Investor activism effects in banking: Is activism beneficial for bank shareholders, creditors, and the public? [‡]

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Abstract:

This paper conducts the first assessment of investor activism in banking and its effects on risk-taking and performance. It focuses on the conflicts among different bank stakeholders to understand whether activism is beneficial for these different parties. Using hand-collected data on shareholder activism, we find that activism is generally not a stabilizing force in banking, increasing bank risk-taking, but creating market value for shareholders, and leaving operating returns unaltered, consistent with the empirical dominance of the *Shareholder-Creditor Conflict*. However, activism is not a significant risk source during crises. From a public perspective, creditors (including the government in its role as a creditor) may lose during normal times, but not during 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 raises serious concerns regarding banks' corporate governance and their ability to manage risk successfully such a crisis. A larger question is whether good governance in banking could have mitigated or avoided the recent financial crisis. Several papers argue that poor governance was a significant contributing factor to the crisis (e.g., Diamond and Rajan (2009), Kirkpatrick (2009), Cheffins (2014), Berger, Imbierowicz, and Rauch (forthcoming)), while others support the opposite view (e.g., Fahlenbrach and Stulz (2011), Beltratti and Stulz (2012)). There has been also discussion that the financial crisis was caused by "pressure from shareholders to maximize the put option value they enjoy from explicit and implicit government insurance (e.g., Armour and Gordon (2014)). There is also banking research indicating that corporate governance affects bank risk and performance (e.g., Caprio, Laeven, and Levine (2007), Adams and Mehran (2005), Laeven and Levine (2009)), but there is no evidence to date on the specific mechanism of shareholder activism.[3]

Is shareholder activism beneficial for the various bank stakeholders – bank shareholders, creditors, and the public? The literature focused on nonfinancial corporations shows that investor activism may be able to create value and be an effective monitoring mechanism (e.g., Clifford (2007), Brav, Jiang, Thomas, and Partnoy (2008), Greenwood and Schor (2009), Klein and Zur (2009), Boyson and Mooradian (2012),

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[3] 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.

Bebchuk, Brav, and Jiang (2014)). However, it may also be a destabilizing force, as it may increase risk-taking (e.g., Brav, Jiang, Thomas, and Partnoy (2008), Klein and Zur (2011), Bebchuk, Brav, and Jiang (2014)).

Banking is one place where the goal of maximizing shareholder value should not be taken for granted as it may not be socially optimal. Here, a single firm's value maximization may create significant negative externalities for the financial system and the economy. Therefore, it is important for researchers and policy makers alike to understand whether activism could be destabilizing in banking, even when it may be individually maximizing for some stakeholders. To our knowledge, there are no studies which focus on assessing how shareholder activism affects bank risk and the benefits and costs to their stakeholders, including the general public. This omission from the literature may be potentially serious from a policy perspective due to the importance of banks for overall financial stability and the real economy.

Understanding the role of activism in banking is also important because there are several important peculiarities that make banks different from non-financials. 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, banking literature suggests banks are inherently opaque, as they are in the business of gathering proprietary information about their customers.[5] Banks' opacity can make information asymmetries among different bank stakeholders arguably more severe in banking (e.g., Furfine (2001), Morgan (2002), Levine (2004)). Thus, there may be a greater need for activist shareholders to act as delegated monitors to cut through this opacity. Finally, regulation makes banks different from other

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[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 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)).

industries, as explicit and implicit insurance can induce more risk-taking in banking, while prudential regulation tries to tamp down bank risks (e.g., Laeven and Levine (2009), Srivastav, Armitage, and Hagendorff (2013). 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.[7]

This paper is the first, to our knowledge, to test shareholder activism in banking, and its effects on performance and risk-taking during normal times and financial crises. We focus on the conflicts between bank shareholders and managers and those between shareholders and creditors, which, in banking, are defined to mean all the other financial claimants other than shareholders, such as the FDIC 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, what activists do to change the focus of the banks, and how they may affect the various stakeholders, and whether activism is a stabilizing or destabilizing force, given banks' importance for overall financial stability.

Ex ante, it is unclear how shareholder activism would influence banks. We consider four conflicts that may arise among different bank stakeholders, and which may be addressed by investor activism. We use these to formulate and test hypotheses with divergent predictions regarding the effects of activism on bank performance and risk-taking and on different stakeholders and evaluate which of these hypotheses empirically dominates. To assess the impact of activism on bank behavior, we regress measures of bank market value, operating returns, and default risk on a dummy for shareholder activism and a set of bank

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[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] The capital requirements, in particular, may change the conflicts among parties via changing the firm leverage.

characteristics, following prior research on bank governance (Beltratti and Stutz (2012)) and shareholder activism (e.g., Brav, Jiang, Thomas and Partnoy (2008)). We lag all independent variables four quarters to reduce endogeneity concerns and to give time for activists to have effects.

Our regression results are consistent with the empirical dominance of the **Shareholder-Creditor Conflict**. We find that shareholder activism creates market value gains for shareholders, leaves unchanged operating returns, and increases bank default risk. This suggests that activist shareholders may generally not be a stabilizing force, inducing managers to increase risk-taking in order to increase shareholder returns at the expense of bank creditors. However, we find results are significantly altered during financial crises: the market value increase is greater during crises and risk does not increase. This suggests activists may not have been a major source of risk during the crises as their effects may have been muted. From a public standpoint, bank creditors (including the government as a creditor), 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 including event studies using cumulative abnormal returns (CARs), several other model and error specifications such as fixed effects, random effects, Newey-West errors, and two-way clusters. Third, to address the potential endogeneity concerns and sample selection bias, we employ an instrumental variable analysis, a Heckman's (1979) selection model, a propensity score matched analysis, and an analysis including Lexis-Nexis news events. The results are generally robust to all these checks.

We also conduct tests based on a quasi-natural experiment created by the implementation of Sarbanes Oxley Act (SOX) of 2002, legislation designed to protect shareholders from management deceitful practices and improve corporate governance and disclosure. This legislation may have given activists more free hand to intervene in corporations to change their governance and strategic decisions.

This allows us to take advantage of a potential source of exogenous variation in activism that is exogenous to bank outcomes studied. Using a difference–in-difference (DID) approach, we find 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. This suggests SOX indeed made have resulted in an unintended aggravation of the ***Shareholder-Creditor Conflict*** in banking.

Fourth, we attempt to understand for which types of activists, events, or banks are the results most important. We conduct subsample analyses based on: hedge funds (*HF*) versus non-hedge fund activists, regular activism versus proxy fights, excluding too-big-to-fail (*TBTF)* banks, and different bank size classes. We also investigate the channels through which activists may induce the documented 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 the smaller institutions, while large banks may experience more positive influence: a statistically significant increase in market value and a lower risk. 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.

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. This paper also adds 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.[8]

The remainder of this chapter is organized as follows. Section 2 presents the related literature and Section 3, explains the hypotheses. In Section 4, we describe the data and empirical approach, and in Section 5, we discuss the empirical results. Sections 6 and 7 describe robustness tests and subsample analyses, respectively. 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. This research finds 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 activism literature regarding nonfinancial firms shows that activism influences risk (e.g., Brav, Jiang, Thomas, and Partnoy (2008)). There is also research showing that activism can increase the probability of CEO turnover (e.g., Parrino, Sias and Starks (2003), Bharath, Jayaraman and Nagar (2013), Helwege, Intintoli, and Zhang (2012)) while some find activists can be unsuccessful in removing entrenched managers (e.g., Black (1990) and Roe (1994)).

As discussed in the introduction, in banking, the goal of maximizing shareholder value may not be socially optimal as here a single firm's value maximization may induce negative externalities to the financial system. There are no studies which focus on assessing how shareholder activism affects banks

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[8] This is consistent with Beltratti and Stultz (2012), which document that one aspect of worse bank governance (e.g., lower shareholder friendliness of the board) was not a major cause for the financial instability during the recent crisis.

and bank stakeholders. Two papers related to banking, although not focusing on banking, are Xu and Li (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. Xu and Li (2010) find tighter bank contract terms for firms after targeting, and Sunder, Sunder, and Wongsunwai, (2014) find an increase in loan spreads when activism relies on market for corporate control and a decrease when agency problems are addressed.

Our paper is also related to the literature on bank governance and its effects on performance and risk. There are papers that look at the effects of bank governance on performance (e.g., Caprio, Laeven, and Levine (2007), Adams and Mehran (2003, 2005), Caprio, Laeven, and Levine (2007)) and generally document that good governance can lead to higher bank valuation. There are also 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. Laeven and Levine (2009) find that banks with controlling shareholders are characterized by higher risk-taking and regulation (e.g., FDIC deposit insurance, capital regulation, and restrictions on nonlending activies of banks) can induce owners to select a riskier investment portfolio to compensate for the loss of utility from costly regulatory requirements. Other researchers find equity based executive compensation is associated with higher risk (Mehran and Rosenberg (2009), DeYoung, Peng, and Yan (2013)). Opposing this, Pathan (2009) finds that more independent boards, and thus more monitoring of managers, may reduce risk.

Finally, there are papers that look at the role of bank governance around financial crises with 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 (forthcoming) find 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. Cheffins (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. However, the evidence is far from conclusive and this study tries to shed more light on this debate.

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 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 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)).[18] [19]The shareholder-manager agency problem also distorts investment and managers may pursue suboptimal investment by avoiding to expand into

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[18] 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.

