

SFAS No. 159's Fair Value Option: Eventually Used as Intended

Yao-Lin Chang*

Chi-Chun Liu*

and

Stephen G. Ryan**

November 2009

* National Taiwan University. ** Stern School of Business, New York University (corresponding author, sryan@stern.nyu.edu). Chi-Chun Liu is grateful for research support from the National Science Council of Taiwan (grant no. 97-2410-H-[002-048-MY3](#)). We are grateful to accounting seminar participants at Washington University in St. Louis, particularly Gauri Bhat, for useful comments.

ABSTRACT: We examine the determinants of the timing of and financial instruments involved in banks' fair value option ("FVO") elections upon their adoption of SFAS No. 159. We focus on regular (in 2008:1Q) adopters of the standard, and distinguish their FVO elections from those of early (in 2007:1Q) adopters. Recent research by Song (2008), Henry (2009), and Guthrie, Irving, and Sokolowsky (2009) focuses on early adopters and finds that their FVO elections exploited SFAS No. 159's transition guidance to manage current and future accounting numbers. These studies provide essentially no evidence that either early or regular adopters complied with the standard's stated intent that firms' FVO elections remedy inconsistent accounting for the two sides of economic hedges resulting from the mixed-attribute accounting model for financial instruments and/or hedge accounting. In contrast, we hypothesize and provide evidence that regular adopters learned from guidance provided by the SEC and others about SFAS No. 159's intent as well as from the scrutiny early adopters' FVO elections received, and as a result regular adopters complied with the standard's intent. Specifically, we predict and find that variables related to ineffective accounting hedging or accounting mismatches explain regular adopters' FVO elections but not early adopters' elections. We predict and find that variables related to the management of accounting and regulatory capital numbers that explain early adopters' FVO elections do not explain regular adopters' elections.

We also examine the three types of financial instruments for which adopting banks most frequently elected the FVO: AFS securities and debt for early adopters and loans held for sale for regular adopters. We hypothesize and provide evidence that banks' initial FVO elections for these types of instruments differ in whether and how they exploited SFAS No. 159's transition guidance versus complied with the standard's intent. In contrast to the recent FVO literature, we find that regular adopters' FVO elections most frequently were for loans held for sale, and that these elections remedied accounting mismatches and did not exploit SFAS No. 159's transition guidance. Similar to this literature, we find that early adopters' FVO elections most frequently were for AFS securities and debt, and that these elections exploited the standard's transition guidance.

Our findings are consistent with regular adopters' FVO elections, particularly for loans held for sale, complying with SFAS No. 159's intent. Our findings are broadly consistent with Henry's (2009) evidence that some early adopters rescinded or revised their FVO elections because of informal mechanisms that arose to help firms interpret and implement SFAS No. 159.

Keywords: Fair value option; Fair value accounting; SFAS No. 159; Banks

JEL Classification: G21, M41

Data Availability: All data is available from public sources.

I. INTRODUCTION

We examine the determinants of the timing of and financial instruments involved in commercial bank holding companies' ("banks") fair value option ("FVO") elections upon their adoption of SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities*, issued by the Financial Accounting Standards Board ("FASB") in February 2007. Recent research by Song (2008), Henry (2009), and Guthrie, Irving, and Sokolowsky (2009) provides compelling anecdotal and statistical evidence that early (in 2007:1Q) adopters of SFAS No. 159 exploited the standard's transition guidance to manage their current and future net income. While Song and Guthrie, Irving, and Sokolowsky also examine regular (in 2008:1Q) adopters, these studies provide little evidence that regular adopters either exploited SFAS No. 159's transition guidance or complied with the standard's stated intent to provide "entities with the opportunity to mitigate volatility in reported net income caused by measuring related assets and liabilities differently without having to apply complex hedge accounting provisions" (§1, SFAS No. 159).¹ Reflecting the lack of evidence that either early or regular adopters complied with the standard's intent, the ultimate conclusions the authors draw about SFAS No. 159 are

¹ That is, SFAS No. 159's FVO allows firms to account symmetrically for the two sides of economic hedges in a simpler fashion than hedge accounting. Hedge accounting is governed by SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*, and the voluminous accounting rules and implementation guidance that complex standard has spawned.

decidedly negative.² These studies also describe how beginning in April 2007 the U.S. Securities and Exchange Commission (“SEC”) and other accounting policymakers took various actions to quash the discretionary behavior exhibited by early adopters.

We contribute to the recent literature on SFAS No. 159’s FVO by examining the determinants of the timing of and financial instruments involved in regular adopters’ initial FVO elections and contrasting these determinants with those of early adopters’ initial FVO elections. We hypothesize and provide evidence that regular adopters learned from guidance subsequently provided by the SEC and other accounting policymakers about SFAS No. 159’s intent and from the scrutiny early adopters’ FVO elections received, and as a result regular adopters complied with the intent of the standard. We also examine the FVO elections for the three specific types of financial instruments for which adopting banks most frequently elected the FVO: AFS securities and financial liabilities (“debt”) for early adopters, and loans held for sale for regular adopters. We hypothesize and provide evidence that adopting banks’ FVO elections for these types of financial instruments varied in whether and how the elections exploit SFAS No. 159’s transition guidance versus comply with the standard’s intent.

² Song (2008) concludes: “Overall, the FVO seems to induce undesirable effects.” Guthrie, Irving, and Sokolowsky (2008) conclude: “Our findings suggest that issuing an optional accounting standard potentially undermines the credibility of firms’ stated reasons for adoption.”

We restrict our analysis to banks for three reasons. First, Guthrie, Irving, and Sokolowsky (2009) report that banks constitute about 70% of their comprehensive sample of firms electing the FVO under SFAS No. 159. Second, this restriction yields a more homogeneous sample. Compared to non-banks, banks hold more financial instruments on their balance sheets and are more likely to use asset-liability management (“ALM”), other forms of economic hedging, and hedge accounting. Third, banks provide detailed data available about their FVO elections and other attributes in regulatory FR Y-9C reports. The second and third reasons are particularly relevant to our study because we analyze banks’ FVO elections for specific types of financial instruments. For example, nonbanks generally do not have any loans held for sale.

