The Benefits and Costs of Transparent Supervision of Public Banks: Evidence from Disclosure of SEC Comment Letters

Amy Hutton [1]

Yupeng Lin [2]

Susan Shu [1]

Ira Yeung [3]

Xin Zheng [3]

September 2022

Preliminary draft. Please do not cite or circulate without permission.

ABSTRACT

Using the SEC's 2004 decision to begin publicly disclosing its comment letters, we study the consequences of increased regulatory transparency on the banking industry. Exploiting the fact that the SEC only issues comment letters to public banks, we adopt a difference-in-differences design, and begin by demonstrating that, compared to private banks, public banks improve the timeliness of their loan provisions. However, the effects of enhanced regulatory transparency on banks' lending activities are mixed. On the one hand, increased transparency slows loan growth and exacerbates procyclical lending for public banks. On the other hand, transparency encourages public banks to shift credit towards safer borrowers. Further analyses shed light on the mechanisms underlying these shifts. Public banks receiving CLs in the public-disclosure period experience an increase in funding costs and intensified regulatory scrutiny from other bank regulators. Taken together, the results highlight the duality of regulatory transparency for the banking industry.

[1] Carroll School of Management, Boston College. [2] Business School, National University of Singapore. [3] Sauder School of Business, University of British Columbia. Corresponding author: Xin Zheng (xin.zheng@sauder.ubc.ca).
We thank Yadav Gopalan, Phil Strahan, Rimmy Tomy, and conference participants at CUHK Conference and UBCOW conference for their helpful comments.

The Benefits and Costs of Transparent Supervision of Public Banks: Evidence from Disclosure of SEC Comment Letters

1. Introduction

How to regulate the banking industry and assure a stable banking system has been a crucial, challenging issue dating back to Alexander Hamilton's proposal to establish the first national bank in 1771 (Hammond, 1957). One important and highly debated topic in banking regulation is the transparency of regulatory supervision (Liedorp et al., 2013; Goldstein and Sapra, 2014).[1] Although federal agencies' regulatory oversight of banks is important to the economy, information about the supervisory process is largely unobservable to the public (e.g., inspections, stress test results, and CAMEL ratings are not available to the public). One stream of literature supports regulatory transparency as it can improve the price efficiency of bank stocks, reduce banks' undue risk-taking, and reduce agency problems between bank regulators and the public (Acharya and Ryan, 2016; Kanodia and Sapra, 2016). Another stream of literature favors opacity in bank supervision, arguing that regulatory disclosure can discourage risk-sharing among banks and depositors, increasing banks' funding costs, reducing their access to credit, and potentially contributing to economic instability (e.g., Cukierman, 2009; Holmstrom, 2015; Dang et al., 2017; Corona et al. 2019). While the competing theories are well-articulated with intuitive economic underpinnings, there is limited empirical evidence to inform the debate.[2]

[1] The discussion in Goldstein and Sapra (2014) mainly focuses on the banks' stress test results. But the same argument can be equally applied to any regulatory supervision and regulatory information about bank fundamentals. Please refer to a large body of literature on information and bank runs (e.g., Chari and Jagannathan, 1988; Gorton, 1988).

[2] One recent and notable exception is Kleymenova and Tomy (2022). Using the 1989 Financial Institutions Reform, Recovery, and Enforcement Act that required the public disclosure of enforcement decisions and orders (EDOs) issued by U.S. banking regulators, these authors examine whether the required public disclosure of EDOs changed the behavior of U.S. banking regulators. They find that regulators issue more EDOs, intervene sooner, and rely more on publicly observable signals after the disclosure regime change. In addition, for their sample of savings and loan banks (S&Ls), the public disclosure of EDOs results in a decline in deposits and an acceleration of the S&L failure, despite improvements in the banks' capital ratios and asset quality. Their setting focuses on extreme outcomes as bank regulators bring enforcement actions against problem banks only as a measure of last resort.

To fill this gap in the literature, we exploit a recent policy change at the Securities and Exchange Commission (SEC) that resulted in the public disclosure of its comment letter (CL) correspondence. These letters arise from the SEC's review process and its direct supervision of public banks' mandated financial reporting and disclosures. If the SEC's staff deem a bank's financial reports materially deficient or lacking clarity, they will issue a CL requiring the bank to explain or modify its financial reports. Most often at issue is the quality of banks' loan loss provisions and reserves (Table 1). In June 2004, the SEC announced that it would publicly disclose all CL correspondence regarding registrant's filings filed after August 1, 2004. Prior to this policy change, CL correspondences were only accessible through Freedom of Information Act (FOIA) requests.[3] By shedding light on the SEC's oversight activities and banks' responses, this policy change provides an opportunity to study the effects of increased regulatory transparency by one regulator (the SEC) on individual banks, depositors, as well as other bank regulatory agencies.

The effect of increased SEC transparency on banks' financial reporting choices and lending behavior is likely complex. The disclosure of SEC CL correspondence can alert market participants (including depositors) to banks' problematic accounting and disclosure choices (Goldstein and Sapra, 2014), leading to greater scrutiny and potentially higher funding costs. Additionally, the public disclosure of the SEC's CL correspondence can have spillover effects on federal and state bank regulators, increasing the likelihood of their enforcement actions. To ward off unwanted market and regulatory scrutiny, public banks are likely to adopt more conservative financial reporting, such as more timely loan loss recognition, following the SEC's policy change.

[3] See SEC press release: https://www.sec.gov/news/press/2004-89.htm. The stated objective of the SEC's policy change was to reduce delays and selective access to its CL correspondences. The SEC's CL review process often involves several rounds of CLs from the staff and responses from the bank until all accounting and disclosure issues are resolved.

Increased regulatory transparency could also affect banks' lending behavior. In particular, several studies argue that public disclosure of banks' fundamental information acquired via regulatory oversight could cause a "Hirshleifer effect" by discouraging risk-sharing among banks and depositors and negatively affecting the liability side of banks' balance sheets (Diamond and Dybvig, 1983; Allen and Gale, 2000; Morris and Shin 2005; Holmstrom, 2015; Dang et al., 2017).[4] Generally, if greater regulatory transparency reduces risk-sharing among banks' liquidity providers (e.g., banks in the interbank lending market and depositors in the depositor markets), banks' funding costs will increase. The increased funding costs, in turn, reduce banks' capacity to make new loans and aggravate lending procyclicality (Bernanke and Gertler, 1995; and Kiyotaki and Moore, 1997; Repullo and Suarez, 2013; Behn et al., 2016). On the other hand, enhanced market discipline and regulatory oversight can encourage banks to adjust loan portfolios toward less risky borrowers (Goldstein and Sapra, 2014; Cortes, Demyank, Lei, Loutskina, and Strahan, 2020; Kandrac and Schlusche, 2021).[5] Through its effects on banks' loan growth, procyclicality and loan portfolio, the increased regulatory transparency is likely to have a multitude of effects, both positive and negative.

[4] This stream of literature focuses on the money-like debt claims (e.g., deposits) offered by banks. In order to safeguard the debt claims and enable investors to purchase them without questioning, banks must have sufficient collateral to ensure that debt value is *information-insensitive*. However, the challenge is that almost all banks have insufficient collateral. Any information about bank supervision and regulatory concerns would discourage depositors from holding these debt claims. As such, nondisclosure ensures that investors are symmetrically uninformed about the value of debt claims, increasing the stability of the banking system. One exception is Corona et al. (2019), who theoretically show that disclosing stress test results informs banks of the failure likelihood of other banks and changes risk-taking coordination, reducing welfare.

[5] Some critics have argued that minimum capital requirements and the accounting standards for loan loss provisioning contributed to procyclical lending during the 2007-2009 financial crisis. Prior to 2020, US banks provisioned for loan losses followed the incurred loss model (ILM), which requires a probable loss event to have occurred before provisioning for a loss. Critics argue that ILM results in banks delaying loan loss provisions during expansionary periods and recording greater losses during recessions (e.g., Financial Stability Forum, 2009). Together with the requirement to have sufficient regulatory capital, the delay in recording loan losses could have exacerbated the decline in lending activity during the financial crisis. In response to the criticisms of ILM, in 2015, the FASB proposed the current expected credit loss (CECL) model, which requires banks to record losses using a more forward-looking view. CECL is effective for SEC filers (except smaller reporting companies) beginning in January 2020. The US CARES Act, enacted in March 2020, allows banks to delay CECL adoption due to the COVID-19 pandemic. See Yang (2021) for a more detailed timeline on the rollout of CECL.

To examine the effects of increased regulatory transparency on banks, we use all commercial banks with relevant information in the Call Reports to construct our sample at the quarterly level. We identify all publicly listed banks in the 4th Quarter (Q4) of 2004 (the first quarter following the SEC's policy change) as the treatment sample. Since the SEC only issues CLs to publicly listed banks, we classify all non-listed (private) banks as the control sample. Our identification strategy accounts for the potential incentives all public banks face (even those not receiving SEC CLs *ex post*) to change their behavior *ex ante* due to the regime shift in CL disclosure. Our sample period is from 1998 to 2011 (excluding the financial crisis from Q4 2007 through Q2 2009), allowing a relatively balanced sample before and after the CL policy change in August 2004.[6]

We begin by examining banks' financial reporting choices in response to the SEC policy shift. Specifically, we examine whether, relative to private banks, public banks improve the timeliness of their provisions. This is indeed what we find: Following enhanced regulatory transparency, public banks move towards more prudent and timely financial reporting.

While our evidence indicates that public banks adopt more timely loan loss recognition policies in response to greater SEC transparency, Goldstein and Sapra (2014) argue that transparent banking supervision is a double-edged sword. It can increase banks' funding costs. In addition, lending procyclicality could be aggravated if the buffering effect of more prudent reporting (Beatty and Liao, 2014) is not strong enough to offset the reduction in risk-sharing opportunities among banks' liquidity providers (i.e., depositors and other banks in the repo market). Our results demonstrate a negative net effect on lending activities: compared to private banks, public banks

[6] Our main results remain similar if we include the financial crisis period, suggesting that our findings are robust to alternative research designs.

reduce their loan growth and their lending becomes more procyclical after 2004.[7] Interestingly, however, we also find that public banks take on less risk in their lending practices as they shift to less risky borrowers in the post-2004 period. Taken together, our evidence suggests a nuanced effect of enhanced SEC transparency on banks' behavior. While bank lending appears to slow down and become more procyclical, the evidence also indicates that increased regulatory transparency can be beneficial for the banking system because it enhances the timeliness of financial reports and reduces banks' excessive risk-taking.[8]

Having documented changes in banks' financial reporting choices and lending behavior in light of greater regulatory transparency, we conduct additional analyses to solidify our inferences and to shed light on the channels through which regulatory transparency affects banks. First, we examine the "Hirshleifer effect," i.e., banks receiving publicly disseminated CLs experience increased funding costs. While we cannot observe the detailed overnight repo rate (funding cost for bank-to-bank lending), we can observe banks' core deposit rates and large time deposit rates (uninsured deposits).[9] Depositors are the most significant claim holders of banks, providing almost 70% of banks' funding (Hanson et al., 2015). The public disclosure of CLs is likely to affect depositors' perception of a bank's riskiness. For example, if depositors learn from a public CL that the SEC requires a bank to improve its disclosure of estimated loss rates, they could view this as a

[7] This finding indirectly suggests that the buffering effect of more prudent reporting is weaker than the negative effect due to reduced risk-sharing. We explore this further below by examining whether public banks that receive SEC CLs experience an increase in funding costs.

