Do Local Country Reporting Requirements Affect Parent Company Disclosure of Subsidiary Operations?

Nerissa C. Brown*
nerissab@illinois.edu

Michelle Hutchens
mlh80@illinois.edu

Benjamin Osswald
osswald@illinois.edu

Gies College of Business
University of Illinois at Urbana-Champaign

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*Corresponding author: Nerissa Brown, University of Illinois, 391 Wohlers Hall, 1206 S. Sixth Street, Champaign, IL 61820.
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Abstract: A primary objective of financial reporting is comparability across companies, yet in a global economy multinational companies face a variety of reporting requirements based on their geographic footprint. We exploit a shock to German enforcement of a requirement that public and private limited liability companies publicly disclose entity-level financial statement information to examine whether local country reporting requirements influence U.S. parent company geographic disclosures in consolidated financial statements. We find that U.S. parent companies with an affected German subsidiary are more likely to provide a stand-alone segment or enterprise-wide disclosure for Germany and provide more discussion of German operations in their consolidated financial statements. Consistent with our expectations, the increase in parent-level disclosure is concentrated among companies with lower disclosure costs and lower internal information quality in the pre-period. We also observe favorable capital market outcomes following an increase in parent-level disclosure related to German subsidiary operations. Importantly, our analyses also reveal spill-over effects of local country reporting requirements, with affected parent companies increasing enterprise-wide and segment disclosures for other European countries and including more information on European operations in the consolidated financial statements. Collectively, our evidence suggests that local country reporting requirements affect geographic disclosures in consolidated financial statements.

1. Introduction

Multinational enterprises (MNEs) have increased their global footprint significantly over the past three decades and as such face varied regulatory environments and associated risks (Kostova, Roth, and Dacin 2008; Leuz 2010; Pastor and Veronesi 2013), which may affect the comparability of geographic disclosures across MNEs.[1] We examine whether local country reporting requirements are a potential driver of variation in geographic disclosures included in an MNE's consolidated financial statements. Given the importance of geographic disclosures, prior academic research has evaluated the drivers of variation in segment reporting (e.g., Piotroski 1999; Botosan and Stanford 2005; Berger and Hann 2007) and evaluated factors influencing the quality of Exhibit 21 material subsidiary disclosures (Dyreng et al. 2020). Further, 75 percent of participants in a CFA survey of financial statement users support enhancements to geographic disclosures (CFA 2018). And based on feedback from users, the FASB has noted that improvements to the aggregation criteria for segment reporting are warranted.[2] Understanding whether an MNE's geographic disclosures are a function of reporting requirements faced in subsidiary locations is important to both investors analyzing financial statements of MNEs with different geographic footprints and regulators seeking to improve the comparability of consolidated financial statements across MNEs.

Much of the literature on managers' disclosure decisions focuses on the frictions that limit disclosure or lead managers to not fully disclose their private information (see Beyer, Cohen, Lys, and Walther 2010 for a review). However, the extent to which local country reporting requirements alter disclosure costs, such as agency costs or proprietary costs, is unclear. First, local country reporting requirements may increase the quantity and quality of

[1] As of 2019, for public U.S. MNEs (included in Compustat) 19 percent of pre-tax earnings are related to foreign operations.
[2] https://www.fasb.org/Page/ProjectPage?metadata=fasb-SegmentReporting-022820221200.

information available to managers at both the subsidiary-level and parent-level, potentially reducing internal agency frictions (e.g., Verrecchia 1990b; Kim, Taylor, and Verrecchia 2021). Second, MNEs may incur proprietary costs associated with local country reporting requirements, in turn reducing the friction of proprietary costs born at the parent-level. As such, MNEs may increase geographic disclosure related to subsidiary operations following an increase in local country reporting requirements.

Alternatively, local country reporting requirements many increase the costs of providing disaggregated geographic disclosures. Heinle, Samuels, and Taylor (2022) note that disclosures with different levels of aggregation face different disclosure frictions and provide evidence of disclosure substitution at different aggregation levels when the disclosures are correlated. As it relates to our setting, increased reporting requirements at the local country level may increase parent-level disclosure costs, leading managers to provide more aggregated geographic disclosure at the consolidated level. Lastly, given the likelihood of high awareness and acquisition costs of financial information reported at the local country level (e.g., Blankespoor, deHaan, and Marinovic 2020), local country reporting requirements may not materially affect parent-level disclosure costs. Yet, to the extent that local country reporting requirements alter the frictions to full disclosure, they may create variation in parent-level geographic disclosures.

We exploit a shock to German enforcement of a requirement that all public and private limited liability companies report public financial statement information. Using this setting, we examine whether local country reporting requirements affecting subsidiary entities influence the U.S. parent company's geographic disclosures in consolidated financial statements.

All European Union (EU) Member States require private limited liability entities to publicly disclose financial statement information (European Commission Directive 2003/58/EC).

However, the requirement was largely ignored by German entities, until 2007 when the European Commission mandated that the Member States enforce the requirement to publicly disclose financial statement information and further mandated that they be made available as electronic filings (Bernard 2016; Breuer, Hombach, and Müller 2021; Breuer, Leuz, and Vanhaverbeke 2021). This enforcement shock provides a unique opportunity to evaluate the extent to which local country reporting requirements affect parent-level disclosure related to subsidiary operations, which could lead to variation in an MNE's geographic disclosure based on its geographic footprint.

We examine the extent to which U.S. MNEs with a German subsidiary (i.e., U.S. MNEs with a subsidiary affected by the newly enforced local country reporting requirement) increase segment or enterprise-wide geographic disclosures and/or increase discussion related to German operations throughout the Form 10-K after the increased enforcement of subsidiary-level reporting requirement in Germany. We compile a sample of U.S. MNEs with a German subsidiary during our sample period which includes four years before and four years after the increase in German enforcement. Additionally, if U.S. MNEs increase disclosures related to their German operations, they may also increase disclosure related to other European operations. Given the potential for local country reporting requirements to have spillover effects, we examine the extent to which the German enforcement shock is associated with U.S. MNEs increasing geographic disclosures related other European subsidiaries in their consolidated financial statements.

The FASB accounting standard on segment reporting and enterprise-wide disclosures, ASC 280, affords managers discretion regarding the extent of aggregation of operating and geographic segments. Given the capital market benefits of enhanced disclosure (e.g., Welker

1995; Healy, Hutton, and Palepu 1999; Leuz and Verrecchia 2000) and the potential for local country reporting requirements to reduce disclosure costs, we posit that U.S. MNEs will provide additional geographic disclosures in the consolidated financial statements following the shock to enforcement of local country reporting requirements. Specifically, we predict U.S. MNEs will be more likely to provide segment or enterprise-wide geographic disclosures related to German operations and will increase geographic disclosures related to their German operations in the Form 10-K following the increased enforcement of the German reporting requirement. Consistent with our expectations, our evidence suggests that U.S. MNEs are 5 percent more likely to provide enterprise-wide geographic or segment disclosures related to German operations in the period following the enforcement shock. Additional analyses reduce concerns that our results are a function of the materiality of German operations, as we observe an increase in the likelihood of providing enterprise-wide geographic or segment disclosures in instances were German revenues are greater than *and* less than 10 percent of total revenues. We also observe a 12 percent increase in Form 10-K mentions related to German subsidiary operations, measured relative to the average Form 10-K mentions of other EU subsidiary operations.[3]

To offer additional support for our primary results, we conduct cross-sectional analyses based on disclosure costs and internal information quality. Consistent with our expectations, the increase in parent-level financial statement disclosures related to German operations following the enforcement shock is concentrated among U.S. MNEs with lower disclosure costs. Additionally, managers at companies with lower pre-period internal information quality may have a greater reluctance to provide disaggregated, subsidiary-level information in consolidated financial statements in the pre-period. As such we posit that MNEs with lower internal information quality are more likely to change their disclosure behavior following the

[3] This estimate is based on the pre-period mean of disclosure about German relative to EU operations.

enforcement shock. We observe results consistent with this expectation. Taken together these cross-sectional tests offer further evidence that local country reporting requirements affect geographic disclosures in an MNE's consolidated financial statements.[4]

Next, we evaluate whether the increase in disclosure aids the capital markets. We use a difference-in-differences research design to evaluate multiple capital market outcomes for MNEs that began reporting a stand-alone German segment or enterprise-wide disclosure or increased their disclosure related to German operations in the Form 10-K following the German enforcement shock. While we are unable to provide evidence of favorable capital market outcomes for companies that report a new German segment or enterprise-wide disclosure, we do provide evidence that U.S. MNEs that increase their discussion regarding German operations in their Form 10-K in the post-enforcement period have lower bid-ask spreads, a smaller percentage of zero trading days, and improved liquidity.

To examine potential spillover effects of the local country reporting requirement in Germany on a U.S. MNE's disclosure choices related to other European operations, we use a sample of U.S. MNEs with a European presence. This sample includes both U.S. MNEs affected by the German enforcement shock and unaffected U.S. MNEs (i.e., those without a German subsidiary, based on Exhibit 21 data) which allows us to estimate a difference-in-differences research design. Other European countries have had regulations requiring private limited liability companies to publicly disclose financial statement information but did not experience a

[4] An alternative explanation for our results is that the changes in disclosure we observe following the shock to German enforcement are driven by global expansion of U.S. MNEs over the last few decades. Our primary model specification addresses this concern by including a control for foreign sales growth and through cross-sectional analyses that are consistent with our expectations. Additionally, we conduct a falsification test which evaluates changes in disclosures related to Japanese operations following the German enforcement of subsidiary disclosure requirements. We do not observe a similar increase in disclosure related to Japanese subsidiaries (Section 5.1).

significant change in enforcement, as occurred in Germany.[5] A potential byproduct of a U.S. MNE's decision to disclose additional information related to their German operations may be disclosure of additional information related to other European operations. Consistent with prior research that provides evidence of spillover effects from regulation (Dutillieux, Francis, and Willekens 2016; Chow et al. 2020), we predict that local country reporting requirements affecting MNEs with German subsidiaries will have spillover effects, increasing an MNE's segment or enterprise-wide disclosure and Form 10-K disclosures related to operations in other European countries.

Consistent with our expectations, our results suggest that U.S. MNEs affected by the German enforcement shock report 0.1 more EU geographic segments, on average, in the period following the enforcement shock. Additionally, we estimate an increase of 23 percent of Form 10-K mentions related to European operations relative to average mentions for non-EU operations of affected MNEs. Collectively, our evidence suggests that local country reporting requirements affecting subsidiary operations can improve the disclosure of those operations, as well as subsidiary operations in geographic proximity (i.e., those that might have otherwise been aggregated together) in consolidated financial statements.

Our paper contributes to the literature on discretion in financial statement disclosure and aggregation of geographic disclosures. The analysis highlights the relevance of a previously unexamined factor—local country financial reporting requirements—on an MNE's geographic disclosure. We also contribute to a growing literature on the spillover effects of regulation (see review in Roychowdhury, Shroff, and Verdi 2019). Our analysis suggests that local country

[5] While other EU countries have similar reporting requirements the lack of enforcement in Germany may have allowed firms to continue employing more aggregate reporting in their consolidated financial statements. However, with the changes to German enforcement the cost/benefit analysis of aggregation shifts potentially leading to additional disaggregation of other EU operations.

reporting requirements not only affect consolidated financial statement disclosures related to operations in that country but also have spillover effects on the geographic disclosures of nearby countries. This evidence is timely as many countries seek to increase subsidiary-level reporting requirements, from public country-by-country reporting to the OECD model rules for digital firms, in an effort to curb tax avoidance among MNEs.[6] Our analysis can also inform standard setters. As the FASB continues to address investor demand for more disaggregated information along geographic and jurisdictional lines (FASB 2021), our evidence highlights the influence of local country reporting requirements on the aggregation of segment and enterprise-wide disclosures provided by U.S. MNEs in consolidated financial statements.

2. Background and Hypothesis Development

2.1 Setting

The European Commission's (EC) directive on firm disclosure requires private limited liability firms to publicly disclose financial statement information. However, in Germany the penalties associated with non-compliance were ineffective and most firms ignored the requirement prior to 2007 (Henselmann and Kaya 2008; Bernard 2016). In an update to the EC directive on firm disclosure (Directive 2003/58/EC), the EC mandated that Member States enforce the requirement to publicly disclose financial statement information and further mandated that they be made available as electronic filings beginning on January 1, 2007. We exploit the shock to German enforcement of the requirement for public disclosure of financial statement information to examine the extent to which local country reporting requirements affect an MNE's geographic disclosures.

The shock to German enforcement of the public disclosure requirement has been utilized in several prior studies. Bernard (2016) uses the setting to provide evidence that predation risk is

[6] https://www.oecd.org/tax/beps/guidance-on-country-by-country-reporting-beps-action-13.htm.

a driver of companies' non-disclosure decisions. Breuer, Hombach, and Müller (2021) use the German enforcement shock, as well as variation in disclosure requirements based on size thresholds, to provide evidence that mandatory disclosure can crowd out voluntary disclosure of unregulated companies. Lastly, Breuer, Leuz, and Vanhaverbeke (2022) use the German enforcement shock to provide evidence that public disclosure of financial statement information reduces a company's innovation activities.

In this study, we use the shock to German enforcement of the requirement to publicly disclose financial statement information to evaluate the extent to which local country reporting requirements placed on subsidiary entities affect geographic disclosure in the consolidated financial statements. We first consider the effect on segment and enterprise-wide geographic disclosures for Germany. We also evaluate the extent of discussion related to German subsidiary operations in the Form 10-K. Additionally, if U.S. MNEs disclose more information related to their German operations, they may also provide additional information on other European operations. For example, a U.S. MNE that previously reported a European segment may instead provide segment information for operations in Germany, France, and Spain. To illustrate this effect, Appendix A provides examples of MNEs that changed segment disclosures around the German enforcement shock. Given the potential for spillover effects leading to expanded disclosures related to other European operations, we also examine the extent to which the German enforcement shock is associated with an increase in segment or enterprise-wide geographic disclosures and disclosures throughout the Form 10-K related to other European operations.

2.2 Financial Statement Disclosures of International Operations

ASC 280 affords managers some discretion in their disclosure of segments, as it follows a "management approach" requiring segment reporting in the financial statements to align with a company's internal operating segments.[7] To be considered an operating segment, in general, it should engage in an activity that generates revenues and expenses, whose operating results are reviewed by the company's chief operating decision-maker, and of particular relevance to our study, an operating segment should have available "discrete financial information" (ASC 280-10-50-1). Further, a company can aggregate operating segments meeting aggregation criteria but must report separately information on an operating segment meeting quantitative thresholds (ASC 280-10-50-12). Additionally, if segments are reported based on products/services then the entity's enterprise-wide geographic disclosures must report material revenues from customers attributed to a foreign country and material long-lived assets by foreign country. Although materiality is not clearly defined and aggregation is permitted for countries deemed immaterial. Further, if operating segments are not geographically defined, profits need not be disclosed by country. Botosan, Huffman, and Stanford (2021) provide evidence that only 7 percent of segment definitions remain unchanged for 10 years or more, suggesting use of discretion in the naming and aggregation of segments. Given the discretion afforded under ASC 280, it is possible that changes in local country reporting requirements may affect enterprise-wide geographic and segment reporting, including the level of aggregation, in consolidated financial statements of U.S. MNEs.

In determining the level of aggregation in segment reporting and in evaluating the other Form 10-K disclosures related to a company's global operations management must weigh the costs and benefits of providing a more detailed disclosure. Generally, increased disclosure can

[7] While this study examines segment disclosure of U.S. MNEs, which report under the ASC 280, for interested readers we note that IFRS 8 adopted the U.S. standard under then SFAS 131, now ASC 280, almost entirely (PwC, 2008).

reduce information asymmetry between management and shareholders, yet there are rationale theories that suggest management may not provide full disclosure to shareholders (e.g., Verrechia 1999). Hayes and Lundholm (1996) model the decision to aggregate segment-level disclosure, providing evidence that aggregation (disaggregation) is more likely to occur when the segments are disparate (similar). Further, prior research provides evidence that proprietary costs can limit segment disclosures (e.g., Harris 1998; Piotroski 1999; Botosan and Stanford 2005). Moreover, Berger and Hann (2007) provide evidence that agency costs lead managers to avoid separately disclosing poorly performing segments. The literature on voluntary or discretionary disclosure choices more generally provides evidence consistent with capital market costs, proprietary costs, agency costs, as well as other factors including managerial compensation and litigation costs influencing disclosure decisions (see Healy and Palepu 2001 and Roychowdhury, Shroff and Verdi 2019 for reviews of this literature).

Collectively, the prior evidence highlights the cost and benefit trade-off that managers face in making disclosure decisions. We expand our understanding of the factors influencing disclosure choice by evaluating the extent to which local country reporting requirements affecting subsidiary entities may alter a U.S. MNE's cost-benefit analysis related to disclosure of subsidiary operations in the consolidated financial statements. On the one hand, local country reporting requirements to publicly disclose financial statement information related to German subsidiary operations may minimize the costs associated with making this information more fully accessible to investors via less aggregated enterprise-wide or segment disclosures and/or additional disclosure throughout the Form 10-K regarding German subsidiary operations. However, if the benefits of additional disclosure are sufficiently low or the disclosure costs are sufficiently high and there are barriers to accessing the publicly available financial information

disclosed in Germany, managers may not adjust reporting related to subsidiary operations in the consolidated financial statements. Yet, given that managers must now comply with public disclosure requirements for German subsidiaries and the potential capital market benefits of improving financial statement disclosures, we state our first hypothesis in the alternative:

> ***H1:*** *Local country reporting requirements alter the costs of geographic disclosure related to the affected subsidiaries in consolidated financial statements, such that an increase in German local country reporting requirements is associated with increased geographic disclosure related to German operations in the consolidated financial statements of U.S. MNEs.*

The shock to enforcement of the requirement that private limited liability companies publicly disclose financial statement information occurred in Germany, while other European countries have had and enforced similar regulations for many years. Yet a potential byproduct of a U.S. MNE's decision to disclose additional information related to their German operations may be additional information related to other European operations. Prior research provides evidence of spillover effects of regulation. For example, Chow et al. (2020) provide evidence consistent with tax authority enforcement measures improving financial reporting quality, lowering the risk of accounting restatements. Dutillieux, Francis, and Willekens (2016) provide evidence consistent with the Sarbanes-Oxley Act of 2002 having positive spillover effects on financial reporting among Belgian subsidiaries of U.S. MNEs. While their evidence is consistent with positive spillover effects of regulation at the parent company level, we evaluate the extent to which reporting requirements faced by subsidiary entities is associated with increased financial disclosure, not only for the affected subsidiary location but also for nearby subsidiaries.

In Appendix A we provide two examples of U.S. MNEs that altered their enterprise-wide or segment reporting to provide additional disclosure related to German operations, consistent with our first hypothesis. However, in one of the examples, we observe potential spillover effects related to disclosure of other European operations and in the second example we do not.

Specifically, in the case of Measurement Specialties (Example 1), a segment for 'Europe and Other' was disaggregated with the company reporting segments for 'France,' 'Germany,' 'Ireland,' and 'Switzerland.' However, in the case of Goodyear Tire & Rubber Company (Example 2) a segment for 'International' was disaggregated into two segments 'Germany' and 'Other International.' Yet, given the potential capital market benefits of improving financial statement disclosures and the potential decrease in disclosure costs given enforcement of the requirement for public financial statement information in Germany, we also state our second hypothesis in the alternative:

> ***H2:*** *Local country reporting requirements can have spillover effects, altering the costs of geographic disclosure for nearby subsidiaries in consolidated financial statements, such that an increase in German local country reporting requirements is associated with increased geographic disclosure related to European operations in the consolidated financial statements of U.S. MNEs.*

3. Sample Selection and Research Design

3.1 Sample Selection

Our initial sample includes all U.S. MNEs with financial statement data reported in Compustat North America, segment data and enterprise-wide disclosures reported in the Compustat Segment files, and Exhibit 21 subsidiary location data pulled from Form 10-K filings and made publicly available by Scott Dyreng.[8] Our sample period is from 2003 to 2010, which includes four years prior to and four years following the enforcement shock in Germany requiring public financial statements for all public and private limited-liability companies. We require all U.S. MNEs included in the sample to include mentions of European operations in their Form 10-K filing, based on data first used in Hoberg and Moon (2017) and made publicly

[8] https://sites.google.com/site/scottdyreng/Home/data-and-code/EX21-Dataset. Data originally compiled for Dyreng and Lyndsey (2009).

available by the authors.[9] We remove firms in the financial sector given differential reporting requirements for financial institutions. We also remove firms with insufficient data to compute control variables, including financial variables from Compustat North America, pricing data from CRSP, analyst coverage from I/B/E/S, and institutional ownership from Thomson Reuters 13-F filings. These selection criteria result in a final sample of 4,018 firm-years representing 1,102 unique U.S. MNEs.

Of that sample, 2,272 firm-year observations (627 unique firms) have a subsidiary in Germany based on Exhibit 21 data. We use the sample with a German subsidiary to evaluate changes in geographic disclosure related to German operations in the consolidated financial statements of U.S. multinational firms following the enforcement shock, relative to the pre-period (H1). We use the full sample including those with a German subsidiary and those without (4,018 firm-year observations; 1,102 unique firms) in our examination of the spillover effects of the German enforcement shock on geographic disclosures related to European operations in the consolidated financial statements of U.S. MNEs (H2). Sample selection procedures are reported in Table 1.