Our main findings and contributions to the FVO literature are threefold. First, we find that regular adopters most commonly elected the FVO for loans held for sale, whereas early adopters most commonly elected the FVO for AFS securities and debt. For reasons discussed below, it was far more difficult for banks to exploit SFAS No. 159’s transition guidance by electing the FVO for loans held for sale than for AFS securities or debt. It was also far more likely that banks’ prior economic hedges of loans of held for sale either failed to qualify for hedge accounting or exhibited significant accounting hedge ineffectiveness than did their accounting hedges of AFS securities or debt. Second, we predict and find that variables related to prior ineffective accounting hedging or accounting mismatches explain regular adopters’ FVO

elections, particularly for loans held for sale, but do not explain early adopters' elections. Third, we predict and find that variables related to the management of accounting and regulatory capital numbers that explain early adopters' FVO elections, particularly for AFS securities and debt, do not explain regular adopters' elections.

All of our findings are consistent with regular adopters' FVO elections, particularly for loans held for sale, complying with SFAS No. 159's stated intent. Our findings contrast with those of the recent FVO literature, which finds that early adopters' FVO elections exploited the standard's transition guidance. Our findings are broadly consistent with Henry's (2009) evidence that a number of early adopters rescinded or revised their FVO elections as a result of informal mechanisms that arose to provide accounting guidance clarifying SFAS No. 159's intent and to scrutinize early adopters' FVO elections.

Our second and third findings are based on logistic regressions of dummy variables indicating banks' FVO elections in specific quarters and/or for specific financial instruments on three categories of explanatory variables: (1) variables related to banks' FVO elections for purposes consistent with SFAS No. 159's intent ("objective" variables); (2) variables related to banks' potential exploitation of SFAS No. 159's transition guidance ("manipulation" variables); and (3) a control variable for firm size. Because our choices of both objective and manipulation variables better capture the related constructs than do the variables used in the recent FVO

literature, we are able to generate a number of specific findings about the determinants of both regular and early adopters' FVO elections not reported in that literature. In particular, we are the first study to include an objective variable that directly captures hedge ineffectiveness, and we find this variable explains regular adopters' FVO elections, particularly for loans held for sale, consistent with regular adopters complying with SFAS No. 159's intent. We also include manipulation variables that interact a dummy variable indicating a below-median Tier 1 risk-based capital ratio with cumulative unrecognized gains and losses. Our results for these variables indicate that early adopters with a below-median ratio did not elect the FVO for AFS securities with cumulative unrecognized losses but did elect the FVO for debt with cumulative unrecognized gains (the last finding is at the 10% confidence level), thereby preserving or raising that ratio. In contrast, the recent FVO literature, which does not include such interactive variables, provides almost no evidence that regulatory capital affected banks' FVO elections.

Our empirical results and interpretations, like those of the rest of the recent FVO literature, are subject to two related caveats. First, our study is limited by the number of banks electing SFAS No. 159's FVO and by the diversity of their FVO elections. In our sample of 312 banks, 51 first elect the FVO in either 2007:1Q (25 banks) or 2008:1Q (26 banks). Of the 25 early adopters, 18 (16) banks elect the FVO for AFS securities (debt); the next most frequent type of financial instrument elected is loans, with only 5 elections. Of the 26 regular adopters, 16

banks elect the FVO for loans held for sale; the next most frequent type of financial instrument elected is debt, with only 8 elections. To report reliable statistics under these circumstances, we limit our analysis of banks' FVO elections by type of financial instrument to early adopters' elections for AFS securities and debt and regular adopters' elections for loans held for sale.

Second, our study examines the adoption of an unusual optional accounting standard at two points in time occurring roughly at the beginning and middle of a financial crisis. Given the size and other limitations of our sample just described, our empirical model very likely omits specific determinants of the timing and financial instruments involved in banks' initial FVO elections. For example, it is possible that early adopters of any accounting standard are more likely to exploit the standard or that regular adopters of SFAS No. 159 were more likely to hold loans held for sale of types affected by the financial crisis. We believe that some of these issues can be addressed by later studies that examine firms' ongoing FVO elections over time, but that our results for banks' initial FVO elections are both interpretable and interesting as they stand.

These caveats aside, our results have an important implication for the FASB, whose board members appear to have soured somewhat on the FVO due to early adopters' exploitation of the transition guidance in SFAS No. 159, a standard they view as principles-based.³ Our

³ For example, the two FASB members who originally voted for the standard and still remain on the board have recently expressed concerns about the existence or specific features of SFAS No. 159's FVO. FEI's Financial Reporting Blog for May 18, 2009 summarizes the discussion at a FASB board meeting that day, stating "some

results suggest that any evaluation by the FASB of the merits of SFAS No. 159's FVO relative to the alternative of the current complex or potential future simplified hedge accounting should not dwell on early adopters' discretionary behavior. In fact, SFAS No. 159's FVO exhibits various features we discuss below that make it less amenable to management of accounting or regulatory capital numbers than is current hedge accounting. Although we believe that SFAS No. 159's FVO is less attractive on various grounds than the alternative of fair value accounting for all financial instruments,⁴ the current summary of the status of the FASB's project on accounting for financial instruments on the FASB website indicates that mixed-attribute accounting will continue for the foreseeable future.

The remainder of the paper is organized as follows. In Section II, we describe SFAS No. 159's FVO and transition guidance and how they apply to different types of financial instruments, the response of the SEC and other accounting policymakers to early adopters' exploitation of that transition guidance, and the recent FVO literature. We develop our hypotheses in an intertwined fashion with this discussion. In Section III, we describe our sample,

dissatisfaction [was] voiced with respect to the FVO." The blog quotes two FASB board members who voted for SFAS No. 159. FASB Chairman Robert Herz is quoted as stating "My preference would be for no FVO." Board member Leslie Seidman is quoted as stating "If I'd had my druthers, on transition I would probably [limit the FVO to] each major asset class." (The bracketed insertion in the Seidman quote is from the blog.)

⁴ Paragraph A3 of SFAS No. 159 indicates that the FASB "views the fair value option as an interim step that can mitigate existing reporting issues and expand the use of fair value measurements for financial instruments."

data, variables and empirical models. In Section IV, we report the results of our empirical analysis. We conclude in Section V.

