendment Act, that some alignments with IFRS were observable but the major objective of the Austrian reform was to align financial and tax reporting rather than align Austrian GAAP with international accounting standards.

Overall, Germany and Austria shared nearly identical accounting rules before the accounting reform in Germany. From 1 January 2010 to 31 December 2013, due to BilMoG, German GAAP converged towards IFRS increasing the accounting comparability of German private firms, while Austrian GAAP remained basically unchanged during that time. We exploit this accounting regime change of German GAAP towards IFRS (i.e., increasing within comparability as well as general comparability) to examine the effect of cross-border investment in German firms of foreign investors and utilize Austrian firms as our primary control group.

C. Hypothesis

We examine whether and how more comparable financial information affects equity investors identification of and investments in private firms. In general, investors' valuation models are a function of financial information and other available information, where prior literature finds that accounting comparability has a first-order effect on investors' financial and economic outcomes, suggesting that greater comparability improves investors' ability to acquire and process information (Bourveau et al. 2022). Further, Yu and Wahid (2014) find that mutual funds increase their holdings of public firms with similar accounting standards after adopting IFRS. Hence, more comparability should also potentially increase cross-border capital flows for private firms. Thus, a change in accounting rules that produces an increase in comparability with firms outside a

jurisdiction should result in increases in cross-border investment given that investors are able to observe better understandable information.

In contrast to this argumentation, there are several factors which potentially hamper any inference drawn from prior findings of public firms for equity investments in the private firm market. First, several studies find that private and public companies in the U.K., U.S. and Europe differ substantially in terms of reporting environments, incentives, and financial reporting quality (e.g., Ball and Shivakumar 2005, Burgstahler et al. 2006, Ole-Kristian Hope et al. 2013). Second, equity investors potentially acquire information about private firm targets and assess their valuation through an extensive due diligence (Wangerin 2019), i.e., this marginalizes the importance of financial comparability *a priori*. Third, there is scarce empirical evidence on how and to what extent financial accounting comparability affects equity investors' ability to invest in private firms.

Our argument is as follows: Exploiting the quasi-experiment of increased accounting comparability in German but not Austrian private, as well as German listed firms, under BilMoG in 2010 we can identify the potential economic effects of comparability on cross-border investment of foreign investors for private firms. We therefore hypothesize, stated in the null form, the following:

H1 – An increase in accounting comparability of local GAAP towards IFRS standards does not lead to more cross-border investment of foreign investors.

3. EMPIRICAL STRATEGY, SAMPLE, AND DESCRIPTIVE STATISTICS

A. Empirical Strategy

We exploit the quasi-experiment on accounting comparability in Germany through the accounting reform which was effective for financial years after 2009. We use Austrian private firms as the control group and German private firms as the treatment group. The accounting reform

was only effective for German private firms while Austrian GAAP was largely equivalent to German GAAP before 2010 and did not change substantially until 2014. In effect, we use a difference-in-differences research design to isolate the effects of accounting comparability on foreign ownership. Additionally, we compare the treatment group of German private firms against German public firms, which were already subject to IFRS reporting standards.

Our main equation (1) allows us to differentiate between the four years before and four years after the accounting reform. We estimate the empirical model using OLS with robust standard errors clustered by firm and year (Cameron et al. 2011, Petersen 2009).⁵ All variables are described in Appendix A.

$$FOR_SHARE_{it} = \beta_0 + \beta_1 \cdot DE-PRIVATE_i + \beta_2 \cdot POST_t + \beta_3 \cdot DE-PRIVATE_i \cdot POST_t + \\ CONTROLS + \epsilon_{it} \quad (1)$$

The dependent variable is the share of foreign ownership, which we multiply by 100 to improve the interpretability of the model output. Dummy variable *DE-PRIVATE* is set to one if the firm is headquartered in Germany and subject to the accounting regime reform. Thus, dummy *DE-PRIVATE* controls for differences between Austrian private (German public) and German private firms. Treatment is indicated by the *POST*-dummy variable, which is set to one for years when the German accounting reform was mandatory for German private firms, thus, for fiscal years 2010 and later, and zero otherwise.

Here, *POST* controls for differences before and after the German accounting reform. In our model, β_1 is the conditional mean for the difference in foreign ownership of German firms before the accounting reform as compared to Austrian firms before 2010 and β_2 captures the difference in foreign ownership for Austrian firms after 2009. We focus on β_3 , which shows the difference

⁵ We find qualitatively similar results using robust standard errors and when clustering on the firm-, year, or industry-year-level.

in foreign ownership for German private firms after 2009 compared to German private firms before 2010 in contrast to Austrian private (German public) firms after 2009 compared to Austrian private (German public) firms before 2010. We expect a significant marginal increase in foreign ownership on average for German private firms after the accounting reform.

Though the power of the difference-in-differences research design helps alleviate many concerns with control variables, we control for size, leverage, growth, and profitability. Specifically, we control for size (*SIZE*) using the natural logarithm of total assets. *LEVERAGE* is calculated as long-term debt over total assets. We expect firms with more leverage to have less foreign ownership because they rely more on debt than equity financing. Growth (*DSALES*) is calculated as changes in operating revenue over prior year revenue. Profitability (*ROA*) is calculated as earnings after tax scaled by total assets. Further, we include two dummy variables which separately capture the effect of negative growth (*NEG_DSALS*) and negative profitability (*NEG_ROA*). We winsorize all continuous control variables at the 1st and 99th percentile. We refer to Appendix A for a detailed definition of all variables.

B. Sample

We obtain all data from Bureau van Dijk's (BvD) Orbis database. We are interested in the effect of the increased accounting comparability on cross-border investment of foreign ownership caused by the regulatory change in the German accounting reform on German GAAP from 2009 to 2010. Since local GAAP data is sparsely available for 2005 in the Orbis database we utilize data ranging from 2006 to 2013, which leaves us four years of data before and after the accounting reform. We discard financial firms because their accounting regulation differs substantially from industrial firms. We classify investors as foreign if their country, as indicated by the Orbis identifier (BvD ID) differs from the country of the firm. Thus, our initial sample selection begins

with the historical ownership data of Austrian and German non-financial firms with a non-zero value of foreign ownership in any year.

We use annual ownership data from the Orbis database to measure the annual share of foreign investors. Ownership data in the Orbis database is collected directly from the companies, from official or from other information providers by Bureau van Dijk (2020). The ownership database allows us to identify the name, country and share per firm for each shareholder who holds at least 3 percent of a firm in our sample. The annual share of the foreign investors is calculated as the aggregated sum of the total ownership share of foreign investors by firm and year, which includes direct and indirect ownership links. We use the direct ownership share if the total share value is missing and winsorize the aggregated values at 100 percent to avoid double-counting due to missing ownership links in the Orbis database. Further, we replace missing foreign shareholder ownership values in 2006 with non-missing values in 2007 given the sparse availability for early years in the Orbis ownership database.

For financial data items, we use unconsolidated accounts because it is mandatory for all Austrian and German firms to prepare their unconsolidated single financial statements under local GAAP. We exclude firms which were established after 2009 when BilMoG became effective as well as voluntary BilMoG early adopters. The latter would distort our results since firms were allowed to adopt the new accounting regime for their financial statements already for their 2008 financial statements but had to disclose this according to German civil law of par. 66 III EGHGB. We identify 230 BilMoG early adopters by searching for disclosure key terms (e.g., “66 EGHGB”, “BilMoG”, etc.) in LexisNexis and the German Federal Gazette (“Bundesanzeiger”). Pierk and Weil (2016) employ a similar strategy to identify early adopters and find a similar low number of early BilMoG adopters. In addition, we require firms to have positive equity and operating revenue

of more than EUR 10 million as the disclosure requirements for small firms creates untenable data issues.⁶ Finally, we eliminate non-limited liability firms, agriculture and public administration firms, which have less than 20 observations per year, German private firms which are controlled by German public firms, Austrian private firms controlled by Austrian public firms, as well as all observations with missing data for any of our variables.

Table 1, Panel A summarizes the sample selection. The final sample of 30,870 firm-years consists of 1,195 Austrian private firms with a total of 6,484 firm-years, and 4,083 German private firms with 23,413 firm-years. Table 1, Panel B reports the number of firms and observations in the pre- and post-BilMoG period for German and Austrian firms, showing that the ratio of firms to observations is very similar in the pre- and post-period for both groups.

