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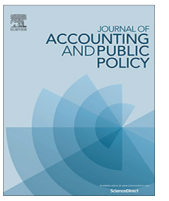

Full length article

Bank earnings management and performance reporting of comprehensive income

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ABSTRACT

FASB's ASU 2011-05 mandated that comprehensive income (CI) and other comprehensive income (OCI) be reported in performance statements (a single income statement or a separate statement of CI) rather than equity statements. Employing a difference-in-differences research design with ASU 2011-05 as the treatment, I find that presenting accounting information in different statements affects bank earnings management, specifically, presenting CI and OCI in performance statements (especially in single-statements with net income) reduces earnings management through selective sales of available-for-sale (AFS) securities in the banking industry. I also find that the influence of ASU 2011-05 is primarily on banks with high equity incentives in the CEO's compensation package or less CEO job security. Additional analyses suggest that performance reporting of CI and OCI increases the predictive ability of realized gains and losses of AFS securities; however, banks may manage loan loss provision as a substitute strategy when they have to decrease selective sales of AFS securities.

1. Introduction

This paper investigates whether presenting comprehensive income in performance statements rather than equity statements reduces bank earnings management using realized gains and losses on available-for-sale (AFS) securities.[1] Accounting Standard Updates No. 2011-05 (ASU 2011-05) on *Reporting of Comprehensive Income* (Topic 220) requires comprehensive income (CI) and other comprehensive income (OCI) items to be reported in either an income statement or a separate statement that immediately follows the income statement, both of which are characterized by the Financial Accounting Standards Board (FASB) and researchers as "performance statements." Previously, most firms had presented CI and OCI (CI/OCI) in their equity statements; however, ASU 2011-05 led a large number of firms to move the presentation of CI/OCI to their performance statements after December 2011. According to the FASB, the main objective of this standard update is to increase the prominence of CI/OCI and thereby improve the transparency of financial reporting. This paper explores how the update achieves the goal of increased transparency through changing managers' accounting behaviors in the banking industry.

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[1] Since managers influence the realization of gains and losses on AFS securities principally through the sales of AFS securities, I use the terms "realizing gains and losses," "selling AFS securities," "realization of gains and losses," and "sales of AFS securities" interchangeably.

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Prior empirical studies have examined the determinants of the choice of where to present CI/OCI (Lee et al., 2006; Bamber et al., 2010), with results indicating that the main determinant is managers' tendency to smooth earnings. Dong and Zhang (2018) find evidence of selective sales of AFS securities among banks that choose to present unrealized gains and losses (as a part of CI/OCI) in equity statements but not for banks that choose performance reporting. However, it remains unclear whether eliminating the reporting of CI/OCI in equity statements reduces earnings management. I expect that banks mandated to switch the reporting position of CI/OCI from equity to performance statements after the adoption of ASU 2011-05 have reduced earnings management through selective sales of AFS securities (H_1) for two reasons. First, more prominent reporting of CI/OCI in performance statements promotes the role of CI as a performance measure, which reduces bank managers' incentives to manage the realization of gains and losses on AFS securities, as these realized gains and losses affect the value of net income (NI) but not that of CI. Second, reporting CI/OCI in performance statements could emphasize the usefulness of CI/OCI in performance evaluations, highlight the difference between CI and NI, and help reveal earnings management through selective sales of AFS securities (Hirst and Hopkins, 1998; Lee et al., 2006). Rational managers would be less likely to engage in earnings management if they believed that the changed reporting leads to higher chances of detection (Fields et al., 2001; Hirst et al., 2003). Thus, I also expect banks that are more likely to be motivated by these reasons to exhibit greater declines in earnings management following the adoption of ASU 2011-05 (H_2). On the other hand, if managers do not believe that changing the reporting position of CI/OCI would significantly increase investors' attention to CI/OCI or their ability to detect selective sales of AFS securities, then no change in earnings management behavior will be observed.

I examine the effect of ASU 2011-05 on bank earnings management through selective sales of AFS securities by using a difference-in-differences research design with hand-collected data of reporting positions of CI/OCI from a sample of bank holding companies from 2010 to 2014.[2] The results demonstrate that prior to ASU 2011-05, banks reporting CI/OCI in equity statements exhibited more earnings smoothing through selective sales of AFS securities than those reporting CI/OCI in performance statements, and following ASU 2011-05, there has been a significant reduction in (but not an elimination of) the same earnings smoothing behavior by the former banks. This evidence suggests that the mandated reporting of CI/OCI in performance statements mitigates—but does not completely eliminate—earnings smoothing behavior. These results are robust to various specifications and are not driven by other concurrent events or changes in reclassification adjustment reporting. I also find that the effect of ASU 2011-05 is more prominent on treatment banks that adopted a one-statement method with CI presented as the bottom line earnings measure as well as those with high equity incentives in the CEO's compensation package or less CEO job security. These findings confirm my expectation that emphasizing CI as the main performance measure reduces managers' incentive to engage in selective sales of AFS securities and that managers believe that more prominent reporting of CI/OCI could help reveal such earnings management strategies. Additional analyses indicate that the realized gains and losses on AFS securities are more informative for predicting future earnings when banks present CI/OCI in performance statements rather than equity statements, which is consistent with the inference that the management of realized gains and losses on AFS securities reduces the informativeness of income items. In addition, using ASU 2011-05 as a treatment, I find that compared with banks that always present CI/OCI in performance statements, treatment banks exhibit a relative increase in earnings smoothing using loan loss provisions, which suggests that when the relative cost of selective sales of AFS securities increases, managers may substitute it with other earnings management strategies.

This paper makes three primary contributions. First, using a shock of changes in reporting policy, I show how the presentation of recognized items in different financial statements affects managers' earning management behaviors. As such, it complements previous research that has used experimental settings to examine this issue (e.g., Hirst and Hopkins, 1998). The presentation of CI/OCI studied in this paper is novel because, in contrast with previously examined presentation issues (particularly recognition versus disclosure and classification shifting), the current setting helps to isolate the effect of the presentation of reported information by holding the recognition of that information constant. Moreover, this paper focuses on presentation effects, as there is no change in the reported bottom-line values; specifically, bottom line NI is unaffected by ASU 2011-05. Thus, this paper isolates the effect of the presentation decision on managers' earnings management behavior. Second, the findings presented in this paper have important policy implications related to the widespread debate concerning the appropriate presentation of CI/OCI. In particular, the findings suggest that a more prominent presentation of CI/OCI reduces earnings management behavior and improves the informativeness of earnings reports. Finally, this paper adds to the prior literature on earnings management in the banking industry by documenting the impact of financial statement presentation on this behavior.

The remainder of this paper proceeds as follows. Section 2 summarizes the related literature and regulations and develops the hypotheses. Section 3 describes the research design. Section 4 presents the sample selection and descriptive statistics. Section 5 discusses the primary regression analyses. Sections 6 discusses the sensitivity and additional analyses, followed by the conclusion in Section 7.

[2] I focus on the banking industry because 1) prior research documents that the opportunistic sale of AFS securities is a primary mechanism by which banks manage earnings on or above bottom line net income due to the centrality of AFS securities in banks' assets, and 2) the availability of quarterly bank regulatory-reports data enables me to examine earnings management through realizing gains and losses on AFS securities.

2. Background, literature review, and hypothesis development

2.1. Background: Reporting policy of comprehensive income

The FASB implemented CI reporting under Statement of Financial Accounting Standard (SFAS) 130 (Financial Accounting Standard Board, 1997), which defines CI as the sum of net income (NI) and OCI items, whereby OCI includes four principal components relating to fair value adjustments of AFS securities, derivative instruments, foreign currency translations, and pension obligations. SFAS 130 permits four alternative formats to report CI/OCI: 1) in the income statement with NI; 2) in a separate statement of comprehensive income immediately following the income statement, starting with NI and ending with CI (both Methods 1 and 2 are referred to as *performance reporting of CI/OCI*); 3) in the statement of changes in shareholders' equity (i.e., equity statement); or 4) in a separate statement of comprehensive income that does not immediately follow the income statement.[3] The FASB initially proposed only reporting CI/OCI in performance statements (either one or two statements, i.e., Method 1 or 2) in the exposure draft of SFAS 130, with the reasoning being that OCI items should be considered as part of firms' financial performance when the "all-inclusive" concept is applied. However, Methods 3 and 4 were later permitted because financial statement preparers presented objections to performance reporting of CI/OCI during the public comment period, arguing that unrealized gains and losses in OCI are out of managers' control and thus should not be used for performance evaluation (Yen et al., 2007). Consistent with this viewpoint, most companies present CI/OCI in equity statements under SFAS 130.[4] To enhance the transparency of CI/OCI, the FASB again proposed performance reporting of CI (single-statement method, i.e., Method 1) in the exposure draft of ASU 2011-05, and then required either one or two-statement method reporting (Method 1 or 2) in its final draft.[5] In response, most of the companies switched the reporting position of CI/OCI from equity statements to performance statements in the fiscal periods after December 2011. The timeline of changes in the presentation policy of CI/OCI is displayed in Appendix B.

2.2. Literature review

2.2.1. Managing earnings through selective sales of AFS securities

Prior research documents earnings management through selective sales in financial institutions, especially the banking industry (e.g., Barth et al., 1990; Beatty et al., 1995; Collins et al.,1995; Beatty et al., 2002). Under SFAS 115 and 130, the unrealized gains and losses on AFS securities cannot be recognized in NI until the security is sold or disposed, or the impairment is deemed other than temporary. Thus, firms' decisions on which AFS securities to sell, and when, determine which part of the difference between the fair value and the purchase value of AFS securities is recognized in NI, and when.[6, 7] Managing earnings using AFS securities could be less costly than engaging in accrual earnings management or other real earnings management, and thus attractive to managers. On the one hand, managers can influence realized gains and losses (RGL) on AFS securities mainly through sales of AFS securities, which are real business decisions and less subject to outside scrutiny than accruals management. On the other hand, the real effect of selling AFS securities can be easily mitigated by repurchasing the securities shortly after sales. Using a sample of banks with data after investment securities were categorized by SFAS 115 (Financial Accounting Standard Board, 1993), Barth et al. (2017) and Dong and Zhang (2018) demonstrate evidence of earnings management through realizing gains and losses on AFS securities.

Managers only have incentives to selectively sell AFS securities if they believe that NI is the earnings target and CI is not. When AFS securities are sold, the unrealized gains and losses in OCI will be reclassified into NI as realized gains and losses, leaving CI (i.e., the sum of OCI and NI) unaffected by realizing gains and losses on AFS securities. Prior findings are consistent with the notion that most investors and managers view NI or earnings items above NI as the primary performance measures (Barton et al., 2010; Jones and Smith, 2011; Dong et al., 2014). Barth et al. (2017) propose that recognizing unrealized gains

[3] Prior to ASU 2011-05, the FASB allowed reporting CI/OCI in any statement with the same prominence as other financial statements. Thus, some firms presented CI/OCI in a separate statement of CI following their equity or cash flow statement under SFAS 130. However, since this type of presentation (i.e., Method 4) is rarely used and difficult to classify as either a performance or equity statement, I exclude it from my analyses. Following ASU 2011-05, the separate statement of CI has to be reported immediately following the income statement (Method 2) as the second statement of the two-statement performance reporting.

[4] Bamber et al. (2010) find that about 80% of S&P 500 firms report CI/OCI in equity statements. Jordan and Clark (2011) document that about 63% of financial service companies report CI/OCI in equity statements.

[5] After ASU 2011-05, most firms chose to switch to the two-statement reporting method of CI/OCI (reporting CI/OCI immediately following the income statement, i.e., Method 2). In my sample, eight banks switched from equity statement (Method 3) to income statement reporting (Method 1) after ASU 2011-05, three banks have always used Method 1 and five banks used Method 1 prior to ASU 2011-05 but switched to Method 2 thereafter. Due to the limited data, I cannot fully explore the determinants of using Method 2 versus Method 1. Section 5.2 further elaborates the differences between Method 1 and 2 adopters.

[6] The realized gains and losses on AFS securities examined in this paper is a measure reported in FR-Y-9C, which includes net gain or loss realized from the sale, exchange, redemption, or retirement of all AFS securities. This value also includes other-than-temporary impairments (OTTI) on AFS securities. In my sample, 3,294 (7 7 0) out of 4,064 firms' report zero (non-zero) OTTI. However, this variable includes OTTI for both held-to-maturity and available-for-sale securities, and there is no easy way to separate these two components. I assume that most managers trade AFS securities to manage earnings through realizing gains or losses. Even if managers manage earnings through OTTI, this behavior will be captured by the measure.

[7] Unlike AFS securities, held-to-maturity securities are measured at amortized cost; the sale and reclassification of held-to-maturities to the other categories prior to maturity are also restricted by regulators. In addition, fair value changes in the trading securities are always recognized in NI, which leaves managers with no reason to manage NI through realizing gains and losses on trading securities. Like selling AFS securities, reclassifying AFS securities into trading securities requires recording realized gains and losses on AFS securities.

and losses in earnings is necessary in order to remove the incentive for firms to manage earnings through realizing gains and losses on AFS securities. My study provides early evidence of whether including unrealized gains and losses in performance statements reduces this type of earnings management.

