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Shareholder Activism in Banking

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Abstract:

This paper conducts the first assessment of shareholder activism in banking and its effects on risk and performance. The focus is on the conflicts among bank shareholders, managers, and creditors (e.g., regulators, deposit insurer, taxpayers, depositors). This paper finds activism may generally be a destabilizing force, increasing bank risk-taking, but creating market value for shareholders, and leaving operating returns unchanged, consistent with the empirical dominance of the *Shareholder-Creditor Conflict*. However, during financial crises, the increase in risk disappears, suggesting activism risk incentives may be muted. From a public perspective, creditors (including the government) may lose during normal times, but not during financial crises.

JEL Classification Codes: G21, G28, G38, G01

Keywords: banking, shareholder activism, financial stability, financial crises

"Action to improve corporate governance at many financial institutions is seen by us as a matter of urgency".
Roger Ferguson, Chairman of the G30 Steering Committee on Corporate Governance, February 2011

"Weak and ineffective corporate governance of systemically important financial institutions (SIFIs) was an important contributory factor in the massive failure of financial-sector decision-making that led to the global financial crisis".
Jean-Claude Trichet, G30 Steering Committee on Corporate Governance, February 2011

"When Wall Street learned that predator Michael Price, president of Heine Securities Corp., had bought 6.1% of Chase Manhattan Corp., the sign underscored that even the biggest banks are vulnerable….his efforts to shake up management at New York's venerable Chase Manhattan Corp. make many bank managers nervous. That's especially true after his toppling of Michigan National Corp."
Daniel Kaplan, The American Banker, 1995

1 Introduction

The recent financial crisis raised serious concerns regarding banks' corporate governance and their ability to manage successfully such a crisis. A larger question is whether good governance in banking could have mitigated or avoided the recent financial crisis. Several papers agree that poor governance was a significant contributing factor to the crisis (e.g., Diamond and Rajan (2009), Kirkpatrick (2009), Berger, Imbierowicz, and Rauch (2014), Cheffin (2014)), while others find the opposite (e.g., Fahlenbrach and Stulz (2011), Beltratti and Stulz (2012)). There has been also discussion that financial crisis was not caused by "greedy" bank managers, but by the pressure from shareholders to maximize the put option value they enjoy from explicit and implicit government insurance (e.g., Armour and Gordon (2014)). Banking research indicates that corporate governance impacts bank risk and performance (e.g., Caprio, Laeven, and Levine (2007), Adams and Mehran (2005), Laeven and Levine (2009)), however there is no evidence on the specific mechanism of shareholder activism.

Is shareholder activism beneficial for bank shareholders, creditors, and the public? Literature focused on nonfinancials shows that shareholder activism may be able to create value and be an effective monitoring mechanism for corporations (e.g., Clifford (2007), Brav, Jiang, Thomas, and Partnoy (2008), Greenwood and Schor (2009), Klein and Zur (2009), Boyson and Mooradian (2012), Bebchuck, Brav, and Jiang (2013)). However, it may also be a destabilizing mechanism, as it may maximize shareholder value in the short-run, but it may increase risk-taking (e.g., Brav, Jiang, Thomas, and Partnoy (2008), Bebchuck, Brav, and Jiang (2013)). There is one place where the goal of maximizing shareholder value should not be taken for granted as it may not be socially optimal: the banking industry. Here, a single firm's maximization may spill negative externalities to the financial system. Therefore, it would be important for researchers and

policy makers to understand whether shareholder activism could be destabilizing, even when what activists advocate may be individually maximizing from the shareholders' perspective. To our knowledge, there are no studies which focus on assessing how shareholder activism affects banks. This omission from the literature may be potentially serious from a policy perspective due to the importance of banks for the overall financial stability and real economy.

This paper contributes to the banking literature on bank risk and performance by introducing shareholder activism as a factor influencing risk and performance, and sets the groundwork for further research. It also adds to the broader literature on shareholder activism by examining activism within one important industry, rather than across a number of very different industries, reducing the concern about confounding inter-industry differences. Our findings suggest that activism in banking may increase risk and market value at the expense of bank creditors and may be a threat to financial stability during normal times. However, activists do not seem to increase risk during financial crises. From a public perspective, creditors (including the government) may lose during normal times, but not during financial crises. We also add to the debate in the literature on the role of bank governance around financial crises and show that at least one corporate governance mechanism, shareholder activism, may not have been a major source of risk during the financial crisis.[3]

Understanding the role of shareholder activism in banking is important because there are several critical peculiarities of banks, which make them different from non-financials and can impact their corporate governance and the economy at large. First, bank stability is relatively important to the society as a whole, as bank failure and distress can have major impacts on the overall economy and growth.[4] Second, banks tend to be more fragile, vulnerable to instability and shocks than other firms or sectors, as they tend to be the most highly levered firms and they are subject to runs on their short-term liabilities. Third, literature suggests that banks are inherently opaque, as they are in the business of gathering proprietary information about their customers.[5]

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[3] This is consistent with Beltratti and Stultz (2010), which document that poor bank governance (e.g., lower shareholder friendliness of the board) was not a major cause for the financial instability during the recent crisis.

[4] The recent financial crisis involved a significant decline in bank lending, resulting in the most serious recession since the Great Depression.

[5] There are several reasons why banks are particularly opaque: loan quality is not observable and can be hidden for long periods; banks can alter the risk composition of their assets more quickly than nonfinancials, banks can readily

Banks' opacity can make information asymmetries between management and other stakeholders arguably more severe in banking (e.g., Furfine (2001), Morgan (2002), Levine (2004)). Thus, on the one hand, it may be more difficult for regular shareholders to monitor and reduce agency problems. But, on the other hand, it may be a bigger role and need for activist shareholders to act as delegated monitors to cut through this opacity. Finally, regulation makes banks different from other industries as explicit and implicit insurance can induce more risk-taking in banking (e.g., Laeven and Levine (2009), Srivastav, Armitage, and Hagendorff (2013). Prudential supervision and regulation, such as capital requirements, however, are designed in part to offset this moral hazard incentive. At the same time, heavy regulation may make it more costly for activist investors to reduce agency problems in banks and harder to derive benefits from it (e.g., Levine (2004), Laeven and Levine (2009)).[6] While some other industries, such as utilities, are also regulated, banking stands out in that the regulation is primarily prudential, to reduce risk taking, rather than setting prices. The capital requirements, in particular, may affect corporate governance by changing the conflicts among the parties via changing the leverage of the firm.

This paper is the first, to our knowledge, to test shareholder activism[7] as a channel of external corporate governance in banking, and its effects on performance and risk-taking during both normal times and financial crises. We focus on the conflicts between shareholders and managers and those between shareholders and creditors (which, in banking, are more loosely defined to mean all the other financial claimants other than shareholders, such as: deposit insurer, taxpayers, regulators, depositors, etc.). Using a hand-collected dataset on shareholder activism (SEC Filings: 13D and DFAN14A) for all public banks and bank holding companies (BHCs) in the U.S. (1994 to 2010), we analyze whether there is a role for shareholder activism in banking,

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hide problems by extending loans to clients that cannot service debt obligations, bond analysts disagree more often over bonds issued by banks than those issued by nonfinancials (e.g., Furfine (2001), Morgan (2002)).

[6] For example, there are restrictions on who can own bank shares and regulators can limit the capability of outsiders to buy a significant percent of bank shares without regulatory approval (Barth, Caprio and Levine (2006)). It is a rule that nonfinancials cannot buy banks. Also, (Prowse (1995, 1997), and Adams and Mehran (2003) show that, despite active consolidation, there have been very few hostile takeover bids in the banking industry.

[7] Tirole (2006, p.27) defines shareholder activism as "interfering with management in order to increase the value of the investors' claims. Gantchev (2013) defines activism as an active monitoring process which often can take the form of a sequence of the announcement of activist intentions and escalating decision steps of the activist to bring about change within the company such as demand negotiations, board representation, and (threatened) proxy fight.

what do activists do to change the focus of the banks, and whether activist investors are a stabilizing or destabilizing force in banking, given banks' importance for overall financial stability.

To analyze activism in banking, we consider four conflicts that may arise among different bank stakeholders, and which may be addressed by activism. The first conflict is the ***Shareholder-Manager Conflict 1*** caused by the risk aversion of managers. This suggests that managers may take less risk than desired by shareholders, and activists can reduce agency problems between managers and shareholders and increase returns by inducing managers to take value-enhancing risk. The second conflict is the ***Shareholder-Manager Conflict 2*** caused by overconfidence and/or hubris of managers. This suggests that managers may take more risk than desired by shareholders, and activists can curtail agency problems between the two parties and improve performance by correcting the overly-risky investments by managers. The third conflict is the ***Shareholder-Creditor Conflict*** caused by a moral hazard problem induced by creditors' difficulties in monitoring banks and regulatory-induced incentives. This suggests that activists may induce managers to take higher risk to increase market value at the expense of bank creditors (e.g., deposit insurer, taxpayers, regulators, etc.). This may suggest undesired consequences for bank health and stability. Finally, a last conflict that may arise among bank stakeholders is the ***Shareholder-Other Stakeholders Conflict***, which may be caused by overconfidence and/or hubris of the activists**.** This conflict suggests that activists may induce bank managers to take risky decisions that end up not being good for any of the parties, including themselves.

The four conflicts among bank stakeholders are used to develop and test our competing hypotheses. Importantly, each of the four hypotheses may hold simultaneously for different sets of banks at a given time. All that we can do as researchers is to evaluate which of these hypotheses has stronger empirical support, i.e., which hypothesis empirically dominates the other. To address this question, we test empirically the impact of activism on bank behavior. To run the tests, we use OLS regressions with bank and time fixed effects and regress measures of market value, operating returns, and default risk on a dummy for shareholder activism and a set of bank characteristics (including primary regulator dummies to account for regulatory influence), following prior research on bank governance (Beltratti and Stutz (2012)) and shareholder activism (e.g., Brav, Jiang, Thomas and Partnoy (2008), Muller-Kahle (2010)). We lag all independent variables four quarters to reduce concerns of endogeneity and to give time for activists to have effects.

We have a number of key findings. First, we find that activism is prevalent in banking: about one-third of the public banks (337 unique banks) have some form of activism during the sample period (1994-2010), and about 8.5% of banks have activism during each year. In total, there are 1,204 activist events, with a surge in activism during financial crises, such as during 2000-2002 and 2007-2009. Also, activists appear to target banks with more agency problems and growth potential, and which may be easier to implement changes into to increase value. Our regression results are consistent with the empirical dominance of the *Shareholder-Creditor Conflict*. We find activism creates market value gains for shareholders, leaves unchanged operating returns, and increases bank default risk. This suggests that activist shareholders may generally be a destabilizing force, inducing managers to increase risk in order to increase shareholder returns at the expense of creditors. However, we find that results are significantly altered during financial crises: the market value increase is greatest during financial crises and risk does not increase. This suggests that activism may not have been a major source of risk during the crises. From a public perspective, creditors, including the government, may lose during normal times, but not during financial crises.

We perform a variety of robustness checks. First, we check the sensitivity of our results to alternative proxies of performance, risk-taking, and activism measures. Second, we employ alternative econometric approaches and standard errors: an event study employing cumulative abnormal returns (CARs), several other model and error specifications such as fixed effects, random effects, Newey-West errors, two-way clusters, and a model using macro variables instead of time fixed effects. Third, to address the potential endogeneity concerns and sample selection bias, we employ an instrumental variable analysis, a matched sample analysis using propensity score probabilities, a Heckman selection model, and an analysis including also Lexis-Nexis news events. The results are generally robust to all these checks. Fourth, we conduct subsample analyses based on: hedge funds (*HF*) versus non-hedge funds, regular activism versus proxy fights, excluding too-big-to-fail (*TBTF)* banks, and different bank size classes. Finally, we also look at the effects of activism after the Sarbanes Oxley Act (SOX) of 2002 and we investigate the channels through which activists induce changes. Among these results, we find higher risk when activists are hedge funds or when there is a proxy fight. In addition, we find that the overall results of activism on returns, operating performance, and risk hold primarily for smaller banks, although large banks also experience an increase in market value. We also find that effects of activism are

more pronounced after the Sarbanes Oxley Act of 2002. Finally, the ex-post classifications of activism based on the outcomes reveal that CEO and board changes, takeover target outcomes, capital changes, and agreements between the activist and target bank, are the most frequent mechanisms that activists use in banking to induce changes.

The remainder of this chapter is organized as follows. In Section 2, we present the related literature. In Section 3, we explain the hypotheses. In Section 4, we explain the data and empirical approach and Section 5 discusses the empirical results. In Sections 6 and 7, we describe robustness tests and subsample analyses. In Section 8, we discuss channels of action for activism, and in Section 9, we conclude.

2 Related Literature

Our paper is related to the shareholder activism literature, focused on nonfinancial firms. Researchers in this literature find that activism can create value and be an effective monitoring mechanism of publicly listed companies, reducing agency costs and improving returns. Clifford (2007), Brav, Jiang, Thomas, and Partnoy (2008), and Greenwood and Schor (2009) find that activist shareholders can induce positive changes in the companies they monitor and increase shareholder value. They report significant positive abnormal returns and positive modest changes in operating returns around the time of the activism. On the contrary, Karpoff, Malatesta, and Walkling (1996), Strickland, Wiles, and Zenner (1996), Wahal (1996), Gillian and Starks (2000), Karpoff (2001), and Song and Szewezyk (2003) find little impact of activism on firm performance or operations. In addition, some of the shareholder activism literature regarding nonfinancial firms shows that activism influences risk (e.g., Brav, Jiang, Thomas, and Partnoy (2008)). Literature on nonfinancials also shows that activism can increase the probability of CEO turnover (e.g., Parrino, Sias and Starks (2003), Gopalan (2008), Gallagher, Gardner and Swan (2009), Bharath, Jayaraman and Nagar (2013), Qian (2011), Helwege, Intintoli, and Zhang (2012)). Boyson and Mooradian (2011) find that governance-related hedge fund activism through management turnover is associated with favorable stock market reactions.[8] Helwege, Intintoli, and Zhang (2012) find that

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[8] Also, several papers (Denis, Denis, and Sarin (1997), Kang and Shivdasani (1995), Kaplan and Minton (1994) and Conyon and Florou (2002)) find that the presence of a large shareholder is associated with management turnover.

voting-with-their-feet techniques can lead to more forced CEO turnovers. In contrast, Black (1990) and Roe (1994) show that activists can be unsuccessful in removing entrenched managers.

As discussed in the introduction, the banking industry is one place where the goal of maximizing shareholder value may not be socially optimal. Here a single firm's maximization may spill negative externality to the financial system. There are no studies which focus on assessing how shareholder activism affects banks and bank stakeholders. Two papers related to banking, although not focusing on banking, are Li and Xu (2010) and Sunder, Sunder, and Wongsunwai, (2014) and both focus on nonfinancial firms' hedge fund activism and effects on target firms' bank loan contract terms. Li and Xu (2010) document tighter bank contract terms for the firms after targeting, and Sunder, Sunder, and Wongsunwai, (2014) document an increase in loan spreads when activism relies on market for corporate control and a decrease in loan spreads when agency problems are addressed.

Our paper is also related to the literature on bank governance and its effects on performance and risk. First, there are papers that look at the effects of bank governance on performance. Caprio, Laeven, and Levine (2007) find that larger cash flow rights by the controlling owners and stronger shareholder protection leads to higher bank valuation. Other papers find that board size is positively associated with valuation (Adams and Mehran (2002, 2003, 2005), Caprio, Laeven, and Levine (2007), Belkhir (2009)). Second, there are papers that look at the effects of governance on bank risk-taking. Saunders, Strock, and Travlos (1990) find that shareholder-controlled banks take higher risk than banks controlled by managers. Also, Laeven and Levine (2009) find that banks with controlling shareholders are characterized by higher risk-taking and different aspects of regulation (e.g., FDIC deposit insurance, capital regulation, and restrictions on nonlending activies of banks) may induce owners to select a riskier investment portfolio to compensate for the loss of utility from costly regulatory requirements. Other researchers find stock-option-based executive compensation is associated with higher risk taking (Mehran and Rosenberg (2009), DeYoung, Peng, and Yan (2012)). Opposing this, Pathan (2009) finds that more independent boards, and thus more monitoring of managers, may reduce risk-taking.

Finally, there are papers that look at the role of bank governance around financial crises. There are opposing views on whether poor bank governance was a significant contributing factor to the recent financial crisis. Several papers find that governance was important. Berger,

Imbierowicz, and Rauch (2014) find that high shareholdings of lower-level management increased banks' default risk significantly. Diamond and Rajan (2009) suggest that traders and executives of banks had incentives to take risks that were not in the best interest of the shareholders, suggesting failure of governance. Kirkpatrick (2009) suggests that weak governance of banks lead to inadequate risk management, especially insufficient risk monitoring through the board, a factor that contributed significantly to the financial instability during the crisis. Cheffin (2014) suggests that the persistence of the imperial CEOs in the financial services industry to whom boards would give more and more freedom plausibly contributed to the market turmoil of 2008. Other papers find that the governance was not to blame. Beltratti and Stulz (2012) find that banks with more shareholder-friendly board structures performed significantly worse during the crises than other banks and had higher stability risk. Fahlenbrach and Stulz (2011) document that banks with higher option compensation and a larger fraction of compensation in cash bonuses for CEOs did not perform worse during the crisis. Their research suggests that CEOs and senior executives cannot be blamed for the crisis or poor bank performance during the crisis, as they could not have foreseen the extremely high risks in some of their bank investment and trading strategies.

However, there is no study in the literature focusing on how activist shareholders interact with bank managers and creditors to shape the behavior of banks during normal times and financial crises. This paper attempts to fill this gap in the literature.

3 Hypotheses Development

Our hypotheses examine the effects of activism on bank behavior: market value, operating returns, and bank risk. We consider four conflicts arising among bank stakeholders and which may be addressed by shareholder activism. These correspond to our hypotheses and are shown in Table 1 Panel A.