[19] Even if the managers are risk-neutral, shareholders may wish them to take more risk. 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.

profitable new lines of products (underinvestment) (e.g., Bertrand and Mullainathan (2003), Boot (1992)).[20]

According to this conflict, activists can intervene and 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), 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)). 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. The shareholder-manager agency problem also distorts investment and firm insiders have the tendency to build an empire and expropriate resources for private benefits at the cost of outsiders (e.g., Jensen and Meckling (1976), Jensen (1986)). Thus, when a firm has plentiful resources, insiders may overinvest. Activists may intervene and 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:

*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[21] to take higher risk to increase

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

[21] Managers may be willing to represent shareholders' interests if they have a vested interest through the managerial compensation schemes that align interests (e.g., Cheng, Hong and Scheinkman (2010), Hagendorff and Vallascas (2011), DeYoung, Peng, and Yan (2013)).

market value at the expense of bank creditors (e.g., Laeven and Levine (2009), Erkens, Hung, and Matos (2012), Srivastav, Armitage, and Hagendorff (2013), Prabha and Wihlborg (2014)). This is due to the difficulties of creditors (e.g., FDIC deposit insurer, taxpayers, regulators, etc.) to monitor banks 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 adequate 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 reduce their incentives and ability to monitor banks: explicit insurance (deposit insurance put option (e.g., Merton (1977), Karekan and Wallace (1978), Keeley (1990)) 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 many banks face distress (e.g., Acharya and Yorulmazer (2007), Brown and Dinc (2011), Black and Hazelwood (2013), Duchin and Sosyura (2014)). Explicit and implicit insurance can induce banks to take on more risk that is ultimately borne by the deposit insurance fund and taxpayers[22,] [23] 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**[24].*

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

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

[23] 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.

[24] In Table 1 Panel A, the effect on operating returns is represented by a question mark to allow the possibilities of both insignificant and negative effects on it.

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 total 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),[25] 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[26] 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.[27] 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.[28] 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 fight statements filed by non-management (DFAN14A) as literature suggests these are another important form of activism (e.g., 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-management"[29], and is filed ahead of the annual shareholder meeting when soliciting

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[25] 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.

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

[27] 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.

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

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

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.[30] 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 which takes a value of 1 if there is 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,

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[30] 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 Section 6.3.5 and respectively in greater detail in Appendix B, Section B.4 and Table B.4.

Thomson Institutional Data, I/B/E/S).

4.2. Empirical methodology

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:

$$Y_{it} = \beta_0 + \beta_1 ACTIVISM_{it-k} + \beta_2 Bank\ Characteristic_{it-k} + Time_t + Bank_i + \varepsilon_{it} \tag{1}$$

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 annualized net income over GTA), and default risk proxied by bank *Z-SCORE* (calculated as the sum of a bank's average *ROA* and average *Capitalization Ratio* (equity capital over GTA) divided by *Std_ROA* (the volatility of ROA)).[31] For all independent variables, we retain $k=4$ in our analysis and robustness tests to capture 4-quarter effects.

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 (2010)), *FOREIGN OWNERSHIP* (a

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[31] 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), Ongena, Popov, and Udell (2013), Duchin and Sosyura (2014)).

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 (e.g., Laeven and Levine (2009), Berger, Imbierowicz, and Rauch (forthcoming)). 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.[32]

5 Empirical Results

In this section, we analyze empirically the prevalence of shareholder activism in banking, activist objectives, and effects on individual bank outcomes (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.[33] Activism tends to surge during crises periods (2000:Q2-2002:Q3 and 2007:Q3-2009:Q4).[34,35] 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.

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

[33] 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, where about one half of the activism events are non-material..

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

[35] 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 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.

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 activism and involves discussions with management and making suggestions for improvements. Activists can send letters, call 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, 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, executive compensation issues, change company by-laws, 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. Thus the activist may propose changes oriented towards the reduction of excess cash, an increase in firm leverage, higher payouts to shareholders, issuance of securities or restructuring. Fifth, *PROXY FIGHT* represents 11.6% of all events. It refers to situations in which the activist solicits proxies from other 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 (e.g., Helwege, Intintoli, and Zhang (2012)) and their exit

can serve as a governance mechanism (e.g., Admati and Pfleiderer (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 or other

restructuring options.[37,38]

5.3 Effects of activism

Table 3 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.

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

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[37] 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).

[38] In a separate test, reported in Appendix B Section B.6 and Table B.8, 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.

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 the activists' intervention.[39]

Looking together at the results for market value, operating returns, and default risk, we find activism creates market value for shareholders, has little impact on operating returns, and increases bank risk-taking (lower Z-score)[40]. 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 activists may induce management to increase risk in order to increase shareholder returns at the expense of bank creditors (regulators, deposit insurer, taxpayers, depositors etc.) given creditors' difficulties in monitoring due to banks' opacity and regulatory-induced incentives. This suggests activism generally may not be a stabilizing force in banking.

6 Robustness Tests

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[39] 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.

[40] In terms of economic significance, we prefer to interpret buy-and-hold return and CAR (Sections 6.1 and 6.2) to assess market value for shareholders (rather than Tobin's Q which may be driven by a lot of other factors). Using buy-and-hold return, the regression coefficient on the *ACTIVISM* variable of 0.028 in the buy-and-hold return regression suggests that activism increases market performance for shareholders by 28% evaluated at the median buy-and-hold return of 0.100. Using the CAR in an event study methodology, we get a 6.77% CAR for the (0, 12) month time window. Also, we find no statistically or economically significant effect on operating earnings. Finally, by looking at the other effects of activism, there is an economically significant increase in risk. The coefficient on the *ACTIVISM* variable of -4.317 in the risk equation increases bank risk by 9.9%, evaluated at the median *Z-SCORE* of 43.524.

6.1 Alternative measures for all key variables

In online Appendix B Section B.1 and Table B.1, we check whether our results are robust to using alternative measures of bank market value (buy and hold return*,* buy and hold abnormal return, and Sharpe ratio), operating performance (return on equity), risk (volatility of stock returns, loan loss allowance ratio, nonperforming loans ratio, volatility of ROA, and bank capitalization ratio), and activism (the number of activist events during a quarter as per 13D and DFAN14A filings). Across all these tests, we find results qualitatively similar to our main findings.

6.2 Alternative econometric specifications

In online Appendix B Section B.2 and Table B.2, we also check the sensitivity of the results to the use of alternative econometric specifications. For market performance, we conduct both daily and monthly event studies reporting the mean cumulative abnormal returns (CAR). Using different event time windows, we find market reacts positively to the activism events, confirming that activism creates value for shareholders. We also report results from alternative econometric specifications for operating returns and bank risk using a simple OLS model without time and bank fixed effects, a model with time fixed effects only, a model with bank random effects, a model with Newey-West (1987) standard errors and time fixed effects to control for residual autocorrelation and heteroscedasticity, and a model with two-way clustering by bank and time. These results confirm our earlier evidence.

6.3 Endogeneity and sample selection tests

In this subsection, we carry out several tests to address the problems of potential endogeneity and sample section of our *ACTIVISM* variable, which could bias our findings. In the main analysis, we attempt to alleviate some of these concerns by lagging the ACTIVISM variable**.** To more directly address them, we perform several sets of tests discussed below.[43]

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[43] 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,

6.3.1 Instrumental variables analysis

The potential endogeneity may be the result of reverse causality. For example, banks with a particular performance and risk profile may be more likely to be targeted by activists and this bias may invalidate the interpretation of the coefficient on *ACTIVISM*. To deal with this, we employ an instrumental variable (IV) analysis to extract the exogenous component of bank activism in assessing the influence of activism on market value, operating performance, and bank risk.

Following prior research on shareholder activism, we use as an instrument, the *AMIHUD ILLIQUIDITY RATIO*, the Amihud (2002)'s measure of trading illiquidity determined as the quarterly average (using daily data) of 1000 * sqrt (|return|/dollar trading volume). Firms with high stock liquidity were found by prior research to be more likely to be targeted by activists (e.g., Brav, Jiang, Partnoy, and Thomas, 2008; Brav, Jiang, and Kim, 2010, Collin-Dufresne and Fos (2013); Norli, Ostergaard, and Schindele (2015), Fos (forthcoming)) because high stock liquidity allows activists to accumulate a large stake in the target firms quickly and without significantly affecting the stock price. All else equal, an increase in stock liquidity should therefore lead to an increase in the activism targeting likelihood. However, stock liquidity is unlikely to be correlated with our bank outcome variables through other channels than through affecting the likelihood of targeting.

Because the potentially endogenous explanatory variable, *ACTIVISM*, is binary and we need the instrument to predict treatment, we employ a dummy endogenous variable model and follow a 3-step approach as suggested in section 18.4.1 of Wooldridge (2002). For the first stage, we use a probit model in which we regress the *ACTIVISM* dummy on the *AMIHUD ILLIQUIDITY RATIO* instrument and all control variables from the main regression model for predicting the likelihood of a firm to be targeted by activists. We then use the predicted probability obtained from the first stage as an instrument for the second stage.

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including several other corporate governance mechanisms, and results are consistent. These results are presented in detail in the online Appendix B Section B.3 and Table B.3.

The results of the IV regressions are reported in Table 4 Panels A and B. The first-stage regression indicates that stock illiquidity is negatively and significantly related to the likelihood of activism, and the *F*-test indicates that the instrument is valid. The IV final stage regression estimates in Panel B indicate that, after controlling for endogeneity, *ACTIVISM* is associated with better market performance, little impact on operating returns, and higher risk-taking, consistent with our earlier evidence.

6.3.2 Heckman selection model

Another potential concern with our results is that perceived performance and risk differentials found may reflect selection bias. We address this issue by using the 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 (Panel A of Table 4), 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 (*AMIHUD ILLIQUIDITY RATIO*) 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 second-stage results are reported in Panel C of Table 4. 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-taking. In the selection equation, the instrumental variable is positively related to *ACTIVISM*. In the outcome equation, the *ACTIVISM* variable enters significantly positively on *TOBIN's Q* and negatively on *ROA,* and *Z-SCORE,* consistent with our prior findings.