2.2.2. Comprehensive income reporting

Under Fama's (1970) efficient-market hypothesis, the reporting position of accounting information should not affect informativeness (Rees and Shane, 2012). However, Bloomfield's (2002) "incomplete revelation hypothesis" asserts that information that is more costly to extract from the public data is less completely revealed in market prices and predicts that managers have an incentive to hide information by using certain reporting formats. In line with this hypothesis, Hirshleifer and Teoh (2003) present the "limited attention" theory, which suggests that investors who have limited attention and processing power are more likely to absorb the information presented in highly salient and easily processed forms rather than that presented in less salient forms. According to Hirst and Hopkins (1998) and Maines and McDaniel (2000), both income statements (method 1) and consecutive statements of comprehensive income (method 2) are more salient reporting forms of CI/OCI than equity statements for the following two reasons.

First, both income statements (Method 1) and consecutive statements of comprehensive income (Method 2) are viewed as statements presented for the purpose of evaluating firms' earnings performance (Financial Accounting Standard Board, 1997; Hirst and Hopkins, 1998), whereas equity statements are mainly used to demonstrate the distribution of shareholder's equity rather than the firm's performance in the current period. Thus, investors are more likely to scrutinize performance statements rather than equity statements to find relevant information for performance evaluations (Hirst and Hopkins, 1998). Even when all financial statements are equally processed, performance statement reporting of CI/OCI increases their perceived importance for performance evaluations (and therefore the weighting of CI/OCI information), whereas presenting CI/OCI in equity statements implies that these items are not performance-related (Maines and McDaniel, 2000). Thus, for the purpose of performance evaluation, both income statements and statements of comprehensive income are more salient reporting positions than equity statements.

Second, when the performance reporting method is used, CI/OCI will only be presented with other performance measures (i.e., NI or earnings measures above the bottom-line NI); however, when equity reporting is used, CI/OCI will be presented along with various equity items (common stock, additional paid-in capital, treasury stock, etc.) that are not relevant to earnings performance evaluation. As earnings performance measures, CI/OCI are more relevant to NI than to equity statement items. Based on prior cognitive psychology research, Maines and McDaniel (2000) propose that presenting CI/OCI with irrelevant equity items could increase investors' cognitive costs and thereby reduce their usage and weighting of CI/OCI. Hirst and Hopkins (1998) similarly suggest that presenting CI/OCI along with multiple unrelated equity items deemphasizes the relationship among CI, OCI, and NI, thereby helping to obscure RGL management. In sum, reporting CI/OCI in performance statements with NI is a more salient presentation than equity statement reporting because it is more costly to process CI/OCI information and its relationship with other earning measures when it is presented along with unrelated items.

The above arguments are supported by experimental evidence. Hirst and Hopkins (1998) find that reporting CI in a separate statement of CI (i.e., Method 2) is more effective than equity statement reporting in revealing earnings management through realizing AFS gains and losses. Maines and McDaniel (2000) similarly find that investors only price CI volatility when it is presented in a separate statement of CI (i.e., Method 2). However, several other empirical studies have found that the valuation relevance of OCI decreases with performance reporting, implying that reporting CI in equity statements is more effective (Schaberl and Victoravich, 2015; Lin et al., 2016). Cao and Dong (2020) explain the mixed results by suggesting that performance reporting increases investors' awareness of CI volatility, which in turn enhances perceived earnings risk, thereby reducing the relevance of OCI value. My study adds to the literature by providing new empirical evidence of the effects of performance reporting of CI.

Some empirical papers have presented evidence that managers view performance reporting of CI/OCI as being more salient than equity statement reporting. Bamber et al. (2010) and Lee et al. (2006) find that managers with an incentive to hide CI/OCI information are more likely to choose equity statements rather than performance statements. Relating to this paper, Dong and Zhang (2018) only find evidence of selective sales of AFS securities among banks that chose to report CI/OCI in equity statements rather than performance statements before ACU 2011-05, which they attribute to (a) these banks have more opportunity to do so, or (b) their accounting choices reflect their incentive to manage earnings. However, Dong and Zhang's (2018) study does not reveal whether mandating performance reporting of CI/OCI decreases earnings management using selective sales of AFS securities.

2.3. Hypothesis development

Using ASU 2011-05 as an external shock, I examine whether the mandated change of CI reporting position from equity statements to performance statements has reduced the management of realizing gains and losses on AFS securities. I focus on the banking industry to test my research question because this type of earnings management is a more prominent issue for banks due to the centrality of AFS securities in their assets (Dong and Zhang, 2018).

I define banks that adopted performance reporting of CI before ASU 2011-05 as *control banks* (not required to change the reporting position of CI following ASU 2011-05); and banks that used equity statement CI reporting before ASU 2011-05 as *treatment banks* (required to adopt performance reporting of CI after ASU 2011-05). Based on the analyses in Section 2.2.2, I

hypothesize that treatment banks will significantly decrease earnings management through selective sales of AFS securities after ASU 2011-05. Applying a difference-in-differences research design, I use control banks to capture the time trend of earnings management behavior over the test period.[8] Thus, my H_1 is (stated in alternative form):

***H_1**: After the adoption of ASU 2011-05, banks mandated to switch the reporting position of CI/OCI (treatment banks) significantly decreased earnings management through selective sales of AFS securities.*

I propose that if managers believe that performance reporting of CI/OCI increases investors' use of such information, then they would reduce the management of realized AFS securities gains and losses after adopting ASU 2011-05 for two reasons. First, the more prominent performance reporting of CI/OCI will emphasize CI as a performance measure; therefore, managers will have no incentive to manage CI because it is not affected by realizing gains and losses on AFS securities. Second, more salient performance reporting of CI/OCI emphasizes the relation between NI and OCI and thereby increases the chance that selective sales of AFS securities will be detected. Easily detected earnings management behaviors not only fail to fool equity investors but also dampen a firm's stock price (Lundholm, 1999; Hirst et al., 2003). Although selectively selling AFS securities does not violate the Generally Accepted Accounting Principles (GAAP), managers who have equity-based compensation might be punished by the dampened stock price. The board of directors can also penalize managers for engaging in opportunistic operational behaviors through compensation and employment contracts (Dechow and Sloan, 1991; Cheng, 2004; Laux and Laux, 2009), thereby incentivizing managers to reduce any easily detectable earnings management behavior. For either of the above two reasons, performance reporting of CI/OCI decreases selective sales of AFS securities.[9] If these two reasons are valid, then I expect that banks that are more likely to be motivated by them will exhibit greater declines in such earnings management strategies after the adoption of ASU 2011-05. I express my expectation in the following three secondary hypotheses.

First, I expect that treatment banks that switched to a single-statement method after adopting ASU 2011-05 will exhibit greater declines in the management of RGL. Treatment banks switched to either single-statement reporting (Method 1) or two-statement reporting (Method 2) after adopting ASU 2011-05. Under single-statement reporting, CI is displayed as the bottom line earnings of income statement, whereas NI is still the bottom line earnings of income statement under two-statement reporting. Thus, if managers believe that reporting CI as the bottom line earnings emphasize CI as the main earnings measure, they will have less incentive to manage RGL when adopting the single-statement method rather than the two-statement method. According, my H_{2a} is (stated in alternative form):

***H_{2a}**: After the adoption of ASU 2011-05, treatment banks that adopted single-statement reporting methods exhibit greater declines in earnings management through selective sales of AFS securities than treatment banks that adopted two-statement reporting.*

Next, I expect that managers are more likely to reduce the management of RGL if they are more likely to be punished for such management behavior. Since prior studies suggest that managers could be penalized for detected earnings management behavior through employment contracts and stock prices (Dechow and Sloan, 1991; Lundholm, 1999; Hirst et al., 2003; Cheng, 2004; Laux and Laux, 2009), I expect that managers with lower job security and greater equity incentive are more likely to reduce earnings management. Thus, I have the following H_{2b} and H_{2c} (stated in alternative form):

***H_{2b}**: After the adoption of ASU 2011-05, treatment banks with CEOs that have lower job security exhibit greater declines in earnings management through selective sales of AFS securities than treatment banks with CEOs that have higher job security.*

***H_{2c}**: After the adoption of ASU 2011-05, treatment banks with greater equity incentives in the CEO's compensation package exhibit greater declines in earnings management through selective sales of AFS securities than treatment banks with less equity incentives in the CEO's compensation package.*

The null of H_1 and $H_{2a} - H_{2c}$ may not be rejected (i.e., reporting CI/OCI in the performance statements *does not* reduce banks' management of RGL) for three reasons. First, the differences between CI and NI (i.e., OCI) are usually viewed as transient fair value changes that are irrelevant to firms' and managers' performance. Both demand for and supply of CI/OCI information may be lacking. Second, repositioning CI/OCI does not reduce investors' attentiveness to bottom line NI or earnings measures above NI. Third, earnings management using selective sales of AFS securities affects earnings through real operating decisions—when to sell securities and which securities to sell. Distinguishing between business-driven and opportunistic sales of securities can be difficult for investors even when CI/OCI information is emphasized. Indeed, CFOs believe that it is difficult for investors to detect earnings management through real actions (Dichev et al., 2013).

[8] I do not have an ex-ante expectation of whether or how earnings management behavior will change for control banks during my test period. There may be a time trend of increasing or decreasing earnings management through AFS securities in general regardless of CI reporting changes. The difference-in-differences design uses control banks to control for other concurrent events or time trends so that the difference between treatment and control banks can be attributed to the different reporting positions of CI/OCI.

[9] I find no increase in the use of CI in compensation packages or earnings announcements after ASU 2011-05. In other words, repositioning CI/OCI might not affect a company's or managers' performance evaluation or reduce investors' attentiveness to earnings measures above CI. Thus, I expect that managers mainly reduce selective sales of AFS securities in order to avoid such behavior being easily detected in the post-period.

3. Research design

3.1. Reporting position of CI/OCI and selective sales of AFS securities

In the primary tests, earnings management through AFS securities is measured based on the relation between realized gains and losses on AFS securities and net income before realized gains and losses:[10]

$$RGL_{i,t} = \beta NIBR_{i,t} + ControlVariables + FirmFixedEffects \tag{1a}$$

RGL is realized gains or losses on AFS securities, and *NIBR* is net income before realized gains or losses on AFS securities, taxes and extraordinary items. Both are scaled by the beginning of quarter total assets. Beatty and Harris (1999), Lee et al. (2006), Dong et al. (2014), Barth et al. (2017), and Dong and Zhang (2018) suggest that β, when negative and significant, captures earnings smoothing behavior through selective sales of AFS securities.[11] To examine the treatment effects of ASU-2011-05, I apply a difference-in-differences research design through interacting indicator variables of treatment banks (*Treat*) and post-period (*POST*) with earnings items:

$$\begin{aligned} RGL_{iq} = {} & \beta_1 NIBR_{iq} + \beta_2 Treat \times NIBR_{iq} + \beta_3 POST \times NIBR_{iq} + \beta_4 Treat \times POST \times NIBR_{iq} + \beta_5 POST + \beta_6 Treat \times POST \\ & + ControlVariables + FirmFixedEffecxts \end{aligned} \tag{1b}$$

Following Barth et al. (2017), I include nine control variables for the other determinants of *RGL* (i.e., *RegCap*, *UG*, *UL*, *Cash*, *SEC*, *SIZE*, *TED*, *VIX*, *Unemp*). To control for banks' incentive to manipulate regulatory capital ratios, I include end-of-quarter capital ratio (*RegCap*), calculated as the sum of allowable Tier 1 and Tier 2 regulatory capital before realized gains and losses on AFS securities and after taxes scaled by the risk-weighted assets. I expect *RegCap* to be negatively associated with *RGL*. Accumulated unrealized gains and losses on AFS securities at the beginning of the quarter (*UG* and *UL*) are both included as controls. I expect *UG* and *UL* to positively predict *RGL* in the next period. *Cash* is included to control for the bank's liquidity assets level.[12] *SEC* controls the security level, which is the sum of held-to-maturity, available-for-sale, and trading securities. *UG*, *UL*, *Cash*, and *SEC* are all deflated by the beginning of quarter total assets. *SIZE* controls the natural logarithm of beginning-of-quarter total assets. To control for macroeconomic factors, I include the proxy of implied volatility of options on the S&P500 Index (i.e., the *VIX* proxy), the *TED* spread proxy (calculated as the difference between the three-month LIBOR and the three-month T-bill interest rate), and the one-year ahead U.S. unemployment rate (*Unemp*), following Barth et al. (2017).[13] Firm fixed effects are included to control for firm's average realized gains and losses on AFS securities.[14]

Barth et al. (2017) further document that banks with negative NI are more likely to take a big bath than smooth earnings. Because β would be *positive* when banks are reducing realized gains to take a big bath, it is important to separate this type of earnings management from the more popular earnings smoothing behavior.[15] Following Barth et al. (2017), I separate banks with positive and negative *NIBR*. Thus, for the primary analyses, I estimate Eq. (2) with quarterly data:

$$\begin{aligned} RGL_{iq} = {} & \beta_1 PosiNI_{iq} + \beta_2 NegNI_{iq} + \beta_3 Treat \times PosiNI_{iq} + \beta_4 Treat \times NegNI_{iq} + \beta_5 POST \times PosiNI_{iq} + \beta_6 POST \times NegNI_{iq} \\ & + \beta_7 Treat \times POST \times PosiNI_{iq} + \beta_8 Treat \times POST \times NegNI_{iq} + \beta_9 RegCap_{iq} + \beta_{10} UG_{iq-1} + \beta_{11} UL_{iq-1} + \beta_{12} Cash_{iq} \\ & + \beta_{13} SEC_{iq} + \beta_{14} SIZE_{iq} + \beta_{15} TED_q + \beta_{16} VIX_q + \beta_{17} Unemp_q + \beta_{18} POST + \beta_{19} Treat \times POST + FixedEffects \end{aligned} \tag{2}$$

[10] Following prior literature (e.g. Beatty et al., 2002; Cornett et al., 2009; Cohen et al., 2014), in the untabulated sensitivity tests, I also examine the treatment effect of ASU 2011-05 on a different measure of earnings management through selective sales of AFS securities—discretionary realized gains and losses on AFS securities. I estimate quarterly regression of RGL on all the determinants of RGL (i.e., the control variables in Eq.2: *RegCap*, *UG*, *UL*, *Cash*, *SEC*, *SIZE*) and take the residual as the discretionary portion. The untabulated results are consistent with the conclusions presented in Table 4.