The first conflict is the ***Shareholder-Manager Conflict 1*** (shown in Figure 1, Column 1). It suggests that managers may be inherently risk-averse as they would like to preserve or increase their career security and private benefits of controls, so they may take less risk than desired by the shareholders (e.g., Jensen and Smith (1985), Hirshleifer and Thakor (1992)). [9] Even if the

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[9] Jensen and Smith (1985) show that managers are more likely to minimize risk, and engage in short-term investments as well as employee growth strategies to increase their compensation and job security.

managers are risk-neutral, shareholders may wish them to take more risk than managers. This allows them to take advantage of creditors, particularly the deposit insurer and taxpayers, as they are not charged for the risk and can take the value of the put option from FDIC. Some researchers also find that the agency problem between shareholders and managers distorts investment and managers may pursue a "quiet life" to preserve resources for private benefits, so may avoid expanding into a profitable new line of products (underinvestment) or get rid of unprofitable divisions, both cases leading to suboptimal investment (e.g., Bertrand and Mullainathan (2003), Boot (1992)).[10] According to this conflict, activists can curb agency problems between managers and shareholders, and improve performance by inducing managers to perform better and take value-enhancing risks (e.g., Jensen and Meckling (1976), Fama and Jensen (1983), Demsetz and Lehn (1985), Jensen and Smith (1985), Dalton, Daily, Ellstrand, and Johnson (1998)). Our first hypothesis (H1) and empirical predictions are:

Hypothesis 1 (Shareholder-Manager Conflict 1): *Shareholder activism is associated with **better market value**, **higher operating returns**, and **more risk-taking** by the targeted banks.*

The second conflict between bank stakeholders is the ***Shareholder-Manager Conflict 2*** (shown in Table 1, Panel A, Column 2), which may be caused by overconfidence and/or hubris of managers (e.g., Roll (1986), Wiseman and Gomez-Mejia (1998), Malmendier and Tate (2005, 2008), Li and Tang (2010)). This conflict suggests that managers are prone to biases such as hubris, over-optimism, and overconfidence and thus may underestimate risk and take more risk than is good for shareholders. Jensen and Meckling (1976) and Jensen (1986, 1993) also argue that the agency problem between shareholders and managers distorts investment and that firm insiders have the tendency to build an empire and expropriate resources for private benefits at the cost of outsiders. Thus, when a firm has plentiful resources for investment, insiders may overinvest. Activists may curb agency problems between managers and shareholders, and improve performance by correcting the over-risky investments by managers and thus reducing risk. Our second hypothesis (H2) and empirical predictions are:

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[10] Underinvestment may also be pursued in banking if some of the benefits of investment may go to the bank creditors.

*Hypothesis 2 (Shareholder-Manager Conflict 2): Shareholder activism is associated with **better market value**, **higher operating returns**, and **less risk-taking** by the targeted banks.*

The third conflict between bank stakeholders is the **Shareholder-Creditor Conflict** (shown in Table 1, Panel A, Column 3). In this conflict, activists may induce bank managers[11] to take higher risk to increase market value at the expense of bank creditors (e.g., Laeven and Levine (2009), Erkens, Hung, and Matos (2010), Prabha, Wihlborg, and Willett (2012), Srivastav, Armitage, and Hagendorff (2013)). This is due to the difficulties of creditors (e.g., deposit insurer, taxpayers, regulators, etc.) to monitor and discipline banking organizations due to banks' opacity and regulatory-induced incentives. First, as noted above, banks are opaque, and as a result, creditors might not be able to obtain information to assess accurately the bank's riskiness and monitor on-going bank activities. Second, several aspects of bank regulation and government safety net protect bank creditors from losses in case of bank default and may reduce their incentives and ability to monitor banks: explicit insurance (deposit insurance put option (e.g., Merton (1977), Karekan and Wallace (1978), Keeley (1990), Gorton and Rosen (1995)) and implicit insurance (bank creditors expect to be bailed out in case of insolvency if the bank is considered too-big-to-fail (TBTF), too-important-to-fail (TITF), or a wide-spread government guarantee is expected in case that many banks face distress (e.g., Acharya and Yorulmazer (2007, 2008), Brown and Dinc (2011), Duchin and Sosyura (2012), Black and Hazelwood (2012)). Explicit and implicit insurance induce banks to shift default risk to the deposit insurance fund and taxpayers.[12, 13] Our third hypothesis (H3) and empirical predictions are:

*Hypothesis 3 (Shareholder-Creditor Conflict): Shareholder activism is associated with **better market value** and **more risk-taking** by the banks, **but not necessarily better operating returns**.*

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[11] Managers may be willing to represent shareholders' interests if they may have a vested interest through the managerial compensation schemes that align interests (Cheng, Hong and Scheinkman (2010), DeYoung, Peng, and Yan (2012), Hagendorff and Vallascas (2011)).

[12] However, prudential supervision and regulation, such as capital requirements, are designed in part to offset this moral hazard incentive.

[13] Billett, Garfinkel, and O'Neal (1998) show that deposit insurance reduces the incentive of depositors and debt holders to monitor banks and increases the incentive of other bank stakeholders to increase risk. Also, Laeven and Levine (2009) show that deposit insurance intensifies the ability and incentives of shareholders to increase risk and the impetus for greater risk generated by deposit insurance operates on owners, not on bank managers.

Finally, a last conflict that may arise among bank stakeholders is the ***Shareholder-Other Stakeholders Conflict*** (shown in Table 1, Panel A, Column 4), which may be caused by overconfidence and/or hubris of the activists**.** This conflict suggests that activists, similar to managers, can be prone to hubris and overconfidence, which make them think that they know what is best for the company. Thus, they may induce the bank managers to take risky decisions that end up not being good for any of the parties, including bank managers, other shareholders, creditors, and themselves. Activists may induce over-risky investments by managers and at the same time not produce the desired returns, and they may also get out of their position quickly. Our fourth hypothesis (H4) and empirical predictions are:

Hypothesis 4 (Activist-Other Stakeholders Conflict): *Shareholder activism is associated with* ***worse market value***, ***worse operating returns***, *and* ***more risk-taking*** *by the targeted banks.*

Each of the four hypotheses can hold simultaneously for different sets of banks at a given time. We test empirically the impact of activism on bank behavior to try to understand which of the four hypotheses (***Shareholder-Manager Conflict 1***, ***Shareholder-Manager Conflict 2***, ***Shareholder-Creditor Conflict, Activist-Other Stakeholders Conflict***) empirically dominates or finds more empirical support. Results are reported in Section 5. In Section 8, we further explore the channels that activists may use to induce changes in the target banks.

4 Data, Variables, and Summary Statistics

4.1 Data and sample

The sample consists of all public commercial banks and BHCs in the U.S. for the period 1994:Q1 to 2010:Q4 and our data come from multiple sources.

Our bank data is sourced from the quarterly Report of Condition and Income (Call Report) filed by all active commercial banking institutions. Given that the majority of the public banking organizations are holding companies, data in the Call Report are aggregated at the bank holding company (BHC) level when the BHC has more than one commercial bank owned, otherwise the information for the commercial bank is preserved. For convenience, we will use the term bank to mean either type of entity. We remove bank-quarter observations that have missing or incomplete financial data on basic accounting variables such as total assets and equity. To avoid distortions in

ratios that use equity as the numerator, for all observations with total equity less than 1% of gross total assets (GTA),[14] we replace equity with 1% of gross total assets (e.g., Berger and Bouwman, 2013). Finally, we normalize all financial variables to be in real 2010:Q4 dollars using the seasonally-adjusted GDP deflator. The resulting sample is then intersected with CRSP and Compustat using the CRSP-FRB link of the Federal Reserve Bank of New York.

Activist filings (SEC Schedule 13D and DFAN14A) are retrieved by manual collection from the SEC EDGAR database for the period 1994:Q1[15] to 2010:Q4 following a procedure similar to that described in Greenwood and Schor (2009). We restrict our searches to public U.S. commercial banks and BHCs in the CRSP-FRB file of the Federal Reserve Bank of New York.[16] Schedule 13D of the SEC requires that investors file within 10 days of acquiring more than 5% of a voting class of a publicly traded company's equity securities. 13D documents the size of the share purchase and the investors' intentions.[17] In addition, we also include any material amendments in the investor's purposes from the initial Schedule 13D reported in Schedule 13D/A. 13D can also be filed for crossholdings formed when two firms merge or form business alliances (Greenwood and Schor (2009)). To deal with this problem, we manually screen for such events and/or cross-reference our initial sample of 13D filings with 13F holding reports (Thompson Institutional database) and get the activist filings. To the sample of 13Ds and amendments on 13Ds are added the definitive proxy statements filed by non-management (DFAN14A) as literature suggests these are another important form of activism (e.g., Dod and Warner (1983), Pound (1988), DeAngelo and DeAngelo (1989), Mulherin and Poulsen (1998)). These statements are filed with the SEC by investors who intend to or are involved in a proxy fight with a company's management. Form DFAN14A is defined as "Additional definitive proxy soliciting materials filed by non-

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[14] Gross total assets (GTA) equals total assets plus the allowance for loan and lease losses and the allocated transfer risk reserve (a reserve for certain foreign loans). Total assets on Call Reports deduct these two reserves, which are held to cover potential credit losses. We add these reserves back to measure the full value of the assets financed.

[15] The sample starts in 1994 because the shareholder activism data becomes available online in SEC EDGAR in 1994.

[16] We also performed searches using all SIC Codes relevant for commercial banks 6021, 6022, 6029, 6035, and 6036 and this gives a higher number of total filings, however a large number of them cannot be ultimately matched to the Call Report, CRSP, and Compustat intersection as they are not covered in at least one of these databases.

[17] See http://www.sec.gov/answers/sched13.htm

management",[18] and is filed ahead of the annual shareholder meeting when soliciting shareholder votes. A proxy contest may be initiated with less than a 5% stake in the target companies' shares. Activist investors can use the proxy statements as a tactical instrument to achieve objectives often specified previously in their Schedule 13D. To be comprehensive, we include both 13D and DFAN14A filings.[19] We obtain 3,142 13D filings and 369 DFAN14A filings, for a total of 3,511 filings. We discard 1,693 filings that refer to one of the following situations: filings by a parent holding company that assists with financing or restructuring or other internal strategies, bank mergers not associated with activism, or filings by corporate insiders (e.g., CEO, CFO, etc.), which are not true activist filings. This results in a final sample of 1,818 filings for the period 1994:Q1 to 2010:Q4.

After reading the "purpose of transaction" section of the 13D reports to understand whether the filer is pursuing an activist strategy, we take out 614 filings with no Item 4 or passive investment only (where filer says the purchase was only for investment, with no intention to engage in any form of activism, or if the filing has no Item 4: Purpose of Transaction). Our final sample of material activist events consists of 1,204 events corresponding to 337 unique banking organizations, which we use in our empirical analysis. We create the variable, *ACTIVISM,* as a dummy variable, which takes a value of 1 if there is shareholder activism targeting the bank during a quarter.

We also use data from several other sources for additional control variables: FDIC Summary of Deposits, Federal Housing Finance Agency website, St. Louis Federal Reserve website, Thompson Institutional dataset, I/B/E/S, SEC DEF 14A and 10K filings, and LexisNexis news articles. We end up with a final sample of 27,731 bank-quarter observations and 1002 unique banking organizations. All bank-specific variables, other than activism or internal governance, are constructed using the Call Report / Summary of Deposits for US commercial banks and the WRDS database (including CRSP, COMPUSTAT, Thomson Institutional Data, I/B/E/S).

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[18] http://www.sec.gov/info/edgar/forms/edgform.pdf; http://www.sec.gov/news/press/2010/2010-155.htm.

[19] To mitigate the concern that at some very large firms, some investors could have engaged in activism with a less than 5% stake in the company and these events were not accompanied by Schedule 13D & 13D/A or DFAN 14A filings, we also collect information about such events through news searches in LexisNexis for our top largest 100 banks in each time period. Our results are robust to the inclusion of these and are discussed in detail in Section 2.6.3.4 and Appendix B.

4.2. Empirical methodology

To investigate determinants of activism in banking, we use a probit model for targeting as in Brav, Jiang, Thomas, and Partnoy (2008).

$$ACTIVISM_{it} = \varphi_0 + \varphi_1 Control_{it-k} + Time_t + \omega_{it} \qquad (1)$$

Where $ACTIVISM_{it}$ is the dependent variable and represents a dummy variable equal to one if the bank-quarter observation corresponds to a bank i being targeted by an activist investor during quarter t. $Control_{it-k}$ is a vector of controls of bank i during quarter $t-k$, $Time_t$ represents time fixed effects, and ω_{it} is an error term. Standard errors are clustered by the bank. For controls, we use a broad set of bank characteristics that were previously used also in Brav, Jiang, Thomas, and Partnoy (2008) in the shareholder activism literature, complemented with other bank-specific variables from the banking literature. For all independent variables, we retain $k=4$ to capture 4-quarter effects as in Brav, Jiang, Thomas, and Partnoy (2008).

To investigate whether activism has a significant impact on bank market value, operating returns, and risk, we estimate several versions of the following econometric model:

$$Y_{it} = \beta_0 + \beta_1 ACTIVISM_{it-k} + \beta_2 Bank\ Characteristic_{it-k} + Time_t + Bank_i + \varepsilon_{it} \qquad (2)$$

where Y_{it} is the dependent variable of interest for bank i during quarter t, $ACTIVISM_{it-k}$ is shareholder activism dummy for bank i during quarter $t-k$, $Bank\ Chracteristic_{it-k}$ is a vector of controls of bank i during quarter $t-k$, $Time_t$ represents time fixed effects, $Bank_i$ represents bank fixed effects, and ε_{it} is an error term. The main dependent variables (Y_{it}) are: market value proxied by *TOBIN's Q* (defined as market value of common stock over equity book value), operating returns proxied by *ROA* (defined as the ratio of annualized net income to GTA), and default risk proxied by bank *Z-SCORE* (calculated as the sum of a bank's *ROA* and *Capitalization Ratio* (equity capital over GTA) divided by *Std_ROA* (the volatility of ROA)).[20] For all independent variables, we retain $k=4$ in our analysis and robustness tests to capture 4-quarter effects.

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[20] Many researchers use the *Z-SCORE* as defined here as a measure of bank risk (e.g., Laeven and Levine (2009), Demirguc-Kunt and Huizinga (2010), Houston, Lin, Lin, and Ma (2010), Duchin and Sosyura (2013), Ongena, Popov, and Udell (2013)).

For controls, we use a set of bank characteristics following prior research on bank governance and shareholder activism (e.g. Beltratti and Stutz (2012), Brav, Jiang, Thomas, and Partnoy (2008)). We control for *BANK SIZE* (the log of GTA), *BANK AGE* (age in years of the oldest bank in the BHC), *DEPOSITS / GTA* (ratio of deposits to GTA), *LOANS / GTA* (ratio of loans to GTA), *INCOME DIVERSITY* (following Laeven and Levine (2007), constructed as 1 – ((Net Interest Income – Other Operating Income) / Total Operating Income), *OVERHEAD COSTS* (a proxy of the bank's cost structure determined as the ratio of overhead expenses to assets as in Demirguc-Kunt and Huizinga (2011)), *FOREIGN OWNERSHIP* (a dummy equal to 1 if a bank is foreign owned), and regulatory environment. The regulatory environment is an important determinant of bank risk-taking and individual bank behavior mentioned in the banking literature (e.g., Buch and DeLong (2007), Laeven and Levine (2009), Berger, Bouwman, Kick, and Schaeck (2014) and Berger, Imbierowicz, and Rauch (2014)). We control for the bank's primary federal regulator, by including the *FRS, OCC,* and *FDIC* dummies, if the bank's primary federal regulator is the Federal Reserve System, the Office of the Comptroller of the Currency, and the Federal Deposit Insurance Corporation, respectively. In the regressions, we omit the FRS dummy to avoid perfect collinearity. Our main models are OLS regressions with bank and time fixed effects.[21]

5 Empirical Results

In this section, we analyze empirically the importance of shareholder activism in banking, activist objectives, and effects on individual bank behavior (market value, operating returns, and risk).

5.1 Prevalence of activism in banking and determinants

How prevalent is activism in banking? In Table 2 Panel A, we find that about one third of the banks (337 unique banks) in the sample have some form of shareholder activism at some time during the sample period 1994-2010, and about 8.5% banks have events during each year.[22]

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[21] We do not control for bank risk because it is an endogenous variable.

[22] One fifth of the total 13D filings for banks are non-material events, that is, the filer does not specify a particular objective or future plans to engage in activism. This latter percentage is slightly smaller than the results reported in Brav, Jiang, Thomas, and Partnoy (2008), Greenwood and Schor (2009), and Boyson and Mooradian (2011), for hedge fund activism for non-financials. In their cases, approximately one half of the activism events, hedge funds do not state specific objectives.

Activism tends to surge during crises periods (2000:Q2-2002:Q3 and 2007:Q3-2009:Q4).[23],[24] The documented prevalence of activism makes the study of the effects of activism worthwhile and each of the four hypotheses described in Section 3 could hold, however only an empirical analysis of the effects can assess which of them empirically dominates.

We also analyze what type of banks are targeted by activists. Table 3 reports results for the probit regressions predicting shareholder activism targeting. Our first model shown in column (1) includes target characteristics as in Brav, Jiang, Thomas, and Partnoy (2008) and Brav, Jiang, and Kim (2010): *BANK SIZE, TOBIN's Q, GROWTH* (bank asset growth)*, ROA* (defined as the ratio of annualized net income to GTA)*, CAPITALIZATION RATIO* (equity capital over GTA), *DIVYLD* (dividend yield or the ratio of common dividend over market value of common stocks)*, INST OWNERSHIP* (percentage of institutional ownership), trading illiquidity, *AMIHUD* (calculated as 1000 multiplied by the square root of the absolute value of market return over the dollar trading value), and *NUMBER OF ANALYSTS* (number of analysts covering the entity).[25] Column (3) reports the results when including additional bank specific characteristics: *BANK AGE, BRANCHES / GTA* (ratio of branches over GTA)*, NO_STATES* (the log of the number of states in which the bank has branches), *METROPOLITAN* (number of metropolitan markets as a fraction of all markets in which the bank is active)*, DEPOSITS / GTA, LOANS / GTA, CASH_HOLDINGS* (ratio of cash holding over GTA), *NPL RATIO* (the ratio of bank nonperforming loans to total loans), *INCOME DIVERSITY, FOREIGN OWNERSHIP, HHI DEPOSITS* (Herfindahl-Hirschman deposits index, a proxy for the local market concentration), primary regulator dummies, and

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[23] These periods were identified as financial crises in Berger and Bouwman (2013).