Figure 1 shows the frequency of the top 20 countries for the foreign shareholders in percentage from 2006 to 2013 for German and Austrian private firms. Here, we find that shareholders from France, Great Britain, the Netherlands, Switzerland and the U.S. are common among the largest groups of foreign shareholders for Austrian and German private firms, but the largest group of foreign investors are U.S. investors for German firms and German investors for Austrian firms.⁷ We also note that investors within each country are the majority owners of German and Austrian private firms, despite the presence of significant foreign investments. In untabulated analyses, we find that German shareholders own around 81 percent of German private firms and Austrian shareholders around 71 percent of Austrian private firms.

⁶ Small sized firms are not required to disclose their profit and loss statement. If two of the three following size classification thresholds are met, a firm is defined as small sized in Austria and Germany during our sample period: Less than 50 employees, turnover less than EUR 9.68 million and assets less than EUR 4.84 million (Bernard et al. 2018).

⁷ Given we argue that (at least pre-BilMoG) Austrian firms are essentially not “foreign” to German investors and vice versa for Austrian investors, and given that the largest foreign investors in Austrian firms are Germans, we perform our analyses excluding German investors as foreign investors in Austrian firms, and Austrian investors as foreign investors in German firms. Results are qualitatively similar as reported.

Figure 2 displays the average per firm change (post-BilMoG less pre-BilMoG) in foreign ownership of German private firms by decile based on firm size with a positive average change in foreign ownership. The red line indicates the average change in foreign ownership across all size deciles of German private firms. The results show a non-linear change in foreign ownership changes based on size deciles. That is, foreign investors acquire a significantly larger stake for the four smallest deciles of 55.94, 50.89, 47, and 46.94 percentage points, respectively. However, the average change in ownership for the size decile 7 to 10 is significantly below the average value of 44.15 percentage points. We also note that for the smallest group of German private firms the average change in foreign ownership is significantly above 50 percentage points. This shows that the average foreign ownership increase for very small German private firms in the post-BilMoG period compared to the pre-BilMoG period is an M&A transaction (i.e., foreign investors likely control the private firm after the transaction).

C. Descriptive statistics

Descriptive statistics of the variables are detailed in Table 2. Panel A reports the summary statistics of the foreign ownership for German and Austrian private firms separately. We also include the test statistic of the univariate tests for the mean-difference of the pre-BilMoG compared to the post-BilMoG period for both groups and between the groups. The results show that the foreign ownership for Austrian private firms is on average 9.8 percentage points significantly higher in the pre-BilMoG period (t-statistic = 10.929) and 7.7 percentage points higher in the post-BilMoG period (t-statistic = 11.115). We further find that the foreign ownership share significantly increases for German firms by 4.3 percentage points in the post-BilMoG as compared to the pre-BilMoG period (t-statistic = 8.018), while we find a lower increase of 2.2 percentage points in our control group of Austrian private firms (t-statistic = 2.472).

Table 2, Panel B displays the descriptive statistics for our treatment group of German private firms. Table 2, Panel C breaks down the control variables for the treatment group of German private firms and the control group of Austrian private firms, as well as the test statistic of the univariate tests for the mean-difference. The results show German private firms are larger, have more leverage, more cash, and more intangibles assets and PP&E. The significant changes emphasize the importance of our identification strategy which controls for the differences in levels between German private and Austrian private firms by comparing the relative change after the BilMoG accounting reform.

D. Parallel Trend Assumption

We examine the parallel trend assumption as the key assumption of our identification strategy (Roberts and Whited 2013) (a) by examining the change in GDP over time between Germany and Austria and (b) by mapping out the change in foreign ownership per year of our sample firms. First, we compare the change in gross domestic product (GDP) for Austria and Germany from 2006 to 2013. Our sample period spans over the global financial crisis, which would affect our analysis if the financial crisis had a different effect in terms of magnitude and timing for Austrian and German firms. However, visual inspection (Online Appendix Figure 1) shows that both economies experienced a highly similar GDP pattern from 2006 to 2013.

Second, in Table 2, Panel D we map out the foreign ownership share over our sample period per year relative to the last year before the accounting reform in 2009. We find no significant marginal difference in foreign ownership for German private firms and both control groups before the accounting reform. However, in the post period, we observe an increase in the share of foreign ownership for German private firms but not for Austrian private firms except for the year 2013. We also find no significant change in foreign ownership for German public firms after the

accounting reform compared to the year 2009. This provides evidence consistent with our expectation that the increase in comparability between local GAAP with international accounting standards affected only our treatment group of German private firms.

4. DIFFERENCE-IN-DIFFERENCES ANALYSES

A. German Private Firms against Austrian Private Firms

Table 3 displays the results for the difference-in-differences estimation. We find that German private firms, on average, have significantly less cross-border investment before the accounting reform as compared to Austrian private firms, as shown by the negative β_1 (*DE_PRIVATE*) estimate. We focus our analysis on the estimated difference-in-differences β_3 interaction effect (*DE_PRIVATE* \times *POST*), which shows a significant (t-statistic = 2.9) increase in foreign investment in column 1. Thus, we find evidence consistent with a rejection of the null hypothesis in favor of the alternative hypothesis that comparability of local GAAP towards IFRS standards increases cross-border investments of foreign investors. The increase is also economically significant with an estimate of around 2 percentage points more marginal foreign investment on average for German private firms after 2009 as compared to the years before the accounting reform, in comparison to the change for Austrian private firms, all else being equal.

Moreover, since the accounting reform increased accounting comparability of German GAAP with IFRS (Fülbier et al. 2017, Gross 2016), this indicates that increasing accounting comparability directly leads to more cross-border investment. In Column 2, we include industry fixed effects to control for time-invariant differences across industries. Again, we find a statistically and economically significant relative increase in foreign ownership, which is comparable to the findings without fixed effects.

For our control variables, we find that more foreign investment is associated with less debt financing. We attribute this to firms using foreign investment to reduce their bank financing through (new) foreign investors. Moreover, cross-border investment is positively associated with growth captured by *DSALES* (1.909, t-statistic = 2.879). This indicates that foreign investors actively invest in firms with higher growth opportunities.

To mitigate the concern for functional form misspecification (Shipman et al. 2017) and/or intrinsic differences between our treatment group of German private firms and the control group of Austrian private firms documented in Table 2, Panel C, we match German private and Austrian private firms using three matching approaches. For all matching procedures, we match the treatment and control firms based on the SIC1-digit industry classification and the average values for *SIZE*, *LEVERAGE*, *DSALES*, and *ROA* for the pre-BilMoG years, i.e. pretreatment covariates (Iacus et al. 2012). First, we use entropy balancing (Hainmueller 2012) to weight all covariates on the first and second moment, i.e., mean and standard deviation. Table 3, Column 3 shows that after entropy balancing, we find that the coefficient of the interaction term (*DE-PRIVATE* × *POST*) remains positive and statistically significant. Second, we employ a coarsened exact matching procedure (Iacus et al. 2012). Table 3, Column 4, provides the results of estimating equation (1) after balancing our samples by coarsened exact matching using unwinsorized pretreatment covariates and 10 strata for each continuous variable. We find that the coefficient of the interaction (*DE-PRIVATE* × *POST*) is again positive and statistically significant. Third, we use propensity score matching. Specifically, we employ a one-to-one propensity score matching without replacement, a caliper of 0.3, and require common support of the propensity scores between the treatment and control group. Fourth, we use a combination of propensity score matching and entropy balancing in Table 3, Column (6). We also find a statistically and economically significant

increase in foreign investment for private German firms after the accounting reform. Thus, even with several different model specifications the results are robust and remain consistent with a rejection of the null for H1.

B. German Private Firms against German Public Firms

The changes adopted in BilMoG brought German private firms closer, in terms of financial reporting comparability, to German publicly traded firms. Thus, an examination between these groups provides further evidence of the benefits associated with comparability increases in private firms' financial reports. In Table 4, we compare the treatment group of German private firms against a second control group of German public firms to test our hypothesis. We classify firms as public if they have issued equity shares. The sample of German public firms is substantially smaller than German private firms (representing just less than about 4% of all German private firm-years in our sample).

All public firms in our sample are required to provide IFRS consolidated financial statements. Therefore, for public firms we expect to find no relative change in cross-border investment after the German accounting reform because foreign investors were already able to use IFRS financial statements to compare and be directly informed about firms' financial performance. However, private firms experienced an increase in accounting comparability without the mandatory requirement to provide additional IFRS financial statements. Given the finding of increased foreign ownership after BilMoG, we expect to find a positive and significant interaction effect for German private firms as compared to German public firms.

Consistent with a rejection of the null for H1 and with the prior tests, the results in Table 4 confirm that for German private firms the increase in foreign ownership is about 3 percentage points larger than for German public firms after the reform compared to before compared to before.

