Mandatory Financial Disclosure and M&A Activity

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Abstract

Taking advantage of the implementation of the 2003 European Commission (EC) directive on financial reporting, we explore the impact of mandatory financial disclosure on mergers and acquisitions (M&A). We find robust evidence that the number (and volume) of private firms becoming an M&A target increases with mandatory disclosure. The analyses of cross-industry differences, deal-level data, and post-deal performance indicate that financial disclosure increases M&A activity by reducing information frictions in the market for corporate control.

Keywords: financial disclosure; mergers and acquisitions; private firms

JEL Codes: G14, G34

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1. Introduction

Mergers and Acquisitions (M&A) are large and risky investment decisions for firms. Particularly when the potential target is a private company, the scarcity of available information is bound to be a hurdle for a potential acquirer. To study the impact of financial disclosure regulation on M&A, we use disclosure mandates derived from the implementation of the 2003 EC accounting directive as a quasi-natural experiment. The goal of this directive was to set common rules on the extent of mandatory financial reporting required from private limited liability firms (henceforth, private firms). Taking advantage of the heterogeneous implementation of these rules by member states, we find robust evidence that mergers and acquisitions of private targets increased with the enactment of the disclosure regulation.

To build our sample, we start with detailed M&A data from Zephyr, a comprehensive database on mergers and acquisitions around the world from Bureau van Dijk. In line with prior literature (Rossi and Volpin, 2004; Larrain, Tapia, and Urzúa, 2017), we restrict our attention to deals that represent a transfer of control: i.e., deals in which the acquirer has less than 50 percent of the target's shares before the deal and more than 50 percent after the deal. Because the reforms only affect private firms, we restrict our sample to targets incorporated as private limited liability companies. This approach yields a sample of 40,321 deals from 12 countries completed between 2001 and 2012. We enrich our data with financial information for the target firms using Amadeus, a database from Bureau van Dijk with a wide coverage of private firms (including subsidiaries) in Europe.

Our main identification strategy relies on variation in the scope of the disclosure mandates: they vary at the country level (because of differences across countries in firm-size exemption thresholds), and at the industry level (because of differences in firm-size distributions across industries). In our basic specification, we run regressions at the country-

industry-year level where M&A activity is the dependent variable (measured either as the logarithm of the number of deals or as the logarithm of the sum of targets' assets). Our key explanatory variable is mandated reporting, which we define as the number of private firms with extended mandated disclosure (i.e., large and medium-sized firms), as a percentage of the number of active private firms for each country-industry-year observation. We control for information spillovers from listed firms (measured as the proportion of assets in the country-industry-year that are listed) and for a number of industry characteristics, such as the size of the average firm, the number of firms, and their performance: both its level (as measured by the 3-year average ROA) and its volatility (as measured by the standard deviation of the 3-year ROA). We also include two sets of fixed effects: industry fixed effects that absorb time-invariant industry characteristics, and country-year fixed effects to control for any macro or economic shock that might also affect M&A activity at the country level.

Consistent with the view that more extensive disclosure of financial information reduces the information frictions faced by the potential acquirers, we find that mandatory reporting intensity is positively correlated with M&A activity. In economic terms, a one-standard-deviation increase in mandatory reporting is associated with an increase in the number of deals by 3.1 percent with respect to the average. This suggests that there is more M&A activity in industries where more financial information is being made available due to the mandatory disclosure rules. The results also hold when M&A activity is measured in terms of the total assets of the acquired firms.

We then use three different empirical designs to corroborate our main finding. First, we adopt a difference-in-differences specification to study whether the staggered adoption of the EC reporting directive in each country led to an increase in M&A activity. We start by showing that indeed the country-level adoption of the European directive was associated with an increase in financial reporting by private firms: there was a "treatment" effect. Following recent

advances in the econometrics of differences-in-differences estimation (see Baker, Larcker, and Wang, 2022), we enlarge the sample with data on the M&A activity for private firms in the US. This alleviates concerns that early treated firms are used as control for late treated firms as the inclusion of US data increases the fraction of never-treated observations in our sample. Also, we implement the Callaway and Sant'Anna (2021) estimator to address the concern that the estimation is biased when effects are heterogenous, and treatment is staggered (as in our case). Our results confirm that the directive adoption led to an increase between 2.8 and 14.3 percent (depending on the specifications) in the number of deals with respect to the average. This is in line with our main result.

As a second approach, we restrict our focus on firms that are in the neighborhood of the extended reporting thresholds and test if the probability of being acquired is higher for firms just above as compared with those just below. For this purpose, we adopt a firm-level approach and keep those firms with assets within a 10 percent interval around the threshold. Within this sample, we use a linear probability model to estimate whether the firms with extended disclosure requirements have a higher probability of being acquired. The results indicate that the probability of being targeted is higher for firms just above. In terms of economic magnitude, our estimates indicate that the firms just above the threshold are twice more likely to be acquired. Importantly, the results are robust to the inclusion of country-year and firm fixed effects. This finding is consistent with the view that extended disclosure requirements increase the exposure of potential targets.

As a third approach, we focus on Germany, which represents a good case study. In the early 2000s, the compliance rate for financial disclosure among German private firms was very low, between 5 and 10 percent. This situation changed drastically in 2006 when an enforcement reform was enacted, known as EHUG, which centralized compliance monitoring and increased the economic penalties for non-compliance. As a result of this change, starting from 2007, the

compliance rate for financial disclosure among German private firms rose above 90 percent. We exploit this feature of the reform to test if EHUG led to more M&A activity in industries with a large proportion of firms that were subject to the new enforcement rules. Consistent with our main result, we find that industries with a higher fraction of regulated firms are associated with more M&A activity, both in number and size, after the reform. In terms of economic magnitude, our estimates imply that a 10 percentage-point increase in the share of private firms before the enforcement reform is associated with an increase between 10.2 and 23.7 percent in M&A activity.

We then turn our attention to the mechanism at work. Our hypothesis is that extended reporting reduces the information frictions that hold back potential acquirers of private firms from bidding. To investigate this idea, we take advantage of cross-industry differences to develop three tests that allow us to measure the informational gain from mandatory reporting and its impact on M&A activity. First, we use data from the European Patent Office (obtained through Orbis) to identify innovative sectors on the basis of the aggregate volume of patent applications (Breuer, Leuz, and Vanhaverbeke, 2019). Information frictions are likely to be more severe in innovative sectors and therefore mandatory reporting is likely to be more impactful. Second, we use asset redeployability (Kim and Kung, 2017) as a measure of the cost of making acquisitions with limited information. Information frictions are more likely to hold back irreversible acquisitions, such as targeting firms with very specialized assets that cannot easily be redeployed for other uses. It follows that mandated reporting should be associated with an increase in M&A activity, particularly in sectors with low asset redeployability. Third, we look at firms' similarities at the country-industry-year level, using firm size and age. Similar firms are more likely to have correlated values, and therefore investors can more effectively use information reported by one firm in valuing another (Admati and Pfleiderer, 2000). If so, the positive effect of mandated reporting on M&A activity should be greater in sectors that are

less heterogeneous. In all three tests, we find support for the information mechanism: mandatory reporting has a greater effect on M&A activity in sectors where acquirers are likely to benefit more from the mandated reports.

There are good theoretical reasons to question the argument that more extensive disclosure of financial information reduces the information frictions faced by the potential acquirers and thus leads to more M&A activity. In fact, it stands to reason to expect that, as public information increases (thanks to mandated disclosure), the competition for targets is likely to rise, pushing up prices, reducing the gains for the bidders and eventually their incentives to bid. Extensive disclosure might also reduce the target's appeal for a bidder by causing the revelation of proprietary information. Consistent with this qualification, we find a strong non-linear effect of mandated reporting on M&A activity: the marginal effects of mandated reporting on M&A activity decrease as mandated reporting increases. However, we find no evidence of non-monotonicity: for the range of values that mandated reporting takes in our sample, the estimated first derivative of M&A activity on mandated reporting is positive across all specifications. So, we confirm the robustness of our main findings that the first-order effect of disclosure on M&A activity is positive.

Information from financial disclosure can affect M&A activity directly or indirectly. Are our results driven by private firms forced to disclose their own financial data, thus reducing the degree of adverse selection faced by potential acquirers? Or are they driven by mandatory disclosure in peer firms (i.e., at the country-industry level), which are likely to improve the information available on that firm to a potential acquirer because of information spillovers? We tackle these questions by splitting our sample of M&As between those with mandated reporting and those without, finding evidence for both channels. Mandatory disclosure increases the M&A activity of firms with extended reporting and is also associated with more acquisitions of (smaller) firms that are exempt from extended reporting requirements. We also

find that mandated reporting of private firms is positively associated with M&A deals involving listed targets, although the effect is restricted to countries-industries with few listed firms.

To further disentangle the two information channels, we change the unit of analysis from the country-industry level to the deal level. We estimate the effect of both target-specific and industry-level mandatory reporting on the likelihood of being an M&A target for firms in the neighborhood of the reporting thresholds. While both have independent positive effects on the probability of a takeover, in terms of economic magnitude the direct effect is much larger than the indirect one. A similar finding is obtained when we explore the effect of mandated reporting on the effect on targets' performance after the M&A deal is completed. Using data from Amadeus on the targets after the acquisition (as done in Erel, Jang, and Wesbach, 2015; and Larrain, Tapia, and Urzúa, 2017), we find that more mandated disclosures in the industry lead to higher growth rates (measured by total assets) in the target after the acquisition, but not necessarily better performance. Conversely, an increase in target-specific disclosure requirements is associated with both post-deal greater growth and improved performance. This suggests that firm-specific information is the key driver of synergistic deals, while industry-specific information may not necessarily help achieve the best match between acquirer and target. Finally, we study how industry and target mandatory reporting impacts deal valuation. Consistent with the previous results, we find evidence that direct (target-level) reporting increases deal value while indirect (industry-level) reporting does not, although the sample for which deal value is available is much smaller and the results are statistically weaker.

The paper is related to the growing literature on the effect of financial disclosure on economic activity (see Goldstein and Yang, 2017; and Leuz and Wysocki, 2016) and specifically on M&A activity. Previous studies examine whether target's voluntary disclosures and reporting choices affect M&A outcomes among listed targets, showing that target's earnings and information quality, as well as target-specific reporting transparency, are

positively correlated with deal efficiency and acquirers' gains (McNichols and Stubben, 2015; Marquardt and Zur, 2015; Martin and Shalev, 2017; Skaife and Wangerin, 2013). Bonetti, Duro, and Ormazabal (2020) show that increased disclosure of toeholds following the Transparency Directive in the European Union (Directive 2004/109/EC) reduces M&A activity in listed firms. Chen (2019) shows that the Sarbanes-Oxley requirement to disclose the acquisitions of private targets works as a disciplinary tool for acquirers' managers. In comparison with the existing literature, our contribution is twofold: first, we provide direct evidence of the impact of mandatory financial disclosure on M&A activity through a market-wide improvement in the information environment; second, we focus on private targets that represent an important and largely unexplored segment of the M&A market.

Our paper is also related to the growing number of contributions focusing on the economic implications of EC directives on the disclosure of financial reporting. This reform has recently been studied in relation to industry-wide resource allocation, leading to increased product market competition (Breuer, 2021); reductions in innovation activity (Breuer, Leuz, and Vanhaverbeke, 2019); firm size management to avoid proprietary costs (Bernard, Burgstahler, and Kaya, 2018), and liquidity risk learning (Ortiz and Urzúa, 2022). We complement these papers with our focus on M&A activity.

The structure of the rest of the paper is as follows. Section 2 explains the institutional background and the motivation for the analysis. Section 3 presents the data, the methodology, and the main empirical findings. Section 4 focuses on alternative empirical designs. Section 5 explores the information mechanism and the spillover effects. Section 6 presents deal and target level results. The conclusion is in section 7.