[11] Studies have documented earnings smoothing in the banking industry for decades (e.g., Greenawalt and Sinkey, 1988; Beaver et al., 1989; Barth et al., 1990; Scholes et al., 1990; Wahlen, 1994; Beatty et al., 1995; Collins et al., 1995; Barth et al., 1995; Kanagaretnam et al., 2003, 2004; Liu and Ryan, 2006; Kilic et al., 2012; Barth et al., 2017). Several of these document earnings smoothing through the realization of securities (Barth et al., 1990; Beatty et al., 1995; Collins et al., 1995; Barth et al., 2017). Many analysts argue that banks have an incentive to smooth earnings. For example, Barth et al. (1995) and Gebhardt et al. (2001) suggest that bank managers have an incentive to reduce earnings volatility to decrease the risk premium. Kanagaretnam et al. (2003) find that bank managers smooth earnings to increase job security and address external financing concerns. Beatty and Harris (1999) and Kanagaretnam et al. (2004) show that public banks smooth earnings to reduce information asymmetry.

[12] *Cash* is the sum of cash items in process of collection and unposted debits, balances due from banks in foreign countries and foreign central banks, currency and coin, balances due from depository institutions in the U.S., and balances due from Federal Reserve Banks.

[13] *VIX*, *TED* and *Unemp* proxies are quarterly. Thus, quarter fixed effects are not included in the primary regression. Replacing *VIX*, *TED* and *Unemp* by quarter fixed effects does not significantly affect the results.

[14] Replacing firm fixed effects with an intercept does not significantly affect the results. In the main test, standard errors are clustered by bank and quarter. Using robust standard errors or one-way clustered standard errors does not significantly affect the results.

[15] One limitation of this paper is that I am unable to measure earnings management using the frequency of meeting a specific earnings target because I lack a sufficiently large subsample of banks with earnings before RGL that are slightly lower than potential earnings targets (i.e., analysts' forecasts or prior quarter earnings). Increasing earnings to meet certain earnings targets is an upward management of RGL when earnings before RGL are lower than expected. As such, it will be captured by the negative association between RGL and NIBR.

PosiNI (*NegNI*) equals *NIBR* if *NIBR* is greater than or equal to (less than) zero, and zero otherwise. A negatively (positively) significant association between *RGL* and *NIBR* captures earnings smoothing (big bath) behaviors through selective sales of AFS securities.[16] I predict that, relative to control banks, treatment banks will evince a significant decrease in selective sales of AFS securities after ASU 2011-05; that is, β_7 is predicted to be positive and β_8 to be negative.

3.2. Cross-sectional analyses with treatment banks

To examine H_{2a} – H_{2c}, I focus on the treatment banks and estimate Eq. (2) with *Treat* replaced by cross-sectional incentive variables. For H_{2a}, I examine whether treatment banks that switched the reporting position of CI/OCI from equity statements to income statements with NI (Method 1) experienced a more pronounced decrease in earning smoothing in the post-period than those adopting two-statement reporting (Method 2). I define treatment banks that adopted Method 1 as IS adopters (*ISadopter* = 1) and estimate Eq. (3a) with a subsample of all treatment banks:

$$\begin{aligned} RGL_{iq} = {} & \gamma_1 PosiNI_{iq} + \gamma_2 NegNI_{iq} + \gamma_3 ISadopter \times PosiNI_{iq} + \gamma_4 ISadopter \times NegNI_{iq} + \gamma_5 POST \times PosiNI_{iq} + \gamma_6 POST \\ & \times NegNI_{iq} + \gamma_7 ISadopter \times POST \times PosiNI_{iq} + \gamma_8 ISadopter \times POST \times NegNI_{iq} + ControlVariables \\ & + FixedEffects \end{aligned} \tag{3a}$$

I expect a *greater* decline in selective sales of AFS securities by IS adopters compared with other treatment banks (H_{2a}), as represented by positive (negative) γ_7 (γ_8).

For H_{2b} and H_{2c}, I examine whether managers with *less* job security and/or *more* equity incentives are more likely to be affected by ASU 2011-05. I measure CEOs' job security and equity incentive levels following Bamber et al. (2010). *J_Security* = *Chairman* + *Directors*, whereby *Chairman* = 1 if the CEO chairs the board of directors and 0 otherwise, *Directors* = 1 if the percentage of outside directors on the firm's board is smaller than the sample median and 0 otherwise. Next, I define *LowSecur* = 1 if *J_Security* = 0 and 0 otherwise. *Equity_Inc* = *ONEPCT* /(*ONEPCT* + *SALARY* + *BONUS*), where *ONEPCT* is the dollar change in the value of CEOs' stock and option holding resulting from a one percent increase in the firm's stock price. The option delta is constructed following Core and Guay (2002). *SALARY* and *BONUS* represent CEOs' salaries and cash bonuses. I then define *High_EI* = 1 if bank's *Equity_Inc* is higher than the 75th percentile of the sample. For H_{2b}, I estimate Eq. (3b) with the subsample of all treatment banks:

$$\begin{aligned} RGL_{iq} = {} & \delta_1 PosiNI_{iq} + \delta_2 NegNI_{iq} + \delta_3 LowSecur \times PosiNI_{iq} + \delta_4 LowSecur \times NegNI_{iq} + \delta_5 POST \times PosiNI_{iq} + \delta_6 POST \\ & \times NegNI_{iq} + \delta_7 LowSecur \times POST \times PosiNI_{iq} + \delta_8 LowSecur \times POST \times NegNI_{iq} + ControlVariables \\ & + FixedEffects \end{aligned} \tag{3b}$$

I expect a greater decline in selective sales of AFS securities for treatment banks whose CEOs have lower job security compared with other treatment banks (H_{2b}), as represented by positive (negative) δ_7 (δ_8).

Similarly, for H_{2c}, I estimate Eq. (3c) with the subsample of all treatment banks:

$$\begin{aligned} RGL_{iq} = {} & \theta_1 PosiNI_{iq} + \theta_2 NegNI_{iq} + \theta_3 High\_EI \times PosiNI_{iq} + \theta_4 High\_EI \times NegNI_{iq} + \theta_5 POST \times PosiNI_{iq} + \theta_6 POST \\ & \times NegNI_{iq} + \theta_7 High\_EI \times POST \times PosiNI_{iq} + \theta_8 High\_EI \times POST \times NegNI_{iq} + ControlVariables + FixedEffects \end{aligned} \tag{3c}$$

I expect a greater decline in selective sales of AFS securities for treatment banks with higher equity-based compensation incentives relative to other treatment banks (H_{2c}), as represented by positive (negative) θ_7 (θ_8).

4. Sample selection and descriptive statistics

4.1. Sample selection process

I base my sample on bank holding companies (BHC) registered with the U.S. Federal Reserve Bank of Chicago (FRB) in the Bank Regulatory Database (WRDS), which provides quarterly accounting data via Form FR Y-9C.[17] The main variables of interest are realized gains and losses on AFS securities. I require banks to have CIK codes so that CI/OCI reporting position data in the 10-K and 10-Q filings can be hand-collected from the SEC EDGAR system.

[16] Since most bank-quarters in my sample have positive earnings before realized gains and losses (only 456 of 4064 bank-quarters have *NIBR*< 0), I assume that most banks have earnings targets at or above zero, and when banks cannot meet the zero target, they are more likely to take a big bath than to increase earnings. Therefore, consistent with Barth et al. (2017), I predict that banks are more likely to take a big bath if *NIBR*< 0.

[17] Commercial banks are not included for two reasons: 1) The commercial banks file Reports of Condition and Income ("Call Report") to FRB, while BHCs file FR Y-9 reports. Many measures are overlapped in these two types of reports; however, their format and requirements differ. Including only BHCs in the test sample holds constant reporting policies for other items than CI. 2) Because 10-K/10-Q filing data is required in this study, all of my sample banks need to be listed top-holders. Although both BHCs and commercial banks can be either publicly listed or unlisted, most listed banks are BHCs. No commercial bank meets all of my sample selection requirements during the test period.

Most firms have not switched the reporting position of CI/OCI from period to period since being required to start reporting CI/OCI in 1998 and use the same reporting method in both 10-K and 10-Q filings. Table 1 presents the yearly distribution of reporting positions of CI for all bank holding companies registered with the SEC.[18] Most banks presented CI using equity statements until 2011. On average, the percentage of performance statement users is about 21% of all sample banks from 1998 to 2010. Prior to 2011, banks seldom switched the reporting position of CI. Most switches occurred in 2011 and 2012, when ASU 2011-05 was issued and took effect.[19]

To answer the research question in this paper, I primarily focus on the test period 2010–2014.[20] During that period, I identified 533 unique public bank holding companies (7,665 firm quarters) using PERMCO and CIK ID numbers, in which 500 banks (7,296 firm quarters) have 10-K and 10-Q filing data available in the SEC EDGAR system. The sample selection process is presented in Panel A of Table 2. To estimate the difference-in-differences research design and observe changes in earnings management, I require sample banks to have at least two years of data both before and after the enactment of ASU 2011-05. I define a bank as a treatment (control) bank if it always reported CI/OCI in its equity statements (performance statements) during the fiscal years 2010 and 2011. Since this study focuses on differences between Method 3 (equity statement reporting) and Methods 1 and 2 (performance statement reporting currently allowed under ASU 2011-05), I exclude 13 banks that reported CI/OCI in a separate statement not following the income statement (Method 4), and seven banks that did not consistently use the same reporting method in their 10-Q and 10-K filings before ASU 2011-05. In the main tests, I define the pre (post) period as 2010-2011 (2012-2014).[21] ASU 2011-05 requires all banks to use performance statements in their fiscal years starting after Dec 15, 2011. I exclude 31 banks that adopted the updates early in 2011 immediately after the announcement of ASU 2011-05 in May and five banks that delayed their adoption of ASU 2011-05 until their fiscal year 2013.[22] Finally, I require banks to have necessary data available in the Bank Regulatory and Compustat database for regression analyses. The above process leads to a final sample of 207 banks, of which 175 are treatment banks and 32 are control banks; the primary regression analyses use 4,064 bank-quarters with the available relevant variables (Table 2, Panel B).

4.2. Matched sample

One concern about my difference-in-differences research design is that the treatment banks and control banks are not randomly assigned. Thus, the different characteristics of treatment and control banks that drive them to make CI/OCI reporting decisions might also explain observed differences in how earnings management behavior changes following ASU 2011-05. Two items mitigate this concern. First, as Table 1 shows, firms' choice of CI reporting position is (on average) sticky. Therefore, the factors on which firms based their decisions on CI/OCI reporting position in 1998 are less likely to be the main determinants of their operations many years later. Second, both Lee et al. (2006) and Bamber et al. (2010) document that the main determinant of firms' choice to report CI/OCI in equity statements rather than performance statements is a tendency to smooth earnings using selective sales of AFS securities, and my study examines whether firms' earnings management decreases when the repositioning of CI/OCI reporting may increase scrutiny of this type of earnings management.

Nonetheless, to further mitigate concerns about the differences between treatment and control banks, I conduct regression analyses using an alternative sample in which treatment banks are matched to control banks using entropy balanced matching following McMullin and Schonberger (2020). [23]I balance treatment and control banks based on size, market-to-book ratio, profitability level, AFS security level, long-term debt ratio, relative volatility level, and Big 4 auditor indicator

[18] For the reporting position data in Table 1, I exclude 29 banks that either do not consistently use the same CI reporting method in their 10-K and 10-Q filings or have a comprehensive income statement that does not immediately follow the income statement. I exclude these banks because it is difficult to classify them as either equity statement users (i.e., Method 3 users) or performance statement users (i.e., Method 1 or 2 users). The sample displayed in Table 1 does not require firms to have regression data from the Bank Regulatory Database and is therefore larger than the primary sample used for the regression tests (see Table 2).

[19] Further exploration suggests that the decrease in the number of BHCs in 2010 (see Table 1) was mainly driven by the lack of incoming BHC samples, which may be due to the more stringent regulations required by the newly-issued Dodd-Frank Act. The significant increase in the number of BHCs in 2012 is mainly due to the inclusion of public savings and loan holding companies (SLHCs) in the BHC regulatory database. SLHCs are required to report FR Y-9 to the FRB from 2012 onwards and were added to the BHC database in 2012. In the sample selection process, I require 16 quarters of continuous data from 2010 q1 to 2013 q4 to avoid the potential effect of the incoming and outgoing BHC sample firms.

[20] I start from 2010 to eliminate the influences of the financial scandal of 2002–2005 and the financial crisis of 2008–2009. By expanding the period to 2010–2016, I find test results similar to those presented in the paper, suggesting that the effect of ASU 2011-05 on earnings smoothing is not temporary. However, I end the primary test period with 2014 in order to avoid the potential effect of Basel III, which came into effect for most banks in 2015 and modified the definition of regulatory capital to include unrealized OCI gains and losses in the capital ratio calculation. This regulatory change was implemented to reduce the manipulation of capital ratios through selective sales of AFS securities.