Again, when using entropy balancing, coarsened exact matching, propensity score matching with replacement and a combination of propensity score matching and entropy balancing to account for functional form misspecification and/or intrinsic differences between German private and German public firms, our results remain unchanged and show an economically meaningful increase in foreign ownership of 2 to 6 percentage points.

5. CROSS-SECTIONAL AND ADDITIONAL ANALYSES

A. Comparison of Firms' Characteristics

The literature on the 'home-bias phenomenon' suggests that investors tend to have a strong bias towards firms with locations in the investors' domestic markets due to reasons including but not limited to transaction costs, accounting standards, and information asymmetries (Chan et al. 2005, Ke et al. 2010). Khurana and Michas (2011) show that the home-bias decreases for U.S. investors if the stocks are issued by firms that mandatorily switched to IFRS. They argue that this is due to the benefits of having one global set of accounting standards conditional on strong enforcement of the standards. We expect that after the accounting reform foreign investors will experience decreased information acquisition costs and information asymmetry due to increased accounting comparability. Hence, in additional cross-sectional tests we analyze whether and which certain firm-specific characteristics are associated with foreign investment post-BilMoG. Consistent with the home-bias evidence, we expect foreign investors' familiarity with the IFRS-like accounting information to increase resulting in the identification and evaluation of previously less visible investments (Amiram 2012, De George et al. 2016).

In our cross-sectional analyses we focus on the following firm characteristics that serve as proxies for the visibility of investments (e.g., *SIZE*, *ROA*, *DSALES*, and firm risk based on the standard deviation of total assets, i.e., *STD ASSETS*) as well as areas where the pre-BilMoG

standards differed significantly with the post-BilMoG standards (e.g., *INTANGIBLES*). That is, one major change of the accounting reform was that private firms are now able to capitalize R&D showing the potential of intellectual capital captured in *INTANGIBLES* which could be expected to draw increased foreign ownership.

In Table 5, we split our German private firm and Austrian private firm sub-samples based on the median value of the average firm characteristics. We estimate equation (1) for the split samples separately and compare the difference between the split samples for German private firms after the accounting reform. We find that foreign ownership primarily increased for German private firms with low *SIZE*, *DSALES*, and *STD ASSETS*, as well as high *ROA* and *INTANGIBLES* after the accounting reform. This shows that foreign investment increased particularly for small but profitable firms, which have potentially more intellectual knowledge and are more stable businesses, i.e., show less growth in sales and less firm risk.

Further, the results from Online Appendix Table OA1 show that the foreign investment in German private firms is mainly driven by foreign investments in the consumer durables, manufacturing and other industries including construction and hotels. This is consistent with the notion of more comparable, IFRS-like, accounting standards increasing investors' potential to identify and evaluate remote investments in the private firm market (De George et al. 2016).

B. Comparison of Shareholder Types and Characteristics

While we find an increase in the ownership share for German private firms after the accounting reform, it is possible that not all types of foreign investors benefit from the increase in accounting comparability. Specifically, it is likely that shareholders with private information like individuals and family owners already had an information advantage before the accounting reform. Prior literature finds that the need for public information is lower in family firms due to closer ties

between ownership and management and hence, has an impact on their corporate disclosures (Ali et al. 2007, Chen et al. 2008). Further, banks have been shown to adjust loan contracts based on private information as a result from firms' misreporting (Chen 2016). We therefore expect shareholders *without* private information channels, e.g., corporate shareholders, to benefit more from the increase in accounting comparability. Hence, we analyze the relative change in ownership for Corporations, Financial Institutions, Banks and Insurances, Families & Individuals, Funds, Research Institutions, state-ownership, and others using the Orbis classification for shareholders. We expect a relative increase in foreign ownership for corporate shareholders and no change or a relative decrease for shareholders with private information channels (e.g., individuals, financial institutions including banks, or families).

Table 6 reports our results for the group of German private firms, only displaying the marginal change per shareholder type after the accounting reform for ease in interpreting the results. In line with our expectation, we find that corporate shareholders show a marginally significant relative increase in ownership of 8.2 percentage points on average. Conversely, we find a significant relative decrease for Families and Individuals and for Financial Institutions. These results suggest that shareholders with more private information experience a decrease in ownership due to foreign corporate shareholders acquiring stakes from them or from German shareholders.

Finally, we expect shareholders located in a country which already applies IFRS or a similar set of accounting standards to benefit more from a change in accounting that brings German local GAAP closer towards IFRS in terms of recognition and measurement. Online Appendix Table OA2 documents that shareholders with greater familiarity of IFRS prior to the regime change benefit more from the increased comparability (i.e., greater foreign ownership after the reform). This provides further evidence that we are identifying a comparability effect.

C. Disentangling Accounting Comparability and Accounting Quality

One potential concern is that our findings reflect a change in accounting quality rather than accounting comparability, although this is mitigated by the fact that the accounting reform did not require German private firms to adopt the extensive IFRS disclosure requirements but only affected recognition and measurement of balance sheet and P&L items. To address this concern, we compare Austrian shareholders against non-Austrian foreign shareholders using the subsample of German private and German public firms. The rationale for this comparison is that Austrian shareholders were subject to accounting standards which were very similar to German GAAP before the accounting reform in Germany in 2010. After the reform, compared to non-Austrian shareholders which includes shareholders with higher IFRS familiarity, it is likely that they marginally benefit less from the increase in accounting comparability of German private firms, e.g., higher similarity to IFRS standards. Further, the comparability between Austrian GAAP and German GAAP for private firms even decreased after the accounting reform in Germany given that Austrian GAAP did not change. However, any increase in accounting quality of German private firms due to the accounting reform would benefit both Austrian and non-Austrian shareholders. We therefore compare the marginal change of Austrian shareholders against non-Austrian shareholders, to disentangle whether the increase in foreign ownership is driven by accounting comparability or accounting quality.

Table 7 reports the results where we use the subsample of German private and German public firms. We use the ownership share per shareholder-firm-year to compare the marginal change in shares of Austrian shareholders against non-Austrian shareholders for each firm-year. We do not include shareholder-firm-years of German shareholders given that they have a value of zero for our dependent variable, i.e., they bias any potential result towards zero. We run our

analysis using a base line regression including the set of control variables and industry fixed effects, and a specification using a comprehensive set of firm, year, and shareholder fixed effects. In line with our main result, we find a relative increase in foreign ownership for non-Austrian shareholders after the accounting reform for private German firms as shown by the marginally significant positive effect for *DE-Private* times *Post*. However, in line with our arguments above, Austrian shareholders show a marginal decrease in ownership share for German private firms after the accounting reform (coef = -5.365, t-stat = -2.677). This indicates that the overall increase in foreign ownership for German private firms is rather driven by the greater accounting comparability of German private firms' accounting standards to IFRS after the accounting reform and less likely due to any improvements in accounting quality.

6. ROBUSTNESS TESTS

We test the robustness of our findings in three different analyses. First, a potential confounding effect in our setting is the corporate tax reform in Germany in 2008. That is, a major effect of this reform was the decrease of the corporate tax rate by 10 percentage points. Since all German legal entities were subject to this tax reform, our alternative control group specification with German listed firms already addresses this concern. However, as a robustness check, we estimate our difference-in-differences analysis for the years just before the accounting reform took place. Thus, we use a *PSEUDO-POST* dummy that takes the value of one for the years 2008 and 2009, and zero for 2006 and 2007. We compare our treatment group of German private firms based on the dummy variable *DE-PRIVATE*, which is one for German private firms and zero for Austrian private (or German public) firms. Online Appendix Table OA3, Column 1 and Column 2 show that we find no incremental increase in foreign ownership for German private firms for the years after the tax but before the accounting reform. This finding is in line with Graham (2013), and

Brav et al. (2005, 2008), who argue that firms rarely become multinational firms (i.e., invest in foreign countries) with the sole purpose of avoiding taxes.

Second, we estimate the effect of our treatment group of German private firms simultaneously against both control groups, namely Austrian private firms and German public firms. This research design allows us to control for legal and economic differences between Austria and Germany and at the same time for differences in investing in public vs. private firms within Germany using a triple difference design. In untabulated analysis we find that the incremental effect for private German firms is quantitatively and qualitatively similar to our main results. Overall, our additional analyses provide evidence that the increase in accounting comparability is robust to alternative explanations and more complex specifications.

Third, we perform a test including firm (and year) fixed effects for our sample of treatment and control firms but do not require non-missing control variables since the firm is its own control in this specification and firm variables, such as size and leverage, are not likely to change much (especially for private firms) on a within firm basis. Untabulated results show that German private firms are more likely to receive foreign investment in the post-BilMoG era relative to their Austrian counterparts, even when firm and year fixed effects are utilized in the analysis. As this analysis eliminates fewer small firms, we note that the magnitude is stronger for this analysis than the main results in Table 3 and Table 4. This is in line with our finding that smaller firms are more likely to benefit from foreign investment after the accounting reform (Table 5, Column 1).