II. SFAS NO. 159, THE RECENT FAIR VALUE OPTION LITERATURE, AND HYPOTHESIS DEVELOPMENT

SFAS No. 159's Fair Value Option

SFAS No. 159's FVO allows firms to elect to account for most financial instruments and similar items, with limited scope exceptions, at fair value with unrealized gains and losses recorded in net income each period as they occur. Firms elect the FVO for individual whole financial instruments, not for categories of financial instruments or selected risks within financial instruments. The FVO's individual-instrument basis has been subject to the criticism that it can yield non-comparable accounting across firms and within portfolios of similar instruments held by a given firm; in fact, two FASB board members dissented from SFAS No. 159 in large part because of this feature. AAA (2007) expounds on this criticism at length. The FVO is no worse in this regard than is the alternative of current hedge accounting, however, and paragraphs 17-22 of the standard require detailed disclosures that mitigate this concern.

After firms' initial adoptions of SFAS No. 159, they may elect the FVO only at the inception of financial instruments or when certain specified events trigger a new basis of

accounting for those instruments. A firm's election of the FVO at the inception of a financial instrument should not significantly affect the firm's current accounting or regulatory capital numbers, although its future accounting and regulatory capital numbers will be affected by the recognition of unrealized gains and losses as they occur. FVO elections are irrevocable.

While SFAS No. 159's FVO has been criticized for allowing discretionary management of accounting and regulatory capital numbers, it exhibits three features—election at inception only, irrevocability, and application to whole financial instruments, not selected risks—that make it less amenable to such management than is the alternative of current hedge accounting.

Although the standard currently lacks anything analogous to SFAS No. 133's hedge effectiveness requirements, SFAS No. 159 could easily be amended to require FVO elections to remedy identified accounting mismatches, similar to IAS 39.

At the initial adoption of SFAS No. 159, firms could elect the FVO for any financial instrument they held. These financial instruments may have exhibited sizeable cumulative unrecognized gains or losses at that time. Hence, at the adoption of the standard, firms could manage their accounting and regulatory capital numbers significantly through selective election of the FVO for financial instruments with either cumulative unrecognized gains or cumulative unrecognized losses, depending on the desired direction of manipulation. The likelihood of such management was increased by SFAS No. 159's transition guidance described below.

SFAS No. 159 was effective for firms' first fiscal year beginning after November 15, 2007. Since all but seven of the banks in our sample have fiscal years that correspond to the calendar year, the effective date generally is January 1, 2008 for our regular adopters and nonadopters. Firms were allowed to early adopt SFAS No. 159 as long as they: (1) contemporaneously early adopted SFAS No. 157, *Fair Value Measurements*; (2) made the choice within 120 days of the beginning of the fiscal year; and (3) had not issued financial statements for any quarter of that year. SFAS No. 159's effective date for our early adopters generally is January 1, 2007. The 120 day look-back period for early adopters is related to one of the exploitable features of SFAS No. 159's transition guidance. We discuss these features next.

SFAS No. 159's Transition Guidance

As discussed by Song (2008), Henry (2009), and Guthrie, Irving, and Sokolowsky (2009), SFAS No. 159's transition guidance has two features that were amenable to exploitation. First, paragraph 25 of SFAS No. 159 required all adopters to record the cumulative effect of adopting the standard in retained earnings, bypassing net income. While the FASB's entirely reasonable rationale for this feature is to avoid contaminating net income in the adoption period with gains and losses that occurred in prior periods, this feature also allowed firms to raise (lower) their future net income by electing the FVO for positions with cumulative unrecognized

losses (gains). This feature also allowed banks to raise their Tier 1 capital by electing the FVO for financial instruments with cumulative unrecognized gains.

Both of these exploitations of the SFAS No. 159's transition guidance are possible for FVO elections of AFS securities, even though they are recorded on the balance sheet at fair value under SFAS No. 115, *Accounting for Certain Investments in Debt and Equity Securities*. Under this standard, in the absence of an other-than-temporary impairment unrealized gains and losses on these securities bypass net income and are recorded in accumulated other comprehensive income ("AOCI"), not net income. Banks' Tier 1 regulatory capital excludes AOCI.

Second, paragraph 30 of SFAS No. 159 allowed early adopters up to 120 days after the beginning of the adoption quarter to determine the financial instruments for which they would initially elect the FVO. While this feature is motivated by the timing of the issuance of the standard in February 2007 and the FASB's desire to allow early adoption as of the beginning (as opposed to second quarter, say) of fiscal 2007, it provided early adopters with the ability to raise their 2007:1Q and (to a lesser extent) 2007:2Q net income as well as their Tier 1 capital by electing the FVO for positions that experienced unrealized gains during the look-back period. Because this feature was not available to regular adopters, our focus, we do not examine it in this paper.

Song (2008), Henry (2009), and Guthrie, Irving, and Sokolowsky (2009) find that early adopters tended to elect the FVO for financial instruments, particularly AFS securities, with cumulative unrealized losses or with unrealized gains during the 120 look-back period. Song and Guthrie, Irving, and Sokolowsky find that this discretionary behavior is concentrated among early adopters desiring to meet earnings targets.

Despite the fact that the literature in other accounting-choice contexts finds that banks sometimes make choices to raise their regulatory capital,⁵ the recent FVO literature provides almost no evidence that banks exploited SFAS No. 159's transition guidance to raise capital. This likely reflects the fact that almost all early adopters were well capitalized—Guthrie, Irving, and Sokolowsky (2009) identify only three banks that were both close to capital requirements and had transition adjustments that raised Tier 1 capital in the quarter they adopted SFAS No. 159—and the fact that FVO election for financial instruments with cumulative unrealized gains at the adoption of SFAS No. 159 would have the undesirable effect of reducing future net income. In this regard, one of the contributions of our paper is we find that early adopters with below-median Tier 1 capital were less likely to elect the FVO for AFS securities with cumulative unrecognized losses, which would have reduced their capital. We also provide weak evidence

⁵ See, for example, Moyer (1990), Beatty, Chamberlain, and Magliolo, (1995), Kim and Kross (1998), Ahmed Takeda, and Thomas (1999), and Hodder, Kohlbeck, and McAnally (2002).

that these banks were more likely to elect the FVO for debt with cumulative unrecognized gains, which raised their capital. Hence, we find that regulatory capital considerations affected banks' initial FVO elections in a secondary fashion.