6.3.3 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 a propensity score matching (PSM) analysis. We match each targeted bank with a non-targeted bank with similar characteristics as indicated by their propensity scores. To estimate a bank's propensity score (or probability of being targeted), 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.[44, 45] Regression results are reported in Table 4 Panel D 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.

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

We also conduct tests based on a quasi-natural experiment created by the implementation of Sarbanes Oxley Act (SOX) of 2002, which passed legislation to protect shareholders from management deceitful practices and improve corporate governance and disclosure. The implementation of SOX 2002 allows us to take advantage of a potential source of exogenous variation in shareholder activism that is exogenous to bank outcomes studied. This may allow us to identify the causal effect of shareholder activism on bank outcomes. 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. Banks without activism may not be strongly affected by SOX, while banks with activism may be strongly affected.

We re-estimate our regressions to understand whether effects may be different for banks targeted

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[44] 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.

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

by activists versus those without after SOX versus before SOX using the following difference-in-difference (DID) model:

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

(3)

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 of activism after SOX.

We report the results in Table 5. As expected, 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 made activism more favorable and 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 returns to shareholders at the expense of bank creditors (including the government).

6.3.5 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.[46] 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 Section B.4 and Table B.4.

7 Effects of Activism: Subsample Analyses

7.1 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 more empirical support. For testing this, we use the following modified model:

$$
\begin{aligned}
Y_{it} = \gamma_0 &+ \gamma_1 ACTIVISM_{it-k} + \gamma_2 ACTIVISM_{it-k} \ x \ FINANCIAL\_CRISIS_{t-k} + \\
&+ \gamma_3 Bank\ Characteristic_{it-k} + Time_t + Bank_i + \varepsilon_{it}
\end{aligned}
\tag{2}
$$

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[46] 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%.

FINANCIAL_CRISIS is a dummy variable equal to 1 whenever there is a financial 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_CRISIS* alone from the model because time fixed effects absorb the direct effects of *FINANCIAL_CRISIS*. The interaction term between *FINANCIAL_CRISIS* 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 6. The results 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. 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 source of risk during the financial crisis.[47,48]

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) the various government interventions during the crises (e.g., the Troubled Asset Relief Program (TARP), Discount Window (DW), Term Auction Facility (TAF)), and the Supervisory Capital Assessment Program (SCAP) – known as the stress tests – may have offset the increase in risk or 2) risk did not go up during the crisis, but market value went up as operating revenue may go up in the following years. In online Appendix B Table B.5 Panel B, we explore these possibilities and report the results when considering separately the effects of the four government intervention programs and use the dummies *TARP, DW, TAF,* and *SCAP* for whether a bank received TARP

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[47] Given the heightened concern about poor governance being a contributing factor to the subprime crisis, we also rerun the crises regressions focusing on the subprime crisis only. We report the results in online Appendix B table B.5 Panel A and find similar results, namely the risk effects of activists during financial crises may be muted.

[48] 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.

capital support, DW loans, TAF funding, or was subject to SCAP during the crisis. We find risk is decreasing primarily for the banks that received TARP and those subject to SCAP, but the other programs do not seem to have an important effect.[49] Therefore, the government, in its role as a creditor, may lose during normal times, but not during crises.

7.2 Other subsample analyses

We also conduct several subsample analyses to understand for which types of activists, events or banks are the main effects of activism most important. These results are also explained in more detail in Appendix B, Section B.5.

First, we distinguish between activists that are hedge funds (HF) or those that are not to see whether effects may be different. Hedge funds tend to be more aggressive compared to mutual funds, pension funds, individuals, or other types of shareholders and there is a large body of research focusing on hedge funds. We break down the *ACTIVISM* dummy into *HF_ACTIVIST* and *NON_HF_ACTIVIST* to take into account the two types of activists (online Appendix B Table B.6 Panel A). Results are generally consistent with our main findings and hold for both groups. However, hedge fund activists may lead to a higher increase in bank default risk.

Second, we 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 are presented in online Appendix B Table B.6 Panel B and show that our main results continue to hold for the two types of filings. However, DFAN14A filings (proxy fights) tend to lead to a higher increase in bank default risk.

Third, we exclude too-big-to-fail (*TBTF)* banks from our sample (online Appendix B Table B.6 Panel C) to understand whether our results may be caused by these. We define *TBTF* as a dummy equal to

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[49] 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.

1 if a bank has a 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.[52] We find that our results are not driven by the TBTF banks.

Finally, we re-estimate our regressions to understand whether results are dominated by a particular size class. Online Appendix B Table B.6 Panel D reports the effects of activism by bank size: small (banks with GTA up to $1 billion), medium (banks with GTA exceeding $1 billion and up to $10 billion), and large (banks with GTA exceeding $10 billion). We find the main effects hold strongly only for the smaller banks. However, activists do increase statistically significantly the market value of large banks and reduce risk, suggesting a more positive influence on these institutions.

8 Channels of Action for Activists and Actual Outcomes

In this section, 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., deposit insurers, taxpayers, regulators, depositors, etc.) due to banks' opaqueness and regulatory-induced incentives. Therefore, 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

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

targeted banks. [55] Activists may increase pay-for-performance sensitivity for managers to better align the interest between managers and shareholders (Brav, Jiang, Thomas and Partnoy (2008), Brav, Jiang and Kim (2010)). In regards to CEO/board turnover, 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), Brav, Jiang, Thomas and Partnoy (2008), Brav, Jiang and Kim (2010), Boyson and Mooradian (2011), Helwege, Intintoli, and Zhang (2012), Bharath, Jayaraman and Nagar (2013)). [56] 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. [57]

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). [58] Activists can also induce management to hold a lower level of equity capital to

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[55] 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.

[56] 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.

[57] Morgan, Poulsen, and Wolf (2006) find that shareholders have become more sensitive to potentially harmful executive compensation plan provisions. DeYoung, Peng, and Yan (2013) 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.

[58] 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.

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)).

A third channel to induce change in the target banks is to change the **Strategic Direction** of the bank.[59] 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. [60]

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 online Appendix B, Table B.7 Panels A and B.

8.2 Channels of action for activists

In Online Appendix B, Table B.7 Panel A, we conduct a change analysis which considers all banks targeted by activism and means changes in their ***Internal Corporate Governance***[61]***, Capital Structure,*** and ***Strategic***

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[59] 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.

[60] 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)).

[61] 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

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

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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 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.

bank real estate loans over GTA)[62], 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[63] and may 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 online Appendix B, Table B.7 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

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[62] 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, forthcoming).

[63] 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)).

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[64] 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

Is shareholder activism beneficial for bank shareholders, creditors, and the public? Banking is one place where the goal of maximizing shareholder value should not be taken for granted as it may not be socially optimal. Here, a single firm's maximization may spill negative externalities to the financial system. Therefore, it is important for researchers and policy makers alike to understand whether activism could be destabilizing in banking, even when what shareholder activists advocate seems, from their perspective, individually maximizing. This paper is the first empirical study, to our knowledge, to assess shareholder activism in banking, its effects on risk-taking and performance, and how it impacts its key stakeholders (shareholders, creditors, and the public).

Using a 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) Shareholder activism creates market value for shareholders, but has little impact on operating returns, and increases bank default risk, consistent with the empirical

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[64] 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.

dominance of the ***Shareholder-Creditor Conflict***. This predicts that activists may induce higher bank risk-taking to increase market value for shareholders at the expense of bank creditors. This suggests activism may generally not be a stabilizing force in banking. 3) However, effects of activism differ significantly during financial crises, resulting in higher market value and no increase in risk, suggesting that activism is not a major source of risk during financial crises as activism risk-taking effects may be muted. 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 bank risk-taking, 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), 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 is regarded with skepticism.[75] We find activists in banking may increase risk and market value at the expense of bank creditors and may not be a stabilizing mechanism. These results have important implications for the government policies targeting bank governance and activism regarding

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[75] 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.

banks. Regulators may keep a close watch on activists because they may generally increase bank risk-taking. However activists do not appear to increase risk-taking during financial crises, their effects being muted. This adds to the debate on the role of bank governance during crises and shows that shareholder activism may not have been a major cause of risk during the financial crisis (e.g., Beltratti and Stultz (2010)).

References

Acharya, V., Yorulmazer, T., 2007. Too many to fail — An analysis of time-inconsistency in bank closure policies. *Journal of Financial Intermediation* 16, 1-31.

Adams, R., Mehran, H., 2005. Corporate performance, board structure and its determinants in the banking industry. Working Paper. Federal Reserve Bank of New York.

Adams, R., Mehran, H., 2003. Is corporate governance different for bank holding companies?, FRNBY Economic Policy Review 91, 123-142.

Admati, A., Pfleiderer, P., 2009. The "Wall Street Walk" and shareholder activism: Exit as a form of voice. *Review of Financial Studies* 22, 2645-2685.

Amihud, Y., 2002. Illiquidity and stock returns: cross-section and time-series effects. *Journal of Financial Markets* 5, 31-56.

Anabtawi, I., Stout, L., 2008. Fiduciary Duties for activist shareholders, UCLA School of Law, Law-Econ Research Paper No. 08-02. *Stanford Law Review* 60.

Armour, J., Gordon, J., 2014. Systemic harms and shareholder value. *Journal of Legal Analysis*, 6, 35-85.

Barth, J., Caprio, G., Levine, R., 2006. Rethinking bank supervision and regulation: until angels govern. Cambridge, Cambridge University Press.

Bebchuk, L., Brav, A. and Jiang, W. 2014. The long-term effects of hedge fund activism. *Columbia Law Review* 114, 13-66.

Beltratti, A., Stulz, R. M., 2012. The credit crisis around the globe: why did some banks perform better? *Journal of Financial Economics* 105, 1-17.