7. CONCLUSION

A key characteristic of high-quality financial reporting is that it enables users to compare similar transactions, e.g., IFRS CF 2.24-2.25. Empirical evidence also suggests that accounting comparability increases cross-border capital flows by allowing investors to assess remote

investments. However, confounding events, e.g., stricter enforcement or self-selection of firms based on their reporting incentives, cast doubt on previous findings, suggesting that prior evidence generally fails to identify and document financial reporting effects of improved comparability (Brüggemann et al. 2013, Christensen et al. 2013). Additionally, the results have largely been based on samples of publicly traded firms.

We exploit a unique quasi-experimental setting, the 2010 accounting regime change in Germany, to identify the effect of an increase in accounting comparability of local GAAP with IFRS on cross-border investments in private firms. We find strong evidence that those firms affected by a major accounting reform in Germany experienced a greater increase of 2-6% in foreign ownership than firms that were not affected after the reform compared to before. Our results are robust to a battery of robustness tests and we run a range of additional analyses to provide cross-sectional insights into our findings.

Our study contributes to the rich discussion on accounting comparability by regulators, standard setters, and academics. Our results suggest an economic effect that is associated with a convergence towards IFRS. The setting allows us to uniquely identify the increasing accounting comparability without suffering from potential confounding effects associated with IFRS adoption. Further, this study expands our understanding of cross-border investments in private firms, which play a major economic role in the global and local economy but are largely under-researched in the accounting and finance literatures. Finally, the results are useful to understand the effects of a country not adopting IFRS but its local GAAP becoming more comparable with the international accounting standards, as is the case for recent convergence projects of the IASB and FASB in the United States and abroad.

APPENDIX A: DEFINITION OF VARIABLES

Variable	Definition
<i>Austrian-Shareholder</i>	Dummy variable that is equal to one for Austrian shareholders per firm-year and zero otherwise.
<i>Cash</i>	Cash, defined as cash [CASH] scaled by total assets [TOAS]
<i>DE-Private</i>	Dummy variable that is equal to one for German private firms and zero otherwise.
<i>DSales</i>	Growth, defined as change in operating revenue [OPRE] scaled by prior year operating revenue.
<i>For_Share</i>	Aggregated sum of foreign ownership share per firm-year.
<i>For_Shareholder_Share</i>	Ownership share per shareholder-firm-year for foreign owners.
<i>Intang</i>	Intangible assets, defined as intangibles [IFAS] scaled by total assets [TOAS].
<i>Leverage</i>	Debt [LOAN + LTDB] scaled by total assets [TOAS].
<i>NEG_DSales</i>	Dummy variable that equals one if DSALES is negative and zero otherwise.
<i>NEG_ROA</i>	Dummy variable that equals one if ROA is negative and zero otherwise.
<i>Pension</i>	Pension, defined as long term provisions [PROV] scaled by total assets [TOAS].
<i>Post</i>	Dummy variable that is equal to one for years after 2009 and zero otherwise.
<i>PP&E</i>	Property, plant, and equipment, defined as long term tangibles assets [TFAS] scaled by total [TOAS].
<i>ROA</i>	Return on assets, defined as profit & loss after tax [PLAT] scaled by total assets [TOAS].
<i>Size</i>	Natural logarithm of total assets [TOAS].

Appendix A displays the definition of all variables, where Orbis data items are indicated in square brackets.

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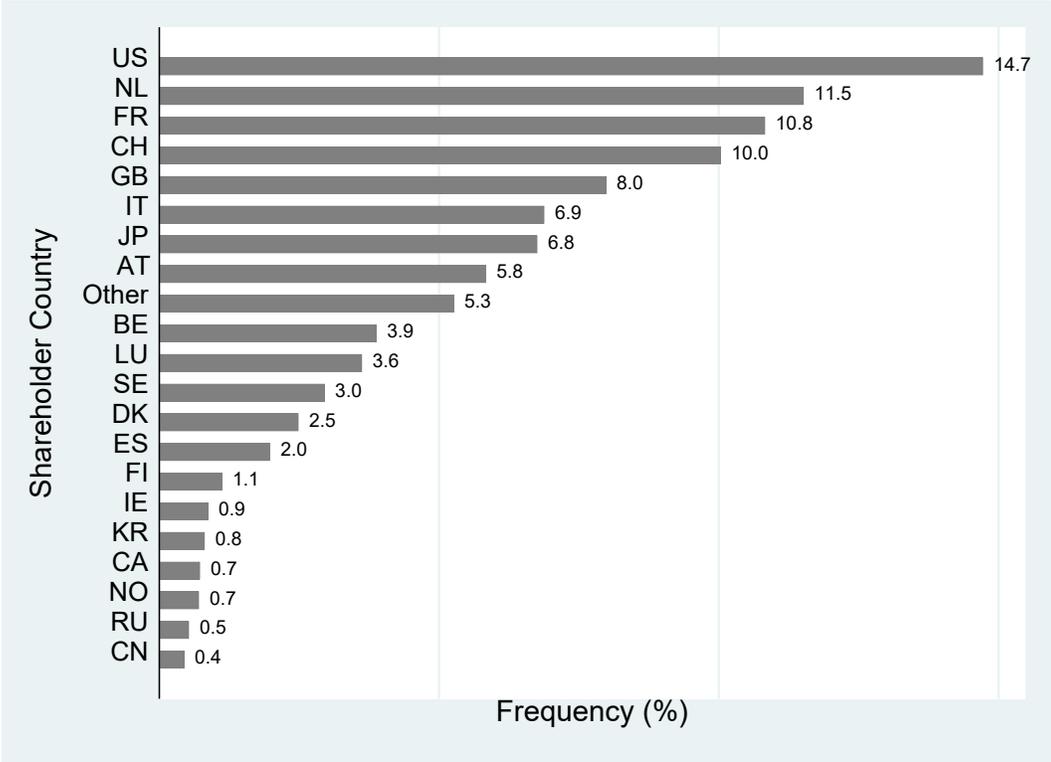
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Figure 1: Frequency of Foreign Shareholders by Country (%) from 2006 to 2013

Panel A: German Private Firms



Panel B: Austrian Private Firms

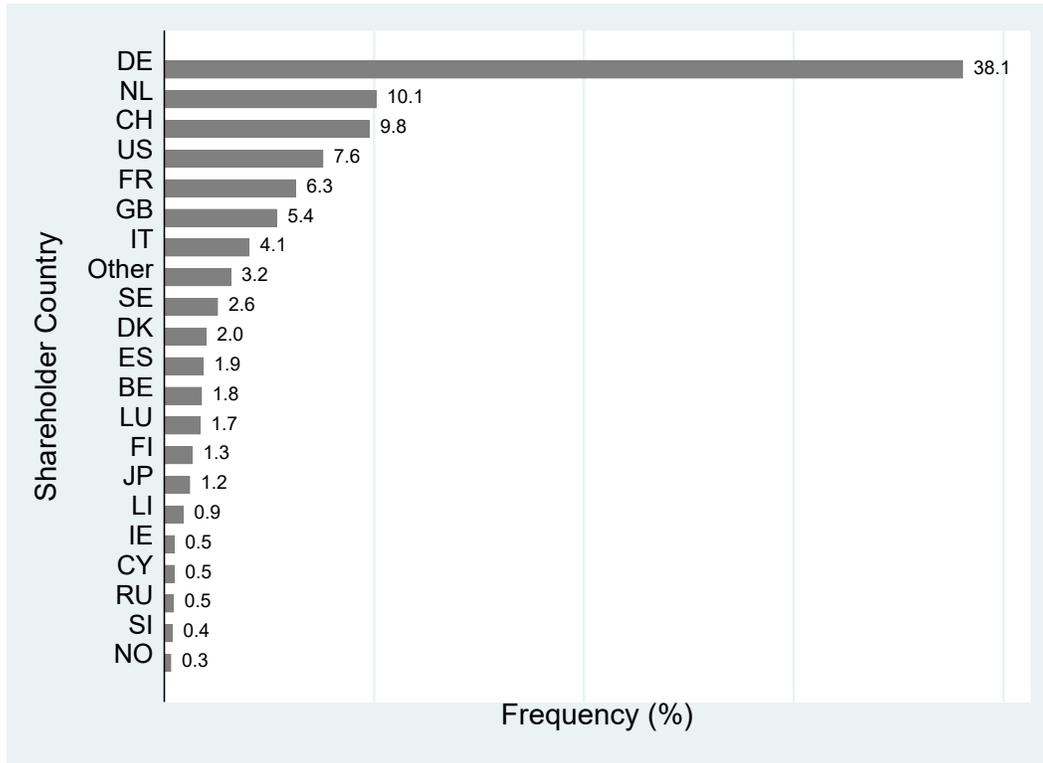


Figure 1 shows the frequency of foreign shareholders (%) during the sample period for German firms (Panel A) and Austrian firms (Panel B) separately. The country abbreviations are as follows: Austria (AT), Belgium (BE), Bermuda (BM), Canada (CA), Switzerland (CH), China (CN), Cyprus (CY), Germany (DE), Denmark (DK), Spain (ES), Finland (FI), France (FR), United Kingdom (GB), Ireland (IE), Italy (IT), Japan (JP), South Korea (KR), Liechtenstein (LI), Luxembourg (LU), Netherlands (NL), Norway (NO), Russian Federation (RU), Sweden (SE), Singapore (SI), and U.S. (US).