Henry (2009) and Guthrie, Irving, and Solokowsky (2009) describe how beginning in April 2007 the SEC and other accounting policymakers took various actions to quash the discretionary behavior exhibited by early adopters. Most notably, in an April 4, 2007 speech, SEC Deputy Chief Accountant James Kroeker describes the SEC's displeasure with portfolio "rebalancing" or "enhancement" strategies that various investment advisors had been proposing that firms use when adopting SFAS No. 159, and that some firms had already indicated they would follow. Mr. Kroeker describes one such strategy in which a firm elects the FVO for a financial instrument with a cumulative unrecognized loss in order to record the loss directly in retained earnings, bypassing net income, and then sells the position and replaces it with a similar position for which the FVO is not elected to avoid future net income volatility. Mr. Kroeker states that "this type of activity does not appear to promote the objective of the accounting standard [SFAS No. 159]. Accordingly, you can expect the SEC staff to continue to have an interest in such activities." An April 18, 2007 Center for Audit Quality (CAQ) Alert effectively reiterated this warning to the broad auditing and financial report preparer communities. Finally, in a December 10, 2007 speech, SEC Professional Accounting Fellow Ashley Carpenter states

that the election of the FVO for AFS or HTM securities “does not relieve management of its requirement to assess those securities for other than temporary impairment at the preceding balance sheet date. If an other-than-temporary impairment exists, the impairment loss should be reported in earnings in the period prior to the adoption of Statement 159, and not included in the transition adjustment.” Mr. Carpenter also discusses various issues regarding the classification of securities prior to the election of the FVO.

In addition to this general guidance regarding SFAS No. 159’s intent and proper implementation, Henry (2009) and Guthrie, Irving, and Solokowsky (2009) identify a number of specific firms, almost all banks, whose FVO elections were challenged by the SEC or their auditors. Henry identifies 12 firms (11 banks) who rescinded or revised their FVO elections as a result of this guidance or scrutiny. She also discusses how SunTrust received such scrutiny and appears to have exploited the standard’s transition guidance but did not rescind or revise its FVO elections.

Since firms generally want to avoid such scrutiny, a regular adopter of SFAS No. 159 would think twice about exploiting the standard’s transition guidance or other aspects of the accounting for financial instruments for which they elected the FVO. Hence, we hypothesize:

[H1] Regular adopters' FVO elections adhered to SFAS No. 159's intent to provide simple, consistent accounting for the two sides of economic hedges. These elections did not exploit the standard's transition guidance to manage accounting or regulatory capital numbers.

Banks' Ability to Exploit SFAS No. 159's Transition Guidance Varies across Types of Financial Instruments

The extent to which banks could exploit SFAS No. 159's transition guidance depends upon the prior accounting for and economic attributes of the financial instruments for which they initially elected the FVO. In particular, banks would have found it more difficult to exploit SFAS No. 159's transition guidance by electing the FVO for loans held for sale than for either AFS securities or debt, for three reasons. First, loans held for sale are accounted for at lower of cost or fair value under SFAS No. 65, *Accounting for Certain Mortgage Banking Activities*, for mortgages or SOP 01-6, *Accounting by Certain Entities (Including Entities with Trade Receivables) that Lend to or Finance the Activities of Others*, for other loans. These standards require that write-downs of loans held for sale to fair value be recorded in net income. Hence, banks should have recognized all prior unrealized losses on loan held for sale in net income prior to the adoption of the FVO, limiting their ability to exploit SFAS No. 159's transition guidance to unrealized gains. In contrast, as note above AFS securities are accounted for at fair value on the balance sheet but with unrealized gains and losses recorded in AOCI in the absence of an other-than-temporary impairment. Debt is accounted for at amortized cost under APB 21,

Interest on Receivables and Payables. Banks could have managed their future income or current regulatory capital in either direction by electing the FVO for AFS securities or debt with either unrealized gains or unrealized losses.

Second, banks generally hold loans held for sale only for the length of time necessary to accumulate enough loans to sell or securitize efficiently, typically a few months. In contrast, banks typically hold AFS securities and debt for far longer periods of time. This shorter holding period reduced banks' ability to elect the FVO for loans held for sale with large cumulative unrecognized holding gains or losses.

Third, banks are considerably more likely to use AFS securities and debt than loans held for sale in ALM. Banks' ALM involves matching the durations and sometimes other attributes of their assets and liabilities. Because of the mixed attribute accounting for the financial instruments involved, banks' ALM usually is imperfectly captured by accounting. This is a primary rationale for SFAS No. 159's FVO. However, because SFAS No. 159 allows banks to elect the FVO for one side of an ALM relationship *regardless of the accounting for the other side*, and because one side of an ALM relationship usually has an unrealized loss while the other side has an unrealized gain, SFAS No. 159 allows banks considerable ability to exploit the standard's transition guidance to manage accounting numbers in the either direction.

In contrast, banks' loans held for sale are unlikely to be meaningfully involved in asset-liability management due to their short holding period. To the extent that banks economically hedge loans held for sale, they typically do so with derivatives that SFAS No. 133 requires to be accounted for at fair value. Hence, banks electing the FVO for loans held for sale that are economically hedged by derivatives eliminates accounting mismatches if hedge accounting had not previously been used, because the normal accounting for loans held for sale and derivatives is inconsistent. Moreover, this election does not create accounting mismatches if hedge accounting had previously been used, it simply trades one form of symmetric accounting (hedge accounting) for another (the fair value option for loans held for sale and normal fair value accounting for derivatives).

Banks' adherence to SFAS No. 159's stated intent also depended upon the prior accounting for and economic attributes of the financial instruments for which they initially elected the FVO. In particular, it was likelier that banks adhered to SFAS No. 159's intent by electing the FVO for loans held for sale than by electing the FVO for either AFS securities or debt, for the following reason. Banks' hedges of loans held for sale typically involve forwards or futures contracts with a term equal to the expected length of the holding period for loans held for sale. These hedges usually exhibit considerable hedge ineffectiveness in part due to the nonlinear prepayment option imbedded in fixed-rate mortgages, the most common type of loan held for

sale by banks, but primarily due to the uncertain length of the holding period for loans held for sale.