2. Institutional background and motivation

In this section, we provide details on the regulatory setting, discuss the main identification approach, and develop the testable hypotheses.

2.1 Reporting regulation of private firms in the European Union

The 4th Company Law Directive (78/660/EEC) in 1978 and the 7th Company Law Directive (83/349/EEC) in 1983 stated that all European limited liability firms must prepare (i) unconsolidated financial statements and (ii) consolidated financial statements when a (parent) company controls another one (subsidiary). In 2003, an additional reporting directive fostered the coverage and electronic dissemination of private firms' financial statements (2003/58/EC).[1] This last EC reporting directive was implemented by member states using country-specific legislative processes, resulting in different adoption dates, disclosure requirements, and enforcement levels.[2] Once implemented, the reporting regulation led to a large increase in the amount of accounting information that is publicly available. Figure 1 Panel A illustrates this increase using three items of financial statements (assets, sales, and EBITDA) collected from Amadeus' historical discs between 2000 and 2012. Two conclusions emerge from Figure 1 Panel A: (i) all countries experienced an increase in reporting in the 2003-2006 period; (ii) information about firm assets became more widely available than that on sales or profitability.

The EC reporting directive categorize firms into three groups depending on their size (measured in terms of assets, sales, and the number of employees). While the two groups containing the largest firms were required to disclose detailed balance sheets, income statements, and director reports; the smallest firms needed only to disclose abbreviated statements, and, in some countries (e.g., Austria, Germany, and the United Kingdom), were exempt from disclosing income statements (Bernard, Burgstahler, and Kaya, 2018; Breuer,

[1] See e.g. Beuselinck et al. (2021) for an overview.
[2] We provide information about the regulatory thresholds and adoption years in Table A1 in the online appendix.

2021).[3] Importantly, the thresholds determining how firms were classified (and therefore the extent of mandatory disclosure), the timing of the adoption of the new rules, and the enforcement levels associated with their implementation were left to the individual countries to decide. Figure 1 Panel B illustrates the differences in terms of reporting requirements at both sides of the reporting threshold around the adoption of the EU directive. For each country, we identify the firms with extended and non-extended reporting requirements at the adoption year and track their reporting behavior before and after the reform. As can be seen, the fraction of firms with extended disclosure requirements that report assets, sales, and EBITDA rises sharply around the adoption year and remain stable above 90 percent. However, below the threshold the fraction of firms reporting sales and EBITDA have a smooth increase around the adoption and stay below 50 percent. These features, combined with the fact that there are large industry-level differences in firm-size distribution across countries, offer an ideal opportunity to study the impact of mandatory disclosure requirements on M&A activity.

2.2 M&A activity and mandatory reporting requirements

As acquisitions are typically a large investment for firms,[4] access to reliable information about targets is a first-order concern for potential acquirers. For example, to screen potential targets, acquirers need information on their profitability and growth opportunities. Once a target is identified, planning for an M&A transaction requires estimating the target's standalone value as well as the value of any synergies associated with the deal, which are subject to large degrees of uncertainty and information friction. Moreover, asymmetries of information between the acquirer and the current owners are likely to be severe in private targets.

[3] These reporting rules may explain why we observe a much larger increase in the reporting of information on assets as compared with information on sales or profitability.
[4] The average deal value is one-third of acquirers' equity (Moeller, Schlingemann, and Stulz, 2004).

Our hypothesis is that mandated financial reporting enhances the quality of the information available to screen and evaluate targets, and thus enables more M&A activity. As an extreme example, no deal may happen if a target is not in the public registry as potential acquirers may not even be aware of its existence. With more information being released, the asymmetry of information reduces and transactions become more frequent. As argued by Goldstein and Yang (2017), this prediction is consistent with the traditional models on the effect of the disclosure of public information on adverse selection. The same prediction follows from viewing an M&A deal as a relatively-irreversible investment under uncertainty. In that context, more information reduces the uncertainty of investing in M&A, leading acquirers to allocate more capital to M&A activity (Badertscher, Shroff, and White, 2013; Bloom, Bond, and van Reenen, 2007).

Mandatory disclosure should improve the information environment for M&A activity both directly and indirectly. The direct channel operates through the disclosure of target-level financial information. Thanks to mandated reporting, acquirers can identify target-specific profit determinants, enabling more precise identification of a suitable target and estimation of the target's value. This argument is in line with business valuation textbooks that highlight the role of accounting analyses and forecasting exercises that largely rely on detailed accounting information (Palepu and Healy, 2013). Perhaps nowhere is mandated reporting more helpful than when estimating the price of a private target, as its intrinsic market price is unknown to potential acquirers (McNichols and Stubben, 2015). The indirect channel is based on information spillovers: the improvement in the information environment is likely to benefit even firms that are not directly subject to the new reporting requirements as long as they share common value drivers. Having a large set of firms disclosing their financial reports allows market participants to assemble a richer information set about the economic environment, both at the industry and at the country level. For example, higher fractions of firms being forced to

report their performance and financial status enable better identification of shared growth opportunities and risks (Ortiz and Urzúa, 2022). This happens because firms face comparable conditions, as they are exposed to similar macro, industry, and even firm-level shocks (Roychowdhury, Shroff, and Verdi, 2019; Breuer, 2021).[5] In this sense, extended reporting mandates can also inform acquirers about other private firms with no or abbreviated reporting requirements, fostering their acquisitions. Similarly, even though publicly listed firms already disclose detailed financial statements, extended mandated reports from private firms can also inform about listed firms by providing an industry benchmark for their performance and informing about the general economic environment in the industry.

Although the information mechanism described above predicts a positive effect of mandatory reporting on M&A activity, theory suggests that there are offsetting effects to consider. First, Grossman and Stiglitz (1980) showed that too much information can lead to no trade: when prices reflect all available information, there are no (private) returns from trade. With no expected gains from trade, bidders will not undertake any costly exploration of potential targets and therefore no deal will happen. This suggests that M&A activity might decrease when (thanks to mandated reporting) there is extensive information on firms, as bidders realize no gain from the fully-priced acquisitions. Second, mandatory disclosure of financial data might worsen the information environment for M&A activity by crowding out the production of other forms of information. This argument is well known in market microstructure, where the disclosure of public information could reduce the incentives to acquire private information and thus have a negative effect on liquidity and allocative efficiency (see Goldstein and Yang (2017) for a discussion). A specific application of this theoretical argument that may be particularly relevant in M&A is that mandatory disclosure

[5] As argued by Fishman and Hagerty (2003), the presence of these informational spillovers may explain why mandatory disclosure is necessary and voluntary disclosure is not enough: individual firms do not internalize the benefits that other firms and market participants receive from their greater disclosure.

could crowd out voluntary disclosure of accounting data (Breuer, Hombach, and Müller, 2018). Theoretically, the crowding out could be so severe as to reduce the information environment for M&A, discouraging transactions. Third, mandatory disclosure may cause the revelation of proprietary information. This could significantly reduce the value of a target for potential bidders, discouraging M&A activity. Consistent with this view, Breuer, Leuz, and Vanhaverbeke (2019) find that mandatory reporting discourages innovation. Taken together, these views suggest that the impact of mandated disclosure on M&A activity might be non-monotonic: when the informational environment is poor, mandated disclosure increases M&A activity; as the informational environment improves, the marginal value of mandated disclosure declines; and eventually, for a very high level of information, M&A activity might decline with mandated disclosure. We will explore these ideas in Section 5.3.

3. Data, methodology, and main results

In this section, we describe the sources of our data, explain how our key variables are constructed, provide summary statistics, and present the main empirical results.

3.1 Data collection

We collect data on completed mergers and acquisitions for the 2001-2012 period from Zephyr, an M&A database from Bureau van Dijk. We restrict our sample to targets that are incorporated as private limited liability companies and deals that represent a transfer of the target's control, which we define as deals where the acquirer has less than 50% of the target's shares before the deal and more than 50% after, following previous literature (Rossi and Volpin, 2004; Larrain, Tapia, and Urzúa, 2017). Together with deal characteristics (stake, value, type of payment, etc.), we also collect targets' financials before and after the deal using Amadeus, a database from Bureau van Dijk that provides financials for private firms in Europe.

Table 1 shows that our sample consists of 40,321 deals. Panel A shows that the UK is the country with the most activity, with more than one-third of the deals, followed by the Netherlands, Finland, France, and Germany. Given that reporting regulations affect firms depending on their size, we collect information on the thresholds for extended disclosure from Bernard, Burgstahler, and Kaya (2018) and Breuer (2021) and show that most deals include a target that is not subject to the extended disclosure. Table 1, Panel B also shows the distribution of deals during our sample period, noting that there was a drop in 2009, i.e., after the financial crisis.

3.2 Mandatory Reporting, M&A activity, and other variables

To understand how much information is released as a result of the disclosure regulations, we compute the percentage of private firms in every country-industry-year required to provide extended financial reports. We call this variable "Mandated Reporting" and we construct it as follows. First, for each country-industry-year, we calculate the number of active private firms. Since some firms enter Amadeus in later years, we check each firm's incorporation year and update the number of active firms retroactively when necessary, obtaining the total number of firms per country-industry-year regardless of both legal disclosure requirements and Amadeus' coverage.

Next, we classify a private firm as having extended financial reports if two (out of three) firm-size variables are larger than the regulatory thresholds for extended disclosure (Breuer 2021). Firms that existed but did not exceed the thresholds or simply did not disclose financials are not included in the number of firms with extended disclosures.[6]

[6] The assumption for considering firms not covered by Amadeus as being below the regulatory threshold is that the firms had no filing requirements at that time. In the online appendix we show that our results are robust to relaxing this assumption. For example, we repeat our analysis using only firms covered by Amadeus, or using Breuer's (2021) publicly available measure "scope" that is closely related to our measure of extended disclosure but does not depend on Amadeus coverage for any specific country, industry and year combination. See section 1 of the online appendix.

We define Mandated Reporting as the number of private firms with extended disclosure requirements as a proportion of the number of all active private firms in the same country-industry-year.

For most of our analysis, we define industries at the 2-digit SIC code, yet our results are also valid if we use data at the more refined 3-digit SIC or 4-digit NACE (as reported in the online appendix). To alleviate concerns that Mandated Reporting is mechanically correlated to M&A activity, we control in our empirical specifications for the average firms' assets ("Mean assets") and the number of firms ("No. of Firms") in the respective country-industry-year.

Figure 2 shows Mandated Reporting during the sample period in four specific industries – SIC 27 (Printing, Publishing, and Allied Industries), SIC 34 (Fabricated Metal Products, except Machinery and Transportation Equipment), SIC 50 (Wholesale trade and SIC 80 Health Services) – and in four countries – Germany (DE), France (FR), Belgium (BE), and the UK. As can be seen, Mandated Reporting varies across countries *and* industries. Additionally, Figure 2 also illustrates variations of the reporting threshold within a country. For example, France reduced the number of firms disclosing extended reports by increasing the threshold from €267.000 to €1.000.000.[7] These sources of variation provide the basis for our empirical designs. When it comes to measuring M&A activity, we use two complementary proxies, the number of completed deals and the sum of targets' assets (both in logarithms). As with mandated reporting, we define both variables at the country-industry-year level.

The presence of public firms generates an information spillover, which might substitute for private firms' reports (Shroff, Verdi, and Yost, 2017). We proxy for their importance by calculating the ratio of the sum of assets held by publicly listed firms over the sum of assets in the industry, which we denominate as "% Public Assets" (Badertscher, Shroff, and White,

[7] Table A1 in the online appendix reports the regulatory thresholds for our sample period.