[8] In robustness tests, we consider several confounding effects that could influence or explain our findings. To eliminate these alternative explanations, we re-estimate our models excluding big banks, excluding the pre-SOX period, and including the financial crisis period. Our main results on the timeliness of loan loss provisions, core deposit rates, and loan growth remain similar.

[9] Core deposits consist of transaction deposits, savings deposits, and time deposits under $100,000. Bank supervisors view core deposits as more stable, lower cost and slower to reprice than other deposits. Core deposits help insulate banks' funding costs against negative shocks. Ideally, we would be able to separate rate changes for insured and uninsured core deposits with the expectation that uninsured core deposit rates would change more quickly and by a larger magnitude. However, data available to us do not distinguish between insured and uninsured core deposits. We expect this data limitation to weaken the power of our tests.

negative (though noisy) signal that the bank has been hiding losses. Such a conjecture (even when incorrect) could erode depositors' confidence in the bank's solvency (Chen and Hasan, 2008; He and Manela, 2014). Consistent with expectations, public banks that receive a CL in the post-disclosure period experience increased deposit rates after the dissemination of CLs, compared to public banks that receive a CL in the pre-period.

Next, we explore the regulatory spillover channel, i.e., whether the public disclosure of the SEC's CL correspondence influences regulatory actions of other federal and state bank regulators such as the Federal Reserve Board, the OCC, and the FDIC. Due to the different regulatory objectives and the competition for federal resources, information sharing between the SEC and the other bank regulators faces various obstacles. Public disclosure of SEC CLs likely enhances bank supervisors' information set and helps identify banks with questionable accounting and disclosure practices. In addition, public disclosure of CLs likely affects bank regulators' practice of regulatory forbearance (i.e., the tendency to avoid intervening in troubled banks due to stability, political and resource concerns). If the SEC staff's expertise in financial reporting and disclosure helps highlight banks' deficiencies, then we expect the public revelation of these deficiencies to shine a spotlight on bank regulators' actions and constrain regulatory forbearance.

To capture the SEC's regulatory spillover effects, we focus on whether SEC's CLs are associated with subsequent enforcement actions by other bank regulators. In particular, we expect to observe greater regulatory spillover in financially opaque banks for two reasons. First, bank supervisors are more likely to learn from accounting issues revealed in publicly disclosed CLs for banks whose financial reporting is less transparent. Second, the heightened public scrutiny is more likely to affect opaque banks, as prior evidence suggests that regulatory forbearance is especially prevalent in these banks (Gallemore, 2021; Yue et al., 2021). Consistent with our conjecture, we

find evidence of greater regulatory spillover for financially opaque banks after CLs are publicly disclosed. Specifically, opaque banks that receive SEC CLs in the public disclosure period are more likely to experience subsequent enforcement actions by other bank regulators compared to the pre-2004 period.

The regulatory spillover effects of the SEC policy change could also vary with the target bank's perceived political ties. In particular, if bank supervisors are concerned about public scrutiny due to problems revealed in publicly disclosed CLs, these regulators can signal their independence by stepping up oversight of banks, especially those banks with perceived strong political ties.[10] Consistent with this conjecture, we find that politically connected banks that receive CLs are more likely to experience subsequent enforcement actions by other bank regulators after the public disclosure of CLs compared to the private disclosure period.

Collectively, our findings provide a nuanced view of the effects of more transparent banking supervision. On the one hand, more transparent supervision encourages more forward-looking loan loss provisioning policies. From a perspective of the asset side, this is beneficial to the extent that the loan loss allowance provides a buffer against future loan losses and increases bank stability. Moreover, we find that increased regulatory transparency reduces banks' excessive risk-taking – public banks shift to less risky borrowers post 2004. On the other hand, due to the negative effect of reduced risk-sharing opportunities on the liability side, increased regulatory transparency appears to reduce the credit supply (slower loan growth), and public banks' lending behavior becomes more procyclical after the policy change. Our findings demonstrate empirically the trade-offs between the two effects associated with increased regulatory transparency: greater

[10] The public disclosed CLs can increase other bank regulators' concern over the stigmatizing political ties and therefore incentivize them to take independent regulatory actions to signal that they are not capture by special interests.

market discipline and reduced risk-sharing (Goldstein and Sapra 2014; Acharya and Ryan 2016). The empirical demonstration of these theoretical effects should be of interest to bank regulators and policymakers.[11]

Our paper makes several contributions. First, we contribute to the literature on the benefits and costs of transparent regulatory supervision in the banking sector (Goldstein and Sapra, 2014; Corona et al., 2019). Despite the conflicting views on regulatory transparency in bank supervision, there is a lack of empirical evidence of the consequences of more transparent banking regulators.[12] One of the few exceptions is Costello et al. (2019), who show that stricter bank regulators at the state level can better enforce high-quality financial reporting. In this paper, we use the unique setting of the SEC's 2004 decision to publicly disclose its CL correspondences to provide novel evidence on the benefits and costs of greater *transparency* in banking supervision by a federal regulator. Our examination of the effects of disclosed CLs on other banking regulators is related to Kleymenova and Tomy (2022), who demonstrate that required public disclosure of EDOs back in 1989 resulted in regulators issuing more EDOs. Our paper differs from Kleymenova and Tomy (2022) by focusing on the regulatory spillover effect and investigating the interactions between different regulators (e.g., SEC vs. Fed).

This difference is our second contribution. Specifically, our study sheds light on the interplay between the different bank regulators. SEC and other bank regulators compete in regulating large and complex banking organizations. We show that the increased openness in the oversight activities of one regulator (SEC) puts more pressure on other bank supervisors to be

[11] It is important to note that our empirical analysis focuses only on the SEC and its role as a regulator of banks' financial reporting and disclosure. Thus, these findings may not generalize to the likely effects of increased regulatory transparency by other bank regulators, such as the FDIC and the OCC.

[12] Iyer et al. (2016) focus on depositor withdrawals around the time when regulator supervision information is released. They do not draw any causal inference between information release and bank runs. Instead, they focus on how depositor heterogeneities affect their run behaviors. Bischof and Daske (2013) examine how one-time mandatory disclosure on banks' sovereign risk affects banks' subsequent voluntary disclosure about sovereign risk.

more engaged and proactive. Moreover, we provide evidence of less regulatory capture once the SEC begins to publicly disclose its CL correspondence. Our evidence sheds light on the effects of regulatory competition, which are important but not sufficiently well understood in the literature.

2. Institutional Background and Related Literature

2.1 . The SEC as a rising public bank regulator

The SEC is an important regulator of public banks. It regulates banks' capital requirements, capital issuances, and broker-dealer businesses as well as enforces federal securities laws, including overseeing public banks' financial disclosure practices. The SEC became a prominent bank regulator over the past few decades, particularly since the Glass-Steagall Act was repealed in 1999. Traditionally, banks were monitored and supervised by federal banking agencies and state banking commissioners. The SEC only enforced banks' violations of federal securities laws and oversaw banks' broker-dealer businesses.[13]

After the repeal of the Glass-Steagall Act in 1999, most public banks shifted their strategic focus to the non-traditional banking business, such as investment banking. The SEC implemented numerous regulations in response to these changes in the banking industry, which has gradually promoted the commission to a more prominent federal regulator of banks (e.g., Poser 2009).[14]

Compared to traditional bank regulators, the SEC has different regulatory objectives and enforcement methods. Traditional bank regulators emphasize the safety and soundness of the

[13] Due to concerns that investors might be harmed if banks were not properly regulated, the SEC adopted a rule in 1985 requiring banks engaged in the sale of securities to register as broker-dealers under the Securities Exchange Act of 1934. One example of the SEC's regulation of banks' broker-dealer businesses is that it requires dealers to hold a sufficient amount of liquid assets and provide sufficient disclosure to facilitate market disciplinary effects.

[14] For example, in 2004, SEC exempted the largest banks from the minimum capital requirements imposed on broker-dealers, changed the definition of capital, and allowed banks to hold securities without a ready market as capital. For specific requirements, refer to Alternative Net Capital Requirements for Broker-Dealers That Are Part of Consolidated Supervised Entities, 17 C.F.R. 240.15c3-1 (2004)

banking system as a whole and rely on a comprehensive supervisory process and periodic on-site examinations designed to resolve problems *privately*. On the other hand, the SEC emphasizes investor protection and market integrity, relying on disclosures and enforcement proceedings designed to stop current and deter future misconduct. The increasingly active role played by the SEC requires more coordination between the SEC and traditional banking regulators such as the Federal Reserve Board. For example, Title II of the Gramm Leach Bliley Act of 1999 clearly states that *"[the SEC] shall consult and coordinate comments with the appropriate Federal banking agency before taking any action or rendering any opinion with respect to the manner in which any insured depository institutions or depository institution holding company reports loan loss reserves in its financial statement, including the amount of any such loan loss reserve*."

2.2. Institutional Background on the Public Disclosure of Comment Letters

SEC staff members in the Division of Corporation Finance (DCF) regularly review registrants' filings (e.g., 10-Ks and 10-Qs). They issue CLs when they deem filings to be deficient or lacking clarity. In their response documents, registrants outline how they addressed and corrected the various issues of concern raised by the SEC staff. The CL review process often involves several rounds of communication until all issues are resolved. Section 408 of the Sarbanes-Oxley Act (SOX), effective August 2002, requires the SEC to review all public companies' disclosures at least once every three years. However, CLs issued as a result of the disclosure review process were not publicly disseminated until 2005.[15] In June 2004, the SEC announced a change in policy regarding the public release of CL correspondence: for all filings

[15] Before May 2005, comment letters could only be selectively accessed by filing FOIA requests, fulfillment of which was subject to the SEC's discretion.

filed after August 1, 2004 the SEC would post the CL correspondence on EDGAR once the review was complete.[16]

Among the 49 Fama-French industry groups, banking is one of the top three for receiving the most SEC CLs (Table 2; Dechow et al., 2015).[17] When the SEC publicly discloses CLs, it increases regulatory transparency by allowing the public to easily access previously private information and exposing banks and their regulators to greater public scrutiny.[18]

The change in the disclosure policy of SEC CLs presents a unique opportunity to examine the costs/benefits of regulatory transparency in the banking industry. First and foremost, the SEC policy change provides a quasi-natural experiment for examining how changes in regulatory transparency affect bank behavior and the banking system. Second, since the SEC only publicly discloses CL correspondence once its review process is complete, our setting isolates the effects of the disclosure per se from any costs and benefits arising from incomplete or early communication (between the SEC and banks) and coordination failures (among the SEC, the Federal Reserve and banks). Finally, information in SEC CL correspondence complements bank disclosures by shedding light on regulators' concerns that were previously unknown to the public, thereby allowing market participants to make more informed decisions.

[16] See SEC press release: https://www.sec.gov/news/press/2004-89.htm. The SEC later indicated that the first batch of CLs would be publicly released on May 12, 2005. Hutton et al. (2021) identify a transition period for the SEC's CL disclosure policy from August 2004 to June 2006, during which time disclosure of CL correspondence was substantially delayed. See the detailed discussion of the rollout of the SEC's disclosure of CLs in Section 3.2 of Hutton et al. (2021).

[17] According to Dechow et al. (2015), textiles, computer software, and banking industries receive about 8.2%, 7.8%, and 7.3% of all comment letters, respectively, making them the top 3 industries with the most comment letters.

[18] Another example of the SEC's supervision role over banks is the SEC's investigation into SunTrust Bank's loan loss allowance in 1998. The SEC claimed that SunTrust overstated its loan loss allowance to use as cookie jar reserves. This culminated in the SEC issuing SAB 102, which reiterated the SEC's requirement that banks use a systematic, consistent, and documented process to estimate their loan loss allowances. Beck and Narayanamoorthy (2013) find evidence that this affected banks' provisioning policies, but Ryan and Keeley (2013) argue changes in loan composition drove much of the observed effects.