[21] I include 2014 in the post-period to maximize the statistical power. Untabulated tests with a balanced panel from 2010 to 2013 yield similar results to those presented in Table 4.

[22] These five banks could delay their adoption because ASU 2011-05 requires all public firms to apply in their fiscal year starting after Dec 15, 2011, and their fiscal years end before December and after May. In the main tests, I exclude treatment banks that switched the reporting position of CI/OCI in either 2011 or 2013. However, untabulated tests with these firms included do not change the reference in the primary analyses.

[23] I conduct several alternative matching methods to verify the main results in Table 4. Using matched subsamples with Mahalanobis or propensity score matching based on the same matching variables does not change the conclusions shown in Table 4. Entropy balanced matching is preferred for two reasons: 1) it reweights that sample to match the covariate moment (Hainmueller and Xu, 2013), which can reduce the impact of observable characteristics on the treatment effect as well as concerns that the treatment effect is a function of the observable characteristics (Hainmueller, 2012); and 2) this method does not reduce the number of observations.

Table 1
Reporting Position Distribution of Comprehensive Income for Bank Holding Companies.

Year	(1) Equity Statement Users	(2) Performance Statement Users	(3) No. of Switches to Equity Statements	(4) No. of Switches to Performance Statements	(5) Total
1998	256	92	0	0	348
1999	281	85	9	0	366
2000	288	86	2	2	374
2001	296	77	1	0	373
2002	305	82	2	4	387
2003	308	85	1	3	393
2004	303	84	1	2	387
2005	321	86	3	6	407
2006	314	90	2	3	404
2007	306	76	5	4	382
2008	305	68	1	0	373
2009	297	63	3	5	360
2010	285	54	3	1	339
2011	231	99	1	39	330
2012	12	398	0	206	410
2013	0	402	0	12	402
2014	0	379	0	0	379

This table demonstrates the distribution of reporting positions of CI for all bank holding companies registered with the SEC from 1998 to 2014. In order to be included in this sample, the banks need to be included in both the Bank Regulatory Database and the SEC EDGAR system.
For each fiscal year, Table 1 shows the number of firms presenting CI in the equity statements (Column 1), the number of firms presenting CI in the performance statements (Column 2), the number of firms that switched the reporting position of CI from the performance to the equity statements (Column 3), the number of firms that switched the reporting position of CI from the equity to the performance statements (Column 4), and the total number of sample banks (Column 5). This sample does not require firms to have regression data from the Bank Regulatory Database and therefore is larger than the primary sample used for the regression tests (see Table 2).
The significant increase in the number of bank holding companies (BHC) in 2012 is mainly due to the inclusion of public savings and loan holding companies (SLHCs) in the BHC regulatory database. 89 SLHCs have been required to file FR Y-9 since 2012 following Dodd-Frank Act (2010), and therefore were added to the BHC database in 2012.

Table 2
Sample Selection and Distribution.

Panel A. Sample Selection

	Less Firms	Remaining Firms (Firm No.)	Less Obs.	Remaining Obs. (Firm-quarters)
Bank holding companies (From Federal Reserve Bank Regulatory Database) that can be identified using PERMCO and CIK ID code during 2010–2014		533		7,665
Less banks:				
without 10-K/Q comprehensive reporting position data in SEC Edger system during 2010–2014	(33)	500	(369)	7,296
without 4 years 10-K/10-Q comprehensive reporting position data or Bank Regulatory data during 2010–2013	(215)*	285	(1,768)	5,528
reporting OCI in a separate statement not following the income statement in the fiscal years before 2012	(13)	272	(256)	5,272
not using consistent reporting methods of OCI in their 10-K/10-Q filings before 2012	(7)	265	(136)	5,136
switched reporting position in the fiscal year 2011	(31)	234	(599)	4,537
didn't adopt ASU 2011-05 until 2013	(5)	229	(73)	4,464
without necessary data for the primary regression estimations	(22)	**207**	(400)	**4,064**

Panel B. The Distribution of Treatment and Control Banks

	Treatment Banks	Control Banks
Banks	175	32
Bank-quarter observations for Equation (2)	3,444	620

This table presents the sample selection process and the distribution of treatment and control banks in the final sample. For the primary analyses (Tables 4 and 5), I have 4,064 observations (207 banks) with the necessary data available, comprising 175 treatment banks (3,444 observations) and 32 control banks (620 observations).
* Of the 215 banks, 118 do not have 4 years of 10-K/10-Q filings in the SEC EDGAR database, and 97 do not have 4 years of Bank Regulatory data. 89 out of 97 banks without 4-year Bank Regulatory data are Saving and Loan Holding companies that are required to file FR Y-9 since 2012 following Dodd-Frank Act (2010).

(i.e., *SIZE*, *MTB*, *ROA*, *AFS*, *Lev*, *RelVol*, and *Big4*).[24] Size (*SIZE*), growth (*MTB*), and profitability (*ROA*) can all affect firms' earnings smoothness and thereby impact the incentive to smooth earnings (Dou et al. 2013). I control for the size of AFS securities (*AFS*) because I expect that banks with more AFS securities are more likely to manage earnings through selective sales of AFS securities, and I control for leverage level (*Lev*) because debt contracting could create the incentive of earnings smoothing (Trueman and Titman, 1988; Minton and Schrand, 1999). The volatility of net income before realized gains and losses relative to net income after realized gains and losses (*RelVol*) is included to control for performance volatility. I expect that banks with relatively higher volatility of net income before realized gains and losses have more incentive to reduce volatility through realizing gains and losses on AFS securities. The Big4 indicator is included to control for the bank disclosure quality in general. I match treatment and control banks on all three moments (i.e., mean, variance, and skewness) and estimate Eq. (2) with both the whole sample and the entropy balanced sample and present the results in Table 4.[25]

4.3. Descriptive statistics

Table 3, Panel A presents the descriptive statistics for the matching variables before and after the entropy balancing procedure. As Panel A shows, the treatment banks are generally smaller than the control banks and have higher growth rates, fewer AFS securities, less long-term debt, and less relative volatility. After the entropy balanced matching, the matching variables of treatment and control banks are similar in mean, variance, and skewness, thereby suggesting an effective matching. Panel B presents the descriptive statistics for the regression variables.

5. Empirical results

5.1. Reporting position of CI/OCI and selective sales of AFS securities (Table 4)

Columns 1 and 2 in Table 4 present the regression results of Eq. (2) with the whole sample and the entropy balance matched sample, respectively. Consistent with my expectations and the results in prior literature, *RegCap* is negatively and significantly associated with *RGL*, and *UR* and *UL* are both positively and significantly associated with *RGL*. I find no evidence that control banks conduct earnings smoothing or big bath earning management through selective sales of AFS securities in either the pre- or the post-period, as the coefficients on *PosiNI*, *NegNI*, *PosiNI* + *POST* × *PosiNI* and *NegNI* + *POST* × *NegNI* are all insignificant. Consistent with the findings in Dong and Zhang (2018), the coefficients on *Treat* × *PosiNI* are significantly negative for both the whole and the matched sample, suggesting that treatment banks exhibit significantly more earnings smoothing through selective sales of AFS securities in the pre-period than control banks. The coefficients on *Treat* × *NegNI*, which capture the difference between treatment and control banks in big bath behavior during the pre-ASU period, are positive as expected but not significantly different from zero. In both the whole and the matched samples, treatment banks' earnings smoothing behavior remains in the post-period (captured by the significant and negative $\beta_1 + \beta_3 + \beta_5 + \beta_7$), but is significantly less than that in the pre-update period (captured by $\beta_1 + \beta_3$). The difference (captured by $\beta_5 + \beta_7$) is significantly positive for both samples.

Regarding H_1, coefficients on *Treat* × *Post* × *PosiNI* are significant with the expected signs for both the whole (3.399, *t*-stat = 2.09) and the matched sample regressions (3.002, *t*-stat = 1.70). These results suggest that treatment banks decreased earnings smoothing using selective sales of AFS securities from the pre- to the post-period, after controlling the time trend factors using the control banks. I do not find significant differences in earnings smoothing between treatment and control banks in the post-period (captured by $\beta_3 + \beta_7$) with either the whole or the matched sample. In other words, ASU 2011-05 eliminates differences in earnings smoothing between treatment and control banks. No evidence of significant changes in big bath behavior (captured by β_8) is found for treatment banks relative to control banks with either the whole or the matched sample. Taken together, the results in Table 4 are consistent with H_1 on earnings smoothing through selective sales of AFS securities, suggesting that performance reporting of CI/OCI reduces firms' earnings management in this area but does not completely eliminate it.

[24] Prior literature finds that equity incentives and job security concerns are important drivers for both managers' choice to report CI/OCI in equity statements (e.g., Bamber et al., 2010) and their earnings smoothing behavior in the banking industry (e.g., Kanagaretnam et al., 2003, 2004). However, these variables are not used in the primary matching process because 1) equity incentives and job security do not significantly differ between treatment and control banks in the test sample (untabulated), and 2) including CEOs' equity incentive (job security) as a variable requires data in EXECUCOMP (ISS Director) database, which would reduce the number of observations to 1432 (3928). Untabulated results suggest that including these two variables in the matching process with a smaller sample does not change the inference.

[25] In the entropy balancing procedure, I reweight each treatment bank (used equity statements before ASU 2011-05 and forced to adopt performance reporting of CI after ASU2011-05) to match control banks (voluntarily adopted performance reporting of CI before ASU2011-05 and therefore had no need to change reporting method after ASU 2011-05).

Table 3
Descriptive Statistics.

Panel A. Entropy Balanced Matching Process

	Column (1) Treatment Banks before Matching N = 3,444			Column (2) Reweighted Treatment Banks N = 3,444			Column (3) Control Banks N = 620		
	Mean	Variance	Skewness	Mean	Variance	Skewness	Mean	Variance	Skewness
$SIZE_{iq}$	15.080	2.923	1.475	15.360	2.535	1.368	15.350	2.535	1.368
MTB_{iq}	1.052	0.265	1.549	1.016	0.275	0.998	1.016	0.275	0.998
ROA_{iq}	0.002	0.000	−2.536	0.002	0.000	1.252	0.002	0.000	1.288
AFS_{iq}	0.181	0.010	0.757	0.195	0.014	0.800	0.195	0.014	0.800
Lev_{iq}	0.061	0.003	2.145	0.067	0.005	1.774	0.067	0.005	1.774
$RelVol_{iq}$	1.035	0.099	5.505	1.066	0.083	3.649	1.066	0.083	3.648
$Big4_{iq}$	0.436	0.246	0.260	0.355	0.229	0.605	0.355	0.229	0.607

Panel B. Descriptive Statistics of Regression Variables

	Count	Mean	P25	p50	p75	sd
Variables Used in the Primary Analyses in Table 4 and 5						
RGL_{iq}	4064	0.0001	0.0000	0.0000	0.0001	0.0004
$NIBR_{iq}$	4064	0.0022	0.0014	0.0027	0.0038	0.0036
$RegCap_{iq}$	4064	0.1556	0.1358	0.1504	0.1680	0.0321
UG_{iq-1}	4064	0.0034	0.0010	0.0026	0.0048	0.0032
UL_{iq-1}	4064	−0.0014	−0.0017	−0.0004	0.0000	0.0024
$Cash_{iq}$	4064	0.0579	0.0248	0.0418	0.0721	0.0505
SEC_{iq}	4064	0.2202	0.1383	0.2012	0.2887	0.1117
$SIZE_{iq}$	4064	15.1194	13.9365	14.7443	15.8064	1.6709
$J\_Security_{iq}$	3928	0.8483	0.0000	1.0000	1.0000	0.7196
$Equity\_Inc_{iq}$	1436	0.2257	0.0619	0.1395	0.3522	0.2166
Variables Used in the Additional Analyses in Table 7 and 8						
EPS_{iq+1}	4042	0.4759	0.1974	0.4239	0.7196	0.6422
EPS_{i3}	3981	1.5020	0.6096	1.3015	2.1762	1.6869
$EPBR_{iq}$	4064	0.4365	0.1669	0.3936	0.6964	0.6466
RGL_ps_{iq}	4064	0.0205	0.0000	0.0003	0.0166	0.0679
UGL_ps_{iq}	4064	0.0246	−0.0369	0.0181	0.1096	0.2708
$UHGL\_ps_{iq-1}$	4064	0.2197	−0.0195	0.1294	0.4116	0.5866
MTB_{iq}	4064	1.0469	0.7124	1.0119	1.2897	0.5166
LLP_{iq}	4064	0.0013	0.0003	0.0007	0.0015	0.0022
$NIBRL_{iq}$	4064	0.0036	0.0025	0.0035	0.0045	0.0024
$RegCapBL_{iq}$	4064	0.1575	0.1377	0.1520	0.1699	0.0319
$Chargeoff_{iq}$	4064	0.0014	0.0002	0.0007	0.0018	0.0022
NPL_{iq-1}	4064	0.0191	0.0081	0.0142	0.0250	0.0166
ΔNPL_{iq}	4064	−0.0007	−0.0020	−0.0005	0.0004	0.0042
LLA_{iq-1}	4064	0.0127	0.0088	0.0113	0.0154	0.0063
$Loan_{iq-1}$	4064	0.6462	0.5927	0.6645	0.7315	0.1299
$\Delta Loan_{iq}$	4064	−0.0002	−0.0142	0.0004	0.0141	0.0464

This table presents the descriptive statistics for the variables used to generate the entropy balanced sample and the variables used in the empirical analyses. Panel A presents the entropy balancing procedure. Treatment banks are reweighted on all three moments to match control banks. Panel B presents the descriptive statistics for all variables used in the regression analyses. Three quarterly time-series variables are not included in the above table: *VIX* (volatility index), *TED* (TED spread), and *Unemp* (the one-year-ahead consensus forecast of the US unemployment rate). The average quarterly *VIX* proxy in my test period is 18.66, the average quarterly *TED* proxy in my test period is 0.25, and the average quarterly *Unemp* is 8.07. All other variables are defined in Appendix A.