2013). And since corporate acquisitions could be driven by changes in industries' conditions (Harford, 2005), we include a set of variables describing the level and dispersion of the industry's performance. In particular, we control for the median industry ROA in the last three years ("3-year ROA"), as well as the intra-industry standard deviation of ROA for the last three years ("SD-3-year ROA").

Table 2 reports the descriptive statistics for our sample. The average industry has 3.73 targets per year. Consistent with Table 1, targets without extended disclosure are more common. Mandatory Reporting is, on average, three percent.[8] The table also shows the importance of informational spillovers from listed firms, with 33 percent of industries' assets being listed.

3.3 Main Empirical Strategy

To evaluate the effect of mandated reporting on M&A activity, we estimate the following specification at the country-industry-year level:

$$M\&A\ activity_{cjt} = \beta\ Mandated\ Reporting_{cjt-1} + Controls_{cjt-1} + FE(j, ct) + \varepsilon \quad (1)$$

where *c*, *j,* and *t* index country, industry, and year, respectively; *M&A activity* is measured either as the number of deals or as the sum of targets' assets (both in logs); and *Mandated Reporting* is the number of private firms with extended disclosure requirements as a proportion of the number of active private firms in the same country-industry-year. We control for information spillovers from listed firms (% Public Assets) and industry characteristics such as the size of the average firm (Mean assets), the number of firms (No. of Firms) and performance, both its level (3-year ROA) and volatility (SD 3-year ROA), all of which are lagged one year and have been shown to predict M&A activity (Harford, 2005). We also include two sets of

[8] Our mandated reporting is lower than the measure of standardized regulatory scope in Breuer (2021) because we compute the number of active firms rather than the number of firm-observations in Amadeus, thus using a larger denominator.

fixed effects: industry (2-digit SIC) that absorb time-invariant industry-specific characteristics, and country-year to control for any macro or economic shock (trends) that might also affect M&A activity. Standard errors are clustered at the country-year level.

In our empirical strategy, identification relies on the variation in the regulatory intensity: Mandated Reporting varies not only at the country level, as a result of differences in exemption thresholds (for example, in December 2004, the threshold for assets was €267.000 in France (~65th percentile) and €3.125 million in Italy (~88th percentile)), but also at the industry level, as a result of differences in firm-size distributions across industries, as seen in Figure 2. This country-industry variation in regulatory intensity permits us to control for country-year fixed effects alleviating concerns about the endogeneity of exemption thresholds at the country-year level as well as controlling for omitted variables like other regulatory changes.

3.4 Main Results

Table 3 reports the results of the estimation of specification (1). The results in column one show that the coefficient of Mandated Reporting is positive and significant, suggesting more M&As in industries where a larger fraction of the financial reports is available due to mandatory disclosure rules. In economic terms, a one-standard-deviation in Mandated Reporting increases the number of deals by 2.9 percent with respect to the average. Our results also show that even though the coefficient for the proportion of assets held by listed firms in the industry is positive, it is not significant. As expected, industries with more participants and larger firms have more deals. When controlling for the industry's performance, both in level and volatility in column two, the economic significance increases by almost 6 percent. We complement these results by looking at the sum of the targets' assets, to investigate whether there are more deals but coming from smaller firms. The results in columns three and four show that the coefficient for Mandated Reporting is still positive and significant. In terms of economic significance, the estimates imply that a one-standard-deviation increase in Mandated

Reporting is associated with an increase of 3.1 percent with respect to the average sum of the targets' assets (in column four).

In the online appendix, we report a battery of robustness tests for the results reported in Table 3. In section 1, we explore alternative specifications for equation (1), such as negative binomial estimation, different levels of industry classification and aggregation, and adding industry-year fixed effects; and we use different proxies for our reporting regulation measure. In section 2, we control for other corporate events (the volume of IPOs, withdrawn IPOs, and public M&A deals). In section 3, we disaggregate the mandated reporting indicator to explore which component is more important for our results. We find that our result is mainly driven by the mandatory reporting of profitability items.

4 Alternative empirical strategies

To check the robustness of our finding that mandatory reporting increases M&A activity, we implement three alternative empirical designs. First, we use a difference-in-differences specification to examine whether the introduction of reporting regulation leads to an increase in M&A activity. Second, we explore whether the probability of being acquired is higher for firms just above as compared with firms just below the reporting threshold. Lastly, we study Germany, where an enforcement reform drastically increased the amount of disclosing (see Figure 1 and Bernard et al., 2016).

4.1 Directive adoptions

As shown in Figure 1, the country-level adoption of the EC Directive is a "treatment" that increases reporting among private firms. To estimate such treatment effects, we take advantage of recent advances in the econometrics of difference-in-differences to estimate the effects of mandated reporting more precisely (see Baker, Larcker, and Wang, 2022, for an

excellent overview of the literature). We check for each country when the directive was implemented and whether it significantly differed from previous regulations.[9] Some countries had strong regulations in place, meaning that they were "treated" and should not be part of the difference-in-difference (e.g., UK and Spain), as seen in Figure 1. We estimate the following specification at the country-industry-year level:

$$M\&A\ activity_{cjt} = \beta\ Reporting\ Regulation\ Dummy_{ct} + FE(cj,t) + \varepsilon \qquad (2)$$

where *c*, *j,* and *t* index country, industry, and year, respectively, and M&A activity is measured as in our main analysis. $Reporting\ Regulation\ Dummy_{ct}$ is a dummy that takes the value of one after the implementation of EC reporting directive. We also include country-industry and year fixed effects. Standard errors are clustered at the country-year level.

There are two potential issues with this estimation that can bias our findings. The first concern is that our results are biased by having later treated compared to early treated (Baker, Larcker, and Wang, 2022). To address this concern, we add US data to the sample. As private firms are not mandated to report financial statements in the US, their inclusion increases the fraction of never-treated observations in our sample. The second concern is that the OLS estimator is biased when effects are heterogenous and treatment is staggered (as in our case). To alleviate this concern, we implement the Callaway and Sant'Anna (2021) estimator, which is specifically geared to avoid this problem.

Our results are in Table 4, with columns one and two showing the OLS specification and three and four Callaway and Sant'Anna's approach. As can be seen, our results are robust to both specifications, indicating that there was a significant increase in M&A activity after the EC Directive's adoption. It is important to notice that the interpretation of the results in Table

[9] We use the following years for the treatment dummy: 2002 for France and Netherlands; 2005 for Austria, Belgium, Finland, and Ireland; 2006 for Germany; 2007 for Italy and Sweden; and 2009 for Denmark.

4 is different from those in Table 3: now we are exploiting a difference-in-difference approach around the adoption of the reporting directive rather than relying on the cross-sectional variation in the intensity of the reporting regulation. In terms of economic magnitude, the estimates in column one (three) imply that the directive adoption led to an increase of 2.8 (14.3) percent in the number of deals with respect to the average, which is in line with our main result.

4.2 Probability of acquisition around the regulatory threshold

Another way to test the validity of our results in Table 3 is to study whether the probability of becoming a target changes around the regulatory threshold: are firms just above the extended disclosure requirements' threshold more likely to be targeted than those just below? From Amadeus we collect a sample of private firms that lie in the neighborhood of country-specific regulatory thresholds based on their assets, keeping those with assets within the [-10%, +10%] interval. Within this sample, we use a linear probability model to estimate whether the firms with extended disclosure have a higher probability of being acquired. We estimate the following specification:

$$Dummy\ Acquired_{ijct} = \beta\ Ext\ Disclosure\ Firm_{ijct-1} + Assets_{ijct-1} + FE(ct, i) + \varepsilon \qquad (3)$$

where $Dummy\ Acquired_{ijct}$ is a dummy variable indicating whether the firm is targeted in year t. $Ext\ Disclosure\ Firm_{ijct-1}$ is dummy variable for those firms above the regulatory threshold (i.e.., firms with extended disclosure requirements).[10] We control for firm size using $Assets_{ijct-1}$ defined as total assets (in log) and a battery of alternative fixed effects described below. Standard errors are clustered at the country-year level.

The results in Table 5 show that there is a higher probability of being targeted for firms just above the threshold, consistent with extended disclosure increasing the exposure of

[10] In section 4 of the online appendix we report summary statistics for the sets of firms with and without extended disclosure requirements.

potential targets. Importantly, the results are robust to three different fixed-effects specifications: column one uses country-year and industry fixed effects, and column two country-year and country-industry fixed effects. And finally, our most demanding specification uses country-year and firm fixed effects. In terms of economic magnitude, the estimates in column one indicate that firms that are just above the regulatory thresholds are associated with a 0.1 percentage point higher probability of being acquired, relative to the firms laying just below. This is a large effect as the unconditional probability of being acquired is only 0.07 percentage point. Therefore, the local effect of the regulatory requirement is to more than double the probability of being acquired.

4.3 German enforcement reform

The additional analyses so far employ treatment effects that are heterogeneous across countries. To provide a cleaner test, we now turn to the analysis of a single country, Germany, and focus on the 2006 enforcement reform. In the early 2000s, the disclosure compliance rate among German private firms was 5-10%, as a result of the lack of penalties and centralized enforcement (Bernard, 2016). Driven by pressures from other European countries, this situation changed drastically in 2006 when an enforcement reform, known as EHUG, centralized compliance monitoring and increased economic penalties. As a consequence, the compliance rate rose above 90% since 2007. This is particularly the case in industries where private limited liability firms (i.e., the affected firms) were more prevalent. We exploit these features of the enforcement reform to further understand the effect of mandatory reporting on M&A activity. We estimate the following specification:

$$M\&A\ activity_{jt} = \beta\ Post_t\ x\ Limited\ Share_j\ + Controls_{cjt-1} + FE(j,t) + \varepsilon \qquad (4)$$

where $M\&A\ activity_{jt}$ is again measured as the log of the number of deals or the log of total targets' assets within an industry-year. $Post_t$ is a dummy variable for the years after 2007,

when the reform was implemented. $Limited\ Share_j$ is the average fraction of private limited liability firms over the total number of active firms in the industry before the reform. We continue using the same controls as in our main result. Importantly, this specification includes industry and year fixed effects. Standard errors are clustered at the industry level.

In essence, this strategy is a difference-in-difference design where the interaction term works as a continuous treatment variable that captures enforcement intensity. The underlying assumption is that in industries with a larger share of limited liability firms, the number of firms that will be subsequently mandated to disclose (extended) financial information will be larger. Critically, we cannot observe size (and other firm characteristics) before the reform due to non-disclosure of financial information. In other words, the identifying assumption is that the enforcement reform leads to a larger improvement in the information environment in industries with a large proportion of firms that are subject to the disclosure rules.

The results in Table 6 are consistent with the other findings: industries with a higher fraction of regulated firms are associated with more M&A activity, both in number and size, after the reform. In terms of economic magnitude, our estimates imply that a 10 percentage-point increase in the share of private firms before the enforcement reform is associated with a 10.2 (23.7) percent increase in the number of deals (total assets acquired).

5 Cross-industry evidence on the information mechanism

Having shown that mandated reporting has a positive effect on M&A activity, we now test whether an improvement in the information available to acquirers is the mechanism at work. First, we use cross-industry differences to study whether the positive effect of mandatory reporting on M&A is greater in sectors that are likely to face greater informational benefits or needs from accessing the financial reports of private firms. Second, we look for evidence of

information spillovers from firms with mandatory extended reporting to other firms that are otherwise unaffected (smaller private firms that are not subject to mandatory extended disclosure and listed firms that are already subject to a more stringent disclosure regime). Third, we look for non-linear effects of mandatory reporting on M&A activity.