For example, if the expected holding period for loans held for sale is two months but the actual holding period is one month half the time and three months half the time, then considerable ($\pm 50\%$) hedge ineffectiveness would result if loans held for sale were hedged by a forward contract with a tenor equal to the average two-month holding period. In fact, this forward contract would not be a sufficiently effective hedge of the loans held for sale for the hedging relationship to qualify for hedge accounting under SFAS No. 133 and current practice, in which highly effective hedges can exhibit no greater than -20% to $+25\%$ ineffectiveness. In this regard, the holding period for loans held for sale, particularly for certain types of mortgages, became considerably lengthier and more uncertain as the financial crisis evolved over the 2007:1Q-2008:1Q period that we examine.

In contrast, banks' hedges of AFS securities and debt typically exhibit little if any accounting hedge ineffectiveness. This is partly because banks often designate specific risks within these instruments, such as benchmark interest rate risk, as the hedged item in these accounting hedges.

Consistent with these arguments, we hypothesize:

[H2] Regular adopters' FVO elections for loans held for sale adhered to SFAS No. 159's intent to provide simple, consistent accounting for the two sides of economic hedges. These elections did not exploit the standard's transition guidance to manage accounting or regulatory capital numbers.

Other Research on the FVO

While less directly related to our study, we mention two other interesting findings in the recent FVO literature. First, Song (2008) finds that unrealized losses recognized in net income due to FVO election at the adoption are priced whereas unrealized gains are not. These findings suggest that the market viewed with skepticism increases in net income upon the initial adoption of SFAS No. 159.

Second, Fiechter (2009) examines international banks' election of the FVO under IAS 39, *Financial Instruments: Recognition and Measurement*. Unlike SFAS No. 159, IAS 39 attempts to restrict FVO elections to economic hedges with accounting mismatches. Fiechter finds that banks that elect the FVO for debt or that state that they make this election with the intent to reduce accounting mismatches report lower earnings volatility than firms not electing the FVO.⁶ He also provides weak evidence that banks that elect the FVO for financial assets and for which financial assets measured at fair value exceed financial liabilities measured at fair value report

⁶ In contrast, Song (2008) finds no evidence that earnings volatility or derivatives use changes upon the adoption of SFAS No. 159.

higher earnings volatility. These findings suggest that IAS 39's restrictions are only partly effective. We suspect this is because of the difficulty of determining what is an economic hedge subject to an accounting mismatch, given that an effective hedge of a given position held by a firm may be an anti-hedge of the firm's overall exposure, and vice versa. Still, Fiechter's results are the only ones in the recent FVO literature that suggest that some firms adhere to the intent of a standard allowing the fair value option.

Other Related Research

Guthrie, Irving, and Solokowsky (2009) clearly and thoroughly summarize the very broad related literatures on accounting choice, on other types of discretionary accounting behavior (e.g., meeting earnings targets), and on the benefits and costs of fair value accounting. We do not repeat their discussion, save to note that these literatures all relate to and inform our analysis of banks' FVO elections under SFAS No. 159.

III. SAMPLE, DATA, VARIABLES, AND MODELS

Sample and Data Sources

To identify banks that adopted SFAS No. 159, when they did so, and the financial instruments for which they made their initial FVO elections, we searched all publicly traded banks' Form 10-Q filings for 2007:1Q and 2008:1Q on the Interactive Data Electronic Applications (IDEA) database using the keywords "fair value option," "FVO," and "159." The resulting sample observations are summarized in Table 2, Panel A. Of the 312 banks on the IDEA database in 2007:1Q that did not merge that quarter, 25 banks early adopted SFAS No. 159 and 287 banks did not adopt the standard that quarter. These banks constitute our 2007:1Q sample. Between 2007:1Q and 2008:1Q, 24 banks' stock registrations were terminated, largely because of the financial crisis. Of the 262 banks on the IDEA database in 2008:1Q that had not previously adopted SFAS No. 159, did not merge in the quarter, and filed their Form 10-Qs on a timely basis, 26 regular adopted SFAS No. 159 and 236 did not elect the FVO that quarter. These banks constitute our 2008:1Q sample. We lose 1 observation (a non-adopter) from this sample due to missing data.

We collect most of our data from banks' regulatory FR Y-9C reports, which U.S. bank holding companies with total consolidated assets above \$150 million are required to file

quarterly with the Federal Reserve. For smaller banks, we obtained comparable data from their Form 10-Ks on the IDEA database. We gathered quarterly earnings before extraordinary items and stock returns from the Compustat and the CRSP databases, respectively.

Variables and Empirical Models

Our dependent variables are all 0-1 dummy variables. *FVO_2007Q1* takes a value of 1 for banks that first elected the FVO in 2007:Q1 and 0 otherwise. *FVO_2008Q1* takes a value of 1 for banks that first elected the FVO in 2008:Q1, is missing for banks that first elected the FVO in 2007:Q1, and is 0 otherwise. *AFS_2007:Q1* and *Debt_2007:Q1* take a value of 1 for banks that first elected the FVO for AFS securities and debt, respectively, in 2007:Q1, and 0 otherwise. *LoanHFS_2008Q1* takes a value of 1 for banks that first elected the FVO for loans held for sale in 2008:Q1, is missing for banks that first elected the FVO in 2007:Q1, and is 0 otherwise. Table 1, Panel A contains the definitions of these dependent variables. As discussed in the introduction and reported in Table 2, Panel B, we consider only these three specific FVO elections, because they are the only ones frequent enough to allow reliable statistical analysis.

We collected ten explanatory variables related to banks' FVO elections. As discussed in the introduction, these variables fall into three categories: (1) objective variables related to banks' election of the FVO for purposes consistent with SFAS No. 159's intent to mitigate earnings

volatility resulting from asymmetric accounting for the two sides economic hedges without the complexity of hedge accounting; (2) manipulation variables related to banks' exploitation of SFAS No. 159's transition guidance; and (3) one control variable. Table 1, Panel B contains the definitions of these explanatory variables and summarizes our predictions for the directions of their associations with FVO elections.

We collected four objective variables, the first two of which we chose to capture the accounting mismatches that occur when the two sides of banks' ALM or other economic hedging relationships are not recognized consistently for accounting purposes: (1) the standard deviation of quarterly earnings before extraordinary items divided by beginning stock price over the four quarters prior to the FVO adoption, denoted *EarV*; and (2) the correlation between quarterly stock returns and quarterly earnings divided by beginning stock price and over the four quarters prior to the FVO adoption (*REcor*). We expect greater accounting mismatches to be positively associated with *EarV* and negatively associated with *REcor*, all else being equal. Hence, to the extent that banks' FVO elections reflect SFAS No. 159's intent, we expect FVO elections to be positively associated with *EarV* and negatively associated with *REcor*. Song (2008) and Guthrie (2009) use earnings variability for the same purpose in their studies. No other study on the FVO has used *REcor*.