[24] The surge in activism during financial crises may be due to general discontent of investors when all firms in the market are not doing well. This is consistent also with investors asking for CEO turnover during crises when performance is lower (e.g., Helwege, Intintoli, and Zhang (2012)). For example, when Bank of America's share price declined dramatically by 85% during 2008-2009, shareholders blamed Ken Lewis, the CEO and Chairman, for the decline.

[25] Since *NUMBER OF ANALYSTS*, defined as the number of analysts covering the company from IBES as in Brav, Jiang, Thomas, and Partnoy (2008), is available for less than two thirds of our sample banks, the multivariate regression with *NUMBER OF ANALYSTS* is reported separately in column (2).

INCORP_DE (a dummy equal to 1 if the bank is incorporated in Delaware).[26,27] In all models, independent variables are lagged 4 quarters and models include time fixed effects as in Brav, Jiang, Thomas, and Partnoy (2008). In addition, standard errors are clustered by the bank.

Table 3 reveals several interesting results. First, we find that activists tend to target **value banks**, banks with low profitability and growth potential: smaller size (consistent with results for non-financials in Brav, Jiang, Thomas, and Partnoy (2008), Klein and Zur (2009), Greenwood and Schor (2009), Brav, Jiang, Thomas, and Partnoy (2008), Clifford (2008), and Mietzner and Schweizer (2008)), and lower profitability (lower *TOBIN's Q* and lower *ROA*), consistent with Gillian and Starks (2007). In addition, targets operate in fewer states (low *NO_STATES*), which gives them opportunities to grow more geographically. Second, we find that activists tend to target **banks with more agency problems:** banks with more *CASH HOLDINGS,* but paying fewer dividends (*DIVYLD*), symptoms of the agency problem of free cash flow according to Jensen (1986) and Brav, Jiang, Thomas, and Partnoy (2008), and banks with more complex organizational structures, that is, with more branches per dollar of assets (*BRANCHES/GTA,* ratio of branches over GTA). Finally, we find that activists seem to target **banks in which it is easier to implement changes:** higher institutional ownership (*INST OWNERSHIP*) and analyst coverage (*NUMBER OF ANALYSTS*), allowing them to get more allies and information to implement changes, and higher trading liquidity (indicated by the negative coefficient on *AMIHUD,* a direct measure of trading illiquidity with lower values meaning more liquidity) making it easier for activists to accumulate a high stake in a bank in a short period of time without incurring adverse price changes.[28, 29] Finally, targets tend to have fewer deposits and more loans. A lower reliance on

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[26] Delaware is known to have less antitakeover provisions which makes firms more likely to become a takeover target (e.g., Daines (2001).

[27] We also tried to run a model which considers regulatory enforcement actions taken by FDIC, FED, and OCC regulators against banks (data on enforcement actions is limited to 2005-2010), however it could not be run as there are too few enforcement actions for these publicly listed institutions for the period.

[28] Results are consistent with Brav, Jiang, Thomas, and Partnoy (2008) and Norli, Ostergaard, and Schindele (2009), and Brav, Jiang, and Kim (2010) who find that liquid stocks (above median) have a 50% higher likelihood to be targeted by activists. In addition, it is consistent with the theoretical model of Maug (1998), in which "liquidity mitigates the free-rider problem in costly monitoring of managers because activist blockholders can compensate for their monitoring costs through the increased trading profits due to high liquidity."

[29] It is to be noted that the coefficient on *AMIHUD* becomes insignificant when included together with *ANALYST* potentially due to its collinearity with this latter variable, as noted also in Brav, Jiang, and Kim (2010).

deposits for funding means that banks may use more money-market funding, so shareholders may have more information about them. The fact that activists target banks with more loans is consistent with the view that activists may target banks with a smaller portfolio of securities, and less subject to market credit spreads (Beltratti and Stutz (2012)). The other variables are not statistically significant, suggesting that they are not important determinants for activism in banking.

Overall, results seem to indicate that activists target banks with more agency problems and growth potential, which could be easily turned around to increase shareholder returns.

5.2 Activists' objectives and tactics

What is the nature of activists' demands in banking? Panel B of Table 2 summarizes the stated objectives that activists provide when they announce their intent to intervene (1994-2010). The panel classifies the demands into the following seven categories following prior literature (e.g., Greenwood and Scor (2009)): *ENGAGE MANAGEMENT, CAPITAL STRUCTURE, INTERNAL CORPORATE GOVERNANCE, ASSET SALE (STRATEGIC), STRATEGIC CHANGES, LITIGATION/BANKRUPTCY* and *PROXY FIGHT*. The categories are not mutually exclusive, so an event can sometimes fall into multiple categories.

First, *ENGAGE MANAGEMENT* represents 36.5% of all activist events. This is the lightest form of shareholder activism and includes events in which the activists try to help the managers maximize shareholder value by discussions with management and making suggestions for improvements. They can send letters, phone bank management or have face-to-face meetings, request company documents or make a general statement that shares are "undervalued" and intend to engage in future discussions / meet management etc. Second, *STRATEGIC CHANGES* are 35.1% of all events. These include a wide variety of strategies targeted by activists such as changes in business strategy (operational efficiency, growth and cost strategies and business line restructuring), M&A, sale of the target company to a third party, hire an investment bank to explore strategic alternatives, offer to acquire the company, block a merger and request a higher price, sell the company, etc.

Third, *INTERNAL CORPORATE GOVERNANCE* represents 28.1% of all events. It can include election of activist-selected directors, firing a company officer or board member,

challenging board independence and fair representation, board or executive compensation issues, a call to declassify the board, remove a poison pill, or question potential corporate fraud. Fourth, *CAPITAL STRUCTURE* represents 13.9% of all events. It includes activism targeting firm's payout policy and capital structure. This category includes events in which the activist proposes changes oriented towards the reduction of excess cash, an increase in firm leverage, or higher payouts to shareholders. This group of events also involves issuance of securities by the target banks such as modifying seasoned equity offerings or proposing debt restructuring.

Fifth, *PROXY FIGHT* represents 11.6% of all events. It refers to situations in which the activist solicits proxies from shareholders to elect proposed directors or to adopt a shareholder proposal. Sixth, *ASSET SALE (STRATEGIC)* represents 6.5% of all events. These refer to cases in which activists express their discontent by selling their entire position in the company. This is consistent with the literature for nonfinancials where some researchers document that activist investors will sell their stock to cut losses (e.g., McCahery, Sautner, and Starks (2010), Helwege, Intintoli, and Zhang (2012)) and their exit can serve as a governance mechanism (Admati and Pfleiderer (2009), Edmans (2009), Edmans and Manso (2011)). Finally, *LITIGATION / BANKRUPTCY* represents 2.6% of all events. It involves situations in which the activist files a lawsuit, the target is in bankruptcy, and/or the activist offers to help with financing and other restructuring options.[30] [31]

5.3 Effects of activism

Table 4 reports results from regressing measures of market performance (*TOBIN's Q)*, operating returns (*ROA*), and risk (*Z-SCORE*), on shareholder activism (*ACTIVISM*). As discussed in Section 4.2, we use ordinary least square (OLS) models with time and bank fixed effects.

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[30] Using a sample of hedge fund activism for non-financials, Greenwood and Schor (2009) report the objectives of their activists as follows: about a half (45.5%) of the hedge fund activism events include comments about target being "undervalued" and engage management to improve the value of the firm. Further, activism agendas related to capital structure, asset sales, and internal corporate governance represent 11.5, 18.1, and 21.9 percent of their full sample, respectively. Our results are qualitatively similar as composition to Greenwood and Schor (2009).

[31] In a separate test, reported in Appendix B, we break down our *ACTIVISM* measure into these seven different demands that activists declare to try to understand which of these are most important to explain our results. We find that all channels have an impact on bank behavior, except for *ENGAGE MANAGEMENT*, and *PROXY FIGHT* contributes to the highest increase in bank risk.

Column (1) analyzes whether activism creates value for shareholders by using *TOBIN's Q* as a dependent variable. We find that banks with activism experience positive and significant increases in market value. Activism may be perceived by the market as a positive signal since activists are expected to provide more monitoring that will curb agency problems and costs (e.g., Jensen and Meckling (1976)), and thus improve bank performance.

Column (2) uses *ROA* as a measure of operating returns. The coefficient estimate indicates that activism has little impact on the operating profitability of the targets, consistent with results in Klein and Zur (2009). The difference in sign between *Tobin's Q* and *ROA* can be due to Tobin's Q incorporating market-based information and being more forward-looking than *ROA*, while *ROA* may take longer to manifest a positive effect. Another possibility is that these banks may have a higher market value in the event of distress or failure because of the prospect of receiving government insurance, such as being bailed out.

Column (3) presents results for the risk-taking of banks as a result of activism by using *Z-SCORE* as a dependent variable. A larger value for the *Z-SCORE* indicates less risk and greater overall bank stability (e.g., Boyd and Runkle (1993), Berger, Klapper, and Turk-Ariss (2009), Laeven and Levine (2009), Houston, Lin, Lin, and Ma (2010), Demirgüç-Kunt and Huizinga (2010), Beltratti and Stulz (2012)). We find that activism is associated with a lower *Z-SCORE,* and thus, a higher default risk after intervention.[32]

Looking together at the results for market value, operating returns, and risk, we can conclude that activism creates market value for shareholders, has little impact on operating returns, and increases bank risk (lower Z-score). Although all hypotheses may hold to some degree, our results are most consistent with the empirical dominance of the Hypothesis H3, the ***Shareholder-Creditor Conflict***. This suggests that activists may induce management to increase risk in order to increase shareholder returns at the expense of bank creditors (regulators, taxpayers, deposit insurer, depositors etc.) given the difficulty of creditors in monitoring due to banks' opacity and regulatory-induced incentives. This shows that activism may be a destabilizing force, at odds with financial stability.

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[32] In unreported results, we decompose the *Z-SCORE* into its subcomponents and we find that the increase in risk is primarily due to both a decline in the bank capitalization ratio and an increase in the standard deviation of ROA.

6 Robustness Checks

6.1 Alternative measures

We test whether our results are robust to using alternative measures of market value, operating performance, risk, and activism. In Table 5 Panel A, we examine whether our results for effects of activism on performance are robust to using alternative measures of market performance: buy and hold return (*BUY-AND-HOLD_RET),* buy and hold abnormal return *(BUY-AND-HOLD_AB_RET)*, and *SHARPE_RATIO* (columns 2-4), while column 1 repeats the main effect. In each of the estimations (columns 2-4), we find that the coefficient on the *ACTIVISM* variable is statistically significant. We thus continue to find consistent evidence of an increase in market performance associated with activism.

Table 5 Panel B column 2 reports the estimation results when using an alternative measure of operating returns on *ACTIVISM*, namely return on equity (*ROE)*. We find that results are qualitatively similar to our main model (which is repeated in column 1 for comparison).

In Table 5 Panel C, we examine whether our main results continue to hold when we consider alternative measures of bank risk-taking. We first analyze the sensitivity of our results to *VOLATILITY_STOCK_RET*, the volatility of daily returns for each calendar year in column 2. Second, we use as a measure of risk, the *LLA RATIO,* or the ratio of loan loss allowance over GTA, in column 3. Third, we use as a measure of risk, the *NPL Ratio,* the bank-level ratio of nonperforming loans to total loans in column 4. In model 5, we show the estimation results when using as a dependent variable *VOLATILITY ROA*, determined as the standard deviation of ROA over the previous four quarters, where ROA is annualized net income as a percentage of GTA. Finally, in model (6), we use as dependent variable *CAPITALIZATION RATIO,* which is calculated as total bank capital equity over GTA. All regressions include time and bank fixed effects. In each of the estimations, we find that the coefficient on the *ACTIVISM* variable is statistically significant. We thus continue to find consistent evidence of an increase in bank risk associated with activism.

In Table 5 Panel D, we consider an alternative measure of *ACTIVISM* – *NO_ACTIVISM_EVENTS* – the number of activist events that a banks has during a quarter as per 13D and DFAN14A filings. Results using this measure are qualitatively similar to main findings.

2.6.2 Alternative econometric specifications

In this subsection, we check the sensitivity of the results to the use of alternative econometric specifications.

For market performance (Table 6, Panel A1-A2), we conduct both daily and monthly event studies reporting the mean cumulative abnormal returns (CAR) and using a value weighted index.

In Panel A1, we conduct a daily event study using several event windows. The returns are on average 1.42% for (0, 1) days, 1.79% for (-1, 1) days, 2.26% for (-2, 2) days, 2.89% for (-5, 5) days, indicating that the market reacts positively to the activism events.

In Panel A2, we conduct a monthly event study using several event windows. We find positive and significant CARs for all periods, with the highest returns being achieved by investors for longer time windows up to 3 years: That is, returns are on average 4.22% for (0, 3) months, 4.88% for (0, 6) months, 6.77% for (0, 12) months, 8.93% for (0, 24) months and 13.11% for (0, 36) months. Returns are also positive and significant for the (-1, 12) months window. Overall, our results in this event study confirm that shareholder activism creates value for shareholders.

Panels B and C of Table 6 report results from alternative econometric specifications for operating returns, and bank risk. Column (2) of each these panels reports the results when using a simple OLS model without time and bank fixed effects. Column (3) reports results when using a specification with time fixed effects only. Column (4) reports results when using a bank random effects model. Column (5) uses regression specifications with Newey-West (1987) standard errors and time fixed effects to control for residual autocorrelation and heteroskedasticity. Column (6) implements two-way clustering models by firm and time as suggested in Thompson (2006) and Cameron, Gelbach and Miller (2006). These models allows for correlations among different banks in the same quarter and different quarters in the same bank, for example, and calculates standard errors that account for two dimensions of within-cluster correlation. The results in all models of Table 6, Panels B, and C, using *ACTIVISM* as a dependent variable, confirm our earlier evidence.

More specifically, we find that *ACTIVISM* leads to higher market value, unchanged operating returns, and more risk.[33]

6.3 Endogeneity

In this subsection, we carry out several tests to address the problem of potential endogeneity of our *ACTIVISM* variable, which could bias our findings. For example, it may be possible that activism and the bank key outcomes (market value, operating returns, and risk) may be simultaneously driven by certain unobservable bank-level characteristics. Also, our key independent variable (*ACTIVISM*) could be improperly measured due to difficulty to observe and/or quantify its magnitude. Finally, there might be a potential causal link from our outcome variables for market value, operating performance, and bank risk, to *ACTIVISM*, as bank market value, operating performance, and risk, may affect *ACTIVISM* involvement. In the main analysis, we attempt to alleviate some of these concerns by lagging the ACTIVISM variable**.** To more directly address the endogeneity concerns, we perform several sets of tests discussed below.[34]

6.3.1 Instrumental variables analysis

It is possible that the endogeneity may be the result of reverse causality that runs from bank behavior for market value, operating performance, and bank risk to activism. For example, banks with a poor performance and a higher risk, might be more likely to be targeted by activists and this bias may invalidate the interpretation of the coefficient on *ACTIVISM*. We use instrumental variable techniques (two-stage least squares (2SLS)) to extract the exogenous component of bank activism in assessing the influence of activism on market value, operating performance, and bank risk. We use as an instrument, *% BUSY ACTIVISTS*, the percentage of busy activists in the financial services industry (SIC codes between 6000 and 6999) based on number of activist campaigns (13D filings) and proxy fights (DFAN 14A filings). Busy activists are those with five or more campaigns

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[33] In unreported results, to address the potential concern that time fixed effects may not capture the full impact of macroeconomic variables during our sample period, we also try models that include the percentage change in national GDP growth, percentage change in the Federal Housing Finance Agency (FHFA) real estate index, and interest rate spread instead of time fixed effects. The results confirm our prior findings.

[34] In addition to the tests discussed in this section, to alleviate the concern about potential endogeneity stemming from potentially omitted correlated variables, we also try saturating the main regressions with a lot more bank level controls, including several other corporate governance mechanisms, and results are consistent. These results are presented in detail in the online Appendix B.

and/or 2 or more proxy fights at the same time and are likely to generate more activism.[35] The results of the IV regressions are reported in Panel A of Table 7. The first-stage regression indicates that our instrumental variable is positively and significantly related to activism. We perform two tests to check the suitability of the selected instrument. First, we conduct the Kleibergen-Paap under-identification test to evaluate the rank condition. We find that the Kleibergen-Paap *rk* LM rejects the null hypothesis at the 1% level (*rk LM* = 544.718 with a *p*-value less than 0.001), indicating that the model is well identified. Second, using an instrument that is weakly correlated with the endogenous explanatory variable can lead to large inconsistencies in the coefficient estimates. To examine the relevance of our IV, we conduct an *F*-test of the excluded exogenous variable in the first stage regression, in which the null hypothesis is that the instrument does not explain the variation in the *ACTIVISM*. We reject this null hypothesis at the 1% level (*F* = 3605.728 with a *p*-value less than 0.001). The IV second stage regression estimates indicate that *ACTIVISM* is associated with better market performance, little impact on operating returns, and higher risk, consistent with our earlier evidence.

6.3.2 Propensity score matching (PSM) analysis

Another potential concern with our results is that perceived market value, operating performance, and bank risk differentials between banks targeted by activists and those that are not targeted may spuriously reflect bank characteristics rather than activism characteristics. To control for this, we use the propensity score matching (PSM) analysis. PSM models match observations based on the probability of undergoing the treatment, which in our case is the probability of being targeted by activists.