5.1 The information channel

Our working hypothesis is that mandatory reporting reduces information frictions faced by the potential acquirers of private firms. To investigate this idea, we take advantage of cross-industry differences to develop three tests that allow us to identify the informational channel from mandatory reporting to M&A activity.

Our first test uses data from the European Patent Office (obtained through Orbis) to identify innovative sectors on the basis of the aggregate volume of patent applications (Breuer et al., 2019). Our hypothesis is that information frictions are likely to be more severe in innovative sectors because of their greater complexity, and therefore mandatory reporting is likely to be more impactful in those sectors. To test this hypothesis, we classify industries as high (low) innovative if the volume of patent applications in the sector is above (below) the median. We estimate the same specification as in Table 3 separately for the subsample of industries with low and high innovation intensity. The result in Table 7 shows that there is a positive and significant relation between mandated reporting and M&A activity only in more innovative industries. This finding suggests that mandatory reporting alleviates information frictions, which discourage M&A activity, where they are most severe, i.e., in more innovative sectors.

Our second test uses asset redeployability as a measure of the cost of making investment mistakes because of limited information. The hypothesis is that poor information is more likely to hold back irreversible acquisitions (Badertscher, Shroff, and White, 2013). To test this hypothesis, we use an industry-wide measure of asset redeployability from Kim and Kung

(2017). Redeployable assets are easier to sell since they have multiple uses across industries; thus, the acquisitions of firms with less redeployable assets are less reversible and thus more dependent on the quality of information available. We classify industries as high (low) redeployability if their index value is above (below) the median in 2003. The result in Table 8 shows that there is a positive and significant relation between mandated disclosure and M&A activity only in industries with assets that are difficult to redeploy, which again is consistent with the information mechanism.

As our third test of the information channel, we look at firms' similarities at the country-industry-year level, using firm size and age. The improvement in the information environment driven by reporting mandates is likely to be larger for firms that share similar characteristics (Badertscher, Shroff, and White, 2013; Minnis and Shroff, 2017; Ortiz and Urzúa, 2022). The rationale is that the more similar the firms, the more correlated their valuations are, and thus, the more useful the information reported by one firm is in valuing others (Admati and Pfleiderer, 2000). To test this idea, we measure industry-peers' similarity using two proxies: the standard deviations of firms' assets and age (within the same country-industry-year). We then split our sample into two groups (high and low similarity) using the sample median. The results, reported in Table 9, indicate that the effect of reporting regulation on increasing M&A activity is localized in industries with less heterogeneity. This is consistent with the information mechanism being stronger when firms are more similar.

In conclusion, across all three tests, we find support for the information mechanism: mandatory reporting has a greater effect on the M&A activity of private firms in sectors that are likely to face more severe information frictions (more innovative sectors), where the lack of information can lead to more costly mistakes (sectors with assets that are less redeployable), and where there are more benefits from peers' information (sectors with lower heterogeneity across firms).

In the online appendix, we offer two further tests in support of the information hypothesis. In section 5, we show that the proportion of deals that are between vertically integrated firms is negatively correlated with mandatory reporting. This result can also be viewed as in support of the information channel as trading partners are likely to enjoy an informational advantage over other firms that is reduced when mandatory reporting increases. In section 6, we look at the dynamic effects of the reporting directive on cross-border M&A. We find that reporting regulation reduces information frictions over time, benefiting first bidders that are geographically and culturally closer to the target.

5.2 Information spillovers on small private firms and listed firms

At a deeper level, mandatory financial reporting is likely to reduce information frictions in two conceptually distinct ways. The first channel is direct: if a private firm is forced to disclose its own financials, the degree of adverse selection faced by potential acquirers is likely to reduce. The second channel is indirect: even if the private firm is not forced to disclose, an increase in mandatory disclosure at the country-industry level is likely to improve the information available to an acquirer because of information spillovers or peer effects (Leuz and Wysocki, 2016; Roychowdhury, Shroff, and Verdi, 2019).[11]

Because reporting requirements depend on firm size (Bernard, Burgstahler, and Kaya, 2018), we can identify the two effects in Table 10. In columns one and two, we look at targets with extended disclosure, whereas in columns three and four, we look at those without. The results show that Mandated Reporting has a positive and significant effect on the number of deals and the assets involved for targets with extended disclosure, as in Table 3. What is interesting is that we also find an effect in targets without extended disclosure (small firms

[11] One of the problems when studying how the characteristics of a group affect the actions of its members, is that there are mechanical effects when the actions of the members affect group averages (Angrist 2014). Our setting, however, mitigates this concern by studying M&A activity in targets *without* mandated disclosure. As such, these targets' actions do not, by definition, affect our mandated reporting variable.

below the regulatory threshold), with the coefficients and their economic effects being similar to those in columns one and two. For instance, the coefficient of 0.310 in column three implies that a one-standard-deviation increase in our reporting variable is related to an increase of 3.1% in the number of deals with respect to the mean, with this figure being 6.2% for our results in column one. Overall, the evidence in columns three and four is consistent with an information spillover from firms mandated to report extended disclosures to those exempted from such obligation (Roychowdhury, Shroff, and Verdi 2019).

Informational spillovers may also affect the M&A activity of listed firms. As in most of the world, European security regulations force listed firms to disclose detailed and frequent financial statements (Christensen, Hail, and Leuz, 2016).[12] However, although firm-specific information about listed firms is already publicly available, financial data from private peers can still inform potential acquirers as a useful benchmark. The informativeness of such reports decreases with the amount of disclosure done by listed firms, which depends, among others, on the number of listed firms in the industry (Badertscher, Shroff, and White, 2013). We test this idea in Table 11, where we estimate our main specification using M&A activity of listed targets as the dependent variable (measured both as the log of the number of acquisitions and as the log of the sum of their assets). Columns one and two use the entire sample while columns three and four (six and five) use a subsample of industries with a low (high) presence of listed firms, which we define using the median number of listed firms across industries. Surprisingly, we find a negative effect of mandated reporting on the number of deals in column one. When we split the sample along listed firms' presence across industries, we find that reporting mandates are positively associated with M&A activity in industries with few listed firms, consistent with a spillover effect. And similar to column one, we confirm that this effect is

[12] In section 7 of the online appendix, we explore the potential spillover effects of EU Directives regulating public firms on the M&A market of private firms.

negative for industries with more listed firms in columns five and six. A potential interpretation for the negative coefficient is that the large presence of listed firms, combined with extended reporting mandates for private firms, can trigger either high proprietary costs for listed firms or strong competition among bidders, both curbing the benefits of potential listed-firms acquisitions.

5.3 Non-linear effects

As discussed in Section 2.2, there are theoretical reasons to expect that the beneficial effect of mandated reporting on M&A activity might have limits. For instance, building on the intuition in Grossman and Stiglitz (1980), the increase in information could eliminate any gains for bidders by making prices so informative that they incorporate these gains. This suggests that M&A activity might decrease when (thanks to mandated reporting) there is extensive information about target firms.

In this section we explore this prediction by looking for any non-linear and non-monotonic relation between mandated reporting and M&A activity. To do so, in Table 12 we augment the empirical specification used in Table 10 with the square value of mandated reporting. As the results show, we find a strong non-linear effect of mandated reporting on M&A activity: the result indicates that the marginal benefit of mandated reporting decreases with the level of reporting at the industry-country-year level.

This finding is consistent with the view that too much information reduces the marginal incentives to trade as argued by Grossman and Stiglitz (1980).[13] However, we find no evidence of non-monotonicity: for the range of values that mandated reporting takes in our sample, the estimated first derivative of M&A activity on mandated reporting is positive across all

[13] It also aligns with the results in Table 11.

specifications. So, Table 12 confirms the robustness of our main findings: the first order effect of disclosure on M&A activity is positive.

In the online appendix, we empirically test two theoretical arguments discussed in section 2.2. In section 8 of the online appendix, we test whether mandatory reporting crowds out voluntary disclosure. Contrary to this prediction, we find no association between the intensity of mandatory and voluntary disclosure. In section 9, we test whether mandatory reporting damages firms in innovative industries, which are more likely to suffer from the disclosure of proprietary information. We find higher M&A multiples in innovative industries when mandatory reporting increases, which suggests that mandatory reporting does not lead to costly disclosure of proprietary information.

6 Further analyses on targets and deal characteristics

To compare the relative importance of the two information channels uncovered in Section 5, we extend our analysis to the deal level. First, we estimate the independent effects of target-specific and industry-level reporting on the likelihood of being an M&A target for firms in the neighborhood of the reporting threshold. Second, we study the effect of mandated reporting on target firms' performance after the M&A deal is completed. Finally, we study the effect of mandatory reporting on deal value and method of payment.

6.1 Direct versus indirect information channel

As in Table 5, we restrict the attention to private firms in the neighborhood around country-specific regulatory thresholds based on their assets, keeping only those firms with assets that are no more than 10 percent away from the threshold. We estimate specification (3), as done in Table 5, with the addition of the industry-level variable Mandated Reporting.

The results are reported in Table 13. While both variables have a positive effect on the probability of a takeover, in terms of economic magnitude, the direct effect is much larger and robust than the indirect one. Across all specifications, firms with extended reporting see an increase in the probability of being a target in an M&A deal by 0.07 percent. To gauge the magnitude of this effect, it is important to notice that the unconditional probability of being an M&A target is just 0.07 percent. So, in economic terms, extended reporting doubles the probability of M&A as compared with the unconditional mean. The economic magnitude of the industry-level mandatory disclosure on M&A can be computed by multiplying the coefficient by the standard deviation of Mandatory Reporting (7.71 percent): in column two the increase in probability is 0.04 percent (7.71% x 0.57%); while in column four is 0.03 percent (7.71% x 0.39%) although non-significant. Hence, the magnitude of the indirect effect is half of the size of the direct effect.

6.2 Target performance after the deal's completion

In this section we analyze whether mandated reporting and target disclosure facilitate better matching between targets and acquirers. If this is the case, we should observe an increase in targets' performance and investments after the deal. We benefit from the fact that we can follow targets from Zephyr in Amadeus, a similar exercise to that in Erel, Jang, and Weisbach (2015) and Larrain, Tapia, and Urzúa (2017). For this purpose, we estimate the following specification:

$$Y_{it} = \beta Control_{it} + \delta_1\left(Control_{it} \times Mandated\ Reporting_{cjt-1}\right) + \delta_2(Control_{it} \times Ext\ Disclosure\ firm_{it-1}) + FE(i,t) + \varepsilon \quad (5)$$

where Y_{it} is target's characteristics (assets (in log), leverage, ROA, or cash ratio) for firm *i* at time *t*. $Control_{it}$ is a dummy variable that takes the value of one for the year of the deal and any years after, and zero otherwise. Our variables of interest are the interactions between control and the measures of mandated reporting and target disclosure one year prior to the

acquisition. Importantly, since we use firm fixed effects, we cannot directly include time-invariant variables like mandated reporting or disclosure. Standard errors are clustered at the target level.

We report the results of our regressions in Table 14. Consistent with previous literature, we find that targets increase their assets after the deal, with almost a 10 percent increase, as shown in the first column. While this effect is large, it is not surprising, as private targets can be financially constrained and the acquisition might release their potential.[14] In column two we introduce the interaction term between control and Mandated Reporting, which is positive and significantly corelated with assets. The effect we document is large: a one-standard-deviation increase in mandatory reporting leads to a 3.5 percent increase in assets after the deal. In column three we interact our control dummy with a dummy for targets that had extended disclosure requirements before the deal, finding a positive and significant interaction. In column four we include the triple interaction term and find that the importance of Mandated Reporting disappears. This suggests that the larger impact of this regulation goes through target-level disclosure. In columns five to eight, we look at targets' leverage, finding a post-deal drop that is reversed in targets that have extended disclosure.