We chose the two remaining objective variables to capture banks' costly or ineffective use of derivatives: (3) the notional amount of derivatives divided by total assets at the beginning of the FVO adoption, denoted *Der*; and (4) a dummy variable indicating the bank reporting gains or losses attributable to accounting hedge ineffectiveness in the year prior to the FVO adoption, denoted *IH_dmy*. We expect the costliness or ineffectiveness of accounting hedging to be positively associated with both *Der* and *IH_dmy*. Hence, to the extent that banks' FVO elections reflect SFAS No. 159's intent, we expect FVO elections to be positively associated with both *Der* and *IH_dmy*. Song (2008) and Guthrie, Irving, and Solokowsky (2009) use a dummy variable indicating firms' derivatives use for the same purpose as we use *Der*. No other study on the FVO has used a variable like *IH_dmy* that directly captures ineffective accounting hedging.

We collected five manipulation variables. We chose the first two variables to capture the potential accounting effects of banks' initial FVO elections: (1) the difference between the fair value and carrying value of AFS securities divided by total assets, denoted *UGLAFS*; and (2) the difference between fair value and carrying value of net financial assets other than AFS securities divided by total assets, denoted *UGLNFA*. We distinguish AFS securities from other net financial assets in part because AFS securities are accounted for differently, but primarily because Song (2008) and Guthrie, Irving, and Sokolowsky (2009) find that early adopters' FVO elections for AFS securities were the primary way that they exploited SFAS No. 159's transition

guidance. Based on these studies, we expect early adopters to elect the FVO more frequently for financial instruments with larger cumulative unrealized losses. Hence, early adopters' FVO elections for AFS securities (other net financial assets) should be negatively associated with *UGLAFS* (*UGLNFA*). Song (2008) uses *UGLAFS* for the same purpose. No other study on the FVO uses *UGLNFA*.

Our third manipulation variable is an indicator variable equal to 1 if the firm's Tier 1 risk-based capital ratio falls below the median for the sample banks that quarter, denoted *RC_dmy*. Because Song (2008) and Guthrie, Irving, and Sokolowsky (2009) find that regulatory capital is not a significant driver of FVO elections, we do not expect this variable by itself to predict banks' FVO elections. We do expect banks with below-median capital ratio to be less (more) likely to elect the FVO for financial instruments with cumulative unrecognized losses (gains), however.

To allow us to test this expectation, our last two manipulation variables are $RC_dmy \times UGLAFS$ and $RC_dmy \times UGLNFA$. We expect banks' initial FVO elections to have opposite signed associations with $RC_dmy \times UGLAFS$ and $RC_dmy \times UGLNFA$ as they have with *UGLAFS* and *UGLNFA*, respectively. We expect the magnitudes of the associations for the interactive variables to offset some or all of the associations for *UGLAFS* and *UGLNFA*. No other study on the FVO uses interactive variables like these to explain firms' FVO elections.

Finally, we chose the log of total assets, denoted $LogTA$, to control for the effect of size.

Song (2008) and Guthrie, Irving, and Sokolowsky (2009) find that larger firms are more likely to make FVO elections. Larger firms are more visible than and differ in numerous other ways from smaller firms that may influence their FVO elections. Because it is difficult to determine the net implication of the numerous and pervasive effects of firm size, we make no directional prediction for $LogTA$ despite these findings.

We measure all explanatory variables in the quarter or over a longer period indicated in their definition immediately prior to the potential FVO election under consideration. We winsorize all continuous variables at the 0.5% and 99.5% tails to reduce the effects of outliers. Our results are robust to conventional alternative winsorization and deletion rules.

Because our dependent variables indicating different types of FVO elections are binary, we estimate logistic regressions of each of these variables on the explanatory variables, i.e.,

$$\begin{aligned} \text{Pr ob(FVO election dummy variable)} = f(\text{EarV}, \text{REcor}, \text{Der}, \text{IH_dmy}, \\ \text{UGLAFS}, \text{UGLNFA}, \text{RC_dmy}, \text{UGLAFS} \times \text{RC_dmy}, \\ \text{UGLNFA} \times \text{RC_dmy}, \text{Log_TA}). \end{aligned} \tag{1}$$

The sample period for which we estimate equation (1) is 2007:Q1 for the models in which the dependent variable is *FVO_2007Q1*, *AFS_2007:Q1*, or *Debt_2007:Q1* and is 2008:Q1 for the models in which the dependent variable is *FVO_2008Q1* or *LoanHFS_2008Q1*.

Unless stated differently, we say that an estimated coefficient or other statistic is significant if the probability of the null hypothesis holding is 5% or less in a one-tailed test if we have made a directional prediction and in a two-tailed test otherwise.

IV. EMPIRICAL RESULTS

Descriptive Statistics

Table 3 reports means and medians of the explanatory variables in equation (1) for early adopters and nonadopters of the FVO in 2007:1Q (Panel A) and for regular adopters and nonadopters of the FVO in 2008:1Q (Panel B). These panels also report differences of the variable means for adopters and nonadopters with t tests of these differences and differences of the variable medians for adopters and nonadopters with Wilcoxon rank-sum Z tests for these differences.

The statistics reported in Panel A indicate that early adopters are more likely to use derivatives (for *Der*, $t=1.71$ and $Z=2.69$) and to report accounting hedge ineffectiveness (for

IH_dmy, $t=1.68$ and $Z=2.36$) than are nonadopters in 2007:1Q. These findings are consistent with early adopters' FVO elections adhering to SFAS No. 159's intent. In contrast, there is relatively little suggestion that early adopters' FVO elections exploited SFAS No. 159's transition guidance, despite the findings of the recent FVO literature that firms elected the FVO for AFS securities with cumulative unrecognized losses to record those losses in retained earnings, bypassing net income. As our subsequent multivariate analysis will reveal, the reason for this apparently contradictory finding is that only better capitalized banks tend to engaged in this discretionary behavior. Similar to the recent FVO literature, Panel A also reports somewhat inconsistent evidence that early adopters are larger in terms of total assets (for total assets, $t=1.96$ but $Z=1.25$).