In our case, PSM estimates the effect of activism on a bank's market value, operating performance, and risk, by comparing the bank's current behavior with the behavior that the bank would have observed if activists had not targeted it. This quasi-experiment is conducted by matching each targeted bank with a non-targeted bank sharing similar characteristics as indicated by their propensity scores. To estimate a bank's propensity score (or probability of being targeted),

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[35] In unreported results, we also tried tests with three instruments: *% BUSY ACTIVISTS*, *AMIHUD*, the Amihud (2002)'s measure of illiquidity since liquid stocks were found by Brav, Jiang, and Kim (2010) to be more likely to be targeted by activists, and *% ACTIVISM OF OTHERS (N-1),* the average level of activism for the other (N-1) banks in the industry following the logic in Laeven and Levine (2009) for cash flow and we obtain consistent results.

we use a probit model in which the dependent variable is a dichotomous activism measure that takes a value of 1 if the bank has activism and 0 otherwise and the independent variables are all bank characteristics from the main specification and year fixed effects. We use a nearest-neighbor matching with n=5 with replacement, which matches each targeted bank with, respectively, the 5 banks with the closest propensity scores.[36, 37] Regression results are reported in Table 7 Panel B and are qualitatively similar to the main models, with the only exception being that the coefficient of activism in the *ROA* equation is negative and significant.

6.3.3 Heckman selection model

Another potential concern with our results is that perceived risk differential found may reflect selection bias. For example, our results may reflect differences in bank characteristics between those targeted by activists and those not targeted, rather than the impact of activism per se on market value, operating performance, default risk, and leverage risk. We address this issue by using Heckman's (1979) two-step procedure to control for selection bias induced by banks being targeted by activists by incorporating the activism decision into the econometric estimation. In the first step, we determine whether the bank has activism using a probit estimation. The dependent variable in the first step is our *ACTIVISM* dummy. The explanatory variables are the instrumental variable used in the IV estimation and all control variables from our main specification. In the second stage, the *TOBIN's Q*, *ROA*, and *Z-SCORE* are the dependent variables and we include all the variables from the main regressions, the activism variable, and the self-selection parameter (lambda or inverse Mills' ratio).

The results are reported in Panel C of Table 7. While controlling for potential self-selection bias, the results of the two-step estimation model continue to confirm that *ACTIVISM* is associated with better market performance, little impact on operating returns, and higher risk. In the selection equation, the instrumental variable is positively related to *ACTIVISM*. In the outcome equation,

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[36] In unreported tests, we compare the means of the bank characteristics used in the selection models across the samples of targeted banks and other banks to assess the effectiveness of our propensity matching procedure. Reassuringly, the distributions of the bank characteristics are statistically indistinguishable at conventional levels.

[37] In unreported results, we also do a nearest-neighbor matching with n=10 and obtain consistent results.

the *ACTIVISM* variable enters significantly positively on *TOBIN's Q* and negatively on *ROA,* and *Z-SCORE,* consistent with our prior results.

6.3.4 Including Lexis-Nexis News

Given the amount of capital that is needed to acquire a 5% stake in a large-cap company, we worry that the previously collected filings may bias the sample toward smaller targets. At very large firms, some pension funds may engage in activism with a less than 5% stake in the company. To incorporate activism events that were not accompanied by Schedule 13D or DFAN 14A, we collect information about such events through news searches in LexisNexis for our top 100 banks in each time period in terms of total assets using a general search with the company current name and any previous names (where information is available) and any and various combinations of the following keywords: "activism" or "activist investor" or "dissident investor" or "activist shareholder" or "group of concerned shareholders" or "shareholder activism" or "hedge fund activist" or "hedge fund activism" or "institutional activism" or "activist campaign" or "investor campaign." This generates 96 events, the majority (~85%) of which, has a pension fund as an activist.[38] We add these new events to our sample and incorporate them in our *ACTIVISM* variable and re-estimate our results to understand whether our results may be impacted by these investors with stake less than 5% that may behave as activists. The results are robust to these tests and are presented in detail in Appendix B.

7 Effects of Activism: Subsample Analyses

7.1 Hedge fund (HF) or not

Not all activists may be alike. Some may be more aggressive such as hedge funds compared to mutual funds, pension funds, individuals, or other types of shareholders. Hedge funds might have the pressure to deliver short-term results via asset sales and increased cash payouts, while other minority investors may be more interested in long-term results.

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[38] We impose no limitation to the percentage of shares owned as many times this information is not available in the LexisNexis news. In few cases, we are able to retrieve the ownership from the DEF 14A report when the shareholder appears in the Shareholder Proposals section and for those cases the share ownership is small, many times < 1%.

To differentiate between hedge fund activists and other types of investors, we use a list of commonly known hedge funds in Bloomberg Markets Magazine[39] and Wikipedia to identify hedge fund activists among the filers in the 13D and DFAN14A material events. We then complement the list with manual searches on Google and fund internet website to understand if the filer is a hedge fund or not.[40]

We break down the *ACTIVISM* dummy into *HF_ACTIVIST* and *NON_HF_ACTIVIST* to take into account the two types of activists (Table 8 Panel A). We conduct a test for the equality of the coefficients (*HF_ACTIVIST* and *NON_HF_ACTIVIST*). The regression results reveal that HFs tend to improve the bank market value more when looking at the magnitude of the coefficients, however the *t*-test reveals that the difference is not statistically significant. When looking at the earnings (*ROA*), it appears that HFs do not significantly impact ROA, while the non-HF investors tend to negatively impact *ROA*. In regards to risk-taking, both HF and non-HF investors are driving the bank to take on more risk, but hedge funds tend to lead to a higher bank risk. Results are consistent with the main analysis and suggest that HF activists may have a more positive influence on banks' changes compared to non-HF investors, though the increase in risk remains a potential concern.

7.2 13D versus DFAN 14A

We next break down the *ACTIVISM* dummy into *DFAN14A*, a more aggressive activism form, and *13D* filings, to take that into account whether aggressiveness of filings makes a difference for our findings. The results in Table 8 Panel B show that our main results continue to hold for the two types. However, the coefficient for *DFAN14A* is larger for the default risk.

7.3 Excluding TBTF banks

Next, we exclude too-big-to-fail (*TBTF)* banks from our sample (Table 8 Panel C) to understand whether our results may be caused by the banks that are too big to fail. We define *TBTF* as a

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[39] http://media.bloomberg.com/bb/avfile/rJWUURETpDOE,http://media.bloomberg.com/bb/avfile/rEpa5X EFo000, http://en.wikipedia.org/wiki/List_of_hedge_funds#Other_notable_hedge_fund_companies.

[40] We recognize that this search process may be imperfect, but we are confident that almost all (if not all) activists that are hedge funds are classified adequately.

dummy variable which takes a value of 1 in all quarters when the banks has GTA greater or equal to $100 billion, which have been subject to the stress tests – Supervisory Capital Assessment Program (SCAP) in 2009 and Comprehensive Capital Annual Review (CCAR) later.[41] We find that our results are not driven by *TBTF* banks.

7.4 Bank size

We further re-estimate our main regressions by bank size to understand whether results are dominated by a particular size class. Table 8 Panel D reports effects of activism by bank size: *SMALL*, *MEDIUM* and *LARGE*. *SMALL* represents banks with GTA up to $1 billion, *MEDIUM* represents banks with GTA exceeding $1 billion and up to $5 billion, and LARGE represents banks with GTA exceeding $5 billion. The regression results indicate that results only hold strongly for the smaller banks, suggesting that activists have a lesser influence on the larger banks. However, we find that activists do increase the market value of large banks.

7.5 Activism effects during financial crises

We also study whether effects of activism may be different during financial crises. Under normal circumstances, banks may take more risk as a result of activism. However, during financial crises, banks already have been taking a lot of risk and are under more heightened scrutiny by regulators, so that it may be harder for activists to get them to take more risk, so these risk-taking incentives may be muted. Alternatively, consistent with a limited liability effect, in the presence of financial distress (high bank leverage or capital) and low demandable deposits (Calomiris and Kahn (1991)) during crises, there may be an increase in moral hazard and adverse selection problems for banks and activists can take advantage of it and induce bank managers to take risky decisions in an attempt to "gamble for resurrection". We re-estimate our regressions to take into account the financial crises and understand whether the effects may be different during financial crises versus normal times and which of the two views finds empirical support. For testing this, we use the following modified model:

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[41] This definition of too-big-to-fail is also used in Houston, Lin, Lin, and Ma (2010).

$$Y_{it} = \gamma_0 + \gamma_1 ACTIVISM_{it-k} + \gamma_2 ACTIVISM_{it-k} \; x \; FINANCIAL\_CRISES_{t-k} +$$
$$+\gamma_3 Bank \; Characteristic_{it-k} + Time_t + Bank_i + \varepsilon_{it} \tag{3}$$

FINANCIAL_CRISES is a dummy variable equal to 1 whenever there is a banking crisis or a market crisis. We follow Berger and Bouwman (2013), and identify three financial crises (the credit crunch (1990:Q1-1992:Q4), the bursting of the dot.com bubble and September 11 terrorist attack (2000:Q2-2002:Q3), and the subprime lending crisis (2007:Q3-2009:Q4)). We exclude *FINANCIAL_CRISES* alone from the model because time fixed effects absorb the direct effects of *FINANCIAL_CRISES*. The interaction term between *FINANCIAL_CRISES* and *ACTIVISM* captures the differential impact of activism on bank behavior during financial crises, and the sum of $(\gamma_1 + \gamma_2)$ captures the total effect of activism during financial crises.

We report the results in Table 9. The results reported in Panels A suggest that activism has a significantly different effect during crises versus normal time periods. Thus, we find higher market value, but there is no increase in risk, suggesting that it may be harder for activists to get banks to take more risk during crises, so risk-taking incentives are muted. Therefore, activists do not seem to increase risk during financial crises. Because some authors discuss about poor governance being a contributing factor to the subprime crisis, we also conduct the crises regressions by focusing on the subprime crisis only. In this sense, we rerun regressions over the 2006-2010 period and report the results in Panel B. We find again a higher market value, but no increase in risk, suggesting that the effects of activism during crises are muted. [42] This also adds to the debate on the role of bank governance during financial crises and shows that at least one corporate governance mechanism, shareholder activism, was not a major cause of risk during the financial crisis.

We find that during a crisis, activists raise market value without increasing risk or income. We further consider two possibilities to explain this: either 1) it may be the case that risk did not go up, but market value went up because operating revenue will go up in the following years or 2) government interventions during the crises such as TARP (The Troubled Asset Relief Program), Discount Window (DW), and Term Auction Facility (TAF) may offset the increase in risk. In

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[42] In unreported results, we also rerun the results using the three individual crises and we find that results hold tightly for the last two financial crises: the dot-com bubble and the recent subprime lending crisis.

Panel C we report the results when considering separately the effects of the three government intervention programs and use the dummies *TARP, DW,* and *TAF,* for whether a bank received TARP capital support, discount window loans and/or Term Auction Facility (TAF) funding during the crisis. We find that the risk is decreasing primarily for the banks that received TARP, but the other programs do not seem to have an important effect.[43] Therefore, the government, in its role as a creditor, may lose during normal times, but not during financial crises.

7.6 Activism effects and the Sarbanes Oxley Act of 2002 (SOX)

Finally, we study whether effects of activism may be different after the Sarbanes Oxley Act of 2002 (SOX). The Sarbanes-Oxley Act of 2002 represents the most dramatic change to the legislation regulating corporate governance since the 1930s. With SOX, the U.S. Congress, for the first time, passed legislation to protect shareholders from fraudulent practices and accounting errors in corporations, as well as improve various aspects of corporate governance and disclosure. For example, for the first time, it was implemented direct regulation of the behavior of corporate managers and the structure of corporate boards. It is possible that this legislation may have given activists more free hand to intervene in corporations to change their corporate governance and strategic decisions as they consider best for their interests, and it may be easier for activists to induce banks to take more risk. On the contrary, it is also possible that the legislation may have muted the effects of activists due to heighted scrutiny from regulators. We re-estimate our regressions to understand whether effects may be different after SOX versus before SOX using the following modified model:

$$Y_{it} = \varpi_0 + \varpi_1 ACTIVISM_{it-k} + \varpi_2 ACTIVISM_{it-k} \ x \ POST\_SOX_{t-k} +$$
$$+\varpi_3 Bank \ Characteristic_{it-k} + Time_t + Bank_i + \kappa_{it}$$

(4)

POST_SOX is a dummy variable equal to 1 after 2002:Q3 when the act took effect. We exclude *POST_SOX* alone from the model because time fixed effects absorb the direct effects of *POST_SOX*. The interaction term between *POST_SOX* and *ACTIVISM* captures the differential impact of activism on bank behavior after SOX, and the sum of $(\varpi_1 + \varpi_2)$ captures the total effect

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[43] In unreported results, we also look at the effects of activism on operating revenue up to 2 years for the full sample, however we do not find a significant increase in operating revenue.

of activism after SOX. We report the results in Table 10. The results suggest that activism has a significantly more pronounced effect after SOX versus before SOX: there is a higher market value, and a much higher increase in risk after SOX, however operating returns are unchanged. Therefore, SOX may have given more freedom to activists to act, and may have also resulted in a possible unintended aggravation of the *Shareholder-Creditor Conflict* in banking (activists inducing managers to increase risk more to increase shareholders returns at the expense of bank creditors (including the government).

8 Channels of Action for Activists and Actual Outcomes

Finally, we conduct an analysis to better understand the channels through which activists may act.

8.1 Channels predictions

As shown above, our results are generally consistent with the empirical dominance of the *Shareholder-Creditor Conflict*. In this conflict, activists may induce bank managers to take higher risk to increase market value at the expense of bank creditors (e.g., depositors, deposit insurers, taxpayers, regulators, etc.) due to banks' opaqueness and regulatory-induced incentives. This leads to the prediction that shareholder activism is associated with better market value and more risk-taking by the banks, but not necessarily better operating returns. In this section, we explain how activist investors can make targeted banks better or worse and change the focus of the banks in the *Shareholder-Creditor Conflict*. We consider three potential channels of action: **Internal Corporate Governance**, **Capital Structure**, and **Strategic Direction**, as shown in Table 1 Panel B.

One channel activists may use is to induce changes in the **Internal Corporate Governance** of the targeted banks. [44] Activists may increase pay-for-performance sensitivity for managers to better align the interest between managers and shareholders (Brav, Jiang, Thomas and Partnoy

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[44] For example, in April 1999, Lawrence Seidman, activist investor of South Jersey Financial Corp was involved in a proxy contest seeking to elect two directors to the company's board and an agreement was reached between the company and Seidman, which permitted Seidman and a second proposed nominee to become directors of the company. Similarly, in October 2007, Financial Edge Fund, activist of Alliance Bancorp Inc of Pennsylvania, met with the Company's CEO, Dennis Cirucci, to discuss the company's dismal financial performance and the need for management to dramatically enhance shareholder value and design compensation and benefit plans that are tied to financial performance and shareholder value metrics.

(2008), Brav, Jiang and Kim (2010)). Although there is no clear prediction in regards to CEO/board turnover and CEO pay, activist shareholders can force out management if it has conflicting views to the shareholders in regards to how the company should be run or the bank is poorly run and/or can change the board composition by nominating themselves or other members elected by them to the board to be able to better implement their proposals (e.g., Parrino, Sias and Starks (2003), Gopalan (2008), Brav, Jiang, Thomas and Partnoy (2008), Brav, Jiang and Kim (2010), Qian (2011), Boyson and Mooradian (2011), Helwege, Intintoli, and Zhang (2012), Bharath, Jayaraman and Nagar (2013)).[45] Besides exerting discipline over managers, activists can also make changes to bank executive compensation, by curtailing the executives' base pay (Brav, Jiang, Thomas and Partnoy (2008), Brav, Jiang and Kim (2010), Hartzell and Starks (2003)), however the prediction is unclear for the total compensation.[46]

A second channel that activists may use is to change bank **Capital Structure**. Activists can reduce agency problems of free cash flow in banks by reducing cash holdings and increasing dividend payouts to shareholders or repurchasing shares (e.g., Brav, Jiang, Thomas and Partnoy (2008), Brav, Jiang and Kim (2010), Clifford (2009).[47] Activists can also induce management to hold a lower level of equity capital to improve bank's asset choice, which may favor higher returns to shareholders (e.g., Calomiris and Kahn (1991)). A lower level of equity capital can also offer debt discipline and alleviate agency problems of free cash flow, which may increase returns to shareholders (e.g., Jensen, (1986), Jiraporn and Gleason, (2007)).

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[45] Changes in the board composition that lead to an increase the number of outside directors with equity ownership may also increase the willingness of managers to accept a takeover bid (Brook, Hendershott, and Lee (2000)) and changes leading to a higher proportion of independent outside directors may increase bid premiums offered for target banks (Brewer, Jackson and Jagtiani (2000)) if activists consider getting the company taken over.

[46] DeYoung, Peng, and Yan (2012) find that bank CEOs respond to risk-taking incentives by taking more risk, and bank boards use executive compensation incentives to reinforce or support increased risk taking.

[47] For example, in November 2007, Seidman Lawrence, activist investor of MassBank Corporation demands higher dividends for shareholders, in the form of both quarterly and special payments and recommends accelerated share repurchases, including a possible Dutch auction. In a similar example, in August 1998, Seidman Lawrence, activist of 1st Bergen Bancorp believes the profitability of the company's business can be improved by re-deploying certain assets and better utilizing its excess capital.

A third channel to induce change in the target banks is to change the **Strategic Direction** of the bank.[48] Thus, activists may induce management to engage in more investments in risky assets in order to improve performance (e.g., commercial real estate loans, more M&As). In addition, although there may not be a clear prediction for takeovers, activists may make the bank a takeover target if it increases shareholders' value (e.g., bank can take advantage of too-big-to-fail (TBTF) or too-important-to-fail (TITF) policies). Literature on nonfinancials shows that returns to investor activism are driven by activists' success at getting target firms taken over, in which case they can get a takeover premium (e.g., Greenwood and Schor (2009)). The effects on divestitures of bank divisions and costs are ambiguous, however these can be used as a preparatory step to make the bank look good on the books before becoming a takeover target so that activists can get a higher premium. [49]

We test empirically the impact of the activism on the three channels described above and try to understand which of the channels are most important to explain the main results. The empirical results are presented in Table 10 Panels A and B.