In Panel B, in columns one to four, we study the effects of disclosure on targets' performance (e.g., ROA). As in Larrain, Tapia, and Urzúa (2017), we also see a fall in performance after the deal. We fail to notice a significant role for Mandated Reporting, yet in columns three and four we find that disclosing targets improve their performance after the deal. Finally, in columns five to eight we study cash holdings, again only finding a reduction in cash for disclosing targets, which is consistent with them holding less precautionary holdings after being acquired (Ortiz and Urzúa, 2022).

[14] Devos, Kadapakkam, and Krishnamurthy (2009) show that target's investment goes down after the acquisition. This happens either as targets were overinvesting or because synergies involve cutting investments.

Overall, the evidence shows that target disclosure, as opposed to Mandated Reporting, leads to better, more profitable acquisitions, supporting the idea that this regulation facilitates screening and evaluation of targets' growth opportunities.

6.3 Deal values and method of payment

We study the effect of the directive implementation on deal characteristics such as the method of payment used and the price paid. The type of payment used in M&A is driven by information frictions: the use of cash should increase after the directive implementation given the reduction in information friction (Hansen 1987). Similarly, bidders may be unwilling to pay a premium for opaque assets, as is often the case for private firms (Officer 2007). As more information becomes available the valuation multiple should increase.

To measure the method of payment, we compute the fraction of the deals fully paid with cash. To measure valuation, we compute the equally-weighted average enterprise multiple (deal value and debt over assets). We use the same event-study approach of section 4.1 to evaluate how these variables evolve around the directive adoption year. Figure 3 shows a clear increase in the fraction of deals using cash as the payment method. This increase is more nuanced when we compute the fraction using the sum of the targets' assets. Altogether, Figure 3 suggests that reporting mandates increases the use of cash, particularly for smaller targets. The findings in Figure 4 are less clear cut.[15] The valuation multiple does not significantly change for several years; but eventually does four years after the adoption of the directive. This result indicates that the increase in public information did not erode the bidder's private gain from trade; and thus did not have a feedback negative effect on M&A activity.

[15] We reach similar conclusions when running the analysis at the deal level and controlling for the target's and acquirer's characteristics. See section 10 of the online appendix.

7 Conclusion

The implementation of disclosure regulation for private firms has proliferated in different countries since the late 1990s. These regulations have alternated between stricter and laxer requirements (Arruñada, 2011), leading to a wide disparity around the world in terms of disclosure requirements for private firms (Minnis and Shroff, 2017). Notwithstanding the major role that private firms play in the economy, we have only started to explore the drivers and consequences of this type of regulation.

While previous studies have focused on the impact of financial disclosure on firm-level indicators of financial and economic performance (Bernard, Burgstahler, and Kaya, 2018; Breuer, Hombach, and Müller, 2018; Ortiz and Urzúa, 2022), we extend the literature by focusing on its effect on the market for corporate control. Our empirical results support the argument that mandatory disclosure of financial information facilitates the identification of new deal opportunities, ultimately leading to more M&A activity and better performing acquisitions.

In many countries around the world, including Canada and the United States, private firms face essentially no financial reporting requirements. An important normative question is whether some level of mandatory disclosure – maybe limited to the largest private firms – should be required. After all, private firms in the US employ about two-thirds of total US employees. The findings in this paper – greater disclosure is associated with more reallocation of control (in terms of M&A activity) and the existence of information spillovers – point to a clear benefit from introducing some mandatory disclosure requirements for the largest private firms.

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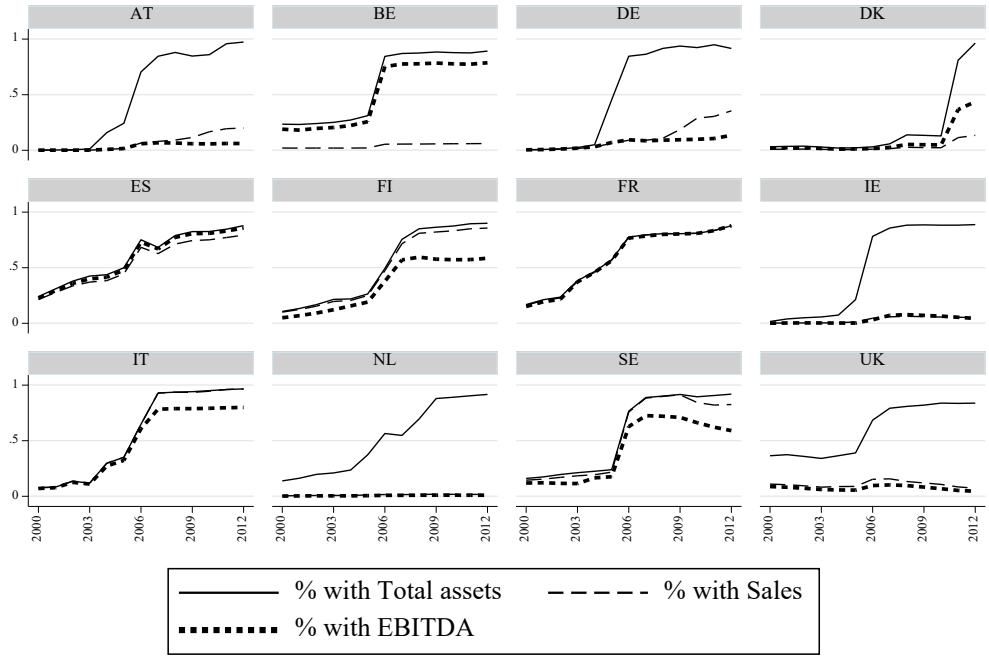
Appendix: Main variables definition

Variable Name	Description
M&A market activity:	
No. of Targets (log)	number of targets (log)
No. of Targets FD (log)	number of targets (log) mandated to disclose extended financial reports
No. of Targets non-FD (log)	number of targets (log) non-mandated to disclose extended financial reports
Sum of Targets' Assets (log)	sum of targets' assets (log)
Sum of Targets FD' Assets (log)	sum of assets (log) of targets mandated to disclose extended financial reports
Sum of Targets non-FD' Assets (log)	sum of assets (log) of targets non-mandated to disclose extended financial reports
Industry Controls:	
Mean Assets (log)	average firm's assets (log)
No. of Firms (log)	number of firms (log) in the industry
3-year industry ROA	the median ROA in the industry for the three years ending at the end of year t
SD-3-year industry ROA	the intra-industry standard deviation of ROA for the three years ending at the end of year t
% Public Assets	the sum of assets of publicly-listed firms scaled by the sum of assets in the industry
Mandatory Disclosure:	
Mandated Reporting	number of private firms mandated to disclose extended financial reports, scaled by the number of active private firms
Extended Disclosure Firm	a dummy variable that takes the value of one for targets with extended disclosure requirements, and zero otherwise.
Target characteristics:	
Assets (log)	total assets (log)
Leverage	the ratio of long-term debt over total assets
ROA	the ratio of EBITDA over total assets
Cash	the ratio of cash plus cash and equivalent over total assets

Figure 1: Data availability 2000-2012

This figure summarizes the aggregate reporting behavior during our sample period. Panel A plots the number of private firms reporting total assets, sales, and EBITDA, scaled by the number of active private firms at the country-year level. Panel B plots the average percentage (across countries) of firms reporting these accounting items at both sides of the threshold for extended disclosure requirements around the adoption year. Data source: BvD's Amadeus.

Panel A



Panel B

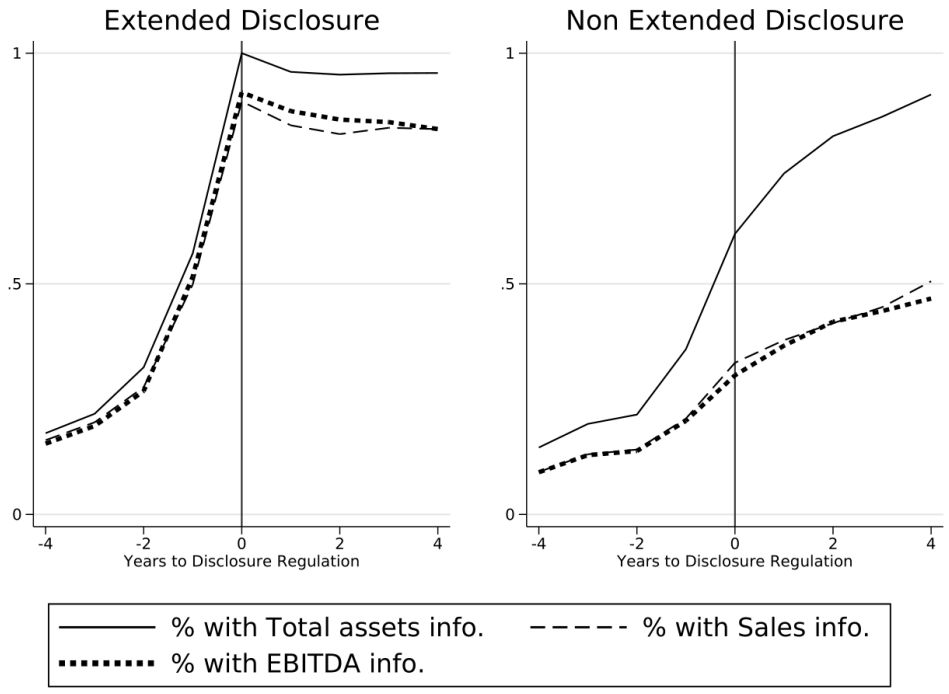


Figure 2: Mandated Reporting variability

The figure plots Mandated Reporting in four industries (SIC 27 Printing, Publishing, and Allied Industries, SIC 34 Fabricated Metal Products, except Machinery and Transportation Equipment, SIC 50 Wholesale trade, and SIC 80 Health Services) and across four countries (Germany (DE), France (FR), Belgium (BE) and the UK). Mandated Reporting is the number of private firms mandated to disclose extended financial reports, scaled by the number of active private firms at the country-industry-year level. Data source: BvD's Amadeus.

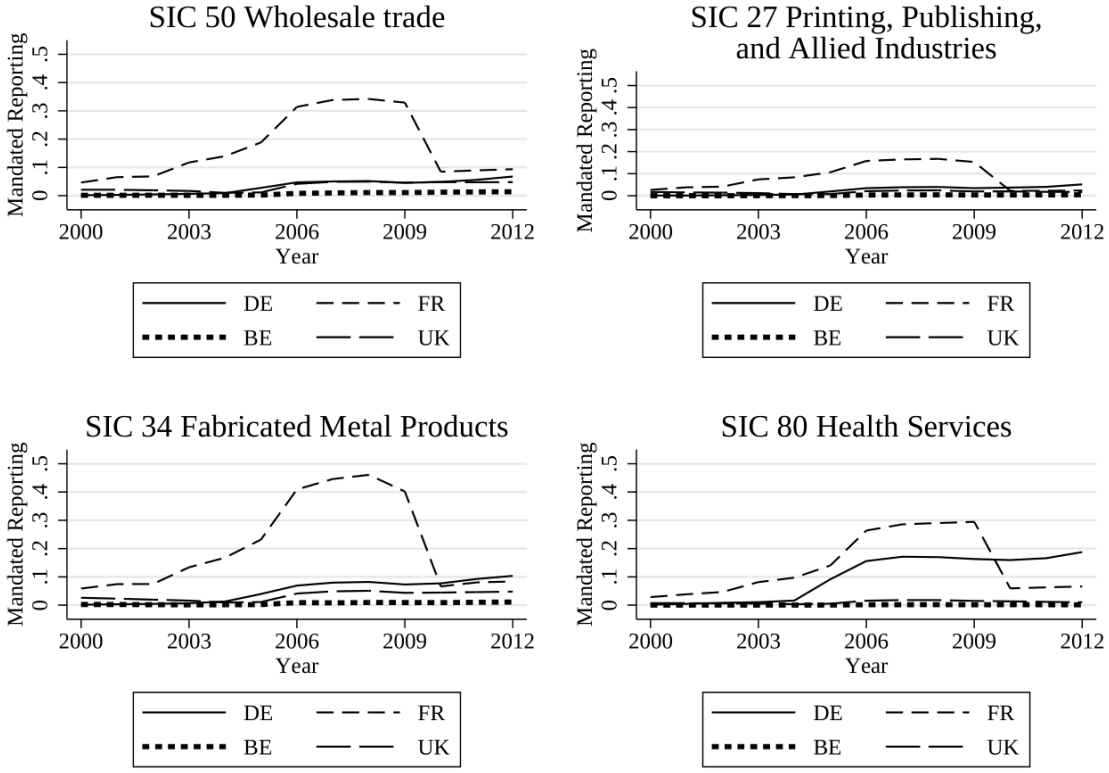


Figure 3: Cash payments around the adoption year

This figure presents the impact of mandatory reporting on the fraction of deals fully paid with cash. The black dots are the difference-in-difference estimations for the staggered adoption of the reporting directive across countries. The gray lines indicate the 95 percent confidence interval based on standard errors clustered at the country-year level. The sample consists of all completed same-country deals involving a transfer of control of a private firm between 2001 and 2012. Data source: BvD's Zephyr and Amadeus.

