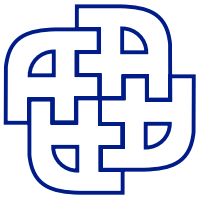

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INSTITUTO ESPAÑOL DE ANALISTAS FINANCIEROS
FUNDACIÓN DE ESTUDIOS FINANCIEROS

Disclosure Regulation and Corporate Acquisitions

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(*) ESTE TRABAJO OBTUVO EL PRIMER PREMIO EN 2018

PREMIOS DE INVESTIGACIÓN Y ESTUDIO
ANTONIO DIONIS SOLER 2018

ISBN: 978-84-09-10015-6
Depósito Legal: M-11554-2019
Edita: Fundación de Estudios Financieros

* *We would like to thank Mireia Gine, Ian Gow, Christian Leuz, Stefano Sacchetto, Laurence van Lent, participants at the EAA 2018 annual meeting, and workshop participants at Chinese University of Hong Kong, Hong Kong University of Science and Technology, Frankfurt School of Finance and Management, IDC Herzliya University, IÉSEG School of Management, National University of Singapore, Singapore Management University, The University of Melbourne, Tilburg University, University of Queensland, and University of Technology Sydney for their useful comments and suggestions. The paper has also benefitted from the excellent research assistance of Eloy Lanau, Donald N'Gatta, Vicent Peris, and Sergio Ribera. We benefited from conversations with industry practitioners and regulators. We are indebted to Alvaro Villanueva (former head of M&As at Caixabank), Pedro Arranz (former managing director of the Derivatives & Structured Products Division at Ahorro Corporación), and the U.K. FSA FOIA team for their technical support. Gaizka Ormazabal acknowledges funding from the BBVA Foundation (2016 grant "Ayudas a Investigadores, Innovadores, y Creadores Culturales"), the Marie Curie and Ramon y Cajal Fellowships, and the Spanish Ministry of Science and Innovation (grant ECO2015-63711-P).*

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Disclosure Regulation and Corporate Acquisitions

ABSTRACT

This paper examines the effect of disclosure regulation on the market for corporate control. We exploit the implementation of the Transparency Directive of 2004, a regulation that imposed tighter disclosure requirements regarding the financial and ownership information provided by European public firms. We find a substantial drop in the number of control acquisitions after the implementation of the regulation, a decrease that is concentrated in countries with more dynamic takeover markets. Consistent with the idea that the disclosure requirements increased acquisition costs, we also observe that, under the new disclosure regime, target (acquirer) stock returns around the acquisition announcement are higher (lower), and toeholds are substantially smaller. Overall, our evidence suggests that tighter disclosure requirements can impose significant acquisition costs on bidders and thus slow down the market for corporate control.

Keywords: disclosure regulation, market for corporate control, takeover laws, proprietary costs, mergers and acquisitions.

JEL Classifications: G34, G38, K22.

1. INTRODUCTION

Regulations that deter or facilitate takeovers can have substantial consequences for the economy, as corporate acquisitions play a central role in improving capital allocation and productivity (e.g., Eckbo, 2014; Dimopolous and Sacchetto, 2017). However, the effect of regulation on the takeover market remains unclear. The empirical evidence on the consequences of takeover regulation has recently been called into question, which highlights the need for a sharper identification of the effect of such regulation on the market for corporate control (Catan and Kahan, 2016; Cain et al., 2017; Karpoff and Wittry, 2018). Moreover, prior research focuses mostly on the laws and rules that govern takeover bids and firms' adoption of antitakeover defenses (Eckbo, 2014), and thus largely overlooks other regulations that potentially affect corporate acquisitions.

In this paper, we study whether *disclosure regulation* can raise corporate acquisition costs to the point of decreasing takeover activity. Indeed, the recent debate about the so-called "hidden ownership" in Europe (also referred to as "stealth stake-building") suggests that disclosure plays a key role in corporate acquisitions (e.g., Hu and Black, 2007; Enriques and Gatti, 2014). The idea which underlies this strategy is that the bidder can build a stake in the target firm through shares and financial instruments without disclosing its holdings to lower the cost of the acquisition at the expense of the target firm's incumbent shareholders.

Several prominent cases illustrate how the strategy works in practice. For example, in 2001, SAI parked Fondiaria shares with banks to avoid Italy's mandatory bid rule, retaining call options on the shares. In 2005, Banco Populare di Lodi acquired a 46% stake in Antonveneta via direct purchases (29.3%) and call options (16.9%). Also in 2005, Victory Industriebeteiligung AG and Renova disclosed a 42% stake in Unaxis, which they had secretly acquired through call options. This controversial strategy has also spurred debate in the U.S. Two recent examples are the court decision in the case of CSX Corporation v. the Children's Investment Fund (July 2011) and the Brokaw Act proposal (March 2016).[1]

[1] The appeals court decision in CSX Corp. v. Children's Investment Fund Management (UK) LLP explored the issue of whether the long party to a cash-settled equity total return swap is subject to the disclosure requirements of Sections 13(d) and (g) of the Exchange Act by reason of "beneficial ownership". The Brokaw Act is named after a town in the U.S. that went bankrupt after the closing of the paper mill employing a large part of the population. The case was controversial, among other reasons,

To address our research question, we exploit a major regulatory change in the European Union (E.U.): the implementation of the Transparency Directive 2004/109/EC ("TPD", hereafter). The TPD aims to provide greater transparency for investors in European public firms through a tighter set of disclosure requirements that relate not only to periodic information about firms' financial performance but also to ongoing information about firms' major shareholdings. Critically, the TPD mandates to include shares indirectly owned through financial instruments in the computation of the thresholds triggering ownership disclosure requirements.

The TPD offers several unique advantages with respect to other regulations studied by prior research on the takeover market. Importantly, the TPD was introduced separately from the rules governing the takeover process (i.e., Takeover Directive 2004/25/EC) and thus provides a clean setting to study the effect of disclosure regulation. In addition, as European countries implemented the directive at different points in time for relatively exogenous reasons, this setting helps address important identification challenges faced by prior research (Christensen et al., 2016).[2] Finally, the cross-country variation offered by our setting allows us to examine how the effect of disclosure regulation on takeover activity depends on institutional features (Karpoff and Wittry, 2018).

The controversy surrounding "hidden ownership" suggests that the disclosure requirements for major shareholdings introduced by the TPD could have increased the cost of conducting a takeover. Disclosing a substantial increase in ownership could trigger or exacerbate the price run-up before the acquisition announcement (Grossman and Hart, 1980a, 1980b; Jarrell and Bradley, 1980) and thus increase the cost of building a toehold. This stake makes competing bids more expensive, as the bidder has already acquired a substantial number of shares at a lower price and consequently is able to offer a higher price for the remaining shares (Shleifer and Vishny, 1986). Furthermore, ownership disclosure reveals the identity and intentions of the bidder, allowing insiders to prepare a

because it was claimed that the closing was related to the takeover of the firm by a hedge fund. The bill sought to "increase transparency and strengthen oversight of activist hedge funds" and spurred a vigorous public debate (e.g., Bebchuk and Jackson, 2012; Emmerich et al., 2013; Brav et al., 2018).

[2] The country-specific entry into force or "implementation" dates in each country result from the requirement that member states implement E.U.-wide directives within a given time frame. The specific timing of the implementation is determined by the countries' legislative processes.

defense or to search for a "white knight" (i.e., a competing bidder friendly to the incumbent management).

However, the disclosure requirements introduced by the TPD could also have reduced the cost of conducting a takeover to the point of increasing takeover activity. Tighter financial disclosure requirements on firms' periodic financial reports can lower the cost the bidder faces in identifying and assessing potential targets, decreasing search costs (Fishman, 1988) and adverse selection costs (Christensen et al., 2016). The disclosure of major shareholdings may also have a similar effect, as potential bidders could use such information to better understand how acquisition costs are affected by the target firm's voting structure (La Porta et al., 1999, 2002) and free float (Amihud and Mendelson, 1986; Clifford, 2008).[3] Finally, the harmonization of financial and ownership information across the EU could have increased comparability, encouraging cross-border acquisitions (Francis et al., 2016).

Our analyses are based on a comprehensive sample of EU control acquisitions of public firms from 2001 to 2017. Using a difference-in-differences design that exploits the staggered implementation of the TPD, we examine whether the new disclosure requirements affect takeover activity in European countries. We observe an abrupt *decrease* in the number of control acquisitions after the implementation of the TPD. This pattern is robust to including country, month-year fixed effects, a comprehensive set of controls and placebo tests that replicate the main analysis by randomizing the country-specific implementation dates, and by relying on a sample of private target firms that are not subject to the TPD. These results hold when we restrict the sample to a short window (12 months) around the implementation of the directive. Collectively, these analyses alleviate the concern that the decrease in takeover activity merely reflects a secular trend or an economic shock, such as the financial crisis.

We further sharpen identification by exploiting cross-sectional variation in the institutional and market characteristics of the sample countries. We find that the

[3] The following anecdote illustrates the importance of information related to the free float. In 2008, Porsche disclosed its 30% hidden stake in Volkswagen. As short sellers had estimated a free float of 13% while the actual free float was 6%, the disclosure allegedly led to a "short squeeze" (i.e., a sharp increase in the stock price that forces short sellers to close out their positions, thus adding to the upward price pressure) (Ringe, 2016).

documented decrease in takeover activity is concentrated in countries with higher regulatory quality, stricter enforcement, and fewer antitakeover provisions. Our results are also stronger in countries with lower ownership concentration and higher institutional ownership. Overall, the TPD appears to have decreased takeover activity to a greater extent in countries where the effect of the regulation is expected to be more pronounced. Such countries exhibit higher levels of takeover activity before the regulation, which suggests that the slowdown after the implementation of the TPD is concentrated in more dynamic takeover markets. As such, under the TPD, E.U. countries converge to a lower level of takeover activity.

To corroborate that our inferences are not confounded by changes in economic conditions concurrent with the introduction of the TPD (notably, the credit shortages which occurred during the financial crisis), we study the effect of later developments of the directive. In 2013, the E.U. issued Directive 2013/50/EU, which, with a special emphasis on the disclosure of equity derivatives, amended the TPD by tightening ownership disclosure requirements. We find that this tightening of the TPD is followed by an additional decrease in the number of control acquisitions. This result is robust to the battery of placebos and to the short-window analysis we use for our prior tests.

To corroborate that the decrease in takeover activity under the TPD is indeed driven by an increase in the costs bidders face in conducting a takeover, we next examine target and acquirers' stock returns around the acquisition announcement date. The results suggest an increase in takeover premiums after the entry into force of the TPD; *target* (*acquiring*) firms exhibit *higher* (*lower*) stock price reactions around acquisition announcements made after the regulatory change. The higher stock returns experienced by target firms after the implementation of the TPD are concentrated in the run-up period (i.e., the weeks leading to the acquisition announcement date). In contrast, the target firm returns over the (0, +1) day window around the acquisition announcement are not significantly different before and after the implementation of the TPD. This empirical pattern is consistent with the hypothesis that the tighter ownership disclosure requirements introduced by the TPD led to more information about the acquisition being revealed before the announcement date.

Lastly, we examine whether the implementation of the TPD affects the size of the toehold held by the acquirer at the announcement date. Consistent with the idea that the disclosure of ownership information increases the cost of building a toehold, we document that the TPD is followed by a decrease in the size of the

acquirer's toehold, as measured at the announcement date. To the extent that acquirers disclosing a toehold at the acquisition announcement date are more likely to have accumulated undisclosed ownership prior to that date, this evidence reinforces our inference that the decrease in takeover activity following the implementation of the TPD is related to ownership disclosure rules.

Our paper contributes to the literature on the effect of regulation on the takeover market. Prior work has examined the laws and rules that govern takeover bids and firms' adoption of antitakeover defenses (see Eckbo, 2014 for a review). However, little is known about whether laws that are not directly focused on takeover transactions can shape corporate acquisition costs. Our paper studies a prominent case of such laws and highlights that disclosure regulation can have first-order effects on the takeover market.

Although the takeover regulations studied in prior research include disclosure requirements, the disclosure rules introduced by the TPD are fundamentally different from those introduced by regulations of takeover bids. From a theoretical perspective, the TPD imposes ongoing disclosures that apply to the period *prior to the takeover announcement* rather than to *the takeover announcement* date. This is important, as the economic cost of disclosure in the pre-announcement period (i.e., a higher cost to build a pre-acquisition stake) is fundamentally different from that in the announcement period (i.e., the cost of attracting other competing bidders).

From an empirical perspective, making inferences about disclosure regulation based on the prior literature on takeover rules is problematic, as the potential effect of disclosure requirements embedded in takeover regulation, such as the U.S. Williams Act of 1968, is confounded by the effect of other procedural requirements (Eckbo, 2009).[4] Eckbo and Langohr (1989) address this issue by studying the tender offer regulation of 1970 in France, which modified ownership disclosure rules but did not amend takeover process rules. It proves difficult to infer our findings from this prior paper for at least two reasons. Firstly, while Eckbo and Langohr (1989) study mandatory disclosure in takeover bids, the TPD introduces ongoing disclosure requirements that are not restricted to takeover

[4] See Jarrell and Bradley (1980) and Schipper and Thompson (1983) as prominent examples of prior research studying the U.S. Williams Act of 1968.

bids, and thus extend to the pre-announcement period. Secondly, the evolution of the institutional context –notably the recent use of financial derivatives to build a stealth stake in the target firm– raises the question of whether the inferences of earlier studies are applicable to later periods (Karpoff and Wittry, 2018).[5]

By exploiting the unique features of our setting, we are able to address other identification challenges faced by prior research on the effect of regulation on the takeover market. Inferences from prior research on antitakeover laws have been found to be sensitive to the institutional and legal context of the time of the introduction of these laws (Catan and Kahan, 2016; Cain et al., 2017; Karpoff and Wittry, 2018). Furthermore, the conclusions from research on the regulation of the bidding process –research which is mainly focused on the Williams Act– have been questioned for possibly being confounded by other concurrent events and/or trends in the takeover market (e.g., Nathan and O'Keefe, 1989; Eckbo, 2009), a concern exacerbated by recent empirical evidence which suggests that the Williams Act had little effect (Cain et al., 2017). The exogenous sources of cross-country and time-series variation in our setting introduce an opportunity to address these limitations.

Our study also contributes to the recent literature that furthers the understanding of the economic consequences of securities regulation by exploiting settings outside the U.S. This literature suggests that the E.U.'s security regulations have increased financial integration and business-cycle synchronization (Kalemli-Ozcan et al., 2010, 2013), improved liquidity (Cumming et al., 2011; Christensen et al., 2016), and increased external financing, employment, investments (Meier, 2018), and household equity ownership (Christensen et al., 2017). We extend this literature by documenting that the E.U.'s tightening of disclosure regulation has also affected the market for corporate control, a finding important in itself given the size of the E.U. economy and the international reach of E.U. laws.

The paper proceeds as follows. Section 2 provides institutional background of the TPD. Section 3 analyzes takeover activity around the implementation of the TPD and its later amendment. Section 4 explores whether the implementation of the TPD is associated with changes in acquisition costs. Section 5 describes additional tests. Section 6 concludes.

[5] Also, the evidence in Eckbo and Langohr (1989) suggests that bidders substituted toward privately negotiated controlling-block trades, a substitution effect that is less likely to occur under the ownership disclosure rules introduced by the TPD.

2. THE E.U. TRANSPARENCY DIRECTIVE

In 2004, the E.U. introduced Transparency Directive 2004/109/EC. The TPD was passed in the context of the E.U.'s Financial Services Action Plan, a comprehensive program established in 1999 with the goal of improving and integrating financial markets within the E.U. In this context, the stated objective of the directive was to provide greater transparency for investors in European public firms and to harmonize the disclosure requirements across E.U. countries (Appendix B.1 includes a summary of the disclosure requirements addressed by the TPD, and Online Appendix OA includes real examples of ownership disclosure before and after the regulation).

In regards to *periodic* information, the TPD includes provisions for financial reporting disclosures (notably, the filing of annual and semi-annual reports in accordance with IFRS). Given that IFRS reporting was already required by previous E.U. regulation, (Regulation No. 1606/2002) and the fact that most stock exchanges already required the filing of semi-annual reports and the disclosure of significant events, the TPD did not substantially alter firms' financial reporting requirements. However, the TPD stipulated major changes to the supervisory regime and the enforcement of corporate reporting and disclosure rules. Specifically, the directive required each member state to designate a competent supervisory authority to be in charge of monitoring compliance with the reporting and disclosure requirements imposed by the directive (Article 24).

In regards to *ongoing* information, the TPD significantly tightened ownership disclosure requirements, ensuring broader and quicker access to information about shareholdings. First, the new regulation modified the ownership thresholds triggering public notifications. The TPD not only reduced the minimum disclosure threshold but also increased the number of thresholds triggering disclosure (Article 9). Second, the directive reduced the time for the notification by several days (Article 12). Finally, the directive extended these notification requirements to a natural person or legal entity holding financial instruments, such as derivatives with physical settlement that result in an entitlement to acquire shares of a listed firm (Article 13).

The regulation also dealt with the mechanisms through which regulated information is disseminated and stored. The directive required member states to set up an Officially Appointed Mechanism (OAM) in which regulated information would

be centrally stored and through which investors could access the information fast and free of charge (Article 21). As a result, the member states have set up online databases that allow the public to search for all required information, similar to the EDGAR database in the U.S.

As a minimum harmonization directive, each country member of the European Union was granted a certain flexibility in implementing the new directive. This flexibility resulted in some cross-sectional variation in the disclosure requirements, but most notably in the timing of the implementation; while the U.K. implemented the directive in 2007, Italy did not do so until 2009.

The impact of the TPD on E.U. capital markets' functioning has proved to be non-trivial, with observable effects on liquidity, and on the amount of financing and investment (e.g., Kalemli-Ozcan et al., 2010, 2013; Cumming et al., 2011; Christensen et al., 2016; Meier, 2018). To gauge the impact of the TPD on the functioning of the takeover market, we first analyze whether corporate acquisitions are preceded by a higher number of ownership notifications post TPD. Finding that the TPD is eliciting substantial ownership disclosure around corporate acquisitions would suggest that the regulation is affecting takeover activity.

We obtain information about ownership disclosure filings from Amadeus-Bureau van Dijk using a combination of manual work and python programming.[6] We first compute the number of ownership notifications filed within the three months before each acquisition announcement. Next, we compute the cross-country average of this metric for the transactions that occur during the quarters around the TPD implementation dates. Figure 1 reveals a substantial increase in the average number of ownership disclosure notifications in the quarters after the TPD implementation, which suggests that the regulation has led to the release of more information about ownership stakes over the three months leading up to a takeover announcement.

[6] We define an ownership filing as (i) any notification of a stake change in the target company (either in direct or total ownership) that makes a shareholder exceed or fall below the 3% ownership threshold, or (ii) any notification of a stake change in the target company if the shareholder already owned at least 3% of the target company (either directly or in total). If there are not filings notified, we set the number of filings to zero when the toehold at announcement, using the SDC Platinum database, also equals zero.

3. CORPORATE ACQUISITION ACTIVITY

3.1. Average effect of the TPD

To test whether the TPD affects the volume of corporate acquisition activity in the E.U., we collect data from the SDC Platinum Worldwide Mergers and Acquisitions Database on corporate acquisitions over the period from 2001 to 2017. Stock price data are obtained from Datastream and accounting and ownership information is obtained from Worldscope and Amadeus-Bureau van Dijk. Our sample includes all European countries that were members of the E.U. in 2004 (i.e., the year when the TPD was introduced) and in which we observe at least one completed control acquisition of a public company per year.[7]

We focus on completed control acquisitions where the target is a listed firm incorporated in the European countries included in Appendix C (i.e., we exclude transactions where the target's listing status is not "public"). We also exclude from the sample acquisitions where the target firm is listed on unregulated stock exchanges because the TPD does not apply to these firms. Following prior literature (e.g., Faccio and Masulis 2005; Faccio et al,. 2006; Edmans et al., 2012; Dessaint et al., 2017), we define a "completed control acquisition" as a transaction where the acquirer owns less than 50% of the target's shares prior to the acquisition and buys at least a 25% stake. We further require that the amount paid for the target be at least 5.0 million euros and that stock price data for the target be available on Datastream around the transaction announcement date. We finally exclude transactions in which the target is a financial firm (SIC code 6000-6999) or a utility firm (SIC code 4000-4949), as takeovers are highly regulated in these industries. We also exclude deals related to bankruptcies, debt restructurings, bank failures, joint ventures, liquidations, privatizations, recapitalizations, and spinoffs. These requirements yield a final sample of 2,873 unique control acquisitions across 15 European countries (listed in Appendix C) and 3,060 country-month-year observations. Table 1, panels A and B, report descriptive statistics for the variables we use in our tests at the country level and at the transaction level, respectively.

[7] While not an E.U. member, Norway adopted the TPD. For robustness, we repeat our main analysis including this country in the sample. Inferences are unaffected.

Our empirical strategy for estimating the effect of the TPD on the market for corporate control exploits the monthly time-series variation in the entry-into-force dates of the disclosure regulation across European countries. We collect these dates from publications by the European Commission.

We start our empirical analysis by graphically exploring the trends in takeover activity around the implementation of the TPD across the sample countries. Figure 2 plots the number of completed control acquisitions around the implementation of the TPD. The vertical axis is the monthly average number of control acquisition deals for our sample. We superimpose on the graph estimates from a non-linear regression of the number of control acquisitions, including the corresponding confidence intervals. The graph shows that the number of control acquisitions exhibits a sharp decrease around the implementation month, with no clear pattern before and after the implementation date.

Table 2, panel A, presents univariate analyses of the number of completed control acquisitions within short windows around the implementation of the TPD. The mean and median of the number of control acquisitions decreases significantly during the six months following the implementation, and these differences are statistically significant.

In the spirit of Rossi and Volpin (2004), we conduct a multivariate analysis of the effect of the TPD on takeover activity in the E.U. by estimating the following model:

$$Takeover\_Activity_{iym} = a_0 + a_1 \times Transparency\_Directive_{iym} +$$

$$F_1 \times Country\_Controls_{iym} + F_2 \times Regulation\_Controls_{iym} + Fixed\ Effects + e \quad (1)$$

The dependent variable, *Takeover_Activity*, is the logarithm of the number of control acquisitions in country *i*, year *y*, and month *m* (for example, the number of control acquisitions in Germany in May 2010). For country *i*, year *y*, month *m*, *Transparency_Directive* is an indicator variable that equals one for the months after the entry-into-force of the TPD in that country, and zero otherwise. We conduct the analysis at the monthly-level to fully exploit granularity in the available information on the entry-into-force of the TPD.

Country_Controls includes a set of country-level variables to control for gener-

al factors affecting the takeover market. *Stock_Market_Size* is the logarithm of the main Stock Exchange's market capitalization in a country-month-year (in millions of euros). *GDP_capita* is the logarithm of the country's annual gross domestic product per capita (in thousands of euros). *Gov_Bond_10yr* is the 10-year yield on government bonds in a country-month-year (in percentage). *Returns_Volatility* is the standard deviation of the daily stock market returns of each country-month-year (in percentage). *Listed_firms* is the logarithm of the number of listed firms in a given country-month-year. *Consumption* is the final consumption expenditures (seasonally and calendar adjusted) in a country-quarter-year, in constant prices (2010 as reference year). *Investment* is the gross fixed capital formation (seasonally and calendar adjusted) in a country-quarter-year, in constant prices (2010 as reference year).

Regulation_Controls includes a vector of controls for potentially confounding regulations (see Appendix E for a summary of each regulation). *Takeover_Directive, Market_Abuse_Directive, Shareholder_Rights_Directive*, and *MiFID_Directive* are indicator variables that equal one for the period after the country adopts each of these directives, and zero otherwise. These variables are measured using the country-specific implementation date of each regulation (see Appendix C).[8]

To further control for country characteristics as well as trends and shocks common to the sample countries in a given month, we include country and month-year fixed effects (Christensen et al., 2016). Standard errors are clustered by country.[9]

Table 2, panel B, reports the results from the estimation of equation (1). The coefficient on *Transparency_Directive* is negative and statistically significant across the model specifications. This result confirms the pattern documented in

[8] While we are not aware of any study on the consequences of IFRS on the takeover market, prior research documents that the adoption of IFRS is associated with changes in certain market outcomes (e.g., Barth et al., 2008; Christensen et al., 2013). Also, Francis et al. (2016) suggest that the aggregate volume of M&A activity across country pairs is larger for pairs of countries with similar Generally Accepted Accounting Principles. However, IFRS is unlikely to confound our inferences. The adoption date of IFRS is the same for all countries in our sample and thus its potential effect is controlled for by the month-year fixed effect structure of our specifications.

[9] To ensure that our inferences are not affected by estimating standard errors using a reduced number of clusters, we re-estimate equation (1) aggregating acquisitions at the country-industry-month-year level and clustering standard errors at the country-industry level. The overall inference is unchanged.

Figure 2 and panel A of Table 2, and suggests that the implementation of the TPD induced a significant decrease in takeover activity within the E.U. In terms of economic significance, our estimates imply that the implementation of the TPD leads to a decrease in the number of control acquisitions by around 30%. Interpreting this magnitude requires considering that the average number of acquisitions per month in E.U. countries is relatively small, and thus small variations translate into significant percentage changes; according to Figure 2, a decrease of 30% means an average reduction of around one acquisition per month (i.e., a reduction from 3 to 2.15 acquisitions per month).

3.2. Falsification tests

The main concern about drawing the inference that the implementation of the TPD is associated with a decrease in takeover activity is that the pattern documented in Table 2 could merely reflect a secular trend in the volume of control acquisitions. In particular, the decrease in the number of control acquisitions could be driven by macroeconomic trends, such as the credit shortages which occurred during the financial crisis.

Our empirical design accounts for the potential confounding effects of trends in takeover activity and E.U.-wide economic shocks by including month-year fixed effects. Indeed, given the staggered implementation of the TPD across E.U. countries and our fixed effect structure, trends and confounding shocks cannot affect our estimates unless they correlate with the country-specific implementation dates. Yet, we further check that our results are indeed attributable to the TPD by conducting three placebo tests.

First, we replicate the analysis in Table 2 by randomizing the dates of the implementation of the TPD over the sample period. If our inferences were the result of a secular trend, then the pattern in Table 2 would not be unique to the TPD implementation dates. For each country-implementation date, we randomly select *a* random date over the sample period. We then re-estimate equation (1) using these random implementation dates. We iterate this procedure 100 times and retain coefficient estimates and standard errors from each of the iterations. Table 3, columns 1-3, reports the average of these coefficients and standard errors. The results suggest that these placebo coefficients are close to zero and not statistically

significant, implying that we are not simply picking up secular trends in takeover activity. In addition, we test whether these placebo coefficients are different from the treatment coefficients we obtain in Table 2, panel B. Untabulated results reveal that the coefficients on the treatment effects are significantly different from the placebo coefficients obtained through the randomization exercise (p-value < 0.001).

Second, we replicate the analysis in Table 2 for control acquisitions where the target firm is not listed in a stock exchange. Since the TPD is only applicable to listed target firms, if our results were the product of a confounding economic trend or shock, then we would observe a similar pattern for control acquisitions of private firms.

As reported in Table 3, the coefficient on *Transparency_Directive* is not statistically significant in these placebo tests, which suggests that our findings in Table 2 are unlikely to be confounded by time trends unrelated to the TPD.

3.3. Short-window analysis

To further assess whether our results are confounded by the financial crisis, we conduct a short-window analysis around the implementation dates. Specifically, we limit the estimation sample to 12 months before and after the entry into force date of the TPD. Consistent with the results of the main analysis and of the placebo tests, we find that the coefficients on the *Transparency_Directive* are negative and significant, albeit the magnitudes are slightly smaller (Table 4). We also explore whether such a pattern is driven by short-term time trends by randomizing the entry into force date of the TPD within the –12/+12 short-term window around the actual implementation date. Table 4, models 4 through 6, reports the results. None of the placebo coefficients are significant, suggesting that the patterns we document are specific to the entry into force dates of the TPD, and do not merely reflect time trends in takeover activity.

3.4. Cross-sectional variation in the effect of the TPD

We next analyze whether the pattern documented in Table 2 exhibits cross-country variation along the following institutional dimensions: regulatory quality,

regulatory enforcement, level of anti-takeover protections, ownership concentration, and level of institutional ownership. To the extent that institutional features have been found to be critical determinants of the intensity of the effects of regulation (Djankov et al., 2003; Shleifer, 2005; Christensen et al., 2016; Karpoff and Wittry, 2018), this analysis further sharpens the empirical identification of the effect of the TPD.

Following Christensen et al. (2016), we start by exploring variation in the pattern of Table 2 along measures of the country's overall regulatory quality and enforcement. *Regulatory_Quality* is the index developed by Kaufmann et al. (2009) to measure the "ability of the government to formulate and implement sound policies and regulations". The index is built by aggregating survey responses from regulators on the overall effectiveness of regulation in a given country. Higher values of this metric imply higher regulatory quality. Focusing more directly on the enforcement of the TPD, we define *Enforcement_Change* as an indicator variable that equals one if the country has increased the level of enforcement at the time of the implementation of the TPD, and zero otherwise. Enforcement changes are identified based on a survey sent by Christensen et al. (2016) to the authorities in charge of supervising compliance with accounting standards and the technical departments of the audit firm PricewaterhouseCoopers in each E.U. country (see Christensen et al., 2016 for further details).

Prior literature documents that the TPD increased liquidity in countries with relatively strong enforcement and high regulatory quality, but had little effect in countries with weak enforcement and low regulatory quality. In the light of these prior results, we expect the effect of the TPD on the takeover market to be *more* pronounced in countries with higher values of *Regulatory_Quality* and *Enforcement_Change*.

We also explore variation in the antitakeover legislation across the countries in our sample (Karpoff and Wittry, 2018). We collect information on control-enhancing mechanisms (CEMs) available in E.U. countries (EC, 2007). These mechanisms introduce deviations from the so-called "proportionality principle" (i.e., "one share, one vote"), making the success of the deal less likely and allowing incumbent shareholders to maintain control over the firm (OECD, 2007; EC, 2007). Accordingly, we construct an index, *Control_Provisions*, defined as the sum of the number of CEMs available in that country (see Appendix D for details). To the extent that conducting acquisitions is already more difficult in

countries with higher values of *Control_Provisions*, we expect the effect of the TPD on the takeover market to be *less* pronounced in these countries.

Next, we examine whether the effect of the TPD varies with the ownership structure prevalent in the country. We analyze two main dimensions of ownership structure that potentially affect the cost of acquiring a company: ownership concentration and institutional ownership.

We measure the ownership concentration prevalent in a country by collecting data on listed firms' ownership structure from the Amadeus-Bureau van Dijk discs. Following Claessens and Djankov (1999), we define *Ownership_Concentration* as the country-specific mean of the shares held by the top five shareholders (as % of the total shares outstanding) of the listed firms of the country, measured in the year before the TPD implementation date. The strategy of building a hidden stake to take over a company is less applicable in cases where ownership is concentrated, as the stake that the bidder can build without the acquiescence of the major shareholder is limited. For example, if the major shareholder owns 51% of the company, a potential acquirer cannot obtain a majority stake without reaching an agreement with the controlling shareholder. As such, we expect the effect of the TPD on the takeover market to be *less* pronounced in countries with higher values of *Ownership_Concentration*.

We measure the presence of institutional investors by collecting data on the stakes held by institutional investors from the FactSet/LionShares database. *Institutional_Ownership* is computed as the country-specific mean of the shares of public firms held by all institutional investors (in % of market capitalization) in a country in the year before the TPD entry into force date. Sophisticated investors can play a crucial role in facilitating takeovers, as institutions are more likely to be approached by potential acquirers before the bid announcement. Moreover, sophisticated investors more frequently engage in derivative contracts, as they count on more financial capacity and resources than retail investors. As such, we expect the effect of the TPD on the takeover market to be *more* pronounced in countries with higher values of *Institutional_Ownership*.

Table 5 presents results of estimating equation (1) separately for countries with below and above median values of *Regulatory_Quality*, *Enforcement_Change,* and *Control_Provisions* (panel A), and *Ownership_Concentration* and *Institutional_Ownership* (panel B). Panels A and B of Table 5 document that the de-

crease in takeover activity is driven by countries with relatively higher regulatory quality, stricter enforcement, fewer control provisions, lower ownership concentration, and higher institutional ownership. That is, the TPD appears to have decreased takeover activity to a greater extent in countries where the effect of this regulation is expected to be more pronounced.

Prior research studying the capital market effects of E.U. regulation (e.g., Christensen et al., 2016) finds evidence of "hysteresis", namely that the effect is concentrated among countries where the previous regulatory conditions are relatively stronger. As such, the evidence in Christensen et al. (2016) suggests that the E.U. capital markets diverge even more after introducing the regulation. In light of this prior research, we explore whether the E.U. takeover markets converge/diverge after introducing the TPD. To do so, we check whether the effect we document is concentrated among countries where takeover markets were less/more dynamic prior to the regulation.

In particular, we repeat our tests partitioning the sample into countries with below and above median values of *Prior_Takeover_Activity*, defined as the average annual number of takeovers during the pre-regulation period scaled by the number of public firms in the country. The results in Table 5, panel C, reveal that the coefficient on *Transparency_Directive* is negative and significant in both subsamples, but the decrease in acquisitions is significantly more pronounced in the subsample of countries with higher pre-TPD takeover activity. These results are consistent with panels A and B of Table 5, as the partitioning variables used in those analyses are correlated with the level of prior takeover activity in the country.[10] This pattern implies that the implementation of the TPD is associated with a convergence in takeover activity across European countries, but a convergence to a lower level of activity.

3.5. Amendment of the TPD

To corroborate that our inferences are not confounded by changes in economic conditions concurrent with the introduction of the TPD (notably, the credit

[10] The correlation between the annual number of takeovers in the country (averaged over the period prior to the TPD and scaled by the number of public firms) and *Regulatory_Quality*, *Enforcement_Change*, *Control_Provisions*, *Ownership_Concentration*, and *Institutional_Ownership* is, respectively, 2%, −19%, −48%, −30%, and 17%.

shortages which occurred during the financial crisis), we study the effect of later developments of the TPD. In 2013, the TPD was amended by Directive 2013/50/EU (Appendix B.2 presents a summary of the disclosure requirements addressed by the directive). Critically, the amendment extends the definition of beneficial ownership to cash-settled derivatives (CSD) and imposes the aggregation of beneficial ownership from all contracts considered as such in the computation of the threshold triggering mandatory disclosure.[11] Online Appendix OA presents real examples of ownership disclosure under the regulatory amendment. While Directive 2013/50/EU was not exclusively focused on CDS disclosure, the rest of the modifications introduced by the amendment are often considered less relevant for the market for corporate control (Nallareddy et al., 2017).

The CSD disclosure requirement was introduced after substantial controversy regarding the use of these financial instruments. For example, in 2008, Schaeffler AG stealthily built a 36% stake in Continental AG via direct purchases (2.97%), physically settled equity swaps (4.95%) and various cash-settled equity swap contracts (28%).[12] A second example is Lactalis' acquisition of Parmalat in 2011. The French group Lactalis built a 29% stake in Italian rival Parmalat through direct purchases, equity swap contracts, and the purchase of blocks held by three activist funds, a stake slightly below the regulatory threshold, which triggered a mandatory bid. Backed by Parmalat's management, one of the Italian main banks unsuccessfully tried to organize a pool of investors to keep control of Parmalat in Italian hands. After the failed offer attempt, Lactalis launched a tender offer and secured control over Parmalat[13].

While CSDs do not involve a physical transaction of shares, the potential ac-

[11] Equity derivatives can be settled with securities ("physically-settled") or with cash ("cash-settled"). Cash-settled equity derivatives (CSDs) are also known as "total return swaps" in the U.S. or "contracts for differences" in Europe.

[12] Under the initial version of the TPD, these holdings did not trigger any disclosure requirement; the first two amounts are slightly below the independent ownership thresholds, triggering disclosure of open purchases and physically settled equity swaps, respectively, and the disclosure of cash-settled equity swaps was not mandatory in Germany at the time. However, under the TPD amendment of 2013, the investor would have had to disclose her stake, as the aggregated voting rights from all the shares and financial instruments (including CSDs) is greater than the 5% disclosure threshold.

[13] In the U.S., given the current jurisprudence (e.g., CSX litigation) and regulatory framework, the applicability of Section 13(d) and 13(g) of the Exchange Act to cash-settled derivatives is unclear and there is still no bright-line rule to follow (see Hu and Black, 2008).

quirer could purchase the shares from the dealer (see CSER, 2010). The derivatives dealer (i.e., the short party in the derivatives transaction) often holds the underlying securities as a hedge against its short position, as alternative hedging strategies are likely to be limited and more expensive, especially in those cases where the equity swap involves a substantial number of shares of a single company. Refusing to sell the shares to the long investor upon termination of the contract could mean compromising a profitable business relationship. In fact, as stated in a report on these commercial practices by the Code Committee of the United Kingdom's Panel on Takeovers and Mergers, it is "frequently the expectation" of a long swap equity holder that the derivatives dealer would "ensure" that the shares are available to be voted on by its customer and/or sold to the customer upon termination or expiration of the contractual relationship (FSA, 2008).[14]

To analyze the effect of the modifications of the TPD related to ownership disclosure, we re-estimate equation (1) including *TPD_Amendment,* which is an indicator variable that equals one for the period starting when the country includes CSDs in the definition of beneficial ownership, and zero otherwise. Similar to the TPD, Directive 2013/50/EU was implemented in European countries at different points in time. In addition to the variation in implementation dates, several countries in our sample implemented the CSD disclosure requirement before the amendment; the U.K. in 2009, Italy in 2011, and France and Germany in 2012. In these cases, we code *TPD_Amendment* using these earlier dates.

Table 6, panel A presents the results of re-estimating equation (1) replacing *Transparency_Directive* with *TPD_Amendment*. The results suggest that, in parallel to our main results, the introduction of the TPD amendment is followed by a decrease in takeover activity. This decrease is incremental to that of the TPD,

[14] Using CSD as a takeover strategy entails some risks. First, using CSDs could antagonize the target's management and thus eliminate the possibility of termination agreements (Betton et al., 2009). Second, using CSDs could result in a substantial negative return if the bid fails, because such failure would signal a high level of managerial entrenchment (Goldman and Qian, 2005). Third, regulators can identify the use CSDs and challenge the transaction (Zetzsche, 2010; FSA, 2008). Finally, the dealer might not close out a cash-settled derivative with the underlying shares (Hu and Black, 2006). Along the same lines, there may be new takeover strategies to circumvent these disclosure rules, but they may be more costly or illegal. For example, the use of shell companies that reside beyond European borders and are not subject to European supervision, or the so-called "wolf-pack strategy", which relies on gentlemen's agreements (Zetzsche, 2010; Coffee and Palia, 2016).

as the coefficient on *TPD_Amendment* remains negative and significant when *Transparency_Directive* is included in the specification. To corroborate this inference, we replicate the placebo and short-window tests in Table 3 and 4 for the TPD amendment (Table 6, panels B and C) and obtain similar results.

Taken together, the evidence in Tables 2 through 6 suggests that the pattern we document is unlikely to be driven by a secular trend or by changes in economic conditions (notably the credit shortage around the 2007-2008 financial crisis), either across the E.U. or in individual countries. For this to be the case, the confounding factor should occur in different countries at very specific points in time that happen to coincide with the TPD implementation dates (whose monthly variation is mainly determined by the backlog of work of E.U. country parliaments, rather than by economic conditions). Moreover, the confounding factor should affect the cross-section of E.U. countries differently, and in a way that is correlated with the institutional determinants of the regulatory effect. Finally, the credit shortage around the financial crisis is unlikely to explain the effect of the subsequent amendment of the TPD, as the TPD amendment entry into force dates occurred several years after the economic upheaval.

4. ACQUISITION COSTS

To further corroborate that the slowdown of the takeover market after the implementation of the TPD is driven by an increase in acquisition costs, we perform two sets of analyses. First, we analyze whether the TPD affects the takeover premiums around the acquisition announcements. Second, we analyze whether the TPD affects acquirers' stock returns around acquisition announcements. An increase in takeover premiums and a decrease in acquirers' returns after the disclosure mandate relative to the prior period would be consistent with the hypothesis that acquirers' costs increase with the implementation of the TPD.

4.1. Target returns

Following prior literature (e.g., Schwert, 1996), we analyze the effect of the TPD

on takeover premiums by estimating the following model at the control acquisition level:

$$\text{Target\_Returns} = g_0 + g_1 \times \text{Transparency\_Directive} + J_1 \times \text{Country\_Controls} +$$

$$J_2 \times \textit{Regulation\_Controls} + J_3 \times \textit{Transaction\_Controls} + \textit{Fixed Effects} + e \quad (2)$$

For each control acquisition, the dependent variable, *Target_Returns*, is the target cumulative abnormal returns over the (–42, +1) day window around the acquisition announcement date. Following prior work, we compute abnormal returns based on the market model estimated over the (–253, –127) day window around the announcement date. This measure is commonly used in related literature to gauge the acquisition premium paid by the acquirer (Schwert, 1996).

In addition to the variables already defined in equation (1), we include *Transaction_Controls*, a vector of controls for transaction-level factors that can affect the magnitude of the premium paid by the acquirer. *Transaction_Value* is the logarithm of the all-in value of the acquisition (in millions of euros) paid by the acquirer. *Cross_Border* is an indicator variable that equals one if the target and the acquirer are from different countries, and zero otherwise. *Tender_Offer* is an indicator variable that equals one if the acquisition involves a tender offer, and zero otherwise. *Toehold* is an indicator variable that equals one if the acquirer owns a stake in the target at the announcement date, and zero otherwise. *Cash* is an indicator variable that equals one if the whole payment is made in cash, and zero otherwise. *Shares* in an indicator variable that equals one if the whole payment is made in equity, and zero otherwise. *Number_Bidders* is the total number of bidders participating in the takeover contest.

We include country (target), industry (target), and month-year fixed effects to control for country and industry characteristics, as well as changes in the overall economic conditions. Standard errors are clustered at the (target) country month-year level.

Following prior research, we also estimate equation (2) including all public firms with non-missing stock price and accounting data over the sample period. As in prior literature (e.g., Edmans et al., 2012), we set *Target_Returns* to zero if a listed firm is not acquired in a given calendar year. This alternative research

design alleviates the concern that the population of target firms (or the types of transactions) could have changed over time due to confounding factors.

Table 7 shows that takeover premiums increase significantly (by around 4%) after the implementation of the TPD (see models 1 through 3). The increase is also statistically significant when we include the universe of public firms in the specification (see models 4 through 6). Overall, the results in Table 7 are consistent with the notion that the average acquisition cost has increased after the implementation of the TPD.

Also following prior literature (e.g., Schwert, 1996), we decompose *Target_Returns* into two components. First, we compound abnormal returns to the target stock over the "run-up" period (i.e., the (–42, –1) day window around the announcement). Second, we compound abnormal returns to the target stock from the day of the first bid public announcement to the day after the first bid (i.e., the (0, +1) day window around the announcement). Following prior literature, we refer to these two components of the takeover premium as *Run-up* and *Mark-up*, respectively. As a placebo, we also compound abnormal returns to the target stock over the "pre-run-up" period (i.e., the (–63, –43) day window around the announcement). We refer to this alternative dependent variable as *Pre-run-up*.

We first plot cumulated abnormal stock returns (CAR) over the period prior to the acquisition announcement date separately for the pre- and post-TPD regime. For ease of exposition, we normalize the abnormal returns to zero at trading day –41. Figure 3 shows that on any given day before the announcement date, abnormal returns are higher in the post TPD regime.

Table 8 presents the results of estimating equation (2) using *Run-up* and *Mark-up* as dependent variables. The results reveal that the effect of the TPD on *Target_Returns* is concentrated in the run-up period; the coefficient on *Transparency_Directive* is positive (insignificant) when *Run-up* (*Mark-up*) is the dependent variable. The coefficient is also insignificant when *Pre-run-up* is the dependent variable, corroborating that the return pattern is specifically related to the timing of the takeover (as opposed to a systematic difference in returns between the pre-TPD period and the subsequent period). Observing higher returns during the run-up period (i.e., *Run-up*) is consistent with the notion that, as a consequence of the ownership disclosure requirements introduced by the TPD, the stock market assesses a higher probability of takeover during the run-up period. In addition,

Table 8 suggests that the higher premiums observed after the implementation of the TPD are driven not only by the market anticipating the transaction, but also by an increase in bid prices; if such higher premiums under the TPD were driven exclusively by the market anticipating the transaction, the market would be less surprised at the announcement, resulting in a *negative* coefficient on *Transparency_Directive* for the target's returns at the announcement date (i.e., *Mark-up*).

However, the evidence in Table 8 is hard to reconcile with the idea that the higher premiums observed after the implementation of the TPD reflect that the acquisitions conducted in this period have a higher intrinsic value for reasons unrelated to the TPD; such an alternative explanation would also generate a similar pattern for the target's returns at the announcement date (i.e., *Mark-up*).

4.2. Acquirers' returns

We next analyze acquirers' returns around the acquisition announcements as an alternative way to gauge whether acquirers' costs increase after the implementation of the TPD. Specifically, we replace *Target_Returns* in equation (2) with *Acquirer_Returns*, computed as the acquirer cumulative abnormal returns over the (−42, +1) day window around the announcement date. In parallel to the previous tests, abnormal returns are computed based on the market model, estimated over the (−253, −127) day window.

Table 9 presents the results. The number of observations is lower than in Table 7 because a number of acquirers are private firms with no stock price data. The coefficient on *Transparency_Directive* is negative and significant, indicating that acquirers' returns are significantly lower after the regulatory change. This evidence is consistent with the notion that the implementation of the TPD increased acquirers' costs.

We repeat the analysis replacing public targets with private targets. This analysis serves as a placebo test since private targets were not subject to the TPD. As shown in Table 9, the coefficient on *Transparency_Directive* is no longer significant. Consistent with the placebo tests in Table 3, these findings suggest that the pattern we document is unique to public target firms, and is thus unlikely to reflect an economy-wide trend or shock.

4.3. Bidder toeholds

We further explore whether the TPD leads to an increase in takeover costs by testing whether the implementation of the TPD is associated with a decrease in the size of the toehold stake that the acquirers hold at the acquisition announcement. Building a toehold is a common strategy to reduce acquisition costs, as the toehold gives the bidder a competitive advantage in the bidding process (Shleifer and Vishny, 1986). Ownership disclosure could increase the cost of building a toehold to the extent that the released information triggers a price run-up before the acquisition announcement (Grossman and Hart, 1980a). As such, given our prior evidence on the presence of such price run-up (Tables 7 and 8), finding that toeholds are substantially smaller under the TPD would corroborate that the regulation resulted in an increase of acquisition costs.

We analyze the effect of the TPD on the size of the toehold at the acquisition announcement date by estimating equation (2) replacing *Target_Returns* with *Toehold_Size*, defined as the percentage of shares of the target firm held by the acquirer at the announcement date (the information to construct this variable is collected from SDC Platinum Acquisitions database).[15] Table 10, model 1, shows the results. The negative and significant coefficient on *Transparency_Directive* suggests that the TPD was followed by a decrease in the size of the toehold held at the announcement date. The magnitude of the decrease is substantial (around 10 percent).

To ensure that the results from Table 10, model 1, do not simply reflect a temporal trend in shareholder ownership and are indeed related to the pre-acquisition period, we also estimate equation (3) before the "run-up" period as a placebo test. In particular, we measure *Toehold_Size* at three months, six months, and nine months before the announcement date. As shown in Table 10, models 2 through 4, we do not find evidence of a decrease in the size of toehold held by the acquirer in the months further away from the announcement date. Collectively, the

[15] To compute the size of the toehold, we aggregate all the shares effectively acquired up to the announcement date, including blocks of shares announced at the announcement date. We distinguish these blocks from other (non-toehold) transactions recorded on the announcement date (e.g., tender offers, mergers) by imposing that the effective date of the transaction falls within five days after the announcement date.

evidence in Table 10 is consistent with the idea that the TPD increased the cost of building a toehold.

5. ADDITIONAL ANALYSES

5.1. Additional concerns

One additional concern regarding our interpretation of our prior results is that the pattern we document could be driven by antitrust regulatory scrutiny rather than by disclosure regulation. In fact, during our sample period there was a major development in E.U. Merger Regulation 139/2004, which imposed notification to the European Commission of all the mergers with a "community dimension".[16] Several considerations suggest that this regulatory development is unlikely to affect our inferences. Firstly, this regulation entered into force in 2004 for all E.U. countries, and thus its potential effect is controlled for by our fixed effect structure. Moreover, the large majority of transactions investigated by the Commission did not raise competition concerns. Among those that did, around 90% were cleared following an initial investigation, and the ones that required further action were usually approved with certain conditions or "remedies".[17] In our sample, only 84 (71) out of the 2,873 deals required notification to antitrust regulators in the period before (after) the introduction of the TPD. Out of these, only 12 (6) were not cleared at the initial phase and required further investigation. While antitrust scrutiny could have a preemptive effect on conducting takeovers, the above figures suggest that antitrust regulation affects a reduced number of transactions in our sample, and thus is unlikely to drive our results.

Another additional concern related to the generalizability of our results is that our inferences may not hold for cross-border acquisitions (i.e., inferences could be restricted to domestic acquisitions). To the extent that the TPD harmonizes disclosure requirements across the E.U., it is possible that the regulation fa-

[16] A business combination is considered to have a "community dimension" based on its combined aggregate turnover (see Regulation 139/2004 for the specific criteria). The reviewed cases undergo an initial phase of investigation called "Phase I", with a maximum duration of 25 working days. Failing to clear regulators' concerns would trigger a second phase of investigation called "Phase II" (see article 6(1) b of Regulation 139/2004).

[17] Source: European Commission. (http://ec.europa.eu/competition/mergers/statistics.pdf)

cilitates cross-border acquisitions by reducing search costs and by mitigating adverse selection, thus offsetting or subsuming the increase in acquisition costs induced by the ownership disclosure requirements. Evidence in prior research that similar disclosure regulation across countries facilitates cross-border transactions suggests that this offsetting effect is plausible (Rossi and Volpin, 2004).

Table OB1 in the Online Appendix OB repeats our main analysis distinguishing between domestic and cross-border control acquisitions based on whether the acquirer and the target are from the same country or from a different country. As shown in Table OB5, the implementation of the TPD is associated with a decrease in both the number of cross-border and domestic control acquisitions, and the magnitude of the coefficient on *Transparency_Directive* is similar for both subsamples. As such, this evidence suggests that the potential reduction in search costs and/or adverse selection introduced by the TPD does not offset the higher acquisition costs associated with the tighter ownership disclosure requirements imposed by the regulation.

5.2. Sensitivity to research design choices

We also explore the sensitivity of our results to our research design choices by conducting a battery of robustness tests. The results of these analyses (tabulated in the Online Appendix OB) do not alter our inferences.

First, we replicate our tests in Table 2 using a more granular level of analysis to further control for potential industry effects (Table OB2 in the Online Appendix OB). Specifically, we construct a panel of country-industry-month-year observations and include country-industry fixed effects (i.e., we compute our dependent variable as the number of control acquisitions in a given country, industry, year, and month). We use the industry classification in Campbell (1996).

Second, we replicate our tests in Table 2 using weighted regressions (Table OB3 in the Online Appendix OB). We use as weights the average number of listed firms in the country of the target firm over the pre-TPD period, thus assigning a higher weight to larger countries. Given that our prior tests explicitly control for number of listed firms in the country, this approach is an additional check that our inferences are not sensitive to the size of the sample countries.

Third, we replicate the analysis in Table 2, panel B, using alternative measures of takeover activity (Table OB4 in the Online Appendix OB). First, we measure takeover activity as the logarithm of the total dollar value of the control acquisitions in a country-month-year. Second, we measure takeover activity as the logarithm of the ratio between the number of control acquisitions in a given country-month-year, and the total number of firms listed in the country's stock exchanges in that month-year.

Fourth, we test whether the introduction of the TPD is followed by a decrease in the (firm-specific) probability of being acquired (Table OB5 in the Online Appendix OB). Specifically, we construct a panel including all listed firms over our sample years and define an indicator variable that equals one if the firm is acquired in that year, and zero otherwise. This analysis checks whether our inferences rely on conducting the analysis at the country level.

Fifth, we check whether our main results are robust to alternative ways of clustering standard errors (Table OB6 in the Online Appendix OB). Specifically, we cluster standard errors at the country-month-year level, at the month-year level, and at the year level.

Sixth, we repeat the analysis of target stock returns (Table 7) including additional control variables measuring target firms' characteristics (Table OB7 in the Online Appendix OB). Following prior literature (e.g., Betton et al., 2009), we define a vector of controls, *Target_Controls*, including the following variables. *Target_Size* is the logarithm of the target firm's total assets at the fiscal year-end prior to the announcement date. *Target_LEV* is the ratio between total debt and total equity of the target at the fiscal year-end prior to the announcement date. *Target_CFO* is the cash flow from operations of the target at the fiscal year-end prior to the announcement date. *Target_CASH* is the cash balance of the target at the fiscal year-end prior to the announcement date. We do not include these controls in Table 7 to avoid sample attrition; the necessary information to construct these variables is not available for all sample firms.

Seventh, we compute the takeover premium as the cumulative stock returns of the target over alternative windows around the acquisition announcement date (Table OB8 in the Online Appendix OB). In particular, we use the day-windows $(-42, 0)$, $(-42, +126)$, $(-63, 0)$, $(-63, 1)$, and $(-63, +126)$.

Eighth, we repeat the analysis of target stock returns (Table 7) including month-year-industry fixed effects and country-industry fixed effects (Table OB9 in the Online Appendix OB). As takeover gains tend to be industry-specific (Deissant et al., 2017), this analysis further controls for potential industry re-composition effects over the sample period.

6. CONCLUSION

In this paper, we explore whether the Transparency Directive of 2004 (TPD) raised corporate acquisition costs to the point of decreasing takeover activity in European countries. Using comprehensive data on M&A activity in Europe from 2001 to 2017, we find that the TPD is followed by a substantial decrease in the number of control acquisitions. The decrease in control acquisitions under the TPD is concentrated in countries with fewer legal hurdles to conduct acquisitions, higher regulatory quality, stricter enforcement, lower ownership concentration, and higher institutional ownership. That is, the TPD appears to have decreased takeover activity in countries where the effect of the regulation is expected to be more pronounced. Our inference that the documented decrease in takeover activity is attributable to the TPD is confirmed by a battery of tests aimed at sharpening identification, including placebo tests and short-window analyses.

In addition, we document three patterns consistent with the decrease of takeover activity under the TPD being related to higher acquisition costs. First, target firms' stock returns around the acquisition announcement (i.e., takeover premiums) are higher under the TPD. Second, acquirers' stock returns around the acquisition announcement are lower under the TPD. Third, bidder toeholds are smaller under the TPD.

Overall, our evidence suggests that the TPD increased the cost of acquiring European public firms to the point of reducing takeover activity. Our results also indicate that, rather than stimulating less active takeover markets, the disclosure regulation appears to have slowed down more dynamic markets.

Our findings highlight that a complete understanding of the effect of regulation on the takeover market requires extending the analysis beyond takeover regula-

tion (i.e., regulation of tender offers and antitakeover defenses). In particular, our evidence suggests that international disclosure regulation aimed at increasing transparency in the capital markets can affect the takeover market. Our findings also extend prior studies on the effect of the TPD on capital markets and reveal that the consequences of disclosure regulation are not necessarily the same across all markets.

Finally, we call for further research to fully understand the welfare implications of our results; while a decrease in takeover activity could increase agency costs and/or impair economic productivity, such a decrease could be desirable if it is concentrated in socially-suboptimal takeovers.

REFERENCES

Amihud, Y., Mendelson H., 1986. Asset pricing and the bid-ask spread. Journal of Financial Economics 17, 223–249.

Barth, M.E., Landsam, W.R., Lang, M.H., 2008. International accounting standards and accounting quality. Journal of Accounting Research 46, 467–498.

Bebchuk, L., Jackson R., 2012. The law and economics of blockholder disclosure. Harvard Business Law Review 2, 39–78.

Becht, M., 1997. Strong blockholders, weak owners and the need for European mandatory disclosure. European Corporate Governance Network Executive Report.

Betton, S., Eckbo, B.E., Thorburn, K.S., 2009. Merger negotiations and the toehold puzzle. Journal of Financial Economics 91, 158–178.

Brav, A., Jiang, W., Ma, S., Tian, X., 2018. How does hedge fund activism reshape corporate innovation? Journal of Financial Economics (Forthcoming).

Cain, M., McKeon S., Solomon S., 2017. Do takeover laws matter? Evidence from five decades of hostile takeovers. Journal of Financial Economics 124, 464–485.

Campbell, J.Y., 1996. Understanding risk and return. Journal of Political Economy 104, 298–345.

Catan, E.M., Kahan M., 2016. The law and finance of antitakeover statutes. Stanford Law Review 68, 629–89.

Christensen, H.B., Hail, L., Leuz, C., 2013. Mandatory IFRS reporting and changes in enforcement. Journal of Accounting and Economics 56, 147–77.

Christensen, H.B., Hail, L., Leuz, C., 2016. Capital-market effects of securities

regulation: prior conditions, implementation, and enforcement. The Review of Financial Studies 29, 2885–2924.

Christensen, H., Maffett, M., Vollon, L., 2017. Securities regulation and household equity ownership. Working paper.

Claessens, S., Djankov, S., 1999. Ownership concentration and corporate performance in the Czech Republic. Journal of Comparative Economics 27, 498–513.

Clifford, C.P., 2008. Value creation or destruction? Hedge funds as shareholder activists. Journal of Corporate Finance 14, 323–336.

Coffee, J., Palia, D., 2016. The Wolf at the Door: The Impact of Hedge Fund Activism on Corporate Governance. Annals of Corporate Governance 1, 1–96.

CSER. 2010. Proposal to extend major shareholding notifications to instruments of similar economic effect to holding shares and entitlements to acquire shares. Committee of European Securities Regulator. Consultation Report nº CESR/09-1215b.

Cumming, D., Johan S., Li D., 2011. Exchange trading rules and stock market liquidity. Journal of Financial Economics 99, 651–671.

Dessaint, O., Golubov A., Volpin P., 2017 Employment protection and takeovers. Journal of Financial Economics 125, 369–388.

Dimopolous, T., Sacchetto, S., 2017. Merger activity in industry equilibrium. Journal of Financial Economics 126, 200–226.

Djankov, S., E. Glaeser, R. La Porta, F. Lopez-de-Silanes, Shleifer, A., 2003. The new comparative economics. Journal of Comparative Economics 31, 595–619.

Eckbo, B.E., 2009. Bidding strategies and takeover premiums: a review. Journal of Corporate Finance 15, 149–178.

Eckbo, B.E., 2014. Corporate takeovers and economic efficiency. Annual Review of Financial Economics 6, 51–74.

Eckbo, B.E., Langohr, H., 1989. Information disclosure, method of payment, and takeover premiums. Journal of Financial Economics 24, 363–403.

Edmans, A., Goldstein I., Jiang, W., 2012. The real effects of financial markets: the impact of prices and takeovers. The Journal of Finance 67, 933–971.

Emmerich, A. O., Mirvis, T. N., Robinson, E. S., Savitt, W., 2013. Fair markets and fair disclosure: some thoughts on the law and economics of blockholder disclosure, and the use and abuse of shareholder power. Harvard Business Law Review 3, 135–156.

Enriques, L., Gatti, M., 2014. Creeping acquisitions in Europe: Enabling companies to be better safe than sorry. Working paper.

European Commission (EC), 2007. Proportionality between ownership and control in E.U. listed companies: comparative legal study. External study commissioned by the European Commission.

Faccio, M., Masulis W.R., 2005. The choice of payment method in European mergers and acquisitions. The Journal of Finance 60, 1345–1388.

Faccio, M., McConnell, J.J., Stolin, D., 2006. Returns to acquirers of listed and unlisted targets. Journal of Financial and Quantitative Analysis 41, 197–220.

Financial Services Authority CP08/17. 2008. Disclosure of contracts for difference.

Fishman, M., 1988. A theory of preemptive takeover bidding. The Rand Journal of Economics 19, 88–101.

Francis, J.R., Huang, S.X., Khurana, I.K., 2016. The role of similar accounting standards in cross-border mergers and acquisitions. Contemporary Accounting Research 33, 1298–1330.

Goldman, E., Qian, J., 2005. Optimal toeholds in takeover contests. Journal of Financial Economics 77, 321–346.

Grossman, S.J., Hart, O.D., 1980a. Takeover bids, the free-rider problem, and the theory of the corporation. The Bell Journal of Economics 11, 42–64.

Grossman, S.J., Hart, O.D., 1980b. Disclosure laws and takeover bids. The Journal of Finance 35, 323–334.

Hu, H. T. C. and Black, B., 2006. The new vote buying: empty voting and hidden ownership. Southern California Law Review 79, 811–908.

Hu, H.T.C., Black, B., 2007. Hedge funds, insiders, and the decoupling of economic and voting ownership: Empty voting and hidden (morphable) ownership. Journal of Corporate Finance 13, 343–367.

Hu, H. T. C. and Black, B., 2008. Equity and debt decoupling and empty voting II: importance and extensions. University of Pennsylvania Law Review 156, 625–739.

Jarrell, G., Bradley M., 1980. The economic effects of federal and state regulations of cash tender offers. Journal of Law and Economics 2, 371–407.

Kalemli-Ozcan, S., Papaioannou E., Peydró J., 2010. What lies beneath the Euro's effect on financial integration? Currency risk, legal harmonization or trade. Journal of International Economics 81, 75– 88.

Kalemli-Ozcan, S., Papaioannou E., Peydró J., 2013. Financial regulation, financial globalization, and the synchronization of economic activity. The Journal of Finance 68, 1179–228.

Karpoff, J.M., Wittry M., 2018. Institutional and legal context in natural experiments: The case of state antitakeover laws. The Journal of Finance 73, 657–714.

Kaufmann, D., A. Kraay, Mastruzzi, M., 2009. Governance matters VIII: Governance indicators for 1996–2008. World Bank Policy Research, Washington, D.C.

Kouloridas, A., 2008. The law and economics of takeovers: an acquirer's perspective. Contemporary Studies in Corporate Law (First edition), United States.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., 1999. Corporate ownership around the world. The Journal of Finance 54, 471–517.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., 2002. Government Ownership of Banks. The Journal of Finance 57, 265–301.

Meier, J.A., 2018. Regulatory integration of international capital markets. Working Paper. Accessed at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2931569

Moloney, N., 2014. E.U. securities and financial markets regulation. Oxford E.U. Law Library. (Third Edition), United Kingdom.

Nallareddy, S., R. Pozen., Rajgopal S., 2017. Consequences of mandatory quarterly reporting: the U.K. experience. Columbia Business School Research Paper No. 17-33. Accessed at: https://ssrn.com/abstract=2817120

Nathan, K. S., O'Keefe, T.B., 1989. The rise in takeover premiums: An exploratory study, Journal of Financial Economics 23, 101–119.

OECD Steering Group on Corporate Governance (OECD), 2007. Lack of proportionality between ownership and control: Overview and issues for discussion.

Ringe, W. G., 2016. The deconstruction of equity: activist shareholders, decoupled risk, and corporate governance. Oxford University Press (First Edition), United Kingdom.

Rossi S., Volpin F.P., 2004. Cross-country determinants of mergers and acquisitions. Journal of Financial Economics, 277–304.

Schipper, K., Thompson, R., 1983. Evidence on the capitalized value of merger activity for acquiring firms. Journal of Financial Economics 11, 85–119.

Schwert, W., 1996. Markup pricing in mergers and acquisitions. Journal of Financial Economics 41, 153–192.

Shleifer, A. 2005. Understanding regulation. European Financial Management 11, 439–51.

Shleifer, A., Vishny R., 1986. Large shareholders and corporate control. Journal of Political Economy 94, 461–488.

The Takeover Bids Directive Assessment Report. European Commission. 2012. Accessed at: http://ec.europa.eu/internal_market/company/docs/takeoverbids/study/study_en.pdf.

Zetzsche, D. A., 2010. Against mandatory disclosure of economic-only positions referenced to shares of European issuers - Twenty arguments against the CESR proposal. European Business Organization Law Review 11, 231–252.

Appendix A. Variable definitions

Country-level variables:

Takeover_Activity	Logarithm of the number of completed control acquisitions in a country-month-year.
Stock_Market_Size	Logarithm of the main stock exchange's market capitalization in a country-month-year, in millions of euros.
GDP_capita	Logarithm of the country-year GDP (gross domestic product) per capita, in thousands of euros.
Gov_Bond_10yr	10-year yield on government bonds in a country-month-year, in percentage.
Returns_Volatility	Standard deviation of the daily stock market returns of the main stock exchange in a country-month-year, in percentage.
Listed_Firms	Logarithm of the number of listed firms in the main stock exchange in a country-month-year.
Consumption	Final consumption expenditures (seasonally and calendar adjusted) in a country-quarter-year, in constant prices (2010 reference year).
Investment	Gross fixed capital formation (seasonally and calendar adjusted) in a country-quarter-year, in constant prices (2010 reference year).

Transaction-level variables:

Target_Returns	Target firm's abnormal stock returns cumulated over the (–42, +1) trading day window around the acquisition announcement.
Acquirer_Returns	Acquirer firm's abnormal stock returns cumulated over the (–42, +1) trading day window around the acquisition announcement.
Toehold_Size	Size of the toehold *held* by the bidder at some specific dates (in percentage).
Transaction_Value	Logarithm of the all-in value of the transaction paid by the acquirer firm, in millions of euros.
Tender_Offer	Indicator variable that equals one if the acquisition is made through a tender offer, and zero otherwise.
Toehold	Indicator variable that equals one if the acquirer owns a stake in the target firm at the announcement date, and zero otherwise.
Cash	Indicator variable that equals one if the acquisition is paid for only with cash, and zero otherwise.
Shares	Indicator variable that equals one if the acquisition is paid for only with shares, and zero otherwise.
Number_Bidders	Number of bidders entering in the takeover contest.

Regulation variables:

Transparency_Directive	Indicator variable that equals one for the months after the Transparency Directive country's implementation date, and zero otherwise.
TPD_Amendment	Indicator variable that equals one for the period when the disclosure of cash-settled derivatives is in force in that country, and zero otherwise.
Takeover_Directive	Indicator variable that equals one for the months after the Takeover Directive country's implementation date, and zero otherwise.
Market_Abuse_Directive	Indicator variable that equals one for the months after the Market Abuse Directive country's implementation date, and zero otherwise.
Shareholder_Rights_Directive	Indicator variable that equals one for the months after the Shareholder rights Directive country's implementation date, and zero otherwise.
MiFID_Directive	Indicator variable that equals one for the months after the Markets in Financial Instruments (MiFID) Directive country's implementation date, and zero otherwise.

Country-level partitioning variables:

Regulatory_Quality	Country-specific *Regulatory Quality* index as of 2003 from Kaufmann et al. (2009). This metric is intended to capture the "ability of the government to formulate and implement sound policies and regulations" (Kaufmann et al., 2009). The metric is built by aggregating survey responses from regulators and firms.
Enforcement_Change	Indicator variable that equals one if a country increased the level of enforcement at the time of the implementation of the TPD, and zero otherwise (Christensen et al., 2016). This variable has been constructed based on a survey sent to the authority in charge of supervising compliance with accounting standards and the technical departments of PricewaterhouseCoopers, an international audit firm, in each E.U. country.
Control_Provisions	Sum of the number of control enhancing mechanisms (CEMs) available in a country (see Appendix D for details).
Ownership_Concentration	Country-specific mean of the shares held by the top five shareholders (as % of the total shares outstanding) of the listed firms of the country, measured in the year before the TPD implementation date.
Institutional_Ownership	Country-specific mean of the shares held by institutional investors (in % of market capitalization) in a country listed firms in the year before the TPD implementation date.
Prior_Takeover_Activity	Average annual number of takeovers during the pre-regulation period scaled by the number of public firms in the country.

Appendix B.1. Summary of the disclosure provisions of Directive 2004/109/EC

This table presents a summary of the disclosure-related provisions introduced by Directive 2004/109/EC (i.e., the "Transparency Directive" or TPD).

Sources: EUR-Lex and Moloney (2014).

Issuers' disclosure (periodic information)

Annual financial reports

The issuer shall make public its annual financial report at the latest four months after the end of each financial year and shall ensure that it remains publicly available for at least five years (Article 4).

Half-yearly financial reports

The deadline for publishing half-yearly financial reports is extended to three months after the end of the reporting period (Article 5).

Interim management statements

The publishing of "quarterly" (the reports need not be strictly issued on quarter end date) interim management statements is required (Article 6).

Ownership disclosure (ongoing information)

Information about major holdings

The home member state shall ensure that, where a shareholder acquires or disposes of shares of an issuer whose shares are admitted to trading on a regulated market and to which voting rights are attached, such shareholder notifies the issuer of the proportion of voting rights of the issuer held by the shareholder

because of the acquisition or disposal where that proportion reaches, exceeds or falls below the thresholds of 5%, 10%, 15%, 20%, 25%, 30%, 50%, and 75% (Article 9).,

The notification requirements also apply to a person or legal entity which holds, directly or indirectly, financial instruments that result in an entitlement to acquire [physically-settled] shares. (Article 13).

Dissemination and storage of regulated information

Supervisory regime, enforcement of reporting, and disclosure rules

Designate a competent supervisory authority in charge of monitoring compliance with the reporting and disclosure requirements set out in the directive (Article 24).

Give appropriate powers to this supervisory authority to enforce these requirements, such as the power to suspend and prohibit trading on the issuers' securities, etc. Member states shall ensure that at least the appropriate administrative measures will be taken or civil and/or administrative penalties imposed in the event of a breach, and that those measures are effective, proportionate, and dissuasive (Article 28).

Appendix B.2. Summary of the disclosure provisions of Directive

This table presents a summary of the disclosure-related provisions introduced by Directive 2013/50/EU, which amended the TPD.

Sources: EUR-Lex and Moloney (2014). 2013/50/EU

Issuers' disclosure (periodic information)

Extractive annual reports

Issuers who have activities in the extractive or logging of primary forest industries should disclose in a separate report, on an annual basis, payments made to governments in the countries in which they operate (Article 5).

Interim management statements

Issuers are no longer obliged to publish interim reports (unless a member state chooses to still impose it as an obligation) (Article 5).

Ownership disclosure (ongoing information)

Information about major holdings

Notification of major holdings of voting rights should include cash-settlement financial instruments with similar economic effect to holding shares and entitlements to acquire shares (Article 9).

Financial instruments with similar economic effects to holding shares and entitlements to acquire shares which provide for cash settlement should be calculated on a delta-adjusted basis (i.e., by multiplying the notional number of underlying shares by the delta of the instrument). Delta indicates how much a financial instrument's theoretical value would move in the event of variation in the underlying instrument's price and provides an accurate picture of the exposure of the holder to the underlying instrument (Article 9).

The notification requirements shall also apply to a natural person or a legal entity when the number of voting rights held directly or indirectly by such person or entity, aggregated with the number of voting rights relating to financial instruments held directly or indirectly, reaches, exceeds or falls below the required thresholds (Article 10).

Dissemination and storage of regulated information

ESMA should develop and operate a web portal serving as a European electronic access point (EEAP) for regulated information (Article 14).

Dissemination of all annual financial reports in the European single electronic reporting format (ESEF) starting in January 2020 (Article 3).

Supervisory regime, enforcement of reporting, and disclosure rules

Without prejudice to the right of member states to provide for and impose criminal sanctions in the event of a breach, competent authorities are now entitled to impose heavier administrative fines on both individuals and legal entities. The fines can even be levied on members of the management, the board of managers or the supervisory board in the case of a legal entity. Along with the heavier fines, the supervisors now explicitly have the power to publish their decisions regarding failures to comply with the transparency regime (Articles 20-23).

Appendix C. Implementation dates

This table reports the implementation dates of the main securities regulations over the sample period.

Country	Trans-parency Directive	TPD Amend-ment	Takeover Directive	Market Abuse Directive	MIFID Directive	Share-holder Rights Directive
Austria	04/20/07	01/01/13	05/20/06	01/01/05	11/01/07	08/01/09
Belgium	09/02/08	10/01/16	04/01/07	09/01/05	11/01/07	01/01/12
Denmark	06/20/07	11/26/15	05/20/06	04/01/05	11/01/07	02/16/10
Finland	02/15/07	11/26/15	07/01/06	07/01/05	11/01/07	08/03/09
France	12/19/07	11/01/09	01/10/06	07/01/05	11/01/07	01/01/11
Germany	01/20/07	02/01/12	07/14/06	10/01/04	11/01/07	07/30/09
Greece	07/01/07	04/08/16	05/30/06	07/01/05	11/01/07	09/24/10
Ireland	06/13/07	11/26/15	05/20/06	07/01/05	11/01/07	08/06/09
Italy	04/24/09	10/10/11	12/28/07	05/01/05	11/01/07	10/31/10
Netherlands	01/01/09	01/01/12	10/10/07	10/01/05	11/01/07	06/30/10
Poland	03/24/09	06/23/16	10/24/05	10/01/05	10/21/09	08/03/09
Portugal	11/01/07	09/09/15	11/02/06	09/01/06	11/01/07	05/19/10
Spain	12/20/07	11/27/15	08/13/07	11/01/05	02/17/08	10/02/11
Sweden	07/01/07	02/01/16	07/01/06	07/01/05	11/01/07	11/01/10
United Kingdom	01/02/07	06/01/09	05/20/06	07/01/07	11/01/07	08/03/09

Appendix D. Control enhancing mechanisms

This table presents the definitions of the control enhancing mechanisms (CEMs) available in E.U. countries. Definitions are based on EC (2007).

CEM	Description
Multiple voting rights shares	Shares issued by a firm giving different voting rights based on an investment of equal value.
Non-voting shares	Shares with no voting rights that carry no special cash-flow rights to compensate for the absence of voting rights.
Non-voting preference shares	Non-voting stock issued with special cash-flow rights (such as preferential dividends) to compensate for the absence of voting rights.
Pyramid structure	This situation occurs when an entity (such as a family or a company) controls a corporation, which in turn holds a controlling stake in another corporation. This process can be repeated a number of times.
Priority shares	Shares that grant their holders specific powers of decision or veto rights in a company, irrespective of the proportion of their equity stake.
Depositary certificates	Negotiable financial instruments issued by a foundation on a local stock exchange that represents the financial ownership of the shares, but lacks the voting rights of the underlying shares.
Voting right ceilings	A restriction prohibiting shareholders from voting above a certain threshold irrespective of the number of voting shares they hold.
Ownership ceilings	A restriction prohibiting investors from taking a participation in a company above a certain threshold.

Supermajority provisions	Provisions of company bylaws requiring a large majority of shareholders to approve certain important corporate changes.
Partnerships limited by shares	A legal structure where there are two different categories of partners (without having two types of shares): the general partners (unlimited liability partners) who run the company, and the limited sleeping partners (limited liability partners), who contribute equity capital but whose control rights are limited.
Cross shareholdings	A situation where company X holds a stake in company Y which, in turn, holds a stake in company X (direct cross-shareholding) or where company X holds a stake in company Y which holds a stake in company Z, which, in turn, holds a stake in company X (circular cross-shareholding).
Shareholders' agreements	Formal and/or informal shareholders alliances.

Appendix E. Summary of the other E.U. main securities regulation

This table presents a brief summary of the other main securities regulations around our sample period.

Regulation	Description
Takeover Directive	The Takeover Directive (2004/25/EC) intends to harmonize E.U. takeover laws and fosters consolidation among E.U. firms through the adoption of a pan-European takeover code modeled after the U.K. Takeover Code. The Takeover Directive establishes general principles that are common to most takeover systems worldwide: equal treatment of target shareholders, ability of target shareholders to make informed decisions on bids, and prohibition of market manipulation or abuse. It introduced a broad framework that is heavily reliant on the mandatory bid rule, effective involvement by national supervisory authorities and, in several cases, board passivity/neutrality (see the Takeover Bids Directive Assessment Report, 2012).
Market Abuse Directive	The Market Abuse Directive (2003/6/EC) aims to prevent insider trading and market manipulation. It contains three key elements: (1) disclosure rules designed to reduce the scope of inside information, (2) ex-post sanctions for insider trading or market manipulation, and (3) tightened enforcement of compliance with insider trading and market manipulation rules (see Moloney, 2014).
Shareholder Rights Directive	The Shareholder Right Directive (2007/36/EC) makes a record-date system mandatory and a fixed 30 days as the maximum time span between the record date and the general meeting (see Moloney, 2014).
MiFID Directive	MiFID (2004/39/EC) is the Markets in Financial Instruments Directive. It governs provision of investment services in financial instruments by banks and investment firms, and operation of traditional stock exchanges and alternative trading venues (see Moloney, 2014).

Figure 1. Number of ownership disclosure filings around the TPD implementation

This figure plots the average number of ownership disclosure filings (vertical axis) by quarter and year for our sample of European countries. The horizontal axis indicates the number of quarters relative to the implementation of the Transparency Directive (TPD) in the country of the target firm. For each quarter and year relative to the country TPD implementation date, we take the average number of filings notified within the three months before each acquisitions' announcement date falling in that quarter-year.

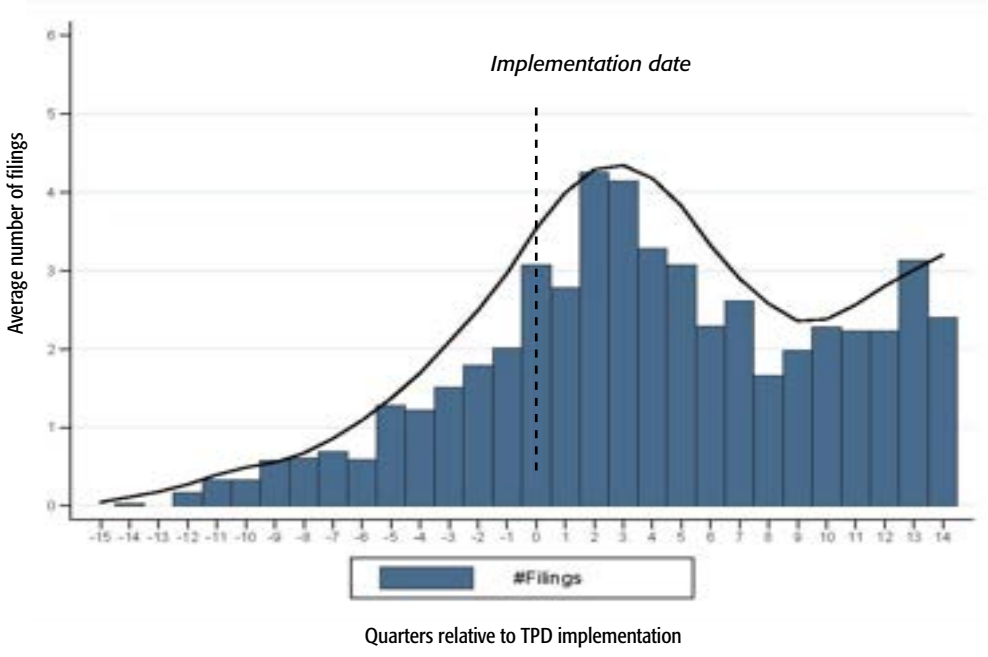

Figure 2. Takeover activity around the TPD implementation

This figure plots the average number of control acquisitions by month and year for our sample of European countries (red dots). The black and grey lines display estimates from non-linear regression (Locally Weighted Scatterplot Smoothing) and the corresponding confidence intervals, respectively. The dotted vertical red line marks the month of the implementation of the Transparency Directive (TPD) in the country of the target firm. The continuous vertical red line marks the average number of months before the initial approval of the TPD at the European level with respect to the implementation date.

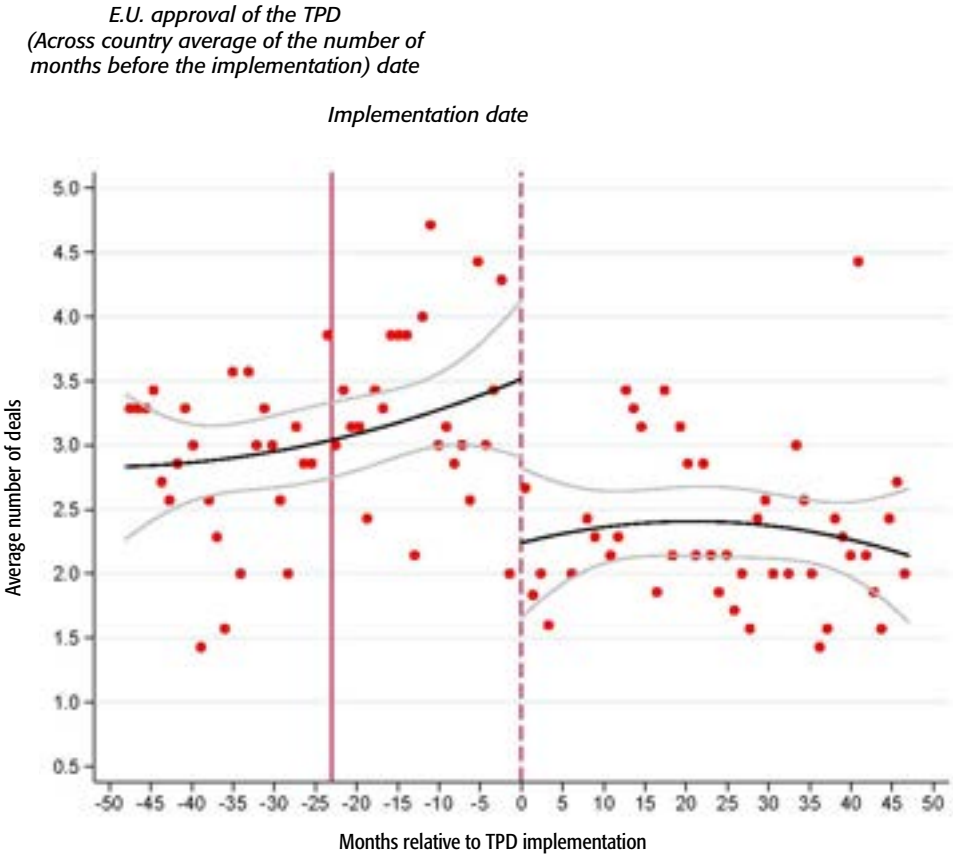

Figure 3. Target returns up to acquisition announcement

This figure plots cumulated abnormal stock returns (CAR) (vertical axis) over the period prior to the announcement of the acquisition. The horizontal axis indicates the number of days before the announcement date (day "0"). Continuous (dotted) lines correspond to the average abnormal stock returns of the deals announced after (before) the implementation of the Transparency Directive (TPD). "Run-up" returns (in black) are cumulated returns over the (–42, –1) day window around the announcement. "Mark-up" returns (in red) are cumulated returns over the (0, +1) day window around the announcement. The grey lines present plots of non-linear regressions for each of the two groups.

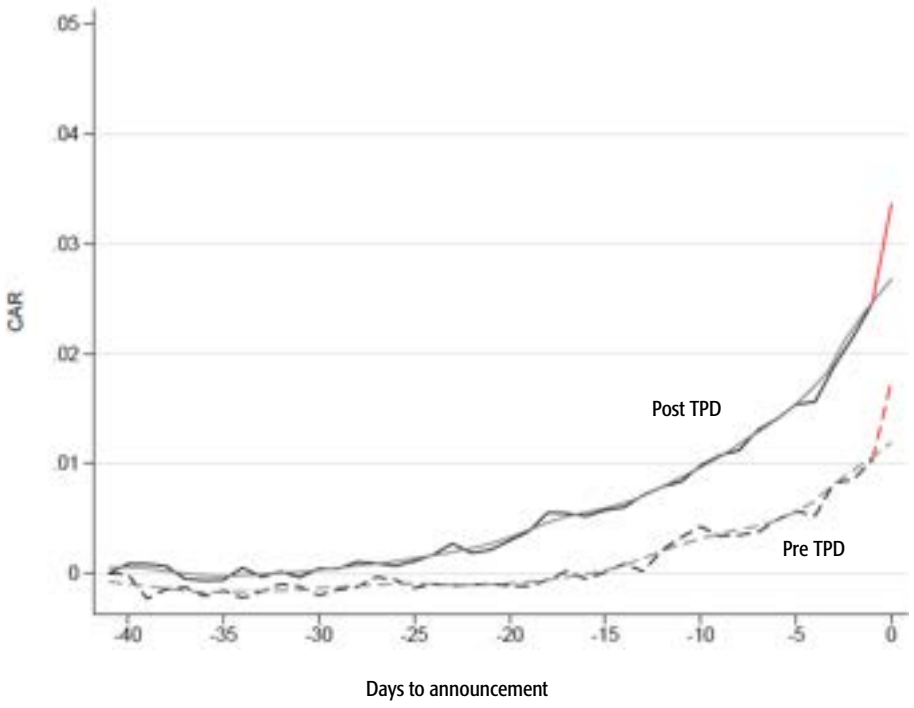

Table 1. Descriptive statistics

This table presents descriptive statistics of the variables used in the analyses. Panel A reports descriptive statistics for the country-level variables. Panel B presents descriptive statistics for the transaction-level variables used in the empirical tests. All variables are defined in Appendix A.

Panel A. Country-level variables

	N	Mean	p25	p50	p75	SD
Takeover_Activity (log)	3,060	0.852	0.693	0.693	1.098	0.473
Stock_Market_Size (log)	3,060	12.635	11.738	12.501	13.754	1.216
GDP_capita (log)	3,060	10.521	10.356	10.638	10.773	.409
Gov_Bond_10yr	3,060	3.829	2.452	3.951	4.665	2.402
Returns_Volatility	3,060	32.027	22.376	29.283	38.431	13.481
Listed_Firms (log)	3,060	5.210	4.521	5.192	6.177	1.304
Consumption	3,060	96	92	97	101	7.553
Investment	3,060	105	95	104	112	24.276

Panel B. Transaction-level variables

	N	Mean	p25	p50	p75	SD
Transaction_Value (log)	2,873	4.451	2.957	4.449	5.887	2.082
Cross_Border	2,873	0.336	0	0	1	0.472
Tender_Offer	2,873	0.197	0	0	0	0.398
Toehold	2,873	0.232	0	0	0	0.422
Cash	2,873	0.402	0	0	1	0.490
Shares	2,873	0.067	0	0	0	0.250
Number_Bidders	2,873	1.030	1	1	1	0.221

Table 2. Takeover activity

This table presents results of analyzing takeover activity around the implementation of the Transparency Directive (TPD) in different European countries for a sample of 3,060 country-month-year observations. Panel A presents mean and median values of the number of control acquisitions per country in the months around the implementation of the TPD (t is the month of the implementation of the TPD in the country of the target firm). Control acquisitions are defined as M&A transactions where the acquirer owns less than 50% of the target's shares prior to the acquisition and the acquirer buys at least a 25% stake. Panel B presents multivariate OLS models where the dependent variable is Takeover_Activity, defined as the logarithm of the number of control acquisitions in a country-month-year. Transparency_Directive is an indicator variable that equals one for the months after TPD entry-in-force date (i.e., after the implementation of the TPD), and zero otherwise. See Appendix A for variable definitions. Standard errors (in brackets) are clustered by country. *, ** and *** denote statistical significance at the 10%, 5%, and 1% (two-tail) levels, respectively.

Panel A. Univariate analysis

Time window (in months)	Number of control acquisitions		Inter-period differences	
	Mean	Median	Diff. in mean (p-value)	Diff. in median (p-value)
(t–24, t–13)	3.285	3.357		
			(0.623)	(0.667)
(t–12, t–7)	3.425	3.071		
			(0.667)	(0.643)
(t–6, t–1)	3.285	3.214		
			(0.015) **	(0.018) **
(t, t+6)	2.022	2.087		
			(0.387)	(0.354)
(t+7, t+12)	2.285	2.285		
			(0.587)	(0.569)
(t+13, t+24)	2.690	2.857		

Note: t is the month of the implementation of the TPD in the country of the target firm.

Panel B. Multivariate analysis

Dependent variable: Takeover_Activity			
Independent variables:	**(1)**	**(2)**	**(3)**
Transparency_Directive	–0.265***	–0.260***	–0.265***
	[0.070]	[0.067]	[0.067]
Country_Controls:			
Stock_Market_Size		0.000	0.000
		[0.000]	[0.000]
GDP_capita		1.597*	1.577*
		[0.819]	[0.814]
Gov_Bond_10yr		0.015*	0.015*
		[0.009]	[0.008]
Returns_Volatility		0.001	0.001
		[0.001]	[0.001]
Listed_Firms		–0.038	–0.027
		[0.066]	[0.060]
Consumption		0.001	0.001
		[0.005]	[0.005]
Investment		–0.003	–0.003
		[0.002]	[0.002]
Regulation_Controls:			
Takeover_Directive			0.039
			[0.059]
Market_Abuse_Directive			0.012
			[0.048]
Shareholder_Rights_Directive			0.012
			[0.045]
MiFID_Directive			0.257***
			[0.050]

Sample	Public	Public	Public
Country Fixed Effects	Y	Y	Y
Month*Year Fixed Effects	Y	Y	Y
Observations	3,060	3,060	3,060
R-squared	0.602	0.629	0.631

Table 3. Falsification tests

This table presents the results from falsification tests of takeover activity around the implementation of the Transparency Directive (TPD) in different European countries (Table 2, panel B). The first set of tests (columns 1-3) replicates the analysis in Table 2, panel B, randomizing the dates of the implementation of the TPD over the sample period. The second set of tests (columns 4-6) replicates the analysis in Table 2, panel B, for control acquisitions where the target firm is not listed in a stock exchange. Columns 1-3 report the average statistics from repeating 100 times the test in Table 2, panel B, each time using a random draw of dates within the sample period. Variable definitions are as in Table 2. Standard errors (in brackets) are clustered by country. *, **, and *** denote statistical significance at the 10%, 5%, and 1% (two-tail) levels, respectively.

Dep. Var.: ***Takeover_Activity***	***Random implementation dates***			***Private firms***		
Independent variables:	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Transparency_ Directive	0.001	0.004	0. 004	–0.103	–0.098	–0.041
	[0.064]	[0.047]	[0.046]	[0.096]	[0.082]	[0.048]
Country_Controls	N	Y	Y	N	Y	Y
Regulation_Controls	N	N	Y	N	N	Y
Sample	Public	Public	Public	Private	Private	Private
Country Fixed Effects	Y	Y	Y	Y	Y	Y
Month*Year Fixed Effects	Y	Y	Y	Y	Y	Y
Observations	3,060	3,060	3,060	3,060	3,060	3,060
R-squared	0.572	0.613	0.615	0.867	0.875	0.875

Table 4. Short window analysis

This table replicates the analysis in Table 2, panel B, restricting the sample to the time window spanning over 12 months before and after the TPD implementation in each country. The first set of tests (columns 1-3) shows results using the actual implementation dates. The second set of tests (columns 4-6) replicates the analysis randomizing the dates of the implementation of the TPD. Columns 4-6 report the average statistics from repeating 100 times the test in columns 1-3, each time using a random draw of dates within the 12-month window around the actual implementation date. Variable definitions are as in Table 2. Standard errors (in brackets) are clustered by country. *, **, and *** denote statistical significance at the 10%, 5%, and 1% (two-tail) levels, respectively.

Dep. Var.: ***Takeover_Activity***	***Actual implementation dates***			***Random implementation dates***		
Independent variables:	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Transparency_Directive	–0.176**	–0.188**	–0.179**	0.007	0.003	0.005
	[0.087]	[0.083]	[0.085]	[0.058]	[0.063]	[0.063]
Country_Controls	N	Y	Y	N	Y	Y
Regulation_Controls	N	N	Y	N	N	Y
Sample	Public	Public	Public	Public	Public	Public
Country Fixed Effects	Y	Y	Y	Y	Y	Y
Month*Year Fixed Effects	Y	Y	Y	Y	Y	Y
Observations	345	345	345	345	345	345
R-squared	0.770	0.768	0.770	0.748	0.755	0.754

Table 5. Cross-sectional analyses

This table presents results of analyzing cross-sectional variation in the results of Table 2, panel B. In panel A, the sample is partitioned based on legal and regulatory characteristics of the country. In panel B, the sample is partitioned based on the ownership structure prevalent in the country. In panel C, the sample is partitioned based on the level of takeover activity in the country prior to the introduction of the TPD. Partition variables are defined in Appendix D. Other variable definitions are as in Table 2, panel B. Standard errors (in brackets) are clustered by country. *, **, and *** denote statistical significance at the 10%, 5%, and 1% (two-tail) levels, respectively. + and ++ indicate significance at the two-tailed 10% and 5% levels, respectively, for tests of coefficient magnitudes relative to the adjacent column on the left.

Panel A. Partitioning by legal and regulatory characteristics

	Regulatory_ Quality		*Enforcement_ Change*		*Control_Provisions*	
Dep. var.: *Takeover_Activity*	**Low**	**High**	**Low**	**High**	**Low**	**High**
Independent variables:	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Transparency_ Directive	–0.188***	–0.321**,+	–0.163***	–0.438***,+	–0.322**	–0.153***,+
	[0.029]	[0.125]	[0.032]	[0.032]	[0.112]	[0.036]
Country_Controls	Y	Y	Y	Y	Y	Y
Regulation_Controls	Y	Y	Y	Y	Y	Y
Sample	Public	Public	Public	Public	Public	Public
Country Fixed Effects	Y	Y	Y	Y	Y	Y
Month*Year Fixed Effects	Y	Y	Y	Y	Y	Y
Observations	1,428	1,632	1,836	1,224	1,632	1,428
R-squared	0.700	0.641	0.649	0.710	0.739	0.512

Panel B. Partitioning by ownership structure

	Ownership_Concentration		*Institutional_Ownership*	
Dep. var.: *Takeover_Activity*	**Low**	**High**	**Low**	**High**
Independent variables:	**(1)**	**(2)**	**(3)**	**(4)**
Transparency_Directive	–0.363***	–0.156***,+	–0.194***	–0.339***,+
	[0.133]	[0.028]	[0.032]	[0.120]
Country_Controls	Y	Y	Y	Y
Regulation_Controls	Y	Y	Y	Y
Sample	Public	Public	Public	Public
Country Fixed Effects	Y	Y	Y	Y
Month*Year Fixed Effects	Y	Y	Y	Y
Observations	1,632	1,428	1,428	1,632
R-squared	0.503	0.720	0.678	0.637

Panel C. Partitioning by prior takeover activity

	Prior_Takeover_Activity	
Dep. var.: *Takeover_Activity*	**Low**	**High**
Independent variables:	**(1)**	**(2)**
Transparency_Directive	–0.115***	–0.331***,++
	[0.018]	[0.126]
Country_Controls	Y	Y
Regulation_Controls	Y	Y
Sample	Public	Public
Country Fixed Effects	Y	Y
Month*Year Fixed Effects	Y	Y
Observations	1,632	1,428
R-squared	0.528	0.697

Table 6. Amendment of the TPD

This table presents results of analyzing takeover activity around the implementation of the TPD amendment. The analysis replicates the test in Tables 2 and 3, replacing the TPD implementation dates with those of the TPD amendment. TPD_Amendment is an indicator variable that equals one when the disclosure of cash-settled derivatives is enforced in that country, and zero otherwise. The rest of variables are as in Table 2. Panel A reports the average effect of the implementation of the TPD amendment. Panel B presents the results from falsification tests of takeover activity around the implementation of the TPD amendment. Columns 1-3 of panel B replicate the analysis in panel A randomizing the dates of the implementation of the TPD amendment over the sample period. Columns 4-6 of panel B replicate the analysis in Table 2 for control acquisitions where the target firm is not listed in a stock exchange. Panel C restricts the sample to the time window spanning over 12 months before and after the implementation of the TPD amendment in each country. Columns 1-3 of panel C report results using the actual implementation dates. Columns 4-6 of panel C report the average statistics from repeating 100 times the test in columns 1-3, each time using a random draw of dates within the 12-month window around the actual implementation date. Standard errors (in brackets) are clustered by country. *, **, and *** denote statistical significance at the 10%, 5%, and 1% (two-tail) levels, respectively.

Panel A. Average effect

Dependent variable: ***Takeover_Activity***				
Independent variables:	**(1)**	**(2)**	**(3)**	**(4)**
TPD_Amendment	–0.259***	–0.219***	–0.214***	–0.172**
	[0.083]	[0.067]	[0.066]	[0.064]
Transparency_Directive				–0.249***
				[0.065]
Country_Controls	N	Y	Y	Y
Regulation_Controls	N	N	Y	Y
Sample	Public	Public	Public	Public
Country Fixed Effects	Y	Y	Y	Y
Month*Year Fixed Effects	Y	Y	Y	Y
Observations	3,060	3,060	3,060	3,060
R-squared	0.589	0.612	0.613	0.638

Panel B. Falsification tests

Dependent variable: Takeover_Activity	*Random implementation dates*			*Private firms*		
Independent variables:	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
TPD_Amendment	–0.014	–0.011	–0.006	0.016	0.057	0.083
	[0.064]	[0.045]	[0.045]	[0.105]	[0.112]	[0.099]
Country_Controls	N	Y	Y	N	Y	Y
Regulation_Controls	N	N	Y	N	N	Y
Sample	Public	Public	Public	Private	Private	Private
Country Fixed Effects	Y	Y	Y	Y	Y	Y
Month*Year Fixed Effects	Y	Y	Y	Y	Y	Y
Observations	3,060	3,060	3,060	3,060	3,060	3,060
R-squared	0.572	0.613	0.615	0.867	0.875	0.875

Panel C. Short window analysis

Dependent variable: Takeover_Activity	*Actual implementation dates*			*Random implementation dates*		
Independent variables:	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
TPD_Amendment	–0.137**	–0.155**	–0.158**	–0.126	–0.096	–0.086
	[0.079]	[0.072]	[0.071]	[0.094]	[0.059]	[0.055]
Country_Controls	N	Y	Y	N	Y	Y
Regulation_Controls	N	N	Y	N	N	Y
Sample	Public	Public	Public	Public	Public	Public
Country Fixed Effects	Y	Y	Y	Y	Y	Y
Month*Year Fixed Effects	Y	Y	Y	Y	Y	Y
Observations	345	345	345	345	345	345
R-squared	0.815	0. 827	0.827	0.825	0.840	0.837

Table 7. Target returns

This table reports results of analyzing target firms' stock price returns around acquisition announcements. The dependent variable, Target_Returns, is defined as the target firm's abnormal returns cumulated over the (–42, +1) day window around the acquisition announcement. In columns 4-6, we code Target_Returns as zero if a public firm is not acquired in a given calendar year. Transparency_Directive is an indicator variable that equals one for the months after the TPD entry into force date (i.e., after the implementation of the TPD), and zero otherwise. See Appendix A for other variable definitions. Columns 1-3 include the 2,873 control acquisitions in our sample. Columns 2-4 include all firm-year observations in our sample. Standard errors (in brackets) are clustered by country-month-year. *, **, and *** denote statistical significance at the 10%, 5%, and 1% (two-tail) levels, respectively.

Dependent variable: *Target_Returns*	*Only acquired companies*			*Including non-acquired companies*		
Independent variables:	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Transparency_Directive	0.040***	0.048***	0.046**	0.006**	0.005**	0.005**
	[0.018]	[0.017]	[0.017]	[0.003]	[0.002]	[0.002]
Country_Controls:						
Stock_Market_Size		0.000	–0.000		0.000	0.000
		[0.000]	[0.000]		[0.000]	[0.000]
GDP_capita		0.024	0.035		–0.021	–0.015
		[0.125]	[0.127]		[0.018]	[0.019]
Gov_Bond_10yr		0.001	0.001		0.000	0.000
		[0.006]	[0.006]		[0.000]	[0.000]
Returns_Volatility		0.001	0.000		0.000	0.000
		[0.001]	[0.001]		[0.000]	[0.000]
Listed_Firms		0.056***	0.056**		0.011	0.011
		[0.017]	[0.018]		[0.008]	[0.008]

Consumption		0.000	0.000		0.000	0.000
		[0.000]	[0.000]		[0.000]	[0.000]
Investment		0.000	0.000		0.000	0.000
		[0.000]	[0.000]		[0.000]	[0.000]
Transaction_Controls:						
Transaction_Value		0.009***	0.009***		0.002	0.002
		[0.002]	[0.002]		[0.002]	[0.002]
Cross_Border		–0.003	–0.003		0.005	0.005
		[0.008]	[0.008]		[0.012]	[0.012]
Tender_Offer		0.056***	0.056***		0.084***	0.084***
		[0.010]	[0.010]		[0.013]	[0.013]
Toehold		–0.019**	–0.020**		–0.019	-0.019
		[0.009]	[0.009]		[0.015]	[0.015]
Cash		0.014	0.014*		0.028**	0.028**
		[0.008]	[0.008]		[0.012]	[0.012]
Shares		–0.048***	–0.047***		–0.025	–0.025
		[0.017]	[0.017]		[0.021]	[0.021]
Number_Bidders		0.056***	0.056***		0.044***	0.044***
		[0.010]	[0.010]		[0.010]	[0.010]
Regulation_Controls:						
Takeover_Directive			0.001			0.002
			[0.022]			[0.003]
Market_Abuse_ Directive			–0.023			–0.001
			[0.029]			[0.002]

Shareholder_Rights_ Directive			–0.035*			–0.002
			[0.020]			[0.002]
MiFID_Directive			0.004			–0.007**
			[0.049]			[0.003]
Country Fixed Effects	Y	Y	Y	Y	Y	Y
Industry Fixed Effects	Y	Y	Y	Y	Y	Y
Month*Year Fixed Effects	Y	Y	Y	Y	Y	Y
Observations	2,873	2,873	2,873	39,262	39,262	39,262
R-squared	0.133	0.175	0.176	0.085	0.132	0.132

Table 8. Target returns by period

This table analyzes target firms' stock price returns in different sub-periods up to the acquisition announcement. The analysis replicates the test in Table 7's three alternative dependent variables. In column 1, Pre-Run-up is defined as the target firm's abnormal returns cumulated over the (–63, –43) day window around the acquisition announcement (i.e., "pre-run-up" period). In column 2, Run-up is defined as the target firm's abnormal returns cumulated over the (–42, –1) day window around the acquisition announcement (i.e., the "run-up" period). In column 3, Mark-up is defined as the target firm's abnormal returns cumulated over the (0, +1) day window around the acquisition announcement (i.e., the announcement of the transaction). The rest of the variables are as in Table 7. Standard errors (in brackets) are clustered by country-month-year. *, **, and *** denote statistical significance at the 10%, 5%, and 1% (two-tail) levels, respectively

	Dependent variable:		
	Pre-Run-up	***Run-up***	***Mark-up***
Independent variables:	**(1)**	**(2)**	**(3)**
Transparency_Directive	0.017	0.035**	0.007
	[0.011]	[0.017]	[0.008]
Country_Controls	Y	Y	Y
Transaction_Controls	Y	Y	Y
Regulation_Controls	Y	Y	Y
Country Fixed Effects	Y	Y	Y
Industry Fixed Effects	Y	Y	Y
Month*Year Fixed Effects	Y	Y	Y
Observations	2,873	2,873	2,873
R-squared	0.127	0.187	0.140

Table 9. Acquirer returns

This table analyzes acquirers' stock returns around acquisition announcements. The dependent variable, Acquirer_Returns, is defined as the acquirers' abnormal returns cumulated over the (–42, +1) day window around the acquisition announcement. Columns 1-3 ("Public Targets") include transactions where the target firm is listed in a regulated stock exchange. Columns 4-6 ("Private Targets") include transactions where the target is a private firm. Transparency_Directive is an indicator variable that equals one for the period when the TPD is in force in that country (i.e., after the implementation of the TPD), and zero otherwise. See Appendix A for variable definitions. Standard errors (in brackets) are clustered by country-month-year. *, **, and *** denote statistical significance at the 10%, 5%, and 1% (two-tail) levels, respectively.

Dep. var.: ***Acquirer_Returns***	***Public Targets***			***Private Targets***		
Independent variables:	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Transparency_Directive	–0.060*	–0.065*	–0.055*	–0.011	–0.010	–0.013
	[0.036]	[0.035]	[0.035]	[0.008]	[0.009]	[0.009]
Country_Controls:						
Stock_Market_Size		0.000	0.000		0.000	0.000
		[0.000]	[0.000]		[0.000]	[0.000]
GDP_capita		–0.012	–0.058		–0.037	–0.049
		[0.253]	[0.251]		[0.069]	[0.069]
Gov_Bond_10yr		0.000	–0.001		0.002	0.002
		[0.010]	[0.010]		[0.003]	[0.003]
Returns_Volatility		–0.001	–0.001		0.000	0.000
		[0.001]	[0.001]		[0.001]	[0.001]
Listed_Firms		0.049	0.055		–0.007	–0.006

		[0.041]	[0.042]		[0.011]	[0.011]
Consumption		–0.001	–0.001		0.000	0.000
		[0.004]	[0.004]		[0.000]	[0.000]
Investment		–0.001	–0.001		0.000	0.000
		[0.001]	[0.001]		[0.000]	[0.000]
Transaction_ Controls:						
Transaction_Value		–0.004	–0.005*		0.001**	0.001**
		[0.003]	[0.003]		[0.001]	[0.001]
Cross_Border		0.036***	0.035***		0.003	0.003
		[0.012]	[0.012]		[0.003]	[0.003]
Tender_Offer		–0.022	–0.024*		0.004	0.004
		[0.014]	[0.014]		[0.022]	[0.022]
Toehold		–0.009	–0.009		0.014**	0.014**
		[0.019]	[0.019]		[0.007]	[0.007]
Cash		–0.001	–0.002		–0.003	–0.003
		[0.016]	[0.016]		[0.003]	[0.003]
Shares		0.026	0.024		0.012	0.013
		[0.022]	[0.022]		[0.012]	[0.012]
Number_Bidders		0.004	0.004		–0.010	–0.010
		[0.026]	[0.026]		[0.021]	[0.021]
Regulation_ Controls:						
Takeover_ Directive			–0.063*			0.012
			[0.034]			[0.008]

Market_Abuse_ Directive			–0.135			–0.021*
			[0.089]			[0.012]
Shareholder_ Right_Directive			0.001			0.006
			[0.050]			[0.010]
Mifid_Directive			–0.029			0.011
			[0.064]			[0.021]
Country Fixed Effects	Y	Y	Y	Y	Y	Y
Industry Fixed Effects	Y	Y	Y	Y	Y	Y
Month*Year Fixed Effects	Y	Y	Y	Y	Y	Y
Observations	705	705	705	13,798	13,798	13,798
R–squared	0.449	0.473	0.480	0.086	0.087	0.087

Table 10: Bidder toeholds

This table analyzes the effect of the TPD on the size of the toehold stake held by the bidder around the announcement date. The dependent variable, Toehold_Size, is the percentage of shares held by the bidder at the announcement date (column 1), three months before the announcement date (column 2), six months before the announcement date (column 3), and nine months before the announcement date (column 4). Transparency_Directive is an indicator variable that equals one for the period when the TPD is in force in that country (i.e., after the implementation of the TPD), and zero otherwise. See Appendix A for variable definitions. Standard errors (in brackets) are clustered by country-industry. *, **, and *** denote statistical significance at the 10%, 5%, and 1% (two-tail) levels, respectively.

Dependent variable: ***Toehold_Size***	***Announcement date***	***3 months before announcement***	***6 months before announcement***	***12 months before announcement***
Independent variables:	**(1)**	**(2)**	**(3)**	**(4)**
Transparency_Directive	–9.789**	–1.198	–0.961	–0.928
	[4.480]	[1.406]	[1.415]	[1.442]
Country_Controls:				
Stock_Market_Size	0.000	0.000	0.000	0.000
	[0.000]	[0.000]	[0.000]	[0.000]
GDP_capita	–5.252	6.587	6.450	4.874
	[20.373]	[8.112]	[7.971]	[8.109]
Gov_Bond_10yr	–0.727	–1.367***	–1.347***	–1.337***
	[1.214]	[0.481]	[0.488]	[0.489]
Returns_Volatility	–0.074	0.008	0.005	0.008
	[0.079]	[0.036]	[0.036]	[0.035]
Listed_Firms	–0.727	–1.367***	–1.347***	–1.337***
	[4.091]	[0.947]	[0.934]	[0.944]
Consumption	0.125	–0.291*	–0.290*	–0.269*

	[0.263]	[0.153]	[0.153]	[0.155]
Investment	–0.090	0.005	0.007	0.008
	[0.056]	[0.031]	[0.032]	[0.032]
Transaction_Controls:				
Transaction_Value	–3.008***	–0.351***	–0.339***	–0.298***
	[0.246]	[0.116]	[0.117]	[0.112]
Cross_Border	–0.490	–0.398	–0.445	–0.328
	[1.587]	[0.717]	[0.681]	[0.671]
Tender_Offer	–10.066***	–0.777	–0.941*	–1.040**
	[2.172]	[0.521]	[0.506]	[0.493]
Cash	–4.486***	2.116***	2.039***	2.068***
	[1.641]	[0.648]	[0.643]	[0.639]
Shares	–15.602***	–0.184	–0.219	–0.105
	[2.097]	[0.862]	[0.849]	[0.876]
Number_Bidders	–6.176***	–1.655*	–1.792**	–1.709**
	[1.934]	[0.859]	[0.832]	[0.827]
Regulation_Controls:				
Takeover_Directive	–5.173	–5.322**	–4.444**	–4.551**
	[4.819]	[2.338]	[1.891]	[1.868]
Market_Abuse_ Directive	–3.485	0.428	0.307	1.476
	[8.187]	[2.801]	[2.804]	[2.551]
Shareholder_Right_ Directive	–2.618	–3.985**	–3.861*	–3.013
	[4.225]	[1.969]	[1.984]	[2.029]
Mifid_Directive	1.228	3.166	2.731	2.447
	[6.676]	[3.250]	[3.281]	[3.298]
Country Fixed Effects	Y	Y	Y	Y
Industry Fixed Effects	Y	Y	Y	Y
Month*Year Fixed Effects	Y	Y	Y	Y
Observations	2,784	2,784	2,784	2,784
R–squared	0.251	0.150	0.149	0.148

Appendix OA. Examples of ownership disclosure under different regulatory regimes

This appendix includes examples of regulatory filings containing ownership disclosures in the E.U. in three different periods. Panel A reproduces the content of a form reported before the implementation of Directive 2004/109/EC (TPD). Panel B reproduces the content of a form reported under Directive 2004/109/EC. Panel C reproduces the content of a form reported under Directive 2013/50/EU (amendment of the TPD). The three examples correspond to form TR-1 for notifications of major holdings in the U.K. Due to formatting issues, we do not include the actual forms, but we fully reproduce their content (a link to the original forms is included under each example).

Panel A. Example of ownership disclosure before the implementation of Directive 2004/109/EC

1. Name of Company:	Framlington Second Dual Trust PLC
2. Name of shareholder having a major interest:	Credit Lyonnais Securities
3. Name of the registered holder(s) and, if more than one holder, the number of shares held by each of them:	Credit Lyonnais Securities
4. Number of shares acquired:	Not advised
5. Percentage of issued class acquired:	Not advised
6. Number of shares disposed:	Not advised
7. Percentage of issued class disposed:	Not advised
8. Class of security:	Ordinary income shares of 5p each
9. Date of transaction:	Not advised
10. Date company informed:	23 April 2004
11. Total holding following this notification:	3,785,080
12. Total percentage holding of issued class following this notification	7.3%
13. Any additional information:	
14. Name of contact and telephone number for queries	Eleanor Cranmer 020 7330 6680
15. Name of authorized official responsible for making this notification	Eleanor Cranmer
16. Date of notification:	23 April 2004

Source: https://www.investegate.co.uk/ArticlePrint.aspx?id=20040423165841P19E0

Appendix OA. Examples of ownership disclosure under different regulatory regimes (cont'ed)

Panel B. Example of ownership disclosure under Directive 2004/109/EC

1. Identity of the issuer or the underlying issuer of existing shares to which voting rights are attached:	InterContinental Hotels Group PLC
2. Reason for the notification (please state Yes/No):	
An acquisition or disposal of voting rights:	Yes
An acquisition or disposal of financial instruments which may result in the acquisition of shares already issued to which voting rights are attached:	Yes
An event changing the breakdown of voting rights:	No
Other (please specify):	No
3. Full name of person(s) subject to the notification obligation:	Morgan Stanley (Institutional Securities Group and Global Wealth Management)
4. Full name of shareholder(s) (if different from 3.):	N/A
5. Date of the transaction (and date on which the threshold is crossed or reached if different):	18 April 2008
6. Date on which issuer notified:	23 April 2008
7. Threshold(s) that is/are crossed or reached:	to below 4%
8. Notified details:	

A: Voting rights attached to shares:					
Situation previous to the triggering transaction					
Class/type of shares	Number of shares	Number of voting rights			
ISIN: GB00B1WQCS47	3,871,945	3,871,945			
Ordinary Shares of 13 29/47 pence each					
Resulting situation after the triggering transaction					
Class/type of shares	Number of shares	Number of voting rights		% of voting rights	
	Direct	Direct	Indirect	Direct	Indirect
ISIN: GB00B1WQCS47	1,954,373	1,954,373		0.66%	
Ordinary Shares of 13 29/47 pence each					
B: Financial instruments:					
Resulting situation after the triggering transaction					
Type of Financial Instrument	Expiration Date	Exercise Period / Conversion Date	Number of voting rights that may be acquired if the instrument is exercised/ converted	% of voting rights	
Physically settled long call option	18.04.2008		1,359,544	0.46%	
Physically settled long call option	16.05.2008		6,356,400	2.17%	

Total (A+B): Number of voting rights		**% of voting rights**			
9,670,317		3.29%			
9. Chain of controlled undertakings through which the voting rights and/or the financial instruments are effectively held, if applicable:					
Morgan Stanley Securities Limited			7,224,428		2.46%
Morgan Stanley & Co Incorporated			718		0.00%
Bank Morgan Stanley AG			93,415		0.03%
Morgan Stanley & Co International Plc			2,351,756		0.80%

Source: https://www.investegate.co.uk/ArticlePrint.aspx?id=200804231519419736S

Appendix OA. Examples of ownership disclosure under different regulatory regimes (cont'ed)

Panel C. Example of ownership disclosure under Directive 2013/50/EC

1. Identity of the issuer or the underlying issuer of existing shares to which voting rights are attached:	Tesco Plc
2. Reason for the notification (please tick the appropriate box or boxes):	
An acquisition or disposal of voting rights:	
An acquisition or disposal of financial instruments which may result in the acquisition of shares already issued to which voting rights are attached:	
An acquisition or disposal of instruments with similar economic effect to qualifying financial instruments	x
An event changing the breakdown of voting rights:	
Other (please specify):	
3. Full name of person(s) subject to the notification obligation:	Berkshire Hathaway Inc.
4. Full name of shareholder(s) (if different from 3.):	The following indirect wholly-owned subsidiaries of Berkshire Hathaway Inc. hold voting rights: Government Employees Insurance Company; General Reinsurance Corporation; General Reinsurance AG; National Fire & Marine Insurance Company; National Indemnity Insurance Company; U.S. Underwriters Insurance Company; and Medical Protective Company.
5. Date of the transaction (and date on which the threshold is crossed or reached if different):	16 October 2013
6. Date on which issuer notified:	18 October 2013
7. Threshold(s) that is/are crossed or reached:	4%
8. Notified details:	
A: Voting rights attached to shares:	

Class/type of shares	*Situation previous to the triggering transaction*		*Resulting situation after the triggering transaction*				
	Number of Shares	Number of Voting Rights	Number of shares	Number of voting rights:		% of voting rights	
			Direct	Direct	Indirect	Direct	Indirect
GB0008847096	257,443,328	257,443,328	257,443,328	257,443,328	0	3.18	0

B: Qualifying Financial Instruments:

Resulting situation after the triggering transaction

Type of Financial Instrument	Expiration Date	Exercise Period / Conversion Date	Number of voting rights that may be acquired if the instrument is exercised/converted	% of voting rights

C: Financial Instruments with similar economic effects to Qualifying Financial Instruments:

Resulting situation after the triggering transaction

Type of financial instrument	Exercise price	Expiration date	Exercise period	Number of voting rights instrument refers to	% of voting rights	
					Nominal	Delta
Cash Settled Equity Swap	$4.5732 (US Dollars) per share	16 January 2015	N/A	64,034,283	0.80	0.80

Total (A+B+C): Number of voting rights		**% of voting rights**		
321,477,611		3.98%		

9. Chain of controlled undertakings through which the voting rights and/or the financial instruments are effectively held:

The following indirect wholly-owned subsidiaries own shares with voting rights:
Government Employees Insurance Company (90,000,000); General Reinsurance Corporation (72,862,000); General Reinsurance AG (30,136,328); National Fire & Marine Insurance Company (30,606,000); National Indemnity Company (22,883,000); U.S. Underwriters Insurance Company (5,807,000) Medical Protective Company (5,149,000). In addition, National Indemnity Company holds financial instruments with similar economic effect to qualifying financial instruments related to 64,034,283 voting rights.

Source: https://www.investegate.co.uk/ArticlePrint.aspx?id=201310211016469627Q

APPENDIX OB. Additional Robustness Tests

This appendix performs additional robustness tests to explore the sensitivity of our results to our research design choices. The findings are discussed in the Section 5 of the paper.

Table OB1. Takeover activity – Cross-Border versus domestic acquisitions

This table reports OLS estimates of the effect of the implementation of the Transparency Directive (TPD) on takeover activity for our sample of 3,060 country-month-year observations, distinguishing between cross-border and domestic control acquisitions. In column (1) ("Cross_Border Acquisitions"), Takeover_Activity is computed as the logarithm of the number of control acquisitions where the acquirer is from a different country than the target. In column (2) ("Domestic Acquisitions"), Takeover_Activity is computed as the logarithm of the number of control acquisitions where the acquirer is from the same country as the target. Transparency_Directive is an indicator variable that equals one for the months after the TPD implementation date (i.e., after the implementation of the TPD), and zero otherwise. See Appendix A for variable definitions. Standard errors (in brackets) are clustered by country. *, **, and *** denote statistical significance at the 10%, 5%, and 1% (two-tail) levels, respectively.

Dependent variable: ***Takeover_Activity***	***Cross-Border Acquisitions***	***Domestic Acquisitions***
Independent variables:	(1)	(2)
Transparency_Directive	–0.173**	–0.240**
	[0.062]	[0.065]
Country_Controls	Y	Y
Regulation_Controls	Y	Y
Sample	Public	Public
Country Fixed Effects	Y	Y
Month*Year Fixed Effects	Y	Y
Observations	3,060	3,060
R-squared	0.615	0.628

Table OB2. Takeover activity – Industry level analysis

This table presents results of replicating Table 2, panel B, at the country-industry-month level. The sample includes 39,720 country-industry-month-year observations. We use the Campbell (1996) industry classification. Standard errors (in brackets) are clustered by country-industry. *, **, and *** denote statistical significance at the 10%, 5%, and 1% (two-tail) levels, respectively.

Dependent variable: *Takeover_Activity*			
Independent variables:	**(1)**	**(2)**	**(3)**
Transparency_Directive	–0.153***	–0.150***	–0.151***
	[0.048]	[0.046]	[0.047]
Country_Controls	N	N	Y
Regulation_Controls	N	Y	Y
Sample	Public	Public	Public
Country Fixed Effects	Y	Y	Y
Month*Year Fixed Effects	Y	Y	Y
Observations	39,720	39,720	39,720
R-squared	0.845	0.846	0.846

Table OB3. Takeover activity – Weighting by stock market size

This table presents results of replicating Table 2, panel B, using a weighted OLS model. The OLS models are weighted by the average number of listed firms in the target firm country in the pre-treatment period. See Appendix A for variable definitions. Standard errors (in brackets) are clustered by country. *, **, and *** denote statistical significance at the 10%, 5%, and 1% (two-tail) levels, respectively.

Dependent variable: ***Takeover_Activity***			
Independent variables:	**(1)**	**(2)**	**(3)**
Transparency_Directive	–0.376***	–0.290***	–0.303***
	[0.074]	[0.075]	[0.073]
Country_Controls	N	N	Y
Regulation_Controls	N	Y	Y
Sample	Public	Public	Public
Country Fixed Effects	Y	Y	Y
Month*Year Fixed Effects	Y	Y	Y
Observations	3,060	3,060	3,060
R-squared	0.733	0.766	0.768

Table OB4. Alternative measures of takeover activity

This table presents results of replicating Table 2, panel B, using alternative definitions of the dependent variable, Takeover_Activity. In columns 1-3, Takeover_Activity is defined as the logarithm of the total dollar value of the control acquisitions in a country-month-year. In columns 4-6, Takeover_Activity is defined as or the logarithm of the number of control acquisitions in a country-month-year over the total number of listed firms in that country-month-year. See Appendix A for variable definitions. Standard errors (in brackets) are clustered by country. *, **, and *** denote statistical significance at the 10%, 5%, and 1% (two-tail) levels, respectively.

Dep. var.: ***Takeover_Activity***	**Log (Total value of control acquisitions)**			**Log (Number of deals / total number of listed firms)**		
Independent variables:	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Transparency_Directive	–0.004**	–0.004**	–0.004***	–0.002***	–0.002***	–0.002***
	[0.002]	[0.001]	[0.001]	[0.001]	[0.001]	[0.000]
Country_Controls	N	Y	Y	N	Y	Y
Regulation_Controls	N	N	Y	N	N	Y
Sample	Public	Public	Public	Public	Public	Public
Country Fixed Effects	Y	Y	Y	Y	Y	Y
Month*Year Fixed Effects	Y	Y	Y	Y	Y	Y
Observations	0.463	0.464	0.466	0.493	0.609	0.610
R-squared	Public	Public	Public	Public	Public	Public

Table OB5. Probability of being taken over

This table analyses the firm-specific probability of being acquired around the introduction of Directive 2004/109/EC (TPD). We sample all firm-year observations in our sample where the firm is listed. The dependent variable, Target, equals one if the firm is taken over in that year, and zero otherwise. Transparency_Directive is an indicator variable that equals one for the period when the TPD is in force in that country (i.e., after the implementation of the TPD), and zero otherwise. See Appendix A for other variable definitions. Standard errors (in brackets) are clustered by country-month-year. *, **, and *** denote statistical significance at the 10%, 5%, and 1% (two-tail) levels, respectively.

Dependent variable: *Target*					
Independent variables:		**(1)**	**(2)**	**(3)**	**(4)**
Transparency_Directive		–0.037**	–0.027**	–0.038**	–0.037**
		[0.016]	[0.012]	[0.015]	[0.016]
Country_Controls:					
Stock_Market_Size			0.000	0.000	0.000
			[0.000]	[0.000]	[0.000]
GDP_capita			0.052**	0.027	0.030
			[0.026]	[0.025]	[0.020]
Gov_Bond_10yr			0.000	–0.001	–0.001**
			[0.000]	[0.000]	[0.000]
Returns_Volatility			0.000	0.000	0.000
			[0.000]	[0.000]	[0.000]
Listed_Firms			–0.002	0.000	0.002
			[0.005]	[0.005]	[0.003]
Consumption			0.000	0.000	0.000
			[0.000]	[0.000]	[0.000]
Investment			0.000	–0.000	0.000
			[0.000]	[0.000]	[0.000]
Transaction_Controls:					
Transaction_Value			0.145***	0.145***	0.141***

			[0.013]	[0.013]	[0.014]
Cross_Border			0.005	0.005	0.006
			[0.012]	[0.012]	[0.008]
Tender_Offer			0.055***	0.055***	0.061***
			[0.017]	[0.017]	[0.012]
Toehold			0.158***	0.158***	0.150***
			[0.017]	[0.017]	[0.016]
Cash			0.126***	0.126***	0.132***
			[0.021]	[0.021]	[0.023]
Shares			0.143***	0.143***	0.145***
			[0.030]	[0.030]	[0.029]
Number_Bidders			0.670***	0.670***	0.666***
			[0.031]	[0.031]	[0.043]
Regulation_Controls:					
Takeover_Directive				–0.017**	–0.017**
				[0.008]	[0.007]
Market_Abuse_Directive				–0.002	–0.002
				[0.006]	[0.004]
Shareholder_Rights_ Directive				–0.002	–0.003
				[0.004]	[0.002]
MiFID_Directive				0.034**	0.033**
				[0.014]	[0.013]
Country Fixed Effects		Y	Y	Y	N
Industry Fixed Effects		Y	Y	Y	N
Month*Year Fixed Effects		Y	Y	Y	N
Month*Year* Industry Fixed Effects		N	N	N	Y
Country* Industry Fixed Effects		N	N	N	Y
Observations		39,093	39,093	39,093	39,093
R-squared		0.530	0.902	0.902	0.908

Table OB6. Takeover activity – Alternative clustering strategies

This table presents results of replicating the analysis in Table 2, panel B, using alternative ways of clustering standard errors. In column 1, standard errors are clustered by country-month-year. In column 2, standard errors are clustered by month-year. In column 3, standard errors are clustered by year. *, **, and *** denote statistical significance at the 10%, 5%, and 1% (two-tail) levels, respectively.

	Clustering by		
Dep. var.: ***Takeover_Activity***	***country-month-year***	***month-year***	***year***
Independent variables:	**(1)**	**(2)**	**(3)**
Transparency_Directive	–0.265***	–0.260***	–0.265***
	[0.017]	[0.018]	[0.033]
Country_Controls	Y	Y	Y
Regulatory_Controls	Y	Y	Y
Sample	Public	Public	Public
Country Fixed Effects	Y	Y	Y
Month*Year Fixed Effects	Y	Y	Y

Table OB7. Target returns – Additional controls

This table presents results of replicating Table 7 including additional control variables. The vector of additional control variables, Target_Controls, includes the following variables. Target_Size is the logarithm of the target firm's total assets at the fiscal year-end prior to the announcement date. Target_LEV is the ratio between total debt and total equity of the target at the fiscal year-end prior to the announcement date. Target_CFO is the cash flow from operations of the target at the fiscal year-end prior to the announcement date. Target_CASH is the cash balance of the target at the fiscal year-end prior to the announcement date. Standard errors (in brackets) are clustered by country-month-year. *, **, and *** denote statistical significance at the 10%, 5%, and 1% (two-tail) levels, respectively.

Dependent variable: ***Target_Returns***	***Only acquired target firms (1)***	***Including non-acquired target firms (2)***
Transparency_Directive	0.075**	0.005**
	[0.033]	[0.002]
Target_Controls:		
Target_Size	0.007	0.000
	[0.009]	[0.000]
Target_LEV	0.000	0.000
	[0.000]	[0.000]
Target_CFO	0.000	0.000
	[0.000]	[0.000]
Target_CASH	–0.019	–0.001
	[0.032]	[0.001]
Country_Controls	Y	Y
Transaction_Controls	Y	Y
Regulatory_Controls	Y	Y
Country Fixed Effects	Y	Y
Industry Fixed Effects	Y	Y
Month*Year Fixed Effects	Y	Y
Observations	2,121	38,510
R-squared	0.278	0.163

Table OB8. Target returns – Alternative windows

This table presents results of replicating Table 7 using alternative widows for the computation of the dependent variable, Target_Returns. The notation (X, Y) indicates that returns are accumulated from day X to day Y, measured in reference to the acquisition announcement date. For example, (–42, +126) means that returns are accumulated from 42 days before the acquisition announcement date to 126 days after the acquisition announcement date. Standard errors (in brackets) are clustered by country-month-year. *, **, and *** denote statistical significance at the 10%, 5%, and 1% (two-tail) levels, respectively.

	Day-window around the announcement date					
Dep. Var:: *Target Returns*	**(–42, +1)**	**(–42, 0)**	**(–42, +126)**	**(–63, +1)**	**(–63, 0)**	**(–63, +126)**
Independent variables:	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Transparency_ Directive	0.046**	0.046**	0.032**	0.057***	0.059***	0.032**
	[0.017]	[0.020]	[0.013]	[0.018]	[0.021]	[0.013]
Country_Controls	Y	Y	Y	Y	Y	Y
Transaction_Controls	Y	Y	Y	Y	Y	Y
Regulation_Controls	Y	Y	Y	Y	Y	Y
Country Fixed Effects	Y	Y	Y	Y	Y	Y
Industry Fixed Effects	Y	Y	Y	Y	Y	Y
Month*Year Fixed Effects	Y	Y	Y	Y	Y	Y
Observations	2,873	2,873	2,873	2,873	2,873	2,873
R-squared	0.176	0.259	0.272	0.183	0.248	0.272

Table OB.9. Target returns– Additional Fixed Effects

This table presents results of replicating Table 7 including additional fixed effects. In particular, the specifications include month-year-industry and country-industry fixed effects. Standard errors (in brackets) are clustered by country-month-year. *, **, and *** denote statistical significance at the 10%, 5%, and 1% (two-tail) levels, respectively.

Dependent variable: ***Target Returns***	***Only acquired companies***	***Including non-acquired companies***
Independent variables:	**(1)**	**(2)**
Transparency_Directive	0.041**	0.004**
	[0.019]	[0.002]
Country_Controls	Y	Y
Transaction_Controls	Y	Y
Regulation_Controls	Y	Y
Month*Year*Industry Fixed Effects	Y	Y
Country*Industry Fixed Effects	Y	Y
Observations	2,873	39,262
R-squared	0.264	0.170

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