Benston, G. J., Hunter, W. C., Wall, L. D. 1995. Motivations for Bank Mergers and Acquisitions: Enhancing the Deposit Insurance Put Option versus Earnings Diversification. *Journal of Money, Credit and Banking*, 27, 777-788.

Berger, A., Black, L., Bouwman, C., Dlugosz, J., 2015. The Federal Reserve's Discount Window and TAF Programs: "Pushing on a String?." Working Paper, University of South Carolina.

Berger, A., Bouwman, C., 2013. How does capital affect bank performance during financial crises, *Journal of Financial Economics* 109, 146-176.

Berger, A., Imbierowicz, B., Rauch, C., forthcoming. The Role of Corporate Governance in Bank Failures during the Recent Financial Crisis. *Journal of Money, Credit, and Banking*.

Berger, A.N., Klapper, L., Turk-Ariss, R., 2009. Bank Competition and Financial Stability. *Journal of Financial Services Research* 35, 99-118.

Bertrand, M., Mullainathan, S., 2003. Enjoying the quiet life? Corporate governance and managerial preferences. *Journal of Political Economy*, 111, 1043–1075.

Bharath, S., Jayaraman, S., Nagar, V., 2013. Exit as governance. *Journal of Finance*. Forthcoming.

Billett, M., Garfinkel, J., O'Neal, E., 1998. The cost of market versus regulatory discipline in banking. Journal of Financial Economics 48, 333-358.

Black, B., 1990. Shareholder Passivity Reexamined. *Michigan Law Review* 89, 520-608.

Black, L., Hazelwood, L., 2013. The effect of TARP on bank risk-taking. *Journal of Financial Stability* 9, 790-803.

Boot, A., 1992. Why hang on to losers? Divestitures and takeovers. *Journal of Finance*, 47, 1401–1423.

Boyd, J. H., Runkle, D., 1993. Size and performance of banking firms. *Journal of Monetary Economics* 31, 47–67.

Boyson, N., Mooradian, R., 2011. Corporate governance and hedge funds activism. *Review of Derivatives Research* 14, No. 2.

Boyson, N., Mooradian, R., 2012. Experienced hedge fund activists. Working Paper, Northeastern University.

Brav, A., Jiang, W., Thomas, R., Partnoy, F., 2008. Hedge fund activism, corporate governance, and firm performance. *Journal of Finance* 63, 1729-1775.

Brav, A., Jiang, W., Kim, H., 2010. Hedge Fund Activism: A Review. *Foundations and Trends in Finance* 4, 185-246.

Brewer, E., Jackson, W., Jagtiani, J.A. and Nguyen, T., 2000. The price of bank mergers in the 1990s.

Economic Perspectives-Federal Reserve Bank of Chicago, 24, 2-23.

Brook, Y., Hendershott, R., Lee, D., 2000. Corporate governance and recent consolidation in the banking industry. *Journal of Corporate Finance*,6, 141-164.

Brown C., Dinç S., 2011. Too Many to Fail? Evidence of Regulatory Forbearance When the Banking Sector Is Weak, *Review of Financial Studies* 24, 1378-1405.

Carbo-Valverde, S., Kane, E. J., Rodriguez-Fernandez, F. 2012. Regulatory Arbitrage in Cross-Border Banking Mergers within the EU. *Journal of Money, Credit and Banking*, 44, 1609-1629.

Calomiris, C., Kahn, C., 1991. The role of demandable debt in structuring optimal banking arrangements. *American Economic Review* 81, 497-513.

Cameron, C., Gelbach, J., Miller, D., 2011. Robust inference with multiway clustering. *Journal of Business and Economic Statistics* 29, 238-249.

Caprio, G., Laeven, L., Levine, R., 2007. Governance and bank valuation. *Journal of Financial. Intermediation* 16, 584-617.

Cheffins, B., 2014. The Corporate Governance Movement, Banks and the Financial Crisis. European Corporate Governance Institute (ECGI) - Law Working Paper No. 232/2014.

Cheng, I., Hong, H. Scheinkman, J., 2010. Yesterday's heroes: Compensation and creative risk-taking (No. w16176). National Bureau of Economic Research.

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

Collin-Dufresne, P., Fos, V., 2013. Moral hazard, informed trading, and stock prices, No. w19619,. National Bureau of Economic Research.

Dalton, D., Daily, C., Ellstrand, A., Johnson, J., 1998. Meta-analytic reviews of board composition, leadership structure, and performance. *Strategic Management Journal* 19, 269–290.

DeAngelo, H., DeAngelo, L., 1989. Proxy contests and the governance of publicly held corporations. *Journal of Financial Economics* 23, 29-59.

Del Guercio, D., Hawkins, J., 1999. The motivation and impact of pension fund activism. *Journal of*

Financial Economics 52, 293–340.

Demirgüç-Kunt, A., Huizinga, H., 2010. Bank activity and funding strategies: The impact on risk and returns. *Journal of Financial Economics* 98, 626-650.

DeYoung, R., Peng, E., Yan, M., 2013. Executive compensation and business policy choices at U.S. commercial banks. *Journal of Financial and Quantitative Analysis* 48, 165-196.

Diamond, D., Rajan, R., 2009. The credit crisis: Conjectures about causes and remedies. *American Economic Review* 99, 606-610.

Duchin R., Sosyura, D., 2014. Safer ratios, riskier portfolios: Banks' response to government aid. *Journal of Financial Economics* 113, 1-28.

Edmans, A., Manso, G., 2011. Governance through trading and intervention: A theory of multiple blockholders. *Review of Financial Studies* 24, 2395–2428.

Erkens, D., Hung, M., Matos, P. 2012. Corporate governance in the 2007–2008 financial crisis: Evidence from financial institutions worldwide. *Journal of Corporate Finance*, 18, 389-411.

Fahlenbrach, R., Stulz, R., 2011. Bank CEO incentives and the credit crisis. *Journal of Financial Economics* 99, 11-26.

Fama, E., Jensen, M., 1983. Separation of Ownership and Control, *Journal of Law and Economics* 262, 301-325.

Fos, V., Forthcoming. The disciplinary effects of proxy contests, *Management Science*.

Furfine, C. 2001. Banks as monitors of other banks: evidence from the overnight federal funds market. *Journal of Business* 1, 33-57.

Gantchev, N., 2013. The Costs of Shareholder Activism: Evidence from a Sequential Decision Model, *Journal of Financial Economics*, 107(3), 610-631.

Gillan, S., Starks, l., 2000. Corporate governance proposals and shareholder activism: the role of institutional investors. *Journal of Financial Economics* 57, 275-305.

Greenwood, R., Schor, M., 2008. Hedge fund investor activism and takeovers, *Journal of Financial Economics* 92, 362-375.

G30 Steering Committee on Corporate Governance, 2011. Toward Effective Governance of Financial Institutions, Washington, DC.

Hagendorff, J. Vallascas, F., 2011. CEO Pay Incentives and Risk-Taking: Evidence from Bank Acquisitions. *Journal of Corporate Finance* 17, 1078-1095.

Hartzell, J., Starks, L., 2003. Institutional investors and executive compensation. *Journal of Finance*, 2351-2374.

Helwege, J., Intintoli V., Zhang A., 2012. Voting with their feet or activism? Institutional investors' impact on CEO turnover. *Journal of Corporate Finance* 18, 22-37.

Hirshleifer, D., Thakor, A., 1992. Managerial conservatism, project choice, and debt. *Review of Financial Studies*, 5, 437–470.

Houston, J., Lin, C., Lin, P., Ma, Y., 2010. Creditor rights, information sharing, and bank risk taking. *Journal of Financial Economics* 96, 485–512.

Kareken, J., Wallace, N., 1978. Deposit Insurance and Bank Regulation: A Partial Equilibrium Exposition. *Journal of Business*, 51, 413–438.

Karpoff, J., 2001. The impact of shareholder activism on target companies: A survey of empirical findings, Working paper, University of Washington.

Karpoff, J., Malatesta, P., Walkling, R., 1996. Corporate governance and shareholder initiatives: Empirical evidence. *Journal of Financial Economics* 42, 365-395.

Keeley, M., 1990. Deposit insurance, risk, and market power in banking. *American Economic Review* 80, 1183-1200.

Gillan, S., Kensinger, J., Martin, J., 2000. Value creation and corporate diversification: the case of Sears, Roebuck & Co. *Journal of Financial Economics* 55, 103-137.

Kirkpatrick, G., 2009. The corporate governance lessons from the financial crisis, *Financial Market Trends* 96, 1-30.

Klein, A., Zur, E., 2009. Entrepreneurial shareholder activism: Hedge funds and other private investors. *Journal of Finance* 64, 187-229.

Klein, A., Zur, E., 2011. The Impact of Hedge Fund Activism on the Target Firm's Existing Bondholders. *Review of Financial Studies* 24, 1735-1771.

Jensen, M., 1986. Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers. *American Economic Review* 76, 323-329.

Jensen, M., Meckling, W., 1976. Theory of the firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics* 3, 305-460.

Jensen, M., and Smith, C. 1985. Stockholder, manager, and creditor interests: applications of agency theory. In Recent Advances in Corporate Finance, edited by E. I. Altman, and M. G. Subrahmanyam. Homewood, IL: Richard D. Irwin.

Jiraporn, P., and Gleason, K., 2007. Capital structure, shareholder rights, and corporate governance. *Journal of Financial Research* 30, 21-33.

Laeven, L., Levine, R., 2009. Bank governance, regulation and risk taking, *Journal of Financial Economics* 93, 259-275.

Levine, R., 2004. The corporate governance of banks: a concise discussion of concepts and evidence, World Bank Policy Research Working Paper No. 3404.

Malmendier, U., Tate, G., 2005. CEO overconfidence and corporate investment. *Journal of Finance* 60, 2661–2700.