The statistics reported in Panel B suggest that regular adopters even more strongly adhered to SFAS No. 159's intent, consistent with hypothesis H1. The differences of the means and medians of *Der* ($t=2.20$, $Z=6.82$) and *IH_dmy* ($t=3.68$, $Z=6.15$) are more significantly positive than in Panel A, and the difference of *EarV* ($t=1.75$, $Z=1.98$) now also is significantly positive. Inconsistent with H1, however, there is evidence that regular adopters, particularly banks with below-median Tier 1 risk-based capital ratios, elected the FVO for net financial assets other than AFS securities with unrecognized gains, as reflected in significantly positive differences on both *UGLNFA* ($t=2.40$, $Z=2.38$) and *UGLNFA* \times *RC_dmy* ($t=2.53$, $Z=3.38$). This

discretionary behavior is quite different from the one the FVO literature identifies for early adopters (recognizing cumulative losses on AFS securities). It may reflect the fact that the financial crisis was in bloom by 2008:1Q and so regulatory capital had begun to become more of an issue. The recent FVO literature has not uncovered this result.

Table 4 reports Pearson correlations of our dependent variables, *FVO_2007Q1*, *AFS_2007Q1*, and *Debt_2007Q1* (Panel A) and *FVO_2008Q1* and *LoanHFS_2008Q1* (Panel B), with each other and the explanatory variables. *FVO_2007Q1* is highly correlated with *AFS_2007Q1* and *Debt_2007Q1*, and *FVO_2008Q1* is highly correlated with *LoanHFS_2008Q1*. To allow for more independent tests of our two hypotheses, these correlations preferably would be lower, but the data are what they are.

The correlations of *FVO_2007Q1* and *FVO_2008Q1* with the explanatory variables provide similar interpretations as the statistics in Table 3. Hence, we do not discuss these correlations.

AFS_2007Q1 and *Debt_2007Q1* generally have similar correlations with the explanatory variables. However, unlike *AFS_2007Q1*, *Debt_2007Q1* is significantly positively correlated with *RC_dmy*, suggesting that regulatory capital management was more likely to involve electing the FVO for debt. The correlation of *Log_TA* with a number of other

explanatory variables, particularly *IH_dmy* and *Der*, are quite high, indicating the importance of controlling for size.

Logistic Regression Estimations

The various panels of Table 5 reports the results of logistic regression estimations of equation (1) with the following dependent variables: *FVO_20071Q* (Panel A), *FVO_20081Q* (Panel B), *AFS_2007Q1* (Panel C), *Debt_2007Q1* (Panel D), and *LoanHFS_2008Q1* (Panel E).

In Panel A (dependent variable *FVO_20071Q*), the significantly negative coefficient on *UGLAFS* ($Z=-2.71$) is consistent with Song (2008) and Guthrie, Irving, and Sokolowsky's (2009) findings that early adopters elected the FVO for AFS securities with cumulative unrecognized losses to record those losses in retained earnings, bypassing net income. As predicted, we also find that the coefficient on *UGLAFS*×*RC_dmy* is significantly positive with a very similar absolute magnitude as the coefficient on *UGLAFS*. This implies that banks with a below median Tier 1 risk-based capital ratio did not exploit SFAS No. 159's transition guidance in this way, presumably because it would have reduced their capital. The FVO literature does not note the absence of this particular discretionary behavior by banks with below-median capital.

While we made no prediction about the coefficient on *RC_dmy*, it is significantly positive

($Z=2.55$). Thus, unlike the FVO literature we find an association between above-median regulatory capital and early adopters' choices to elect the FVO.

Like the FVO literature, we find a significantly positive coefficient on *Der* ($Z=2.11$), implying that derivatives users were more likely to early adopt SFAS No. 159. Unlike the FVO literature, however, we do not find that larger firms were more likely to early adopt. This finding is attributable to the high positive correlation of *Der* with *Log_TA*; by using a dummy variable for derivatives use, the FVO literature loaded much of the explanatory power of *Der* on their size variables.

In Panel B (dependent variable *FVO_20081Q*), we find evidence that regular adopters complied with SFAS No. 159's intent. While the coefficient on *Der* is not significant, as it was for early adopters, as predicted the coefficient on *IH_dmy* is significantly positive ($Z=1.69$) and the coefficient on *REcor* is significantly negative ($Z=-2.09$). Compared to *Der*, *IH_dmy* more directly reflects problems in applying hedge accounting and *REcor* more directly reflects accounting mismatches of economic hedging, and so we view the significant coefficients on these variables as compelling evidence that regular adopters complied with SFAS No. 159's intent, consistent with hypothesis H1. In contrast to the results in Panel A, we find no evidence that regular adopters' FVO elections exploited SFAS No. 159's transition guidance, again

consistent with hypothesis H1. Like the FVO literature, we find that *Log_TA* is a strong predictor of FVO elections by regular adopters.

Panels C (dependent variable *AFS_20071Q*) reports evidence quite consistent with that reported in Panel A and by the FVO literature, and so we do not repeat these results. Panel D (dependent variable *Debt_20071Q*) provides weak evidence that banks with a below-median Tier 1 risk-based capital ratio, especially those with unrecognized gains on net financial assets other than AFS securities, elected the FVO for debt in 2007:1Q. Specifically, the coefficients on *RC_dmy* and the coefficient on *UGLNFA*RC_dmy* are both significantly positive at the 10% level ($Z=1.92$ and $Z=1.31$, respectively). This distinct discretionary behavior has not been identified by the FVO literature.

Similar to Panel B, Panel E (dependent variable *LoanHFS_2008Q1*) provides no evidence that regular adopters exploited SFAS No. 159's transition guidance, consistent with hypothesis H2. It does provide evidence that regular adopters adhered to SFAS No. 159's intent with regard to the FVO elections for loans held for sale, however, with a significantly positive coefficient on *IH_dmy* ($Z=1.81$), again consistent with hypothesis H2. The FVO literature has not identified this result.