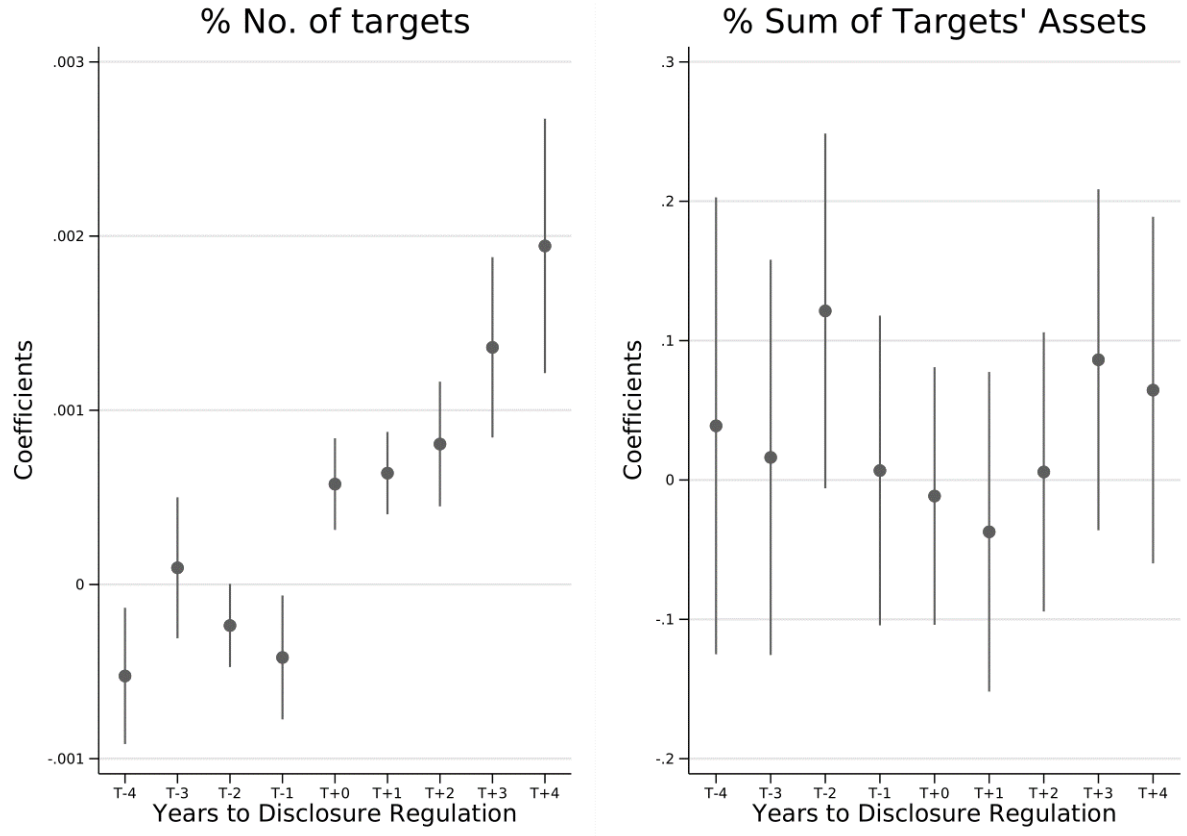


Figure 4: Deal value around the adoption year

This figure presents the impact of mandatory reporting on the average enterprise multiple (deal value and debt over assets). The black dots are the difference-in-difference estimations for the staggered adoption of the reporting directive across countries. The gray lines indicate the 95 percent confidence interval based on standard errors clustered at the country-year level. The sample consists of all completed same-country deals involving a transfer of control of a private firm between 2001 and 2012. Data source: BvD's Zephyr and Amadeus.

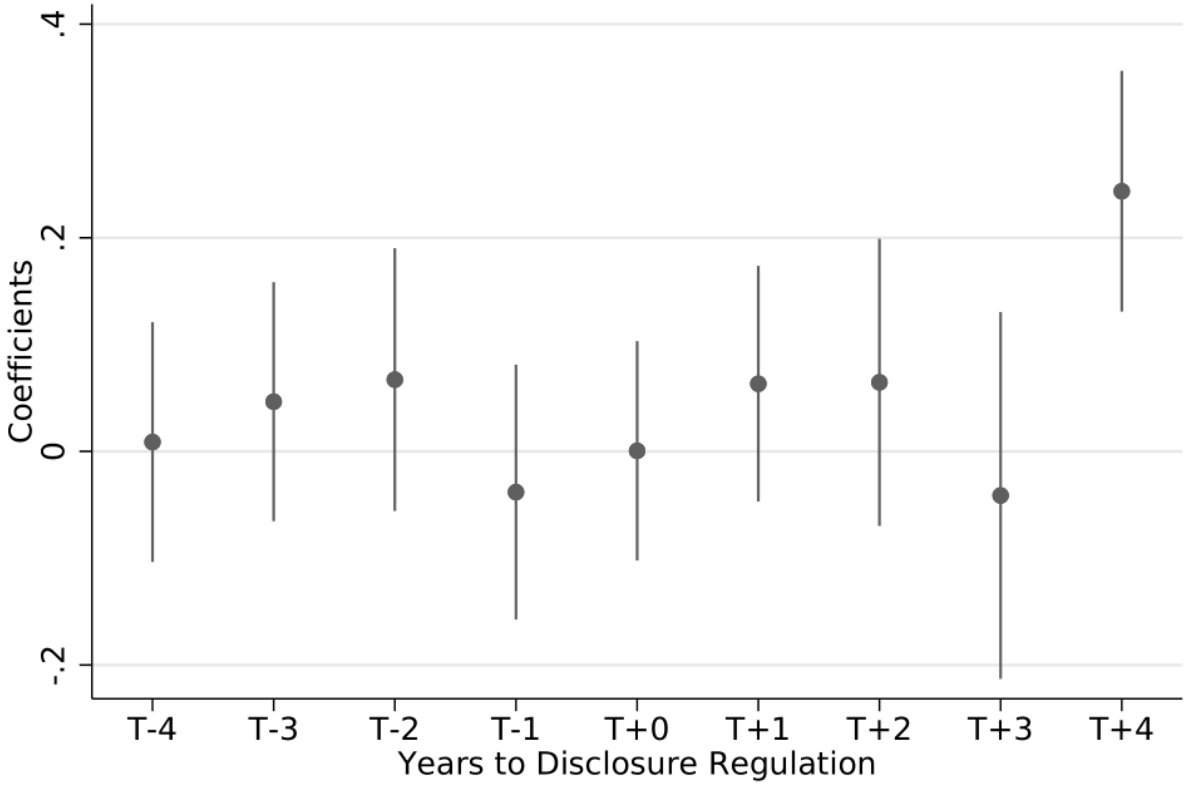


Table 1: Deals distribution across countries and time

The table shows the distribution of deals across countries (Panel A) and years (Panel B). The sample consists of all completed deals involving a transfer of control of a private firm between 2001 and 2012. Data sources: BvD's Zephyr and Amadeus.

Panel A: Distribution of deals across countries and industries							
Country	All	Extended Disclosure	Non Extended Disclosure	Cross-Country	Within-Country	Cross-Industry	Within-Industry
Austria	506	73	433	235	271	287	219
Belgium	1,429	86	1,343	638	791	660	769
Denmark	1,295	635	660	480	815	628	667
Finland	3,894	448	3,446	399	3,495	1,917	1,977
France	3,996	565	3,431	1,046	2,950	1,815	2,181
Germany	3,807	991	2,816	1,631	2,176	1,878	1,929
Ireland	387	45	342	242	145	170	217
Italy	478	7	471	146	332	228	250
Netherlands	4,959	407	4,552	1,029	3,930	2,220	2,739
Spain	1,733	229	1,504	224	1,509	852	881
Sweden	2,217	455	1,762	683	1,534	1,110	1,107
United Kingdom	15,620	1,863	13,757	3,594	12,026	7,261	8,359
Total	40,321	5,804	34,517	10,347	29,974	19,026	21,295
Panel B: Distribution of deals across time							
Year	All	Extended Disclosure	Non Extended Disclosure	Cross-Country	Within-Country	Cross-Industry	Within-Industry
2001	1,642	358	1,284	477	1,165	781	861
2002	2,058	387	1,671	567	1,491	900	1,158
2003	2,219	17	2,202	602	1,617	1,055	1,164
2004	2,803	419	2,384	733	2,070	1,314	1,489
2005	3,494	446	3,048	969	2,525	1,647	1,847
2006	3,916	527	3,389	1,058	2,858	1,859	2,057
2007	4,185	787	3,398	1,214	2,971	2,031	2,154
2008	3,599	649	2,950	1,084	2,515	1,750	1,849
2009	2,706	425	2,281	658	2,048	1,331	1,375
2010	3,894	573	3,321	852	3,042	1,844	2,050
2011	4,778	636	4,142	1,050	3,728	2,172	2,606
2012	5,027	580	4,447	1,083	3,944	2,342	2,685
Total	40,321	5,804	34,517	10,347	29,974	19,026	21,295

Table 2: Summary statistics

The table shows the descriptive statistics for the sample: the number of observations, mean, median, and standard deviation. Variable definitions can be seen in Table A1. The sample consists of all completed deals involving a transfer of control of a private firm in a sample of European countries between 2001 and 2012. Sections (a) to (c) report the descriptive statistics at the country-industry (SIC2)-year level. Section (d) reports the statistics at the target level, respectively. Section (e) includes the statistics of deals characteristics. Data sources: BvD's Zephyr and Amadeus.