Malmendier, U., Tate, G., 2008. Who makes acquisitions? CEO overconfidence and the market's reaction. *Journal of Financial Economics* 89, 20–43.

Mehran, H., Rosenberg, J., 2009. The effect of employee stock options on bank investment choice, borrowing, and capital, Federal Reserve Bank of New York Working Paper.

Merton, R., 1977. An Analytic Derivation of the Cost of the Deposit Insurance and Loan Guarantees: An Application of Modern Option Pricing Theory. *Journal of Banking and Finance*, 1, 3-11.

Morgan, D., 2002. Rating banks: risk and uncertainty in an opaque industry. *American Economic Review*, 92, 874-888.

Morgan, A., Poulsen, A., Wolf, J., 2006. The evolution of shareholder voting for executive compensation schemes. *Journal of Corporate Finance* 12, 715-737.

Mulherin, J., Poulsen, A., 1998. Proxy contests and corporate change: implications for shareholder wealth. *Journal of Financial Economics* 47, 279-313.

Norli, Ø., Ostergaard, C., Schindele, I., 2015. Liquidity and shareholder activism. *Review of Financial Studies* 28, 486-520.

Ongena, S., Popov, A. Udell, G., 2013. When the cat's away the mice will play: does regulation at home affect bank risk-taking abroad?. *Journal of Financial Economics* 108, 727-750.

Parrino, R., Sias, R., and Starks, L., 2003. Voting with their feet: Institutional ownership changes around forced CEO turnover. *Journal of Financial Economics* 68, 3-46.

Pathan, S., 2009. Strong boards, CEO power and bank risk-taking. *Journal of Banking and Finance* 337, 1340-1350.

Prabha, A., Wihlborg, C. 2014. Implicit guarantees, business models and banks' risk-taking through the crisis: Global and European perspectives. *Journal of Economics and Business*,76, 10-38.

Prowse, S., 1995. Alternative methods of corporate control in commercial banks. *Federal Reserve Bank of Dallas Economic Review*, Third Quarter.

Prowse, S. 1997. Corporate control in commercial banks. *Journal of Financial Research* 20, 509-527.

Roe, M., 1994. Strong Managers, Weak Owners: The Political Roots of American Corporate Governance. Princeton University Press.

Roll, R., 1986. The hubris hypothesis of corporate takeovers. *Journal of Business* 59, 197–216.

Saunders, A., Strock, E., and Travlos, N.G., 1990. Ownership structure, deregulation, and bank risk taking. *Journal of Finance* 452, 643-654.

Song, F., Li, L., 2012. Bank Governance: Concepts and Measurements. In Barth, J., Lin, C., Wilborg, C., Research handbook on international banking and governance, Edward Elgar Pub.

Song, W., Szewczyk, S., 2003. Does coordinated institutional investor activism reverse the fortunes of underperforming firms? *Journal of Financial and Quantitative Analysis* 38, 317-336.

Srivastav, A., Armitage, S., Hagendorff, J., 2013. Better Safe than Sorry? CEO Inside Debt and Risk-Taking in Bank Acquisitions. CEO Inside Debt and Risk-Taking in Bank Acquisitions, Working Paper, University of Edinburgh.

Strickland, E., Wiles, K., Zenner, M., 1996. A requiem for the U.S.A.: Is small shareholder monitoring effective? *Journal of Financial Economics* 40, 319-338.

Sunder, J., Sunder, S., Wongsunwai, W., 2014. Debtholder Responses to Shareholder Activism: Evidence from Hedge Fund Interventions. *Review of Financial Studies* 27, 318-342.

Tirole, J., 2006. The Theory of Corporate Finance, Princeton: Princeton University Press.

Wahal, S., 1996. Pension fund activism and firm performance. *Journal of Financial and Quantitative Analysis* 31, 1-23.

Weber, M., 1922/1947. The theory of social and economic organization. Trans. A. M. Henderson and Talcott Parsons, New York, Oxford University Press.

Wiseman, R., Gomez-Mejia, L., 1998. A behavioral agency model of managerial risk-taking. *Academy of Management Review* 23, 133-153.

Wooldridge, J. M. 2002. Econometric Analysis of Cross Section and Panel Data. Cambridge, MA: MIT Press, 623-25.

Xu, J., Li, Y., 2010. Hedge fund activism and bank loan contracting. Working Paper, Purdue University.

Table 1: Hypotheses and Potential Channels

Panel A: Hypotheses and Main Effects

Variable	Hypothesis 1 Shareholder-Manager Conflict 1	Hypothesis 2 Shareholder-Manager Conflict 2	Hypothesis 3 Shareholder-Creditor Conflict	Hypothesis 4 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 Pay-for-performance Sensitivity	+
Changes in By-laws	+
CEO/Board Turnover	+
CEO Pay	**?**
Capital Structure	
Cash Holdings	-
Dividend Payouts	+
Stock Repurchases	+
Capital Ratio	-
Strategic Direction	
Risky Assets	+
Acquisitions	+
Takeover Target	+
Divestitures/Spin-Off	-
Cost Reduction/ Efficiency	-

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: Effects of Shareholder Activism (Main Effects)

This table reports the regression estimates of the relation between the shareholder activism of the U.S. 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.

Dependent Variable:	*TOBIN'S Q*	*ROA*	*Z-SCORE*
Independent Variables:	(1)	(2)	(3)
ACTIVISM	0.007***	-0.000	-4.314***
	(3.977)	(-1.209)	(-3.206)
BANK SIZE	-0.011*	-0.001***	1.065
	(-1.934)	(-5.795)	(1.166)
BANK AGE	-0.009	0.000	6.911***
	(-1.186)	(1.363)	(2.578)
DEPOSITS / GTA	-0.048**	0.001	-8.347**
	(-2.278)	(1.079)	(-2.300)
LOANS / GTA	0.078***	0.003***	19.182***
	(4.408)	(7.947)	(6.732)
INCOME DIVERSITY	0.021**	0.002***	5.524***
	(2.191)	(8.473)	(3.134)
OVERHEAD COSTS	0.651***	-0.003***	-25.286***
	(2.854)	(-2.761)	(-2.955)
FOREIGN OWNERSHIP	0.028***	-0.001	-15.572***
	(2.679)	(-1.036)	(-2.635)
OCC SUPERVISOR	-0.008***	-0.000	-2.019
	(-3.422)	(-0.214)	(-1.196)
FDIC SUPERVISOR	0.003	0.000	4.179***
	(1.076)	(0.584)	(2.765)
INTERCEPT	1.162***	0.012***	-6.546
	(12.965)	(7.103)	(-0.464)
Time Fixed effects	Yes	Yes	Yes
Bank Fixed effects	Yes	Yes	Yes
Observations	22,835	23,979	23,815
R-squared	0.875	0.604	0.472

Table 4: Endeneity and Sample Selection Tests

This table reports the regression estimates with endogeneity treatments of the relation between the shareholder activism of the U.S. 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. *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. We use an OLS model with time and bank FE. Panels A and B report results when using an instrumental variable (IV) estimation that controls for endogeneity of activism. We use as instrument *AMIHUD ILLIQUIDITY RATIO*, which is the Amihud (2002)'s measure of trading illiquidity determined as the yearly average (using daily data) of 1000 * sqrt (|return|/dollar trading volume). Panel C shows the results Heckman's (1979) two-step treatment effect model used to correct the self-selection in activism (outcome equation). The selection (activism) equation uses a ACTIVISM dummy as a dependent variable and uses the same instrument as in the instrumental variable analysis (Panel A). The outcome equation uses *TOBIN's Q, ROA,* and *Z-SCORE* as dependent variables. Panel D reports models using a propensity score matched sample. 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: First Stage - IV and Heckman Selection Model - as in Wooldridge (Section 18.4.1)

	Dependent Variable: *ACTIVISM (Probit)*
Independent Variables	**(1)**
AMIHUD ILLIQUIDITY RATIO	-0.009***
	(-3.915)
Controls	Yes
Time Fixed Effects	Yes
Bank Fixed Effects	No
Observations	23,842
Pseudo R-squared	0.0425

Panel B: IV 2SLS – Final Stage as in Wooldridge (Section 18.4.1)

Dependent Variable:	*TOBIN'S Q*	*ROA*	*Z-SCORE*
Independent Variables:	**(1)**	**(2)**	**(3)**
ACTIVISM	0.010***	0.000	-3.960**
	-2.652	(-0.798)	(-2.240)
Controls	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes
Bank Fixed Effects	Yes	Yes	Yes
Observations	22,732	23,820	23,659
R-squared	0.252	0.293	0.127
Kleibergen-Paap Wald rk F statistic	2142.52***	2228.88***	2247.81***

Panel C: Heckman's (1979) Selection Model - Outcome Equation

Dependent Variable:	TOBIN'S Q	ROA	Z-SCORE
Independent Variables:	(1)	(2)	(3)
ACTIVISM	0.006***	0.000	-3.962***
	-3.572	(-1.017)	(-2.953)
LAMBDA	0.004***	0.000	-1.551***
	-5.826	(-1.643)	(-2.927)
Controls	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes
Bank Fixed Effects	No	No	No
Observations	22,758	23,842	23,680
R-squared	0.875	0.605	0.472

Panel D: Propensity Score Matching (PSM) Analysis

Dependent Variable:	TOBIN'S Q	ROA	Z-SCORE
Independent Variables:	(1)	(2)	(3)
ACTIVISM	0.008***	-0.000**	-4.472**
	(2.784)	(-2.147)	(-2.167)
Controls	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes
Bank Fixed Effects	Yes	Yes	Yes
Observations	4,668	4,964	4,915
R-squared	0.873	0.673	0.566

Table 5: Shareholder Activism and Sarbanes Oxley Act (SOX) of 2002

This table reports the regression estimates of the relation between the shareholder activism of the U.S. 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. *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. 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.