[Insert Table 1 here]

3.2 Research Design (H1)

Our research design relies on the shock to German enforcement of a requirement that public and private limited liability companies publicly disclose financial statements (e.g., Breuer, Hombach and Müller 2018; Breuer, Leuz, and Vanhaverbeke 2021) to evaluate the effects of local country reporting requirements on geographic disclosures in consolidated financial statements. A subset of the entities affected by this shock to enforcement includes German subsidiaries of U.S. MNEs that are required to publicly disclose separate entity financial

[9] http://faculty.marshall.usc.edu/Gerard-Hoberg/HobergMoonDataSite/index.html.

statements. To test our first hypothesis, that an increase in German local country reporting requirements is associated with increased geographic disclosure related to German operations in the consolidated financial statements of U.S. MNEs, we estimate the following model using a sample of U.S. MNEs with a German subsidiary, based on Exhibit 21 data:

$$Disclosure = \beta_0 + \beta_1 Post + \Sigma \beta_2 Controls + \varepsilon \quad (1)$$

We use two measures of *Disclosure*. First, we consider whether the U.S. MNE provides a separate segment or enterprise-wide disclosure for Germany. *German Disclosure* is an indicator variable set to one if the U.S. MNE reports a standalone segment or enterprise-wide disclosure detailing its German operations, zero otherwise. Second, we consider discussion throughout the Form 10-K related to German operations using a measure compiled by Hoberg and Moon (2017). We use the Hoberg and Moon (2017) variable for offshore internal input (which the authors label ININ) for Germany, which counts the number of mentions of purchases from Germany included in the Form 10-K, when the Form 10-K also mentions owning assets in Germany. We scale German mentions by the average of the offshore internal input measure for other EU countries (*German 10-K Mentions*). As such *German 10-K Mentions* captures the extent of disclosures related to German operations relative to the average disclosure related to the operations in other EU countries. *Post* is an indicator variable set to one for years following the shock to German enforcement, fiscal years ending on or after January 1, 2007. H1 predicts an increase in disclosure related to German operations following the shock to German enforcement of public reporting requirements, suggesting a positive and significant coefficient on *Post*.

Control variables included in equation (1) largely follow prior research on disclosures (e.g., Brown and Hillegeist 2007). Consistent with evidence in Lang and Lundholm (1996) that disclosure choice is largely a function of firm performance and size, we include control variables

to capture firm size, measured as the log of total assets (*Size*), and financial performance, measured as the return on assets (*ROA*). To control for growth opportunities and recent foreign sales growth, we include the market-to-book ratio (*MTB*) and foreign sales growth (*ΔForeignSales*). Given evidence that the use of debt can reduce agency costs (Jensen 1986), we include a control for financial leverage (*Leverage*). Firm-level disclosures are also influenced by external parties including analysts (Schipper 1991) and institutional investors (Boone and White 2015). Accordingly, we control for analyst following (*Analysts*) and institutional ownership (*InstOwn*). To further control for information demand we include earnings volatility over a ten-year period (*EarnVol*) and an indicator for whether the firm filed at least one Form 8-K (Lerman and Livnat 2010) during the year (*8-K Disclosure*). To control for organizational complexity and the MNEs global footprint, we include the log of the number of subsidiaries reported in the Exhibit 21 disclosures (*Subs Ex21*). We also include a control for the level of diversification of business operations, measured as the log of the number of segments or enterprise-wide disclosures related to business products or services (*Business Seg*). Lastly, given that our dependent variable is equal to one if an MNE provides a separate German segment (in instances when the firm's basis for segmentation is geographic) or provides a German enterprise-wide disclosure (in instances when the firm's basis of segmentation is based on products or services), we also include a control variable that captures a firm's basis of segmentation (*Segment Type*). Equation (1) also includes industry fixed effects, measured using primary 2-digit SIC classification industry classification scheme to control for industry-level differences in disclosure.[10] Standard errors are clustered by firm. All variables are defined in Appendix B.

3.3 Research Design (H2)

[10] We use primary 2-digit SIC classification to be consistent with the industry scheme for proprietary costs as developed by Berger and Hann (2007). Results are similar when using the Fama-French 48 industry classification scheme for industry fixed effects.

To test our second hypothesis, that local country reporting requirements can have spillover effects, as evidenced by an increase in geographic disclosure related to European operations among those U.S. MNEs affected by the shock to German enforcement of public disclosure requirements, we estimate the following difference-in-differences model using a sample of U.S. MNEs with operations in Europe:

$$Disclosure = \beta_0 + \beta_1 Post + \beta_2 German\ Sub_t + \beta_3 Post*German\ Sub_t + \Sigma\beta Controls + \varepsilon \quad (2)$$

Similar to the tests of our first hypotheses, we use two measures of *Disclosure* to test H2. Each measure captures the extent of disclosure related to the operations of European subsidiaries in consolidated financial statements. First, we consider the number of standalone segments or enterprise-wide disclosures reported for European operations. *European Disclosure* is the log of the number of segments or enterprise-wide disclosures that represent individual European countries and groupings of European countries (e.g., France and Spain, or Western Europe). Second, we consider the extent of disclosure related to European operations throughout the Form 10-K. We again use the Hoberg and Moon (2017) variable for offshore internal input. We compute the average number of mentions for all EU countries, excluding Germany, divided by the average number of mentions for all non-EU countries (*European 10-K Mentions*). Our measure *European 10-K Mentions* captures the average disclosures related to European operations, relative to the average disclosure related to the operations in non-EU countries. *Post* is an indicator variable set to one for years following the increased German enforcement, fiscal years ending on or after January 1, 2007. *German Sub* is an indicator set to one if the U.S. MNE reports a German subsidiary in Exhibit 21 in year *t*. H2 predicts a spillover effect of local country reporting requirements, such that U.S. MNEs with a German subsidiary (i.e., those subject to the enforcement shock) will increase disclosure related to operations of their other European

subsidiaries, we thus expect a positive and significant coefficient on the interaction of *Post*German Sub*. Control variables and fixed effects are consistent with those noted above for equation (1).

The research design used to test H2 employs a difference-in-differences approach. Accordingly, we first evaluate whether the treated MNEs (U.S. MNEs with a German subsidiary) and the control MNEs (U.S. MNEs that do not have a German subsidiary) exhibit parallel trends prior to the enforcement shock (Roberts and Whited 2013). Figure 1, Panels A and B graph the annual average values for *European Disclosure* and unscaled *European 10-K Mentions*, respectively, for treated and control MNEs. In Panel A we note that the lines track closely before the German enforcement shock and following the German enforcement we observe an increase for the treated MNEs. Similarly, in Panel B we observe parallel trends in the pre-period; however, we do not observe a clear univariate increase for treated MNEs in the post-period. Additionally, paired sample t-tests confirm that the average pre-period values (e.g., Roberts and Whited 2013) of *European Disclosure* and *European 10-K Mentions* are not statistically different for the treated and control firms (p-value > 0.10).

To formally test parallel trends using a multivariate framework, we re-estimate equation (2) replacing *Post* with an indicator for each year and adding an interaction term for each year and *German Sub*. We tabulate these coefficients and confidence intervals in Figure 2, Panels A and B. Where the dependent variable is *European Disclosure*, we do not observe a statistically significant interaction term for three of the four years in the pre-period, 2003, 2004, and 2006. However, in 2005 we observe a negative coefficient that is statistically significant at the 5 percent level (p-value =0.019) (Figure 1, Panel A). Where the dependent variable is *European 10-K Mentions*, we do not observe a statistically significant coefficient on the interaction term in

any of the pre-period years. Taken together these results provide support for the parallel trends assumption in the pre-treatment period (Roberts and Whited 2013).

4. Results

4.1 Descriptive Statistics

Table 2, Panel A provides descriptive statistics for the sample of U.S. MNEs with a German subsidiary used to test H1, which includes the U.S. MNEs that are affected by the enforcement of the German reporting requirement. The table provides descriptive statistics for this sample pre- and post- the shock to German enforcement. Univariate tests of differences indicate an increase in disclosures related to German operations in the post-regulation enforcement period compared to the pre-period. Importantly, we also observe increases in size and decreases in profitability and foreign sales growth in the post-period, highlighting the need to control for these factors in the multivariate estimation. Additionally, the descriptive statistics indicate a reduction in market-related outcome measures, *Spread, Zero Trading Days%,* and *Liquidity Factor* in the post period.

[Insert Table 2 here]

Table 2, Panel B provides descriptive statistics for the sample used in our tests of H2, which includes U.S. MNEs with at least one European subsidiary, based on Exhibit 21 data and Form 10-K disclosures. The table provides descriptive statistics for this sample pre- and post- the change in German enforcement. Univariate tests of differences indicate an increase in *European Disclosure* and a decrease in *European 10-K Mentions*. With this sample, we also observe increases in size and decreases in profitability and foreign sales growth in the post-period.

Table 3 presents Pearson correlations for select variables. While our two measures of disclosure are unique, capturing different types of disclosure, unsurprising, we observe a high

positive correlation between *German Disclosure* and *German 10-K Mentions*. We also observe a high positive correlation between *German Disclosure* and *European Disclosure*, suggesting that MNEs reporting a standalone German segment or enterprise-wide disclosure are likely to report more disaggregated segment or enterprise-wide disclosures for their European operations. We observe a negative correlation between *German 10-K Mentions* and *European 10-K Mentions*, which is a function of the variable measurement. The disclosure measures are related, as *German 10-K Mentions* is the German disclosure relative to the average of other European countries and *European 10-K Mentions* is the average disclosure for European countries relative to the average for non-EU countries.

[Insert Table 3 here]

4.2 Analysis of Changes in Geographic Disclosures Related to German Operations

Table 4 presents the results from estimating equation (1), using a linear probability model (column 1) and OLS regression (column 2).[11] In column (1) the dependent variable is an indicator set to one if the U.S. MNE's segment or enterprise-wide disclosures include Germany on a stand-alone basis (*German Disclosure*) and zero otherwise. Consistent with H1, we observe a positive and significant coefficient on *Post*. The results suggest that among a sample of U.S. MNEs with a German subsidiary (i.e., those affected by the enforcement shock), there is a 5 percent increase in the likelihood of disclosing a segment or enterprise-wide disclosure for Germany on a stand-alone basis in the period following the enforcement shock. In column (2) the dependent variable captures the extent of Form 10-K mentions related to German operations, relative to the average Form 10-K mentions related to the operations in other EU countries (*German 10-K Mentions*). Given the coefficient of 0.100 on *Post*, we estimate a 12 percent

[11] We obtain consistent results when using a logistic regression framework to estimate the results presented in column (1).

increase in Form 10-K mentions related to German operations relative to average mentions for other EU countries.[12] Collectively the evidence provides support for our first hypothesis, that local country reporting requirements alter the costs of geographic disclosures in a U.S. MNEs consolidated financial statements. We observe an increase in disclosure related to German operations following the enforcement shock to German local country reporting requirements, consistent with the local country reporting altering the costs of providing additional geographic disclosure related to Germany in the consolidated financial statements.

[Insert Table 4 here]

While the German enforcement of a requirement to provide public financial statements will indeed make that information public, entity-level financial statements provided in German public records (through the federal gazette, "Bundesanzeiger") are still likely less accessible to investors and competitors than geographic disclosures included in consolidated financial statements. As Blankespoor, deHaan, and Marinovic (2020) note in their framework for evaluating disclosure processing costs, an investor must incur costs to learn of the disclosure (awareness costs), obtain the disclosure (acquisition costs), and analyze it (integration costs). The awareness and acquisition costs are certainly higher for local country reporting, relative to disclosures in consolidated financial statements. U.S. MNEs must evaluate the extent to which local country reporting requirements alter both the costs of increasing geographic disclosures at the parent-level and the benefits of reducing the awareness and acquisition costs borne by investors and other financial statement users.

Prior research suggests two key frictions to fully disclosure include agency costs and proprietary costs (e.g., Verrecchia 1990; Feltham, Gigler, and Hughes 1992; Harris 1998; Berger

[12] We calculate this change by multiplying the period change of one (from pre- to post-) by the coefficient and dividing by the pre-period mean of *German 10-K Mentions* (0.100/0.828=12 percent).

and Hann 2007). We expect the effect of local country reporting requirements on a company's geographic disclosures in consolidated financial statements to be concentrated among U.S. MNEs with lower disclosure costs. Accordingly, we separately estimate equation (1) for firm-year observations with below or above median disclosure costs. We use two measures of high (low) disclosure costs: (1) above (below) median abnormal segment profitability, measured as the industry-adjusted return on sales calculated at the segment level in the pre-period (*IROS*; e.g., Berger and Hann 2007) and (2) above (below) the median of the average number of tax haven countries in which entities are located (*Tax Havens*) in the pre-period (e.g., Akamah, Hope, and Thomas 2018).

Results are reported in Table 5, Panels A and B. First, in Panel A the coefficient on *Post* among the subsample of affected firms with higher disclosure costs is positive but not statistically significant (column 1). Yet, among the subsample of affected firms with lower disclosure costs, we observe a positive and significant coefficient on *Post* (p-value<0.05; column 2). While the difference in the coefficients across columns is not statistically significant, the results are consistent with the increase in the disclosure of a *German Disclosure* in the *Post* period being strongest in affected firms with lower disclosure costs.[13] Looking at the extent of disclosures related to German operations (*German 10-K Mentions*), we observe a positive but insignificant coefficient on *Post* among the subsample of affected firms with higher disclosure costs (column 3) and a positive and statistically significant coefficient on *Post* among the subsample with lower disclosure costs (p-value<0.10; column 4). Again, the difference in the coefficients across columns is not statistically significant at conventional levels (p-value=0.19.

[Insert Table 5 here]

[13] We follow Bhojraj et al. (2017) and compare cross-equation coefficients by using the Z-test that compares coefficients from two samples: $z = \frac{b_1 - b_2}{\sqrt{SEb_1{}^2 + SEb_2{}^2}}$.

Table 5, Panel B reports the results where firms are classified as having high (low) disclosure costs based on the existence (absence) of subsidiaries in countries classified as tax havens. Looking at reporting of a stand-alone segment or enterprise-wide disclosure for German (*German Disclosure*), the coefficient on *Post* is positive and statistically significant among the subsample of firms with and without a presence in tax havens (columns 1 and 2). Looking at the extent of disclosures related to German operations (*German 10-K Mentions*), we observe an insignificant coefficient on *Post* among the subsample of affected firms with tax havens (column 3) and a positive and statistically significant coefficient on *Post* among the subsample without subsidiaries in tax havens (p-value<0.10; column 4). Further, the difference in the coefficients across columns is statistically significant (p-value<0.10). Collectively the results provide evidence consistent with local country reporting requirements altering the costs of geographic disclosure in the *Post* period among firms with lower disclosure costs.

The extent of disclosure regarding subsidiary operations in consolidated financial statements is likely affected by the quality of information received from the subsidiary-level management team. Prior research provides evidence that internal information quality affects many facets of a firm's decision making including providing additional flexibility to manage earnings through accruals (Brazel and Dang 2008), providing additional information to engage in tax avoidance behaviors and income shifting (Gallemore and Labro 2015; McGuire, Rane, and Weaver 2018) and altering the reliance on internal versus external inputs when making investment decisions (Heitzman and Huang 2019). Survey evidence from Dichev et al. (2013) also highlights a strong link between internal information reporting and external disclosures. We posit that, in general, management at the U.S. parent entity may be reluctant to provide disaggregated geographic information in consolidated financial statements when internal

information quality is lower. Yet, once subsidiary-level information is made publicly available in the local country any reluctance to provide the disaggregated information is reduced, either because additional work was undertaken to increase the quality of the subsidiary-level information prior to public disclosure in Germany or because consolidated-level disclosure frictions are significantly less for information that is available through alternative means. To evaluate this prediction, we separately estimate equation (1) for firm-year observations with average internal information quality during the pre-period that is above or below the sample median, where internal information quality (IIQ) is measured using the number of days between fiscal year end and a firm's earnings announcement (*IIQ*; e.g. Gallemore and Labro 2015).

Table 6 reports the results of this analysis. Looking at reporting of a stand-alone segment or enterprise-wide disclosure for Germany (*German Disclosure*), the coefficient on *Post* is positive but not statistically significant among the subsample of affected firms with higher IIQ (column 1). Consistent with our expectations, we observe a positive and significant coefficient on *Post* among the subsample of affected firms with lower IIQ (p-value<0.01; column 2). Further, the difference in coefficients is statistically significant at the 10 percent level, suggesting that the increase in reporting of a stand-alone segment or enterprise-wide disclosure for Germany (*German Disclosure*) in the *Post* period being concentrated in firms with lower pre-period IIQ. Looking at the Form 10-K mentions related to German operations (*German 10-K Mentions*), we observe a positive but insignificant coefficient on *Post* among both subsamples (columns 3 and 4), suggesting that internal information quality did not play a significant role in the extent to which firms increased mentions of Germany in their Form 10-K disclosures after the German enforcement of the subsidiary reporting requirements.

[Insert Table 6 here]

Collectively, our initial evidence is consistent with our first hypothesis, that local country reporting requirements altering the costs of geographic disclosure in U.S. MNEs' consolidated financial statements, such that U.S. MNEs with a subsidiary(ies) subject to the increase in German enforcement of the requirement to publicly disclose financial statements increase disclosure related to operations of their German subsidiary(ies) in their consolidated financial statements. Given this evidence that local country reporting requirements and enforcement actions may affect geographic disclosures in an MNE's consolidated financial statement, we next evaluate whether the increase in disclosure aids the capital markets. The theoretical model presented in Lambert, Leuz, and Verrecchia (2007) indicates that improvements in the quality of financial information and disclosures reduce a firm's cost of equity capital. Further, empirical evidence suggests that disclosure quality is positively related to a firm's liquidity (e.g., Healy et al. 1999) and negatively related to a firm's cost of equity (e.g., Botosan 1997; Hail 2002) and bid-ask spreads (e.g., Welker 1995; Leuz and Verrecchia 2000).

We use a difference-in-differences research design to evaluate multiple capital market outcomes for firms in the *Post* period that respond to the German enforcement shock by increasing disclosure related to German operations in their consolidated financial statements. We measure an increase in disclosure in two ways, (a) disclosure of a new stand-alone segment or enterprise-wide disclosure for Germany in the U.S. MNE's segment reporting (*New German Seg*) and (b) an above median increase in the Form 10-K mentions related to German operations (*Inc German Mentions*). The capital market outcomes considered include the bid-ask spread (*Spread*) measured using daily pricing data (Corwin and Schultz 2012), the percentage of trading days with no activity (*Zero Trading Days%*; Daske, Hail, Leuz, and Verdi 2008), the cost of equity capital (*Cost of Equity*) measured following Easton (2004), and a factor variable derived

from Spread, Zero Trading Days% and Cost of Equity (*Liquidity Factor*) (Daske et al. 2008). Control variables are consistent with those used in equation (1).

Results are reported in Table 7. In Panel A, we report the results of estimating the difference in capital market outcomes for firms reporting a *New German Seg* in the *Post* period. Inconsistent with our expectations, we do not observe a statistically significant decrease in *Spreads, Zero Trading Days%, Cost of Equity*, or the *Liquidity Factor*. In Panel B, we report the results of estimating the difference in capital market outcomes for firms with an increase in Form 10-K mentions related to German operations (*Inc German Mentions*) in the *Post* period. Firms that increased the disclosures related to German operations in the U.S. MNE's consolidated financial statements following the shock to German enforcement of local reporting requirements experienced lower *Spreads* (p-value<0.05; column 1), a lower *Zero Trading Days%* (p-value <0.10; column 2), and a lower *Liquidity Factor* (p-value<0.01; column 4) in the *Post* period. However, we do not find a statistically significant difference in the *Cost of Equity*. Collectively, the evidence is consistent with U.S. MNEs that increased their disclosures related to German operations experiencing improved capital market outcomes. This suggests the potential for additional benefits to U.S. MNEs and their shareholders following an increase in local country reporting requirements when the U.S. MNEs also increase geographic disclosures in their consolidated financial statements.

[Insert Table 7 here]

4.3 Analysis of Spillover Effects to Disclosure of European Operations

Table 8 presents the results from estimating equation (2), which employs a difference-in-differences research design to examine the extent to which a change in local country reporting in one country may have a spillover effect leading U.S. MNEs to also increase geographic

disclosure related to other operations. Specific to our setting, we expect the change in German reporting to have spillover effects leading to an increase in geographic disclosures related to other operations in Europe. In column (1) the dependent variable is the log of the number of segments or enterprise-wide disclosures representing individual European countries, excluding Germany, and groupings of European countries (*European Disclosure*) reported in the U.S. MNE's consolidated financials. Consistent with H2, we observe an increase in the number of segments or enterprise-wide disclosures for European countries reported by U.S. MNEs affected by the change in local country reporting (i.e., those with a German subsidiary) in the *Post* period. The results suggest that U.S. MNEs with a German subsidiary report 0.1 more countries or groups of countries in the period following the enforcement shock. In column (2) the dependent variable captures the extent of Form 10-K mentions related to EU operations, relative to the average Form 10-K mentions related to non-EU operations (*European 10-K Mentions*). Given the coefficient for *Post*German Sub* of 1.081, we estimate an increase of 23 percent of Form 10-K mentions related to European operations relative to average mentions for non-EU operations.[14] Collectively this evidence provides support for H2, as we observe an increase in disclosure to European operations, excluding Germany, after the German enforcement shock.

[Insert Table 8 here]

5. Supplemental Analyses

5.1 Falsification Test

One alternative explanation for our results is that the changes in disclosure we observe are driven by the global expansion of U.S. MNEs over the last few decades. U.S. MNEs may be expanding their disclosure related to foreign operations in their consolidated financial statements

[14] We calculate this change by multiplying the period change of one (from pre- to post-) by the coefficient and dividing by the pre-period mean of *European 10-K Mentions* (1.081/4.684=23 percent).

as they expand those operations. Our primary model specification addresses this concern by including a control variable for foreign sales growth and through cross-sectional analyses that are consistent with our expectations. However, to provide additional evidence that our results are a function of the shock to German enforcement of local country reporting requirements and not globalization of U.S. MNEs we conduct a falsification test that evaluates changes in disclosures related to Japanese operations following the German enforcement of subsidiary disclosure requirements. We chose to conduct our falsification tests using Japan given the similarities between German and Japanese economies including the size of the economies on a GDP per capita basis and the macro-economic profile of both countries.[15]

Similar to our primary tests, we first identify a sample of U.S. MNEs with at least one Japanese subsidiary based on Exhibit 21 disclosures. Using this sample we then re-estimate equation (1) where *Disclosure* is measured as (1) an indicator variable set to one if the U.S. MNE reports on a stand-alone Japanese segment or enterprise-wide disclosure (*Japanese Disclosure)* and (2) a measure of Form 10-K mentions related to Japanese operations, again using the Hoberg and Moon (2017) data, *Japanese 10-K Mentions*. A positive coefficient on *Post* would raise concerns that our primary results are driven by a trend toward foreign expansion of U.S. MNEs. Results of this analysis are reported in Table 9. In column (1) the coefficient on *Post* is close to zero and not statistically significant at conventional levels, suggesting that U.S. MNEs with Japanese operations were not more likely to report a segment or enterprise-wide disclosure related to Japan in the post-period. In column (2) the coefficient on *Post* is negative and not statistically significant, suggesting that Form 10-K mentions of Japanese operations are not increasing in the post period.

[15] Over the eight years included in our sample both countries had an average GDP per capital of $38,000 denominated in U.S. dollars (worldbank.org).

[Insert Table 9 here]

5.2 Examination of Materiality

While ASC 280 affords managers some discretion in the level of aggregation used to report segments or enterprise-wide geographic disclosures, requirements related to disclosure of material operations may drive the observed increases in disclosure related to German operations. To address this concern, we re-estimate equation (1), replacing the dependent variable *German Disclosure* with (1) *German Disclosure – Material*, an indicator variable set to one if the U.S. MNE's reports a standalone segment or enterprise-wide disclosure detailing its German operations where German revenues are 10 percent or more of total revenues, zero otherwise, and (2) *German Disclosure – Immaterial*, an indicator variable set to one if the U.S. MNE's reports a standalone segment or enterprise-wide disclosure detailing its German operations where German revenues are less than 10 percent of total revenues, zero otherwise. Where the dependent variable is *German Disclosure – Material* we observe a positive and significant coefficient on *Post* (coeff. = 0.025, p-value < 0.10). Further, where the dependent variable is *German Disclosure – Immaterial* we also observe a positive and significant coefficient on *Post* (coeff. = 0.025, p-value< 0.05). Collectively, our supplemental analyses provide additional support for our first hypothesis, that local country reporting requirements alter the costs of geographic disclosures in a U.S. MNEs consolidated financial statements. These analyses also reduce concerns that our results are driven by the global expansion of U.S. MNEs or changes in disclosures that are required based on materiality thresholds.

6. Conclusion

Exploiting a shock to German enforcement of a requirement that public and private limited liability entities report public financial statements, we provided evidence that U.S. MNEs

increase their disclosures related to subsidiary entities in consolidated financial statements following an increase in subsidiary-level reporting mandated by the local country. As the FASB continues to emphasize the importance of financial statement comparability, our evidence highlights the influence of local country reporting requirements on the geographic disclosures included in a U.S. MNEs consolidated financial statements.

Our paper also contributes to a broad literature on financial statement disclosures. U.S. MNEs that increase geographic disclosures in their consolidated financial statements following the shock to local country enforcement experience lower spreads and greater liquidity, suggesting capital market benefits to improving geographic disclosure in the consolidated financial statements, even in an instance where the information is publicly available under local country reporting requirements. This evidence is timely as many countries seek to increase subsidiary-level disclosure requirements, including public country-by-country reporting, in an effort to curb tax avoidance among MNEs.

Lastly, we contribute to a growing literature on the spillover effects of regulation. Our analysis suggests that local country reporting requirements not affect the cost/benefit analysis of improving disclosure related to operations in that country but also have spill-over effects on the disclosures related to operations in other countries. Following the German enforcement shock, we provide evidence of positive spill-over effects, with U.S. MNEs increasing segment and enterprise-wide disclosures related to European operations and increasing Form 10-K mentions related to operations in other European countries. Collectively, our results highlight that local country reporting requirements affect an MNE's geographic disclosures at the consolidated level.

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Appendix A: Example Disclosures

This appendix includes two example disclosures, which illustrate the increase in Segment disclosure for German operations, before and after the German enforcement of a public disclosure requirement for both public and private limited liability companies in Germany.

Example 1: Segment disclosure of Measurement Specialties

Measurement Specialties Segment Disclosure for the Fiscal Year Ending March 31, 2007

16. SEGMENT INFORMATION:

The Company has one reportable segment, the Sensor business. The Company sold the Consumer segment on December 1, 2005. For a description of the products and services of the Sensor business, see Note 1.

The Company continues to have one reporting segment, a sensor business, under the guidelines established with SFAS 131, *Disclosures about Segments of an Enterprise and Related Information*, because, among other things, the criteria for aggregation.

Geographic information, excluding discontinued operations, for revenues based on country of destination, and long-lived assets based on country of location, which includes property, plant and equipment, but excludes intangible assets and goodwill, net of related depreciation and amortization follows:

Net Sales:	2007	2006	2005
United States	$ 136,485	$ 90,387	$ 67,140
Europe and other	48,165	22,030	16,322
China	15,600	9,000	8,806
Total:	$ 200,250	$ 121,417	$ 92,268
Long lived assets:			
United States	$ 5,969	$ 4,230	$ 2,653
Europe and other	10,609	8,428	3,182
Asia	10,981	9,428	6,854
Total:	$ 27,559	$ 22,086	$ 12,689

Measurement Specialties Segment Disclosure for the Fiscal Year Ending March 31, 2008

16. SEGMENT INFORMATION:

The Company has one reporting segment, a sensor business, under the guidelines established with SFAS 131, *Disclosures about Segments of an Enterprise and Related Information* , because of, among other factors, the criteria for aggregation. The Company sold the Consumer segment on December 1, 2005. For a description of the products and services of the Sensor business, see Note 1.

Geographic information, excluding discontinued operations, for revenues based on country from which invoiced, and long-lived assets based on country of location, which includes property, plant and equipment, but excludes intangible assets and goodwill, net of related depreciation and amortization follows:

	For the years ended March 31,		
	2008	2007	2006
Net Sales:			
United States	$ 107,734	$ 106,476	$ 68,704
France	28,021	21,576	17,379
Germany	19,323	15,587	4,651
Ireland	12,969	11,002	-
Switzerland	4,396	-	-
China	55,940	45,609	30,683
Total:	$ 228,383	$ 200,250	$ 121,417
Long lived assets:			
United States	$ 6,624	$ 5,969	$ 4,230
France	6,808	5,194	4,189
Germany	2,817	1,865	4,239
Ireland	4,263	3,550	-
Switzerland	2,418	-	-
Asia	17,785	10,981	9,428
Total:	$ 40,715	$ 27,559	$ 22,086

The presentation in the 2007 Annual Report on Form 10-K presented, the above information based on country of destination rather than country from which invoiced.

Example 2: Segment disclosure of Goodyear Tire & Rubber Company

Goodyear Tire & Rubber Company Segment Disclosure for the Fiscal Year Ending December 31, 2005

Note 15. Business Segments (continued)

(In millions)	2005	2004	2003
Net Sales			
United States	$ 9,048	$ 8,459	$ 7,194
International	10,675	9,894	7,908
	$ 19,723	$ 18,353	$ 15,102
Long-Lived Assets			
United States	$ 2,313	$ 2,407	
International	2,866	3,046	
	$ 5,179	$ 5,453	

Goodyear Tire & Rubber Company Segment Disclosure for the Fiscal Year Ending December 31, 2005

Note 16. Business Segments (continued)

(In millions)	2006	2005	2004
Net Sales			
United States	$ 8,664	$ 9,048	$ 8,459
Germany	2,170	1,788	1,655
Other international	9,424	8,887	8,239
	$20,258	$19,723	$18,353
Long-Lived Assets			
United States	$ 2,325	$ 2,358	
Germany	546	452	
Other international	2,506	2,421	
	$ 5,377	$ 5,231	

Appendix B: Variable Definitions

Analysts	The average number of analysts covering the firm, as reported in I/B/E/S, during the one-year period beginning eight months before fiscal yearend and ending four months after fiscal yearend.
Business Seg	The log of the number of business segments that a firm reports.
Cost of Equity	The cost of equity capital as measured following Easton (2004): $R\_PEG = \sqrt{\frac{eps_2 - eps_1}{P_0}}$ where eps_2 (eps_1) refers to analysts' forecast of two-year (one-year) ahead earnings and P_0 refers to current stock price. Inputs are obtained from I/B/E/S summary file and use the first consensus analysts' forecast available four months after fiscal yearend.
EarnVol	The log of the standard deviation of earnings (pi) scaled by assets, measured over the previous 10 fiscal years.
8-K Disclosure	Indicator variable if firm releases at least one 8-K in the pre-period. Voluntary disclosure items on Form 8-K releases filed with the SEC. We classify three 8-K disclosure items as voluntary: "Results of Operations and Financial Condition," "Regulation Fair Disclosure," and "Other Important Events."
European Disclosure	The log of the number of segments that include countries that are in the European Union or segments that are labeled "EU", "European Union", or "Western Europe".
European 10-K Mentions	The average number of Form 10-K mentions for European Union countries (excluding Germany) divided by the average of the number of Form 10-K mentions for non-EU countries. Where mentions are measured as references to the country when describing firm purchasing inputs when the Form 10-K also mentions owning assets in the country (ININ variable as measured by Hoberg and Moon 2017).
ΔForeign Sales	Foreign sales in year *t* less foreign sales in year *t-1*, scaled by foreign sales in year *t-1*.
German Disclosure	Indicator variable equal to one if the firm's segment disclosure includes a standalone segment detailing German operations, zero otherwise.
German Sub	Indicator variable equal to one if the firm discloses a German subsidiary in Exhibit 21, zero otherwise.

Appendix B: Variable Definitions (cont.)

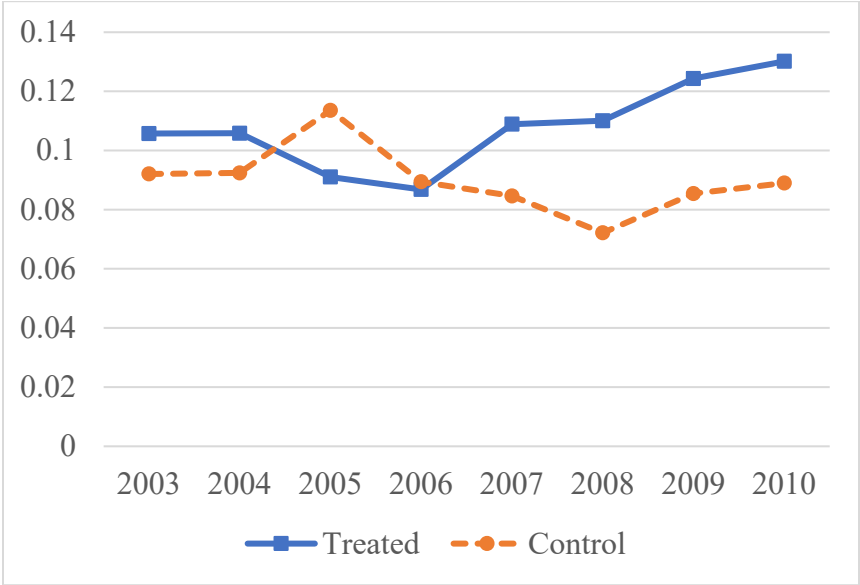
German 10-K Mentions	The number of Form 10-K mentions for Germany divided by the average of the number of Form 10-K mentions for other EU countries. Where mentions are measured as references to the country when describing firm purchasing inputs when the Form 10-K also mentions owning assets in the country (ININ variable as measured by Hoberg and Moon 2017).
High IIQ	Indicator variable equal to one if the firm's average *IIQ* during the pre-period is above the sample median, zero otherwise. Where *IIQ* is the number of days between the end of the fiscal year and the firm's earnings announcement (earnings announcement speed), divided by 365 and multiplied by negative one (Gallemore and Labro 2015).
High IROS	Indicator variable equal to one if the firm's average IROS during the pre-period is above the sample median, zero otherwise. Where *IROS* is the industry-adjusted return on sales measured at the firm level by averaging the abnormal profitability of segments (Berger and Hann 2007). The industry adjustment is based on the firm's primary 2-digit SIC classification.
InstOwn	The percentage of shares owned by institutional shareholders at the end of the fiscal year (Thomson 13-F Filings).
Japanese Disclosure	Indicator variable equal to one if the firm's segment disclosure includes a standalone segment detailing Japanese operations, zero otherwise.
Japanese 10-K Mentions	The number of Form 10-K mentions for Japan divided by the average of the number of Form 10-K mentions for EU countries. Where mentions are measured as references to the country when describing firm purchasing inputs when the Form 10-K also mentions owning assets in the country (ININ variable as measured by Hoberg and Moon 2017).
Leverage	Total liabilities (dltt + dlc) scaled by scaled by average of prior and current year total assets (at).
Liquidity Factor	Liquidity factor represents the scores of a single factor extracted from the outcome variables (*Spread, Cost of Equity, Zero Trading Days %*).
More (Fewer) Tax Haven	Indicator variable equal to one if the firm's average *Tax Haven* during the pre-period is above (below) the sample median. *Tax Haven* is the number of tax haven countries for which the firm discloses entities in Exhibit 21 (Dyreng and Lindsey 2009).
MTB	Market value of equity (prcc_f*csho), as of the fiscal year end, scaled by the book value of common equity (ceq).

Appendix B: Variable Definitions (cont.)

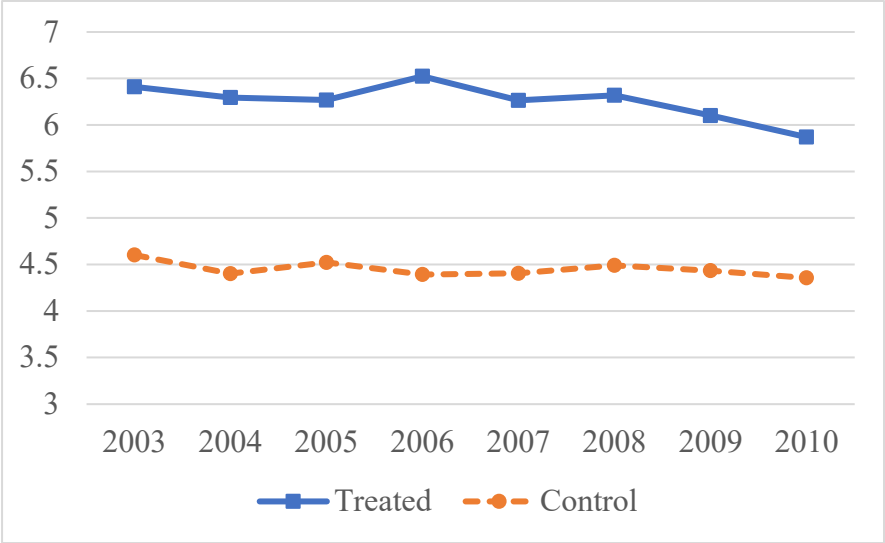
ROA	Return on assets measured as operating income before depreciation (oibdp) scaled by average of prior and current year total assets (at).
Post	Indicator variable equal to one for fiscal years ending after December 31, 2006, when Germany began enforcing a requirement that public and private limited liability firms publicly disclose financial statements.
Segment Type	Variable equal to one if the firm discloses only business segments, equal to two if the firm discloses a geographic segment, and equal to three if the firm discloses business and geographic segments.
Size	The log of total assets (at).
Spread	The annual average of the daily bid-ask spreads, based on the CRSP high price and low price following the methodology in Corwin and Schultz (2012).
Subs Ex21	The log of the number of subsidiaries included in the firm's Exhibit 21 disclosure.
Zero Trading Days%	Proportion of trading days with zero daily stock returns out of all potential trading days in a given year.

Figure 1

Panel A: Average Annual *European Disclosure* for the Treated and Control Firms



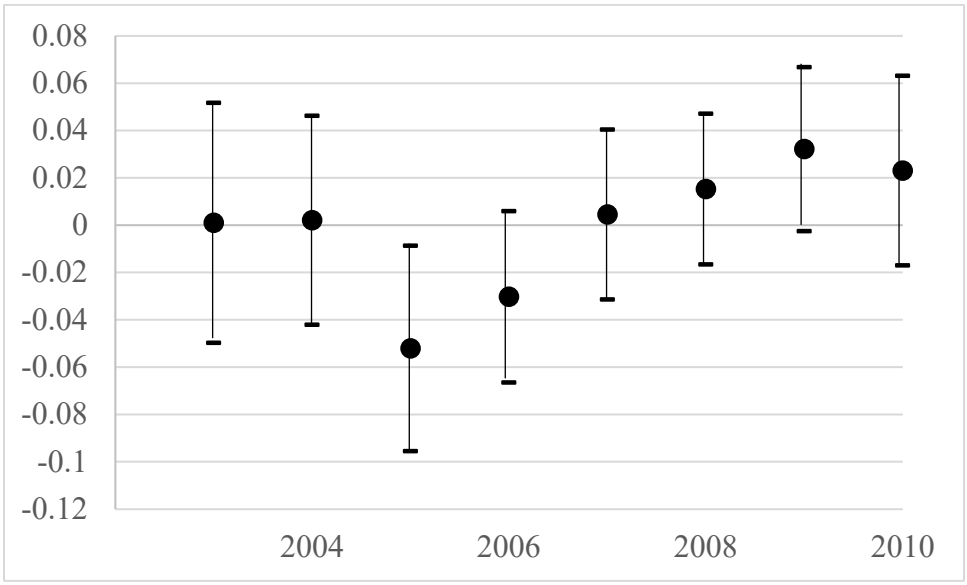
Panel B: Average Annual Unscaled *European 10-K Mentions* for the Treated and Control Firms



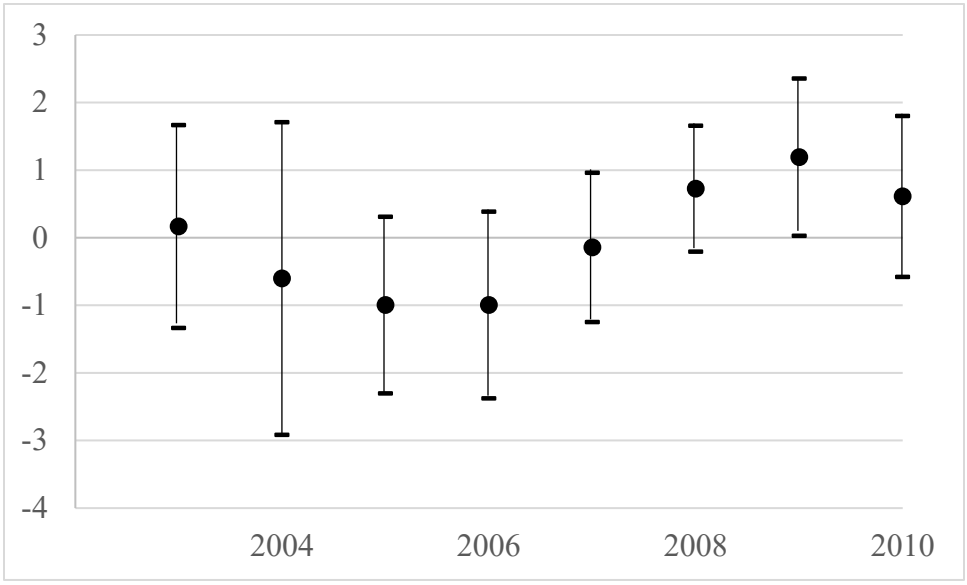
Panel A graphs the average number of *European Disclosures* (segments or enterprise-wide disclosures for EU countries or groups of EU countries, excluding Germany) reported for treated (U.S. MNEs with a German subsidiary) and control firms, by year. Panel B graphs the average number of mentions of purchases from an EU country where the Form 10-K also mentions owning assets (*European 10-K Mentions*), excluding Germany, for treated (U.S. MNEs with a German subsidiary) and control firms, by year.

Figure 2

Panel A: Illustration of the Differences in *European Disclosure* for Treated and Control Firms



Panel B: Illustration of the Differences in *European 10-K Mentions* for the Treated and Control Firms



Panels A and B report results from regression analysis of parallel trends. We re-estimate equation (2) replacing *POST* with an indicator for each year (*YEAR*). This figure reports the coefficient on the interaction of *GermanSub x YEAR* and the 5 percent and 95 percent confidence intervals for each of the five separate regressions.

Table 1: Sample Selection

	Firm-Year Observations	Firm Observations
U.S. multinational firms with financial data in Compustat, segment reporting in Compustat Segments, and Exhibit 21 disclosures for fiscal years 2003 - 2010	13,581	3,084
Less: Observations without mention of European operations in their Form 10-K	(1,791)	(628)
Less: Observations in the financial sector (SIC codes: 6000 to 6900)	(773)	(147)
Less: Observations with insufficient data to compute control variables	(6,999)	(1,207)
Full Sample (H2)	**4,018**	**1,102**
Observations reporting a German subsidiary in Exhibit 21 (H1)	**2,272**	**627**

Table 2: Descriptive Statistics

Panel A: Sample of U.S. MNEs reporting a German Subsidiary, Pre- and Post- Regulation Enforcement

	Pre-Enforcement Period			Post-Enforcement Period				
	Mean	Std. Dev.	Median	Mean	Std. Dev.	Median	Diff in Means	t-stat
German Disclosure	0.143	0.350	0.000	0.193	0.395	0.000	0.051	3.207***
German 10-K Mentions	0.828	1.065	0.625	0.914	1.180	0.667	0.086	1.818*
Size	7.275	1.545	7.119	7.476	1.523	7.400	0.200	3.106***
ROA	0.138	0.078	0.134	0.130	0.0816	0.132	-0.008	-2.317**
MTB	3.233	2.735	2.612	2.739	2.557	2.106	-0.494	-4.449***
ΔForeignSales	0.225	0.413	0.140	0.119	0.362	0.0874	-0.106	-6.521***
Leverage	0.203	0.177	0.194	0.202	0.172	0.189	-0.001	-0.137
Analysts	8.898	6.810	7.000	8.599	5.965	7.000	-0.299	-1.114
InstOwn	0.743	0.195	0.771	0.800	0.182	0.836	0.057	7.138***
EarnVol	4.065	2.346	4.366	4.067	2.539	4.521	0.001	0.012
8-K Disclosure	0.619	0.486	1.000	0.871	0.336	1.000	0.252	14.531***
Subs Ex21	3.704	0.971	3.714	3.774	0.992	3.850	0.070	1.699*
Business Seg	1.098	0.589	1.099	1.106	0.599	1.099	0.008	0.338
Segment Type	1.218	0.910	1.000	1.202	0.863	1.000	-0.016	-0.429
Spread	0.005	0.014	0.000	0.001	0.005	0.000	-0.004	-8.449***
Zero Trading Days%	0.016	0.013	0.011	0.011	0.012	0.0073	-0.005	-8.736***
Cost of Equity	0.102	0.050	0.092	0.118	0.064	0.099	0.016	6.151***
Liquidity Factor	0.097	0.428	-0.005	-0.157	0.629	-0.109	-0.255	-11.115***

This table provides descriptive statistics for the sample used to test H1, U.S. MNEs reporting a German subsidiary in Exhibit 21. We report descriptive statistics for the pre-enforcement period (fiscal years ending between January 1, 2003 and December 31, 2006) and the post-enforcement period (fiscal years ending between January 1, 2007 and December 31, 2010). *, **, *** indicate statistical significance at the ten, five, and one percent levels, based on two-tailed tests, respectively. Variables are defined in the Appendix B.

Table 2: Descriptive Statistics (cont.)

Panel B: Sample of U.S. MNEs with a European Subsidiary, Pre- and Post-Regulation Enforcement

	Pre-Enforcement Period			Post-Enforcement Period				
	Mean	Std. Dev.	Median	Mean	Std. Dev.	Median	Diff in Means	t-stat
European Disclosure	0.097	0.301	0.000	0.103	0.317	0.000	0.006	0.662
European 10-K Mentions	4.684	9.511	2.250	3.890	6.505	2.000	-0.794	-3.113***
German Sub	0.555	0.497	1.000	0.575	0.494	1.000	0.021	1.323
Size	6.927	1.599	6.735	7.180	1.632	7.077	0.253	4.954***
ROA	0.136	0.086	0.134	0.130	0.088	0.131	-0.005	-1.947*
MTB	3.280	2.857	2.592	2.812	2.765	2.122	-0.468	-5.271***
ΔForeignSales	0.230	0.422	0.151	0.141	0.416	0.096	-0.089	-6.761***
Leverage	0.187	0.174	0.165	0.197	0.182	0.169	0.010	1.819*
Analysts	8.243	6.847	6.000	8.144	6.166	7.000	-0.099	-0.480
InstOwn	0.723	0.211	0.753	0.774	0.202	0.808	0.052	7.948***
EarnVol	3.785	2.344	4.073	3.868	2.515	4.205	0.083	1.079
8-K Disclosure	0.604	0.489	1.000	0.863	0.344	1.000	0.259	19.582***
Subs Ex21	2.739	1.555	2.944	2.974	1.482	3.135	0.235	4.910***
Business Seg	1.075	0.583	1.099	1.063	0.599	1.099	-0.012	-0.636
Segment Type	1.211	0.884	1.000	1.188	0.857	1.000	-0.024	-0.871

This table provides descriptive statistics for the sample used to test H2, U.S. MNEs reporting European operations in Exhibit 21. We report descriptive statistics for the pre-enforcement period (fiscal years ending between January 1, 2003 and December 31, 2006) and the post-enforcement period (fiscal years ending between January 1, 2007 and December 31, 2010). *, **, *** indicate statistical significance at the ten, five, and one percent levels, based on two-tailed tests, respectively. Variables are defined in Appendix B.

Table 3: Correlation Matrix

		(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*	*(11)*
(1)	*German Disclosure*	1										
(2)	*German 10-K Mentions*	0.364*	1									
(3)	*European Disclosure*	0.447*	0.041*	1								
(4)	*European 10-K Mentions*	-0.034	-0.077*	-0.002	1							
(5)	*German Sub*	0.169*	0.266*	0.030	-0.039*	1						
(6)	*IROS*	-0.033	-0.017	-0.012	-0.005	-0.074*	1					
(7)	*IIQ*	-0.065*	0.045*	0.006	-0.041*	0.137*	0.039*	1				
(8)	*Tax Haven*	0.035	0.064*	0.023	-0.093*	0.475*	-0.123*	0.164*	1			
(9)	*Spread*	0.017	-0.034	0.004	-0.042*	-0.021	0.015	0.037	0.049	1		
(10)	*Zero Trading Days*	-0.016	-0.027	0.002	0.057*	-0.135*	0.035	-0.261*	-0.203*	0.230*	1	
(11)	*Cost of Equity*	0.061*	0.029	0.045*	0.010	-0.044*	0.025	-0.196*	-0.067*	0.082*	0.268*	1
(12)	*Liquidity Factor*	-0.021	0.005	-0.001	0.063*	-0.073*	0.013	-0.190*	-0.161*	0.384*	0.784*	0.216*

This table presents univariate Pearson correlation coefficients for the sample of U.S. MNEs with a European Subsidiary. * denotes significance at the 1% level.

Table 4: Differences in Disclosures Related to German Operations in Consolidated Financial Statements Following the Enforcement of Local Country Reporting Requirements

	(1) Coeff. (t-stat)	(2) Coeff. (t-stat)
DV=	*German Disclosure*	*German 10-K Mentions*
Post	**0.050***** **(2.984)**	**0.100*** **(1.671)**
Size	0.006 (0.269)	0.059 (1.042)
ROA	0.285 (1.171)	-0.876 (-1.615)
MTB	-0.002 (-0.611)	0.004 (0.275)
ΔForeignSales	0.004 (0.234)	0.024 (0.359)
Leverage	-0.092 (-1.092)	0.168 (0.631)
Analysts	-0.006** (-2.146)	-0.008 (-1.100)
InstOwn	-0.082 (-0.984)	-0.565** (-2.381)
EarnVol	-0.004 (-0.565)	0.002 (0.122)
8-K Disclosure	0.006 (0.256)	0.054 (0.868)
Subs Ex21	0.002 (0.083)	-0.067 (-0.991)
Business Seg	-0.012 (-0.378)	0.014 (0.182)
Segment Type	-0.052*** (-4.027)	-0.105*** (-2.590)
Fixed Effects	Industry	Industry
# of Observations	2,272	2,272
Adjusted R^2	0.089	0.059

This table presents the results of estimating the difference in *German Disclosure* (*German 10-K Mentions*) following the enforcement of the German requirement for private and public limited liability companies to provide public financial statements (*Post*). In column (1) the dependent variable, *German Disclosure*, is an indicator variable set to one if the U.S. MNE's segment or enterprise-wide reporting includes a standalone disclosure of its German operations. Column (1) is estimated using a linear probability regression. In column (2) the dependent variable, *German 10-K Mentions*, measures Form 10-K mentions related to German operations, relative to the average Form 10-K mentions related to the operations in other EU countries. The sample includes all U.S. MNEs reporting a German subsidiary in Exhibit 21. We included industry fixed effects, untabulated for parsimony. Standard errors are clustered at the firm level. *, **, *** indicate statistical significance at the ten, five, and one percent levels, based on two-tailed tests, respectively. Variables are defined in Appendix B.

Table 5: Differences in Disclosures Related to German Operations in Consolidated Financial Statements Following the Enforcement of Local Country Reporting Requirements Among Subsamples of Affected Firms Based on Disclosure Costs

Panel A: Evaluation of differences for MNEs with high (low) abnormal segment profitability

	(1) Coeff. (t-stat)	(2) Coeff. (t-stat)	(3) Coeff. (t-stat)	(4) Coeff. (t-stat)
	High IROS	*Low IROS*	*High IROS*	*Low IROS*
DV=	*German Disclosure*		*German 10-K Mentions*	
Post	**0.006**	**0.070****	**0.040**	**0.157***
	(0.203)	**(2.364)**	**(0.437)**	**(1.686)**
Difference in coeff. on *Post*	0.064*, p-value = 0.07		0.117, p-value=0.19	
Fixed Effects	Industry	Industry	Industry	Industry
# of Observations	1,161	1,111	1,161	1,111
Adjusted R^2	0.077	0.190	0.102	0.051

Panel B: Evaluation of differences for MNEs with more (fewer) subsidiaries in tax havens

	(1) Coeff. (t-stat)	(2) Coeff. (t-stat)	(3) Coeff. (t-stat)	(4) Coeff. (t-stat)
	More Havens	*Fewer Havens*	*More Havens*	*Fewer Havens*
DV=	*German Disclosure*		*German 10-K Mentions*	
Post	**0.042***	**0.053****	**-0.022**	**0.147***
	(1.829)	**(2.000)**	**(-0.298)**	**(1.693)**
Difference in coeff. on *Post*	0.011, p-value = 0.38		0.169*, p-value=0.07	
Fixed Effects	Industry	Industry	Industry	Industry
# of Observations	1,093	1,179	1,093	1,179
Adjusted R^2	0.113	0.129	0.084	0.142

This table presents the results of estimating the difference in *German Disclosure* (*German 10-K Mentions*) following the enforcement of the German requirement for private and public limited liability companies to provide public financial statements (*Post*). In columns (1) and (2) the dependent variable, *German Disclosure*, is an indicator variable set to one if the U.S. MNE's segment or enterprise-wide reporting includes a standalone disclosure of its German operations. Columns (1) and (2) are estimated using a linear probability regression. In columns (3) and (4) the dependent variable, *German 10-K Mentions*, measures Form 10-K mentions related to German operations, relative to the average Form 10-K mentions related to the operations in other EU countries. The sample includes all U.S. MNEs reporting a German subsidiary in Exhibit 21. In Panel A, columns 1 and 3 (columns 2 and 4) include the subsample of firm-years with above (below) median abnormal segment profitability, *High IROS* (*Low IROS*). Panel B, columns 1 and 3 (2 and 4) includes the subsample of firm-years with more (fewer) tax haven countries in which subsidiaries are located in the pre-period, *More Havens* (*Fewer Havens*). We included industry fixed effects, untabulated for parsimony. Standard errors are clustered at the firm level. *, **, *** indicate statistical significance at the ten, five, and one percent levels, based on two-tailed tests, respectively. Variables are defined in Appendix B.

Table 6: Differences in Disclosures Related to German Operations in Consolidated Financial Statements Following the Enforcement of Local Country Reporting Requirements Among Subsamples of Affected Firms Based on Internal Information Quality (IIQ)

	(1) Coeff. (t-stat)	(2) Coeff. (t-stat)	(3) Coeff. (t-stat)	(4) Coeff. (t-stat)
	High IIQ	*Low IIQ*	*High IIQ*	*Low IIQ*
DV=	*German Disclosure*		*German 10-K Mentions*	
Post	**0.014**	**0.062****	**0.052**	**0.112**
	(0.681)	**(2.264)**	**(0.685)**	**(1.243)**
Difference in coeff. on *Post*	0.048*, p-value 0.08		0.060, p-value=0.31	
Fixed Effects	Industry	Industry	Industry	Industry
# of Observations	1,131	1,141	1,131	1,141
Adjusted R^2	0.076	0.126	0.055	0.086

This table presents the results of estimating the difference in *German Disclosure* (*German 10-K Mentions*) following the enforcement of the German requirement for private and public limited liability companies to provide public financial statements (*Post*). In columns (1) and (2) the dependent variable, German Disclosure, is an indicator variable set to one if the U.S. MNE's segment or enterprise-wide reporting includes a standalone disclosure of its German operations. Columns (1) and (2) are estimated using a linear probability regression. In columns (3) and (4) the dependent variable, German 10-K Mentions, measures Form 10-K mentions related to German operations, relative to the average Form 10-K mentions related to the operations in other EU countries. The sample includes all U.S. MNEs reporting a German subsidiary in Exhibit 21. The sample includes all U.S. MNEs reporting a German subsidiary in Exhibit 21, separated into two subsamples (a) firm-years with above median pre-period internal information quality (*High_IIQ*; columns 1 and 3) and (b) firms-years with below median pre-period internal information quality (*Low_IIQ*; columns 2 and 4). We included industry fixed effects, untabulated for parsimony. Standard errors are clustered at the firm level. *, **, *** indicate statistical significance at the ten, five, and one percent levels, based on two-tailed tests, respectively. Variables are defined in Appendix B.

Table 7: Evaluation of Capital Market Outcomes for U.S. MNEs that Increase Disclosures Related to German Operations

Panel A: Increase in Disclosure Measured as Reporting a New German Segment or Enterprise-Wide Disclosure (*German Disclosure*=1)

	(1) Coeff. (t-stat)	(2) Coeff. (t-stat)	(3) Coeff. (t-stat)	(4) Coeff. (t-stat)
DV=	*Spread*	*Zero Trading Days %*	*Cost of Equity*	*Liquidity Factor*
New German Seg	-0.001	-0.002	-0.001	-0.102
	(-1.107)	(-1.223)	(-0.119)	(-1.634)
Post	-0.004***	-0.004***	0.014***	-0.239***
	(-6.846)	(-8.092)	(6.296)	(-10.087)
Post*New German Seg	**-0.004**	**0.002**	**0.014**	**-0.078**
	(-1.524)	**(0.906)**	**(1.139)**	**(-0.773)**
Controls	Yes	Yes	Yes	Yes
Fixed Effects	Industry	Industry	Industry	Industry
# of Observations	2,272	2,272	2,001	2,272
Adjusted R^2	0.164	0.332	0.367	0.319

Panel B: Increase in Disclosure Measured as an Above Median Increase in Form 10-K Mentions Related to Germany

	(1) Coeff. (t-stat)	(2) Coeff. (t-stat)	(3) Coeff. (t-stat)	(4) Coeff. (t-stat)
DV=	*Spread*	*Zero Trading Days %*	*Cost of Equity*	*Liquidity Factor*
Inc German Disc	0.000	0.001	-0.003	0.027
	(0.408)	(0.792)	(-0.740)	(0.840)
Post	-0.003***	-0.003***	0.012***	-0.196***
	(-4.822)	(-5.171)	(4.307)	(-7.075)
Post * Inc German Disc	**-0.002****	**-0.002***	**0.006**	**-0.122****
	(-2.001)	**(-1.723)**	**(1.320)**	**(-2.556)**
Controls	Yes	Yes	Yes	Yes
Fixed Effects	Industry	Industry	Industry	Industry
# of Observations	2,272	2,272	2,001	2,272
Adjusted R^2	0.160	0.333	0.366	0.319

This table presents the results of evaluating capital market outcomes for firms that increase disclosures related to German operations following the enforcement of the German requirement for private and public limited liability companies to provide public financial statements (*Post*). In Panel A (Panel B) we measure an increase in disclosure as a new stand-alone German Segment or Enterprise-wide disclosure (an above median increase in Form 10-K mentions related to German operations). The sample includes all U.S. MNEs reporting a German subsidiary in Exhibit 21. We included industry fixed effects, untabulated for parsimony. Standard errors are clustered at the firm level. *, **, *** indicate statistical significance at the ten, five, and one percent levels, based on two-tailed tests, respectively. Variables are defined in Appendix B.

Table 8: Examination of Spillover Effects - Differences in Disclosures Related to European Operations in Consolidated Financial Statements Following the German Enforcement of Local Country Reporting Requirements

	(1) Coeff. (t-stat)	(2) Coeff. (t-stat)
DV=	*European Disclosure*	*European 10-K Mentions*
Post * German Sub	**0.035***	**1.081***
	(1.912)	**(1.841)**
Post	-0.010	-1.013**
	(-0.704)	(-2.140)
German Sub	0.026	0.136
	(0.942)	(0.218)
Size	0.008	-0.811***
	(0.606)	(-3.580)
ROA	0.148	-5.896
	(0.885)	(-1.438)
MTB	0.002	0.154**
	(0.582)	(2.407)
ΔForeignSales	-0.009	0.267
	(-0.874)	(0.652)
Leverage	-0.051	-2.034*
	(-0.877)	(-1.930)
Analysts	-0.000	0.104**
	(-0.140)	(2.528)
InstOwn	-0.028	-1.066
	(-0.532)	(-1.024)
EarnVol	-0.002	-0.002
	(-0.337)	(-0.020)
8-K Disclosure	-0.012	0.052
	(-0.764)	(0.145)
Subs Ex21	-0.012	-0.369**
	(-1.092)	(-2.109)
Business Seg	-0.004	-0.552*
	(-0.187)	(-1.754)
Segment Type	-0.043***	-0.201
	(-6.161)	(-0.904)
Fixed Effects	Industry	Industry
# of Observations	4,018	4,018
Adjusted R^2	0.056	0.103

This table presents the results of estimating a difference-in-differences research design to examine *European Disclosures* (*European 10-K Mentions*) among U.S. MNEs affected by the change in German enforcement (*German Sub*) following the enforcement of the German reporting requirement (*Post*). *European Disclosures*, is the log of the number of segments reported in the U.S. MNE's segment reporting that represent individual European countries and groupings of European countries (column 1). *European 10-K Mentions*, is the average number of Form 10-K mentions for all EU countries, excluding Germany, divided by the average number of Form 10-K mentions for all non-EU countries (column 2). The sample includes all U.S. MNEs reporting a European subsidiary in Exhibit 21. We included industry fixed effects, untabulated for parsimony. Standard errors are clustered at the firm level. *, **, *** indicate statistical significance at the ten, five, and one percent levels, based on two-tailed tests, respectively. Variables are defined in the Appendix B.

Table 9: Falsification Test Using Differences in Disclosures Related to *Japanese Operations* in Consolidated Financial Statements Following the Enforcement of *German* Local Country Reporting Requirements

	(1) Coeff. (t-stat)	(2) Coeff. (t-stat)
DV=	*Japanese Disclosure*	*Japanese 10-K Mentions*
Post	**0.001**	**-0.108**
	(0.045)	**(-1.292)**
Size	0.029	0.188**
	(1.096)	(2.083)
ROA	0.452	0.115
	(1.569)	(0.142)
MTB	0.006	0.017
	(1.246)	(0.865)
ΔForeignSales	-0.026	0.010
	(-1.071)	(0.142)
Leverage	-0.081	0.083
	(-0.631)	(0.242)
Analysts	0.005	-0.008
	(1.364)	(-0.666)
InstOwn	-0.003	-0.329
	(-0.036)	(-1.186)
EarnVol	-0.018**	-0.016
	(-2.465)	(-0.641)
8-K Disclosure	0.009	0.115
	(0.344)	(1.439)
Subs Ex21	-0.068***	-0.317***
	(-2.789)	(-3.356)
Business Seg	-0.032	0.056
	(-1.066)	(0.574)
Segment Type	-0.055***	-0.056
	(-3.463)	(-0.925)
Fixed Effects	Industry	Industry
# of Observations	1,674	1,674
Adjusted R^2	0.161	0.141

This table presents the results of estimating the difference in *Japanese Disclosure* (*Japanese 10-K Mentions*) following the enforcement of the German requirement for private and public limited liability companies to provide public financial statements (*Post*). In column (1) the dependent variable, *Japanese Disclosure*, is an indicator variable set to one if the U.S. MNE's segment or enterprise-wide reporting includes a standalone disclosure of its Japanese operations. Column (1) is estimated using a linear probability regression. In column (2) the dependent variable, *Japanese 10-K Mentions*, measures Form 10-K mentions related to Japanese operations, relative to the average Form 10-K mentions related to the operations in other EU countries. The sample includes all U.S. MNEs reporting a Japanese subsidiary in Exhibit 21. We included industry fixed effects, untabulated for parsimony. Standard errors are clustered at the firm level. *, **, *** indicate statistical significance at the ten, five, and one percent levels, based on two-tailed tests, respectively. Variables are defined in Appendix B.