	Variable	Obs.	Mean	Median	Std. Dev.
(a) M&A market activitty	No. of Targets	10777	3.73	1.00	13.83
	No. of Targets (log)	10777	0.78	0.69	1.00
	No. of Targets ED (log)	10777	0.23	0.00	0.50
	No. of Targets non-ED (log)	10777	0.70	0.00	0.95
	Sum of Targets' Assets (log)	10777	4.54	0.00	5.31
	Sum of Targets ED' Assets (log)	10777	1.63	0.00	4.01
	Sum of Targets non-ED' Assets (log)	10777	4.09	0.00	4.97
(b) Industry Control	% Public Assets	10777	0.33	0.18	0.35
	Mean Assets (log)	10777	15.10	14.77	1.93
	No. of Firms (log)	10777	7.10	7.33	2.34
	3-year industry ROA	10486	0.02	0.02	0.06
	SD-3-year industry ROA	10369	0.16	0.16	0.06
(c) Disclosure Mandates	Mandated Reporting	10777	0.03	0.01	0.07
(d) Target characteristics (panel)	Assets (log)	47729	16.15	14.98	4.59
	Leverage	40865	0.54	0.58	0.29
	ROA	25575	0.09	0.08	0.21
	Cash	42519	0.18	0.09	0.23
(e) Deal characteristics	Enterprise multiple (log)	1789	0.47	0.49	0.16
	Value over EBITDA multiple (log)	1479	2.63	2.41	1.20
	Cash	1789	0.32	0.00	0.47
	Shares	1789	0.05	0.00	0.21
	Target's assets (log)	1789	8.87	8.83	1.75
	Target's leverage	1789	0.61	0.63	0.24
	Target's ROA	1789	0.13	0.12	0.21
	Acquirer's assets (log)	1789	11.41	11.48	2.59
	Acquirer's leverage	1789	0.51	0.52	0.26
	Acquirer's ROA	1789	0.06	0.07	0.14

Table 3: Mandated reporting and M&A activity

The table shows OLS regressions for M&A activity on Mandated Reporting, where we define M&A activity as the number of targets per country-industry-year (in log) in columns one and two; or as the sum of targets' assets per country-industry-year (also in log) in columns three and four. Mandated Reporting is the number of private firms mandated to disclose extended financial reports, scaled by the number of active private firms at the country-industry-year level. Regressions also control for industry characteristics as defined in Table A1, as well as country-year and industry fixed effects. The sample consists of all completed deals involving a transfer of control of a private firm in a sample of European countries between 2001 and 2012. Data sources: BvD's Zephyr and Amadeus. Robust standard errors are clustered at the country-year level. T-statistics are in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Dependent variable	No. of Targets (log)		Sum of Targets' Assets (log)	
	(1)	(2)	(3)	(4)
Mandated Reporting	0.329***	0.348***	1.826***	2.027***
	(3.80)	(3.47)	(2.68)	(2.61)
% Public Assets	0.001	-0.032	0.177	-0.017
	(0.04)	(-1.02)	(0.93)	(-0.08)
Mean Assets (log)	0.011**	0.029***	0.096***	0.203***
	(2.46)	(5.06)	(2.99)	(5.32)
No. of Firms (log)	0.078***	0.083***	0.482***	0.529***
	(5.81)	(6.43)	(7.99)	(8.74)
3-year ROA		0.035		-0.082
		(0.26)		(-0.09)
SD-3-year ROA		-0.142		-0.825
		(-1.01)		(-0.89)
Observations	10777	10185	10777	10185
R-squared	0.700	0.704	0.525	0.521
Country-Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes

Table 4: Country adoption of EC Directive

The table shows the difference-in-difference estimations for the staggered adoption of the EC Directive across countries. We measure M&A activity as the number of targets per country-industry-year (in log) in columns one and three; or as the sum of targets' assets per country-industry-year (also in log) in columns two and four. Reporting regulation dummy is a dichotomous variable that takes the value of one after the implementation of EC reporting directive in each country. Column one and two (three and four) reports the results of the OLS (Callaway and Sant'Anna) estimation. The sample consists of all completed deals involving a transfer of control of a private firm in a sample of European countries and the US between 2001 and 2012. Data sources: BvD's Zephyr and Amadeus. Robust standard errors are clustered at the country-year level. T-statistics are in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Dependent variable	No. of Targets (log)	Sum of Targets' Assets (log)	No. of Targets (log)	Sum of Targets' Assets (log)
	(1)	(2)	(3)	(4)
Reporting regulation dummy	0.035	1.387***	0.181***	3.180***
	(0.04)	(0.333)	(0.039)	(0.319)
R-squared	0.840	0.520		
Observations	10517	10517	10517	10517
Country-Industry FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Method	OLS	OLS	Callaway and Sant'Anna	Callaway and Sant'Anna
Sample	Europe and US	Europe and US	Europe and US	Europe and US

Table 5: Probability of acquisition around regulatory thresholds

The table presents estimates of linear probability models on a sample of private firms with total assets laying 10 percent above or below the respective regulatory threshold for extended reporting requirements. Dummy Acquired equals one when the firm is acquired in an M&A deal. Extended Disclosure Firms is a dummy variable that identifies firms with extended reporting requirements. Regressions also control for firm assets (in log). The sample of M&A deals consists of all completed deals involving a transfer of control of a private firm in a sample of European countries between 2001 and 2012. Data sources: BvD's Zephyr and Amadeus. Robust standard errors are clustered at the country-year level. T-statistics are in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Dependent variable	Dummy Acquired	Dummy Acquired	Dummy Acquired
	(1)	(2)	(3)
Extended Disclosure dummy	0.0010***	0.0010***	0.0007**
	(4.33)	(4.25)	(2.21)
Assets (log)	-0.0014**	-0.0014**	-0.0014*
	(-2.37)	(-2.42)	(-1.81)
Observations	771296	771270	568423
R-squared	0.003	0.007	0.038
Country-Year FE	Yes	Yes	Yes
Industry FE	Yes	No	No
Country-Industry FE	No	Yes	No
Firm FE	No	No	Yes

Table 6: German enforcement reform

The table shows OLS regressions for M&A activity on the intensity of the German enforcement reform. We define M&A activity as the number of targets per country-industry-year (in log) in column one or as the sum of targets' assets per country-industry-year (also in log) in column two. Post is a dummy variable for the years after the reform (2006). Limited Share is the average fraction (before the reform) of private firms over the total number of firms in the industry. The sample of M&A deals consists of all completed deals involving a transfer of control of a private firm in Germany between 2001 and 2012. Data sources: BvD's Zephyr and Amadeus. Standard errors are clustered at the industry level. T-statistics are in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Dependent variable	No. of Targets (log)	Sum of Targets' Assets (log)
	(1)	(2)
Post x Limited Share	1.004**	11.971***
	(2.52)	(3.86)
% Public Assets	0.088	-0.218
	(0.71)	(-0.24)
Mean Assets (log)	-0.054**	-0.259
	(-2.18)	(-1.48)
No. of Firms (log)	0.020	-2.119
	(0.10)	(-1.41)
3-year ROA	1.287**	8.065
	(2.27)	(1.51)
SD-3-year ROA	-0.499	-9.575*
	(-0.70)	(-1.67)
Observations	909	909
R-squared	0.820	0.574
Year FE	Yes	Yes
Industry FE	Yes	Yes

Table 7: Innovative sectors

The table shows OLS regressions for M&A activity on Mandated Reporting. We define M&A activity as the number of targets or the sum of targets' assets per country-industry-year (log). Patent Activity is the aggregate volume of patent applications in the industry. We classify an industry as High (Low) Patent Activity when its aggregate volume of patent applications is above (below) the median. Mandated Reporting is the number of private firms mandated to disclose extended financial reports, scaled by the number of active private firms at the country-industry-year level. The sample consists of all completed deals involving a transfer of control of a private firm in a sample of European countries between 2001 and 2012. The data are from Zephyr, Amadeus, and Orbis. Robust standard errors are clustered at the country-year level. T-statistics are in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Patent Activity	Low	Low	High	High
Dependent variable	No. of Targets (log)	Sum of Targets' Assets (log)	No. of Targets (log)	Sum of Targets' Assets (log)
	(1)	(2)	(3)	(4)
Mandated Reporting	-0.115	-0.669	0.581**	3.678**
	(-1.26)	(-0.83)	(2.42)	(2.39)
% Public Assets	0.023	0.338	0.032	0.070
	(0.94)	(1.52)	(0.70)	(0.23)
Mean Assets (log)	0.021***	0.139***	0.038***	0.290***
	(4.80)	(3.13)	(3.71)	(4.27)
No. of Firms (log)	0.067***	0.443***	0.187***	0.853***
	(6.29)	(6.91)	(9.40)	(7.80)
3-year ROA	0.222*	1.539*	0.104	-1,732
	(1.89)	(1.80)	(0.39)	(-1.05)
SD-3-year ROA	0.242*	0.826	0.447	1,297
	(1.79)	(0.95)	(1.43)	(0.58)
Observations	4420	4420	5764	5764
R-squared	0.464	0.348	0.750	0.517
Country-Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes

Table 8: M&A activity and targets' assets redeployability

The table shows OLS regressions for M&A activity on Mandated Reporting. We define M&A activity as the number of targets or the sum of targets' assets per country-industry-year (log). We measure Redeployability using the industry index of Kim and Kung (2017). We classify industries as High (Low) Redeployability if their index value is above (below) the median in 2003. Mandated Reporting is the number of private firms mandated to disclose extended financial reports, scaled by the number of active private firms at the country-industry-year level. The sample consists of all completed deals involving a transfer of control of a private firm in a sample of European countries between 2001 and 2012. Data sources: BvD's Zephyr and Amadeus. Robust standard errors are clustered at the country-year level. T-statistics are in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Type of deal	Low Redeployability		High Redeployability	
Dependent variable	No. of Targets (log)	Sum of Targets' Assets (log)	No. of Targets (log)	Sum of Targets' Assets (log)
	(1)	(2)	(3)	(4)
Mandated Reporting	0.476***	3.912***	-0.059	-1.758
	(2.83)	(2.97)	(-0.32)	(-1.56)
% Public Assets	0.039	0.187	0.008	-0.109
	(1.08)	(0.65)	(0.18)	(-0.34)
Mean Assets (log)	0.012	0.149***	0.036***	0.268***
	(1.63)	(2.85)	(3.54)	(4.06)
No. of Firms (log)	0.190***	1.119***	0.078***	0.414***
	(10.24)	(10.57)	(6.00)	(4.79)
3-year ROA	0.041	-0.021	-0.112	-0.395
	(0.22)	(-0.02)	(-0.48)	(-0.26)
SD-3-year ROA	-0.125	0.041	0.184	-0.539
	(-0.59)	(0.03)	(0.89)	(-0.37)
Observations	4605	4605	4450	4450
R-squared	0.672	0.504	0.763	0.531
Country-Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes

Table 9: M&A activity and industry similarity

The table shows OLS regressions for M&A activity on Mandated Reporting. We define M&A activity as the number of targets or the sum of targets' assets per country-industry-year (log). We measure industry similarity using the industry standard deviation of total assets and firm age. We classify industries as High (Low) similarity if their similarity measure is above (below) the median. Mandated Reporting is the number of private firms mandated to disclose extended financial reports, scaled by the number of active private firms at the country-industry-year level. The sample consists of all completed deals involving a transfer of control of a private limited liability company in a sample of European countries between 2001 and 2012. Data sources: BvD's Zephyr and Amadeus. Robust standard errors are clustered at the country-year level. T-statistics are in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Similarity Proxy	Assets				Age			
	High		Low		High		Low	
Dependent variable	No. of Targets (log)	Sum of Targets' Assets (log)	No. of Targets (log)	Sum of Targets' Assets (log)	No. of Targets (log)	Sum of Targets' Assets (log)	No. of Targets (log)	Sum of Targets' Assets (log)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mandated Reporting	0.457**	2.593*	0.158	0.907	0.725***	3.731***	0.253	1,573
	(2.09)	(1.93)	(1.09)	(0.80)	(3.15)	(2.81)	(1.63)	(1.29)
% Public Assets	-0.019	0.141	0.023	-0.181	0.005	0.149	-0.074*	-0.311
	(-0.35)	(0.47)	(0.61)	(-0.65)	(0.10)	(0.53)	(-1.94)	(-1.05)
Mean Assets (log)	0.034***	0.228***	0.035***	0.251***	0.023**	0.164***	0.050***	0.332***
	(2.85)	(2.93)	(3.46)	(3.94)	(2.60)	(2.92)	(6.47)	(6.16)
No. of Firms (log)	0.052***	0.371***	0.104***	0.627***	0.043***	0.403***	0.147***	0.830***
	(3.20)	(4.62)	(6.62)	(6.92)	(2.76)	(4.84)	(8.04)	(8.41)
3-year ROA	0.364**	1,053	-0.002	0.165	0.189	0.259	-0.027	1,122
	(2.06)	(0.97)	(-0.01)	(0.11)	(1.04)	(0.21)	(-0.13)	(0.81)
SD-3-year ROA	-0.041	-0.518	-0.097	-0.574	0.018	-0.105	-0.007	0.962
	(-0.20)	(-0.43)	(-0.41)	(-0.41)	(0.10)	(-0.09)	(-0.03)	(0.61)
Observations	4753	4753	5328	5328	4933	4933	5152	5152
R-squared	0.610	0.458	0.745	0.526	0.707	0.513	0.713	0.513
Country-Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 10: Spillover to non-extended disclosure firm