5.2. Cross-sectional analyses with treatment banks (Table 5)

To address H_{2a}, I examine whether treatment banks that switched the reporting position of CI/OCI from equity statements to income statements with NI (Method 1) experienced a greater decline in earnings management during the post-period.[26] In my sample, eight treatment banks (N = 160) adopt income statement reporting (Method 1) after ASU 2011-05. I define these banks as IS adopters (*ISadopter* = 1). Because IS adopters do not have negative NIBR during the post-period, I exclude the interaction term of $ISadopter \times POST \times NegNI$ in the regression analysis and focus on the change in earnings smoothing behaviors. The results in Table 5, Panel A are consistent with H_{2a} that IS adopters reduced earnings smoothing more than other treatment banks after adopting ASU 2011-05 (as captured by the significantly positive coefficient on γ_7).[27]

[26] Control banks are not included in the tests because they did not evince a significant change in earnings management from the pre- to the post-period in the main tests (Table 4).

[27] Untabulated tests suggest that excluding the IS adopters does not significantly affect the results in Table 4. Thus, the difference between treatment banks and control banks is not driven by the difference between single-statement reporting and other reporting methods.

Table 4
Reporting Positions of CI/OCI and Selective Sales of AFS securities.

		Exp.	(1) Whole Sample		(2) Entropy Balance Matched Sample	
		Sign	Coefficient	*T*-stat	Coefficient	*T*-stat
$PosiNI_{iq}$	β_1		−1.746	−1.11	−1.699	−1.17
$NegNI_{iq}$	β_2		−1.938	−0.83	−1.955	−0.88
$Treat \times PosiNI_{iq}$	β_3		−4.802***	−2.84	−5.892***	−3.48
$Treat \times NegNI_{iq}$	β_4		2.699	1.05	1.945	0.77
$POST \times PosiNI_{iq}$	β_5		−1.298	−0.73	−1.196	−0.71
$POST \times NegNI_{iq}$	β_6		2.709	1.11	2.957	1.25
$\boldsymbol{Treat \times POST \times PosiNI_{iq}}$ **(H1)**	$\boldsymbol{\beta_7}$	+	3.399**	2.09	3.002*	1.70
$\boldsymbol{Treat \times POST \times NegNI_{iq}}$ **(H1)**	$\boldsymbol{\beta_8}$	−	−2.924	−1.05	−1.294	−0.36
$RegCap_{iq}$	β_9	−	−0.087***	−3.70	−0.171**	−2.34
UG_{iq-1}	β_{10}	+	2.358***	4.15	1.691***	3.77
UL_{iq-1}	β_{11}	+	1.829***	3.35	1.792**	2.09
$Cash_{iq}$	β_{12}		0.038	1.33	0.095*	1.92
SEC_{iq}	β_{13}		−0.040*	−1.75	−0.014	−0.57
$SIZE_{iq}$	β_{14}		−0.004	−0.50	−0.004	−0.51
TED_q	β_{15}		0.012	0.43	0.003	0.10
VIX_q	β_{16}		0.000	0.51	0.000	0.64
$Unemp_q$	β_{17}		−0.002	−1.32	−0.001	−0.42
POST	β_{18}		−0.001	−0.11	0.002	0.24
$Treat \times POST$	β_{19}		−0.007	−0.90	−0.005	−0.60
Firm Fixed Effects			Yes		Yes	
N			4,064		4,064	
Adj. R-squared			0.257		0.289	
$\beta_1 + \beta_3$			−6.548***	−6.11	−7.591***	−5.84
$\beta_2 + \beta_4$			0.762**	2.19	−0.010	−0.02
$\beta_5 + \beta_7$			2.101**	2.15	1.806*	1.90
$\beta_6 + \beta_8$			−0.215	−0.19	1.662	0.65
$\beta_1 + \beta_3 + \beta_5 + \beta_7$			−4.447***	−3.95	−5.785***	−3.60
$\beta_2 + \beta_4 + \beta_6 + \beta_8$			0.547	0.43	1.652	0.67
$\beta_1 + \beta_5$			−3.044	−1.57	−2.895	−1.52
$\beta_2 + \beta_6$			0.772	1.24	1.002	1.68
$\beta_3 + \beta_7$			−1.403	−0.72	−2.890	−1.17
$\beta_4 + \beta_8$			−0.225	−0.16	−0.651	0.25

This table presents the estimation results of Eq. (2) with the whole sample (Column 1) and the entropy balance matched sample (Column 2):
$RGL_{iq} = \beta_1 PosiNI_{iq} + \beta_2 NegNI_{iq} + \beta_3 Treat \times PosiNI_{iq} + \beta_4 Treat \times NegNI_{iq} + \beta_5 POST \times PosiNI_{iq} + \beta_6 POST \times NegNI_{iq} + \beta_7 Treat \times POST \times PosiNI_{iq} + \beta_8 Treat \times POST \times NegNI_{iq} + \beta_9 RegCap_{iq} + \beta_{10} UG_{iq-1} + \beta_{11} UL_{iq-1} + \beta_{12} Cash_{iq} + \beta_{13} SEC_{iq} + \beta_{14} SIZE_{iq} + \beta_{15} TED_q + \beta_{16} VIX_q + \beta_{17} Unemp_q + \beta_{18} POST + \beta_{19} Treat \times POST + FixedEffects$ (2)
For both tests, the dependent variable is RGL_{iq}. Estimations are based on 3,444 treatment bank observations (175 treatment banks) and 620 control bank observations (32 control banks). All variables are defined in Appendix A. Coefficient estimates are multiplied by 100 for expositional convenience. T-statistics are based on standard errors clustered by bank and quarter. ***, **, and * indicate variables significant at the 0.01, 0.05, and 0.1 levels, respectively, using one-sided (two-sided) t-tests for variables that have predicted signs (no predicted signs).

For H_{2b}, Table 5, Panel B presents the regression results of Eq. (3b). Because only a few sample banks have an ISS Director Database, I hand-collected the data from proxy statements to calculate *Chairman* and *Directors*. The treatment bank sample size is reduced to 3,316 due to the lack of proxy statements in the SEC EDGAR system, in which 1,164 of them have *LowSecur* = 1. The results in Table 5, Panel B suggest that managers with less job security conducted more earnings smoothing during the pre-period (δ_3 = −3.437, *t*-stat. = −2.02) and reduced earnings smoothing behavior more from the pre- to the post-period (δ_7 = 5.150, *t*-stat. = 2.97) relative to managers with more job security. Only banks with less CEO job security significantly decreased earnings smoothing after ASU 2011-05 ($\delta_5 + \delta_7$ = 5.727, *t*-stat = 3.34). No significant changes are found in big bath behavior. These results are consistent with my expectation that managers with less job security will reduce earnings management when such behavior is easier to detect.

Notably, the negative coefficient on $LowSecur \times PosiNI$ (δ_3) is consistent with the theory that less job security incentivizes managers to perform earnings management to meet performance requirements (Hermalin and Weisbach, 2003); however, less job security can also represent stronger corporate governance, which may prohibit CEOs from managing earnings (Klein, 2002; Farber, 2005; Cornett et al., 2009). I expect that the effect of corporate governance on selective sales of AFS securities is limited during the pre- period because this type of earnings management is difficult to detect and is not prohibited by regulation; thus, less job security is more likely to incentivize managers to selectively trade AFS securities to meet performance requirements during the pre-period. When more prominent reporting of CI/OCI is required during the post-period, managers with less job security will reduce this type of earnings management to avoid punishment from the board. Consistent with this expectation, managers with less job security conducted less earnings smoothing during the post-period, as captured by the sum of the coefficients on $LowSecur \times PosiNI$ and $LowSecur \times POST \times PosiNI$ ($\delta_3 + \delta_7$ = 1.713, *t*-stat = 1.89).

Table 5
Cross-sectional Analyses with Treatment Banks.

Panel A. Cross-sectional Analyses with Treatment Banks: Single Statement Adopters

		Exp.	(1) Treatment Banks	
		Sign	Coefficient	*T*-stat.
$PosiNI_{iq}$	γ_1		−6.271***	−6.24
$NegNI_{iq}$	γ_2		0.729*	2.00
$ISadopter \times PosiNI_{iq}$	γ_3		−6.924	−1.17
$ISadopter \times NegNI_{iq}$	γ_4		0.223	0.05
$POST \times PosiNI_{iq}$	γ_5		1.731	1.65
$POST \times NegNI_{iq}$	γ_6		−0.211	−0.19
$ISadopter \times POST \times PosiNI_{iq}$ (H_{2a})	γ_7	+	3.974**	2.31
Control variables and interaction			Yes	
Firm fixed effects			Yes	
N			3,444	
Adj. R-squared			0.253	

Panel B. Cross-sectional Test with Treatment Banks: Job Securities

		Exp.	(1) Treatment Banks	
		Sign	Coefficient	*T*-stat.
$PosiNI_{iq}$	δ_1		−5.631***	−5.50
$NegNI_{iq}$	δ_2		−0.026	−0.03
$LowSecur \times PosiNI_{iq}$	δ_3		−3.437*	−2.02
$LowSecur \times NegNI_{iq}$	δ_4		1.564	1.58
$POST \times PosiNI_{iq}$	δ_5		0.577	0.56
$POST \times NegNI_{iq}$	δ_6		−1.055	−0.53
$LowSecur \times POST \times PosiNI_{iq}$ (H_{2b})	δ_7	+	5.150***	2.97
$LowSecur \times POST \times NegNI_{iq}$	δ_8	−	1.920	0.76
$\delta_5 + \delta_7$		+	5.727***	3.34
$\delta_3 + \delta_7$			1.713*	1.89
Control variables and interaction			Yes	
Firm fixed effects			Yes	
N			3,316	
Adj. R-squared			0.258	

Panel C. Cross-sectional Test with Treatment Banks: Equity Incentive

		Exp.	(1) Treatment Banks	
		Sign	Coefficient	*T*-stat.
$PosiNI_{iq}$	θ_1		−4.696***	−3.77
$NegNI_{iq}$	θ_2		1.522***	3.95
$High\_EI \times PosiNI_{iq}$	θ_3		1.823	0.44
$High\_EI \times NegNI_{iq}$	θ_4		−0.152	−0.14
$POST \times PosiNI_{iq}$	θ_5		−0.425	−0.22
$POST \times NegNI_{iq}$	θ_6		−6.620	−1.02
$High\_EI \times POST \times PosiNI_{iq}$ (H_{2c})	θ_7	+	3.752*	1.42
$\theta_5 + \theta_7$		+	3.327**	1.86
Control variables and interaction			Yes	
Firm fixed effects			Yes	
N			1,196	
Adj. R-squared			0.271	

This table presents results of cross-sectional tests for the subsample of treatment banks (No. of Banks = 175, N = 3,444). Panel A presents the estimation results of Eq. (3a) for the subsample of treatment banks:

$RGL_{iq} = \gamma_1 PosiNI_{iq} + \gamma_2 NegNI_{iq} + \gamma_3 ISadopter \times PosiNI_{iq} + \gamma_4 ISadopter \times NegNI_{iq} + \gamma_5 POST \times PosiNI_{iq} + \gamma_6 POST \times NegNI_{iq} + \gamma_7 ISadopter \times POST \times PosiNI_{iq} + \gamma_8 ISadopter \times POST \times NegNI_{iq} + ControlVariables + FixedEffects$ (3a)

ISadopter is an indicator variable that equals 1 if the treatment banks adopt the income statement reporting after ASU 2011-05 (No. of banks = 8, N = 160), and 0 otherwise. $ISadopter \times POST \times NegNI$ was excluded in the regression because IS adopters do not have negative net income in the post-period.

Panel B presents the estimation results of Eq. (3b) for the subsample of treatment banks:

$RGL_{iq} = \delta_1 PosiNI_{iq} + \delta_2 NegNI_{iq} + \delta_3 LowSecur \times PosiNI_{iq} + \delta_4 LowSecur \times NegNI_{iq} + \delta_5 POST \times PosiNI_{iq} + \delta_6 POST \times NegNI_{iq} + \delta_7 LowSecur \times POST \times PosiNI_{iq} + \delta_8 LowSecur \times POST \times NegNI_{iq} + ControlVariables + FixedEffects$(3b)

LowSecur = 1 if *J_Security* = 0 and 0 otherwise. *J_Security* = *Chairman* + *Directors*, where *Chairman* = 1 if CEO also chairs the board of directors and 0 otherwise; *Directors* = 1 if the percentage of outside directors on the firm's board is smaller than the sample median and 0 otherwise. Due to the lack of proxy statements in the SEC EDGAR system, including *LowSecur* reduces the observation number of treatment banks to 3,316 (No. of banks = 171), of which 1,164 (No. of banks = 85) have *LowSecur* = 1.

Panel C presents the estimation results of Eq. (3c) for the subsample of treatment banks.