2.3. Related Literature

Enhanced transparency of bank supervision can alleviate agency and information problems. First, increased regulatory transparency subjects the regulatory agencies to higher scrutiny from the public. While prior research demonstrates that the SEC and other banking regulators are politically captured (Agarwal et al., 2014; Zheng, 2021), recent work indicates that the SEC's 2004 policy change enhanced regulatory incentives and reduced political capture (Hutton et al., 2021).[19] Thus, we expect the public disclosure of CLs to motivate the SEC to step up its monitoring of public banks. Closer supervision, in turn, is likely to result in higher quality reporting by banks (Granja and Leuz, 2019; Costello et al., 2019).[20]

Second, the disclosure of SEC CL correspondences can facilitate market discipline by reducing information asymmetry between banks and market participants, specifically by alerting market participants to banks' problematic accounting and disclosure choices (Goldstein and Sapra, 2013). In addition, the public disclosure of the SEC's CL correspondence is also likely to pressure other bank regulators to take intervention actions. To pre-empt unwanted regulatory and market scrutiny, we expect public banks to have more prudent financial reporting after the SEC moves to publicly disclose CLs, specifically more timely recognition of loan losses.

Prior research suggests that disclosing additional regulatory information about banks can impair risk-sharing by the banks' liquidity providers and aggravate the coordination failure in the deposit and interbank markets (Allen and Gale, 2000; Morris and Shin, 2005; Holmstrom, 2015; Liu, 2016; Dang et al., 2017). Consequently, it is likely to affect loan growth and lending

[19] For example, relying on CAMEL ratings that are not observable by the public, Agarwal et al. (2014) show that state-level banking regulators implement identical regulatory rating rules inconsistently due to their self-incentives.
[20] Using the extinction of a more lenient regulator (the Office of Thrift Supervision), Granja and Leuz (2019) show that more stringent supervision by the OCC and FDIC leads to stricter accounting for loan losses. Costello et al. (2019) show that stricter regulators are more likely to enforce financial reporting transparency.

cyclicality. Diamond and Dybig (1983) show that banks issue demand deposits to provide liquidity and improve risk-sharing among depositors. However, they face the risk of a bank run. Allen and Gale (2002) argue that individual banks can insure against random liquidity shocks by borrowing from and lending to other banks in the repo market. This risk-sharing arrangement increases banks' ability to absorb adverse shocks and hold fewer reserves ex ante. However, ex-ante risk-sharing arrangements are only feasible before depositors and other banks are aware of liquidity shocks. If a bank-specific negative liquidity shock is revealed (and expected to be more than a transient shock), the bank would be excluded from the insurance pool.[21]

The "Hirshleifer effect" suggests that greater disclosure can hurt banks' risk-sharing abilities. In particular, banks' lending activities are funded by short-term debts (e.g., interbank borrowing or deposits) which are money-like instruments. To assure the liquidity of these money-like instruments, assets of capital providers (e.g., creditors in the interbank market and the deposit market) must be information-insensitive (Dang et al., 2013; Dang et al., 2017). Providing creditors with additional information, especially about bank fundamentals, can cause creditors to question banks' ability to repay. Even if bank fundamentals are strong, capital providers could suspend their lending to the bank if they believe that other capital providers will 'run' (Diamond and Dybvig, 1983; Liu 2016). If third parties cut their lending to a bank, they can cause a run on the bank. For example, Iyer et al. (2016) show that releasing information about central bank supervision actions aggravates bank runs in India. Liu (2016) finds that a small shock can freeze the interbank market due to coordination failure and feedback effects. Chen et al. (2022) demonstrate that uninsured

[21] He and Manela (2014, p. 1114) provide a useful example of a liquidity shock: "In the 2007–2008 financial crisis, the liquidity event can be thought of as banks with opaque exposure to mortgage-backed securities becoming weak and thus "illiquid" following adverse shocks in the housing market. The liquidity event triggers the spread of a rumor that the liquidity event has occurred and the bank may be illiquid, exposing the bank to a run."

deposit flows become more sensitive to bank performance when banks are more transparent, indirectly supporting the negative association between transparency and risk-sharing opportunities.

Banks potentially face similar, albeit less severe, problems when the SEC publicly discloses CLs. Information in SEC CLs can reveal new but noisy information to investors and creditors regarding, for instance, weaknesses in the bank's estimated loan loss methodology. This could harm the bank's opportunity for risk-sharing through the deposit or interbank markets. In particular, the additional information could raise questions about banks' risk-taking, solvency, or opacity, which could discourage parties in the deposit market and interbank market from supplying CL banks with timely access to needed short-term liquidity (Chen and Hasan, 2008; He and Manela, 2014). In turn, this will increase banks' funding costs or limit banks' ability to roll over short-term debt, translating into a reduction in credit supply and loan growth.

Note that banks' credit supply constraints are likely to vary with business cycles, specifically credit supply constraints are generally more pronounced during economic downturns. Regulatory actions and revelations of regulatory information are often procyclical, with more frequent negative revelations during economic recessions (Repullo and Suarez, 2012). In addition, investors' "flight to quality" incentives are the strongest during economic downturns, leading to the counter-cyclical risk-sharing ability of banks (Caballero and Krishnamurthy 2008). Thus, we expect public banks, when facing a greater threat of the public revelations of quality issues via the SEC's CL disclosure process, to exhibit more procyclicality in their loan growth relative to private banks.

In addition to the change in the level of credit supply, we also expect public banks' loan portfolios to change when facing a greater threat of the public disclosure of SEC CLs. In particular, the increased regulatory transparency subjects bank regulators to greater public scrutiny, leading to more stringent supervision. Since banks tend to take excessive risk and put off corrective action

under lenient supervision (Agarwal et al., 2014; Kandrac and Schlusche, 2021), increased regulatory transparency and the accompanying stricter regulatory supervision, are likely to encourage public banks to lend to less risky borrowers.

3. Sample Selection, Data, and Descriptive Statistics

Our sample includes both public and private banks covering 1998 to 2011, excluding the financial crisis (i.e., 2007Q4 to 2009Q2).[22] CLs are publicly available for all bank SEC filings filed after August 1, 2004. Our sample period ensures a relatively balanced sample in the pre- and post-disclosure periods. We construct our sample at the bank-quarter level and begin with all commercial banks identified in the Reports of Condition and Income (Call Reports).[23] Following Beatty and Liao (2011), we exclude bank-quarters with non-loan asset growth greater than 10% to mitigate the influence of mergers and acquisitions. After further excluding observations with insufficient data for our analyses, our final sample consists of 256,448 bank-quarters for 7,373 commercial banks during the sample period. Since the SEC only issues CLs to public banks, our treatment sample consists of public banks, and our control sample includes private banks. We use the Federal Reserve Bank of New York CRSP-FRB link table to classify banks as either public or private. We classify a bank as a public bank if it is publicly traded on a major exchange or held by a publicly traded bank holding company as of the fourth quarter of 2004. We also classify SEC-registered banks as public banks. Our classification follows Roberts and Whited (2013) and relies on *ex ante* characteristics to avoid *ex post* selection bias. Among the total of 256,448 bank-quarters, 219,377 are for 6,132 unique private banks and 37,071 are for 1,196 unique public banks.

[22] Our main results remain robust if we include the financial crisis period.
[23] Call Reports provide quarterly balance sheet and income statement information for commercial banks for quarters ending on March 31, June 30, Sep 30, and December 31.

For the post-public disclosure period we use *Audit Analytics* to identify and collect details on SEC CL correspondence with public banks regarding their 10-K filings. For the pre-public disclosure period, we filed Freedom of Information Act (FOIA) requests and obtained a dataset from the SEC that identifies all public banks receiving CLs regarding their 10-K filings between 1998 and 2004. The data the SEC provided includes bank identifiers as well as the first and last correspondence dates. However, it does not contain the detailed CL correspondence (the actual comment letters). We filed additional FOIA requests for the CL correspondence and received 159 CLs out of the 269 CLs issued to public banks in the pre-period.

Figure 1 provides a plot of the number of CLs issued to public banks over our sample period. There is an increase in the number of initial CLs sent to banks after the SEC change in the disclosure policy. However, the observed increase is also consistent with the SOX Section 404 requirement that the SEC review all public companies' filings at least once every three years, and the more general increase in CLs issued to all types of public firms in the post SOX period (see Hutton et al. 2021). We address the potential effects of SOX in our robustness tests.

Table 1, Panel A reports descriptive statistics; Panel B presents univariate tests for difference-in-differences for the timeliness of loan loss provisions and for loan growth. For both public and private banks, the timeliness of loss provisions improves from the pre- to the post-period. However, the improvement is greater for the public banks, consistent with our expectations. Compared to private banks, public banks experience a larger decline in loan growth following the disclosure regime change.

In Panel C we examine the text of the SEC CL correspondence and provide details on those issued before 2004 (private disclosure period) and those issued after 2004 (public disclosure

period).[24] There are several interesting observations to note. First, after receiving a registrant's 10-K filing, the SEC takes roughly four months to issue a CL, both in the private and the public disclosure period. However, the length of the review period (the date between the first and last correspondence) is significantly longer in the public disclosure period. Second, there are fewer topics raised by the SEC in the public-period CLs.[25] The topics covered in the SEC CLs are remarkably similar in both periods: the most frequently cited topics in CLs in the private disclosure period are also the top categories in the public disclosure period. The most named topic is "loan receivable, valuation and allowances issues," which includes loan loss provisions, one of the most examined subjects in the banking literature.

4. Research Design and Results

4.1 Timeliness of Provisions

We start by examining banks' financial reporting choices after the SEC policy change, and estimate the following OLS models:

$$Timeliness_{i,t} = \beta_0 + \beta_1 Public_i \times Post_t + \beta_2 \Delta NPL_{i,t} + \beta_3 \Delta NPLi_{,t-1} + \beta_4 \Delta NPL_{i,t-2} + \beta_5 LLA_{i,t-1} + \beta_6 CAP_{i,t-1} + \beta_7 EBTP_{i,t} + \beta_8 SIZE_{i,t-1} + \eta_i + \delta_t + \varepsilon_{i,t}, \quad (1)$$

where the dependent variable, $Timeliness_{i,t}$, is the difference in the adjusted R^2 from the following two rolling regressions for each bank-quarter using the 12 quarters starting from quarter *t*:

$$LLP_t = \beta_0 + \beta_1 \Delta NPL_{t-2} + \beta_2 \Delta NPL_{t-1} + \beta_3 CAP_{t-1} + \beta_4 EBTP_t + \varepsilon_t, \quad (2)$$

$$LLP_t = \beta_0 + \beta_1 \Delta NPL_{t-2} + \beta_2 \Delta NPL_{t-1} + \beta_3 \Delta NPL_t + \beta_4 \Delta NPL_{t+1} + \beta_5 CAP_{t-1} + \beta_6 EBTP_t + \varepsilon_t \quad (3)$$

[24] While there were 259 CLs issued to our sample of public banks in the pre-public disclosure period, we received only 159 of the detailed CLs from the SEC in response to our 259 FOIA requests.

[25] Perhaps the required coordination by Title II of the Gramm Leach Bliley Act of 1999 between the SEC and other bank regulators has resulted in few topics being included in public CLs and the reviews themselves taking longer.

Measured as the difference in the adjusted R2 [(3)-(2)], $Timeliness_{i,t}$ captures the extent to which a bank promptly incorporates current and future changes in non-performing loans when determining the current period's loan loss provision. Our variable of interest in model (1) is the interaction term between *Public* and *Post*. *Public* is an indicator variable equal to 1 if the observation is a public bank, and 0 otherwise. *Post* is also an indicator variable, equal to 1 if the quarter ends in or after the 4th calendar quarter of 2004, and 0 otherwise. We include a list of control variables following prior literature (Beatty and Liao 2011). We first control for changes in nonperforming loans (ΔNPL), contemporaneous changes as well as changes in the prior two years. Additionally, we control for the allowance for loan losses (*LLA*), tier 1 capital (*CAP*), and total assets (*Size*) in the year before (i.e., *t-1*). Lastly, we use earnings before provisions (*EBTP*) in the current period (*t*) as a control. We include all variable definitions in Appendix A. We include (i) bank-fixed effects (η_i) to control for time-invariant bank-level variables that affect changes in the timeliness of provisions following the SEC's policy change and (ii) year-quarter-fixed effects (δ_t) to control for common time-series changes in the timeliness of provisions, unrelated to the SEC's policy change, that affect both treated and control firms. We cluster standard errors by banks.

We report the estimation results of Model (1) in Table 2. Column (1) serves as a benchmark by including our variable of interest *Public* × *Post* and the fixed effects, and Column (2) further includes all controls. *Public* × *Post* has a positive and significant coefficient in both columns, indicating that loan loss provisioning becomes timelier for public banks after the SEC's CL policy change, compared to private banks. Economically speaking, the coefficient of *Public* × *Post* in column (2) indicates a doubling of the increase in the adjusted R^2 (from model 2 to model 3) in the post-period from the mean level of the increase in the adjusted R2 (0.031) during the full sample period.

4.2 Loan Growth

To assess whether public banks experience slower loan growth after the SEC's policy change, we estimate the following OLS model:

$$Loan\ \ Growth_{i,t} = \beta_0 + \beta_1\ Public_i \times Post_t + \beta_2\ CAP_{i,t-1} + \beta_3\ \Delta CAP_{i,t-1} + \beta_4\ SIZE_{i,t-1} + \beta_5\ Deposits_{i,t-1} + \eta_i + \delta_t + \varepsilon_{i,t}\,, \quad (4)$$

where the dependent variable *Loan Growth* is the change in total loans from quarter *t*-1 to *t*, scaled by total loans in quarter *t*-1. Similar to model (1), our variable of interest on the right-hand side is *Public* × *Post*. We control for tier-1 capital (*CAP*), changes in tier-1 capital (Δ*CAP*), bank size (*SIZE*), and deposits (*Deposits*). All control variables are measured in time *t*-1 to mitigate forward-looking bias. Consistent with model (1), we include bank and year-quarter fixed effects and cluster standard errors by banks.

We present the estimation results of model (4) in Table 3. The coefficients of *Public* × *Post* are negative and statistically significant in columns (1) and (2), although the magnitude of the coefficient becomes smaller when we include control variables in column (2). These results suggest that the loan growth rate decreases for public banks in the post-disclosure period compared to private banks. Economically speaking, the coefficient of *Public* × *Post* in column (2) represents a twenty-five percent decrease in the post-period from the mean loan growth rate of 2.34% during the sample period.

4.3 Lending Procyclicality

The reduction in risk-sharing opportunities and the increased funding costs are likely to be procyclical, which will translate into aggravated lending procyclicality (e.g., Bernanke and Gertler, 1995; and Kiyotaki and Moore, 1997; Behn et al., 2016). To examine how regulatory transparency

affects lending cyclicality, we augment model (4) by adding two more interaction terms: *Public* × *GDP_growth* and *Public* × *Post* × *GDP_growth,* where *GDP_growth* is the quarterly GDP growth rate obtained from the Bureau of Economic Analysis. Since the main effect of *GDP_growth* is subsumed by year-quarter fixed effects, we leave it out of the model, and state the full OLS model as follows:

$$Loan\ Growth_{i,t} = \beta_0 + \beta_1\, Public_i \times Post_t + \beta_2\, Public_i \times GDP\_growth_t + \beta_3\, Public_i \times Post_t \times GDP\_growth_t + \beta_4\, CAP_{i,t-1} + \beta_5\, \Delta CAP_{i,t-1} + \beta_6\, SIZE_{i,t-1} + \beta_7\, Deposits_{i,t-1} + \eta_i + \delta_t + \varepsilon_{i,t}, \quad (5)$$

We present the estimation results of model (5) in Table 4. Column (1) serves as a benchmark with no controls added, and column (2) includes all control variables. The triple interaction term of *Public* × *Post* × *GDP_growth* has a positive and statistically significant coefficient in both columns (1) and (2). This suggests that higher GDP growth in the post-period is associated with higher loan growth for public banks. This result implies that the lending behavior of public banks becomes more procyclical in the post-disclosure period compared to private banks.

4.4 Riskiness of Borrowers

The beneficial effect of transparent regulatory actions can manifest as a reduction in loan portfolio risk. More specifically, the public disclosure of an SEC CL enhances the market disciplinary effect on banks and discourages them from supplying credits to risky borrowers (Goldstein and Sapra, 2014; Cortes, Demyank, Lei, Loutskina, and Strahan, 2020; Kandrac and Schlusche, 2021). To examine how regulatory transparency affects the risk of loan portfolios, we follow Duchin and Sosaya (2014) and measure the risk of corporate borrowers covered by the Dealscan dataset using the following model:

$$Borrower\ Risk_{i,j,t} = \beta_0 + \beta_1\, Public_i \times Post_t + \sum \beta_j Facility\ charactistics_j + \eta_i + \delta_t + \varepsilon_{i,t}, \quad (6)$$

where the dependent variable *Borrower Risk* is measured by the standard deviation of the borrower's ROA in the past eight quarters or the standard deviation of the borrower's stock return in the facility activation year. *Facility Characteristics* include facility amount, maturity, loan purposes, and banks' role in the syndication. We utilize Dealscan dataset to identify loan facilities supplied by our sample banks and estimate the equation (6) at a facility-bank level. The sample sizes for these tests are substantially smaller ranging from 675 to 751 observations; out of the 751 observations 423 are public banks and 328 are private banks. Note that Dealscan dataset mainly covers large transactions and therefore sample banks in this test are larger than the bank population average in the U.S.

We present the estimation results of model (6) in Table 5. Columns (1) and (3) serve as a benchmark with no facility characteristics added. In columns (2) and (4), we include the facility-level characteristics. The coefficients on the interaction term of *Public* × *Post* are negative and marginally statistically significant in all columns. This suggests that public banks extend credit to safer borrowers after the disclosure regime change.

4.5 Robustness tests

Next, we present a set of robustness tests designed to make our treatment and control samples more similar and to rule out several alternative explanations, including the effects of SOX and the great recession of 2008-2009. Table 6 presents our robustness tests for timeliness, loan growth, and procyclicality of bank lending activity, respectively in Panels A through C.[26] All models presented in Table 6 include the same control variables and fixed-effects employed in the

[26] Given the substantially smaller sample size and marginal significance of the coefficients of interest reported in Table 5 (regarding public banks' move to lower risk borrowers), it is not surprising that these findings are not robust (untabluated).

respective Tables 2-4 presented earlier. However, for brevity, we do not report coefficients of control variables.

Moving across the columns of Table 6: Column (1) removes the ten largest public banks because big banks can be outliers and have no comparable counterfactuals (i.e., private banks are simply much smaller). Moreover, it is noteworthy that in 2004, the SEC exempted the largest banks from the minimum capital requirements imposed on broker-dealers. Column (2) removes the largest public banks and the smallest private banks in an attempt to make our treatment and control samples more similar in size. Next, we rule out the possibility that SOX could drive our results since SOX requires public companies to establish an effective internal control system. However, as for banks, the internal control provisions of the Federal Deposit Insurance Corporation Improvement Act of 1992 (FDICIA) went into effect in 1993.[27] Therefore, we expect the impact of SOX on our sample banks to be minimal. Nevertheless, to eliminate any impact of SOX, we exclude all quarters before SOX (prior to August 2002) and report the results in column (3) in Table 6. Finally, in column (4), we *include* observations from the financial crisis (i.e., 2007Q4 - 2009Q2 according to the NBER business cycle dating) and re-estimate our models. Our findings are robust, which suggests that the effect of increased regulatory transparency is not driven solely by large public banks, differences in the size of our treatment and control banks, SOX, or our decision to exclude the financial crisis quarters in our primary tests.

5. Channels of Influence of Increased Regulatory Transparency

So far, we document that enhanced regulatory transparency affects banks' financial reporting choices and lending behavior. To solidify our inferences, we further examine the potential channels

[27] FDICIA's internal control provisions applied only to those with assets exceeding $500 million.

of influence through which increased regulatory transparency affects bank behaviors. We focus on two such channels: funding costs and regulatory interventions. Since only public banks receive SEC CLs, for these tests we use only public banks, and we decompose this subsample further into public banks that received CLs and public banks that did not receive a CL during our sample period.

5.1. Funding Costs

The public disclosure of an SEC CL could invite the "Hirshleifer effect" impairing risk-sharing among a bank's liquidity providers and aggravating coordination failures in the deposit and interbank markets. Consequently, depositors are likely to demand a higher rate for their deposits from banks publicly revealed to have received CLs. Thus, we expect to find an increase in the deposit rates after the CL dissemination date for public banks that receive a CL in the post period, relative to those that receive a CL in the pre period. We use the following OLS model to examine banks' deposit rates for the subsample of public banks that received CLs:

$$Deposit\_Rate_{i,t} = \beta_0 + \beta_1 CL_{i,t-4\ to\ t-1} \times Post_t + \beta_2 LLA_{i,t-1} + \beta_3 CAP_{i,t-1} + \beta_4 EBTP_{i,t} + \beta_5 SIZE_{i,t-1} + \eta_i + \delta_t + \varepsilon_{i,t}, \quad (7)$$

where the dependent variable, *Deposit_Rate*, is the annualized average interest rate over quarter *t* on core deposits or large time deposits. Specifically, we calculate *Core_Deposit_Rate* as quarterly interest expense on core deposits divided by the average balance of core deposits, following Acharya and Mora (2012). Core deposits are the sum of transaction deposits, saving deposits, and small-time deposits. *Large_Time_Deposit_Rate* is the quarterly interest expense on time deposits of $100,000 or more divided by the average balance of time deposits of $100,000 or more.[28] Since

[28] FDIC raised insured deposits from $100,000 to $250,000 in October 2008. We use Call Reports data to identify interest expense. The database reports the sum of interest expense for all deposits of $100,000 or more, and only provides data on deposits over $250,000 after 2017. Thus, we are unable to identify deposits overs $250,000 during our sample period. This measurement error will lower the power of our tests.

CLs are only publicly disseminated in the post-disclosure period, we define the CL indicator, $CL_{i,t-4\ to\ t-1}$, as follows. In the pre-disclosure period, $CL_{i,t-4\ to\ t-1}$ equals one if the SEC concludes its review process in any of the prior four quarters, and zero otherwise. In the post-disclosure period, $CL_{i,t-4\ to\ t-1}$ equals one if the SEC disseminated its CL publicly (i.e., posts the correspondence on Edgar) in any of the prior four quarters, and zero otherwise.

The primary variable of interest is β_1 is the coefficient on the interactive term $CL_{i,t-4\ to\ t-1} \times Post_t$ that highlights the difference in the changes in the funding costs for the 4 quarters around the conclusion/dissemination of the SEC CL before versus after the SEC's disclosure policy change. We control for allowance for loan losses (*LLA*), tier1 capital (*CAP*), earnings before provisions (*EBTP*), and bank size (*SIZE*). As in model (1), we include firm and year-quarter fixed effects, indicated by η_i and δ_t, respectively, and cluster standard errors by banks.

Table 7 presents the results of estimating model (7). The positive and significant coefficients of $CL_{i,t-4\ to\ t-1} \times Post_t$ in columns (1) through (4) suggest an increase in funding costs for public banks receiving CLs that are publicly disseminated.

5.2. Regulatory Spill-over: Enforcement Decision Orders

Next, we explore regulatory spill-over as another channel through which SEC transparency affects public banks, specifically, whether the public disclosure of CLs triggers intervention by other federal and state bank regulators such as the Federal Reserve Board, the OCC, and the FDIC. The public disclosure of CLs can facilitate information sharing between the SEC and other bank regulators. In particular, other bank regulators might act upon deficiencies identified by the SEC, as the SEC's relative expertise in financial reporting can help pin down banks with problem areas other bank regulators previously overlooked. In addition, the public disclosure of CLs also raises

public awareness of potential bank problems. In turn, this heightened public scrutiny will likely inhibit the usual level of regulatory forbearance practiced by other bank regulators.

To test the regulatory spillover effect, we examine whether SEC CLs are more likely to trigger enforcement actions by other bank regulators in the public disclosure period. Our sample for this analysis consists of public banks (as private banks do not receive CL letters). We further classify the sample into two groups: public banks that received CLs and those that did not receive a CL. We obtain all enforcement actions issued by other bank regulators from the S&P Global SNL Financial database.

We present the results estimating the effect of CLs on enforcement decisions and orders in Table 8. In Column 1 of Table 8, the primary variable of interest is the coefficient on the interactive term $CL_{i,t-4\ to\ t-1} \times Post_t$. As can be seen, the coefficient on $CL_{i,t-4\ to\ t-1} \times Post$ is positive but insignificant at a conventional level when using the full sample of public banks, suggesting the average regulatory spillover effects are mild. In Column 2, we expand the analysis by including the impact of banks' financial opacity. We expect stronger regulatory spillover effects to manifest in opaque banks. The accounting issues revealed in publicly disclosed CLs ought to be more informative to bank supervisors when banks' financial reporting is less transparent. In addition, Gallemore (2020) shows that banks' financial reporting opacity facilitates regulators' practice of forbearance, suggesting that opaque banks are at the "margin" when the regulatory enforcement intensity changes. Accordingly, we include a triple interaction variable with an added dummy variable, *High_Opacity*, which is equal to one if the bank's discretionary accruals are above the sample median in the 4th quarter of 2004, and zero otherwise. The coefficient on $CL_{i,t-4\ to\ t-1} \times Post \times High\_Opacity$ is positive and significant, suggesting a more significant regulatory spillover for opaque banks after CLs are disseminated publicly. In contrast, the effect is insignificant among

banks with low financial reporting opacity as the coefficient on $CL_{i,t-4\ to\ t-1} \times Post$ is insignificant. These results suggest that opaque banks that received CLs in the post period are more likely to receive subsequent enforcement actions, compared to opaque banks receiving CLs in the pre-period. We interpret these findings as suggesting that other bank regulators' enforcement actions are affected by the enhanced transparency of the SEC's CL process, consistent with regulatory spillover.

The regulatory spillover effects also have implications for banks perceived to have strong political influence as publicly disclosed CLs could bring political ties into the spotlight. If other bank regulators face added public scrutiny due to issues revealed in publicly disclosed SEC CLs, these regulators can signal their independence by stepping up oversight of the banks perceived to have strong political ties. In Columns 3 and 4, we present an analysis focusing on the role of political connection. The variables of interest are $CL_{i,t-4\ to\ t-1} \times Post \times High\_PAC$ and $CL_{i,t-4\ to\ t-1} \times Post \times logPAC$, where *logPAC* is the natural logarithm of a firm's PAC donations to politicians on the U.S. House Committee on Financial Services from 2002 to 2004.[29] *High_PAC* equals one if a firm's *logPAC* is above the sample median, and zero otherwise. As shown in these final two columns, the coefficients on the triple interaction variables involving banks' political contribution, measured dichotomously or as a continuum, are positive and significant. These results suggest that politically connected banks receiving SEC CLs are more likely to experience subsequent enforcement actions by other bank regulators in the public-disclosure period, compared to politically connected banks in the pre-2004 private disclosure period.

6. Conclusion and Discussion

[29] We focus on the House Committee on Financial Services because it directly oversees the banking industry.

Using the SEC's 2004 decision to publicly disclose its CLs, we adopt a difference-in-differences design to investigate whether increased regulatory transparency in the banking industry affects banks' prudentiality (i.e., timeliness of loan loss provisions), loan growth, loan composition, and funding costs. We also examine the interaction between SEC CLs and traditional banking regulators' enforcement decisions and orders.

We find that, compared to private banks, public banks have more forward-looking loan loss provisions after the SEC moved to publicly disclose its CLs, suggesting that increased regulatory transparency enhances market discipline and leads to more prudential reporting among public banks. Additionally, we find that public banks experience slower and more procyclical loan growth in the post-public-disclosure period than private banks. On the other hand, public banks shift their loan portfolio towards safer borrowers. Overall, these findings suggest that the effect of regulator transparency on banks' reporting quality is positive. However, its impacts on banks' lending behaviors are mixed.

To substantiate our inference, we examine possible channels through which regulatory transparency affects public banks. Consistent with the negative effect of SEC transparency on banks' risk-sharing ability, we document increased funding costs for banks that received CLs in the public-disclosure period. On the other hand, SEC transparency discourages other bank regulators' practice of forbearance, as evidenced by the increased state/federal regulatory enforcement decisions and orders issued to opaque banks, as well as banks with perceived political ties, that received CLs in the public-disclosure period.

Collectively, the results in this study provide some of the first empirical evidence of the benefits and costs to the banking industry that results from increased regulatory transparency. The

nuanced evidence can be useful to regulators and legislators in making policies related to regulatory supervision over banks.

References

Acharya, V. V., & Mora, N. (2012). *Are banks passive liquidity backstops? Deposit rates and flows during the 2007-2009 crisis* (No. w17838). National Bureau of Economic Research.

Acharya, V. V., & Ryan, S. G. (2016). Banks' financial reporting and financial system stability. *Journal of Accounting Research,* 54(2), 277-340.

Allen, F., & Gale, D. (2000). Financial Contagion. *Journal of Political Economy*, *108*(1), 1–33.

Beatty, A., & Liao, S. (2011). Do delays in expected loss recognition affect banks' willingness to lend?. *Journal of Accounting and Economics*, *52*(1), 1-20.

Beck, P. J., & Narayanamoorthy, G. S. (2013). Did the SEC impact banks' loan loss reserve policies and their informativeness?. *Journal of Accounting and Economics,* 56(2–3, 1), 42–65.

Behn, M., Haselmann, R., & Wachtel, P. (2016). Pro-cyclical capital regulation and lending. *Journal of Finance* 71(2), 919-956

Bernanke, B & M Gertler (1995). Inside the black box: The credit channel of monetary policy. *Journal of Economic Perspectives*, 9(4), 27-48.

Bhat, G., Lee, Joshua, & Ryan, Stephen. (2014) Using loan loss indicators by loan type to sharpen the evaluation of the determinants and implications of banks' loan loss accruals. Working paper.

Bhat, G., Ryan, S. G., & Vyas, D. (2019). The Implications of credit risk modeling for banks' loan loss provisions and loan-prigination procyclicality. *Management Science*, *65*(5), 2116–2141.

Bischof, J., & Daske, H. (2013). Mandatory disclosure, voluntary disclosure, and stock market liquidity: Evidence from the EU bank stress tests. *Journal of Accounting Research*, *51*(5), 997–1029.

Bond, P., & Goldstein, I. (2015). Government intervention and information aggregation by prices. *The Journal of Finance*, *70*(6), 2777–2812.

Bushman, R. M., & Williams, C. D. (2012). Accounting discretion, loan loss provisioning, and discipline of banks' risk-taking. *Journal of Accounting and Economics*, *54*(1), 1-18.

Caballero, R. J., & Krishnamurthy, A. (2008). Collective risk management in a flight to quality episode. *The Journal of Finance*, *63*(5), 2195-2230.

Chari, V. V, & Jagannathan, R. (1988). Banking panics, information, and rational expectations equilibrium. *The Journal of Finance*, *43*(3), 749–761.

Chen, Y., & Hasan, I. (2008). Why do bank runs look like panic? A new explanation. *Journal of Money, Credit and Banking*, *40*(2-3), 535-546.

Chen, Q., Goldstein, I., Huang, Z. & Vashishtha, R. (2022) Bank transparency and deposit flows. *Journal of Financial Economics, Forthcoming*.

Corona, C., Nan, L., & Zhang, G. (2019). The Coordination role of stress tests in bank risk-taking. *Journal of Accounting Research*, *57*(5), 1161–1200.

Costello, A. M., Granja, J., & Weber, J. (2019). Do strict regulators increase the transparency of banks?. *Journal of Accounting Research,* 57(3), 603–637.

Cukierman, A. (2009). The limits of transparency. *Economic Notes*, *38*(1-2), 1–37.

Dang, T. V., Gorton, G., & Holmström, B. (2013). The information sensitivity of a security. Working paper, Yale University.

Dang, T. V., Gorton, G. B., Holmström, B., & Ordoñez, G. (2017). Banks as secret keepers. *The American Economic Review*, 107 (4), 1005-1029.

Demirgüç-Kunt, A., & H. Huizinga. (2013). Are banks too big to fail or too big to save? International evidence from equity prices and CDS spreads. *Journal of Banking and Finance,* 37 (3), 875-94

Diamond, D. W., & Dybvig, P. H. (1983). Bank runs, deposit insurance, and liquidity. *Journal of Political Economy*, *91*(3), 401–419.

Financial Stability Forum (FSF), 2009. Report of the financial stability forum on addressing procyclicality in the financial system. Available at http://www.financialstabilityboard.org/publications/r_0904a.pdf

Flannery, M. J., & Sorescu, S. M. (1996). Evidence of bank market discipline in subordinated debenture yields: 1983-1991. *Journal of Finance,* 51 (4), 1347-77.

Gallemore, J. (2020). Bank financial reporting opacity and regulatory intervention. Working Paper.

Goldstein, Itay & Haresh Sapra (2014). Should banks' stress test results be disclosed? An analysis of the costs and benefits. *Foundations & Trends(R) in Finance,* 8 (1), 1-54.

Gorton, G. (1988). Banking panics and business cycles. *Oxford Economic Papers New Series,* 40 (4), 751-781.

Granja, J. (2018). Disclosure regulation in the commercial banking industry: Lessons from the national banking era. *Journal of Accounting Research,* 56(1), 173-216.

Granja, J., & Leuz, C. (2019). The death of a regulator: strict supervision, bank lending and business activity. European Corporate Governance Institute (ECGI) - Law Working Paper No. 447/2019, LawFin Working Paper No. 4.

Gropp, R., H. Hakenes, & I. Schnabel. (2011). Competition, Risk-Shifting, and Public Bail-out Policies. *Review of Financial Studies*, 24, (6), 2084-12

Hammond, B. (1957). Banks and politics in America from the revolution to the civil war. *Economic History Review, 41*.

He, Z., & Manela, A. (2016). Information acquisition in rumor-based bank runs. *The Journal of Finance*, *71*(3), 1113-1158.

Holmstrom, B. (2015). Understanding the role of debt in the financial system. (2014). *BIS Working Paper*, No.479.

Hutton, A., Shu, S., & Zheng, X. (2021). Regulatory transparency and the alignment of private and public enforcement: Evidence from the public disclosure of SEC comment letters. *Journal of Financial Economics*.

Iyer, R., Puri, M., & Ryan, N. (2016). A tale of two runs: Depositor responses to bank solvency risk. *The Journal of Finance*, *71*(6), 2687–2726.

Kandrac, J., & Schlusche, B. (2021). The effect of bank supervision and examination on risk taking: Evidence from a natural experiment. *The Review of Financial Studies*, *34*(6), 3181-3212.

Kanodia, C., & Sapra, H. (2016). A real effects perspective to accounting measurement and disclosure: implications and insights for future research. *Journal of Accounting Research, 54*(2), 623-676.

Kashyap, A. K., & Stein, J. C. (2000). What do a million observations on banks say about the transmission of monetary policy? *American Economic Review,* 90 (3), 407-428.

Kiyotaki, N & J Moore (1997). Credit cycles, *Journal of Political Economy*, 105(2), 211-248.

Kleymenova, A., & Tomy, R. E. (2022). Observing enforcement: Evidence from banking. *Journal of Accounting Research*, Forthcoming.

Liedorp, F., Mosch, R., Cruijsen, C. V. D., & Haan, J. D. (2013). Transparency of banking supervisors. *IMF Economic Review* 61 (2). 310-335

Liu, X. (2016). Interbank market freezes and creditor runs. *The Review of financial studies*, *29*(7), 1860-1910.

Maloney, E. F. (2006). Banks and the SEC: A regulatory mismatch. *Ann. Rev. Banking & Fin. L.*, *25*, 443.

Morris, S., & Shin, H.S. (2005). Central bank transparency and the signal value of prices. *Brookings Papers on Economic Activity,* Economic Studies Program, The Brookings Institution, 36(2), 1-66.

Nier, E., & Baumann, U. (2006). Market discipline, disclosure and moral hazard in banking. *Journal of Financial Intermediation* 15 (3), 332-361.

Poser, N. S. (2008). Why the SEC failed: Regulators against regulation. *Brook. J. Corp. Fin. & Com. L*, *3*, 289.

Repullo, R., & Suarez, J. (2013). The procyclical effects of bank capital regulation. *The Review of Financial Studies,* 26 (2), 452-490.

Roberts, M. R., & Whited, T. M. (2013). Endogeneity in empirical corporate finance. In *Handbook of the Economics of Finance* (Vol. 2, pp. 493-572). Elsevier.

Ryan, S. G., & Keeley, J. H. (2013). Discussion of "Did the SEC impact banks' loan loss reserve policies and their informativeness?". *Journal of Accounting and Economics*, *56*(2-3), 66-78.

Stigler, G. J. (1971). The theory of economic regulation. *Bell Journal of Economics, 2*(1), 3-21.

Sumit, A., David, L., Amit, S., & Francesco, T. (2014). Inconsistent regulators: evidence from banking. *Quarterly Journal of Economics* 129 (2), 889-938

Yang, A. (2021). How does accounting for loan losses influence bank lending? Evidence from the Current Expected Credit Loss Model (CECL). Working Paper.

Zheng, X. (2021). A tale of two enforcement venues: Determinants and consequences of the SEC's choice of enforcement venue after the Dodd-Frank Act. *The Accounting Review*, *96*(6), 451-476.

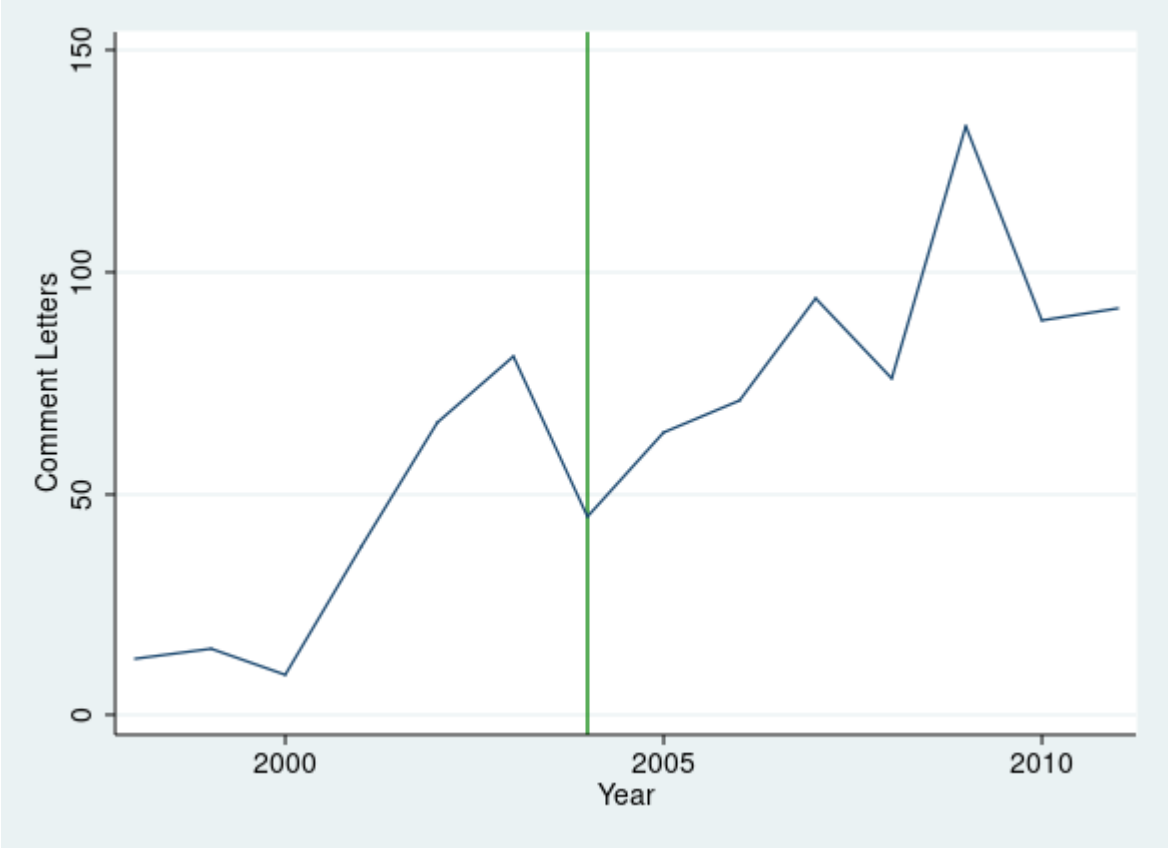
Appendix A: Variable Definitions

Variable	Description	Source
Timeliness	The difference in the adjusted R2 from the following two rolling regressions for each bank-quarter using the 12 quarters starting from quarter *t* $LLP_t = \beta_0 + \beta_1 \Delta NPL_{t-2} + \beta_2 \Delta NPL_{t-1} + \beta_3 CAP_{t-1} + \beta_4 EBTP_t + \varepsilon_{t,}$ $LLP_t = \beta_0 + \beta_1 \Delta NPL_{t-2} + \beta_2 \Delta NPL_{t-1} + \beta_3 \Delta NPL_t + \beta_4 \Delta NPL_{t+1} + \beta_5 CAP_{t-1} + \beta_6 EBTP_t + \varepsilon_t$	Call Reports
Loan Growth	Change in loans (RCFD2122 – lagged RCFD2122) × 100, scaled by lagged loans	Call Reports
Core_Deposit_Rate	The annualized average interest rate (in %) over quarter *t* on core deposits. Calculated as quarterly interest expense on core deposits (RIAD4508 + RIAD0093 + RIADA518) divided by the average balance of core deposits. Core deposits are the sum of transaction deposits, saving deposits, and small-time deposits (RCON3485 + RCONB563 + RCONA529).	Call Reports
Large_Time_ Deposit_Rate	The annualized average interest rate (in %) over quarter *t* on large time deposits. Calculated as quarterly interest expense on time deposits of $100,000 or more (RIADA517) divided by the average balance of time deposits of $100,000 or more (RCONA514).	Call Reports
EDO	Indicator variable equal to one if the bank receives a severe enforcement decision and order (cease and desist order, formal agreement/supervisory agreement, consent order, or prompt corrective action) during quarters *t* to *t*+3.	FDIC, Federal Reserve, OCC
Post	Indicator variable equal to one for periods beginning on or after 2004 Q4	
Public	Indicator variable equal to one for if the bank is traded publicly, held by a publicly traded holding company or registered with the SEC (RSSD9056 = 1, 3, 4)	NY Federal Reserve Bank
$CL_{i,t-4\ to\ t-1}$	In the pre-disclosure period, $CL_{i,t-4\ to\ t-1}$ equals one if the SEC concludes its review process in any of the prior four quarters, and zero otherwise. In the post-disclosure period, $CL_{i,t-4\ to\ t-1}$ equals one if the SEC disseminated its CL publicly (i.e., posts the correspondence on Edgar) in any of the prior four quarters, and zero otherwise	FOIA and Audit Analytics
GDP_Growth	Quarterly GDP growth rate	Bureau of Economic Analysis
Δ*NPL*	Change in nonperforming loans (RCFD1403 + RCFD1407) × 100, scaled by lagged loans (RCFD2122)	Call Reports
LLA	Allowance for loan losses (RCFD3123) × 100, scaled by lagged loans (RCFD2122)	Call Reports
CAP	Tier1 capital (RCFD8274) × 100 divided by risk-weighted assets (RCFDA223)	Call Reports
Δ*CAP*	Change in *CAP* × 100	Call Reports

EBTP	Earnings before provisions (RIAD4301 + RIAD4230) × 100, scaled by lagged loans (RCFD2122)	Call Reports
Size	Natural logarithm of total assets (RCFD2170)	Call Reports
Deposits	Deposits (RCFD2200) × 100, scaled by total assets (RCFD2170)	Call Reports
$DLLP\_MS_{t-1}$	Following Yue et al (2021), the four-quarter moving sum of discretionary loan loss provisions, equal to the natural log of the absolute values of the residuals of the following regression: $LLP_t = \beta_0 + \beta_1 \Delta NPL_{t-2} + \beta_2 \Delta NPL_{t-1} + \beta_3 \Delta NPL_t + \beta_4 \Delta NPL_{t+1} + \beta_5 SIZE_{t-1} + \beta_6 Loan\_Growth_{t-1} + QuarterFE + \varepsilon_t$	Call Reports
$Leverage_{t-1}$	Total assets less equity and minority interest (RCFD2170 – RCFD3210 – RCFD3000), scaled by total assets (RCFD2170)	Call Reports
ROE_{t-1}	Annualized quarterly net income (RIAD4300), scaled by lagged equity (RCFD3210)	Call Reports
$\Delta Liquidity_{t-1}$	Cash (RCFD0010), scaled by total deposits (RCFD2200)	Call Reports
LogPAC	*LogPAC* is the natural logarithm of a firm's PAC donations to politicians on the U.S. House Committee on Financial Services from 2002 to 2004.	Center for Responsive Politics
High_PAC	*High_PAC* equals one if a firm's *logPAC* is above the median, and zero otherwise.	Center for Responsive Politics
Std ROA	The standard deviation of ROA of the borrowing firm in the past eight quarters	Compustat
Std Ret	The standard deviation of stock return of the borrowing firm in the loan facility activation year.	CRSP

Figure 1: SEC CLs Issued to Public Banks over our Sample Period, 1998-2011*

This figure plots the number of comment letters issued to public commercial banks regarding their 10-K filings during the sample period, 1998 to 2011.



* We count only the initial comment letters issued, and not the number of follow-up letters exchanged between the SEC and the public banks during the review to resolve the SEC's concerns.

Table 1: Descriptive Statistics

This table presents descriptive statistics of the 7,328 commercial banks and 255,294 bank-quarter observations in our sample period (1998 – 2011). The sample consists of 217,856 bank-quarter observations from 6,132 private banks and 37,438 bank-quarter observations from 1,196 public banks. The sample excludes bank-quarters with non-loan asset growth greater than ten percent. We delete bank-quarters with missing data and winsorize continuous variables at the one percent level. All variables are defined in Appendix A. Panel A presents summary statistics for the entire sample. Panel B presents differences-in-differences analyses of the dependent variables *Timeliness* and *Loan_Growth*. Panel C presents descriptive statistics of private and public comment letters in our sample. *, ** and *** denote statistical significance at the 10%, 5% and 1% significance levels, respectively.

Panel A: All Banks

	N	Mean	S.D.	P25	Median	P75
$Timeliness_t$	169,978	0.031	0.225	-0.079	-0.001	0.108
$Loan\ Growth_t$	255,294	2.336	4.796	-0.548	1.86	4.606
$Core\_Deposit\_Rate_t$	255,294	2.709	1.32	1.587	2.541	3.885
$Large\_Time\_Deposit\_Rate_t$	255,294	3.793	1.569	2.466	3.734	5.146
EDO_t	255,294	0.018	0.132	0	0	0
Post	255,294	0.427	0.495	0	0	1
Public	255,294	0.147	0.354	0	0	0
$CL_{i,t-4\ to\ t-1}$	255,294	0.011	0.104	0	0	0
ΔNPL_t	255,294	0.02	0.716	-0.181	0	0.192
LLA_{t-1}	255,294	0.015	0.007	0.011	0.014	0.018
CAP_{t-1}	255,294	16.066	7.36	11.147	13.801	18.379
$EBTP_t$	255,294	0.706	0.438	0.476	0.672	0.893
$Size_{t-1}$	255,294	11.629	1.217	10.799	11.499	12.295
ΔCAP_{t-1}	255,294	-0.041	1.077	-0.423	0.01	0.401
$Deposits_{t-1}$	255,294	83.966	6.468	80.937	85.409	88.683
$DLLP\_MS_{t-1}$	255,294	-29.341	3.232	-31.36	-29.237	-27.366
$Leverage_{t-1}$	255,294	0.896	0.032	0.882	0.904	0.917
NPL_{t-1}	255,294	0.013	0.017	0.002	0.007	0.016
ROE_{t-1}	255,294	10.572	9.435	6.749	10.786	15.236
$\Delta Liquidity_{t-1}$	255,294	0.063	0.053	0.033	0.047	0.072

Panel B: Univariate Differences-in-Differences Analysis of *Timeliness* and *Loan_Growth* for public vs private banks compared before and after the SEC changed its public disclosure policy for Comment Letters issue to public banks. ** and *** denote statistical significance differences at the 5% and 1% levels, respectively.

		Timeliness			*Loan_Growth*			
		Pre-Period (a)	Post-Period (b)	(b)-(a)		Pre-Period (a)	Post-Period (b)	(b)-(a)
Private	(i)	0.024 N=100,392	0.041 N=52,760	.017***	(i)	2.740 N=124,230	1.681 N=93,626	-1.058***
Public	(ii)	0.026 N=12,425	0.071 N=4,401	.045***	(ii)	3.353 N=22,073	1.595 N=15,365	-1.757***
	(ii)-(i)	.001	.029***	.028***	(ii)-(i)	.613***	-.086	-.699***

Panel C: Comparison of Private and Public SEC CLs issued to public commercial banks regarding their 10-K filings during the sample period, 1998 to 2011.

	Private Reviews* **(1)**	**Public Reviews**** **(2)**	***p*-value (1)-(2)**
Variables	N=159	N=620	
Time from filing date (days)	127.93	126.11	0.812
Review length (days)	80.92	94.34	0.094
Comments:			
Total	7.65	2.77	<0.001
Loans receivable, valuation and allowances issues	0.78	0.55	<0.001
Fair value measurement, estimates, use (incl. VSOE)	0.42	0.45	0.451
Investments (SFAS 115) and cash and cash equivalents issues	0.42	0.32	0.018
Financial derivatives/hedging (FAS 133) acct issues	0.29	0.18	0.002
Liabilities, payables, and accrual estimate issues	0.23	0.04	<0.001
PPE issues - Intangible assets and goodwill	0.23	0.12	<0.001
Fin statement segment reporting ((FAS 131) subcategory) issues	0.23	0.09	<0.001
Acquisitions, mergers, and business combinations	0.19	0.09	<0.001

*While there were 259 Private Review CLs issued to our sample of public banks in the pre-public disclosure period (January 1998 – July 2004), we received only 159 of these CLs from the SEC in response to our 259 FOIA requests.
** Public Review comment letters are available from *Audit Analytics* and cover the time period, August 2004 – December 2011.

Table 2: Timeliness

This table presents the results of the OLS regression $Timeliness_{i,t} = \beta_0 + \beta_1 Public_i \times Post_t + \sum controls$. *Public* is an indicator variable equal to 1 if the observation is a public bank, and 0 otherwise. *Post* is an indicator variable, equal to 1 if the quarter ends in or after the 4th calendar quarter of 2004, and 0 otherwise. All other variables are defined in Appendix A. The regression includes bank and year-quarter fixed effects. The sample size is smaller than the overall sample due to the future time periods required to estimate *Timeliness*. We report in brackets t-statistics based on standard errors clustered at the bank level. *, **, *** denote statistical significance at the 10%, 5%, and 1% levels, using two-tailed tests, respectively.

	(1) $Timeliness_t$	(2) $Timeliness_t$
Public × *Post*	0.034***	0.034***
	(3.94)	(3.95)
ΔNPL_t		0.001
		(0.74)
ΔNPL_{t-1}		-0.001
		(-1.29)
ΔNPL_{t-2}		-0.001
		(-1.44)
LLA_{t-1}		-0.163
		(-0.64)
CAP_{t-1}		0.000
		(0.57)
$EBTP_t$		-0.005
		(-1.54)
$Size_{t-1}$		0.001
		(0.09)
Constant	0.030***	0.027
	(133.62)	(0.38)
Observations	169,904	169,904
Adjusted R-squared	0.1205	0.1205
Number of banks	6199	6199
Clustered by	Bank	Bank
Fixed effects	Bank, Year-Quarter	Bank, Year-Quarter

Table 3: Loan Growth

This table presents the results of the OLS regression $Loan\ Growth_{i,t} = \beta_0 + \beta_1 Public_i \times Post_t + \sum controls$. *Public* is an indicator variable equal to 1 if the observation is a public bank, and 0 otherwise. *Post* is an indicator variable, equal to 1 if the quarter ends in or after the 4th calendar quarter of 2004, and 0 otherwise. All other variables are defined in Appendix A. The regression includes bank and year-quarter fixed effects. We report in brackets t-statistics based on standard errors clustered at the bank level. *, **, *** denote statistical significance at the 10%, 5%, and 1% levels, using two-tailed tests, respectively.

	(1)	(2)
	Loan Growth$_t$	*Loan Growth*$_t$
Public × *Post*	-0.994***	-0.555***
	(-11.90)	(-6.91)
CAP_{t-1}		0.090***
		(12.44)
ΔCAP_{t-1}		-0.188***
		(-13.00)
$Size_{t-1}$		-1.971***
		(-19.36)
$Deposits_{t-1}$		0.022***
		(4.32)
Constant	2.396***	21.994***
	(476.50)	(17.06)
Observations	255,287	255,287
Adjusted R-squared	0.1634	0.1797
Number of banks	7321	7321
Clustered by	Bank	Bank
Fixed effects	Bank, Year-Quarter	Bank, Year-Quarter

Table 4: Procyclical Lending

This table presents the results of the OLS regression $Loan\ Growth_{i,t} = \beta_0 + \beta_1\ Public_i \times Post_t + \beta_2\ Public_i \times GDP\_growth_t + \beta_3\ Public_i \times Post_t \times GDP\_growth_t + \sum controls$. *Public* is an indicator variable equal to 1 if the observation is a public bank, and 0 otherwise. *Post* is an indicator variable, equal to 1 if the quarter ends in or after the 4th calendar quarter of 2004, and 0 otherwise. GDP_growth_t is the quarterly GDP growth rate in quarter *t*. All other variables are defined in Appendix A. The regression includes bank and year-quarter fixed effects. We report in brackets t-statistics based on standard errors clustered at the bank level. *, **, *** denote statistical significance at the 10%, 5%, and 1% levels, using two-tailed tests, respectively.

	(1) $Loan\ Growth_t$	(2) $Loan\ Growth_t$
$Public \times Post$	-2.042***	-1.614***
	(-11.03)	(-9.15)
$Public \times GDP\_growth_t$	-0.023	-0.025*
	(-1.61)	(-1.78)
$Public \times Post \times GDP\_growth_t$	0.202***	0.204***
	(7.44)	(7.68)
CAP_{t-1}		0.091***
		(12.53)
ΔCAP_{t-1}		-0.189***
		(-13.04)
$Size_{t-1}$		-1.964***
		(-19.30)
$Deposits_{t-1}$		0.022***
		(4.43)
Constant	2.414***	21.884***
	(190.93)	(16.97)
Observations	255,287	255,287
Adjusted R-squared	0.1636	0.1799
Number of banks	7321	7321
Clustered by	Bank	Bank
Fixed effects	Bank, Year-Quarter	Bank, Year-Quarter

Table 5: Borrower Risk

This table presents the results of OLS regression: $Borrower\ risk_{i,j,t}=\beta_0+\beta_1\ Public_i\times Post_t+\sum\beta_j Facility\ charactistics_j$ $\sum Other\ fixed\ effects,$. *Public* is an indicator variable equal to 1 if the observation is a public bank, and 0 otherwise. *Post* is an indicator variable, equal to 1 if the quarter ends in or after the 4th calendar quarter of 2004, and 0 otherwise. *Borrower risk* is measured by the standard deviation of ROA in the past eight quarters of the borrowers or the standard deviation of their stock return in the facility activation year. *Facility Characteristics* include facility amount, maturity, loan purposes, and banks' role in the syndication. All other variables are defined in Appendix A. The regression includes bank and year-quarter fixed effects. We report in brackets t-statistics based on standard errors clustered at the bank level. *, **, *** denote statistical significance at the 10%, 5%, and 1% levels, respectively

	(1)	(2)	(3)	(4)
	Std ROA	*Std ROA*	*Std Ret*	*Std Ret*
Public × *Post*	-0.014*	-0.012*	-0.010*	-0.008*
	(-1.88)	(-1.85)	(-1.80)	(-1.75)
Facility characteristics	No	Yes	No	Yes
Observations	748	675	751	676
Adjusted R-squared	0.235	0.249	0.406	0.468
Clustered by	Bank	Bank	Bank	Bank
Fixed effects	Bank, Year-Quarter	Bank, Year-Quarter	Bank, Year-Quarter	Bank, Year-Quarter

Table 6: Robustness tests

Panel A presents the results of the OLS regression $Timeliness_{i,t} = \beta_0 + \beta_1 Public_i \times Post_t + \sum controls$. Panel B presents the results of the OLS regression $Loan\ Growth_{i,t} = \beta_0 + \beta_1 Public_i \times Post_t + \sum controls$. Panel C presents of the results of the OLS regression $Loan\ Growth_{i,t} = \beta_0 + \beta_1 Public_i \times Post_t + \beta_2 Public_i \times GDP\_growth_t + \beta_3 Public_i \times Post_t \times GDP\_growth_t + \sum controls$. *Public* is an indicator variable equal to 1 if the observation is a public bank, and 0 otherwise. *Post* is an indicator variable, equal to 1 if the quarter ends in or after the 4th calendar quarter of 2004, and 0 otherwise. All regressions include bank and year-quarter fixed effects. In each panel, columns (1) – (4) present the results of the OLS regressions using alternative samples. Column (1) excludes the ten largest public banks by total assets from the sample. Column (2) excludes private banks that are smaller than the smallest public bank and public banks that are larger than the largest private bank from the sample. Column (3) excludes the pre-SOX time period (before August 2002) from the sample. Column (4) includes the financial crisis period (2007Q4 – 2009Q2) in the sample.

Panel A: Timeliness

Dependent variable: *Timeliness*$_t$	Exclude 10 biggest public banks (1)	Exclude smallest private banks and largest public banks (2)	Delete period before SOX (August 2002) (3)	Include financial crisis period (2007Q4 – 2009Q2) (4)
Public × *Post*	0.034***	0.034***	0.033***	0.030***
	(3.95)	(3.95)	(3.33)	(3.47)
Observations	169,904	169,812	92,714	190,113
Adjusted R-squared	0.1205	0.1205	0.1791	0.1141
Number of banks	6,199	6,193	5,469	6,199
Controls included	Yes	Yes	Yes	Yes
Clustered by bank	Yes	Yes	Yes	Yes
Bank, year-quarter fixed effects included	Yes	Yes	Yes	Yes

Panel B: Loan Growth

Dependent variable: *Loan_Growth*$_t$	Exclude 10 biggest public banks (1)	Exclude smallest private banks and largest public banks (2)	Delete period before SOX (August 2002) (3)	Include financial crisis period (2007Q4 – 2009Q2) (4)
Public × *Post*	-0.550***	-0.526***	-0.800***	-0.596***
	(-6.80)	(-6.42)	(-8.52)	(-7.45)
Observations	254,919	253,931	159,601	288,055
Adjusted R-squared	0.1798	0.1808	0.1866	0.1703
Number of banks	7,311	7,277	7,282	7,325
Controls included	Yes	Yes	Yes	Yes
Clustered by bank	Yes	Yes	Yes	Yes
Bank, year-quarter fixed effects included	Yes	Yes	Yes	Yes

Panel C: Procyclical Lending

Dependent variable: *Loan_Growth*$_t$	Exclude 10 biggest public banks (1)	Exclude smallest private banks and largest public banks (2)	Delete period before SOX (August 2002) (3)	Include financial crisis period (2007Q4 – 2009Q2) (4)
Public × *Post*	-1.606***	-1.594***	-2.178***	-0.959***
	(-9.04)	(-8.93)	(-8.95)	(-7.46)
Public × *GDP_growth*$_t$	-0.024*	-0.024*	-0.064**	-0.026*
	(-1.73)	(-1.73)	(-2.19)	(-1.85)
Public × *Post* × *GDP_growth*$_t$	0.203***	0.206***	0.258***	0.082***
	(7.62)	(7.72)	(6.87)	(4.59)
Observations	254,919	253,931	159,601	288,055
Adjusted R-squared	0.1801	0.1810	0.1871	0.1704
Number of banks	7311	7277	7282	7325
Controls included	Yes	Yes	Yes	Yes
Clustered by bank	Yes	Yes	Yes	Yes
Bank, year-quarter fixed effects included	Yes	Yes	Yes	Yes

Table 7: Channels of Influence: Funding Costs (Public Bank Sample)

This table presents the results of the OLS regression $Deposit\_Rate_{i,t} = \beta_0 + \beta_1 CL_{i,t-4 \text{ to } t-1} + \beta_2 CL_{i,t-4 \text{ to } t-1} \times Post_t + \sum controls$ restricted to the sample of public banks. The sample consists of 37,437 bank-quarters from 1,195 public banks. In the pre-disclosure period, $CL_{i,t-4 \text{ to } t-1}$ equals one in the quarter when the SEC concludes its review process and the three prior quarters, and zero otherwise. In the post-disclosure period, $CL_{i,t-4 \text{ to } t-1}$ equals one in the quarter when the SEC disseminates the CL publicly and the three prior quarters, and zero otherwise. In columns (1) and (2), *Deposit_Rate* is *Core_Deposit_Rate*, the quarterly interest expense on transaction deposits, savings deposits and small-time deposits divided by the average balance of the corresponding deposits. In columns (3) and (4), *Deposit_Rate* is *Large_Time_Deposit_Rate*, the quarterly interest expense on time deposits greater than $100,000 divided by the average balance of the corresponding deposits. All other variables are defined in Appendix A. The regression includes bank and year-quarter fixed effects. We report in brackets t-statistics based on standard errors clustered at the bank level. *, **, *** denote statistical significance at the 10%, 5%, and 1% levels, using two-tailed tests, respectively.

	(1) *Core_Deposit_Rate*$_t$	(2) *Core_Deposit_Rate*$_t$	(3) *Large_Time_Deposit_Rate*$_t$	(4) *Large_Time_Deposit_Rate*$_t$
$CL_{i,t-4 \text{ to } t-1}$	-0.078***	-0.080***	-0.069**	-0.069**
	(-3.60)	(-3.73)	(-2.02)	(-2.03)
$CL_{i,t-4 \text{ to } t-1} \times Post_t$	0.120***	0.132***	0.092**	0.101**
	(4.06)	(4.40)	(2.21)	(2.43)
LLA_{t-1}		-4.651***		-2.336*
		(-4.18)		(-1.89)
CAP_{t-1}		-0.008**		-0.010***
		(-2.47)		(-3.16)
$EBTP_t$		-0.121***		-0.086***
		(-6.12)		(-3.29)
$Size_{t-1}$		0.111***		0.022
		(4.71)		(0.98)
Constant	2.609***	1.411***	3.873***	3.802***
	(2,317.93)	(4.54)	(2,484.75)	(12.67)
Observations	37,437	37,437	37,437	37,437
Adjusted R-squared	0.9203	0.9220	0.8601	0.8606
Number of banks	1195	1195	1195	1195
Clustered by	Bank	Bank	Bank	Bank
Fixed effects	Bank, Year-Quarter	Bank, Year-Quarter	Bank, Year-Quarter	Bank, Year-Quarter

Table 8: Channels of Influence: Regulatory Spill-Over (Enforcement Decision and Orders)

This table presents the results of the OLS regression $EDO_{i,t} = \beta_0 + \beta_1 CL_{i,t-4 \text{ to } t-1} \times Post_t + \beta_2 CL_{i,t-4 \text{ to } t-1} + \sum controls$ restricted to the sample of public banks. The sample consists of 37,437 bank-quarters from 1,195 public banks. *EDO* is an indicator variable equal to 1 if the bank receives a severe enforcement decision/order in quarter t or the subsequent three quarters. In the pre-disclosure period, $CL_{i,t-4 \text{ to } t-1}$ equals one in the quarter when the SEC concludes its review process and the three prior quarters, and zero otherwise. In the post-disclosure period, $CL_{i,t-4 \text{ to } t-1}$ equals one in the quarter when the SEC disseminates the CL publicly and the three prior quarters, and zero otherwise. Column (1) presents the baseline results of the regression. Column (2) includes the interactions $CL_{i,t-4 \text{ to } t-1} \times High\_Opacity$, $Post \times High\_Opacity$, $CL_{i,t-4 \text{ to } t-1} \times Post \times High\_Opacity$. *High_Opacity* is an indicator, equal to 1 if *DLLP_MS* (banks' discretionary accruals) is above the median in the 4th quarter of 2004. Column (3) includes the interactions $CL_{i,t-4 \text{ to } t-1} \times High\_PAC$, $Post \times High\_PAC$, $CL_{i,t-4 \text{ to } t-1} \times Post \times High\_PAC$. *High_PAC* is an indicator, equal to 1 if the firm's PAC donations to financial services committee members are above the median from 2002 to 2004. Column (4) includes the interactions $CL_{i,t-4 \text{ to } t-1} \times LogPAC$, $Post \times LogPAC$, $CL_{i,t-4 \text{ to } t-1} \times Post \times LogPAC$. *LogPAC* is the natural logarithm of firm's PAC donations to financial services committee members from 2002 to 2004. All other variables are defined in Appendix A. The regression includes bank and year-quarter fixed effects. We report in brackets t-statistics based on standard errors clustered at the bank level. *, **, *** denote statistical significance at the 10%, 5%, and 1% levels, using two-tailed tests, respectively.

	(1) EDO_t	(2) EDO_t	(3) EDO_t	(4) EDO_t
$CL_{i,t-4 \text{ to } t-1}$	-0.003	0.011	0.001	0.000
	(-0.57)	(1.08)	(0.08)	(0.04)
$CL_{i,t-4 \text{ to } t-1} \times Post_t$	0.003	-0.021	-0.016	-0.019
	(0.27)	(-1.39)	(-1.24)	(-1.50)
$CL_{i,t-4 \text{ to } t-1} \times High\_Opacity$		-0.025**		
		(-2.05)		
$Post \times High\_Opacity$		-0.015***		
		(-2.66)		
$CL_{i,t-4 \text{ to } t-1} \times Post \times High\_Opacity$		0.042**		
		(2.24)		
$CL_{i,t-4 \text{ to } t-1} \times High\_PAC$			-0.002	
			(-0.21)	
$Post \times High\_PAC$			0.008	
			(0.91)	
$CL_{i,t-4 \text{ to } t-1} \times Post \times High\_PAC$			0.045**	
			(2.15)	
$CL_{i,t-4 \text{ to } t-1} \times LogPAC$				0.000
				(0.08)
$Post \times LogPAC$				0.001
				(1.14)
$CL_{i,t-4 \text{ to } t-1} \times Post \times LogPAC$				0.005**
				(2.34)
$DLLP\_MS_{t-1}$	0.001*	0.001*	0.001*	0.001*
	(1.83)	(1.89)	(1.83)	(1.86)
$Size_{t-1}$	0.016**	0.015**	0.018***	0.019***
	(2.57)	(2.47)	(2.85)	(2.97)
$Leverage_{t-1}$	0.512***	0.505***	0.525***	0.532***
	(5.73)	(5.71)	(5.89)	(5.97)
CAP_{t-1}	-0.001**	-0.001**	-0.001**	-0.001**
	(-2.26)	(-2.33)	(-2.25)	(-2.25)

NPL_{t-1}	1.715***	1.709***	1.708***	1.701***
	(8.31)	(8.29)	(8.38)	(8.42)
ROE_{t-1}	-0.002***	-0.002***	-0.002***	-0.002***
	(-8.64)	(-8.65)	(-8.69)	(-8.72)
$Deposits_{t-1}$	-0.000	-0.000	-0.000	-0.000
	(-1.12)	(-1.14)	(-1.34)	(-1.44)
$Loan\_Growth_{t-1}$	-0.044**	-0.042**	-0.045***	-0.046***
	(-2.50)	(-2.41)	(-2.59)	(-2.62)
$\Delta Liquidity_{t-1}$	-0.032	-0.033	-0.035	-0.036
	(-0.62)	(-0.64)	(-0.67)	(-0.70)
Constant	-0.564***	-0.541***	-0.594***	-0.605***
	(-4.39)	(-4.28)	(-4.59)	(-4.68)
Observations	37,437	37,437	37,437	37,437
Adjusted R-squared	0.1816	0.1822	0.1825	0.1831
Number of banks	1,195	1,195	1,195	1,195
Clustered by	Bank	Bank	Bank	Bank
Fixed effects	Bank, Year-Quarter	Bank, Year-Quarter	Bank, Year-Quarter	Bank, Year-Quarter