Dependent Variable:	TOBIN'S Q	ROA	Z-SCORE
Independent Variables:	**(1)**	**(2)**	**(3)**
ACTIVISM	0.000	-0.000	2.648
	(0.116)	(-1.470)	(1.251)
ACTIVISM * POST_SOX	0.010***	0.000	-11.200***
	(2.691)	(0.906)	(-4.231)
(ACTIVISM + ACTIVISM * POST_SOX)	0.010***	0.000	-8.552***
t-stat (ACTIVISM + ACTIVISM * POST_SOX = 0)	5.816	0.387	5.114
Controls	**Yes**	**Yes**	**Yes**
Time Fixed effects	**Yes**	**Yes**	**Yes**
Bank Fixed effects	**Yes**	**Yes**	**Yes**
Observations	22,835	23,979	23,815
R-squared	0.875	0.604	0.472

Table 6: Shareholder Activism during Financial Crises

This table reports the regression estimates of the relation between the shareholder activism of the U.S. 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. *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. We use an OLS model with time and bank FE. All independent variables are lagged 4 quarters. *FINANCIAL_CRISIS* variable construction follows Berger and Bouwman (2013). *FINANCIAL_CRISIS*[76] is a dummy variable which takes a value of 1 for a financial crisis period and it includes both market crises (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.

Dependent Variable:	*TOBIN'S Q*	*ROA*	*Z-SCORE*
Independent Variables:	**(1)**	**(2)**	**(3)**
ACTIVISM	0.003	-0.000**	-9.885***
	(1.405)	(-2.022)	(-6.337)
*ACTIVISM * FINANCIAL_CRISIS*	0.009***	0.000	12.269***
	(2.774)	(1.594)	(5.175)
*(ACTIVISM + ACTIVISM * FINANCIAL_CRISIS)*	0.011***	0.000	2.384
t-stat (*ACTIVISM + ACTIVISM * FINANCIAL_CRISIS = 0*)	4.445	0.346	1.183
Controls	**Yes**	**Yes**	**Yes**
Time Fixed effects	**Yes**	**Yes**	**Yes**
Bank Fixed effects	**Yes**	**Yes**	**Yes**
Observations	22,835	23,979	23,815
R-squared	0.875	0.604	0.473

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[76] 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.

APPENDIX A: VARIABLE DEFINITIONS AND SOURCES

Variable	Definition	Source	Mean	P50	Std
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	1.069	1.051	0.197
BUY-AND-HOLD RETURN	Buy-and-hold stock return over the previous 4 quarters.	Authors' calculation based on CRSP data	0.119	0.100	0.353
BUY-AND-HOLD ABRETURN	Buy-and-hold abnormal stock return over the previous 4 quarters.	Authors' calculation based on CRSP data	0.029	-0.015	0.343
SHARPE RATIO	Ratio of stocks returns over standard deviation of stock returns over the previous 4 quarters.	Authors' calculation based on CRSP data	0.367	-0.237	4.481
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	0.010	0.011	0.005
ROE	Return on equity (ROE), measured as the ratio of the annualized net income to total equity.	Authors' calculation based on Call Report data	0.114	0.122	0.055
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	53.849	43.524	44.812
LLA RATIO	A Measure of bank risk defined as loan loss allowance over GTA, with higher values indicating more bank risk.	As above	0.010	0.009	0.005
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	0.013	0.007	0.023
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	0.006	0.002	0.014
VOLATILITY STOCK_RETURN	The volatility of daily returns for each quarter.	As above	0.084	0.071	0.054

Variable	Definition	Source	Mean	P50	Std
Panel A2. Shareholder Activism Variables					
ACTIVISM	A dummy variable equal to1 if there is shareholder activism targeting the bank during the quarter.	Authors' calculation based on SEC EDGAR 13D and DFAN 14A.	0.033	0.000	0.179
NO_ACTIVISM EVENTS	Number of activism events for the bank during the quarter.	As above	0.089	0.000	0.646
HF_ACTIVIST	A dummy variable equal to 1 the activist targeting the bank during the quarter is a hedge fund.	Calculation based on Bloomberg Markets Magazine, Google.	0.014	0.000	0.119
NON_HF_ ACTIVIST	A dummy variable equal tof 1 the activist targeting the bank during the quarter is not a hedge fund.	Calculation based on Bloomberg Markets Magazine, Google.	0.020	0.000	0.140
13D	A dummy variable equal to 1 if there is 13D shareholder activism targeting the bank during the quarter.	As above	0.038	0.000	0.191
DFAN14A	A dummy variable equal to 1 if there is DFAN14A (proxy statements) shareholder activism targeting the bank during the quarter.	As above	0.003	0.000	0.053
Panel A3. Main Control Variables					
BANK SIZE	The log value of bank GTA.	Authors' calculation based on Call Report	14.299	13.944	1.592
BANK AGE	Age (in years) of the oldest bank owned by the bank holding company.	As above	0.762	0.820	0.492
DEPOSITS / GTA	Measure of the composition of bank liabilities determined as total deposits over GTA.	As above	0.918	0.913	0.168
LOANS / GTA	Measure of the composition of bank assets side determined as total total loans over GTA.	As above	0.775	0.790	0.158
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	0.228	0.234	0.201
OVERHEAD_ COSTS	A proxy of the bank's cost structure determined as the ratio of overhead expenses to assets.	As above	0.022	0.012	0.052
FOREIGN_ OWNERSHIP	A dummy is equal to 1 when foreign shareholdings exceed 50% of total bank ownership.	Authors' calculation based on Call Report	0.010	0.000	0.098
OCC SUPERVISOR	A dummy variable taking a value of 1 for national banks supervised by OCC.	As above	0.338	0.000	0.473
FDIC SUPERVISOR	A dummy variable taking a value of 1 for state non-member banks supervised by FDIC.	As above	0.493	0.000	0.500
FRS SUPERVISOR	A dummy variable taking a value of 1 for state banks that are members of the Federal Reserve System.	As above	0.169	0.000	0.374

Variable	Definition	Source	Mean	P50	Std
Panel A4. Instrumental Variable					
AMIHUD ILLIQUIDITY RATIO	The Amihud (2002) measure of trading illiquidity determined as the quarterly average (using daily data) of 1000*sqrt(|return|/dollar trading volume), with lower values meaning more liquidity.	Authors' calculation based on CRSP data.	0.669	0.419	0.889
Panel A5. Other Variables					
TBTF	Too-big-to-fail, a dummy equal to 1 for banks with GTA ≥ $100B.	Authors' calculation based on Call Report data	0.029	0.000	0.167
FINANCIAL_ CRISIS	A dummy variable equal to 1 for a financial crisis period.	Authors' calculation based on Call Report data	0.331	0.000	0.470
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.	0.510	1.000	0.500
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.	Authors' calculation based on Call Report data	0.916	1.000	0.278
MERGERS	A dummy equal to one from the moment that the bank or its parent acquired another institution.	Authors' calculation based on Chicago Fed mergers data	0.773	1.000	0.419
WRITEOFF_ INDICATOR	A dummy variable which is equal to one if past acquisitions and/or capital expenditures are written off.	Authors' calculation based on Compustat data	0.009	0.000	0.093
MBS / GTA	The ratio of mortgage-backed securities (MBS) to GTA.	Authors' calculation based on Call Report data	0.100	0.076	0.098
COMMERCIAL REAL ESTATE LOANS / GTA	The ratio of commercial real estate divided by GTA.	Authors' calculation based on Call Report data	0.233	0.208	0.137
CASH_HOLDINGS	Cash holdings divided by GTA.	Authors' calculation based on Call Report data	0.041	0.034	0.031
HHI DEPOSITS	A measure of bank concentration, measured by the Herfindahl-Hirschman Deposits Index using bank MSA deposit data. Higher values show greater concentration.	Authors' calculation based on Summary of Deposits data	0.133	0.127	0.057
INST OWNERSHIP	The proportion of shares held by institutions.	Authors' calculation based on Thompson Institutional Dataset	0.226	0.161	0.213
LONG-TERM INST OWNERSHIP	The ratio of total long-term holdings by institutions to total bank outstanding shares.	Authors' calculation based on Thompson Institutional Dataset	0.076	0.051	0.080
NUMBER BLOCKHOLDERS	The number of institutions holding 5% or more ownership.	Authors' calculation based on Thompson Institutional Dataset	0.665	0.000	0.926
NUMBER OF ANALYSTS	The number of analysts covering the company.	Authors' calculation based on I/B/E/S data	3.649	1.000	5.802
NUMBER OF ANALYSTS_NOT_IN_IBIS	A dummy equal to 1 if a bank does not have coverage in the I/B/E/S dataset.	Authors' calculation based on I/B/E/S data	0.355	0.000	0.479

APPENDIX B: **OTHER ROBUSTNESS TESTS (FOR ONLINE PUBLICATION ONLY)**

B.1 Alternative measures of all key bank variables (expanded)

This is an expanded version of Section 6.1 in the main paper. We test whether our results are robust to using alternative measures of market value, operating performance, risk, and activism. In Table B.1 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 RETURN),* buy and hold abnormal return *(BUY-AND-HOLD AB_RETURN)*, 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 find consistent evidence of an increase in market performance associated with activism.

Table B.1 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 B.1 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 B.1 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.

B.2 Alternative econometric specifications (expanded)

This is an expanded version of Section 6.2 in the main paper. In this subsection, we check the sensitivity of the results to the use of alternative econometric specifications.

For market performance (Table B.2, 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 B.2 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 Cameron, Gelbach and Miller (2011). 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 B.2, 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.[79]

B.3 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 equal to 1 if a 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 (forthcoming)), *COMMERCIAL REAL ESTATE LOANS / GTA* (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.3 Panel A columns (1)-(3) indicate that adding the above controls does not materially affect our previous findings.

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[79] 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.

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 shareholdings 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.[80] The results reported in Table B.3 models (4)-(6) indicate that adding the above controls does not materially affect our previous findings.

B.4 Including LexisNexis News

This is an expanded version of Section 6.3.5 in the main paper. Our activism data presented in the analysis covers all SEC registrants who have either filed an Schedule 13D[81] – 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.[82] To incorporate activism events that were not accompanied by Schedule 13D/13/D or DFAN 14A, we collect information about

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[80] 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.

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

[82] 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.

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, 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).[83]

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.4 Panels A-C. Panel A and Panel

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[83] 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 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.

B.5 Subsample Analyses (expanded)

We also conduct several subsample analyses to understand for which types of activists, events or banks are the main effects of activism most important. This is an expanded version of Section 7.2 in the main paper.

B.5.1 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.

To differentiate between hedge fund activists and other types of investors, we use a list of commonly known hedge funds in Bloomberg Markets Magazine[84] and Wikipedia to identify hedge fund activists among the filers in the 13D and DFAN14A material events. We then complement the list with

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[84] 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.

manual searches on Google and fund internet website to understand if the filer is a hedge fund or not.[85]

We break down the *ACTIVISM* dummy into *HF_ACTIVIST* and *NON_HF_ACTIVIST* to take into account the two types of activists (Table B.6 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.

B.5.2 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 B.6 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.

B.5.3 Excluding TBTF banks

Next, we exclude too-big-to-fail (*TBTF)* banks from our sample (Table B.6 Panel C) to understand whether our results may be caused by the banks that are too big to fail. We define *TBTF* as a 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

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[85] 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.

Capital Annual Review (CCAR) later.[86] We find that our results are not driven by *TBTF* banks.

B.5.4 Bank size classes

We further re-estimate our main regressions by bank size to understand whether results are dominated by a particular size class. Table B.6 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 $10 billion, and *LARGE* represents banks with GTA exceeding $10 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 statistically significantly the market value of large banks and reduce their risk, suggesting a more positive influence on these banks.

B.6 Channels of activism based on demands

Table B.8 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

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

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 greatest increase in bank risk is due to proxy fights.

Table B.1: Alternative Measures

This table reports the OLS regression estimates of the relation between the shareholder activism of the U.S. commercial banks and their financial performance, operating returns, and risk. We show models with alternative measures of market performance, operating performance, and bank risk. *TOBIN's Q* is a measure of financial performance determined as market value of common stock over equity book value. *BUY-AND-HOLD RETURN* is the buy and hold return. *BUY-AND-HOLD ABRETURN* is the buy and hold abnormal return. *SHARPE_RATIO* is the ratio of stocks returns over standard deviation of stock returns. *ROA* is operating net income over GTA. *ROE* is the bank operating net income over equity. 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. *VOLATILITY STOCK_RETURN* is the volatility of daily returns for each quarter. *LLA RATIO* is the ratio of loan loss allowance over GTA. *NPL RATIO* is the ratio of nonperforming loans to total loans. *VOLATILITY ROA* is the standard deviation of *ROA* over the previous four quarters. *CAPITALIZATION RATIO* is bank capital equity over GTA. *NO_ACTIVISM_EVENTS* is the number of activist events during a quarter as per 13D and DFAN14A filings. *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

Dependent Variable:	TOBIN'S Q	BUY-AND-HOLD RETURN	BUY-AND-HOLD ABRETURN	SHARPE RATIO
Independent Variables:	(1)	(2)	(3)	(4)
ACTIVISM	0.007***	0.028**	0.023**	0.711***
	(3.977)	(2.531)	(2.159)	(5.348)
Controls	Yes	Yes	Yes	Yes
Time Fixed effects	Yes	Yes	Yes	Yes
Bank Fixed effects	Yes	Yes	Yes	Yes
Observations	22,835	23,856	23,856	23,856
R-squared	0.875	0.564	0.571	0.593

Panel B: Different Measures of Operating Performance

Dependent Variable:	ROA	ROE
Independent Variables:	(1)	(2)
ACTIVISM	-0.000	-0.001
	(-1.209)	(-0.816)
Controls	Yes	Yes
Time Fixed effects	Yes	Yes
Bank Fixed effects	Yes	Yes
Observations	23,979	23,979
R-squared	0.604	0.630

Panel C: Different Measures of Bank Risk-Taking

Dependent Variable:	Z-SCORE	VOLATILITY STOCK_RETURN	LLA RATIO	NPL RATIO	VOLATILITY ROA	CAPITALIZATION RATIO
Independent Variables:	(1)	(2)	(3)	(4)	(5)	(6)
ACTIVISM	-4.314***	0.006***	0.001***	0.003**	0.001**	-0.002*
	(-3.206)	(3.134)	(3.032)	(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	23,815	23,947	23,979	23,979	23,977	23,979
R-squared	0.472	0.550	0.608	0.463	0.533	0.714

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

Dependent Variable:	TOBIN'S Q	ROA	Z-SCORE
Independent Variables:	(1)	(2)	(3)
NO_ACTIVISM_EVENTS	0.003***	0.000	-1.645***
	(5.205)	(0.776)	(-5.389)
Controls	Yes	Yes	Yes
Time Fixed effects	Yes	Yes	Yes
Bank Fixed effects	Yes	Yes	Yes
Observations	22,835	23,979	23,815
R-squared	0.875	0.604	0.472

Table B.2: Different Econometric Approaches

This table reports the regression estimates of the relation between the shareholder activism of the U.S. 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*)

Dependent Variable: *ROA*

Independent Variables:	Bank & Time FE	Simple OLS	Time FE Only	Bank RE	Newey-West	Two-Way Clusters
	(1)	(2)	(3)	(4)	(5)	(6)
ACTIVISM	-0.000	-0.001***	-0.001***	-0.000	-0.001***	-0.001***
	(-1.209)	(-6.752)	(-7.365)	(-1.115)	(-5.037)	(-3.924)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Time Effects	Yes	No	Yes	Yes	No	No
Bank Effects	Yes	No	No	Yes	No	No
Observations	23,979	23,979	23,979	23,979	23,094	23,094
R-squared	0.604	0.156	0.297	0.2767	0.154	0.293

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

Dependent Variable: *Z-SCORE*

Independent Variables:	*Bank & Time FE*	*Simple OLS*	*Time FE Only*	*Bank RE*	*Newey-West*	*Two-Way Clusters*
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
ACTIVISM	-4.314***	-5.918***	-5.641***	-4.410*	-7.446***	-7.150**
	(-3.206)	(-4.040)	(-3.883)	(-1.875)	(-4.069)	(-2.277)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Time Effects	Yes	No	Yes	Yes	No	No
Bank Effects	Yes	No	No	Yes	No	No
Observations	23,815	23,815	23,815	23,815	22,943	22,943
R-squared	0.472	0.056	0.122	0.1066	0.053	0.120

Table B.3: Other Potentially Omitted Correlated Variables

This table reports the regression estimates of the relation between the shareholder activism of the U.S. 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. *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. In addition to the controls in the baseline model, we include a number of additional controls as follows: *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* is a dummy equal to one from the moment that the bank itself or its immediate parent acquired another institution; *WRITEOFF_INDICATOR* is a dummy variable which is equal to one if past acquisitions and/or capital expenditures are written off; *MBS / GTA* is the ratio of mortgage-backed securities (MBS) to GTA as reported on the balance sheet; *COMMERCIAL REAL ESTATE LOANS / GTA* is the ratio of commercial real estate divided by GTA. *CASH_HOLDINGS* is the ratio of cash holding over GTA; *HHI DEPOSITS* is the Herfindahl-Hirschman deposits index, a proxy for the local market concentration; *INST OWNERSHIP* is the ratio of the total institutional shareholdings to total bank outstanding shares. *LONG-TERM INST OWNERSHIP* is the ratio of total long-term holdings by institutions to total bank outstanding shares. *NUMBER BLOCKHOLDERS* is the number of institutions holdings 5% or more ownership; *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. 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.

Dependent Variable:	TOBIN'S Q	ROA	Z-SCORE	TOBIN'S Q	ROA	Z-SCORE
Independent Variables:	(1)	(2)	(3)	(4)	(5)	(6)
ACTIVISM	0.005***	-0.000	-4.421***	0.004**	-0.000	-4.189***
	(3.099)	(-1.506)	(-3.029)	(2.464)	(-1.482)	(-2.872)
BHC INDICATOR	0.028***	0.001***	-4.013	0.026***	0.001***	-3.081
	(6.395)	(2.758)	(-1.459)	(5.636)	(2.997)	(-1.126)
MERGERS	0.009	-0.001	5.312	0.008	-0.001	5.563
	(1.594)	(-1.428)	(1.546)	(1.449)	(-1.530)	(1.599)
WRITEOFF_INDICATOR	-0.034	-0.001**	-10.497***	-0.034	-0.001**	-10.497***
	(-1.448)	(-2.222)	(-4.959)	(-1.459)	(-2.198)	(-4.939)
MBS / GTA	0.100***	0.002***	4.943	0.097***	0.002***	6.070
	(3.791)	(3.063)	(0.791)	(3.733)	(3.079)	(0.973)
COMMERCIAL REAL ESTATE LOANS / GTA	0.050***	0.000	-28.212***	0.051***	0.000	-28.484***
	(3.177)	(0.182)	(-4.147)	(3.172)	(0.163)	(-4.184)
CASH_HOLDINGS	0.109**	-0.000	-13.978	0.109**	-0.000	-13.089
	(2.450)	(-0.226)	(-1.298)	(2.431)	(-0.206)	(-1.212)
HHI DEPOSITS	-0.009	0.001	28.813***	-0.005	0.001	27.767***
	(-0.448)	(1.142)	(3.751)	(-0.260)	(0.859)	(3.588)
INST OWNERSHIP				0.013	0.001***	6.357**
				(1.251)	(3.633)	(2.172)
LONG-TERM INST OWNERSHIP				-0.046***	-0.002***	15.923**
				(-2.809)	(-3.151)	(2.252)
NUMBER BLOCKHOLDERS				0.003	-0.000***	-1.434***
				(1.419)	(-3.519)	(-3.243)
NUMBER OF ANALYSTS				-0.003***	0.000	0.678***
				(-2.791)	(0.817)	(5.099)
NUMBER OF ANALYSTS_NOT_IN_IBIS				-0.004**	0.000	2.447***
				(-2.029)	(1.017)	(2.950)

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	22,095	22,550	22,480
R-squared	0.878	0.608	0.473	0.879	0.609	0.474

Table B.4: Including LexisNexis News

This table reports the regression estimates of the relation between the shareholder activism of the U.S. commercial banks and financial performance (*TOBIN's Q*), operating returns (*ROA*), and risk taking (*Z-SCORE*) during normal times and during financial crises versus normal times when including LexisNexis news in the estimation of the *ACTIVISM* variable. 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* [87] 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)

	TOBIN'S Q	ROA	Z-SCORE
Independent Variables	**(1)**	**(2)**	**(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)

Dependent Variable:	TOBIN'S Q	ROA	Z-SCORE
Independent Variables:	**(1)**	**(2)**	**(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
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

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[87] 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 C: Effects by Filing Type

Dependent Variable:	TOBIN'S Q	ROA	Z-SCORE
Independent Variables:	**(1)**	**(2)**	**(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	22,832	23,976	23,812
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.5: Shareholder Activism during Financial Crises – Additional Tests
Panel A: Effects during the Subprime Financial Crisis (2006-2010)

This table reports the regression estimates of the relation between the shareholder activism of the U.S. 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. *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. We use an OLS model with time and bank FE. All independent variables are lagged 4 quarters. *FINANCIAL_CRISIS* variable construction follows Berger and Bouwman (2013). *FINANCIAL_CRISIS* 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.

Dependent Variable:	TOBIN'S Q	ROA	Z-SCORE
Independent Variables:	(1)	(2)	(3)
ACTIVISM	-0.003	-0.002***	-9.948***
	(-1.494)	(-4.451)	(-3.500)
ACTIVISM * FINANCIAL_CRISIS	0.011***	0.002***	10.872***
	(3.615)	(4.278)	(3.377)
(ACTIVISM + ACTIVISM * FINANCIAL_CRISIS)	0.008***	0.000	0.924
t-stat (ACTIVISM + ACTIVISM * FINANCIAL_CRISIS = 0)	3.25	1.442	0.424
Controls	Yes	Yes	Yes
Time Fixed effects	Yes	Yes	Yes
Bank Fixed effects	Yes	Yes	Yes
Observations	7,545	7,796	7,767
R-squared	0.896	0.628	0.632

Panel B: Effects during the Recent Financial Crisis (2006-2010) – Considering the TARP, Discount Window (DW), Term Auction Facility (TAF), and Supervisory Capital Assessment (SCAP) Government Programs

This table reports the regression estimates of the relation between the shareholder activism of the U.S. 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, TAF, and SCAP programs. 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. *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. We use an OLS model with time and bank FE. All independent variables are lagged 4 quarters. *FINANCIAL_CRISIS* variable construction follows Berger and Bouwman (2013). *FINANCIAL_CRISIS*[88] 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.

Dependent Variable:	TOBIN'S Q	ROA	Z-SCORE
Independent Variables:	(1)	(2)	(3)
ACTIVISM	-0.001	-0.001	-4.436
	(-0.169)	(-1.047)	(-1.057)
ACTIVISM * FINANCIAL_CRISIS	0.013**	-0.000	-3.927
	(2.027)	(-0.420)	(-0.728)
TARP * ACTIVISM	0.005	0.001	-7.669
	(1.216)	(1.021)	(-1.062)
TARP * ACTIVISM * FINANCIAL_CRISIS	-0.015**	0.001	31.540***
	(-2.495)	(1.505)	(3.783)
DW* ACTIVISM	-0.008	-0.001	-0.552
	(-1.618)	(-1.365)	(-0.081)
DW* ACTIVISM * FINANCIAL_CRISIS	0.001	0.001	-0.199
	(0.108)	(0.999)	(-0.024)
TAF * ACTIVISM	0.003	-0.001	-5.410
	(0.311)	(-0.482)	(-0.337)
TAF * ACTIVISM * FINANCIAL_CRISIS	0.022**	-0.001	-23.405
	(2.090)	(-1.145)	(-1.354)
SCAP * ACTIVISM	-0.003	-0.015***	-39.468*
	(-0.189)	(-4.338)	(-1.826)
SCAP * ACTIVISM * FINANCIAL_CRISIS	0.010	0.015***	47.591**
	(0.654)	(6.115)	(2.410)
Controls	Yes	Yes	Yes
Time Fixed effects	Yes	Yes	Yes
Bank Fixed effects	Yes	Yes	Yes
Observations	7,545	7,796	7,767
R-squared	0.897	0.633	0.635

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[88] 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 B.6: Subsamples Analysis for Effects of Activism

This table reports the subsamples regression estimates of the relation between the shareholder activism of the U.S. 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. *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; 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 (HF) or Not

Dependent Variable:	TOBIN'S Q	ROA	Z-SCORE
Independent Variables:	(1)	(2)	(3)
HF_ACTIVIST	0.010***	0.000	-7.244***
	(4.712)	(0.169)	(-3.190)
NON_HF_ACTIVIST	0.005**	-0.000*	-4.118**
	(2.031)	(-1.763)	(-2.486)
Controls	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes
Bank Fixed Effects	Yes	Yes	Yes
Observations	22,833	23,977	23,813
R-squared	0.875	0.604	0.472
t-stat for equality of coefficients: HF_ACTIVIST = NON_HF_ACTIVIST	1.572	1.281	1.145

Panel B: Effects by 13D vs. DFAN14A

Dependent Variable:	TOBIN'S Q	ROA	Z-SCORE
Independent Variables:	(1)	(2)	(3)
DFAN14A	0.005	0.000	-14.976***
	(0.992)	(0.629)	(-4.160)
13D	0.008***	-0.000	-4.827***
	(4.936)	(-0.464)	(-3.907)
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
t-stat for equality of coefficients: DFAN14A = 13D	0.574	0.742	2.787***

Panel C: Excluding TBTF

Dependent Variable:	TOBIN'S Q	ROA	Z-SCORE
Independent Variables:	(1)	(2)	(3)
ACTIVISM	0.006***	-0.000	-4.512***
	(3.816)	(-1.116)	(-3.435)
Controls	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes
Bank Fixed Effects	Yes	Yes	Yes
Observations	22,202	23,287	23,134
R-squared	0.879	0.608	0.474

Panel D: Effects by Bank Size

Dependent Variable:	TOBIN'S Q	ROA	Z-SCORE
Independent Variables:	(1)	(2)	(3)
SMALL	0.003	-0.000	-3.386*
	(1.405)	(-1.457)	(-1.913)
MEDIUM	0.003*	-0.001**	-8.561***
	(1.653)	(-2.341)	(-4.181)
LARGE	0.045***	0.002***	9.514**
	(4.260)	(3.400)	(2.082)
Controls	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes
Bank Fixed Effects	Yes	Yes	Yes
Observations	22,835	23,979	23,815
R-squared	0.875	0.604	0.472
t-test for equality of coefficients SMALL = MEDIUM	0.141	0.755	1.931*
t-test for equality of coefficients SMALL = LARGE	3.894***	3.606***	2.651***
t-test for equality of coefficients MEDIUM = LARGE	3.947***	3.847***	3.726***

Table B.7: Potential Channels and Actual Outcomes of Action for Activists

This table reports channels for the effects of activism in banking: 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 Pay-for-Performance: EQUITY-BASED COMPENSATION/CEO TOTAL PAY	5700	0.151	0.167	0.016**	2.071
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
Capital Structure					
CASH HOLDINGS	6845	0.040	0.040	0.000	-0.321
Dividend Payout (DIVYLD)	6843	0.022	0.022	0.000	0.419
STOCK REPURCHASES	6845	0.400	0.453	0.053*	1.652
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%

Table B.8: Channels of Action for Activists (Based on Activist Demands)

This table reports the OLS regression estimates of the relation between the shareholder activism of the U.S. 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, ASSET 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.

Dependent Variable:	TOBIN'S Q	ROA	Z-SCORE
Independent Variables:	**(1)**	**(2)**	**(3)**
ENGAGE MANAGEMENT	0.003	0.000	-1.930
	(1.065)	(0.621)	(-0.863)
STRATEGIC CHANGES	0.031***	-0.000	2.268
	(4.489)	(-1.224)	(0.875)
INTERNAL GOVERNANCE	0.019***	0.000	-4.655*
	(4.522)	(0.634)	(-1.898)
CAPITAL STRUCTURE	0.012**	0.000	-9.910**
	(2.449)	(0.469)	(-2.368)
PROXY FIGHT	0.014***	-0.001**	-33.054***
	(2.749)	(-2.562)	(-4.905)
ASSET SALE (STRATEGIC)	0.006	0.000	-15.791***
	(1.072)	(0.626)	(-4.297)
LITIGATION/BANKRUPTCY	0.000	-0.000	-5.557***
	(0.020)	(-0.702)	(-2.743)
Controls	Yes	Yes	Yes
Time Fixed effects	Yes	Yes	Yes
Bank Fixed effects	Yes	Yes	Yes
Observations	22,833	23,977	23,813
R-squared (or Pseudo)	0.875	0.604	0.473