$RGL_{iq} = \theta_1 PosiNI_{iq} + \theta_2 NegNI_{iq} + \theta_3 High\_EI \times PosiNI_{iq} + \theta_4 High\_EI \times NegNI_{iq} + \theta_5 POST \times PosiNI_{iq} + \theta_6 POST \times NegNI_{iq} + \theta_7 High\_EI \times POST \times PosiNI_{iq} + \theta_8 High\_EI \times POST \times NegNI_{iq} + ControlVariables + FixedEffects$ (3c)

High_EI = 1 if bank's *Equity_Inc* is higher than the 75th percentile of the sample. *Equity_Inc* = *ONEPCT* /(*ONEPCT* + *SALARY* + *BONUS*), where *ONEPCT* is the dollar change in the value of CEO stock and option holding coming from a one percent increase in the firm's stock price. The option delta is constructed following Core and Guay (2002). *SALARY* and *BONUS* represent CEO's salary and cash bonus. Requiring CEO compensation data from EXECUCOMP database

reduces the sample of treatment banks to 1,196 bank-quarters (No. of banks = 62), of which 300 (No. of banks = 24) have *High_EI* = 1. *High_EI* × *POST* × *NegNI* was excluded in the regression since treatment banks with *High_EI* = 1 do not have negative net income in the post-period. Other control variables are as previously defined in Eq. (2) and in Appendix A. Coefficient estimates are multiplied by 100 for expositional convenience. *T*-statistics are based on standard errors clustered by bank and quarter. ***, **, and * indicate variables significant at the 0.01, 0.05, and 0.1 levels, respectively, using one-sided (two-sided) *t*-tests for variables with predicted signs (no predicted signs).

Table 5, Panel C presents the regression results of Eq.(3c) examining H_{2c}. Requiring CEO compensation data from EXECUCOMP database reduces the subsample of treatment banks to 1,196 bank-quarters (62 banks). Because treatment banks with *High_EI* = 1 (No. of banks = 24, N = 300) do not have negative net income in the post-period, I exclude *High_EI* × *POST* × *NegNI* from the regression analyses and focus on changes in earnings smoothing behavior. Consistent with my expectation, the decrease in earnings smoothing behavior is greater in treatment banks for which CEOs' compensation is more sensitive to stock price changes, as measured by the coefficient on *High_EI* × *POST* × *PosiNI* (θ_7 = 3.752, *t*-stat. = 1.42). The results also suggest that the decrease in treatment banks' earnings smoothing is mainly driven by banks with higher equity incentives in the managers' compensation packages, as captured by the sum of the coefficients on *POST* × *PosiNI* and *High_EI* × *POST* × *PosiNI* ($\theta_5 + \theta_7$ = 3.327, *t*-stat. = 1.86). These results imply that the financial reporting format plays a more important role in increasing earnings quality when a CEO's compensation is closely linked with the stock price.

To summarize, the results in Table 5 generally support H_{2a}, H_{2b} and H_{2c}, suggesting that treatment banks reduce earnings smoothing through RGL following the adoption of ASU 2011-05 because: 1) managers have less incentive to manage NI when CI is emphasized as the main performance measure; and 2) managers believe the relocation of CI/OCI will increase investors' ability to detect selective sales of AFS securities and therefore reduce this behavior to avoid potential punishment via contracting or equity compensation.

6. Sensitivity and additional analyses

6.1. Sensitivity analyses

6.1.1. Placebo tests

Two bank regulation changes occurred at the beginning of my test period: Basel III and the Dodd-Frank Act. Basel III modified the definition of regulatory capital to include unrealized OCI items in the capital ratio calculation in order to reduce the manipulation of capital ratios through selective sales of AFS securities. Since net income is part of regulatory capital, it is possible that the observed decline in earnings management is driven by increasingly stringent capital regulations. However, this change took effect in 2015 for most banks, and is therefore outside of my test period[28]. The Dodd-Frank Act provisions that took effect during my test period might have increased the transparency of banks' disclosure in general. This effect might be more pronounced for treatment banks, which are less transparent than control banks[29].

To mitigate the concern that other concurrent events have driven the results in Table 4, I re-estimate Eq. (2) with the assumption that the post-period begins in each quarter during the test period of 2010–2014. Table 6, Column 1 presents the coefficient estimations of the interaction terms *Treat* × *POST* × *PosiNI* (β_7) in Eq. (2), which captures *additional* changes in selective sales of AFS securities for treatment banks relative to control banks. If the significant β_7 observed in Table 4 reflects a trend of increasing accounting quality for treatment banks, this coefficient would also be significant and positive when the post-period begins in quarters other than the actual one. The results demonstrate that β_7 is only significantly positive when the post-period starts from quarters in 2012, suggesting that the difference-in-differences decrease in earnings smoothing behaviors is mainly driven by an event during that year.

ASU 2011-05 also suggests a separate reporting of reclassification adjustments of accumulated OCI in performance statements, which could highlight discretionary realization of gains and losses on AFS securities. This requirement was effective from 2013; however, many firms began reporting reclassification while adopting ASU 2011-05 in 2012. Prior to ASU 2011-05, firms could present reclassification adjustments either in the statement footnotes or under OCI. I find that most of the control banks (25 of 32) in my sample always present reclassification adjustments in performance statements under OCI, while more than half of the treatment banks (103 of 175) changed the reporting position of reclassification from footnotes to performance statements in 2012.[30] However, I expect that the decreased earnings management documented in Table 4 is not caused by recognizing reclassification in statements because, unlike non-financial firms, banks always report 1) gains and losses from sales of AFS securities; 2) other-than-temporary impairments on AFS securities; and 3) any adjustments from

[28] An additional analysis (untabulated) fails to find that treatment or control banks decrease management of capital ratios, as captured by the association between RGL_{iq} and $RegCap_{iq}$, during the test period, thereby suggesting that Basel III did not yet significantly influence banks' behaviors.

[29] Unlike other earnings management behaviors, selective sales of securities cannot be restrained by regulators or auditors, and is therefore less likely to be affected by increased scrutiny. However, the decrease in selective sales of AFS securities might reflect a trend of increasing accountability and transparency in the banking industry.

[30] With hand-collected data, I find that 5 (2) control banks changed reclassification reporting from footnotes to performance statements in 2012 (2013). I also find that 103 (32) of 175 treatment banks changed reclassification reporting from footnotes to performance statements in 2012 (2013). The remaining 40 treatment banks always present the reclassification adjustment with CI/OCI but changed its position from equity statements to performance statements in 2012.

Table 6
Sensitivity Analyses: Placebo Tests.

Post-period Starts from:	(1) Whole Sample		(2) Comparing Control Banks with Treatment Banks That Changed the Reporting Position of Reclassification in 2013 (N = 1,232)		(3) Comparing Control Banks with Treatment Banks That Always Recognized Reclassification Under OCI (N = 1,420)	
	β_7 (+)	P-value	β_7 (+)	P-value	β_7 (+)	P-value
2010q3	1.861	0.21	−0.552	0.60	9.130	0.14
2010q4	2.865	0.18	1.737	0.29	6.773	0.14
2011q1	1.770	0.22	0.105	0.48	5.707	0.13
2011q2	1.550	0.23	0.164	0.47	4.728	0.14
2011q3	1.919	0.19	1.465	0.24	2.481	0.27
2011q4	2.253	0.13	0.954	0.32	3.323	0.18
2012q1	**3.399**	**0.03**	1.506	0.20	4.318	0.11
2012q2	**4.085**	**0.00**	1.745	0.11	**5.390**	**0.05**
2012q3	**4.888**	**0.00**	**2.573**	**0.04**	**6.222**	**0.01**
2012q4	**2.431**	**0.02**	**2.375**	**0.02**	**3.291**	**0.09**
2013q1	1.835	0.12	1.168	0.20	3.093	0.12
2013q2	2.217	0.07	1.257	0.18	3.790	0.07
2013q3	1.675	0.12	0.742	0.29	2.745	0.12
2013q4	1.573	0.14	0.724	0.30	2.347	0.17
2014q1	1.157	0.23	0.451	0.39	1.820	0.24
2014q2	2.702	0.16	2.369	0.19	3.898	0.15
2014q3	3.917	0.03	3.164	0.08	6.224	0.02

This table presents the placebo test results of Eq. (2) with different samples. Column 1 presents the placebo test results (β_7) with the whole sample. Column 2 presents the placebo test results with a subsample that contains all the control banks (No. of Banks = 32, N = 620) and treatment banks that changed their reporting of reclassification in 2013 rather than in 2012 (No. of Banks = 32, N = 612). Column 3 presents the placebo test with a subsample that contains all the control banks (No. of Banks = 32, N = 620) and treatment banks that always recognized reclassification under OCI and have changed the reporting of OCI from equity statements to the performance statements in 2012 (No. of Banks = 40, N = 800). Coefficient estimates are multiplied by 100 for expositional convenience. *P*-values are based on *t*-tests (one-sided with a signed prediction) with standard errors clustered by bank and quarter. The significant coefficients at 0.05 are bolded.

reclassifying AFS securities to other securities, in the income statements as non-interest income items. The sum of these items is basically the reclassification adjustment under OCI.

To further eliminate the possible effect of changing reporting of reclassification, I re-conduct the placebo tests in Table 6, Column 1 with two subsamples in which reclassification reporting positions are controlled. Table 6, Column 2 presents the results of placebo tests with a subsample containing all of the control banks and 32 treatment banks that started recognizing reclassification in 2013 rather than 2012. If the difference-in-differences decrease in earnings smoothing behavior is caused by the change in reclassification reporting, then we should observe significant β_7 mainly in 2013. However, if the difference-in-differences decrease in earnings smoothing behaviors is caused by changing the reporting position of CI/OCI, then we should observe significant β_7 mainly in 2012, which is what I find in Table 6, Column 2. I then re-conduct the placebo tests with a subsample of all of the control banks and 40 treatment banks that always present reclassification adjustments under OCI but changed the position of CI/OCI in 2012. Thus, the recognition of OCI including reclassification is held constant for the treatment banks in this subsample. The only effect of ASU 2011-05 on these treatment banks is changing the reporting position of recognized CI/OCI information. The results in Table 6, Column 3 are similar to those in Column 1. In sum, all of the placebo tests in Table 6 confirm that the results in Table 4 are mainly driven by the change in CI/OCI reporting position from equity to performance statements.

6.1.2. Alternative earnings management incentives

I further examine whether the conclusion in Table 4 is sustained with earnings management for different earnings benchmarks. First, I examine whether banks reduced earnings management to avoid losses. Within a subsample of banks with more incentive to realize more gains to avoid loss (i.e., when *NIBR* < 0 and *NIBR* + *UG*>=0), I separately estimate Eq. (1b) with *Treat* replaced by an indicator of loss avoiders (i.e., banks with *NIBR* < 0 and *NIBR* + *RGL*>=0) for treatment and control banks. Untabulated results suggest that, relative to control banks, treatment banks exhibit less management of RGL to avoid loss after adopting ASU 2011-05.

Second, I examine whether the position of CI/OCI affects earnings management to meet the other two earnings benchmarks: positive year-over-year growth and quarterly industry median. In the first test, I estimate Eq. (1b) with *NIBR* replaced by *NegChange*, which equals 1 if $NIBR_{iq} - NI_{iq-4} < 0$ and 0 otherwise. In the second test, I estimate Eq. (1b) with *NIBR* replaced by *DiffInd*, which equals $NIBR_{iq} - mNI_{iq}$, where mNI_{iq} is the median of NI for all sample banks in each quarter. In both tests, I use the subsample of banks with *NIBR* > 0 to exclude banks with an incentive to take a big bath. Untabulated results reveal inferences identical to those revealed in Table 4.

6.2. Additional analyses

6.2.1. Reporting position of CI/OCI and income informativeness changes

Sections 6.2.1 and 6.2.2 examine the potential consequences of reduced earnings management through selective sales of AFS securities following ASU 2011-05. Some studies suggest that bank managers smooth earnings to "garble" income statements as a means to reduce risk premiums (Barth et al., 1995; Gebhardt et al., 2001) and protect their own jobs (Kanagaretnam et al., 2003), while other studies indicate that income smoothing is a means to reveal private information about a bank's future earnings (Beatty and Harris, 1999; Kanagaretnam et al., 2004). A question that naturally arises here is whether ASU 2011-05 reduced earnings smoothing improves the informativeness of income items. If treatment banks used earnings smoothing as a "garbling" mechanism, then the informativeness of reported earnings would increase after ASU 2011-05. I use the predictive ability of income items to measure earnings informativeness (Tucker and Zarowin, 2006) and estimate the following equation:

$$\begin{aligned} EPS_{iq+1}(EPS_{i3}) = {} & \varphi_1 EPBR_{iq} + \varphi_2 RGL\_ps_{iq} + \varphi_3 UGL\_ps_{iq} + \varphi_4 Treat \times EPS_{iq} + \varphi_5 Treat \times RGL\_ps_{iq} + \varphi_6 Treat \\ & \times UGL\_ps_{iq} + \varphi_7 POST \times EPS_{iq} + \varphi_8 POST \times RGL\_ps_{iq} + \varphi_9 POST \times UGL\_ps_{iq} + \varphi_{10} Treat \times POST \\ & \times EPS_{iq} + \varphi_{11} Treat \times POST \times RGL\_ps_{iq} + \varphi_{12} Treat \times POST \times UGL\_ps_{iq} + \varphi_{13} Treat_{iq} + \varphi_{14} POST \\ & + \varphi_{15} Treat \times POST + OtherControls \end{aligned} \tag{4}$$

Using Eq. (4), I test whether the reporting position of CI/OCI affects how realized gains and losses on AFS securities per share (*RGL_ps*) predicts future short- and long-term earnings: earnings per share before tax in quarter $q + 1$ (EPS_{iq+1}) and the sum of earnings per share before tax in quarter $q + 1$ to $q + 3$ (EPS_{i3}). I control for earnings per share before realized gains and losses ($EPBR_{iq}$), and total unrealized gains and losses per share (UGL_ps_{iq})[31].

The regression results with the whole sample are presented in Table 7[32]. Consistent with the findings in Dong et al. (2014), *RGL_ps* predicts future *EPS* (captured by φ_2, which is significantly positive in Table 7, Columns 1–4). The negative and significant coefficients on $Treat \times RGL\_ps$ (φ_5) suggest that the predictive ability of RGL_ps_{iq} for future earnings is better in control banks than in treatment banks. Coefficients on $Treat \times POST \times RGL\_ps_{iq}$ (φ_{11}) are generally positive and significant (except in Column 4), which supports the inference that relative to control banks, treatment banks exhibit a significant increase in the ability of RGL_ps_{iq} to predict future earnings.[33] Thus, the results in Table 7 are consistent with the interpretation that reduced earnings smoothing in response to ASU 2011-05 increases earnings informativeness.

6.2.2. Reporting position of CI/OCI and discretionary use of loan loss provision

Prior studies find that firms trade off earnings management strategies based on their relative costs (Cohen et al., 2008; Zang, 2012; Chan et al., 2015). For the banking industry, both loan loss provision (LLP) and realized gains and losses of AFS securities (RGL) are used as earnings management strategies (Beatty et al., 2002; Barth et al., 2017). Thus, I next examine whether treatment banks have increased LLP management to replace RGL management post-ASU 2011-05. I use two-stage least squares to estimate a system of the following simultaneous equations[34]:

$$\begin{aligned} RGL_{iq} = {} & \lambda_1 NIBRL_{iq} + \lambda_2 Treat \times NIBRL_{iq} + \lambda_3 POST \times NIBRL_{iq} + \lambda_4 Treat \times POST \times NIBRL_{iq} + \lambda_5 RegCapBRL_{iq} + \lambda_6 LLP_{iq} \\ & + \lambda_7 UG_{iq-1} + \lambda_8 UL_{iq-1} + \lambda_9 Cash_{iq} + \lambda_{10} SEC_{iq} + \lambda_{11} SIZE_{iq} + \lambda_{12} TED_q + \lambda_{13} VIX_q + \lambda_{14} Unemp_q + \lambda_{15} Treat \\ & + \lambda_{16} POST + \lambda_{17} Treat \times POST + FixedEffects \end{aligned} \tag{5}$$

$$\begin{aligned} LLP_{iq} = {} & \eta_1 NIBRL_{iq} + \eta_2 Treat \times NIBRL_{iq} + \eta_3 POST \times NIBRL_{iq} + \eta_4 Treat \times POST \times NIBRL_{iq} + \eta_5 RegCapBRL_{iq} + \eta_6 RGL_{iq} \\ & + \eta_7 Chargeoff_{iq} + \eta_8 NPL_{iq-1} + \eta_9 \Delta NPL_{iq} + \eta_{10} LLA_{iq-1} + \eta_{11} Loan_{iq-1} + \eta_{12} \Delta Loan_{iq} + \eta_{13} LLP_{iq-1} + \eta_{14} Cash_{iq} \\ & + \eta_{15} SEC_{iq} + \eta_{16} SIZE_{iq} + \eta_{17} TED_q + \eta_{18} VIX_q + \eta_{19} Unemp_q + \eta_{20} Treat + \eta_{21} POST + \eta_{22} Treat \times POST \\ & + FixedEffects \end{aligned} \tag{6}$$

To identify the system, each equation includes the endogenous variables (*RGL* and *LLP*), the control variables omitted from each other, and the common control variables. Eq. (5) is a transformation of Eq. (1b) with *NIBR* (*RegCap*) replaced by *NIBRL* (*RegCapBRL*). *NIBRL* (*RegCapBRL*) is net income (regulatory capital) before *RGL* and *LLP*. *LLP* represents loan loss provision, coded as a positive number. *NIBRL*, *RegCapBRL*, and *LLP* are all scaled by the beginning of quarter total assets. Other control variables for *RGL* are as previously defined.

[31] UGL_ps_{iq} equals $UHGL\_ps_{iq} - UHGL\_ps_{iq-1} + RGL\_ps_{iq}$. $UHGL\_ps_{iq-1}$ represents unrealized holding gains and losses on AFS securities per share at the beginning of the quarter.

[32] Untabulated results with the matched subsample are qualitatively similar.

[33] The negative coefficients for $POST \times RGL\_ps_{iq}$ suggest a decrease in the positive relationship between RGL_ps_{iq} and future earnings in control banks. I expect this negative coefficient to capture macroeconomic changes for RGL_ps_{iq} in predicting future earnings.

[34] Following Barth et al. (2017), in the first stage, I regress each endogenous variable (i.e. *RGL* and *LLP*) on all the other exogenous variables to generate the predicted amount of *RGL* and *LLP*. In the second stage, I estimate Eq. (5) and (6) with explanatory variables *RGL* and *LLP* replaced by their predicted amounts.

Table 7
Additional Analyses: Reporting Position of CI/OCI and Informativeness of Earnings.

			EPS_{iq+1}				EPS_{i3}			
		Exp.	(1)		(2)		(3)		(4)	
		Sign	Coeff.	*T*-stat.	Coeff.	*T*-stat.	Coeff.	*T*-stat.	Coeff.	*T*-stat.
$EPBR_{iq}$	φ_1	+	0.654***	6.17	0.570***	5.49	1.897***	6.98	1.639***	6.16
RGL_ps_{iq}	φ_2	+	1.009***	3.75	0.765***	2.67	2.876**	2.36	2.114**	1.68
UGL_ps_{iq}	φ_3		0.083	0.84	0.108	1.04	0.696**	1.98	0.756**	2.25
$Treat \times EPS_{iq}$	φ_4		−0.012	−0.10	−0.007	−0.06	0.035	0.11	0.055	0.19
$\boldsymbol{Treat \times RGL\_ps_{iq}}$	φ_5		−0.908**	−2.26	−0.887**	−2.15	−2.549*	−1.77	−2.461*	−1.66
$Treat \times UGL\_ps_{iq}$	φ_6		0.169	1.44	0.147	1.22	−0.139	−0.36	−0.197	−0.54
$POST \times EPS_{iq}$	φ_7		0.108	1.20	0.093	1.07	0.456*	1.89	0.417*	1.77
$POST \times RGL\_ps_{iq}$	φ_8		−1.581*	−1.77	−1.291	−1.47	−3.424	−1.15	−2.525	−0.84
$POST \times UGL\_ps_{iq}$	φ_9		−0.149	−1.35	−0.156	−1.35	−0.566	−1.54	−0.620*	−1.65
$Treat \times POST \times EPS_{iq}$	φ_{10}		0.074	0.70	0.048	0.47	−0.017	−0.06	−0.111	−0.41
$\boldsymbol{Treat \times POST \times RGL\_ps_{iq}}$	φ_{11}		2.087**	2.14	1.702*	1.79	5.301*	1.68	4.148	1.32
$Treat \times POST \times UGL\_ps_{iq}$	φ_{12}		−0.057	−0.44	−0.006	−0.05	0.146	0.35	0.314	0.76
$Treat_{iq}$	φ_{13}		0.006	0.11	0.010	0.21	0.028	0.14	0.044	0.23
POST	φ_{14}		0.160**	2.26	0.139**	2.06	0.467**	2.09	0.408*	1.90
Treat × *POST*	φ_{15}		−0.056	−0.88	−0.033	−0.54	−0.107	−0.48	−0.028	−0.13
$UHGL\_ps_{iq-1}$	φ_{16}				0.085***	4.45			0.236***	4.03
$SIZE_{iq}$	φ_{17}				0.045***	5.33			0.151***	5.63
MTB_{iq}	φ_{18}				0.106***	4.82			0.284***	4.24
Intercept			0.020	0.33	−0.746***	−5.60	0.100	0.51	−2.415***	−5.62
N			4042		4042		3981		3981	
Adj. R-squared			0.543		0.570		0.638		0.672	

This table presents the estimation results of Eq. (4):
$EPS_{iq+1}(EPS_{i3}) = \varphi_1 EPBR_{iq} + \varphi_2 RGL\_ps_{iq} + \varphi_3 UGL\_ps_{iq} + \varphi_4 Treat \times EPS_{iq} + \varphi_5 Treat \times RGL\_ps_{iq} + \varphi_6 Treat \times UGL\_ps_{iq} + \varphi_7 POST \times EPS_{iq} + \varphi_8 POST \times RGL\_ps_{iq} + \varphi_9 POST \times UGL\_ps_{iq} + \varphi_{10} Treat \times POST \times EPS_{iq} + \varphi_{11} Treat \times POST \times RGL\_ps_{iq} + \varphi_{12} Treat \times POST \times UGL\_ps_{iq} + \varphi_{13} Treat_{iq} + \varphi_{14} POST + \varphi_{15} Treat \times POST + Other\ Controls$ (4)
The dependent variable is EPS_{iq+1} in Columns 1 and 2, EPS_{i3} in Columns 3 and 4. All variables are defined in Appendix A. Quarter fixed effects are included. *T*-statistics are based on standard errors clustered by bank. ***, **, and * indicate variables significant at the 0.01, 0.05, and 0.1 levels, respectively; one-sided (two-sided) *t*-tests for variables with predicted signs (no predicted signs).

In Eq. (6), I include several determinants of *LLP* following prior literature. I expect that loan charge offs (*Chargeoff*), the beginning balance of the nonperforming loan (NPL_{q-1}), and the changes in the nonperforming loan (ΔNPL) are positively associated with *LLP*, and that the beginning balance of loan loss allowance (LLA_{q-1}) is negatively associated with *LLP* (Kanagaretnam et al., 2004; Kilic et al., 2012). In addition, I control the beginning balance and the changes in the total loan ($Loan_{q-1}$ and $\Delta Loan$) following Kilic et al. (2012), and control the prior period loan loss provisions (LLP_{q-1}) following Barth et al. (2017). All the control variables are defined in Appendix A. A significant and positive association between *LLP* and *NIBRL* represents earnings smoothing through the management of *LLP*. If treatment banks switched to the management of LLP after ASU 2011-05, then I expect treatment banks to exhibit an *increase* in earnings smoothing through LLP relative to control banks from the pre- to the post-period (as captured by the *positive* and significant coefficient on *Treat* × *POST* × *NIBRL*).

The second stage results are presented in Table 8. Columns 1 and 3 (2 and 4) present the estimation results of Eq. (5) and (6) with the whole sample (the subsamples when banks are more likely to smooth earnings using RGL or LLP).[35] I do not find a significant treatment effect in Column 1 because the coefficient on *Treat* × *POST* × *NIBRL* could have opposite signs when earnings incentives vary. Using the subsample of banks more likely to smooth earnings using RGL (i.e., NIBR > 0), I find the results in Column 2 consistent with the findings in Table 4. The results in Columns 3 and 4 suggest an incremental increase in treatment banks' earnings smoothing through LLP in the post-period relative to control banks (captured by the positive and significant coefficients on *Treat* × *POST* × *NIBRL*)[36].

[35] I define that banks are more likely to smooth earnings using RGL when earnings before realized gains and losses (NIBR) are positive, and banks are more likely to smooth earnings using LLP when earnings before RGL and LLP (NIBRL) are positive. I use positive NIBR (rather than positive NIBRL) as the benchmark for banks that are more likely to smooth earnings through RGL because banks usually will not be able to meet the target of non-zero earnings through RGL when NIBRL is positive but NIBR is negative. On the one hand, most banks cannot avoid recording LLP when they have non-performing loans; however, they will have more flexibility in realizing gains and losses on AFS securities. Thus, the decision to take a big bath of RGL should be made after considering the expected LLP. On the other hand, the magnitude of LLP is much larger than that of RGL. The mean of LLP is 0.0006 in our sample, which is>94% of the RGL. In my sample, only 164 bank-quarters have NIBRL<0, whereas 456 bank-quarters have NIBR<0; 298 bank-quarters have NIBRL>0 and NIBR<0. I expect that most of these 298 observations still have incentives to take a big bath in RGL because it is difficult to meet the target of non-zero earnings through RGL after subtracting the expected LLP. Therefore, I believe that positive NIBR is a better benchmark to identify banks with motivations to smoothing earnings through RGL.

[36] The results in Columns 3 and 4 are very similar, which are consistent with the Barth et al.'s (2017) finding that the association between *LLP* and *NIBRL* does not change with the signs of *NIBRL*.

Table 8
Additional Analyses: Reporting Position of CI/OCI and Discretionary Loan Loss Provisions.

		RGL_{iq}					LLP_{iq}			
	Exp.	(1)		(2) NIBR > 0		Exp.	(3)		(4) NIBRL > 0	
	Sign	Coeff.	*T*-stat.	Coeff.	*T*-stat.	Sign	Coeff.	*T*-stat.	Coeff.	*T*-stat.
$NIBRL_{iq}$		−2.439	−1.13	−2.085	−1.71		6.639	1.01	8.623*	1.99
$Treat \times NIBRL_{iq}$		0.621	0.26	−0.965	−0.75		−10.288	−1.47	1.808	0.37
$POST \times NIBRL_{iq}$		−0.229	−0.10	−0.975	−0.91		−6.856	−1.14	−6.257	−1.37
$\boldsymbol{Treat \times POST \times NIBRL_{iq}}$	+	0.880	0.35	1.710**	1.88	?	15.253**	2.75	10.903**	2.24
$RegCapBRL_{iq}$	−	−0.064**	−1.93	−0.010	−0.24	+	0.380***	3.25	0.037	0.31
$\widehat{LLP}_{iq}$	+	0.568	0.66	2.822**	2.17					
UG_{iq-1}	+	2.263***	3.27	1.315***	2.93					
UL_{iq-1}	+	1.750***	3.31	1.607***	3.20					
$\widehat{RGL}_{iq}$	+						20.988	0.76	3.202	0.14
$Chargeoff_{iq}$							77.754***	15.29	75.764***	16.94
NPL_{iq-1}							2.364**	2.30	2.013***	3.69
ΔNPL_{iq}							8.443***	4.62	5.854***	5.81
LLA_{iq-1}							−13.936***	−6.30	−11.319***	−5.78
$Loan_{iq-1}$							0.339**	2.40	0.105	0.99
$\Delta Loan_{iq}$							−0.067	−1.45	−0.023	−0.74
LLP_{iq-1}							12.061***	3.16	12.572***	3.28
Common Controls		Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes
Firm fixed effects		Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes
N		4064		3608			4064		3900	
Adj. R-squared		0.239		0.274			0.814		0.824	

This table presents the estimation results of a two-stage least regression results (stage two) of the following system of simultaneous equations:
$RGL_{iq} = \lambda_1 NIBRL_{iq} + \lambda_2 Treat \times NIBRL_{iq} + \lambda_3 POST \times NIBRL_{iq} + \lambda_4 Treat \times POST \times NIBRL_{iq} + \lambda_5 RegCapBRL_{iq} + \lambda_6 LLP_{iq} + \lambda_7 UG_{iq-1} + \lambda_8 UL_{iq-1} + \lambda_9 Cash_{iq} + \lambda_{10} SEC_{iq} + \lambda_{11} SIZE_{iq} + \lambda_{12} TED_q + \lambda_{13} VIX_q + \lambda_{14} Unemp_q + \lambda_{15} Treat + \lambda_{16} POST + \lambda_{16} Treat \times POST + FixedEffects$ (5)
$LLP_{iq} = \eta_1 NIBRL_{iq} + \eta_2 Treat \times NIBRL_{iq} + \eta_3 POST \times NIBRL_{iq} + \eta_4 Treat \times POST \times NIBRL_{iq} + \eta_5 RegCapBRL_{iq} + \eta_6 RGL_{iq} + \eta_7 Chargeoff_{iq} + \eta_8 NPL_{iq-1} + \eta_9 \Delta NPL_{iq} + \eta_{10} LLA_{iq-1} + \eta_{11} Loan_{iq-1} + \eta_{12} \Delta Loan_{iq} + \eta_{13} LLP_{iq-1} + \eta_{14} Cash_{iq} + \eta_{15} SEC_{iq} + \eta_{16} SIZE_{iq} + \eta_{17} TED_q + \eta_{18} VIX_q + \eta_{19} Unemp_q + \eta_{20} Treat + \eta_{21} POST + \eta_{22} Treat \times POST + FixedEffects$ (6)
The predicted amounts of RGL and LLP ($\widehat{RGL}_{iq}$ and $\widehat{LLP}_{iq}$) are generated in the first stage and brought into the second stage estimation. All other variables are defined in Appendix A. Coefficient estimates are multiplied by 100 for expositional convenience. Columns 1 and 3 present the estimation results of Eq. (5) and (6) with the whole sample. Columns 2 and 4 present the estimation results of Eq. (5) and (6) with the subsamples of banks that are more likely to smooth earnings using RGL or LLP (i.e., when NIBT − RGL > 0 or NIBT − RGL + LLP > 0) respectively. NIBT represents net income before taxes and extraordinary items. T-statistics are based on standard errors clustered by bank and quarter. ***, **, and * indicate variables significant at the 0.01, 0.05, and 0.1 levels, respectively using one-sided (two-sided) t-tests for variables with predicted signs (no predicted signs).

To summarize, the findings in Tables 7 and 8 suggest two consequences of requiring more prominent reporting of CI/OCI in ASU 2011-05: 1) managers have reduced the management of RGL and therefore improved the informativeness of RGL; and 2) managers substitute the management of RGL with other earnings management strategies.

7. Conclusion

Using hand-collected CI/OCI reporting position data from public bank holding companies, this paper examines whether the mandated change of reporting CI/OCI from equity to performance statements reduces banks' earnings management through selectively selling AFS securities. Employing a difference-in-differences research design with ASU 2011-05 as the treatment, I show that presenting CI/OCI in performance statements reduces earnings management through selectively selling AFS securities in the banking industry. This finding is consistent across a number of alternative specifications and is supported by several additional analyses. Cross-sectional analyses demonstrate that 1) single-statement method adopters exhibit a greater decrease in earnings smoothing behavior than two-statement adopters during the post-period; and 2) the influence of ASU 2011-05 is mainly on banks with less CEO job security and/or a high equity-incentive in CEO compensation. These results confirm that managers have reduced earnings management following ASU 2011-05 for at least one of the following two reasons: 1) emphasizing CI as the bottom-line performance measure renders selective sales of AFS securities unnecessary; and 2) managing realized gains and losses on AFS securities is easier to detect when CI/OCI information is prominently reported and could therefore damage managers' job security and equity compensation. Further exploration indicates that 1) earnings management decreases the informativeness of realized gains and losses on AFS securities, and the reduction of this earnings management benefits investors; 2) managers still have incentives to manage earnings after ASU 2011-05 and will resort to other earnings management strategies (e.g., management of loan loss provision) as substitutions when they have to decrease selective sales of AFS securities.

I note two limitations of the study. First, after ASU 2011-05, firms still have two options for CI/OCI reporting: the single-statement method versus two-statement method. Due to the small sample size, I cannot fully explore the effects of choosing one method versus another. Second, although several prior studies have discussed incentives for managers to de-emphasize CI/OCI, it remains unclear precisely what incentivizes managers to choose more prominent CI/OCI reporting (i.e., reporting

CI/OCI in performance statements prior to ASU 2011-05 and in single-statements after ASU 2011-05). I leave these two research questions for future studies to address.

Despite these limitations, this paper makes three contributions. First, this is the first study to utilize ASU 2011-05 to examine how the presentation of recognized items in different financial statements affects opportunistic managerial reporting behavior. As such, it complements prior research using experimental settings (e.g., Hirst and Hopkins, 1998). The insights revealed herein have implications for broader issues of financial statement presentation and its relation to various management reporting behaviors. Second, this paper has implications for CI and OCI reporting policy. The evidence indicates that ASU 2011-05 helps to increase the transparency of financial reporting, as the FASB expected. Finally, this paper contributes to and extends studies investigating earnings management behaviors in banks by demonstrating that selective sales of AFS securities are affected by performance reporting of CI/OCI but could be substituted with other earnings management strategies when such behavior is easy to detect.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix A. Variable definitions

Variables Used in Matching Process

AFS_{iq}	total AFS securities in fair value (bhck1773) scaled by total assets (bhck2170).
$Big4_{iq}$	1 if the bank is audited by Big 4 audit firms, and 0 otherwise.
Lev_{iq}	long-term debt scaled by total assets.
MTB_{iq}	market to book value ratio.
$SIZE_{iq}$	natural logarithm of total assets.
ROA_{iq}	income before extraordinary items scaled by total assets.
$RelVol_{iq}$	standard deviation of net income before realized gains and losses on AFS securities, taxes, and extraordinary items scaled by total assets, divided by the standard deviation of net income before taxes and extraordinary items scaled by total assets.

Variables Used in the Primary Analyses in Tables 4 – 5

$Cash_{iq}$	cash (bhck0010) scaled by the beginning of quarter total assets.
$Equity\_Inc_{iq}$	*ONEPCT* / (*ONEPCT* + *SALARY* + *BONUS*). *ONEPCT* is the dollar change in the value of CEO stock and option holding coming from a one percent increase in the firm's stock price. The option delta used in calculating *ONEPCT* is constructed following Core and Guay (2002). *SALARY* is the CEO's salary, and *BONUS* is the CEO's cash bonus.
$High\_EI_{iq}$	1 if the bank's CEO equity incentive level (*Equity_Inc*) is larger than the 75th percentile of the treatment bank sample, and 0 otherwise.
ISadopter	1 if the treatment bank adopt one-statement reporting after ASU 2011-05, and 0 otherwise.
$J\_Security_{iq}$	*Chairman* + *Directors*, where *Chairman* = 1 if CEO also chairs the board of directors, and 0 otherwise; *Directors* = 1 if the percentage of outside directors on the firm's board is smaller than the sample median, and 0 otherwise.
LowSecur	1 if *J_Security* = 0, and 0 otherwise.
$NIBR_{iq}$	net income before realized gains and losses on AFS securities, taxes and extraordinary items (bhck4301 − bhck3196) scaled by the beginning of quarter total assets.

(*continued on next page*)

$NegNI_{iq}$	$NIBR_{iq}$ if$NIBR_{iq}$ < 0, and 0 otherwise.
$PosiNI_{iq}$	$NIBR_{iq}$ if $NIBR_{iq}$>=0, and 0 otherwise.
POST	1 for fiscal years from 2012 on, and 0 otherwise.
$RegCap_{iq}$	bank's end of quarter regulatory capital ratio, which is calculated as allowable Tier 1 (bhck8274) plus Tier 2 regulatory capital (bhck8275) before RGL_{iq} and after taxes scaled by risk-weighted assets (bhcka223).
RGL_{iq}	realized gains or losses on AFS securities (bhck3196) scaled by the beginning of quarter total assets.
SEC_{iq}	the sum of trading (bhck3545), available for sale (bhck1773) and held-to-maturity (bhck1754) securities scaled by the beginning of quarter total assets.
TED_q	quarterly TED spread. TED spread is the difference between the interest rates on interbank loans and on short-term U.S. government debt ("T-bills").
Treat	1 if the bank reports OCI in the equity statements before adopting ASU 2011-05 (in all quarters from 2010 to 2011), and 0 otherwise.
$Unemp_q$	one-year-ahead consensus forecast of the US unemployment rate.
UG_{iq-1}	aggregated accumulated unrealized gains on AFS securities at the beginning of the quarter scaled by lagged total assets.
UL_{iq-1}	aggregated accumulated unrealized losses on AFS securities at the beginning of the quarter scaled by lagged total assets.
VIX_q	quarterly implied volatility of options on the S&P500 Index.

Variables Used in the Additional Analyses in Table 7 and 8

$Chargeoff_{iq}$	quarterly charge-off (bhck4635 – bhck4605) scaled by the beginning of quarter total assets.
$EPBR_{iq}$	earnings per share before tax before realized gains and losses on AFS securities.
EPS_{i3}	sum of earnings per share before tax in quarter q + 1 to q + 3.
EPS_{iq+1}	one-quarter ahead earnings per share.
LLP_{iq}	loan loss provision (bhck4230) scaled by the beginning of quarter assets.
LLA_{iq-1}	loan loss allowance (bhck3123) scaled by the beginning of quarter assets.
$LOAN_{iq}$	total loans and leases (bhck2122) scaled by the total assets.
$\Delta LOAN_{iq}$	change in total loans scaled by the beginning of quarter assets.
NPL_{iq-1}	nonperforming loan (bhck5526 + bhck5525) at the beginning of the quarter scaled by the lagged assets.
ΔNPL_{iq-1}	change in nonperforming loans scaled by the beginning of quarter assets.
$NIBRL_{iq}$	net income before realized gains and losses on AFS securities, loan loss provision, taxes and extraordinary items (bhck4301 − bhck3196 + bhck4230) scaled by the beginning of quarter total assets.
$RegCapBRL_{iq}$	bank's end of quarter regulatory capital ratio before realized gains and losses on AFS securities and loan loss provisions, scaled by the beginning of quarter total assets.
RGL_ps_{iq}	realized gains and losses on AFS securities per share.
UGL_ps_{iq}	$UHGL\_ps_{iq} - UHGL\_ps_{iq-1} + RGL\_ps_{iq}$.
$UHGL\_ps_{iq-1}$	lagged accumulated unrealized gains or losses on AFS securities (bhck8434) per share.

Appendix B. Regulation changes related to presentation of comprehensive income

Date/Year	Events	CI and OCI Reporting Requirements
June 1996	The FASB proposed Statement of Financial Accounting Standard Reporting Comprehensive Income (Exposure Draft)	Report the components of comprehensive income in one or two statements of financial performance (Method 1 or Method 2).
June 1997	The FASB issued Statement of Financial Accounting Standard No. 130 Reporting Comprehensive Income	Report the components of comprehensive income in one or two statements of financial performance (Method 1 or Method 2); or equity statement (Method 3); or any other financial statement with the same prominence as the financial statements that constitute a full set of financial statement (Method 4).

Appendix B (*continued*)

Date/Year	Events	CI and OCI Reporting Requirements
June 2008	The FASB started Financial Statement Presentation Project: A joint Project of the FASB and IASB	Add the presentation of Statement of Comprehensive Income to the working format.
May 2010	The FASB proposed ASU —Comprehensive Income (Topic 220): Statement of Comprehensive Income (Exposure Draft)	Report total comprehensive income and its components in two parts— net income and other comprehensive income—in a continuous statement of financial performance (Method 1).
June 2011	The FASB issued ASU No.2011-05 —Comprehensive Income (Topic 220): Statement of Comprehensive Income	Present the total of comprehensive income, the components of net income, and the components of other comprehensive income either in a single continuous statement of comprehensive income or in two separate but consecutive statements (Method 1 and 2).

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