The table shows OLS regressions for M&A activity on Mandated Reporting. We define M&A activity as the number of targets or the sum of targets' assets per country-industry-year (log). Columns one and two show our results in targets with extended disclosure, whereas columns three and four show the results for targets with non-extended disclosure. Mandated Reporting is the number of private firms mandated to disclose extended financial reports, scaled by the number of active private firms at the country-industry-year level. The sample consists of all completed deals involving a transfer of control of a private limited liability company in a sample of European countries between 2001 and 2012. Data sources: BvD's Zephyr and Amadeus. Robust standard errors are clustered at the country-year level. T-statistics are in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Type of Target	Extended Disclosure		Non-Extended Disclosure	
Dependent variable	No. of Targets (log)	Sum of Targets' Assets (log)	No. of Targets (log)	Sum of Targets' Assets (log)
	(1)	(2)	(3)	(4)
Mandated Reporting	0.204**	2.190**	0.310***	1.689***
	(2.61)	(2.28)	(3.16)	(2.99)
% Public Assets	-0.038*	-0.538***	-0.040	0.099
	(-1.90)	(-3.04)	(-1.27)	(0.53)
Mean Assets (log)	0.017***	0.140***	0.020***	0.137***
	(4.35)	(3.93)	(3.45)	(4.05)
No. of Firms (log)	0.023***	0.166***	0.076***	0.458***
	(3.00)	(2.92)	(6.16)	(8.42)
3-year ROA	-0.018	-0.059	0.058	-0.291
	(-0.22)	(-0.09)	(0.48)	(-0.38)
SD-3-year ROA	0.014	-1.210*	-0.277**	-1.237
	(0.14)	(-1.78)	(-2.01)	(-1.37)
Observations	10185	10185	10185	10185
R-squared	0.455	0.322	0.687	0.519
Country-Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes

Table 11: Spillover to listed firms

The table shows OLS regressions for M&A activity of listed firms on Mandated Reporting. We define M&A activity as the number of listed targets or the sum of their assets per country-industry-year (log). Mandated Reporting is the number of private firms mandated to disclose extended financial reports, scaled by the number of active private firms at the country-industry-year level. We measure listed firms' presence using the fraction of listed firms in the industry. We use it to identify industries with High (Low) listed firms' presence if this fraction is above (below) the median. The sample consists of all completed deals involving a transfer of control of a private limited liability company in a sample of European countries between 2001 and 2012. Data sources: BvD's Zephyr and Amadeus. Robust standard errors are clustered at the country-year level. T-statistics are in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Listed firms presence	All		Below median		Above median	
Dependent variable	No. of Targets (log)	Sum of Targets' Assets (log)	No. of Targets (log)	Sum of Targets' Assets (log)	No. of Targets (log)	Sum of Targets' Assets (log)
	(1)	(2)	(3)	(4)	(5)	(6)
Mandated Reporting	-0.043*	0.035	0.101**	1.208*	-0.142**	-0.760
	(-1.89)	(0.09)	(2.00)	(1.90)	(-2.26)	(-0.98)
% Public Assets	-0.013	0.033	0.010	0.496*	-0.028**	-0.167
	(-1.35)	(0.30)	(0.46)	(1.86)	(-2.56)	(-1.64)
Mean Assets (log)	0.001	-0.003	-0.003	-0.004	0.005*	0.013
	(0.58)	(-0.16)	(-0.79)	(-0.11)	(1.76)	(0.53)
No. of Firms (log)	0.016***	0.150***	0.021***	0.175***	0.011***	0.084*
	(4.39)	(4.05)	(3.69)	(2.74)	(2.92)	(1.70)
3-year ROA	-0.104**	-1.000***	0.029	0.261	-0.185***	-2.033***
	(-2.55)	(-2.79)	(0.43)	(0.43)	(-2.98)	(-3.00)
SD-3-year ROA	-0.006	0.118	-0.055	-0.266	0.011	-0.624
	(-0.17)	(0.28)	(-1.13)	(-0.48)	(0.17)	(-0.98)
Observations	10185	10054	4902	4792	5264	5241
R-squared	0.192	0.135	0.187	0.132	0.245	0.185
Country-Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes

Table 12: Non-Linear effects

The table shows OLS regressions for M&A activity on Mandated Reporting. We define M&A activity as the number of targets or the sum of targets' assets per country-industry-year (log). Columns one and two shows the results for the full sample. Columns three and four show our results in targets with extended disclosure, whereas columns five and six show the results for targets with non-extended disclosure. Mandated Reporting is the number of private firms mandated to disclose extended financial reports, scaled by the number of active private firms at the country-industry-year level. The sample consists of all completed deals involving a transfer of control of a private limited liability company in a sample of European countries between 2001 and 2012. Data sources: BvD's Zephyr and Amadeus. Robust standard errors are clustered at the country-year level. T-statistics are in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Targets	All		Extended Disclosure		Non Extended Disclosure	
Dependent variable	No. of Targets (log)	Sum of Targets' Assets (log)	No. of Targets (log)	Sum of Targets' Assets (log)	No. of Targets (log)	Sum of Targets' Assets (log)
	(1)	(2)	(3)	(4)	(5)	(6)
Mandated Reporting	0.752***	6.777***	0.518***	6.988***	0.632***	5.401***
	(3.40)	(5.42)	(3.22)	(3.83)	(2.81)	(4.57)
Mandated Reporting^2	-0.650**	-7.651***	-0.506***	-7.729***	-0.519*	-5.979***
	(-2.28)	(-4.96)	(-3.14)	(-4.46)	(-1.83)	(-3.66)
% Public Assets	-0.031	0.001	-0.037*	-0.520***	-0.039	0.113
	(-0.97)	(0.00)	(-1.84)	(-2.96)	(-1.23)	(0.60)
Mean Assets (log)	0.027***	0.185***	0.016***	0.122***	0.019***	0.123***
	(4.72)	(4.85)	(3.91)	(3.38)	(3.19)	(3.62)
No. of Firms (log)	0.082***	0.519***	0.023***	0.155***	0.075***	0.449***
	(6.36)	(8.64)	(2.93)	(2.78)	(6.09)	(8.31)
3-year ROA	0.034	-0.090	-0.018	-0.067	0.057	-0.298
	(0.26)	(-0.10)	(-0.23)	(-0.10)	(0.47)	(-0.39)
SD-3-year ROA	-0.134	-0.725	0.021	-1.109	-0.270*	-1.159
	(-0.96)	(-0.78)	(0.21)	(-1.64)	(-1.97)	(-1.28)
Observations	10185	10185	10185	10185	10185	10185
R-squared	0.705	0.521	0.456	0.324	0.687	0.519
Country-Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes

Table 13: Direct and Indirect Information Channel

The table presents estimates of linear probability models on a sample of private firms with total assets laying 10 percent above or below the respective regulatory threshold for extended reporting requirements. Dummy Acquired equals one when the firm is acquired in an M&A deal. Extended Disclosure Firm is a dummy variable that takes the value of one for firms with extended disclosure requirements, and zero otherwise. Mandated Reporting is the number of private firms mandated to disclose extended financial reports, scaled by the number of active private firms at the country-industry-year level. Regressions also control for firm assets (in log). The sample of M&A deals consists of all completed deals involving a transfer of control of a private firm in a sample of European countries between 2001 and 2012. Data sources: BvD's Zephyr and Amadeus. Robust standard errors are clustered at the country-year level. T-statistics are in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Dependent variable	Dummy Acquired			
	(1)	(2)	(3)	(4)
Extended Disclosure dummy	0.0007**	0.0007**	0.0006**	0.0006*
	(2.21)	(2.14)	(1.98)	(1.96)
Mandated Reporting		0.0057***		0.0039
		(2.64)		(1.25)
Assets (log)	-0.0014*	-0.0014*	-0.0012	-0.0012
	(-1.81)	(-1.80)	(-1.64)	(-1.64)
Observations	568423	568423	568375	568375
R-squared	0.038	0.038	0.040	0.040
Country-Year FE	Yes	Yes	Yes	Yes
Industry-Year FE	No	No	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes

Table 14: Targets' characteristics after the deal

The table shows panel regressions for targets' characteristics on Mandated Reporting. The dependent variables are Assets (in log), Leverage, ROA, and Cash, as defined in Table A1. Control After is a dummy variable that takes the value of one on the year of the deal and subsequent years for each target and zero otherwise. Mandated Reporting is the number of private firms mandated to disclose extended financial reports, scaled by the number of active private firms at the country-industry-year level. Extended Disclosure Firm is a dummy variable that takes the value of one for targets with extended disclosure requirements, and zero otherwise. The sample consists of all completed deals involving a transfer of control of a private firm in a sample of European countries between 2001 and 2012. Data sources: BvD's Zephyr and Amadeus. Robust standard errors are clustered at the firm level. T-statistics are in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Panel A

Dep. Variable	Assets (log)				Leverage			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Control After	0.095***	0.111***	-0.010	0.019	-0.025***	-0.021***	-0.046***	-0.039***
	(4.06)	(3.79)	(-0.35)	(0.53)	(-6.55)	(-4.32)	(-9.06)	(-5.62)
Control After x Mandated Reporting		0.522***		0.182		0.058*		0.022
		(3.26)		(0.34)		(1.87)		(0.21)
Control After x Extended Disclosure Firm			0.478***	0.555***			0.072***	0.069***
			(13.83)	(12.57)			(10.70)	(7.24)
Control After x Mandated Reporting x Extended Disclosure Firm				-1.311**				-0.009
				(-2.56)				(-0.08)
Observations	47729	40008	34510	28879	40728	33952	28914	24034
R-squared	0.927	0.94	0.944	0.953	0.629	0.666	0.616	0.655
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Target FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Panel B

Dep. Variable	ROA				Cash			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Control After	-0.019***	-0.017***	-0.029***	-0.030***	0.001	0.005	0.005	0.007
	(-4.33)	(-3.48)	(-4.28)	(-3.50)	(0.17)	(1.21)	(1.28)	(1.29)
Control After x Mandated Reporting		-0.017		0.022		-0.045*		0.015
		(-0.72)		(0.24)		(-1.85)		(0.21)
Control After x Extended Disclosure Firm			0.034***	0.041***			-0.014***	-0.018***
			(5.08)	(4.37)			(-2.88)	(-2.66)
Control After x Mandated Reporting x				-0.118				0.025
Extended Disclosure Firm				(-1.15)				(0.30)
Observations	25240	24612	16239	15712	42432	35403	30777	25630
R-squared	0.453	0.459	0.437	0.444	0.57	0.6	0.559	0.588
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Target FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes