

Mandatory Disclosure and Takeovers: Evidence from Private Banks

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Abstract: We investigate the role of mandatory financial disclosure in the takeover market for privately held U.S. banks. Public financial information plays a critical role in the takeover market as acquirers rely on it to identify potential targets and conduct preliminary due diligence. Using a difference-in-differences research design around a regulatory disclosure mandate that changed the frequency and granularity of financial disclosure for certain banks, we find that banks with reduced and less frequent disclosure are less likely to be targeted in M&A transactions than other banks. Acquirers earn lower bid-announcement returns when targeting banks with reduced and less frequent disclosures. We also show that reduced mandatory disclosure deters acquirers from bidding for geographically distant targets. Finally, the impact of the disclosure mandate is more severe for banks that experience a more significant loss of publicly available information. Overall, we shed light on the critical role of mandatory financial reporting in the takeover market.

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1. Introduction

We investigate the role of disclosure mandates in the takeover market for banks. Financial disclosure facilitates capital markets' allocation of capital to value-creating investments and the withdrawal of capital from value-destroying projects¹ Mergers and acquisitions (M&As) are significant corporate events and essential means of capital reallocation. They help to direct assets towards their best possible use by reallocating control rights over companies. In 2021 alone, the announced global M&A transaction volume exceeded \$5 trillion (Davis, 2021). Financial disclosures play a critical role in M&A allowing acquirers to evaluate alternative investment opportunities. Acquirers conduct extensive comparative analyses using public financial disclosures to identify and value potential targets (Bruner, 2004; Lajoux and Elson, 2011). Disclosure mandates can facilitate M&As by enhancing firms' information environment and providing acquirers with richer and more precise information about potential targets. This can improve the acquirers' estimate of the targets' intrinsic value and expected synergies.

On the other hand, enhanced mandatory disclosure can make acquirers cut back on costly private information acquisition and reduce acquirers' incentives to discover proprietary information about potential targets (Verrecchia, 1982; Diamond, 1985; Goldstein and Yang, 2017). Acquirers may engage in less information discovery about alternate uses of the targets' resources and, as a result, make fewer takeover bids. Ex-ante, the impact of disclosure mandates on M&A activity is unclear.

We investigate the impact of mandatory financial disclosure on the takeover activity of privately held U.S. bank holding companies (BHCs)², focusing on a regulatory reporting change

¹ See Roychowdhury et al. (2019) for a recent review of the related literature.

² In this paper, bank holding companies (BHCs) refers to all types of financial holding companies, including domestic bank holding companies (BHCs), savings and loan holding companies (SLHCs), U.S. intermediate holding companies

that raised the asset-size threshold for reporting quarterly consolidated financial information. To ease the regulatory burden on relatively small BHCs, effective March 2015, the Federal Reserve Board (FRB) eliminated quarterly consolidated financial reporting requirements (FR Y-9C reports) for BHCs with less than \$1 billion in total consolidated assets. Instead, these BHCs were required to file semiannual parent-only financial statements (FR Y-9SP reports). Previously, only BHCs with less than \$500 million in total consolidated assets were qualified to file the FR Y-9SP reports.

In general, banks are among the most opaque corporate entities (Morgan, 2002). The information environment of privately held banks is even more opaque than that of publicly listed banks. Private banks are not registered with the SEC and, hence, are not subject to the SEC's quarterly financial reporting requirements. Moreover, few, if any, information intermediaries (e.g., analysts, credit rating agencies, etc.) generate information or reports on private banks. Therefore, regulatory financial filings are the primary source of publicly available information for privately held banks.

The 2015 regulatory disclosure mandate had a significant impact on the information environment of privately held small BHCs by reducing the frequency of their regulatory filings and requiring the reporting of less-detailed information. For instance, in March 2015, the FR Y-9C report included 22 more schedules than the FR Y-9SP report. One can also discern the difference in the information richness of the FR Y-9C and FR Y-9SP reports from their lengths and the number of data items—a typical FR Y-9C report has 65 pages and over 2,600 data items, while an FR Y-9SP report has eight pages and about 186 data items.

(IHCs), and securities holding companies (SHCs), because they are all subject to the same regulatory reporting requirements.

Federally supervised commercial banks must also file Call Reports quarterly. The Call Reports are bank-level financial statement-based reports containing similar information to the holding company-level FR Y-9C reports. However, significant information critical for assessing the risk and overall profitability of a banking entity available in the FR Y-9C reports is missing from the Call Reports. For instance, the Call Reports lack information about (1) intracompany transactions, (2) nonbank subsidiaries, (3) interest sensitivity, (4) insurance-related underwriting activities, and (5) financial statement effects of acquisitions during the quarter. In Section 2, we discuss in detail the differences in the information content between the FR Y-9C and FR Y-9SP reports and those between the FR Y-9C reports and Call Reports.

Using a difference-in-differences (DD) research design that exploits the March 2015 regulatory change in the asset-size threshold for filing the FR Y-9C reports, we investigate the impact of reduced and less frequent mandatory disclosure on takeover activity for private banks. Our sample comprises privately held BHCs from 2012 to 2017 that have filed the FR-Y9C report before March 2015 and an FR-Y9C or FR-Y9SP report in and after March 2015. We find that, before March 2015, there was no significant difference in the trends of takeover activity for banks with total consolidated assets below and above \$1 billion. Whereas, following the March 2015 regulatory change, banks with consolidated assets of less than \$1 billion were less likely to receive takeover bids. Specifically, after March 2015, a BHC with total consolidated assets of less than \$1 billion was 5.2 percent less likely to be a target of an M&A deal than a BHC with total consolidated assets of \$1 billion or more. For comparison, the unconditional probability of receiving an acquisition bid in our sample is 3.2 percent. Our findings are robust to the inclusion of year and BHC fixed effects, along with a comprehensive set of controls.

Preliminary due diligence, primarily conducted based on public information, helps the acquirer narrow the list of potential targets. In the subsequent steps, the acquirer gains access to targets' private information to conduct in-depth due diligence and, finally, transactional due diligence (Lajoux and Elson, 2011). Nonetheless, publicly available financial information can also play an essential role in these subsequent steps of the M&A process. It can help acquirers assess the accuracy and bias of the private information provided by targets (Ahmed et al., 2020). Thus, we examine the impact of the 2015 regulatory change on the time taken to complete the deal following a takeover bid. We find that the 2015 disclosure mandate did not significantly alter the time taken to complete the takeover of BHCs with total consolidated assets of less than \$1 billion relative to that of BHCs with total consolidated assets of \$1 billion or more.

In determining the deal price to offer for a bid, the acquirer considers the value of the target's resources and expected synergies. The target accepts any bid above its reservation price (Hansen, 1987). Mandatory financial disclosure may increase M&A profitability by broadening acquirers' pool of potential targets and giving acquirers more options for finding suitable M&A targets with the highest synergies. Moreover, publicly available financial information may help an acquirer estimate the target's intrinsic value more precisely and, subsequently, offer a more efficient price closer to the target's reservation price. Acquirers can profit more from acquisitions when they can estimate the value of targets more precisely and bid more effectively (McNichols and Stubben, 2015). On the contrary, publicly available information can increase competition and liquidity in the takeover markets as public financial disclosure allow more bidders to identify potential targets. Greater competition in the takeover market can reduce the rents attributable to the winning bidder. We investigate the impact of the 2015 regulatory disclosure mandate on the bid announcement returns for acquirers. We find that acquirers' announcement returns for bids for BHCs with total

consolidated assets of less than \$1 billion are smaller than those for BHCs with total consolidated assets of \$1 billion or more after the 2015 disclosure mandate.

We conduct several additional and robustness analyses. First, given that buyers have less information about geographically distant banks (Granja, 2014; Granja, Matvos, and Seru, 2017), the reduction in public financial disclosure is likely to deter distant acquirers from targeting banks affected by the March 2015 disclosure mandate. Accordingly, we find that the geographical overlap in branch networks between targets and acquirers relatively increases for banks with consolidated assets of less than \$1 billion after the regulatory change.

Second, the effect of the March 2015 regulatory disclosure mandate is more severe for banks that experience a more significant loss of publicly available information. The FR Y-9C reports are a critical source of information about BHCs' engagement in nonbank activities, which can increase bank risk. Such information is absent from the FR Y-9SP reports as well as the Call Reports. We find that post-March 2015, banks engaging in nonbanking activities with less than \$1 billion in total consolidated assets are less likely to receive an acquisition bid than banks that engage in nonbanking activities but have \$1 billion or more in total consolidated assets.

Third, we conduct a placebo test using publicly listed BHCs. Since publicly listed banks are subject to the SEC's quarterly disclosure mandate, the March 2015 regulatory disclosure mandate is unlikely to significantly affect these BHCs' information environment. On the other hand, like privately held small BHCs, the newly classified small publicly listed BHCs benefited from relaxed capital requirements and regulatory relief (e.g., Srivastav and Vallascas, 2019; Bisetti 2020). We find no significant change in the targeting of publicly listed BHCs for M&As following the March 2015 disclosure mandate suggesting that reduced and less frequent disclosure is likely the main driver of our findings.

Fourth, we find that there are no pre-trends in the takeover market for privately held BHCs, consistent with the underlying DD identifying assumption of parallel trends in the absence of the 2015 disclosure change. Fifth, we show that the level of BHCs' total consolidated assets is a good predictor of whether banks file the more frequent and detailed FR Y-9C reports. Sixth, our inferences are not sensitive to restricting the sample to a more homogenous set of banks within a narrow asset-size bandwidth (i.e., BHCs with total consolidated assets between \$500 million and \$5 billion).³ Finally, our inferences are robust to using time-varying lagged total consolidated assets to identify BHCs that are required to file the FR Y-9C reports after March 2015.

We make several contributions to the literature. First, we show the direct impact of mandatory financial disclosure on the takeover market. Financial disclosures are a crucial source of information in acquirers' search for targets with higher synergies and can facilitate more accurate estimation of targets' intrinsic value and expected synergies. However, the debate on the costs and benefits of disclosure mandates is unresolved, and the empirical evidence is mixed (Leuz and Wysocki, 2016; Khan et al., 2018). In particular, the implications of mandating financial disclosures in the context of the takeover market have received scant attention. Prior studies have focused on the associations of accounting quality, comparability, or other characteristics of firms' financial reporting with acquisition outcomes (e.g., Raman et al., 2013; McNichols and Stubben, 2015; Marquardt and Zur, 2015; Martin and Shalev, 2017; Chen et al., 2018; Ahmed et al., 2020). However, examining the effect of a target's financial reporting quality on acquisition outcomes raises an endogeneity challenge because a target firm's quality is a potential correlated omitted variable. A target firm's quality is associated with both the financial reporting quality of the target

³ \$500 million is the asset-size threshold for banks to file the FR Y-9C reports in the pre-period. Thus, we require banks to have at least \$500 million in total consolidated assets so that we can obtain their financial information for our analyses.

and the acquirer's decision to bid (e.g., Baik et al., 2021). In contrast, we take advantage of plausibly exogenous variation in the extent and frequency of mandatory financial disclosure by BHCs to provide direct evidence of the important role of mandatory disclosure in the takeover market.⁴

The few studies that examine the impact of disclosure regulation mandates on M&A activity include Chen (2019), Ortiz et al. (2021), and Bonetti et al. (2020). Chen (2019) shows that ex-post mandatory disclosure of private targets' audited financial statements disciplines acquiring managers and results in better acquisition decisions.⁵ However, Chen (2019) focuses on the effects of mandatory disclosure of financial statements by targets after the completion of acquisitions on M&A outcomes (i.e., conditional on an M&A event), while we focus on ex-ante disclosure of financial information by potential targets that precedes acquisition bids. In contemporaneous research, Ortiz et al. (2021) use cross-country-industry variation in the percentage of European private firms subject to the European Commission's directives on mandatory disclosure to show that the number of firms targeted in M&A deals is positively correlated with mandatory disclosure.⁶ They use cross-country-industry variation in the percentage of private firms subject to mandatory disclosure to evaluate the effect of financial disclosure on M&A. Finally, Bonetti et al. (2020) also investigate the impact of disclosure regulation mandates on the takeover market, but their focus is not financial disclosure—they examine the effect of the Transparency Directive, which tightened disclosure rules for ownership stakes in the takeover market in Europe.

⁴ Our findings compliment those of Granja (2014) who studies the auctions for failed banks. He shows that bank regulators incur lower costs in closing banks when a failed bank is subject to more comprehensive disclosure requirements.

⁵ Kubic (2020) provides complimentary evidence to Chen (2019) by showing that SEC's mandate of Article 11 pro forma financial statement disclosures for acquisitions that meet certain materiality thresholds improves target selection.

⁶ In a related study, Baik, Berfeld, and Verdi (2021) investigate the impact of public financial statements on raising financing in the private financing markets. They show that an increase in financial statements availability is associated with an increase in the probability of a private firm obtaining venture capital and private equity financing.

Second, we contribute to the sparse literature examining M&A and the impact of regulatory requirements on consolidation in the banking industry. The banking industry is one of the most regulated industries. Often regulatory requirements are applied only to banks above a certain asset-size threshold to reduce the regulatory burden on small banks. Ballew et al. (2022) and Bindal et al. (2020) document that the Dodd-Frank Act, which regulates banks with total consolidated assets of \$10 billion or more, incentivized banks with assets greater than \$10 billion to engage in acquisitions. We extend this literature by showing that the March 2015 regulatory change, which exempted BHCs with total consolidated assets of less than \$1 billion from filing more frequent and detailed regulatory reports, negatively impacted the reallocation of small BHCs' resources to their best use.

Third, we contribute to the research investigating the tradeoffs of financial reporting by private firms (e.g., Minnis and Shroff, 2017) and the broader literature on the economic consequences of disclosure mandates (e.g., Schipper, 2010; Cochrane, 2014). In particular, we extend this literature by showing the impact of disclosure mandates on private firms' liquidity and ownership structure (e.g., Bushee and Leuz, 2005; Brüggemann et al., 2018; Breuer, 2021).

Finally, our findings should interest bank regulators as they implement and evaluate asset size-based mandatory disclosure regulations. Small BHCs are exempted from filing the more detailed FR Y-9C reports quarterly to reduce their regulatory burden. We document an unintended consequence of this regulation—a reduction in the liquidity and market discipline of small BHCs via a decrease in the likelihood of small BHCs being targets of acquisitions. On July 9, 2021, President Joe Biden signed an executive order calling for greater scrutiny of bank mergers to promote competition in financial services.⁷ Our findings suggest that bank regulators should

⁷ <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/07/09/executive-order-on-promoting-competition-in-the-american-economy/>

consider the impact of bright-line asset threshold-based disclosure mandates on M&A activity in the banking industry in promoting competition in the banking industry.

The rest of the paper is organized as follows. We discuss institutional details in Section 2 and develop the hypotheses in Section 3. Sections 4 and 5 describe the research design and sample construction, respectively. We report the empirical results in Section 6 and conduct additional analyses in Section 7. Finally, Section 8 provides the conclusion.

2. Institutional Background

Regulations have heavily influenced the U.S. banking industry. Banks and legislators play a cat-and-mouse game, where banks are constantly adapting to avoid undesirable regulations and legislators are passing new rules to fill the loopholes. One such example is the Bank Holding Company Act of 1956 (the Act), which the U.S. Congress enacted to stop banks from side-stepping bank branching restrictions by organizing as chain or group banks (Mahon, 2013). The Act endowed the Federal Reserve with broader regulatory powers to control and regulate banks' actions organized as BHCs to conduct banking and nonbanking activities.⁸

Under the purview of Regulation Y and the amended Bank Holding Company Act, BHCs periodically report their financial condition and performance to the Federal Reserve using the various FR-Y9 forms. The Consolidated Financial Statements for Holding Companies (FR Y-9C) collect financial information from BHCs on a consolidated basis in the form of a balance sheet, income statement, and several supporting schedules, including a schedule of off-balance sheet activities. The FR Y-9C report is the most expansive of the FR Y-9 reports and contains more schedules than any other reports in the FR Y-9 series. It is filed quarterly as of the last calendar

⁸ Over time, the Bank Holding Company Act has been amended numerous times to reduce regulatory restrictions on banking and nonbanking activities. For example, the Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994 eased interstate branching restrictions, and the 1999 Graham-Leach-Bliley Act removed restrictions which prohibited BHCs from owning other financial institutions.

day of the quarter, and it is the primary tool used by bank regulators to monitor BHCs between onsite examinations. The FR Y-9C report is also the most widely requested and reviewed report for BHCs.⁹

The total consolidated assets determine whether a BHC is required to report an FR Y-9C form or another FR Y-9 form. Periodically, the Federal Reserve assesses the regulatory burden on banks and revises the asset-size thresholds for filing the various FR Y-9 forms. Such initiatives to reduce the regulatory and reporting burden on BHCs have led to an increase in the asset-size threshold for filing the FR Y-9C report from \$150 million to \$500 million in March 2006, \$500 million to \$1 billion in March 2015, and \$1 billion to \$3 billion in September 2018.¹⁰

We focus on the March 2015 change in the asset-size threshold for filing the FR Y-9C reports to investigate the impact of mandatory financial disclosure on the takeover activity of privately held BHCs. We do not examine the March 2006 change in the asset-size threshold because it closely preceded the 2007-2009 financial crisis, which significantly reduced overall M&A activity in the United States. Specifically, while in 2006 there were 15,271 M&A transactions with a total announced transaction volume of \$2.07 trillion, in 2009 there were 12,153 transactions amounting to \$973 billion in volume (Institute of Mergers, Acquisitions and Alliances 2020). Furthermore, we do not focus on the September 2018 change because the COVID-19 pandemic has caused severe disruption in the takeover market of banks due to uncertainty and high volatility in financial markets and the overall economy. The M&A activity in the banking industry was down by

⁹ See <https://www.federalreserve.gov/apps/reportforms/reportdetail.aspx?sOoYJ+5BzDal8cbqnRxZRg==>

¹⁰ BHCs that fall below the asset-size threshold are also subject to less restrictive capital regulation. However, their subsidiary commercial banks are not exempt. Moreover, BHCs with consolidated assets below the asset-size threshold that (1) engaged in significant nonbanking activities, (2) conducted significant off-balance sheet activities, or (3) had a material amount of debt or equity securities outstanding that are registered with the SEC, are required by the Federal Reserve to continue filing consolidated financial statements (i.e., the FR Y-9C reports) on a quarterly frequency.

approximately 21 percent in terms of deal volume in the first quarter of 2020 compared with that of the previous year (KPMG 2020).

BHCs with total consolidated assets below the asset-size threshold for filing the FR Y-9C reports file the Parent Company Only Financial Statements for Small Holding Companies (FR Y-9SP). The information content of the FR Y-9SP report is significantly lower than that of the FR Y-9C report. First and foremost, the FR Y-9SP is a parent-only report, which provides very limited information about subsidiaries' activities or intracompany transactions among the parent and subsidiaries. Specifically, instead of consolidating the subsidiaries' assets, liabilities, revenue, and expenses with those of the parent, the FR Y-9SP report merely provide the net assets (net profit) of the subsidiaries in one balance sheet (income statement) line item. In contrast, the FR Y-9C report provides consolidated information on a holding company organization and, therefore, presents substantial information about the subsidiaries' activities while eliminating the effects of intracompany transactions among the parent and the subsidiaries.

Second, the FR Y-9SP report provides significantly less detail on the organization's essential activities than the FR Y-9C report. Specifically, The FR-Y9C report includes 25 schedules and information on over 2,600 data items. In contrast, the FR Y-9SP report includes 3 schedules and about 186 data items. The omitted schedules include (1) detailed information regarding the organization's composition and quality of crucial assets, such as charge-offs, recoveries, allowance for loan and lease losses, past-due loans, residential mortgages, and trading assets; (2) detailed information about the organization's critical liabilities, such as deposit liabilities and trading liabilities; (3) information on the organization's relatively risky activities, including derivatives, off-balance-sheet items, insurance-related underwriting activities, and securitization; and (4) information reflecting the safety and soundness of the organization, including but not limited to

regulatory capital and changes in holding company equity capital. The information discussed above is of paramount importance in evaluating the healthiness of a banking organization. One can also discern the difference in the information richness between the FR Y-9C and FR Y-9SP reports from their respective lengths—a typical FR Y-9SP report has only eight pages compared to 65 for an FR Y-9C report.

Finally, the FR Y-9SP reports are filed on a semiannual basis, while the FR Y-9C reports are filed quarterly. Therefore, relative to the information disclosed in the quarterly FR Y-9C reports, the information disclosed in the semiannual FR Y-9SP reports is delayed and more time-aggregated. Given these differences between the two regulatory reports and that regulatory filings are the primary source of publicly available disclosures for privately held BHCs, the information environment of privately held BHCs that file the FR Y-9SP reports is significantly opaquer than those that file the FR Y-9C reports.

It is noteworthy that a significant amount of the incremental information in FR Y-9C reports relative to FR Y-9SP reports cannot be obtained from the Call Reports issued by commercial bank subsidiaries of the BHC. First and foremost, without the consolidated FR Y-9C report, intracompany transactions cannot be entirely eliminated in stand-alone financial reports. Therefore, one cannot fully evaluate the performance and operations of a consolidated organization. Prior research finds that consolidated groups, including bank holding companies, strategically coordinate activities and shift costs to manage earnings and minimize taxes (e.g., Beatty and Harris, 2001; Gramlich et al., 2004; Hall and Lusch, 2018). Luo et al. (2019) and Wen (2021) show that parent companies can tunnel resources from subsidiaries to present a more favorable financial outlook. Without the consolidated report, one cannot use the Call reports to evaluate the significance of intracompany transactions.

Second, if a BHC has nonbank subsidiaries, the activities of nonbank subsidiaries are not reported in the Call Reports. Third, the FR Y-9C reports have three important schedules unavailable in the Call Reports—interest sensitivity, insurance-related underwriting activities, and predecessor financial items (if applicable). As a result, it is difficult for outsiders to thoroughly examine the BHCs’ asset-liability management adequacy and the magnitude of their nonbanking activities.¹¹

Comparing the FR Y-9C reports with the Call Reports for single-bank BHCs reveals that even reported net income differs significantly between these two filings. Badertscher, Burks, and Easton (2018) report that the mean and median difference in the reported net income between the FR Y-9C reports and the Call Reports is 20 and 8 percent, respectively. Furthermore, the reported net income differs by greater than 10 percent for more than 40 percent of bank-quarters in their sample.¹² They argue that the differences mainly arise from additional salary expenses and sometimes additional revenues and expenses related to brokerage or insurance operations at the holding company level.

Arguably, BHCs that are below the asset-size threshold for filing the FR Y-9C report can voluntarily file or disclose the information contained in the FR Y-9C report after March 2015. However, such voluntary disclosure is unlikely in our setting as voluntary disclosure can reveal

¹¹ A BHC’s nonbank subsidiary is typically required to submit a stand-alone regulatory report to regulators. However, these separate filings are not readily available to outsiders besides the functional regulators (Avraham, Selvaggi, and Vickery, 2012). Also, the report has much fewer details than the schedules in the FR Y9-C reports. Financial information on each nonbank subsidiary is filed in the FR Y-11 (if a domestic subsidiary), or the FR 2314 (if a foreign subsidiary). Moreover, some securities and insurance subsidiaries are exempt from filing a FR Y-11 report when reporting to their U.S. functional regulator.

¹² Badertscher, Burks, and Easton (2018) report that for a sample of publicly listed banks the public release of the FR Y-9C reports does not elicit an economically significant stock price and volume reactions. Arguably, the FR Y-9C reports are filed late in the reporting season and the information in them is preempted by Call Reports, earnings reports, and 10-K/Qs. However, unlike publicly listed banks, privately held banks have significantly less robust information environments and fewer channels for information dissemination. Importantly, in the absence of 10K/Qs, the FR Y-9C reports are the only source of information about private banks at the consolidated level and contain several unique schedules critical for assessing bank risk which are not included in the Call Reports or the FR Y-9SP reports.

proprietary information and may increase competition from peers (e.g., Verrecchia 1983; Chen 2019). Moreover, compiling the information contained in the FR Y-9C is burdensome and costly. Consistent with these notions, we find that no BHC in our sample that files an FR Y-9SP report also files a more detailed FR Y-9C report.

3. Related Literature and Hypotheses Development

By reallocating control over companies, mergers and acquisitions help with efficient reallocation of capital by directing capital towards its best use. Publicly available financial information plays a vital role in the efficient reallocation of capital through M&As. In the early stages of M&As, acquirers conduct preliminary due diligence to identify potential targets.¹³ The acquirers depend on public information to shortlist potential targets, estimate their intrinsic values, conduct peer analyses, and evaluate potential synergies from the acquisition. Publicly available financial information about targets is of critical importance at this stage as it is a significant input in target valuation and peer comparative analyses (Lajoux and Elson, 2011; Chen et al., 2018).

In-depth due diligence typically follows after acquirers narrow the list of potential targets through preliminary due diligence. In this stage, acquirers sign confidentiality agreements with potential targets and are privy to limited private information. The in-depth due diligence involves company visits, management meetings, updates to targets' valuation, negotiation of other terms and conditions, and determining an offer price. Alternatively, an acquirer can make a tender offer directly to the target firm's shareholders if the target firm's directors are unwilling to engage. In such tender offers, the acquirer is more dependent on the target firm's public financial disclosures to compose the terms and conditions of an acquisition bid.

¹³ See Lajoux and Elson (2011) and Chen et al. (2018) for a detailed review of the acquisition process.

If an acquisition offer is accepted, an acquisition agreement is signed, and an announcement of the deal is often made public. At this stage, transactional due diligence begins. An acquirer utilizes greater access to its target's private information to verify the accuracy of the target's prior representations, search for hidden liabilities, and conduct post-merger integration planning. If the negotiations are successful and regulatory approvals are obtained, the merger is completed.

Acquirers are motivated to takeover other banks for cost reductions, reducing inefficiencies from prior regulations, and diversifying geographic risks (e.g., Akkus et al., 2016; Aguirregabiria et al., 2016). Financial disclosure mandates increase the information that is publicly available about targets. Such information can help acquirers to (1) better identify potential targets by reducing search costs and broadening the pool of potential targets with the highest synergies to reduce cost inefficiencies and diversify geographical risks, (2) increase M&A profitability by helping acquirers estimate the intrinsic value of targets and potential synergies more accurately, and (3) more effectively facilitate ex-post supervision.

Prior studies find that the characteristics of targets' financial disclosures can help investors evaluate alternative M&A investment opportunities and have important implications for acquisition outcomes.¹⁴ Specifically, target firms' accounting quality is positively associated with the likelihood of non-negotiated bids, deal announcement returns for the acquirer, the speed of reaching a successful final resolution, the cash proportion of the acquisition consideration, the deal premium, and the likelihood of deal completion (e.g., Raman, Shivakumar, and Tamayo, 2013; Skaife and Wangerin, 2013; Marquardt and Zur, 2015; McNichols and Stubben, 2015; Ahmed et al., 2020). Using stock-return non-synchronicity to measure target-specific information, Martin and Shalev (2017) find that acquisition efficiency is positively associated with greater availability

¹⁴ See Bushman and Smith (2001) and Armstrong, Guay, and Weber (2010) for reviews of this literature.

of information about targets. Chen et al. (2018) report that when target firms' financial statements are more comparable with industry peers, acquirers make better acquisition decisions.¹⁵ In a contemporaneous study, Ortiz et al. (2021) use cross-country-industry variation in the percentage of European private firms subject to mandatory disclosure to show that the number of firms targeted in M&A deals is positively correlated with mandatory disclosure. Therefore, disclosure mandates can enhance target firms' information environment by making more detailed and precise information publicly available and, thus, in turn, facilitate M&As.

Another avenue for mandated disclosures to increase the likelihood of M&A is that it reduces the information-production and proprietary costs that companies face if they were to market themselves as potential targets. If no disclosures are required, companies can voluntarily produce and disseminate information to potential bidders to increase the likelihood of being acquired. However, companies may find that preparation and proprietary costs outweigh the potential benefits and avoid providing the information at all or offering it selectively, which would reduce the likelihood of M&As.

Alternatively, enhanced mandatory disclosure may have a negative effect on M&A activity by crowding out private information production. Disclosure mandates have the potential to weaken the incentives of acquirers to discover costly proprietary information about targets and become more informed (Verrecchia, 1982; Diamond, 1985; Goldstein and Yang, 2017), which can result in acquirers making fewer takeover bids. Consistent with this notion, Bonetti et al. (2020) find that

¹⁵ Prior studies associate characteristics of firms' financial reporting (e.g., accounting quality, comparability, etc.) with outcomes in the takeover market. However, such investigations are subject to endogeneity concerns because a firm's underlying quality is associated with both its financial reporting characteristics and the likelihood of it being involved in M&A deals (e.g., Baik et al. 2021). We address this shortcoming by exploiting a plausibly exogenous regulatory change in mandatory disclosure to examine the causal role of mandatory disclosure in the takeover market.

increased disclosure requirements regarding major ownership stakes slowed down corporate takeover activity in the European Union.

Therefore, the ex-ante effect of disclosure mandates on takeover activity is unclear. Accordingly, our first hypothesis (in the null form) is as follows:

H1: Mandatory financial disclosure by a firm has no impact on its likelihood of receiving a takeover bid.

Next, we examine the impact of targets' mandatory financial disclosure on the time taken for an M&A deal to reach a resolution. As discussed above, acquirers have access to targets' private information after signing confidentiality agreements with the targets. Thus, the usefulness of publicly available financial information may be dampened during the in-depth and transactional due diligence stages of acquisitions. However, acquirers' private information access may be limited. Furthermore, targets can cherry-pick to present only favorable private information (Ahmed et al., 2020). In such cases, publicly available financial information can help assess the accuracy of the provided private information, thereby speeding the process of due diligence (Marquardt and Zur, 2015). Thus, our second hypothesis (in the null form) is:

H2: Mandatory financial disclosure by a target firm has no impact on the speed of resolution of a takeover bid.

Finally, we consider the impact of target firms' mandatory financial disclosure on the profitability of takeover bids for acquirers. Target firms will not accept a takeover bid below their reservation price (Hansen, 1987). Yet the reservation price is unknown to the acquirer. In determining takeover bids, acquirers value targets' resources and post-merger synergies. By providing detailed information about targets' assets and activities, disclosure mandates can help acquirers better estimate the value of targets' resources and expected synergies. Moreover,

mandatory financial disclosure may broaden acquirers' pool of potential targets and give acquirers more options in finding suitable M&A targets with the highest synergies. Thus, target firms' financial disclosures can help acquirers increase their profits by making deal prices closer to the target firms' reservation prices and by revealing targets with the highest potential synergies (McNichols and Stubben, 2015).

On the other hand, mandatory public financial disclosure by targets can allow greater participation of bidders in the takeover market by facilitating the identification of potential targets. As a result, increased competition and liquidity of the takeover market can reduce the rents accruing to the winning bidder. Furthermore, acquiring firms have access to private information after signing confidentiality agreements with target firms, so they may not rely on publicly available financial information in estimating the targets' reservation prices and determining takeover bids. Thus, the impact of target firms' publicly available financial disclosures on acquiring firms' profits is ex-ante unclear, leading to our third hypothesis (in the null form):

H3: Mandatory financial disclosure by a target firm has no impact on the profits of a takeover bid for an acquirer.

4. Research Design

4.1. Extent of Mandatory Disclosure and Takeover Bids

The March 2015 increase in the asset-size threshold from \$500 million to \$1 billion for filing the FR Y-9C reports did not result from changes in any individual BHC's fundamentals or the likelihood of a BHC being a target in an M&A transaction (i.e., the outcome we examine in our tests). Thus, we use this regulatory change as an exogenous source of variation in the extent and frequency of mandatory disclosure by BHCs, to examine the impact of disclosure mandates on the takeover market of privately held BHCs. We follow Armstrong, Glaeser, and Huang (2021) and

use a “fuzzy” difference-in-differences (DD) research design to estimate the following reduced-form model:

$$M\&A_{it} = \beta Below_i * Post_t + \delta LogAssets_{it-1} + \varphi LogAssets_{it-1} * Post_t + \gamma Controls_{it-1} + \alpha_i + \alpha_t + \varepsilon_{it} \quad [1]$$

where i represents the i -th BHC and t indicates the t -th year. $M\&A_{it}$ designates whether or not the BHC is a target of an M&A transaction—it is an indicator variable that equals one if the BHC is a target in year t , and zero otherwise. We focus on control acquisitions where the target is a privately held BHC.¹⁶

$Below_i$ indicates whether the BHC is below the asset-size threshold designated by the March 2015 change for filing the FR Y-9C reports. Specifically, $Below_i$ equals one if the total consolidated assets of the BHC are less than \$1 billion as of the end of 2014 (i.e., the last fiscal year before the change in the asset-size threshold) and zero otherwise. We use BHCs’ total consolidated assets as of December 2014 rather than BHCs’ time-varying total consolidated assets post-March 2015 to classify the impact of change in the asset-size threshold for filing the FR Y-9C report (e.g., Iliev 2010). This helps to purge endogenous variation in the reporting status of BHCs due to post-treatment factors (e.g., realized growth opportunities and manipulation of total consolidated assets in response to the regulatory change). Nonetheless, in untabulated robustness tests, we define $Below_i$ as an indicator variable that equals one if the BHC total consolidated assets are less than \$1 billion at the beginning of year t , and zero otherwise. Our inferences remain unchanged.¹⁷

¹⁶ We confirm that none of the M&A deals in our sample are government-assisted takeovers or bank resolutions.

¹⁷ In untabulated tests, we also confirm that our inferences are robust to (i) implementing a traditional difference-in-differences (DD) research design (e.g., Armstrong, Glaeser, and Huang, 2021), (ii) employing an alternative dependent variable that indicates whether a BHC is successfully taken over in year t , and (iii) measuring BHCs’ total consolidated assets as of the end of 2013 (i.e., one year before the change in the asset-size threshold) instead of the end of 2014.

$Post_t$ equals one if year t is 2015 or later and zero otherwise. $LogAsset_{it-1}$ equals the natural log of the BHC's total consolidated assets at the beginning of year t . We include the interaction of $LogAsset_{it-1}$ with $Post_t$ to allow the total consolidated assets to have a different effect on M&A activity before and after the regulatory asset-size threshold change. In robustness tests, we also include more flexible forms of $LogAsset_{it-1}$, such as non-linear forms of total consolidated assets (e.g., the square and cube of $LogAsset_{it}$). α_i and α_t are BHC and year fixed effects, respectively. ε_{it} is the error term, which we cluster at the BHC level.

$Controls_{it-1}$ represents a comprehensive set of control variables measured at the beginning of year t . We include the BHC's age ($LogAge$) because firm age is a widely acknowledged determinant of a firm's likelihood of being targeted in an M&A transaction (Mata et al. 1995; Dunne et al. 1988; Grilli et al. 2010). BHCs that file the FR Y-9C and FR Y-9SP reports are faced with different degrees of capital requirements. BHCs that file the FR Y-9SPs are exempted from the minimum consolidated capital requirements (Regulation Y, Appendix C), whereas BHCs that file the FR Y-9Cs must meet these requirements. However, the different capital requirements do not appear to affect banks' likelihood of being M&A targets (Hannan and Pilloff, 2005). Nonetheless, we include RWC , the total risk-based capital ratio, to control for the BHC's capital structure and capital adequacy. We also include the interaction term $RWC*Post$ to allow the total risk-based capital ratio to have a different effect on M&A activity before and after the regulatory asset-size threshold change.¹⁸

¹⁸ Basel III was introduced in the U.S. on January 1, 2015. It requires a BHC that files the FR Y-9C reports to maintain the following minimum capital ratios: (i) a common equity tier 1 capital ratio of 4.5 percent, (ii) a tier 1 capital ratio of 6 percent, (iii) a total capital ratio of 8 percent, and (iv) a leverage ratio of 4 percent. Since the common equity tier 1 capital ratio was not used or reported until 2015, we cannot include it as a control variable in our analyses. Given that tier 1 capital ratio, total capital ratio, and leverage ratio are highly correlated, we include only the total capital ratio. However, our results are robust to alternative choices of capital ratios (i.e., tier 1 capital ratio or leverage ratio).

Following Rossi and Volpin (2004), we also control for profitability, measured using the return on equity attributable to the parent BHC (*ROE*). We choose *ROE* as our measure of profitability because we can calculate it at the consolidated BHC level even for BHCs that file the less-detailed parent-only financial statements (i.e., the FR Y-9SP reports) in the post period.¹⁹ We also include the deposit-to-total-liabilities ratio (*Deposit/Liability*) and the loan-to-deposit ratio (*Loan/Deposit*) to control for any possible effect of differences in funding sources or liquidity. We additionally include the ratio of the allowance for loan and lease losses to total loans and leases held for investment (*ALLL*) to account for the BHC's loans credit quality, which for many small banks is the primary source of risk. Finally, we include the number of subsidiary banks of the BHC (*LogNumBanks*) to control for the complexity of a BHC's banking activities. Detailed definitions of all variables are provided in Appendix A.

It is noteworthy that the FR Y-9SP reports do not contain the requisite information to calculate *RWC*, *Deposit/Liability*, *Loan/Deposit*, or *ALLL* for BHCs on a consolidated basis. Hence, we use the values of these variables as of the end of 2014 for all post-2014 observations. In other words, we use the 2014 information for these variables across all firms, including those that continue to report in the FR Y-9C forms and whose post-2014 information is available. This is to prevent any potential bias from inconsistent measurement across banks.

4.2. Mandatory Disclosure and Time Taken for M&A Deal Resolution

To examine the impact of disclosure mandates on the time taken to complete M&A deals, we estimate the following reduced-form model:

¹⁹ We confirm this notion by verifying that, among all firms in the banking industry that file both the FR Y-9C reports and Y-9LP reports (i.e., a parent-only report also filed by the FR Y-9C filers), 97% of the firms have less than a 0.01% difference between the consolidated ROE attributable to the parent company (reported in the FR Y-9C report) and parent-only ROE (reported in the FR Y-9LP report). We conjecture that the minor differences exist due to different rounding errors in different reports.

$$\begin{aligned}
Duration_{it} = & \beta_1 Below_i * Post_t + \beta_2 Below_i + \delta LogAssets_{it-1} + \varphi LogAssets_{it-1} * \\
& Post_t + \gamma Controls_{it-1} + \alpha_t + \varepsilon_{it}
\end{aligned} \tag{2}$$

where $Duration_{it}$ is the number of days between the date of the M&A announcement and the date when the M&A transaction is completed for BHC i targeted in year t . All other variables are as defined in Equation [1].

4.3. Mandatory Disclosure and Profitability of Takeovers

Finally, we investigate the impact of disclosure mandates on the profitability of takeovers for acquirers. We use acquirer stock returns to measure the market's assessment of the profitability of the acquisition bid and estimate the following reduced-form model:

$$\begin{aligned}
BHAR_{it} = & \beta_1 Below_i * Post_t + \beta_2 Below_i + \delta LogAssets_{it-1} + \varphi LogAssets_{it-1} * Post_t + \\
& \gamma Controls_{it-1} + \alpha_t + \varepsilon_{it}
\end{aligned} \tag{3}$$

where $BHAR_{it}$ is the seven-day bid announcement abnormal return of acquirer i that takes over a BHC in year t . We center the seven-day window around the date of the takeover bid's announcement. We estimate expected returns using the Fama-French three-factor model, estimated over 100 days ending 50 days before the announcement date of the bid. All other variables are as defined in Equation [1].

We do not include the BHC fixed effect or cluster the error term by BHC when we estimate Equations [2] and [3] because M&A activities are one-time events for most target firms in our sample—there are only three banks that engaged in M&As twice in our sample.

5. Sample Selection and Descriptive Statistics

5.1. Sample Selection

We obtain financial data for BHCs (i.e., the FR Y-9 reports) from the Federal Reserve Bank of Chicago; data on acquirers' stock prices from CRSP; and data on bank M&A transactions from SNL Financial.²⁰

Panel A of Table 1 presents the details of our sample construction. Our sample period is from 2012 to 2017.²¹ We begin with 6,414 unique bank-year observations, representing a sample of U.S. BHCs that have filed the FR Y-9C report in the pre-period (i.e., before 2015) and an FR Y-9C or FR Y-9SP reports in the post-period (i.e., in and after 2015). We require banks to report the FR Y-9C report in the pre-period to obtain banks' consolidated financial information prior to the 2015 change in the asset-size threshold for filing FR Y-9C reports. We exclude nine bank-year observations with missing, zero, or negative total consolidated assets. Next, we delete 669 bank-year observations where the total consolidated assets are between \$900 million and \$1.1 billion. These banks are close to the asset-size threshold for filing the FR Y-9C reports following the March 2015 regulatory change. Therefore, they may manipulate their total consolidated assets to obtain a desirable filing status (e.g., Srivastav and Vallascas, 2019; Bindal et al., 2020; Ballew et al., 2022).²²

²⁰ We include both completed and incomplete M&A deals in our analyses. In our sample, 98.0 percent of M&A deals are completed. Following prior studies (e.g., Akkus et al., 2016; Hannan and Pilloff, 2005), we check the robustness of our inferences by focusing exclusively on completed M&A deals. Our inferences are unchanged.

²¹ We end the sample period in 2017 because the asset-size threshold for filing the FR Y-9C reports changed in September 2018 to total consolidated assets of \$3 billion or more. Furthermore, if a BHC ceases to exist in the middle of a fiscal year, we consider its last available report as its fiscal-year-end report for the year.

²² For example, Srivastav and Vallascas (2019) argue that the March 2015 regulatory change can alter banks' growth incentives to lose (and achieve) small BHC status. Furthermore, our inferences are not sensitive to alternative size-based filters for identifying banks that may manipulate their assets to obtain a desirable filing status. For example, our results are robust to excluding banks with total consolidated assets between (i) \$890 million and \$1.11 billion, or (ii) \$910 million and \$1.09 billion.

To ensure that the FR Y-9 reports are the primary source of public information, we delete 2,214 bank-year observations related to BHCs that have been subject to SEC disclosure mandates at any point in time during our sample period.²³ In section 7, we utilize these observations for a placebo test. Next, we exclude 226 bank-year observations of BHCs that file the FR Y-9C reports for reasons other than meeting the asset-size threshold (i.e., having total consolidated assets of \$500 million or more) for filing FR Y-9C reports during the *pre-period* (i.e., the period before 2015). These BHCs are fundamentally different from the rest of the BHCs in our sample as they file the FR Y-9C reports for specific qualitative requirements (see footnote 10). Finally, we exclude 264 bank-year observations with missing information to compute control variables included in the regressions. Our final sample includes 3,032 bank-year observations. After constructing our final sample, we merge the 3,032 bank-year observations with data on M&A deals from SNL, and identify banks that engaged in M&As during the sample period.

5.2. Descriptive Statistics

Panel A of Table 2 reports the total number of BHCs in our sample and the number of privately held BHCs targeted in M&A transactions, classified based on whether the total consolidated assets of the target are below or above \$1 billion. In the pre-March 2015 period, the number of BHCs is slightly greater than that in the post-period. Panel B reports descriptive statistics for the main variables. We winsorize all continuous variables at the 1st and 99th percentile of their respective distributions, except for *BHAR*. During our sample period, 3.2 percent of the bank-year observations are targeted in M&A transactions (*M&A*). On average, it takes 198 days for an M&A transaction to be completed since its initial announcement (*Duration*). The mean (median) seven-

²³ We identify a BHC's public filing status using CRSP-FRB (2017) linking table. In untabulated tests, we confirm that our inferences remain unchanged if we exclude only observations relating to particular years in which a bank is subject to the SEC's disclosure mandate.

day M&A announcement abnormal return for the acquirer (*BHAR*) is 2.0 (1.2) percent. Because we focus on privately held BHCs, the banks included in our sample are relatively small—the mean (median) of total consolidated assets (*Assets*) is \$2.50 billion (\$811 million). The BHCs are well-capitalized and profitable, with a mean total risk-based capital ratio (*RWC*) and return on equity (*ROE*) of 16.6 and 9.0 percent, respectively. The mean age of the BHCs (*Age*) is 24.9 years. Furthermore, these banks seem to be almost exclusively funded by deposits—the mean deposit-to-liability ratio (*Deposit/Liability*) is 91.3 percent. In comparison, the mean loan-to-deposit ratio (*Loan/Deposit*) is 77.5 percent. The mean of the ratio of the allowance for loan and lease losses to total loans and leases held for investment (*ALLL*) is 1.7 percent. Finally, on average, 42.7 percent of BHCs report nonbank-activity income (*NonbankIN*).

6. Results

6.1. Mandatory Disclosure and the Takeover of Privately Held BHCs

We begin by providing univariate evidence on the impact of reduced and less frequent mandatory regulatory disclosure on the likelihood of privately held BHCs being targeted in M&A transactions. For the pre-March 2015 period (i.e., before the change in the asset-size threshold for filing the FR Y-9C reports), we require that all sample BHCs filed the FR Y-9C reports quarterly. So, there is no difference in their mandatory reporting. From March 2015 onwards, BHCs with total consolidated assets of \$1 billion or more have continued to file the quarterly FR Y-9C reports, while BHCs with total consolidated assets of less than \$1 billion have filed the less-detailed semiannual parent-only FR Y-9SP reports.

Table 3 compares the differences in the likelihood of BHCs being targeted in M&A transactions in the pre- and post-March 2015 periods between BHCs with total consolidated assets below and above \$1 billion. In the pre-period, the takeover rate of BHCs is comparable between

both sets of BHCs. In the pre-period, the mean takeover rate is 3.2 percent both for BHCs with total consolidated assets of less than \$1 billion and for BHCs with total consolidated assets of \$1 billion or more. However, the takeover rates of the two groups of BHCs diverge post-March 2015. In the post-period, the likelihood of being targeted in M&A deals of BHCs with total consolidated assets of less than \$1 billion decreases to 2.5 percent, while that of BHCs with total consolidated assets of \$1 billion or more increases to 4.5 percent. The mean of the difference-in-differences in the likelihood of BHCs being M&A targets between the two sets of BHCs is -1.9 percent, although the difference is statistically insignificant at conventional levels (t-statistic = -1.44).

We also examine differences in the time taken to complete M&A transactions (*Duration*) and the abnormal returns for M&A announcements (*BHAR*) between the two groups of BHCs in the pre- and post-periods. The difference-in-differences for these variables are statistically insignificant as well. However, the statistical insignificance of differences in the univariate analysis can be due to differences in other characteristics between the two groups of BHCs. Thus, we estimate multivariate regressions.²⁴

Table 4 reports the results of estimating various specifications nested in Equation [1] using linear probability models. We include year and BHC fixed effects in the regressions and cluster standard errors by BHC. In Column 1, the coefficient on *Below*Post* is -0.052 and statistically significant (t-statistic = -2.80), suggesting that banks with total consolidated assets of less than \$1 billion are less likely to be targeted in M&A transactions after the March 2015 change in the asset-size threshold for filing the FR Y-9C reports. That is, after March 2015, a BHC with total consolidated assets of less than \$1 billion is 5.2 percent less likely to be the target in an M&A

²⁴ In untabulated tables, we also examine the difference-in-differences of all control variables that are employed in our multivariate regressions, and the difference-in-differences are statistically insignificant for all control variables except for *NumBanks*.

transaction than a BHC with assets of \$1 billion or more. For reference, the unconditional mean of the BHC target rate is 3.2 percent in our sample (see Panel B of Table 2).

Our results are robust to the inclusion of a comprehensive set of controls. For instance, in Column 4 of Table 4, we control for BHCs' regulatory capital (RWC and $RWC*Post$), performance (ROE), age ($LogAge$), funding source ($Deposit/Liability$), liquidity ($Loan/Deposit$), loan portfolio risk ($ALLL$), and the number of subsidiary banks ($LogNumBanks$). Additionally, we include the square and the cube of the natural log of total consolidated assets ($LogAssets^2$ and $LogAssets^3$) as additional control variables in Column 4 to account for non-linearities in the relationship between bank size and being a target. The coefficient on $Below*Post$ continues to be negative and statistically significant (coefficient = -0.050, t-statistic = -2.54), suggesting that our inferences remain unchanged.

In sum, the evidence suggests that BHCs that start to file the FR Y-9SP reports are less likely to be targets of M&A transactions than BHCs that file the FR Y-9C reports. This implies that reduced and less frequent mandatory regulatory disclosure increases the search costs of acquirers for targeting privately held BHCs.

6.2. Mandatory Disclosure and Speed of Deal Completion

Next, we investigate the impact of mandatory disclosure on the time taken to complete an M&A transaction. Table 5 reports the results of estimating Equation [2] using Ordinary Least Squares (OLS) regressions. The regressions include the year fixed effect, and we use robust standard errors. Across all Equation [2] specifications, the coefficients on $Below*Post$ are statistically insignificant, implying that the time taken to complete an acquisition does not differ significantly between BHCs with assets below and above \$1 billion after the March 2015 change

in disclosure requirements. Thus, we fail to find evidence suggesting that reduced and less frequent mandatory disclosure influences the speed with which M&A deals are completed.

Given that an acquirer has access to private information about its target to conduct in-depth due diligence after announcing the M&A deals, it is not surprising that the impact of mandatory public disclosure on the speed of M&A deal resolutions is muted. Our findings contrast with those of prior studies which find that target firms' accounting quality in public disclosure is positively associated with the speed with which M&A deals reach final resolution (e.g., Marquardt and Zur, 2015). Nonetheless, we acknowledge that this difference may be due to the relatively small size of our sample. Our sample has 98 observations for this analysis.

6.3. Mandatory Disclosure and Acquirers' Bid-Announcement Returns

Table 6 reports the results of estimating Equation [3] using OLS regressions. We include the year fixed effect and report robust standard errors. For this analysis, we restrict our sample to publicly listed acquirers as we use short-window stock price reactions to M&A announcements to measure the profitability of M&As for acquirers. Thus, we have 74 observations for these analyses.

In all columns of Table 6, the coefficients on *Below*Post* are negative and statistically significant, suggesting that disclosure mandates help acquirers either better estimate the value of targets or find deals with higher expected synergies (and investors realize this). For example, a coefficient of -0.056 on *Below*Post* in Column 1 indicates that after March 2015, acquirers, on average, experience an incremental negative 5.6 percent abnormal return around the announcements of bids for target BHCs with reduced and less frequent disclosure relative to when they target other BHCs. In contrast, the coefficient on *Below* is statistically insignificant across all specifications, suggesting that before March 2015 the acquirers' bid announcement returns for BHCs with total consolidated assets of less than \$1 billion were not significantly different from

those for BHCs with total consolidated assets of \$1 billion or more. Overall, the evidence in Table 6 suggests that reduced and less frequent mandatory disclosure by targets prevents acquirers from bidding more effectively and earning greater profits (e.g., McNichols and Stubben, 2015).²⁵

7. Additional Analyses

We conduct several additional analyses to assess the sensitivity and robustness of our findings.

7.1. Changes in Geographical Closeness between Targets and Acquirers

If acquirers rely on publicly available financial disclosure to identify potential targets, given that buyers typically have less information about geographically distant banks (e.g., Granja, 2014; Granja, Matvos, and Seru, 2017), the reduction in public financial disclosure is likely to prevent banks from being targeted by more distant buyers. Therefore, we examine the impact of the March 2015 change of BHCs' mandatory disclosure requirements on the geographical proximity of targets and acquirers. Specifically, we use the following DD model to estimate the effects of the March 2015 regulatory disclosure mandate on the percentage of geographical overlap in branch networks between targets and acquirers:

$$\begin{aligned} \text{Geographical Closeness}_{it} = & \beta_1 \text{Below}_i * \text{Post}_t + \beta_2 \text{Below}_i + \delta \text{LogAssets}_{it-1} + \\ & \phi \text{LogAssets}_{it-1} * \text{Post}_t + \gamma \text{Controls}_{it-1} + \alpha_t + \varepsilon_{it} \end{aligned} \quad [4]$$

where *Geographical Closeness* is the percentage of geographical overlap in branch networks between targets and acquirers. Specifically, it is calculated as the number of overlapping states where both targets and acquirers have branches, divided by the total number of states where targets

²⁵ In untabulated analyses, we also investigate the impact of the 2015 regulatory disclosure mandate on the long-run operational efficiency of takeovers. To do so, we examine differences in acquirers' average ROA and goodwill impairments over two years before and after the M&A deals. Consistent with Ahmed et al. (2020), we observe no significant changes in either the acquirers' ROA or goodwill impairment. Because target firms are relatively smaller compared to acquirers, target characteristics may not show up statistically significant in the long-term effects of the combined entity. In addition, managers of acquiring firm may have acquired the target to hedge against an expected downturn in future earnings. Also, our inferences are unchanged if we expand the observation window to three (or four) years before and after M&A deals.

have branches. All other variables are as defined in Equation [1]. We do not include the BHC fixed effect or cluster the error term by BHC when we estimate Equation [4] because M&A activities are one-time events for most target firms in our sample—there are only three banks that engaged in M&As twice in our sample.

We report the results of estimating different regression models nested in Equation [4] using linear probability models in Table 7. We include year fixed effects and estimate robust standard errors. In all specifications, the coefficients on *Below*Post* are positive and statistically significant, indicating that the geographical overlap in branch networks between targets and acquirers increases for banks with consolidated assets of less than \$1 billion relative to other target banks after the March 2015 regulatory change. At the same time, the coefficients on *Below* are statistically insignificant across all specifications. This suggests that prior to the March 2015 disclosure mandate change, there was no statistically significant difference in the geographical proximity of acquirers and target BHCs with assets below or above \$1 billion.

Overall, the evidence in Table 7 suggests that reduced and less frequent mandatory financial disclosure likely increases the search costs for acquirers and deters them for bidding for targets that are geographically more distant.

7.2. Extent of Information Loss and Takeover Bids

Next, we investigate the impact of the March 2015 regulatory disclosure mandate on BHCs' likelihood of being M&A targets for banks that experience the most significant decrease in financial disclosure. As discussed in Section 2, unlike FR Y-9C reports, FR Y-9SP reports and Call Reports omit information about BHCs' nonbanking activities and the effect of intracompany transactions on the financial condition of the holding company. We examine the differential impact

of the March 2015 disclosure mandate on BHCs' likelihood of receiving an acquisition bid conditional on the BHC engaging in nonbanking activities.

Banking organizations are permitted to engage in various nonbank activities, including insurance underwriting, securities dealing, investment advisory, and brokerage services. On the one hand, nonbank activities help banks diversify their assets and sources of revenues, reducing the risk of failure. On the other hand, offering nonbank services can increase bank risk, as nonbank subsidiaries are typically less regulated. Thus, the banking organization can take on more risk via nonbank activities without triggering alarms. The FR Y-9C reports are a critical source of information about the extent of a BHC's engagement in nonbank activities. For example, BHCs that engage in insurance-related underwriting activities report the total assets, reinsurance recoverables, claims reserves, unearned premiums, total equity, and net income by insurance business line (property and casualty, life, and health) in Schedule HC-I of the FR Y-9C report. Such information is vital for acquirers to assess the risk and expected synergies associated with potential BHC targets. Thus, we examine the differential effect of the March 2015 regulatory disclosure change on the likelihood of receiving an acquisition for BHCs engaging in nonbanking activities and being below the asset-size threshold for filing the FR Y-9C report relative to those that are above the threshold. To do so, we estimate various specifications nested in the following linear probability model:

$$\begin{aligned}
 M\&A_{it} = \beta_1 Below_i * Post_t * NonbankIN_i + \beta_2 Below_i * Post_t + \beta_3 Post_t * \\
 &NonbankIN_i + \delta LogAssets_{it-1} + \varphi LogAssets_{it-1} * Post_t + \gamma Controls_{it-1} + \alpha_i + \alpha_t + \\
 \varepsilon_{it} & \hspace{15em} [5]
 \end{aligned}$$

where $NonbankIN_i$ is an indicator variable that equals one if the BHC reports income from nonbank subsidiaries and associates as of the end of 2014, and zero otherwise. All other variables are as defined in Equation [1].

Similar to the definition of $Below_i$, we use whether the BHC reports income from nonbank subsidiaries and associates as of December 2014 rather than whether the BHC actually reports income from nonbank subsidiaries and associates post-March 2015 to classify whether the BHC is expected to experience a decrease in financial disclosure regarding nonbanking activities. This definition helps to purge endogenous variation in BHCs' participation in nonbanking activities due to post-treatment factors (e.g., manipulation of engagement in nonbanking activities in response to the regulatory change).²⁶ In our sample, 43 percent of the bank-year observations report income from nonbanking activities (see Panel B of Table 2).

In Panel A (B) of Table 8, we report the results of estimating Equation [5] in the pre- (post-) March 2015 period, respectively. In Panel A, the coefficients on $Below*NonbankIN$ are statistically insignificant. This evidence is consistent with acquirers being indifferent to targeting banks engaging in nonbanking activities with total consolidated assets below or above \$1 billion when both sets of banks disclose nonbanking activities in the FR Y-9C report (i.e., before March 2015). Furthermore, the coefficient on $NonbankIN$ is also statistically insignificant, suggesting acquirers do not discriminate between targeting banks with nonbanking activities before March 2015. In contrast, in Panel B, across all specifications, the coefficients on $Below*NonbankIN$ are statistically significant. This suggests that post-March 2015, banks engaging in nonbanking activities with less than \$1 billion in total consolidated assets are less likely to receive an

²⁶ In untabulated robustness tests, we define $NonbankIN_{it}$ as an indicator variable that equals one if the BHC reports income from nonbank subsidiaries and associates at the beginning of year t , and zero otherwise. Our inferences remain unchanged.

acquisition bid than banks that engage in nonbanking activities and have \$1 billion or more in total consolidated assets. At the same time, the coefficient on *NonbankIN* is positive but statistically insignificant across all specifications. This suggests that acquirers do not distinguish banks that have total consolidated assets of \$1 billion or more and engage in nonbanking activities from other banks of similar size after March 2015.

In Panel C of Table 8, we provide complimentary evidence using a triple interaction regression model. In particular, Panel C reports the results of estimating Equation [5]. Across all Equation [5]'s specifications, the coefficient on *Below*Post*NonbankIN* is negative and significant, suggesting that banks that engage in nonbank activities and have less than \$1 billion in total consolidated assets are less likely to receive an acquisition bid after the March 2015 regulatory disclosure change than other banks engaging in nonbanking activities. Moreover, after March 2015 banks that have \$1 billion or more in assets and engage in nonbanking activities are as likely to receive acquisition bids as other banks of similar size. The coefficients on *Post*NonbankIN* are positive but insignificant. This indicates that acquirers have the same level of interest in BHCs that engage in nonbanking activities and continue reporting the details of these activities in FR Y-9C reports after March 2015.²⁷

Overall, the evidence in Table 8 suggests that the impact of the March 2015 regulatory disclosure mandate on BHCs' likelihood of being M&A targets is more severe for banks that experience a greater decrease in financial disclosure of their operations.

7.3. Falsification Test using BHCs subject to SEC's Disclosure Mandate

²⁷ In the estimation of Equation [5], we do not report the coefficients on *Below*, *NonbankIN*, and their interaction as the BHC fixed effect subsumes these coefficients.

The main concern about drawing the inference that reduced and less frequent mandatory disclosure decreases BHC's likelihood of being M&A targets is that the decreased likelihood of being targeted could be driven by confounding events other than the change in mandatory disclosure. Our empirical design accounts for the potential confounding trends in takeover activities by using the DD method with a comprehensive set of control variables as well as BHC and year fixed effects. Yet, we further check whether our results are indeed attributable to the change in mandatory disclosure by conducting a placebo test.

Specifically, we replicate the analyses in Tables 3 and 4 using a sample of publicly listed BHCs. Publicly listed firms are subject to the SEC's disclosure mandate, and are required to file detailed quarterly (10-Q) and annual financial reports (10-K) regardless of whether they also file the less detailed and frequent FR Y-9SP reports or the more frequent and more detailed FR Y-9C reports. Thus, the 2015 regulatory disclosure mandate is unlikely to have had a significant impact on the information environment of publicly listed BHCs because their SEC disclosures continue to provide detailed and timely information. Moreover, information intermediaries like analysts and credit rating agencies are more likely to cover publicly listed BHCs.

If our findings are attributable to a confounding economic trend or factor, we expect to observe a pattern for publicly listed BHCs similar to the pattern we document for privately held BHCs. For example, an increase in the asset-size threshold for classifying small BHCs results in laxer capital requirements. Prior studies argue that newly classified small BHCs also benefit from a friendlier regulatory environment and reduced surveillance (e.g., Srivastav and Vallascas, 2019; Bisetti, 2020). Thus, if laxer regulatory capital requirements and supervision rather than reduced and less timely financial disclosure are the underlying drivers of our findings, we should observe that, like

privately held BHCs, publicly listed BHCs with total consolidated assets of less than \$1 billion are less likely to receive takeover bids than other publicly listed BHCs after March 2015.

We report the results of these analyses in Table 9. In Panel A, the mean of the difference-in-differences in the likelihood of being M&A targets between the two sets of BHCs is statistically indistinguishable from zero (coefficient = -0.009, t-statistic = -0.325). Similarly, Panel B of Table 9 shows that the coefficients on *Below*Post* are relatively small in magnitude compared to those in Table 4 and are, more importantly, statistically insignificant. Overall, the evidence in this section suggests that our findings reported in Tables 3 and 4 are unlikely to be confounded by trends or factors unrelated to the 2015 change in mandatory disclosure.

7.4. Test of the Parallel-Trend Assumption

The identifying assumption of the DD research design is that there are parallel trends in the likelihood of being targeted in M&A deals between BHCs that have total consolidated assets below and above \$1 billion in the absence of the March 2015 regulatory disclosure mandate. However, we cannot test this assumption directly. To provide comfort that the identifying assumption is satisfied, we examine pre-trends in the likelihood of BHCs being targeted in M&A transactions before March 2015. Specifically, we use the following DD model to estimate the dynamic effects of the March 2015 regulatory disclosure mandate on the likelihood of BHCs being M&A targets:

$$\begin{aligned}
 M\&A_{it} = & \beta_{-2}Below(-2)_{i,-2} + \beta_{-1}Below(-1)_{i,-1} + \beta_1Below(1)_{i,1} + \beta_2Below(2)_{i,2} + \\
 & \beta_3Below(3)_{i,3} + \delta LogAsset_{it-1} + \varphi LogAssets_{it-1} * Post_t + \gamma Controls_{it-1} + \alpha_i + \alpha_t + \\
 \varepsilon_{it} & \hspace{15em} [6]
 \end{aligned}$$

Following Bertrand and Mullainathan (2003), we replace the *Below_i* dummy with five indicator variables corresponding to the years 2013-2017, with each variable equal to one if a BHC had less than \$1 billion in total consolidated assets in 2014 and existed in a corresponding year (i.e., 2013,

2014, 2015, 2016, or 2017), and zero otherwise. For example, *Below(-2)* is an indicator variable that equals one if the BHC had total consolidated assets of less than \$1 billion in 2014 and it existed in 2013, and zero otherwise; and *Below(-1)* is an indicator variable that equals one if a BHC had total consolidated assets of less than \$1 billion in 2014 and it existed in 2014, and zero otherwise. Similarly, *Below(1)-Below(3)* are indicator variables indicating whether a BHC had total consolidated assets that are less than \$1 billion in 2014 and existed in 2015, 2016, and 2017, respectively. All other variables are as defined above.

We report the results of estimating different regression models nested in Equation [6] using linear probability models in Table 10. We include year and BHC fixed effects and cluster standard errors by BHC. In all specifications, the coefficients on *Below(-2)* and *Below(-1)* are statistically insignificant, indicating no marked trend in BHCs' likelihood of being targeted in M&A transactions before the March 2015 regulatory change in the asset-size threshold for filing the FR Y-9SP reports. Figure 1 plots the estimated dynamic coefficients from Column 2 of Table 10 and their two-tailed 90 percent confidence intervals. The coefficients in the pre-March 2015 period are small and statistically indistinguishable from zero, consistent with the parallel-trend assumption. Moreover, we observe that coefficients decrease after the regulatory change and the effect is persistent over time. Overall, it is unlikely that divergent trends can explain our results.

7.5. Total Consolidated Assets as a Predictor of Filing the FR-Y9C reports

In our main analyses, we examine the impact of the March 2015 regulatory disclosure mandate on BHCs by constructing an indicator variable (*Below*) that classifies BHCs based on whether they are below or above the asset-size threshold of \$1 billion for filing FR-Y9C reports as of December 2014. This section examines whether BHCs' total consolidated assets are a good predictor of banks

filing the more frequent and detailed FR Y-9C reports in our sample. Specifically, we estimate the following equation using linear probability model in our sample:

$$\begin{aligned}
 Y9C_{it} & \\
 &= \beta Below_i * Post_t + \delta LogAssets_{it} + \varphi LogAssets_{it-1} * Post_t + \gamma Control_{it} + \alpha_i + \alpha_t \\
 &+ \varepsilon_{it} \tag{7}
 \end{aligned}$$

where $Y9C_{it}$ equals one if BHC i files the FR Y-9C report in year t , and zero otherwise.²⁸ All other variables are as defined in Equation [1].

Table 11 reports the results of estimating various specifications nested in Equation [7]. We include year and BHC fixed effects and cluster standard errors by BHC. In all specifications, the coefficient on $Below*Post$ is more negative than -0.78 and statistically significant with a t-statistic more negative than -28.74. This evidence suggests that total consolidated assets as of December 2014 of less than \$1 billion are a strong predictor of BHCs filing the FR Y-9SP report rather than the FR Y-9C report after the March 2015 regulatory disclosure mandate.

7.6. Evidence from a Restricted Subsample

BHCs that file the FR Y-9C reports are larger than BHCs that file the FR Y-9SP reports. Although we include linear and non-linear transformations of a target BHC's total consolidated assets as control variables in our regressions (i.e., $LogAssets$, $LogAssets*Post$, $LogAssets^2$, $LogAssets^3$), and we use a DD specification that effectively controls for such differences in the pre-March 2015 period, we cannot entirely eliminate the effects of a BHC's size on the likelihood of receiving a takeover bid. To further mitigate concerns regarding the potential size effects, we rerun our primary analysis by limiting the sample to BHCs with total consolidated assets between

²⁸ In untabulated robustness tests, we also implement our main analyses using the two-stage instrumental variable (IV) approach with $Below$ and $Post$ as the IVs and $Y9C$ as the endogenous variable, and our inferences remain unchanged.

\$500 million and \$5 billion.²⁹ We have to ensure that banks have assets above \$500 million in our sample because this is the asset-size threshold for banks to file the FR Y-9C reports in the pre-period and allows us to obtain their financial information for data analyses. Using the size-restricted subsample, we re-estimate different specifications nested in Equation [1] using linear probability models. We include year and BHC fixed effects and cluster standard errors by BHC.

In untabulated results, we find that the coefficients on *Below * Post* are negative and statistically significant in all specifications. Overall, the evidence from this untabulated test complements that in Table 4 and confirms that BHCs with total consolidated assets of less than \$1 billion are less likely to be M&A targets following the March 2015 regulatory change. Therefore, it is unlikely that the size of target BHCs can explain our results.

7.7. Using Time-Varying Lagged Total Consolidated Assets to Classify BHCs

Our primary analyses designate BHCs impacted by the March 2015 disclosure mandate based on their total consolidated assets reported in the December 2014 FR Y-9C report. By using the pre-March 2015 total consolidated assets, we reduce the influence of endogenous factors (e.g., post-March 2015 growth in assets) on whether BHCs will be required to file the FR Y-9C reports after March 2015. Nonetheless, to assess the sensitivity of our findings to this research design choice, we also classify BHCs to be below or above the March 2015 asset-size threshold for filing the FR Y-9C reports using the BHCs' time-varying one-year lagged total consolidated assets and re-estimate Equations [1]-[4]. In untabulated results, we find that our inferences remain unchanged.

8. Conclusion

This paper investigates the role of mandatory financial disclosure in the takeover market for privately held U.S. banks. To identify potential targets and to conduct preliminary due diligence,

²⁹ In untabulated tests, we find our inferences are unchanged if we limit our sample to BHCs with total consolidated assets between \$500 million and \$10 billion.

acquirers generally rely on public information. Focusing on a regulatory change in March 2015 that reduced the frequency and granularity of publicly available financial information of BHCs with less than \$1 billion in total consolidated assets, we examine the impact of mandatory financial disclosure on M&A activity. We use a difference-in-differences (DD) research design and find that BHCs with total consolidated assets of less than \$1 billion are less likely to receive acquisition bids than BHCs with \$1 billion or more of total consolidated assets after the March 2015 disclosure mandate. Acquirers earn relatively lower bid-announcement returns when targeting BHCs with reduced and less frequent mandatory disclosure. These results suggest that the availability of public information about BHCs decreases both the acquirers' search costs and the uncertainty regarding potential value creation through M&A. However, the time taken to complete the acquisition following the finding of a target does not differ significantly between banks below and above the \$1 billion asset-size threshold. This finding is consistent with acquirers having access to private information about targets following the signing of confidentiality agreements or letters of intent, which reduces their reliance on public financial information.

We also find that reduced and less frequent mandatory disclosure deters acquirers from bidding for targets that are geographically more distant, consistent with target's financial disclosure reducing acquirer's search costs. Furthermore, the impact of the disclosure mandate is more severe for BHCs that experience a more significant loss in publicly available information. We find that BHCs with total consolidated assets of less than \$1 billion with nonbank activities are much less likely to be targets of M&A deals than other BHCs with nonbank activities after March 2015.

Overall, our findings suggest that while small BHCs may benefit from the reduction in reporting and proprietary costs associated with reduced mandatory financial disclosure, they bear the cost of lower interest from potential acquirers. To market themselves as a target, small BHCs

now need to incur additional costs and may not be able to reach all potential buyers. Moreover, reduced mandatory disclosure reduces the liquidity of the takeover market for small BHCs, which can weaken market discipline.

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Appendix A: Variable Definitions

Variable Name	Definition
<i>Dependent and independent variables</i>	
<i>Below</i>	One if the BHC's total consolidated assets in 2014 does not meet the asset-size threshold of \$1 billion, and zero otherwise. If a BHC does not exist in our sample in 2014, we obtain its last available total consolidated assets before December 2014 to define <i>Below</i> .
<i>BHAR</i>	Buy-and-Hold Abnormal Return, calculated using Event Study by WRDS. We use the Fama-French Three-Factor Model to estimate expected returns and use a 100-day estimation window. We require a minimum of 70 valid observations. The interval between the end of the estimation window and the beginning of the event window is set to be one day. The event window starts three days before the event and ends three days after.
<i>Duration</i>	The difference between the M&A announcement date and the M&A completion date (measured in days).
<i>Geographical Closeness</i>	The percentage of geographical overlap in branch networks between targets and acquirers. It is calculated as the number of overlapping states where both targets and acquirers have branches, divided by the total number of states where targets have branches.
<i>M&A</i>	One if the BHC is the target of an M&A transaction announced in a given year, and zero otherwise.
<i>NonbankIN</i>	One if the BHC has income from nonbank subsidiaries and associated nonbank companies, excluding equity in undistributed income [BHCP1279]. This item includes dividends, interest, management and service fees, and others.
<i>Post</i>	One if year equals 2015 or greater, and zero otherwise.
<i>Y9C</i>	One if the BHC files the FR Y-9C reports in a given year, and zero otherwise.
<i>Bank characteristics</i>	
<i>ALLL</i>	Allowance for loan and lease losses [FR Y-9C: BHCK3123] divided by total loans and leases held for investment [FR Y-9C: BHCK2122 – BHCK5369], following Harris, Khan, and Nissim (2018).
<i>Deposit/Liability</i>	Total deposits [FR Y-9C: BHFN6631 + BHFN6636 + BHDM6631 + BHDM6636] divided by total liabilities [FR Y-9C: BHCK2948].
<i>Loan/Deposit</i>	Total loans and leases held for investment [FR Y-9C: BHCK2122 – BHCK5369] divided by total deposits [FR Y-9C: BHFN6631 + BHFN6636 + BHDM6631 + BHDM6636].
<i>LogAge</i>	Natural log of one plus <i>Age</i> , which represents the age of a BHC [FR Y-9: RSSD9950].
<i>LogAssets</i>	Natural log of <i>Assets</i> , which represents total consolidated assets [FR Y-9C: BHCK2170 and FRY-9SP: BHSP8519].
<i>LogAssets²</i>	The square of the natural log of <i>Assets</i> , which represents total consolidated assets [FR Y-9C: BHCK2170 and FRY-9SP: BHSP8519].
<i>LogAssets³</i>	The cube of the natural log of <i>Assets</i> , which represents total consolidated assets [FR Y-9C: BHCK2170 and FRY-9SP: BHSP8519].

<i>LogNumBanks</i>	Natural log of one plus <i>NumBanks</i> , which represents the number of subsidiary banks of a BHC [RSSD9146].
<i>RWC</i>	Risk-weighted capital ratio [FR Y-9C: BHCK7205/100].
<i>ROE</i>	Return on equity, measured as a BHC's net income divided by the BHC's total equity capital. If the BHC filed the consolidated FR Y-9C report, we obtain net income and total equity capital from its FR Y-9C report [FR Y-9C: BHCK4340 and BHCK3210, respectively]. If the BHC did not file the consolidated FR Y-9C report, we obtain the information from the parent-only FR Y-9LP [FR Y-9LP: BHCP4340 and BHCP3210, respectively] or FR Y-9SP [FR Y-9SP: BHSP4340 and BHSP3210, respectively] reports.

Figure 1: Trends on independent variables for BHCs with assets below \$1 billion around the March 2015 regulatory disclosure mandate

This graph visualizes how the likelihood of BHCs being targeted for M&As dynamically changes as a result of the March 2015 regulatory disclosure change. It presents the coefficients from estimating Equation [6] using linear probability model:

$$M\&A_{it} = \beta_{-2}Below(-2)_{i,-2} + \beta_{-1}Below(-1)_{i,-1} + \beta_1Below(1)_{i,1} + \beta_2Below(2)_{i,2} + \beta_3Below(3)_{i,3} + \gamma LogAsset_{it-1} + \phi LogAssets_{it-1} * Post_t + \gamma Controls_{it-1} + \alpha_i + \alpha_t + \varepsilon_{it}$$

where, i represents a BHC and t stands for the year. $M\&A$ indicates whether the BHC is an M&A target. $Below(-2)$ — $Below(3)$ indicate whether the BHC had less than \$1 billion in total consolidated assets in 2014 and if it existed in 2013-2017, respectively. $LogAssets$ is the natural log of the BHC's total consolidated assets. α_i is the BHC fixed effect, and α_t is the year fixed effect. All variables are defined in Appendix A. Continuous variables are winsorized at the 1st and 99th percentile. The solid dots indicate the average difference for the outcome variables of interest, while the solid vertical lines present two-sided 90% confidence intervals based on standard errors clustered at the bank level.

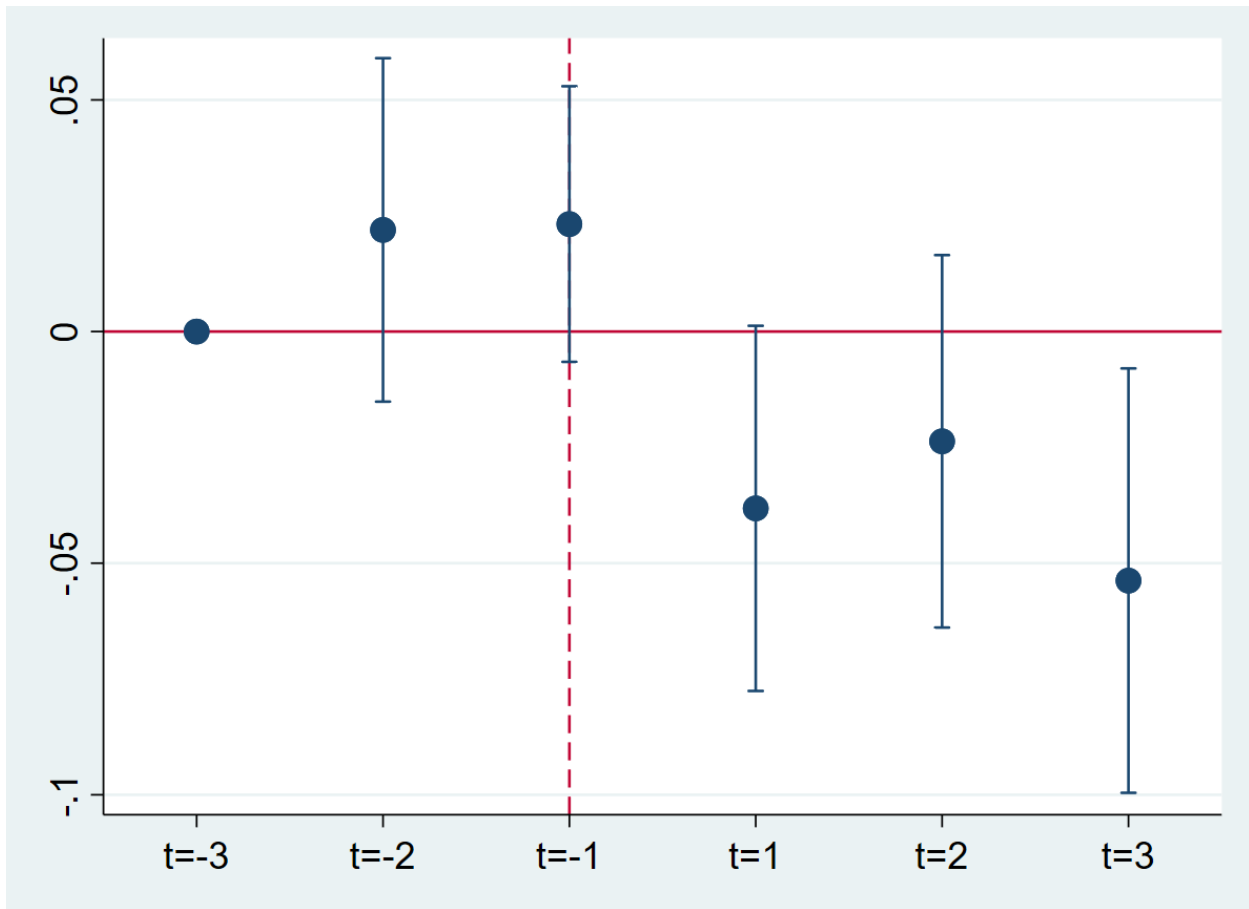


Table 1: Sample construction

This table details sample construction. The left-hand side column describes the steps we take to construct the sample, and the right-hand side column reports the number of observations adjusted after each step and the remaining observations for the final sample.

	# of bank- years
BHCs that have filed an FR Y-9C report in the pre-period and FR Y-9C or FR Y-9SP reports in the post-period	6,414
Less: bank-year observations with missing, zero, or negative total consolidated assets	(9)
Less: bank-year observations with total consolidated assets between \$900 million and \$1.1	(669)
Less: BHCs that have been subject to the SEC's disclosure mandate during the sample period	(2,214)
Less: BHCs filing FR Y-9C reports for reasons other than having total consolidated assets of \$500 million or more in the pre-period	(226)
Less: bank-year observations with missing information to estimate control variables	(264)
Final Sample	3,032*

*Note: the final sample size of 3,032 is different from the reported observations in Tables 4, 5, 11, and 12 because the observations reported in these tables are the *effective* observations after controlling for the fixed effects (i.e., the number of observations after dropping banks that have only one observation throughout the sample period).

Table 2: Sample description

This table describes our sample. Panel A reports the total number of BHCs and BHCs targeted in M&A deals classified by total consolidated assets below and above \$1 billion for each sample year. Total consolidated assets are measured as of the end of 2014. Panel B presents summary statistics for the variables used in our study. All continuous variables are winsorized at the 1st and 99th percentile, except for *BHAR*.

Panel A: Number of BHCs – total and targeted

Year	(1)	(2)	(3)	(4)
	Below \$1 billion		Above \$1 billion	
	# of BHCs targeted	# of total BHC	# of BHCs targeted	# of total BHC
2012	7	335	7	195
2013	15	343	7	192
2014	10	334	5	210
2015	7	310	8	194
2016	9	284	7	187
2017	6	270	10	178

Panel B: Descriptive statistics

	(1)	(2)	(3)	(4)	(5)	(6)
	N	Mean	Std. Dev.	P25	Median	P75
<i>M&A</i>	3,032	0.032	0.177	0	0	0
<i>Duration</i>	98	197.633	207.465	123	150.500	191
<i>BHAR</i>	74	0.020	0.047	-0.006	0.012	0.039
<i>Assets (in millions)</i>	3,032	2,498	9,079	632	811	1,594
<i>RWC</i>	3,032	0.166	0.058	0.134	0.153	0.181
<i>ROE</i>	3,032	0.090	0.091	0.058	0.090	0.125
<i>Age</i>	3,032	24.933	11.403	17	27	32
<i>Deposit/Liability</i>	3,032	0.913	0.077	0.884	0.928	0.963
<i>Loan/Deposit</i>	3,032	0.775	0.178	0.669	0.780	0.886
<i>ALLL</i>	3,032	0.017	0.008	0.012	0.015	0.020
<i>NumBanks</i>	3,032	1.254	0.783	1	1	1
<i>NonbankIN</i>	3,032	0.427	0.495	0	0	1

Table 3: Univariate analysis of the effect of mandatory disclosure on BHCs' likelihood of being M&A targets

This table compares the characteristics of M&A transactions around the asset-size threshold of \$1 billion between pre- and post-periods. The *t*-statistics are reported in brackets. All continuous variables are winsorized at the 1st and 99th percentile, except for *BHAR*. *, **, *** indicate statistical significance (two-sided) at the 0.1, 0.05, and 0.01 levels, respectively.

		(1) Post-Period		(2) Pre-Period		(3) Difference between Periods	
		Mean	N	Mean	N	Mean	t-stat
<i>Below=1</i>	<i>M&A</i>	0.025	864	0.032	1,012	-0.007	[-0.801]
	<i>Duration</i>	140.227	22	199.781	32	-59.554	[-1.391]
	<i>BHAR</i>	-0.005	18	0.007	19	-0.012	[-0.964]
<i>Below=0</i>	<i>M&A</i>	0.045	559	0.032	597	0.013	[1.139]
	<i>Duration</i>	165.680	25	302.526	19	-136.846*	[-1.781]
	<i>BHAR</i>	0.024	21	0.057	16	-0.033*	[-1.966]
		Post-Period		Pre-Period		Difference-in-Differences: Differences between Periods	
		Mean	t-stat	Mean	t-stat	Mean	t-stat
Differences between (<i>Below=1</i>) and (<i>below=0</i>)	<i>M&A</i>	-0.019*	[-1.877]	-0.000	[-0.023]	-0.019	[-1.439]
	<i>Duration</i>	-25.453	[-1.556]	-102.745	[-1.189]	77.292	[0.926]
	<i>BHAR</i>	-0.029***	[-2.761]	-0.050**	[-2.739]	0.021	[1.072]

Table 4: The effect of mandatory disclosure on BHC's likelihood of being M&A targets

This table reports the impact of the March 2015 change of BHC's mandatory disclosure requirements on the likelihood of BHCs being M&A targets. Specifically, it presents the results of estimating Equation [1] using linear probability models:

$$M\&A_{it} = \beta Below_i * Post_t + \delta LogAssets_{it-1} + \varphi LogAssets_{it-1} * Post_t + \gamma Controls_{it-1} + \alpha_t + \alpha_i + \varepsilon_{it}$$

where, i represents a BHC and t stands for the year. $M\&A$ indicates whether the BHC is an M&A target. $Below$ indicates if the BHC has less than \$1 billion in total consolidated assets as of the end of 2014. $Post$ equals one for years 2015 and later. $LogAssets$ is the natural log of the BHC's total consolidated assets. α_i is the BHC fixed effect, and α_t is the year fixed effect. All variables are defined in Appendix A. Continuous variables are winsorized at the 1st and 99th percentile. Fixed effects are not tabulated for brevity. The t -statistics are reported in brackets. Standard errors are clustered at the BHC level. *, **, *** indicate statistical significance (two-sided) at the 0.1, 0.05, and 0.01 levels, respectively.

VARIABLES	(1) M&A	(2) M&A	(3) M&A	(4) M&A
<i>Below*Post</i>	-0.052*** [-2.80]	-0.054*** [-2.99]	-0.055*** [-2.93]	-0.050** [-2.54]
<i>LogAssets</i>	0.002 [0.06]	-0.037 [-0.96]	0.061 [0.14]	-4.399 [-1.30]
<i>LogAssets*Post</i>	-0.022*** [-3.10]	-0.021*** [-3.04]	-0.020*** [-3.16]	-0.019*** [-2.93]
<i>LogAssets</i> ²			-0.004 [-0.22]	0.301 [1.34]
<i>LogAssets</i> ³				-0.007 [-1.38]
<i>RWC</i>		-0.174 [-1.17]	-0.187 [-1.14]	-0.249 [-1.45]
<i>RWC*Post</i>		-0.134 [-1.51]	-0.136 [-1.55]	-0.138 [-1.57]
<i>ROE</i>		-0.021 [-0.36]	-0.020 [-0.34]	-0.019 [-0.32]
<i>LogAge</i>		0.165*** [2.68]	0.165*** [2.69]	0.160*** [2.65]
<i>Deposit/Liability</i>		0.088 [0.49]	0.087 [0.48]	0.070 [0.38]
<i>Loan/Deposit</i>		-0.062 [-0.54]	-0.063 [-0.54]	-0.064 [-0.55]
<i>ALLL</i>		-0.359 [-0.20]	-0.364 [-0.21]	-0.422 [-0.24]
<i>LogNumBanks</i>		0.035*** [2.65]	0.035*** [2.62]	0.033** [2.47]
Observations	3,004	3,004	3,004	3,004
Fixed Effects	Year, BHC	Year, BHC	Year, BHC	Year, BHC
R-squared	0.283	0.287	0.287	0.287

Table 5: The effect of mandatory disclosure on the time taken to complete M&A deals

This table reports the impact of the March 2015 change of BHC's mandatory disclosure requirements on the time taken to complete M&A deals. Specifically, it presents results from estimating Equation [2] using OLS regressions: $Duration_{it} = \beta_1 Below_i * Post_t + \beta_2 Below_i + \delta LogAssets_{it-1} + \varphi LogAssets_{it-1} * Post_t + \gamma Controls_{it-1} + \alpha_t + \varepsilon_{it}$

where, i represents a BHC and t stands for the year. *Duration* equals the time taken to complete an M&A deal (in days). *Below* indicates if the BHC has less than \$1 billion in total consolidated assets as of the end of 2014. *Post* equals one for years 2015 and later. *LogAssets* is the natural log of the BHC's total consolidated assets. α_t is the year fixed effect. All variables are defined in Appendix A. Continuous variables are winsorized at the 1st and 99th percentile. Fixed effects are not tabulated for brevity. The t -statistics are reported in brackets. Standard errors are robust. *, **, *** indicate statistical significance (two-sided) at the 0.1, 0.05, and 0.01 levels, respectively.

VARIABLES	(1) Duration	(2) Duration	(3) Duration	(4) Duration
<i>Below*Post</i>	6.429 [0.03]	-26.911 [-0.13]	-39.702 [-0.20]	-44.607 [-0.23]
<i>Below</i>	-35.394 [-0.19]	-37.352 [-0.20]	-6.782 [-0.04]	20.281 [0.11]
<i>LogAssets</i>	61.447 [0.48]	55.400 [0.46]	789.313 [0.98]	-11,620.496 [-0.62]
<i>LogAssets*Post</i>	-64.433 [-0.50]	-77.904 [-0.56]	-88.754 [-0.68]	-95.516 [-0.72]
<i>LogAssets</i> ²			-25.312 [-0.84]	852.387 [0.64]
<i>LogAssets</i> ³				-20.616 [-0.66]
<i>RWC</i>		366.399 [0.78]	469.218 [1.00]	423.632 [0.92]
<i>RWC*Post</i>		-447.273 [-0.66]	-596.567 [-0.85]	-533.258 [-0.77]
<i>ROE</i>		414.718* [1.82]	388.477* [1.74]	389.922* [1.74]
<i>LogAge</i>		-55.859 [-1.63]	-50.863 [-1.47]	-48.286 [-1.43]
<i>Deposit/Liability</i>		-591.229 [-1.44]	-558.746 [-1.37]	-563.616 [-1.37]
<i>Loan/Deposit</i>		-195.378 [-0.89]	-190.738 [-0.87]	-197.295 [-0.89]
<i>ALLL</i>		1,911.491 [0.88]	1,733.078 [0.78]	1,823.056 [0.81]
<i>LogNumBanks</i>		-59.585 [-0.52]	-61.903 [-0.54]	-55.284 [-0.48]
Observations	98	98	98	98
Fixed Effects	Year	Year	Year	Year
R-squared	0.098	0.157	0.160	0.162

Table 6: The effect of mandatory disclosure on stock price reactions to M&A announcements

This table reports the impact of the March 2015 change of BHCs' mandatory disclosure requirements on short-window stock price reactions to M&A announcements. Specifically, it presents results from estimating Equation [3] using OLS regressions:

$$BHAR_{it} = \beta_1 Below_i * Post_t + \beta_2 Below_i + \delta LogAssets_{it-1} + \varphi LogAssets_{it-1} * Post_t + \gamma Controls_{it-1} + \alpha_t + \varepsilon_{it}$$

where, i represents a BHC and t stands for the year. $BHAR$ is the seven-day window buy-hold abnormal returns around the announcement of an M&A deal. $Below$ indicates if the BHC has less than \$1 billion in total consolidated assets as of the end of 2014. $Post$ equals one for years 2015 and later. $LogAssets$ is the natural log of the BHC's total consolidated assets. α_t is the year fixed effect. All variables are defined in Appendix A. Continuous variables are winsorized at the 1st and 99th percentile. Fixed effects are not tabulated for brevity. The t -statistics are reported in brackets. Standard errors are robust. *, **, *** indicate statistical significance (two-sided) at the 0.1, 0.05, and 0.01 levels, respectively.

VARIABLES	(1) BHAR	(2) BHAR	(3) BHAR	(4) BHAR
<i>Below*Post</i>	-0.056** [-2.20]	-0.073** [-2.45]	-0.061* [-1.91]	-0.066* [-1.81]
<i>Below</i>	0.005 [0.23]	0.006 [0.32]	-0.007 [-0.30]	0.003 [0.08]
<i>LogAssets</i>	0.045*** [2.85]	0.048*** [2.90]	-0.241 [-0.95]	-4.142 [-0.54]
<i>LogAssets*Post</i>	-0.065*** [-2.93]	-0.082*** [-3.06]	-0.071** [-2.53]	-0.077** [-2.10]
<i>LogAssets</i> ²			0.010 [1.16]	0.287 [0.53]
<i>LogAssets</i> ³				-0.007 [-0.51]
<i>RWC</i>		0.183 [1.10]	0.123 [0.70]	0.110 [0.64]
<i>RWC*Post</i>		-0.040 [-0.20]	0.038 [0.19]	0.053 [0.26]
<i>ROE</i>		-0.033 [-0.82]	-0.024 [-0.61]	-0.022 [-0.55]
<i>LogAge</i>		-0.016 [-1.42]	-0.017 [-1.46]	-0.016 [-1.37]
<i>Deposit/Liability</i>		-0.122 [-1.19]	-0.124 [-1.22]	-0.130 [-1.25]
<i>Loan/Deposit</i>		-0.001 [-0.02]	0.000 [0.00]	-0.003 [-0.07]
<i>ALLL</i>		-0.140 [-0.23]	0.040 [0.06]	0.089 [0.14]
<i>LogNumBanks</i>		0.003 [0.08]	0.004 [0.11]	0.006 [0.17]
Observations	74	74	74	74
Fixed Effects	Year	Year	Year	Year
R-squared	0.430	0.507	0.515	0.519

Table 7: The effect of mandatory disclosure on the geographical closeness between targets and acquirers

This table reports the impact of the March 2015 change of BHCs' mandatory disclosure requirements on the percentage of geographical overlap in branch networks between targets and acquirers. Specifically, it presents results from estimating Equation [4] using OLS regressions:

$$Geographical\ Closeness_{it} = \beta_1 Below_i * Post_t + \beta_2 Below_i + \delta LogAssets_{it-1} + \varphi LogAssets_{it-1} * Post_t + \gamma Controls_{it-1} + \alpha_t + \varepsilon_{it}$$

where, i represents a BHC and t stands for the year. *Geographical Closeness* is the percentage of geographical overlap in branch networks between targets and acquirers. Specifically, it is calculated as the number of overlapping states where both targets and acquirers have branches, divided by the total number of states where targets have branches. *Below* indicates if the BHC has less than \$1 billion in total consolidated assets as of the end of 2014. *Post* equals one for years 2015 and later. *LogAssets* is the natural log of the BHC's total consolidated assets. α_t is the year fixed effect. All variables are defined in Appendix A. Continuous variables are winsorized at the 1st and 99th percentile. Fixed effects are not tabulated for brevity. The t -statistics are reported in brackets. Standard errors are robust. *, **, *** indicate statistical significance (two-sided) at the 0.1, 0.05, and 0.01 levels, respectively.

VARIABLES	(1) Geographical Closeness	(2) Geographical Closeness	(3) Geographical Closeness	(4) Geographical Closeness
<i>Below*Post</i>	0.016** [2.10]	0.017** [2.15]	0.016* [1.96]	0.016* [1.96]
<i>Below</i>	-0.004 [-0.89]	-0.005 [-0.85]	-0.004 [-0.57]	-0.004 [-0.58]
<i>LogAssets</i>	-0.005* [-1.85]	-0.005* [-1.68]	0.021 [0.31]	0.251 [0.21]
<i>LogAssets*Post</i>	0.012** [2.61]	0.013** [2.56]	0.012* [1.90]	0.012* [1.97]
<i>LogAssets</i> ²			-0.001 [-0.40]	-0.017 [-0.20]
<i>LogAssets</i> ³				0.000 [0.19]
<i>RWC</i>		0.032 [0.63]	0.034 [0.65]	0.034 [0.65]
<i>RWC*Post</i>		-0.023 [-0.39]	-0.026 [-0.43]	-0.026 [-0.43]
<i>ROE</i>		0.003 [0.37]	0.002 [0.27]	0.002 [0.26]
<i>LogAge</i>		0.000 [0.10]	0.000 [0.15]	0.000 [0.13]
<i>Deposit/Liability</i>		0.008 [0.32]	0.009 [0.38]	0.010 [0.40]
<i>Loan/Deposit</i>		-0.002 [-0.17]	-0.002 [-0.14]	-0.001 [-0.12]
<i>ALLL</i>		0.177 [0.99]	0.170 [0.91]	0.171 [0.91]
<i>LogNumBanks</i>		-0.007 [-1.23]	-0.007 [-1.24]	-0.008 [-1.18]
Observations	75	75	75	75
Fixed Effects	Year	Year	Year	Year
R-squared	0.118	0.181	0.183	0.183

Table 8: Mandatory disclosure and the likelihood of being M&A targets conditional on BHCs engaging in nonbank activities

This table reports the impact of the March 2015 change of BHCs' mandatory disclosure requirements on the likelihood of being M&A targets conditional on whether they earn nonbank-activity income. Specifically, Panel A (B) presents the results of estimating Equation [5] using linear probability models in the pre- (post-) March 2015 period. Panel C presents results from estimating Equation [5] using linear probability models:

$$M\&A_{it} = \beta_1 Below_i * Post_t * NonbankIN_i + \beta_2 Below_i * Post_t + \beta_3 Post_t * NonbankIN_i + \delta LogAssets_{it-1} + \varphi LogAssets_{it-1} * Post_t + \gamma Controls_{it-1} + \alpha_i + \alpha_t + \varepsilon_{it}$$

where, i represents a BHC and t stands for the year. $M\&A$ indicates whether the BHC is an M&A target. $Below$ indicates if the BHC has less than \$1 billion in total consolidated assets as of the end of 2014. $Post$ equals one for years 2015 and later. $NonbankIN$ equals one if the BHC reports nonbank-activity income. $LogAssets$ is the natural log of the BHC's total consolidated assets. Other controls include RWC , $RWC*Post$, ROE , $LogAge$, $Deposit/Liability$, $Loan/Deposit$, $ALLL$, and $LogNumBanks$. All variables are defined in Appendix A. Continuous variables are winsorized at the 1st and 99th percentile. Control variables and fixed effects are not tabulated. The t -statistics are reported in brackets. Standard errors are clustered at the BHC level. *, **, *** indicate statistical significance (two-sided) at the 0.1, 0.05, and 0.01 levels, respectively.

Panel A: Comparison of banks with nonbanking activities below versus above the asset-size threshold in the pre-March 2015 period

VARIABLES	(1) M&A	(2) M&A	(3) M&A	(4) M&A
<i>Below*NonbankIN</i>	-0.001 [-0.06]	-0.004 [-0.22]	-0.002 [-0.11]	-0.003 [-0.18]
<i>Below</i>	-0.015 [-1.10]	-0.014 [-0.98]	-0.028 [-1.30]	-0.030 [-1.37]
<i>NonbankIN</i>	0.001 [0.09]	0.005 [0.39]	0.004 [0.28]	0.006 [0.40]
<i>LogAssets</i>	-0.012** [-2.40]	-0.010 [-1.63]	-0.137 [-1.08]	-2.358 [-1.44]
<i>LogAssets</i> ²			0.004 [1.03]	0.150 [1.43]
<i>LogAssets</i> ³				-0.003 [-1.41]
Other Controls	No	Yes	Yes	Yes
Observations	1,609	1,609	1,609	1,609
Fixed Effects	Year	Year	Year	Year
R-squared	0.003	0.010	0.011	0.012

Panel B: Comparison of banks with nonbanking activities below versus above the asset-size threshold in the post-March 2015 period

VARIABLES	(1) M&A	(2) M&A	(3) M&A	(4) M&A
<i>Below*NonbankIN</i>	-0.039*	-0.042**	-0.042**	-0.042**
	[-1.95]	[-2.07]	[-2.07]	[-2.06]
<i>Below</i>	-0.026	-0.023	-0.022	-0.024
	[-1.55]	[-1.38]	[-1.10]	[-1.17]
<i>NonbankIN</i>	0.010	0.019	0.019	0.018
	[0.55]	[1.04]	[1.04]	[1.01]
<i>LogAssets</i>	-0.017***	-0.012*	-0.006	0.895
	[-2.83]	[-1.90]	[-0.06]	[0.82]
<i>LogAssets</i> ²			-0.000	-0.060
			[-0.06]	[-0.85]
<i>LogAssets</i> ³				0.001
				[0.86]
Other Controls	No	Yes	Yes	Yes
Observations	1,423	1,423	1,423	1,423
Fixed Effects	Year	Year	Year	Year
R-squared	0.010	0.032	0.032	0.032

Panel C: Comparison of banks with nonbanking activities below versus above the asset-size threshold in the pre- and post-March 2015 periods

VARIABLES	(1) M&A	(2) M&A	(3) M&A	(4) M&A
<i>Below*Post*NonbankIN</i>	-0.051**	-0.052**	-0.052**	-0.052**
	[-2.09]	[-2.12]	[-2.12]	[-2.10]
<i>Below*Post</i>	-0.031	-0.033*	-0.034*	-0.029
	[-1.56]	[-1.65]	[-1.65]	[-1.35]
<i>Post*NonbankIN</i>	0.018	0.020	0.020	0.020
	[0.83]	[0.95]	[0.95]	[0.92]
<i>LogAssets</i>	0.000	-0.039	0.058	-4.298
	[0.01]	[-1.02]	[0.13]	[-1.30]
<i>LogAssets*Post</i>	-0.022***	-0.021***	-0.021***	-0.020***
	[-3.07]	[-3.01]	[-3.13]	[-2.91]
<i>LogAssets</i> ²			-0.003	0.294
			[-0.23]	[1.34]
<i>LogAssets</i> ³				-0.007
				[-1.39]
Other Controls	No	Yes	Yes	Yes
Observations	3,004	3,004	3,004	3,004
Fixed Effects	Year, BHC	Year, BHC	Year, BHC	Year, BHC
R-squared	0.284	0.288	0.288	0.288

Table 9: Placebo tests using publicly listed BHCs

This table reports the results from placebo tests of the impact of the March 2015 regulatory change in mandatory disclosure requirements on *publicly listed* BHCs. Specifically, it replicates the analyses in Tables 3 and 4, using a sample of publicly listed BHCs. Panel A compares the characteristics of M&A transactions around the asset-size threshold of \$1 billion between pre- and post-periods. Panel B presents the impact of the March 2015 change of BHC's mandatory disclosure requirements on the likelihood of publicly listed BHCs being M&A targets. Other controls include *RWC*, *RWC*Post*, *ROE*, *LogAge*, *Deposit/Liability*, *Loan/Deposit*, *ALLL*, and *LogNumBanks*. All variables are defined in Appendix A. All continuous variables are winsorized at the 1st and 99th percentile, except for BHAR. Fixed effects and other controls are not tabulated for brevity. The *t*-statistics are reported in brackets. Standard errors are clustered at the BHC level. *, **, *** indicate statistical significance (two-sided) at the 0.1, 0.05, and 0.01 levels, respectively.

Panel A: Falsification test replicating Table 3

		(1)		(2)		(3)	
		Post-Period		Pre-Period		Difference between Periods	
		Mean	N	Mean	N	Mean	t-stat
<i>Below=1</i>	<i>M&A</i>	0.071	141	0.069	204	0.002	[0.082]
	<i>Duration</i>	181.600	10	168.571	14	13.029	[0.484]
	<i>BHAR</i>	-0.016	9	0.003	13	-0.019	[-1.179]
<i>Below=0</i>	<i>M&A</i>	0.050	695	0.040	784	0.011	[0.998]
	<i>Duration</i>	209.714	35	204.065	31	5.650	[0.278]
	<i>BHAR</i>	-0.034	30	0.003	28	-0.037***	[-3.299]
		Post-Period		Pre-Period		Difference-in-Differences: Differences between Periods	
		Mean	t-stat	Mean	t-stat	Mean	t-stat
Differences between (<i>Below=1</i>) and (<i>Below=0</i>)	<i>M&A</i>	0.021	[0.885]	0.029	[1.526]	-0.009	[-0.325]
	<i>Duration</i>	-28.114	[-1.227]	-35.493	[-1.436]	7.379	[0.199]
	<i>BHAR</i>	0.017	[1.469]	-0.000	[-0.007]	0.017	[0.810]

Panel B: Falsification test replicating Table 4

	(1)	(2)	(3)	(4)
VARIABLES	M&A	M&A	M&A	M&A
<i>Below*Post</i>	-0.005 [-0.14]	-0.015 [-0.46]	-0.015 [-0.47]	-0.009 [-0.24]
<i>LogAssets</i>	0.079*** [2.78]	0.071** [2.34]	0.501 [1.37]	-1.381 [-0.52]
<i>LogAssets*Post</i>	-0.019*** [-3.09]	-0.017*** [-2.73]	-0.010 [-1.24]	-0.009 [-1.00]
<i>LogAssets</i> ²			-0.014 [-1.23]	0.108 [0.63]
<i>LogAssets</i> ³				-0.003 [-0.73]
Other Controls	No	Yes	Yes	Yes
Observations	1,808	1,808	1,808	1,808
Fixed Effects	Year, BHC	Year, BHC	Year, BHC	Year, BHC
R-squared	0.295	0.305	0.306	0.306

Table 10: Dynamic analysis of the impact of mandatory disclosure on BHCs' likelihood of being M&A targets

This table presents how BHCs' likelihood of being M&A targets dynamically changes as a result of the March 2015 mandatory disclosure change. Specifically, it presents results from estimating Equation [6] using linear probability models:

$$M\&A_{it} = \beta_{-2}Below(-2)_{i,-2} + \beta_{-1}Below(-1)_{i,-1} + \beta_1Below(1)_{i,1} + \beta_2Below(2)_{i,2} + \beta_2Below(3)_{i,3} + \gamma LogAssets_{it-1} + \varphi LogAssets_{it-1} * Post_t + \alpha_i + \alpha_t + \varepsilon_{it}$$

where, i represents a BHC and t stands for the year. $M\&A$ indicates whether the BHC is an M&A target. $Below(-2)$ — $Below(3)$ indicate whether the BHC had less than \$1 billion in total consolidated assets in 2014 and if it existed in 2013-2017, respectively. $LogAssets$ is the natural log of the BHC's total consolidated assets. α_i is the BHC fixed effect, and α_t is the year fixed effect. All variables are defined in Appendix A. Continuous variables are winsorized at the 1st and 99th percentile. Fixed effects are not tabulated for brevity. The t -statistics are reported in brackets. Standard errors are clustered at the BHC level. *, **, *** indicate statistical significance (two-sided) at the 0.1, 0.05, and 0.01 levels, respectively.

VARIABLES	(1) M&A	(2) M&A	(3) M&A	(4) M&A
<i>Below(-2)</i>	0.025 [1.11]	0.022 [0.97]	0.022 [0.97]	0.023 [1.01]
<i>Below(-1)</i>	0.028 [1.57]	0.023 [1.28]	0.023 [1.27]	0.025 [1.38]
<i>Below(1)</i>	-0.034 [-1.42]	-0.038 [-1.60]	-0.039 [-1.62]	-0.033 [-1.35]
<i>Below(2)</i>	-0.019 [-0.76]	-0.024 [-0.97]	-0.025 [-1.00]	-0.018 [-0.67]
<i>Below(3)</i>	-0.047* [-1.67]	-0.054* [-1.93]	-0.055* [-1.93]	-0.047 [-1.53]
<i>LogAssets</i>	0.005 [0.15]	-0.034 [-0.88]	0.094 [0.21]	-4.647 [-1.28]
<i>LogAssets*Post</i>	-0.021*** [-3.07]	-0.021*** [-3.01]	-0.020*** [-3.15]	-0.019*** [-2.90]
<i>LogAssets</i> ²			-0.005 [-0.28]	0.319 [1.32]
<i>LogAssets</i> ³				-0.007 [-1.37]
<i>RWC</i>		-0.175 [-1.16]	-0.193 [-1.14]	-0.257 [-1.47]
<i>RWC*Post</i>		-0.132 [-1.49]	-0.135 [-1.53]	-0.136 [-1.55]
<i>ROE</i>		-0.025 [-0.44]	-0.024 [-0.41]	-0.023 [-0.39]
<i>LogAge</i>		0.163*** [2.63]	0.163*** [2.64]	0.158** [2.58]
<i>Deposit/Liability</i>		0.089 [0.49]	0.087 [0.48]	0.069 [0.37]
<i>Loan/Deposit</i>		-0.059 [-0.51]	-0.060 [-0.52]	-0.060 [-0.52]
<i>ALLL</i>		-0.429 [-0.24]	-0.435 [-0.25]	-0.501 [-0.29]
<i>LogNumBanks</i>		0.034** [2.52]	0.034** [2.49]	0.031** [2.30]
Observations	3,004	3,004	3,004	3,004
Fixed Effects	Year, BHC	Year, BHC	Year, BHC	Year, BHC
R-squared	0.284	0.288	0.288	0.288

Table 11: BHCs' total consolidated assets as a predictor of filing FR-Y9C reports

This table examines whether meeting the asset-size threshold for filing FR-Y9C reports predicts the filing of the FR Y-9C reports by BHCs. Specifically, it presents results from estimating Equation [7] using linear probability models: $Y9C_{it} = \beta Below_i * Post_t + \delta LogAssets_{it} + \varphi LogAssets_{it-1} * Post_t + \gamma Control_{it} + \alpha_i + \alpha_t + \varepsilon_{it}$ where, i represents a BHC and t stands for the year. $Y9C$ indicates whether the BHC files the FR-Y9C report. $Below$ indicates if the BHC has less than \$1 billion in total consolidated assets as of the end of 2014. $Post$ equals one for years 2015 and later. $LogAssets$ is the natural log of the BHC's total consolidated assets. α_i is the BHC fixed effect, and α_t is the year fixed effect. All variables are defined in Appendix A. Continuous variables are winsorized at the 1st and 99th percentile. Fixed effects are not tabulated for brevity. The t -statistics are reported in brackets. Standard errors are clustered at the BHC level. *, **, *** indicate statistical significance (two-sided) at the 0.1, 0.05, and 0.01 levels, respectively.

VARIABLES	(1) Y9C	(2) Y9C	(3) Y9C	(4) Y9C
<i>Below*Post</i>	-0.795*** [-31.20]	-0.796*** [-31.42]	-0.805*** [-33.01]	-0.781*** [-28.75]
<i>LogAssets</i>	0.304*** [6.33]	0.316*** [6.23]	1.605*** [3.27]	-18.603*** [-3.30]
<i>LogAssets*Post</i>	0.053*** [4.89]	0.052*** [4.93]	0.055*** [5.22]	0.060*** [5.10]
<i>LogAssets</i> ²			-0.046*** [-2.77]	1.334*** [3.43]
<i>LogAssets</i> ³				-0.031*** [-3.51]
<i>RWC</i>		0.143 [1.04]	-0.029 [-0.24]	-0.314* [-1.83]
<i>RWC*Post</i>		-0.129 [-0.85]	-0.160 [-1.05]	-0.168 [-1.09]
<i>ROE</i>		-0.008 [-0.20]	0.002 [0.05]	0.008 [0.23]
<i>LogAge</i>		0.025 [0.33]	0.025 [0.34]	0.004 [0.05]
<i>Deposit/Liability</i>		0.478* [1.94]	0.458* [1.85]	0.381 [1.53]
<i>Loan/Deposit</i>		0.148 [1.38]	0.138 [1.28]	0.133 [1.18]
<i>ALLL</i>		2.748** [2.07]	2.677** [2.02]	2.416* [1.84]
<i>LogNumBanks</i>		-0.046 [-1.23]	-0.048 [-1.31]	-0.056 [-1.50]
Observations	3,004	3,004	3,004	3,004
Fixed Effects	Year, BHC	Year, BHC	Year, BHC	Year, BHC
R-squared	0.926	0.927	0.927	0.928