Figure 2: Average Change in Foreign Ownership per Firm (%) for German Private Firms with a Positive Ownership Change per Size Decile

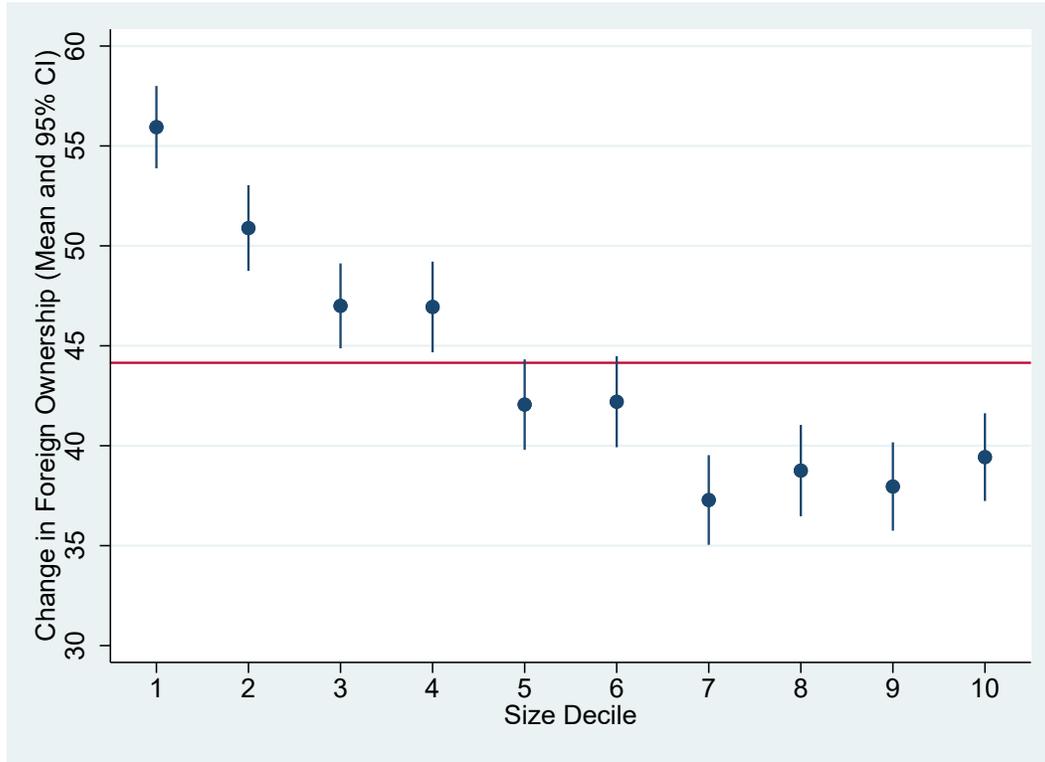


Figure 2 reports the average change in foreign ownership for German private firms per size decile of the firm. We exclude firms with a non-positive change in foreign ownership after the accounting reform as compared to before. Dots display the mean estimate of the foreign ownership in percentage points and bars the 95% confidence interval. The red line indicates the average change in foreign ownership across all size deciles of German private firms.

Table 1: Sample Selection**Panel A: Sample Selection Procedure**

Sample	Data Prerequisites	Firms	Firm-Years
	Historical ownership data of Austrian and German non-financial firms between 2006 and 2013 with financial statements prepared under local GAAP and a non-zero value of foreign ownership for at least one year.	9,115	72,917
Drop	firms established after 2009, delisted or had an IPO in the sample period	8,626	69,005
Drop	voluntary BilMoG early adopters	8,599	68,789
Drop	if equity [TOAS] is non-positive and operating revenue [OPRE] less than EUR 10 million.	8,078	50,035
Drop	non-limited liability firms and industries with few observations (agriculture & public administration), and private firms owned by public firms	6,672	42,696
Require	non-missing controls variables	5,416	30,870
Subsample	German private	4,083	23,413
Subsample	Austrian private	1,195	6,484
Subsample	German public	128	904
Subsample	Austrian public	10	69

Panel B: Sample Composition for German Private Firms and Austrian Private Firms

	Pre-BilMoG = 2006 to 2009		Post-BilMoG = 2010 to 2013	
	# of Firms	Total # of Obs	# of Firms	Total # of Obs
German	3,265	10,094	3,965	13,319
Austrian	918	2,643	1,146	3,841
Total	4,183	12,737	5,111	17,160

Table 1 Panel A displays the sample composition. Panel B reports the number of firms and observations per time-period for German private (treatment) and Austrian private (primary control group) firms. All data is obtained from Bureau van Dijk's Orbis database with data items in square brackets.

Table 2: Descriptive Statistics

Panel A: Descriptive Statistics of Foreign Ownership for German Private and Austrian Private Firms

	Pre-BilMoG 2006 to 2009		Post-BilMoG 2010 to 2013		Difference (t-statistic)
	Mean	Std. Dev.	Mean	Std. Dev.	
German Firms	70.43	41.94	74.68	38.84	4.255*** (8.018)
Austrian Firms	80.19	36.52	82.38	33.95	2.188** (2.472)
Difference (t-statistic)	-9.762***	(-10.929)	-7.695***	(-11.115)	

Panel B: Descriptive Statistics for German Private Firms Before and After the Accounting Reform

	N	Mean	Std. Dev.	P25	Median	P75
<i>SIZE</i>	23,413	17.399	1.315	16.455	17.267	18.157
<i>LEVERAGE</i>	23,413	0.110	0.185	0.000	0.001	0.165
<i>DSALES</i>	23,413	0.109	0.427	-0.051	0.044	0.158
<i>ROA</i>	23,413	0.070	0.116	0.012	0.054	0.119
<i>NEG_DSALES</i>	23,413	0.374	0.484	0.000	0.000	1.000
<i>NEG_ROA</i>	23,413	0.170	0.376	0.000	0.000	0.000
<i>CASH</i>	23,413	0.095	0.147	0.003	0.030	0.122
<i>INTANGIBLES</i>	23,413	0.023	0.063	0.000	0.003	0.012
<i>PP&E</i>	23,413	0.182	0.200	0.021	0.108	0.286
<i>PENSIONS</i>	23,413	0.182	0.162	0.061	0.130	0.256

Panel C: Descriptive Statistics for German Private Firms and Austrian Private Firms

	Austrian private firms		German private firms		Difference	(t-statistic)
	Mean	Std. Dev.	Mean	Std. Dev.		
<i>SIZE</i>	17.16	1.187	17.40	1.315	0.236***	(13.078)
<i>LEVERAGE</i>	0.062	0.138	0.110	0.185	0.049***	(19.783)
<i>DSALES</i>	0.103	0.444	0.109	0.427	0.005	(0.898)
<i>ROA</i>	0.070	0.107	0.070	0.116	0.000	(0.309)
<i>NEG_DSALES</i>	0.372	0.483	0.374	0.484	0.002	(0.288)
<i>NEG_ROA</i>	0.156	0.363	0.170	0.376	0.014***	(2.766)
<i>CASH</i>	0.088	0.137	0.095	0.147	0.008***	(3.732)
<i>INTANGIBLES</i>	0.021	0.061	0.023	0.063	0.002***	(2.704)
<i>PP&E</i>	0.171	0.194	0.182	0.200	0.011***	(4.047)
<i>PENSIONS</i>	0.179	0.132	0.182	0.162	0.003	(1.286)

Panel D: Foreign Ownership per Year (Parallel Trend Analysis)

Dependent Variable: Foreign Ownership Share (<i>FOR_SHARE</i>)			
	(1)	(2)	(3)
	German Private Firms (Treatment Group)	Austrian Private Firms (Primary Control Group)	German Public Firms (Alternative Control Group)
<i>Year 2006</i>	0.526 (0.453)	0.775 (0.390)	5.110 (1.289)
<i>Year 2007</i>	-1.003 (-0.908)	-1.671 (-0.889)	-0.898 (-0.230)
<i>Year 2008</i>	-0.919 (-0.847)	-2.238 (-1.223)	0.942 (0.243)
<i>Year 2009 (Reference Year)</i>	70.811*** (93.260)	81.047*** (63.385)	21.572*** (7.901)
<i>Year 2010</i>	2.732*** (2.599)	0.455 (0.264)	2.890 (0.752)
<i>Year 2011</i>	3.553*** (3.450)	0.214 (0.126)	2.300 (0.605)
<i>Year 2012</i>	3.910*** (3.843)	1.386 (0.822)	0.940 (0.248)
<i>Year 2013</i>	5.162*** (5.033)	3.361* (1.947)	3.451 (0.907)
N	23,413	6,484	904
Adjusted R ²	0.003	0.002	0.004

Table 2 reports the summary statistics of the variables. Panel A reports the foreign ownership (*FOR_SHARE*), while Panel B and C report the control variables for the German pre- and post-period as well as the sub-samples of German private firms and Austrian private firms separately. Panel D reports the parallel analysis based on the mean estimate of foreign ownership share *FOR_SHARE* (%) per year using 2009 as the reference year for German private firms, the primary control group of Austrian private firms, and the additional control group of German public firms for our sample period from 2006 to 2013. ***, **, and * represent statistical significance at the 1%, 5%, and 10% level, respectively, with t-statistics in parentheses. Variables are defined as in Appendix A.

Table 3: German Private Firms vs. Austrian Private Firms

	Dependent Variable: Foreign Ownership Share (<i>FOR_SHARE</i>)					
	(1)	(2)	(3)	(4)	(5)	(6)
	Base Regression	Controls and Industry FE	Entropy balancing	Coarsened Exact Matching	Propensity Score Matching	Propensity Score Matching & Entropy balancing
<i>DE-PRIVATE</i>	-9.762*** (-8.195)	-6.796*** (-5.708)	-4.695** (-3.322)	-6.624*** (-5.472)	-5.732*** (-3.643)	-5.449** (-3.059)
<i>POST</i>	2.188* (2.117)	1.953* (2.012)	1.034 (1.285)	2.072* (2.116)	1.430 (1.552)	0.836 (1.009)
<i>DE-PRIVATE</i> × <i>POST</i>	2.067** (2.900)	1.823** (2.594)	1.961** (3.289)	1.907** (2.622)	3.258** (3.413)	4.065*** (4.186)
<i>SIZE</i>		-0.482 (-1.300)	-1.096 (-1.791)	-1.133** (-2.842)	-0.664 (-0.971)	-1.660 (-1.754)
<i>LEVERAGE</i>		-23.065*** (-9.036)	-29.394*** (-6.239)	-22.143*** (-7.959)	-36.092*** (-6.241)	-37.397*** (-4.190)
<i>DSALES</i>		1.909** (2.879)	1.538 (1.792)	1.443* (2.327)	1.213* (1.932)	1.134 (1.018)
<i>ROA</i>		-19.894*** (-5.346)	-13.847** (-2.412)	-21.889*** (-5.856)	-14.041* (-2.278)	-8.315 (-0.954)
<i>NEG_DSALS</i>		-0.089 (-0.160)	0.309 (0.434)	-0.415 (-0.756)	-0.361 (-0.404)	0.182 (0.154)
<i>NEG_ROA</i>		-1.609 (-1.763)	-0.510 (-0.344)	-1.974* (-2.245)	-3.129** (-2.380)	-0.439 (-0.205)
<i>Constant</i>	80.188*** (69.419)	79.381*** (11.483)	88.647*** (7.528)	89.933*** (12.677)	81.951*** (6.261)	100.231*** (5.619)
Industry FE	No	Yes	Yes	Yes	Yes	Yes
N	29,897	29,897	27,261	27,746	11,578	11,578
Adjusted R ²	0.010	0.040	0.047	0.038	0.036	0.055

Table 3 reports estimated results for equation (1) for German private firms against the control group of Austrian private firms. ***, **, and * represent statistical significance at the 1%, 5%, and 10% level, respectively, with t-statistics in parentheses. Variables are defined as in Appendix A.

Table 4: German Private Firms vs. German Public Firms

Dependent Variable: Foreign Ownership Share (<i>FOR_SHARE</i>)						
	(1)	(2)	(3)	(4)	(5)	(6)
	Base Regression	Controls and Industry FE	Entropy balancing	Coarsened Exact Matching	Propensity Score Matching	Propensity Score Matching & Entropy balancing
<i>DE-PRIVATE</i>	47.637*** (19.510)	46.817*** (17.920)	49.275*** (16.411)	48.050*** (14.949)	46.410*** (17.525)	49.369*** (16.742)
<i>POST</i>	1.167 (0.961)	1.367 (1.128)	-2.526 (-1.457)	1.639* (2.115)	1.420 (1.207)	-2.445 (-1.454)
<i>DE-PRIVATE</i> × <i>POST</i>	3.088** (2.819)	2.437** (2.401)	5.532** (3.488)	2.332** (2.590)	1.789* (2.134)	5.640*** (3.663)
<i>SIZE</i>		0.021 (0.051)	2.619** (3.312)	-0.900 (-1.301)	-0.070 (-0.147)	2.530** (3.052)
<i>LEVERAGE</i>		-20.478*** (-7.952)	-19.709*** (-3.860)	-8.981* (-2.037)	-21.989*** (-7.721)	-19.376*** (-3.643)
<i>DSALES</i>		2.523** (2.711)	5.699 (1.401)	2.183 (1.820)	1.944** (2.672)	5.908 (1.421)
<i>ROA</i>		-23.237*** (-5.363)	-3.930 (-0.216)	-24.730** (-3.015)	-17.329** (-3.254)	-0.216 (-0.011)
<i>NEG_DSALS</i>		0.129 (0.210)	1.146 (1.118)	-0.714 (-0.759)	0.266 (0.361)	1.315 (1.250)
<i>NEG_ROA</i>		-2.301* (-2.347)	1.748 (0.488)	-3.102 (-1.697)	-1.337 (-1.223)	2.485 (0.640)
<i>Constant</i>	22.789*** (9.297)	19.306* (2.175)	-19.466 (-1.115)	32.493 (1.774)	18.843 (1.813)	-17.677 (-0.881)
Industry FE	No	Yes	Yes	Yes	Yes	Yes
N	24,317	24,317	22,358	10,558	20,809	20,809
Adjusted R ²	0.055	0.080	0.397	0.112	0.088	0.406

Table 4 reports estimated results for equation (1) for German private firms against the control group of German public firms. ***, **, and * represent statistical significance at the 1%, 5%, and 10% level, respectively, with t-statistics in parentheses. Variables are defined as in Appendix A.

Table 5: Analyses of Firms' Characteristics for German Private Firms vs. Austrian Private Firms

Dependent Variable: Foreign Ownership Share (<i>FOR_SHARE</i>)										
	SIZE		ROA		DSALES		INTANGIBLES		STD ASSETS	
	Low	High	Low	High	Low	High	Low	High	Low	High
DE-PRIVATE	-11.191*** (-7.004)	-2.776 (-1.563)	-0.710 (-0.389)	-13.344*** (-8.135)	-10.000*** (-6.077)	-3.064 (-1.572)	-4.470** (-2.717)	-9.429*** (-5.585)	-9.705*** (-5.901)	-4.260** (-2.477)
POST	-0.206 (-0.198)	3.517** (2.723)	4.948** (3.425)	-0.976 (-0.902)	-0.384 (-0.362)	4.448** (3.049)	2.886** (2.536)	0.978 (0.829)	0.024 (0.024)	3.260* (2.280)
DE-PRIVATE × POST	4.612*** (4.466)	-0.474 (-0.443)	-1.616 (-1.276)	5.399*** (4.926)	4.222*** (4.159)	-1.076 (-0.775)	-0.128 (-0.117)	3.846*** (4.129)	4.055*** (3.972)	0.241 (0.226)
Constant	72.133*** (17.380)	70.161*** (15.809)	72.166*** (7.319)	85.019*** (8.767)	83.274*** (8.122)	73.274*** (8.216)	81.210*** (9.271)	72.503*** (6.629)	87.871*** (5.933)	84.290*** (7.379)
Difference (Interaction)	-5.086**		7.015***		-5.298**		3.974**		-3.813**	
T-Statistic	(-3.173)		(3.617)		(-2.702)		(2.695)		(-2.458)	
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	14,954	14,943	14,955	14,942	14,958	14,939	14,953	14,944	14,762	14,755
Adjusted R ²	0.058	0.028	0.045	0.041	0.046	0.036	0.035	0.047	0.055	0.030

Table 5 reports the results for sample splits based on mean firm characteristics per firms for German private and Austrian private firms. Sub-samples are identified based on median of firm characteristics for *SIZE*, *ROA*, *DSALES*, *INTANGIBLES*, or *STD ASSETS*, where *high* is one for firms within the mean value variables above the median value, and zero for *low*. ***, **, and * represent statistical significance at the 1%, 5%, and 10% level, respectively, with t-statistics in parentheses. Variables are defined as in Appendix A.

Table 6: Analysis of Shareholder Types

Dependent Variable: Foreign Ownership Share (<i>FOR_SHARE</i>)	
German Private Firms Only	
<i>POST</i> × <i>Banks and Insurances</i>	-1.222 (-0.236)
<i>POST</i> × <i>Families and Individual Owners</i>	-5.528*** (-3.706)
<i>POST</i> × <i>Financial Institutions</i>	-4.748** (-2.534)
<i>POST</i> × <i>Hedge, mutual and pension funds</i>	-3.016 (-1.194)
<i>POST</i> × <i>Research Institutions</i>	5.089 (0.866)
<i>POST</i> × <i>Public authority/state/government</i>	18.584** (3.095)
<i>POST</i> × <i>Other</i>	13.240*** (4.423)
<i>POST</i> × <i>Corporations</i>	8.236* (1.976)
Controls	Yes
Industry FE	Yes
N	44,973
Adjusted R ²	0.052

Table 6 reports estimated results for German private firms only after the accounting reform for the classification of shareholders. We define the largest group of *Corporations* as the base shareholder group against which all other shareholder groups are compared. ***, **, and * represent statistical significance at the 1%, 5%, and 10% level, respectively, with t-statistics in parentheses. Variables are defined as in Appendix A.

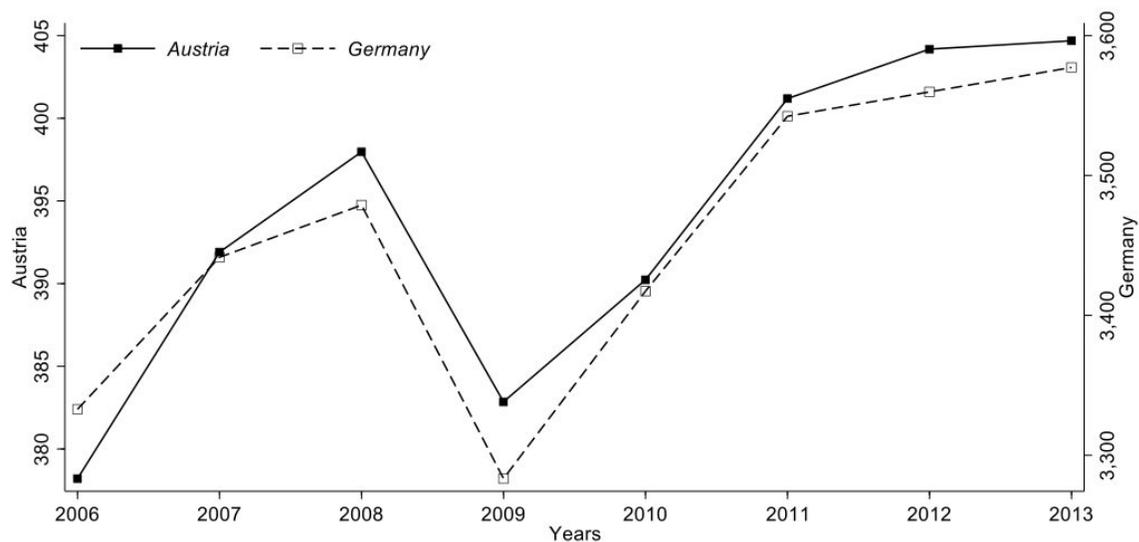
Table 7: Disentangling Accounting Comparability and Accounting Quality

Dependent Variable: Ownership Share per Shareholder-Firm-Year (<i>FOR_SHAREHOLDER_SHARE</i>)		
	(1)	(2)
	German Private vs German Public	German Private vs German Public
<i>POST</i>	0.099 (0.262)	
<i>DE-PRIVATE</i>	35.293*** (9.590)	
<i>DE-PRIVATE</i> × <i>POST</i>	7.375* (1.923)	7.512* (2.005)
<i>AUSTRIAN-SHAREHOLDER</i>	8.739*** (4.007)	
<i>AUSTRIAN-SHAREHOLDER</i> × <i>POST</i>	5.781** (2.687)	5.442*** (4.061)
<i>DE-PRIVATE</i> × <i>AUSTRIAN-SHAREHOLDER</i>	-7.472** (-2.872)	
<i>DE-PRIVATE</i> × <i>AUSTRIAN-SHAREHOLDER</i> × <i>POST</i>	-5.365** (-2.677)	-5.402* (-2.208)
<i>Constant</i>	8.920 (1.198)	6.200 (0.575)
Controls	Yes	Yes
Firm FE	No	Yes
Year FE	No	Yes
Shareholder FE	No	Yes
Industry FE	Yes	No
N	53,253	53,253
Adjusted R ²	0.120	0.526

Table 7 reports estimated results for equation (1) for German private firms against the control group of German public firms using the ownership per shareholder-firm-year for non-German shareholders as the dependent variable. We modify equation (1) by splitting shareholders into Austrian and non-Austrian shareholders. ***, **, and * represent statistical significance at the 1%, 5%, and 10% level, respectively, with t-statistics in parentheses. Variables are defined as in Appendix A.

ONLINE APPENDIX: CROSS-BORDER INVESTMENTS IN PRIVATE FIRMS: THE BENEFITS OF COMPARABILITY FOR FOREIGN INVESTORS

Online Appendix Figure 1: GDP in Billion (constant 2010 USD) of Austria and Germany from 2006-2013



Online Appendix Figure 1 displays the gross domestic product (GDP) in Million (constant 2010 USD) of Austria and Germany for our sample period from 2006 to 2013.

A. Online Appendix A: Comparison of Industries

Prior research examines the comparability effects associated with mandatory adoption of IFRS by constructing samples of firms of the same industry but of different countries (Cascino and Gassen 2015, Neel 2017). This within-industry analysis across countries shows that accounting comparability is positively associated with innovative efficiency as firms can more easily learn from their industry peers' R&D investments (Chircop et al. 2020). Complementing these studies, our unique identification of increased comparability allows us to analyze industry-specific differences. DeFond et al. (2011) use a measure for comparability different from our identification strategy. Their measure is based on the number of firms per industry applying IFRS after the EU mandate in 2005, relative to the number of firms in a specific country applying local GAAP in that industry prior to the mandate. Based on this measure they find more cross-border investment conditional on the credible implementation of IFRS. They further show that their measure capturing the change in uniformity due to the mandatory IFRS adoption is highest in Germany for the Petroleum industry, followed by Construction and Leisure (based on the Campbell 1996 industry classification). In Austria, the top three industries with the highest positive change in uniformity are Consumer Durables, Capital Goods, and Construction. In these industries, the change from local GAAP to IFRS resulted in firms facing a relatively higher portion of industry peers with the same accounting standards as before. Consistent with our main findings on an increase in foreign ownership due to greater comparability of local GAAP with IFRS, we also expect differences across industries similar to DeFond et al. (2011). More specifically, we assess these industry-specific differences in change in foreign ownership after the German accounting reform along three different specifications.

First, we evaluate the effect for German private firms only by interacting industry dummies with our *POST* dummy variable. Second, we compare German private firms against Austrian private firms by estimating the results for equation (1) by also including a full interaction set of industries dummies. Third, we employ the same specification as in equation (1) with German public firms as the control group including a full set of dummy variable interactions.

We define the industry classification using Fama-French 10 industry portfolios based on SIC4 industry codes. In the regression, we define the industry portfolio 7 (i.e., Wholesale, Retail, and Some Services) as the reference group (i.e., as a benchmark for comparison with other industries), since these firms account for about 35% of our sample. The results are presented in Online Appendix Table 1 (i.e., Table OA1). We display only the interaction terms for each industry against the reference group. Thus, Column 1 reports the marginal effect of foreign ownership for German private firms after the accounting reform. Column 2 displays the marginal effect compared to Austrian private firms, and Column 3 the marginal effect after the accounting reform of German private firms against German public firms.

We find that Consumer Durables industry, Manufacturing, and Other — Mines, Construction, Hotels, etc. show a significant increase in foreign ownership (relative to industry portfolio 7). These results are consistent across all three specifications. The findings further support our hypothesis as well as extend the analysis to examine the industries most affected by the increase in accounting comparability. Specifically, where the change in accounting standards enabled foreign investors to identify and evaluate remote investment opportunities in the private market (De George et al. 2016). The industries that we observe to be driving the increase in foreign ownership post-BilMoG align well with DeFond et al.'s (2011) findings. In their sample

of 14 EU countries, Consumer Durables in Austria and the U.K. show the highest change of uniformity post-IFRS (their Table 2 Panel B). In Table OA1 column 2, the regression coefficient of *DE-PRIVATE x POST* interacted with the Consumer Durables industry dummy of 11.187 (p-value<0.05) extends DeFond et al. (2011) to private firms applying an IFRS-like standard: the finding suggests that while German Consumer Durables firms became internationally more comparable with their accounting information resulting also in higher foreign ownership, Austrian firms that were not subject to the accounting reform showed no such change.⁸ Besides Consumer Durables, we observe Manufacturing, Mining, and Other Industries comprising e.g. Construction, Building Management (construction materials), Transportation, Hotels, Entertainment are most significantly impacted by increased foreign investment, with the latter two also being among the top three industries in DeFond et al. (2011).

B. Online Appendix C: Comparison of Shareholders' Accounting Standard

An alternative way to explore which shareholders benefit from the accounting reform is by classifying their familiarity with IFRS accounting standards. Here, we expect shareholders located in a country which already applies IFRS or a similar accounting standard to benefit more from a change in accounting that brings German local GAAP closer towards IFRS in terms of recognition and measurement. In Online Appendix Table 3 (i.e., Table OA3) we analyze the relative change for the ownership of foreign owners in German private firms and only display the marginal change after the accounting reform for ease of presenting and understanding the results. We classify the IFRS familiarity based on the accounting standard classification

⁸ We acknowledge that the industry distribution for public firms used in DeFond et al. (2011) may be different to those for private firms used here. However, we expect private firms in a given country to represent a fair portion of the supply chain for the larger public companies.

suggested by Song and Trimble (2022) during our time frame using the country where the shareholder is located.

Our results presented in Table OA2 suggest that familiarity with IFRS accounting standards is positively associated with foreign ownership post the accounting reform. Specifically, we find a significant marginal increase in ownership for foreign shareholders where the accounting standards either converge towards IFRS (e.g., China and Singapore) or for countries which apply IFRS. The benefits of moving towards an IFRS-like accounting standard for these shareholders can be expected to be greater compared to shareholders that are not exposed to recognition and measurement criteria under IFRS. Consistently, we observe no significant difference in foreign ownership after the reform for shareholders located in countries using local GAAP and U.S. GAAP. The same is true for the largest group of shareholders located in the EU. This might be driven by private shareholders in EU member states which require local GAAP instead of IFRS or also by shareholders with private communication channels. Given that the majority of shareholders in the database are individuals, their low familiarity with IFRS might also contribute to this finding.

Table OA1: Industry Analysis

Dependent Variable: Foreign Ownership Share (<i>FOR_SHARE</i>)			
	(1)	(2)	(3)
	German Private Firms Only	German Private vs Austrian Private	German Private vs German Public
<i>DE-PRIVATE</i> × <i>POST</i> × Consumer Non-Durables (FF 1)	-7.417** (-2.866)	-11.379*** (-4.098)	12.812 (0.952)
<i>DE-PRIVATE</i> × <i>POST</i> × Consumer Durables (FF 2)	6.809** (2.822)	11.187** (3.053)	12.797* (2.126)
<i>DE-PRIVATE</i> × <i>POST</i> × Manufacturing (FF 3)	2.706** (2.691)	5.520** (2.471)	6.584*** (4.156)
<i>DE-PRIVATE</i> × <i>POST</i> × Oil, Gas, and Coal Extraction and Products (FF 4)	-5.967 (-1.374)	-32.551** (-2.846)	0.000 (0.000)
<i>DE-PRIVATE</i> × <i>POST</i> × Business Equipment (FF 5)	1.558 (1.284)	6.109* (2.019)	-2.287 (-0.726)
<i>DE-PRIVATE</i> × <i>POST</i> × Telephone and Television Transmission (FF 6)	-13.813* (-2.354)	-25.531** (-2.546)	-10.927 (-1.642)
<i>DE-PRIVATE</i> × <i>POST</i> × Healthcare, Medical Equipment, and Drugs (FF 8)	3.163 (1.212)	12.454 (0.995)	-6.661 (-1.052)
<i>DE-PRIVATE</i> × <i>POST</i> × Utilities (FF 9)	0.978 (0.199)	-36.902** (-2.459)	-8.111 (-0.747)
<i>DE-PRIVATE</i> × <i>POST</i> × Other -- Mines, Constr, BldMt, Trans, Hotels, Entertainment, etc. (FF 10)	5.007** (2.663)	5.644** (2.882)	8.825** (2.666)
<i>DE-PRIVATE</i> × <i>POST</i> × Wholesale, Retail, and Some Services (FF 7) (Reference Group)	2.115*** (3.642)	-0.414 (-0.350)	-0.721 (-0.522)
Controls	Yes	Yes	Yes
N	23,413	29,897	24,317
Adjusted R ²	0.040	0.049	0.090

Table OA1 reports estimated results for German private firms only after the accounting reform (Column 1), estimated results of equation (1) against the primary control group of Austrian private firms (Column 2) and against the additional control group of German public firms (Column 3). We use Fama French 10 Industry Portfolios based on SIC four-digit codes. We define the largest group of *Wholesale, Retail, and Some Services (FF 7)* as the base industry against which all other industries are compared. ***, **, and * represent statistical significance at the 1%, 5%, and 10% level, respectively, with t-statistics in parentheses. Variables are defined as in Appendix A.

Table OA2: Analysis of Shareholders' Accounting Standards

Dependent Variable: Foreign Ownership Share (<i>FOR SHARE</i>)	
	German Private Firms Only
<i>POST</i> × <i>Convergence</i>	10.221** (3.454)
<i>POST</i> × <i>IFRS</i>	4.142** (2.384)
<i>POST</i> × <i>Local GAAP</i>	4.472 (1.170)
<i>POST</i> × <i>U.S. GAAP</i>	0.355 (0.394)
<i>POST</i> × <i>Unknown</i>	-6.305* (-2.010)
<i>POST</i> × <i>IFRS EU</i>	6.539 (1.777)
Controls	Yes
Industry FE	Yes
N	44,973
Adjusted R ²	0.031

Table OA2 reports estimated results for German private firms only after the accounting reform for the classification of shareholders' accounting standards. We define the largest group of *IFRS EU* as the base shareholder group against which all other shareholder groups are compared. ***, **, and * represent statistical significance at the 1%, 5%, and 10% level, respectively, with t-statistics in parentheses. Variables are defined as in Appendix A.

Table OA3: Pseudo-Post Analysis

Dependent Variable: Foreign Ownership Share (<i>FOR_SHARE</i>)		
	(1)	(2)
	German Private vs Austrian Private	German Private vs German Public
<i>DE-PRIVATE</i>	-6.517** (-5.142)	46.437*** (15.658)
<i>PSEUDO-POST</i>	-0.443 (-0.499)	-1.332 (-1.190)
<i>DE-PRIVATE</i> × <i>PSEUDO-POST</i>	-0.150 (-0.350)	0.883 (1.936)
<i>SIZE</i>	-0.381 (-0.684)	0.416 (0.743)
<i>LEVERAGE</i>	-23.483*** (-7.342)	-21.456*** (-7.239)
<i>DSALES</i>	1.743* (2.817)	1.588 (2.021)
<i>ROA</i>	-17.224** (-3.854)	-19.432** (-3.865)
<i>NEG_DSALS</i>	0.285 (0.613)	-0.196 (-0.478)
<i>NEG_ROA</i>	-0.730 (-0.541)	-0.966 (-0.746)
<i>Constant</i>	75.637*** (7.532)	11.737 (1.040)
Industry FE	Yes	Yes
N	12,737	10,525
Adjusted R ²	0.041	0.077

Table OA3 reports estimated results for equation (1) for German private firms against the control group of Austrian private firms for years before the accounting reform. The *PSEUDO-POST* dummy variable is one for year 2008 and 2009 and zero for year 2006 and 2007. ***, **, and * represent statistical significance at the 1%, 5%, and 10% level, respectively, with t-statistics in parentheses. Variables are defined as in Appendix A.