8.2 Channels of action for activists

In Table 11 Panel A, we conduct a change analysis which considers all banks targeted by activism and means changes in their ***Internal Corporate Governance[50], Capital Structure,*** and

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[48] For example, in December 1997, Lawrence Seidman, activist of Wayne Bancorp requested that company's board consider acquisition/merger discussions with potentially interested commercial banks to maximize shareholders' value. Similarly, in August 2005, Lawrence Seidman, activist of Interchange Financial Services Corporation, states that because Mr. Abbate, the CEO of the bank was unable to grow EPS, or hold the line on the net interest margin and it is time for someone else to take the reins of the company. He strongly encourages management to hire an investment bank and solicit bids from potential acquirers.

[49] Activists can also induce more divestitures if they can create value for shareholders (e.g., Brav, Jiang, Thomas and Partnoy (2008), Gillian, Kensinger and Martin (2000), Del Guercio and Hawkins (1999)).

[50] All Corporate Governance variables are manually collected for the target banks from DEF 14A proxy statements, 10K annual reports, and 8K quarterly reports. *CEO TURNOVER* is a dummy equal to 1 if the CEO changes from 1 year to the next as per DEF 14A and 10K annual filings. *CEO/BOARD TURNOVER* is a dummy equal to 1 if CEO or another board member changes as per 8K quarterly filings. To construct this latter variable, we look at the 8K information contained in "Item 5.02 - Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers". Search keywords include one of the following commonly mentioned phrases to indicate executive turnover: dismiss, dismissed, dismissed for cause, employment ceased, fire, fired, appointment revoked, eliminate, position eliminated, position change within company, let leave, not re-elected, expiration of employment agreement etc. We eliminated cases involving death (deceased), health based resignations, and mandatory retirement. In regards to the CEO compensation variables, these are manually collected from the DEF 14A and 10K annual filings. *EQUITY BASED-COMPENSATION/CEO TOTAL COMPENSATION* is

Strategic Direction channels, 8 quarters (2 years) before the activism and 8 quarters (2 years) after the activism to account for the fact that some outcomes of activism could take a longer time period. We find that all three channels play an important role in the *Shareholder-Creditor Conflict*.

First, in terms of *Internal Corporate Governance*, we find that shareholder activists in banking are successful at both changing the CEO and inducing changes in the boards (*CEO TURNOVER* and *CEO/BOARD TURNOVER*), which may help mitigate some of the agency problems between management and shareholders. We also find a higher pay-for-performance sensitivity after activism as indicated by the statistically significant results on *EQUITY BASED-COMPENSATION / CEO TOTAL COMPENSATION*, consistent with the prior prediction of the *Shareholder-Creditor Conflict* that activists may induce more alignment with shareholders to increase market value. In regards to *CASH BONUS / CEO TOTAL COMPENSATION*, we find that this declines perhaps due to the fact that it is not directly tied to the shareholders' value. There is no significant effect on the CEO total pay.

Second, in terms of *Capital Structure*, we find that shareholder activism leads to more *STOCK REPURCHASES* and a lower *CAPITALIZATION RATIO,* although there are no significant effects on either cash holdings or dividend yield paid. Finally, in terms of *Strategic Direction*, we find that shareholder activism leads to more investments in risky assets as indicated by the *COMMERCIAL REAL ESTATE LOANS* (the ratio of bank commercial real estate loans over GTA) and *REAL ESTATE LOANS* (the ratio of bank real estate loans over GTA)[51], and also riskier funding as indicated by the increase in the *NONDEPOSIT FUNDING* (ratio of bank nondeposit funding over GTA). As for banking organizations becoming a takeover target (*TAKEOVER TARGET*), the actual takeover rate is about 10%, suggesting that activists in banking may be quite successful at getting the banks acquired. This may increase these banks' government safety net by getting them acquired by larger institutions and/or stepping into the TBTF umbrella[52] and may

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the sum of total restricted stock grants and stock options granted to the CEO divided by CEO Total Compensation. *CASH BONUS/CEO TOTAL COMPENSATION* is total cash bonus granted to the CEO divided by CEO Total Compensation.

[51] Prior literature in banking suggests that real estate loans, and in particular commercial real estate loans was a factor that contributed significantly to the recent crisis (e.g., Berger, Imbierowicz and Rauch, 2013).

[52] Several researchers find that bank M&As may serve as a mechanism to increase the financial safety-net benefits to shareholders and lead them to shift risk to the safety-net, thus exposing taxpayers (who guarantee the safety-net) to potentially greater losses (e.g., Benston, Hunter, and Wall (1995), Carbo-Valverde, Kane, and Rodriguez-Fernandez (2012), Srivastav, Armitage, and Hagendorff (2013)).

also lead to significant premiums for the activists when successful (as indicated in Greenwood and Schor (2009)). Also, we find that activism in banking leads to a reduction in costs and acquisitions and an increase in divestitures of banks in the BHCs, potentially designed to make the banks more attractive targets on the market for strategic alternatives such as takeovers. To sum up, all channels seem to play an important role in explaining the ***Shareholder-Creditor Conflict***.

8.3 Actual outcomes

In Table 11 Panel B, to better understand what actual actions the target firms take in response to the activist's requests, we follow Greenwood and Schor (2009) and collect news data on what happened after each event by conducting searches in Lexis-Nexis for each target – activist pair and also researching the NIC banking organization history up to two years after the activism events. We classify the outcomes into four broad outcomes (the three from Panel A, ***Internal Corporate Governance***, ***Capital Structure***, and ***Strategic Direction***, plus an additional one named ***Other***, which could not be adequately fit into the others). These comprise of thirteen subcategories. The classifications are not mutually exclusive: for example, if a target gives board seats to the activist and also repurchases shares, this company will have two outcomes represented. We include the number of unique banks that fall under each category and also the percentage out of all target banks and that of all target banks that were found to have news about the outcomes.

For about 49.26% (166) of the target banks (generally smaller), no additional news are found about outcomes except that, in some cases, we find a reiteration of some of the 13D filings by the activist. For the other 50.74% (171) banks, we find information about outcomes. The first category of outcomes comprises events that relate to changes in the ***Internal Corporate Governance*** of the target banks. In a very large number of cases (63), the activist is granted seats on the board either for himself or his nominees, while in 19 cases, the activist is not successful to get board seats (he may withdraw his solicitation for seats or suffer a proxy fight defeat). In 14 cases, the CEO is changed, and in 7 cases, company by-laws are changed (e.g., remove a poison pill, de-stagger the board, or change in a majority voting rule).

The second category of outcomes comprises events that relate to changes in the ***Capital Structure*** of the target banks. In 15 cases, the target announces that it repurchases shares and/or makes changes to the dividends paid out to shareholders. In another 21 cases, the activist induces

the bank to raise capital or helps the bank with financing options, in most cases accompanied by the target acquiring another institution.

The third category of outcomes comprises events that relate to changes in the *Strategic Direction* of the target banks. In 37 cases, the target is acquired and in 5 cases there is announcement that the company hired an investment banker to explore strategic alternatives and solicit potential buyers. In 7 cases, there are news which indicate that activist was not successful to get the company acquired. In one case, a spin-off is announced and in another 10 cases there are news about target acquiring other institutions.

The last category of outcomes, called *Other*, comprises events that could not be adequately fit into the other three categories. In 49 cases, the activist and the target sign either a settlement or a standstill agreement. With a settlement, the target may be able to extract some concessions from the activists (e.g., board seats) that it was unlikely to have obtained if the original slates had gone to a vote. Moreover, the company management is able to save face by not officially "losing" the proxy contest. At the same time, the activists often can get everything they asked for and appear reasonable, which can only enhance their options in future negotiations. The standstill agreement is very similar, expect it is usually giving various concessions to the activist with the only restriction that the company does not want the activist to take over control[53] and/or become a takeover target. In 45 cases, the activist cuts position below 5% ownership, and this outcome may occur also immediately after the company becomes a takeover target.

To summarize, ex-post classifications of activism based on the outcomes reveal that CEO and board changes, takeover target outcomes, capital changes and agreements between the activist and target bank are the most frequent mechanisms that activists use in banking to induce changes and increase market value.

9 Conclusions

Sound corporate governance of banks is critical for the economic growth and development, and poor governance may exacerbate the financial system vulnerability to shocks. This paper is the

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[53] As per the Change in Bank Control Act of 1978, a position of 10% ownership is considered a controlling position and regulatory approval may need to be obtained. Most of the activists have less than 10% stake in a bank.

first empirical study to test shareholder activism as a channel of external corporate governance in banking, complementing internal governance, regulators, and other external structures.

Using a unique hand-collected dataset on shareholder activism for all public commercial banks and bank holding companies (BHCs) in the US over the period 1994:Q1-2010:Q4, we have the following findings: 1) Activism is prevalent in banking: about one third of the public banks (337 unique banks) have some form of activism during the sample period. 2) Activists appear to target banks with agency problems and growth potential that are easy in which to implement changes to increase value. 3) Shareholder activism creates value for shareholders, but has little impact on operating returns, and increases bank default risk, consistent with the empirical dominance Hypothesis 3, the *Shareholder-Creditor Conflict* which predicts that activists may induce higher risk to increase market value at the expense of bank creditors. This suggests that activism may be generally a destabilizing force. 4) However, we find that activism differs significantly during financial crises, resulting in higher market value and no increase in risk, suggesting that activism was not a major source of risk during the financial crises. Therefore, the creditors (including the government) may lose during normal times, but not during financial crises.

The paper contributes primarily to two strands of research. First, it contributes to the broader literature on shareholder activism by examining activism within one important industry rather than across a number of very different industries, which reduces the concern about confounding inter-industry differences. Although researchers point to the shareholder return benefits resulting from activism, our results suggest that other additional effects of activism, such as the increase in risk, should not be neglected.

Second, this paper also adds to the literature on bank risk and performance by introducing shareholder activism as a factor influencing risk and performance and sets the groundwork for further research on this. The current topic is important especially from a government policy perspective because poor governance may aggravate financial system fragility to shocks and pose systemic risk to the real economy (e.g., Laeven and Levine (2009), Kirkpatrick (2009), G30 Steering Committee on Corporate Governance (2011), Song and Li (2012)) and is regarded as a possible important contributing factor to the recent financial crisis. In addition, shareholder

activism may be regarded with skepticism.[54] Our findings suggest that activists in banking may increase risk and market value at the expense of creditors and may be a potential threat to financial stability. These results have important implications for the government policies targeting bank governance and regulation of activism regarding banks. Regulators may keep a close watch on activists because they may generally increase bank risk. However activists do not seem to increase risk during financial crises, as their risk-taking incentives may be muted. This adds to the debate on the role of bank governance during financial crises and shows that at least one corporate governance mechanism, shareholder activism, may not have been a major cause of risk during the financial crisis (e.g., Beltratti and Stultz (2010)).

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[54] Some authors argue that activists should be subject to more rigorous public scrutiny and accountability (Weber (1922, 1947)). Anabtawi and Stout (2008) argue that an increase in shareholder power should come with an increase in fiduciary responsibility. In the banking industry, this concern may be even more acute. Moreover, shareholder activism has received increased attention in light of the Dodd-Frank Wall Street Reform and Consumer Protection Act as well as recent SEC rulings which increase the rights of the investors.

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Table 1: Hypotheses and Potential Channels

Panel A: Hypotheses and Main Effects

Variable	Hypothesis 1	Hypothesis 2	Hypothesis 3	Hypothesis 4
	Shareholder-Manager Conflict 1	Shareholder-Manager Conflict 2	Shareholder-Creditor Conflict	Activist-Other Stakeholders Conflict
	(1)	(2)	(3)	(4)
Main Effects	Predicted Sign	Predicted Sign	Predicted Sign	Predicted Sign
Market Value/Performance				
TOBIN's Q	+	+	+	-
Operating Returns				
ROA	+	+	?	-
Default Risk				
Z-SCORE	-	+	-	-

Panel B Potential Channels for Shareholder Activism in Banking

Variable	Creditor-Shareholder Conflict
Potential Channels	Predicted Sign
Internal Corporate Governance	
CEO/Board Turnover	?
CEO Pay	?
CEO Pay-for-performance Sensitivity	+
Changes in By-laws	+
Capital Structure	
Dividend Payout	+
Stock Repurchases	+
Cash Holdings	-
Capital Ratio	-
Strategic Direction	
Risky Assets	+
Cost Reduction/ Efficiency	-
Divestitures/Spin-Off	-
Acquisitions	+
Takeover Target	?

Table 2: Shareholder Activism (1994-2010)

Panel A reports the number of activism events per year based on information in 13D and DFAN14A filings and Item 4 – Purpose of Transaction section. Panel B reports the number of activist demands for each year in our sample period, classified in seven well-defined categories shown below. The categories are considered non-exclusive, so an event can sometimes fall into multiple categories at a time. The sample period runs from $t = 1994$ to $t = 2010$. Please see Appendix A for the detailed definitions of the variables.

Panel A: Distribution of Shareholder Activism - Events by Year

Year	All Types of Activism (Material Events)	No Unique Banks w/ Material Activism	Total Unique Banks	% Banks with Activism
1994	10	7	391	0.018
1995	29	19	392	0.048
1996	57	25	401	0.062
1997	75	49	442	0.111
1998	76	42	472	0.089
1999	82	47	459	0.102
2000	91	42	445	0.094
2001	97	46	446	0.103
2002	73	41	435	0.094
2003	70	41	440	0.093
2004	53	28	455	0.062
2005	42	32	443	0.072
2006	91	40	451	0.089
2007	93	34	428	0.079
2008	103	39	402	0.097
2009	84	42	382	0.110
2010	78	41	374	0.110
Total	**1204**	**337**	**1002**	**Average = 0.085**

Panel B: Shareholder Activism by Type of Demand & Year

Year	1. Engage Management	2. Strategic Changes	3. Internal Governance	4. Capital Allocation	5. Proxy Fight	6. Asset Sale	7. Litigation/ Bankruptcy
1994	1	7	3				
1995	10	21	5			1	
1996	10	30	15	1	12	2	4
1997	20	44	18	5	3	4	4
1998	29	37	18	1	6	6	2
1999	32	32	20	4	9	3	
2000	25	28	28	8	16	3	
2001	48	43	20	31	1	6	4
2002	17	15	18	41	4	6	1
2003	22	34	18	13	3	7	1
2004	11	26	17	10	4	1	3
2005	14	21	11	6		3	1
2006	35	24	29	4	18	7	5
2007	48	12	37	6	17	11	3
2008	41	14	32	9	35	8	1
2009	41	17	30	11	11	9	2
2010	36	18	19	17	1	2	
Total	**440**	**423**	**338**	**167**	**140**	**78**	**31**
%	**36.5%**	**35.1%**	**28.1%**	**13.9%**	**11.6%**	**6.5%**	**2.6%**

Table 3: Antecedents of Shareholder Activism

This table reports probit estimates for the shareholder activism of banks using determinants previously identified for non-financials and additional ones specific to banks. The main activism measure (*ACTIVISM*) is a dummy equal to 1 in all quarters in which the bank has activism. *SIZE is* the log value of gross total assets (GTA). *TOBIN's Q* is a measure of financial performance determined as market value of common stock over equity book value. *ROA* is the ratio of annualized net income to gross total assets (GTA). *GROWTH* is the growth rate of GTA. *CAPITALIZATION RATIO* is equity capital over gross total assets (GTA). *DIVYLD* is the dividend yield, defined as (common dividend + preferred dividends)/(market value of common stocks + book value of preferred). *INST OWNERSHIP* is the proportion of shares held by institutions. *AMIHUD* is the Amihud (2002)'s measure of trading illiquidity determined as the yearly average (using daily data) of 1000*sqrt(|return|/dollar trading volume). *NUMBER OF ANALYSTS* is the number of analysts covering the company. *AGE* is age (in years) of the oldest bank owned by the BHC. *BRANCHES/GTA* are the ratio of total bank branches over GTA. *NO_STATES* is the log of the number of states in which the bank has branches. *METROPOLITAN is* a dummy equal to 1 when the majority of bank deposits (50% or more) are in MSA areas. *DEPOSITS/GTA* is total deposits over GTA. *LOANS/GTA* is a measure of the composition of bank assets determined as total loans over GTA. *CASH_HOLDINGS* is cash holdings divided by GTA. *NPL* is the ratio of nonperforming loans and loans in default to GTA. *INCOME_DIVERSITY* is 1 minus the absolute value of the ratio between the difference between net interest income and other operating income and total operating income. *FOREIGN_OWNERSHIP* is equal to 1 when foreign shareholdings exceed 50% of total bank ownership. *HHI* is bank concentration, measured by the Herfindahl-Hirschman Index for bank deposits. *OCC* is a dummy equal to 1 for banks supervised by OCC. *FDIC* is a dummy equal to 1 for banks supervised by FDIC. *INCORP_DE* is equal to 1 if the bank is incorporated in Delaware. *BIG_4* is equal to one if the firm hires a Big Four auditor. All independent variables are lagged 4 quarters and all regressions include time fixed effects and standard errors are clustered by the bank. The sample period runs from t = 1994 to t = 2010. Appendix A provides definitions for all variables utilized in the regressions. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

Dependent Variable:	(1)		(2)		(3)	
Dummy of being targeted	Marg. Prob	t-statistic	Marg. Prob	t-statistic	Marg. Prob	t-statistic
BANK SIZE	-0.005**	(-2.136)	-0.014***	(-3.327)	-0.003	(-1.242)
TOBIN's Q	-0.159***	(-2.086)	-0.131***	(-1.528)	-0.200***	(-4.788)
GROWTH	-0.000	(-1.306)	-0.000	(-1.232)	-0.000	(-0.812)
ROA	-0.319***	(-4.013)	-0.272***	(-3.150)	-0.278***	(-4.438)
EQRAT	-0.028	(-0.255)	-0.058	(-0.624)	-0.065	(-0.759)
DIVYLD	-0.260**	(-2.163)	-0.116*	(-0.987)	-0.213**	(-2.044)
INST	0.036***	(2.924)	0.022*	(1.724)	0.023**	(2.274)
AMIHUD	-0.008*	(-2.309)	-0.003	(-0.583)	-0.007**	(-2.536)
NUMBER OF ANALYSTS			0.001**	(2.022)		
BANK AGE					-0.000	(-0.716)
BRANCHES / GTA					0.038***	(3.918)
NO_STATES					-0.010**	(-2.260)
URBAN					0.003	(0.318)
DEPOSITS / GTA					-0.052**	(-2.415)
LOANS / GTA					0.026	(1.482)
CASH_HOLDINGS					0.081**	(2.417)
NPL RATIO					0.055	(0.429)
INCOME_DIVERSITY					-0.010	(-0.856)
FOREIGN_OWNERSHIP					-0.022	(-1.609)
HHI DEPOSITS					0.063	(1.478)
OCC_SUPERVISOR					0.011	(1.638)
FDIC_SUPERVISOR					0.006	(1.131)
INCORP_DE					0.008	(1.234)
No. obs. & Pseudo-R-sq	22,492	0.047	14,879	0.067	21,999	0.084

Table 4: Effects of Shareholder Activism (Main Effects)

This table reports the regression estimates of the relation between the shareholder activism of US Commercial banks and financial performance (*TOBIN's Q*), operating returns (*ROA*), and risk (*Z-SCORE*). We define the activism measure (*ACTIVISM*) as a dummy, which takes a value of 1 in all quarters in which the bank had material activist events. *TOBIN's Q is a* measure of financial performance determined as market value of common stock over equity book value. *ROA* is operating net income over GTA. The bank-level *Z-SCORE* is a measure of financial risk and it is determined as A (ROA) + A(EQ/TA) / Std_ROA, with a larger value indicates lower overall bank risk; *BANK SIZE is t*he log value of Total Assets. *AGE is* age (in years) of the oldest bank owned by the bank holding company. *DEPOSITS/GTA* is a measure of the composition of bank liabilities determined as total deposits over GTA. *LOANS/GTA* is a measure of the composition of bank assets side determined as total loans over GTA. *INCOME_DIVERSITY* is the Leaven and Levine (2009)'s measure of income diversity defined as 1 minus the absolute value of the ratio between the difference between net interest income and other operating income and total operating income. *FOREIGN_OWNERSHIP is a* dummy variable set to 1 when total foreign shareholding exceeds 50% of total bank ownership. *OCC is a* dummy variable taking a value of 1 for national banks that are supervised by OCC. *FDIC is a* dummy variable taking a value of 1 for state non-member banks that are supervised by FDIC. *FRS is a* dummy variable taking a value of 1 for state banks that are members of the Federal Reserve System. We use an OLS model with time and bank fixed effects. All independent variables are lagged 4 quarters. The sample period runs from t = 1994 to t = 2010. Please see Appendix A for details on the definitions and determination of all variables utilized in the regressions. T-statistics based on robust standard errors are shown in parentheses. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

Independent Variables	TOBIN'S Q (1)	ROA (2)	Z-SCORE (3)
ACTIVISM	0.007***	-0.000	-4.317***
	(3.976)	(-1.214)	(-3.208)
BANK SIZE	-0.011*	-0.001***	1.072
	(-1.923)	(-5.775)	(1.173)
BANK AGE	-0.009	0.000	6.799**
	(-1.196)	(1.308)	(2.534)
DEPOSITS/GTA	-0.048**	0.001	-8.323**
	(-2.281)	(1.090)	(-2.292)
LOANS/GTA	0.078***	0.003***	19.273***
	(4.407)	(7.912)	(6.757)
INCOME DIVERSITY	0.021**	0.002***	5.526***
	(2.191)	(8.500)	(3.134)
OVERHEAD COSTS	650.989***	-3.420***	-25,295.554***
	(2.854)	(-2.759)	(-2.955)
FOREIGN OWNERSHIP	0.028***	-0.001	-15.558***
	(2.679)	(-1.030)	(-2.632)
OCC SUPERVISOR	-0.008***	-0.000	-1.998
	(-3.417)	(-0.187)	(-1.183)
FDIC SUPERVISOR	0.003	0.000	4.171***
	(1.079)	(0.577)	(2.761)

INTERCEPT	1.162***	0.012***	-6.633
	(12.945)	(7.094)	(-0.470)
Time fixed effects	**Yes**	**Yes**	**Yes**
Bank Fixed effects	**Yes**	**Yes**	**Yes**
Observations	22,821	23,965	23,801
R-squared	0.875	0.604	0.472

Table 5: Alternative Measures

This table reports the OLS regression estimates of the relation between the shareholder activism of US Commercial banks and their financial performance, operating returns, and risk. We show models with alternative measures. *ACTIVISM* is a dummy which takes a value of 1 in all quarters in which the bank had material activist events. We use an OLS model with time and bank fixed effects. All independent variables are lagged 4 quarters. The sample period runs from t = 1994 to t = 2010. Please see Appendix A for details on the definitions and determination of all variables utilized in the regressions. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

Panel A: Different Measures of Market Performance

Independent Variables	TOBIN'S Q	BUY-AND-HOLD_RET	BUY-AND-HOLD_AB_RET	SHARPE RATIO
	(1)	(2)	(3)	(4)
ACTIVISM	0.007***	0.028**	0.023**	0.711***
	(3.976)	(2.529)	(2.157)	(5.346)
Controls	Yes	Yes	Yes	Yes
Time fixed effects	Yes	Yes	Yes	Yes
Bank Fixed effects	Yes	Yes	Yes	Yes
Observations	22,821	23,842	23,842	23,842
R-squared	0.875	0.563	0.572	0.593

Panel B: Different Measures of Accounting Performance

Independent Variables	ROA	ROE
	(1)	(2)
ACTIVISM	-0.000	-0.001
	(-1.214)	(-0.820)
Controls	Yes	Yes
Time fixed effects	Yes	Yes
Bank Fixed effects	Yes	Yes
Observations	23,965	23,965
R-squared	0.604	0.630

Panel C: Different Measures of Bank Risk-Taking

Independent Variables	Z-SCORE (1)	VOLATILITY _STOCK_RET (2)	LLA RATIO (3)	NPL RATIO (4)	VOLATILITY ROA (5)	CAPITALIZATION (6)
ACTIVISM	-4.317***	0.006***	0.001***	0.003**	0.001**	-0.002*
	(-3.208)	(3.139)	(3.035)	(2.439)	(2.403)	(1.763)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Time fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Bank Fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	23,801	23,933	23,965	23,965	23,963	23,965
R-squared	0.472	0.549	0.607	0.462	0.533	0.714

Panel D: Different Measures of Activism (Number of Activism Events)

Independent Variables	TOBIN'S Q (1)	ROA (2)	Z-SCORE (3)
NO_ACTIVISM_EVENTS	0.003***	0.000	-1.645***
	(5.205)	(0.774)	(-5.390)
Controls	Yes	Yes	Yes
Time fixed effects	Yes	Yes	Yes
Bank Fixed effects	Yes	Yes	Yes
Observations	22,819	23,963	23,799
R-squared	0.875	0.604	0.472

Table 6: Different Econometric Approaches

This table reports the regression estimates of the relation between the shareholder activism of US Commercial banks and their financial performance, operating returns, and risk. We show models with alternative measures. *ACTIVISM* is a dummy which takes a value of 1 in all quarters in which the bank had material activist events. Panel A shows using an event study (EVENTUS) the compound abnormal returns round activism events for several time windows, daily windows of (0,+1), (-1,+1), (-2,+2), and (-5,+5) and monthly windows of (0,3), (0,6), (0,12), (0,24), (0,36), (-1,12). Panels B and C show alternative econometrical models for operating returns (*ROA*), and bank risk (*Z-SCORE*): OLS, OLS with Time and Bank Fixed Effects (FE), Simple OLS, Time fixed effects (FE) only, Random Effects (RE), model with Newey-West standard errors, and model with two-way clusters (bank and time). All independent variables are lagged 4 quarters. The sample period runs from t = 1994 to t = 2010. Please see Appendix A for details on the definitions and determination of all variables utilized in the regressions. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

Panel A: Market Performance (Event Studies)

Panel A.1: Market Performance (Event Study) – Daily

Market Adjusted Returns, Value Weighted Index

Days	N	CAR	*t*-test	*p*-value
(0,+1)	915	**1.42%**	8.302	<.0001
(-1,+1)	915	**1.79%**	8.542	<.0001
(-2,+2)	915	**2.26%**	8.370	<.0001
(-5,+5)	915	**2.89%**	7.200	<.0001

Panel A.2: Market Performance (Event Study) – Monthly

Market Adjusted Returns, Value Weighted Index

Months	N	CAR	*t*-test	*p*-value
(0,+3)	939	**4.22%**	4.799	<.0001
(0,+6)	939	**4.88%**	4.196	<.0001
(0,+12)	939	**6.77%**	4.271	<.0001
(0,+24)	939	**8.93%**	4.061	<.0001
(0,+36)	939	**13.11%**	4.902	<.0001
(-1,+12)	939	**7.68%**	4.670	<.0001

Panel B: Operating Performance (*ROA*)

	OLS w / FE	Simple OLS	Time FE Only	RE	Newey-West	Two-Way Clusters
	Dependent Variable: *ROA*					
Independent Variables	(1)	(2)	(3)	(4)	(5)	(6)
ACTIVISM	-0.000	-0.001***	-0.001***	-0.000	-0.001***	-0.001***
	(-1.214)	(-6.773)	(-7.393)	(-1.259)	(-4.167)	(-5.276)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Time Effects	Yes	No	Yes	Yes	No	No
Bank Effects	Yes	No	No	Yes	No	No
Observations	23,965	23,965	23,965	23,045	23,045	23,045
R-squared	0.604	0.157	0.297		0.294	

Panel C: Bank Risk-Taking (*Z-SCORE*)

	OLS w / FE	Simple OLS	Time FE Only	RE	Newey-West	Two-Way Clusters
	Dependent Variable: *Z-SCORE*					
Independent Variables	(1)	(2)	(3)	(4)	(5)	(6)
ACTIVISM	-4.317***	-5.920***	-5.647***	-3.570*	-6.176***	-6.069*
	(-3.208)	(-4.042)	(-3.888)	(-1.678)	(-3.280)	(-1.733)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Time Effects	Yes	No	Yes	Yes	No	No
Bank Effects	Yes	No	No	Yes	No	No
Observations	23,801	23,801	23,801	22,915	22,915	22,915
R-squared	0.472	0.056	0.122	0.0998	0.05489119	0.121

Table 7: Endogeneity Treatment

This table reports the regression estimates with endogeneity treatments of the relation between the shareholder activism of US Commercial banks and strategic consequences such as financial performance (*TOBIN's Q*), operating returns (*ROA*), and their risk taking behavior (*Z-SCORE*). We define the main activism measure as a dummy which takes a value of 1 in all quarters in which the bank had material activist events. The bank-level *Z-SCORE* is a measure of financial risk and it is determined as A(ROA) + A(EQ/TA) / Std_ROA; a larger value indicates lower overall bank risk. *ROA* is operating net income over GTA. We use an OLS model with time and bank FE. Panel A reports results when using a 2SLS instrumental variable (IV) estimation that controls for endogeneity of activism. We use as instrument *% BUSY ACTIVISTS,* which is the percentage of busy activists, that is, activists with five or more campaigns and/or 2 or more proxy fights at the same time. Panel B reports models using a propensity score matched sample. Panel C shows the results Heckman's two-step treatment effect model used to correct the self-selection in activism. The selection (activism) equation uses a ACTIVISM dummy as a dependent variable and uses the same instrument as in the instrumental variable analysis. The outcome equation uses *TOBIN's Q, ROA,* and *Z-SCORE* as dependent variables. We include all control variables from the main specification in all panel specifications. All independent variables are lagged 4 quarters. The sample period runs from t = 1994 to t = 2010. Please see Appendix A for details on the definitions and determination of all variables utilized in the regressions. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

Panel A: Instrumental Variable Analysis

IV Analysis (First Stage)

	Dependent Variable: *ACTIVISM*
Independent Variables	**(1)**
% BUSY ACTIVISTS	**0.044***
	(5.397)
Controls	Yes
Time Fixed Effects	Yes
Bank Fixed Effects	Yes
Observations	23,963
R-squared	0.219
Kleibergen-Paap rk LM statistic	544.718***
Kleibergen-Paap Wald rk F statistic	3605.73***

IV Analysis (Second Stage)

Independent Variables	TOBIN'S Q (1)	ROA (2)	Z-SCORE (3)
ACTIVISM	**0.080*****	**-0.002**	**-50.260*****
	(3.869)	**(-1.169)**	**(-3.174)**
Controls	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes
Bank Fixed Effects	Yes	Yes	Yes
Observations	22,819	23,963	23,799
R-squared	0.875	0.604	0.472

Panel B: PSM Analysis

Independent Variables	TOBIN'S Q (1)	ROA (2)	Z-SCORE (3)
ACTIVISM	**0.006****	**-0.000****	**-4.883****
	(2.252)	**(-2.052)**	**(-2.310)**
Controls	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes
Bank Fixed Effects	Yes	Yes	Yes
Observations	4,701	4,958	4,958
R-squared	0.897	0.668	0.548

Panel C: Heckman Selection

Heckman Analysis (Selection Equation)

	Dependent Variable: *ACTIVISM (Probit)*
Independent Variables	**(1)**
% BUSY ACTIVISTS	**0.047***
	(26.020)
Controls	Yes
Time Fixed Effects	Yes
Bank Fixed Effects	No
Observations	23,962
Pseudo R-squared	0.111

Heckman Analysis (Outcome Equation)

	TOBIN'S Q	*ROA*	*Z-SCORE*
Independent Variables	**(1)**	**(2)**	**(3)**
ACTIVISM	**0.008***	**-0.000**	**-4.664***
	(4.479)	**(-1.351)**	**(-3.437)**
LAMBDA	0.004***	-0.000*	-1.576***
	(5.567)	(-1.701)	(-3.002)
Controls	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes
Bank Fixed Effects	No	No	No
Observations	22,818	23,962	23,798
R-squared (or Pseudo)	0.875	0.604	0.472

Table 8: Subsamples Analysis for Effects of Activism

This table reports the subsamples regression estimates of the relation between the shareholder activism of US Commercial banks and strategic consequences: financial performance (*TOBIN's Q*), operating returns (*ROA*), and risk taking behavior (*Z-SCORE*). We define the main activism measure as a dummy, which takes a value of 1 in all quarters in which the bank had material activist events. The bank-level *Z-SCORE* is a measure of financial risk and it is determined as A (ROA) + A(EQ/TA) / Std_ROA; a larger value indicates lower overall bank risk. *ROA* is operating net income over GTA. We use an OLS model with time and bank FE. All independent variables are lagged 4 quarters. Panel A reports results separately for hedge fund activists and non-hedge funds activists. Panel B reports results separately for more aggressive activism (*DFAN14A*) versus less aggressive activism (*13D*). Panel C looks at effects of activism using a sample that excludes TBTF banks. Panel D reports effects of activism by bank size: *SMALL, MEDIUM* and *LARGE*. *SMALL* represents banks with GTA up to $1 billion, *MEDIUM* represents banks with GTA exceeding $1 billion and up to $5 billion, and *LARGE* represents banks with GTA exceeding $5 billion. GTA equals total assets plus the allowance for loan and the lease losses and the allocated transfer risk reserve. The sample period runs from t = 1994 to t = 2010. Please see Appendix A details on the definitions and determination of all variables utilized in the regressions. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

Panel A: Hedge Fund or Not

Independent Variables	TOBIN'S Q (1)	ROA (2)	Z-SCORE (3)
HF_ACTIVIST	0.010***	-0.000	-9.628***
	(5.689)	(-0.333)	(-4.854)
NON_HF_ACTIVIST	0.008***	-0.001***	-3.619**
	(3.698)	(-3.242)	(-2.420)
Controls	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes
Bank Fixed Effects	Yes	Yes	Yes
Observations	22,821	23,965	23,801
R-squared	0.875	0.604	0.472
t-stat for equality of coefficients: HF_ACTIVIST = NON_HF_ACTIVIST	0.663	1.758*	2.474**

Panel B: Effects by 13D vs. DFAN14A

Independent Variables	TOBIN'S Q (1)	ROA (2)	Z-SCORE (3)
DFAN14A	0.006*	-0.000	-14.864***
	(1.656)	(-0.368)	(-4.336)
13D	0.010***	-0.000*	-4.867***
	(6.479)	(-1.721)	(-4.351)
Controls	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes
Bank Fixed Effects	Yes	Yes	Yes
Observations	22,821	23,965	23,801
R-squared	0.875	0.604	0.472
t-stat for equality of coefficients: DFAN14A = 13D	1.179	0.200	2.886***

Panel C: Excluding TBTF

Independent Variables	TOBIN'S Q (1)	ROA (2)	Z-SCORE (3)
ACTIVISM	0.003**	-0.000*	-5.902***
	(1.964)	(-1.748)	(-4.289)
Controls	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes
Bank Fixed Effects	Yes	Yes	Yes
Observations	19,716	20,736	20,579
R-squared	0.883	0.607	0.476

Panel D: Effects by Bank Size

Independent Variables	TOBIN'S Q (1)	ROA (2)	Z-SCORE (3)
SMALL	**0.005*** **	**-0.000**	**-2.852***
	(2.649)	**(-0.598)**	**(-1.688)**
Observations	9,678	10,431	10,311
R-squared (or Pseudo)	0.935	0.629	0.529
MEDIUM	**-0.001**	**-0.000**	**-7.677*** **
	(-0.400)	**(-0.877)**	**(-3.494)**
Observations	8,147	8,376	8,345
R-squared (or Pseudo)	0.795	0.631	0.517
LARGE	**0.026*** **	**0.000**	**5.083**
	(4.185)	**(0.075)**	**(1.380)**
Observations	4,996	5,158	5,145
R-squared (or Pseudo)	0.792	0.597	0.511
ALL SIZE GROUPS			
Controls	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes
Bank Fixed Effects	Yes	Yes	Yes

Table 9: Shareholder Activism during Financial Crises

This table reports the regression estimates of the relation between the shareholder activism of US Commercial banks and strategic consequences: financial performance (*TOBIN's Q*), operating returns (*ROA*), and their risk taking behavior (*Z-SCORE*) during crises versus normal times. We define the main activism measure (*ACTIVISM*) as a dummy, which takes a value of 1 in all quarters in which the bank had material activist events. The bank-level *Z-SCORE* is a measure of financial risk and it is determined as A (ROA) + A(EQ/TA) / Std_ROA; a larger value indicates lower overall bank risk. *ROA* is operating net income over GTA. We use an OLS model with time and bank FE. All independent variables are lagged 4 quarters. *FINANCIAL_CRISES* variable construction follows Berger and Bouwman (2013). *FINANCIAL_CRISES* [55] is a dummy variable which takes a value of 1 for a crisis period and it includes both market (those originated in the capital markets) and banking crises (those originated in the banking sector). The sample period runs from t = 1994 to t = 2010. Please see Appendix A for details on the definitions and determination of all variables utilized in the regressions. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

Panel A: Effects during Financial Crises (Full Sample)

	TOBIN'S Q	ROA	Z-SCORE
Independent Variables	(1)	(2)	(3)
ACTIVISM	0.003	-0.000**	-9.885***
	(1.408)	(-2.015)	(-6.337)
*ACTIVISM * FINANCIAL_CRISES*	0.009***	0.000	12.263***
	(2.771)	(1.578)	(5.171)
*(ACTIVISM + ACTIVISM * FINANCIAL_CRISES)*	**0.012***	**0.000**	**2.378**
t-stat *(ACTIVISM + ACTIVISM * FINANCIAL_CRISES = 0)*	**4.443**	**0.332**	**1.179**
Controls	Yes	Yes	Yes
Time fixed effects	Yes	Yes	Yes
Bank Fixed effects	Yes	Yes	Yes
Observations	22,821	23,965	23,801
R-squared	0.875	0.604	0.472

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[55] Banking crisis is the recent subprime lending crisis and market crises are the Russian debt crisis plus LTCM bailout in 1998, and the bursting of the dot.com bubble plus September 11. Normal times is a dummy variable which takes a value of 1 for all time periods that are not financial crises.

Panel B: Effects during the Subprime Financial Crisis (2006-2010)

This table reports the regression estimates of the relation between the shareholder activism of US Commercial banks and financial performance (*TOBIN's Q*), operating returns (*ROA*), and risk-taking behavior (*Z-SCORE*) during the subprime financial crisis versus normal times. We define the main activism measure (*ACTIVISM*) as a dummy, which takes a value of 1 in all quarters in which the bank had material activist events. The bank-level *Z-SCORE* is a measure of financial risk and it is determined as A (ROA) + A(EQ/TA) / Std_ROA; a larger value indicates lower overall bank risk. *ROA* is operating net income over GTA. We use an OLS model with time and bank FE. All independent variables are lagged 4 quarters. *FINANCIAL_CRISES* variable construction follows Berger and Bouwman (2013). *FINANCIAL_CRISES* is a dummy variable which takes a value of 1 for a crisis period. The sample period runs from t = 2006 to t = 2010. Please see Appendix A for details on the definitions and determination of all variables utilized in the regressions. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

	TOBIN'S Q	ROA	Z-SCORE
Independent Variables	**(1)**	**(2)**	**(3)**
ACTIVISM	-0.003	-0.002***	-9.941***
	(-1.490)	(-4.443)	(-3.499)
*ACTIVISM * FINANCIAL_CRISES*	0.010***	0.002***	10.821***
	(3.608)	(4.258)	(3.361)
*(ACTIVISM + ACTIVISM * FINANCIAL_CRISES)*	**0.007***	**0.000**	**0.880**
t-stat *(ACTIVISM + ACTIVISM * FINANCIAL_CRISES = 0)*	**3.250**	**1.421**	**0.400**
Controls	Yes	Yes	Yes
Time fixed effects	Yes	Yes	Yes
Bank Fixed effects	Yes	Yes	Yes
Observations	7,535	7,786	7,757
R-squared	0.896	0.628	0.633

Panel C: Effects during Recent Financial Crisis (2006-2010) – TARP, Discount Window, and Term Auction Facility

This table reports the regression estimates of the relation between the shareholder activism of US Commercial banks and financial performance (*TOBIN's Q*), operating returns (*ROA*), and risk taking (*Z-SCORE*) during crises versus normal times and considers impact of TARP, Discount Window and TAF support. We define the main activism measure (*ACTIVISM*) as a dummy, which takes a value of 1 in all quarters in which the bank had material activist events. The bank-level *Z-SCORE* is a measure of financial risk and it is determined as A (ROA) + A(EQ/TA) / Std_ROA; a larger value indicates lower overall bank risk. *ROA* is operating net income over GTA. We use an OLS model with time and bank FE. All independent variables are lagged 4 quarters. *FINANCIAL_CRISES* variable construction follows Berger and Bouwman (2013). *FINANCIAL_CRISES* [56] is a dummy variable which takes a value of 1 for a crisis period and it includes both market (those originated in the capital markets) and banking crises (those originated in the banking sector). The sample period runs from t = 2006 to t = 2010. Please see Appendix A for details on the definitions and determination of all variables utilized in the regressions. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

Independent Variables	TOBIN'S Q (1)	ROA (2)	Z-SCORE (3)
ACTIVISM	-0.000	-0.000	-7.688***
	(-0.176)	(-0.723)	(-3.865)
ACTIVISM * FINANCIAL_CRISES	0.008*	-0.001	4.308
	(1.907)	(-1.262)	(1.418)
TARP * ACTIVISM	-0.007	0.002***	-6.582
	(-1.587)	(3.652)	(-1.398)
TARP * ACTIVISM * FINANCIAL_CRISES	0.008	-0.000	16.669***
	(1.141)	(-0.704)	(2.810)
DW* ACTIVISM	0.005	-0.001*	3.981
	(1.325)	(-1.835)	(1.069)
DW* ACTIVISM * FINANCIAL_CRISES	-0.015***	0.001*	0.376
	(-2.603)	(1.900)	(0.071)
TAF * ACTIVISM	0.011	-0.002***	-4.458
	(1.278)	(-3.074)	(-0.582)
TAF * ACTIVISM * FINANCIAL_CRISES	0.021**	0.001	-4.160
	(1.987)	(0.969)	(-0.513)
Controls	Yes	Yes	Yes
Time fixed effects	Yes	Yes	Yes
Bank Fixed effects	Yes	Yes	Yes
Observations	22,821	23,965	23,801
R-squared	0.875	0.604	0.473

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[56] Banking crisis is the recent subprime lending crisis and market crises are the Russian debt crisis plus LTCM bailout in 1998, and the bursting of the dot.com bubble plus September 11. Normal times is a dummy variable which takes a value of 1 for all time periods that are not financial crises.

Table 10: Shareholder Activism and Sarbanes Oxley Act (SOX) of 2002

This table reports the regression estimates of the relation between the shareholder activism of US Commercial banks and strategic consequences: financial performance (*TOBIN's Q*), operating returns (*ROA*), and their risk taking behavior (*Z-SCORE*) comparing the effects before and after SOX. We define the main activism measure (*ACTIVISM*) as a dummy, which takes a value of 1 in all quarters in which the bank had material activist events. The bank-level *Z-SCORE* is a measure of financial risk and it is determined as A (ROA) + A(EQ/TA) / Std_ROA; a larger value indicates lower overall bank risk. *ROA* is operating net income over GTA. We use an OLS model with time and bank FE. All independent variables are lagged 4 quarters. *POST_SOX is* a dummy variable which takes a value of 1 starting with 2002:Q3, when Sarbanes Oxley Act took effect. The sample period runs from t = 1994 to t = 2010. Please see Appendix A for details on the definitions and determination of all variables utilized in the regressions. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

	TOBIN'S Q	ROA	Z-SCORE
Independent Variables	**(1)**	**(2)**	**(3)**
ACTIVISM	0.002	-0.000	2.561
	(0.641)	(-1.604)	(1.380)
ACTIVISM * POST_SOX	0.009***	0.000	-12.609***
	(2.628)	(0.990)	(-5.058)
*(ACTIVISM + ACTIVISM * POST_SOX)*	**0.011***	**0.000**	**-10.048***
*t-stat (ACTIVISM + ACTIVISM * POST_SOX = 0)*	**5.783**	**0.200**	**5.608**
Controls	Yes	Yes	Yes
Time fixed effects	Yes	Yes	Yes
Bank Fixed effects	Yes	Yes	Yes
Observations	22,821	23,965	23,801
R-squared	0.875	0.604	0.473

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Table 11: Potential Channels and Actual Outcomes of Action for Activists

This table reports channels for the effects of activism: Internal Corporate Governance, Capital Structure, and Strategic Direction. The sample includes the banks that are targeted by activists and the sample period runs from t = 1994 to t = 2010. Panel A, presents a change analysis which investigates changes in means in the channels' components, by comparing them 8 quarters (2 years) before the activism with 8 quarters (2 years) after the activism events to account for the fact that some outcomes for activism could take a longer time period. Panel B follows Greenwood and Schor (2009) and is based on Lexis Nexis news collected about what happened after each activism event.

Panel A: Potential Channels of Activism (Change Analysis)

Channel		Before Activism (Quarters: t-8, t-1)	After Activism (Quarters: t+1, t+8)	Difference in Means After - Before	
Variable	N	Mean	Mean	Difference	t-stat
Internal Corporate Governance					
CEO TURNOVER	5735	0.08	0.095	0.015**	2.031
CEO/BOARD TURNOVER	5735	0.157	0.194	0.037***	3.928
LOG(1+CEO TOTAL PAY)	5735	13.183	13.229	0.046	1.285
CASH BONUS/CEO TOTAL PAY	5701	0.131	0.119	-0.012***	-2.817
CEO Pay-for-Performance: EQUITY-BASED COMPENSATION/CEO TOTAL PAY	5700	0.151	0.167	0.016**	2.071
Capital Structure					
Dividend Payout (DIVYLD)	6843	0.022	0.022	0.000	0.419
STOCK REPURCHASES	6845	0.400	0.453	0.053*	1.652
CASH HOLDINGS	6845	0.040	0.040	0.000	-0.321
CAPITALIZATION RATIO	6845	0.093	0.091	-0.001***	-2.383
Strategic Direction					
Risky Assets: COMMERCIAL REAL ESTATE LOANS	6845	0.241	0.251	0.010***	3.028
Risky Assets: REAL ESTATE LOANS	6845	0.473	0.483	0.010**	2.39
Risky Financing: NON-DEPOSIT FUNDING	6845	0.152	0.158	0.006**	2.251
OVERHEAD COSTS	6845	0.061	0.035	-0.026***	-2.827
DIVESTITURES (BHCs have banks acquired by other institutions)	~5% increase from 14% (46/337) up to 2 years before activism to 19% (64/337) of the BHCs have banks acquired by other institutions up to 2 years after shareholder activism.				
ACQUISITIONS	~1% decrease from 12% (41/337) organizations making acquisitions up to 2 years after activism to 13% (44/337) organizations making acquisitions up to 2 years before activism.				
TAKEOVER TARGET (the organization - BHC or commercial bank - is acquired by another institution)	~10% (37 /337) of the organizations become takeover targets up to 2 year after shareholder.				

Panel B: Outcomes of Activism (Lexis-Nexis News)

Outcome	Number of Unique Banks	% of All Banks	% of Banks with News
No News	166	49.26%	
News:	171	50.74%	
Corporate Governance:			
Changes of CEO	14	4.15%	8.19%
Board Seats Granted to Activist and/or his Nominees	63	18.69%	36.84%
Activist Is Not Granted Board Seats/Withdrawal/Proxy Defeat	19	5.64%	11.11%
Changes in By-Laws: Staggered Board, Poisson Pill etc.	7	2.08%	4.09%
Capital Structure:			
Shares Repurchased / Dividend Policy	15	4.45%	8.77%
Capital Raise / Financing Agreement	21	6.23%	12.28%
Strategic Changes:			
Takeover of the Target Completed	37	10.98%	21.64%
Activist Wants to Sell the Company and Does not Succeed	7	2.08%	4.09%
Announcement that Company Hires IB for Strategic Alternatives	5	1.48%	2.92%
Divestiture or Spinoff Completed or Announced	1	0.30%	0.58%
Acquisitions of Other Institutions	10	2.97%	5.85%
Other:			
Settlement / Standstill Agreement	49	14.54%	28.65%
Activist Cuts Position Below 5%	45	13.35%	26.32%

APPENDIX A

VARIABLE DEFINITIONS AND SOURCES

Variable	Definition	Source
Panel A1. Dependent Variables		
A1.1 Financial Performance		
TOBIN's Q	A measure of financial performance determined as market value of common stock over equity book value.	Authors' calculation based on Compustat data
BUY-AND-HOLD_RET	Buy-and-hold stock return over the previous 4 quarters.	Authors' calculation based on CRSP data
BUY-AND-HOLD_AB_RET	Buy-and-hold abnormal stock return over the previous 4 quarters.	Authors' calculation based on CRSP data
SHARPE RATIO	Ratio of stocks returns over standard deviation of stock returns over the previous 4 quarters.	Authors' calculation based on CRSP data
A1.2 Operating returns		
ROA	Return on assets (ROA), measured as the ratio of the annualized net income to GTA.	Authors' calculation based on Call Report data
ROE	Return on equity (ROE), measured as the ratio of the annualized net income to total equity.	Authors' calculation based on Call Report data
A1.3 Risk-taking		
Z-SCORE	A measure of financial risk: the bank-level Z-index determined as A(ROA)+ A(EQ/TA) / Std_ROA; a larger value indicates higher overall bank risk. Averages of ROA and EQ/TA as well as the standard deviation of ROA are computed over the previous 4 quarters.	Authors' calculation based on Call Report data
LLA RATIO	A Measure of bank risk defined as loan loss allowance over GTA, with higher values indicating more bank risk.	As above
NPL RATIO	Fraction of nonperforming loans and loans in default from GTA. Noncurrent loans and leases are loans that are past due for at least ninety days or are no longer accruing interest. Higher proportion of nonperforming assets indicates lower asset quality.	As above

Variable	Definition	Source
A1.3 Risk-taking (cont.)		
VOLATILITY ROA	For each quarter, the standard deviation of ROA is calculated as the quarterly standard deviation over the previous 4 quarters. ROA is determined as the ratio of net operating income over gross total assets (GTA).	Authors' calculation based on CRSP data
VOLATILITY_STOCK_RET	The volatility of daily returns for each calendar year.	As above
Panel A2. Shareholder Activism Variables		
ACTIVISM	A dummy variable which takes a value of 1 if there is shareholder activism targeting the bank during the quarter.	Authors' calculation based on SEC EDGAR 13D and DFAN 14A Filings.
NO_ACTIVISM_EVENTS	Number of activism events for the bank during the quarter.	As above
HF_ACTIVIST	A dummy variable which takes a value of 1 the activist targeting the bank during the quarter is a hedge fund.	Authors' calculation based on Bloomberg Markets Magazine, Wikipedia, individual Google searches
Panel A2. Shareholder Activism Variables (cont.)		
NON_HF_ACTIVIST	A dummy variable which takes a value of 1 the activist targeting the bank during the quarter is not a hedge fund.	Authors' calculation based on Bloomberg Markets Magazine, Wikipedia, individual Google searches
13D	A dummy variable which takes a value of 1 if there is 13D shareholder activism targeting the bank during the quarter.	As above
DFAN14A	A dummy variable which takes a value of 1 if there is DFAN14A (proxy statements) shareholder activism targeting the bank during the quarter.	As above
Panel A3. Main Control Variables		
BANK SIZE	The log value of bank GTA.	Authors' calculation based on Call Report data
BANK AGE	Age (in years) of the oldest bank owned by the bank holding company.	As above
DEPOSITS / GTA	Measure of the composition of bank liabilities determined as total total deposits over GTA.	As above

Variable	Definition	Source
Panel A3. Main Control Variables (cont.)		
LOANS / GTA	Measure of the composition of bank assets side determined as total total loans over GTA.	As above
INCOME_DIVERSITY	Measure of diversity defined as 1 minus the absolute value of the ratio between difference between net interest income and other operating income and total operating income.	As above
OVERHEAD_COSTS	A proxy of the bank's cost structure determined as the ratio of overhead expenses to assets.	As above
FOREIGN_OWNERSHIP	A dummy is equal to 1 when foreign shareholdings exceed 50% of total bank ownership.	Authors' calculation based on Call Report data
OCC SUPERVISOR	A dummy variable taking a value of 1 for national banks that are supervised by OCC.	As above
FDIC SUPERVISOR	A dummy variable taking a value of 1 for state non-member banks that are supervised by FDIC.	As above
FRS SUPERVISOR	A dummy variable taking a value of 1 for state banks that are members of the Federal Reserve System.	As above
Panel A4. Instrumental Variable		
% BUSY ACTIVISTS	Percent % busy activists, that is, activists with five or more campaigns and/or 2 or more proxy fights at the same time.	Authors' calculation based on SEC EDGAR 13D and DFAN 14A Filings.
Panel A5. Other Variables		
TBTF	Too-big-to-fail, a dummy variable which takes a value of 1 in all quarters when the banks has GTA greater or equal to 100 Billion.	Authors' calculation based on Call Report data
FINANCIAL_CRISES	A dummy variable which takes a value of 1 for a financial crisis period and 0 otherwise	Authors' calculation based on Call Report data
GROWTH	The growth rate of real bank gross total assets (GTA).	Authors' calculation based on Call Report data
CAPITALIZATION RATIO	The bank level capitalization ratio measured as equity capital over GTA. Capital adequacy refers to the amount of a bank's capital relative to its GTA. Broadly, this criterion evaluates the extent to which a bank can absorb potential losses.	Authors' calculation based on Call Report data
DIVYLD	Dividend yield, defined as (common dividend + preferred dividends) / (market value of common stocks + book value of preferred).	Authors' calculation based on COMPUSTAT data

Variable	Definition	Source
Panel A5. Other Variables (cont.)		
INST OWNERSHIP	The proportion of shares held by institutions.	Authors' calculation based on Thompson Institutional Dataset
AMIHUD	The Amihud (2002) measure of trading illiquidity determined as the yearly average (using daily data) of 1000*sqrt(|return|/dollar trading volume), with lower values meaning more liquidity.	Authors' calculation based on CRSP data
NUMBER OF ANALYSTS	The number of analysts covering the company.	Authors' calculation based on I/B/E/S data
BRANCHES / GTA	A measure of organizational complexity defined as the ratio of total bank branches over GTA. Banks that have more branches per dollar of assets are more complex.	As above
NO_STATES	A measure of organizational structure defined as the log of the number of states in which the bank has branches. Banks that are active in multiple states have more complex organizational structures that cover longer distances.	As above
METROPOLITAN	A dummy variable that takes a value of 1 when the majority of bank deposits (50% or more) are in MSA areas and 0 otherwise.	As above
CASH_HOLDINGS	Cash holdings divided by GTA.	Authors' calculation based on Call Report data
HHI DEPOSITS	A measure of bank concentration, measured by the Herfindahl-Hirschman Deposits Index determined using the bank deposit data. Higher values show greater market concentration.	Authors' calculation based on Summary of Deposits data
INCORP_DE	A dummy variable equal to 1 if the bank is incorporated in the state of Delaware.	Authors' calculation based on COMPUSTAT data
POST_SOX	A dummy equal to 1 starting with 2002:Q3 when the Sarbanes Oxley Act (SOX) took effect.	Authors' calculation based on the Call Report data.

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APPENDIX B

OTHER ROBUSTNESS TESTS (for online publication only)

B.1 Other potentially omitted correlated variable

One potential concern is that unobserved determinants of market value, operating performance, and bank risk would cause them to appear in the error term, and if these omitted variables are correlated with our included explanatory variable, there is an endogeneity problem which could bias our results. Although we saturate the main regressions with several bank level controls to alleviate the concern of correlated omitted variables, we examine whether our earlier results are sensitive to adding more controls for other determinants of bank market value, operating performance, and risk. These controls are *BHC INDICATOR* (a dummy which takes a value of 1 if bank is owned by a bank holding company (BHC) or is a BHC itself), *MERGERS* (a dummy equal to one from the moment that the bank itself or its immediate parent acquired another institution), *WRITEOFF_INDICATOR* (a dummy variable which is equal to one if past acquisitions and/or capital expenditures are written off as in Helwege, Intintoli, and Zhang (2012)), *MBS/GTA* (ratio of mortgage-backed securities (MBS) to GTA as reported on the balance sheet as in Berger, Imbierowicz and Rauch (2014)), *COMMERCIAL REAL ESTATE LOANS* (commercial real estate divided by GTA as in Berger and Bouwman (2013)), *CASH_HOLDINGS* (ratio of cash holding over GTA), and *HHI DEPOSITS* (Herfindahl-Hirschman deposits index, a proxy for the local market concentration). The results reported in Table B.1 Panel A columns (1)-(3) indicate that adding the above controls does not materially affect our previous findings.

In addition, to mitigate the concern that other governance indicators may influence the effectiveness of shareholder activists in implementing changes in the target banks, we conduct also tests in which we include four other governance controls. *INST OWNERSHIP* is the ratio of the total institutional share holdings to total bank outstanding shares. *LONG-TERM INST OWNERSHIP* is the ratio of total long-term holdings by institutions to total bank outstanding shares. For both measures, a lower ownership ratio would indicate less monitoring by institutions. *NUMBER BLOCKHOLDERS* is the number of institutions holdings 5% or more ownership, and *NUMBER OF ANALYSTS* is a measure of analyst coverage, which is the number of stock analysts

providing earnings forecasts for the bank in each quarter as per I/B/E/S and a lower number of analysts would indicate less monitoring by analysts.[57] The results reported in Table B.1 models (4)-(6) indicate that adding the above controls does not materially affect our previous findings.

B.2 Including LexisNexis News

Our activism data presented in the analysis covers all SEC registrants who have either filed an Schedule 13D[58] – often referred to as a beneficial ownership report, and its amendments Schedule 13D/A (if there is any material change in the facts disclosed in the initial SC 13D) – or DFAN 14A for proxy fights with management. These are generally including shareholders who acquire greater than a 5% stake in the company.

Given the amount of capital that is needed to acquire a 5% stake in a large-cap company, the previously collected filings could bias the sample toward smaller targets. At very large firms, some pension funds could have engaged in activism with a less than 5% stake in the company.[59] To incorporate activism events that were not accompanied by Schedule 13D/13/D or DFAN 14A, we collect information about such events through news searches in LexisNexis for our top 100 banks in each time period in terms of total assets using a general search with the company current name and any previous names (where information is available) and any and various combinations of the following keywords: "activism" or "activist investor" or "dissident investor" or "activist shareholder" or "group of concerned shareholders" or "shareholder activism" or "hedge fund activist" or "hedge fund activism" or "institutional activism" or "activist campaign" or "investor campaign." The searches were limited to the sample period of 1994 to 2010. This retrieves news articles for 140 unique entities. Results vary and range from 2 pages to 3,415 pages of news for one single entity. We manually look at each of the cases to check the relevance of the results and exclude news that include the company, but contain activism about a different company in the article, that are only social activists pleading for several social causes and not investor activists,

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[57] Because a large number of banks do not have information reported in I/B/E/S, we include in the estimation also the variable *NUMBER OF ANALYSTS NOT IN IBES* to account for this.

[58] Securities and Exchange Act of 1934 Rule §240.13d provides details on the SEC registrants and requirements.

[59] A recent article in The New York Times (November 28, 2013, http://dealbook.nytimes.com/2013/11/28/some-big-public-pension-funds-are-behaving-like-activist-investors/) shows that some of the biggest public pension funds, which have sought to influence companies for years, are now starting to emulate the activist investors by engaging with, and sometimes seeking to oust, directors of companies whose stock they own.

and any others that are not true activists and cannot be deemed to be an event. In some cases, we further check the completeness of the news searches using the DEF 14A report to check if the investor appears in the shareholder proposals section. Our analysis deems 98 news results as not relevant and finds 42 with new relevant results that sometimes belong to several companies as some of the pension funds may target several banks at the same time. This generates 96 events the majority (~85%) of which has a pension fund as an activist such as California Public Employees' Retirement System (CalPERS), American Federation of State, County and Municipal Employees (AFSCME), several pension funds in the New York State Retirement System, Connecticut Retirement Plans and Trust Funds (CRPTF), United Brotherhood of Carpenters and Joiners of America Pension Fund, The Laborers' International Union of North America (LIUNA), American Federation of Labor and Congress of Industrial Organizations (AFL-CIO).[60]

We add these new events to our sample and incorporate them in our *ACTIVISM* variable and re-estimate our results to understand whether our results may be impacted by these investors with stake less than 5% that may behave as activists. We present the results in Table B.2 Panels A-C. Panel A and Panel B show that our main results and the results for financial crises versus normal times continue to hold and not affected by the addition of these new events. Panel C provides a more detailed view of the effects of these events from LexisNexis compared to SC 13D and DFAN14A. It shows that effects of these activists are generally weaker and potentially more negative on performance, which may be due to both the fact that many of the proposals that pension funds put forward may not be successful and also that their power is limited due to their small stake in the companies. Our results are consistent with Wahal (1996) which studies the efficacy of pension fund activism and impact on performance and find no evidence of long-term improvements in either stock price or accounting measures of performance in the post-targeting period. However, these events do not tend to increase risk, so the *Shareholder-Creditor Conflict* is potentially not in effect for them.

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[60] We impose no limitation to the percentage of shares owned as many times this information is not available in the LexisNexis news. In few cases, we are able to retrieve the ownership from the DEF 14A report when the shareholder appears in the Shareholder Proposals section and for those cases the share ownership is small, many times < 1%.

B.3 Channels of activism based on demands

Table B.3 details the effects of activism by channels of action. Thus, the *ACTIVISM* measure is broken down into the seven different demands that activists declare in the13D filing. We create dummies for each of these demands and include them in our regression analysis to better understand channels of action based on activist demands. In this context, activist demands for a particular event are being represented by the most predominant objective. Secondary objectives are ignored.

First, we look at the effect of activism on market value, represented by *TOBIN's Q*. We find that activists increase bank market performance via an array of actions ranging from capital structure changes (e.g., financing, stock repurchases), operating and corporate strategic structure changes (M&A, divestitures, etc.) to internal corporate governance changes (changes in board composition, CEO, compensation, removal of poison pill, declassified board etc.). In addition, market tends to perceive proxy fights filed by shareholders positively as we tend to see a boost in the value of the firm due to expected improvements within the firm once shareholders may win these conflicts.

Second, we look at the impact of activism on operating returns, as measured by ROA. The minimal impact found in the main analysis is consistent across the various channels. The one exception is proxy fights, which show a negative impact on operating returns. Results indicate that proxy fights initiated by activists may be costly for the firm and may consume resources, which may be materialized in poor accounting results.

Third, we analyze the impact on bank risk. As expected, almost all of the activism channels generate an increase in risk, but to a lesser extent engage management and strategic changes actions (insignificant). The most severe decreases in *Z-score* come from proxy fights.

Table B.1: Other Potentially Omitted Correlated Variables

This table reports the regression estimates of the relation between the shareholder activism of US Commercial banks and financial performance (*TOBIN's Q*), operating returns (*ROA*), and risk taking (*Z-SCORE*) using several models that include additional possible omitted variables to account for the potential omitted correlated variables bias. We define the main activism measure (*ACTIVISM*) as a dummy, which takes a value of 1 in all quarters in which the bank had material activist events. The bank-level *Z-SCORE* is a measure of financial risk and it is determined as A (ROA) + A(EQ/TA) / Std_ROA; a larger value indicates lower overall bank risk. *ROA* is operating net income over GTA. We use an OLS model with time and bank FE. All independent variables are lagged 4 quarters. The sample period runs from t = 1994 to t = 2010. Please see Appendix A for details on the definitions and determination of all variables utilized in the regressions. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

Independent Variables	TOBIN'S Q (1)	ROA (2)	Z-SCORE (3)	TOBIN'S Q (4)	ROA (5)	Z-SCORE (6)
ACTIVISM	0.005***	-0.000	-4.421***	0.004**	-0.000	-4.181***
	(3.099)	(-1.506)	(-3.029)	(2.418)	(-1.469)	(-2.865)
BHC INDICATOR	0.028***	0.001***	-4.013	0.026***	0.001***	-3.097
	(6.395)	(2.758)	(-1.459)	(5.639)	(3.003)	(-1.132)
MERGERS	0.009	-0.001	5.312	0.008	-0.001	5.564
	(1.594)	(-1.428)	(1.546)	(1.446)	(-1.533)	(1.600)
WRITEOFF_INDICATOR	-0.034	-0.001**	-10.497***	-0.034	-0.001**	-10.515***
	(-1.448)	(-2.222)	(-4.959)	(-1.456)	(-2.198)	(-4.948)
MBS/GTA	0.100***	0.002***	4.943	0.097***	0.002***	6.062
	(3.791)	(3.063)	(0.791)	(3.735)	(3.084)	(0.971)
COMMERCIAL REAL ESTATE LOANS	0.050***	0.000	-28.212***	0.051***	0.000	-28.518***
	(3.177)	(0.182)	(-4.147)	(3.176)	(0.179)	(-4.188)
CASH_HOLDINGS	0.109**	-0.000	-13.978	0.109**	-0.000	-13.018
	(2.450)	(-0.226)	(-1.298)	(2.428)	(-0.207)	(-1.203)
HHI DEPOSITS	-0.009	0.001	28.813***	-0.005	0.001	27.761***
	(-0.448)	(1.142)	(3.751)	(-0.257)	(0.866)	(3.588)
INST OWNERSHIP				0.013	0.001***	6.328**
				(1.269)	(3.656)	(2.170)
LONG-TERM INST OWNERSHIP				-0.047***	0.002***	-15.773**
				(-2.829)	(-3.202)	(2.230)
NUMBER BLOCKHOLDERS				0.003	0.000***	-1.422***
				(1.413)	(-3.536)	(-3.224)
NUMBER OF ANALYSTS				-0.003***	0.000	0.678***
				(-2.799)	(0.777)	(5.105)
NUMBER OF ANALYSTS_NOT_IN_IBIS				-0.004**	0.000	2.460***
				(-2.037)	(1.042)	(2.966)
Previous Controls	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Bank Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	22,128	22,584	22,514	22,094	22,549	22,479
R-squared	0.878	0.608	0.473	0.879	0.609	0.474

Table B.2: Shareholder Activism during Normal Times and Financial Crises (including LexisNexis News)

This table reports the regression estimates of the relation between the shareholder activism of US Commercial banks and financial performance (*TOBIN's Q*), operating returns (*ROA*), and risk taking (*Z-SCORE*) during normal times and during crises versus normal times. We define the main activism measure (*ACTIVISM*) as a dummy, which takes a value of 1 in all quarters in which the bank had material activist events. The bank-level *Z-SCORE* is a measure of financial risk and it is determined as A (ROA) + A(EQ/TA) / Std_ROA; a larger value indicates lower overall bank risk. *ROA* is operating net income over GTA. We use an OLS model with time and bank FE. All independent variables are lagged 4 quarters. *FINANCIAL_CRISES* variable construction follows Berger and Bouwman (2013). *FINANCIAL_CRISES* [61] is a dummy variable which takes a value of 1 for a crisis period and it includes both market (those originated in the capital markets) and banking crises (those originated in the banking sector). Panel A reports effects of activism during financial crises. The sample period runs from t = 1994 to t = 2010. Please see Appendix A for details on the definitions and determination of all variables utilized in the regressions. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

Panel A: Main Effects (including LexisNexis News)

Independent Variables	TOBIN'S Q (1)	ROA (2)	Z-SCORE (3)
ACTIVISM	0.004**	-0.000	-3.571***
	(2.521)	(-1.349)	(-2.700)
Controls	Yes	Yes	Yes
Time fixed effects	Yes	Yes	Yes
Bank Fixed effects	Yes	Yes	Yes
Observations	22,832	23,976	23,812
R-squared	0.875	0.604	0.472

Panel B: Effects during Financial Crises (including LexisNexis News)

Independent Variables	TOBIN'S Q (1)	ROA (2)	Z-SCORE (3)
ACTIVISM	0.001	-0.000	-8.385***
	(0.358)	(-1.347)	(-5.252)
ACTIVISM * FINANCIAL_CRISES	0.008**	0.000	10.542***
	(2.449)	(0.443)	(4.505)
(ACTIVISM + ACTIVISM * FINANCIAL_CRISES)	0.009***	0.000	2.157
t-stat (ACTIVISM + ACTIVISM * FINANCIAL_CRISES = 0)	3.292	0.566	1.118

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[61] Banking crisis is the recent subprime lending crisis and market crises are the Russian debt crisis plus LTCM bailout in 1998, and the bursting of the dot.com bubble plus September 11. Normal times is a dummy variable which takes a value of 1 for all time periods that are not financial crises.

Controls	Yes	Yes	Yes
Time fixed effects	Yes	Yes	Yes
Bank Fixed effects	Yes	Yes	Yes
Observations	22,821	23,965	23,801
R-squared	0.875	0.604	0.472

Panel C: Effects by Filing Type

Independent Variables	TOBIN'S Q (1)	ROA (2)	Z-SCORE (3)
LexisNexis News	-0.022***	-0.001*	8.133
	(-2.996)	(-1.931)	(1.577)
DFAN14A	0.005	0.000	-14.962***
	(0.987)	(0.625)	(-4.157)
13D	0.008***	-0.000	-4.798***
	(4.928)	(-0.494)	(-3.883)
Controls	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes
Bank Fixed Effects	Yes	Yes	Yes
Observations	22,821	23,965	23,801
R-squared	0.875	0.604	0.472
t-test for equality of coefficients DFAN14A = 13D	0.574	0.748	2.793***
t-test for equality of coefficients LexisNexis News = DFAN14A	3.017***	1.895*	3.670***
t-test for equality of coefficients LexisNexis News = 13D	3.999***	1.772*	2.443***

Table B.3: Channels of Action for Activists (Based on Demands)

This table reports the OLS regression estimates of the relation between the shareholder activism of US Commercial banks and their financial performance, operating returns, and risk. *ACTIVISM* is a dummy which takes a value of 1 in all quarters in which the bank had material activist events. We show models in which we broke down *ACTIVISM* into its seven activist demands to understand the channels through which activists work: *ENGAGE MANAGEMENT, CAPITAL STRUCTURE, INTERNAL CORPORATE GOVERNANCE, ASSE SALE (STRATEGIC), LITIGATION/BANKRUPTCY, PROXY FIGHT,* and *STRATEGIC CHANGES.* We consider the categories to be exclusive, by keeping the most important reason of the filing and ignoring the secondary reasons. We use an OLS model with time and bank fixed effects. All independent variables are lagged 4 quarters. The sample period runs from t = 1994 to t = 2010. Please see Appendix A, for details on the definitions and determination of all variables utilized in the regressions. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

Independent Variables	TOBIN'S Q (1)	ROA (2)	Z-SCORE (3)
ENGAGE MANAGEMENT	0.003	0.000	-1.925
	(1.066)	(0.622)	(-0.861)
STRATEGIC CHANGES	**0.031*****	-0.000	2.269
	(4.491)	(-1.219)	(0.876)
INTERNAL GOVERNANCE	**0.019*****	0.000	**-4.676***
	(4.520)	(0.627)	**(-1.904)**
CAPITAL STRUCTURE	**0.012****	0.000	**-9.942****
	(2.444)	(0.448)	**(-2.375)**
PROXY FIGHT	**0.014*****	**-0.001****	**-33.054*****
	(2.748)	**(-2.566)**	**(-4.904)**
ASSET SALE (STRATEGIC)	0.006	0.000	**-15.808*****
	(1.070)	(0.618)	**(-4.300)**
LITIGATION/BANKRUPTCY	0.000	-0.000	**-5.553*****
	(0.024)	(-0.693)	**(-2.742)**
Controls	Yes	Yes	Yes
Time fixed effects	Yes	Yes	Yes
Bank Fixed effects	Yes	Yes	Yes
Observations	22,819	23,963	23,799
R-squared (or Pseudo)	0.875	0.604	0.473