V. CONCLUSION

In this study of banks' FVO elections upon adoption of SFAS No. 159, we provide evidence that regular adopters' elections complied with the standard's stated intent rather than exploited its transition guidance. Our results are in contrast to and extend the findings of Song (2008), Henry (2009), and Guthrie, Irving, and Sokolowsky (2009), which provide compelling evidence that early adopters' FVO elections exploited SFAS No. 159's transition guidance but little evidence that either early or regular adopters complied with the standard's intent. We find that regular adopters' FVO elections are associated with prior accounting hedge ineffectiveness and low correlation between returns and earnings. We also find that regular adopters most frequently elected the FVO for loans held for sale, a financial instrument for which accounting hedges commonly exhibit significant ineffectiveness or cannot qualify for hedge accounting and for which manipulation of SFAS No. 159's transition guidance is difficult. Our results are consistent with regular adopters' FVO elections, particularly for loans held for sale, remedying asymmetric accounting for the two sides of economic hedges, consistent with SFAS No. 159's intent, not with them exploiting the standard's transition guidance. Our findings are broadly consistent with Henry's (2009) evidence that a number of early adopters rescinded or revised

their FVO elections as a result of informal mechanisms that arose to provide accounting guidance clarifying SFAS No. 159's intent and to scrutinize early adopters' FVO elections.

Because of our choices of both objective variables (capturing firms' adherence to SFAS No. 159's intent) and manipulation variables (capturing firms' exploitation of SFAS No. 159's transition guidance) better capture the related constructs than do the corresponding variables used in the recent FVO literature, we are able to add a number of interesting results to the findings of those studies. In particular, we are the first study to include an objective variable that directly captures hedge ineffectiveness, and we find this variable explains regular adopters' FVO elections, particularly for loans held for sale, consistent with regular adopters complying with SFAS No. 159's intent.

We also include manipulation variables that interact a dummy variable for a below-median Tier 1 risk-based capital ratio with cumulative unrecognized gains and losses on financial instruments. The inclusion of these interactive variables allows us to refine the recent FVO literature's results related to firms' exploitation of SFAS No. 159's transition guidance. We find that, unlike better capitalized early adopters, early adopters with a below-median capital ratio did not elect the FVO for AFS securities with cumulative unrecognized losses but did elect the FVO for debt with cumulative unrecognized gains (this last evidence is at the 10% confidence level), thereby preserving or raising their Tier 1 capital. In contrast, the FVO

literature, which does not include such interactive variables, finds little evidence that regulatory capital affected banks' FVO elections.

Our results suggest that any evaluation by the FASB of the merits of SFAS No. 159's FVO relative to the alternative of the current complex or potential future simplified hedge accounting should not dwell on early adopters' discretionary behavior. In fact, SFAS No. 159's FVO exhibits three features—election at inception only, irrevocability, and application to whole financial instruments, not selected risks—that make it less amenable to management of accounting or regulatory capital numbers than is current hedge accounting. Although we believe that SFAS No. 159's FVO is less attractive on various grounds than the alternative of fair value accounting for all financial instruments, the current summary of the status of the FASB's project on accounting for financial instruments on the FASB website indicates that mixed-attribute accounting will continue for the foreseeable future.

Table 1
Definitions of Variables and Summary of Equation (1) Coefficient Predictions

$$\begin{aligned}
 \text{Prob}(\text{FVO election dummy variable}) = f(\text{EarV}, \text{REcor}, \text{Der}, \text{IH_dmy}, \\
 \text{UGLAFS}, \text{UGLNFA}, \text{RC_dmy}, \text{UGLAFS} \times \text{RC_dmy}, \\
 \text{UGLNFA} \times \text{RC_dmy}, \text{Log_TA}).
 \end{aligned}
 \tag{1}$$

Panel A: Dependent Variables

Variable	Definition
FVO_2007Q1	A dummy variable equal to 1 if a bank initially elected the FVO in 2007:Q1, and 0 otherwise
FVO_2008Q1	A dummy variable equal to 1 if a bank initially elected the FVO in 2008:Q1, missing if a bank initially elected the FVO in 2007:Q1, and 0 otherwise
AFS_2007Q1	A dummy variable equal to 1 if a bank initially elected the FVO for AFS securities in FY 2007Q1, and 0 otherwise
Debt_2007Q1	A dummy variable equal to 1 if a bank initially elected the FVO for financial liabilities (“debt”) in FY 2007Q1, and 0 otherwise
LoanHFS_2008Q1	A dummy variable equal to 1 if a bank initially elected the FVO for loans held for sale in FY 2008Q1, missing if a bank initially elected the FVO in 2007:Q1, and 0 otherwise

Table 1 (Continued)

Panel B: Independent Variables and their Predicted Coefficients

Variable	Predicted Coefficient	Definition
<i>Objective Variables (predicted coefficient are only for regular adopters and loans held for sale)</i>		
<i>EarV</i>	+	The standard deviation of quarterly earnings before extraordinary items divided by beginning stock price over the four quarters prior to the potential initial FVO election
<i>REcor</i>	-	The correlation between quarterly stock returns and quarterly earnings before extraordinary items divided by beginning stock price over the four quarters prior to the potential initial FVO election
<i>IH_dmy</i>	+	A dummy variable equal to 1 if the firm reports gains or losses on ineffective hedges during the year prior to the potential initial FVO election, and 0 otherwise
<i>Der</i>	+	The notional amount of derivatives divided by total assets in the quarter prior to the potential initial FVO election
<i>Manipulation Variables (predicted coefficients are only for early adopters, AFS securities, and debt)</i>		
<i>UGLAFS</i>	-	Cumulative unrealized gains (losses) on AFS securities divided by total assets in the quarter prior to the potential initial FVO election
<i>UGLNFA</i>	-	Unrealized gains (losses) on net financial assets other than AFS securities divided by total assets in the quarter prior to the potential initial FVO election
<i>RC_dmy</i>	?	A dummy variable equal to 1 if the firm's Tier 1 risk-based capital ratio is below the median in the quarter prior to the potential initial FVO election, and 0 otherwise
<i>UGLAFS</i> × <i>RC_dmy</i>	+	See above
<i>UGLNFA</i> × <i>RC_dmy</i>	+	See above
<i>Control Variable</i>		
<i>Log_TA</i>	?	The natural logarithm of total assets in the quarter prior to the potential initial FVO election

Table 2
Sample Selection and Distribution of FVO Elections

Panel A: Sample Selection

	2007:Q1 Observations			2008:Q1 Observations		
	<i>Early Adopters</i>	<i>Nonadopters</i>	<i>Total</i>	<i>Regular Adopters</i>	<i>Nonadopters</i>	<i>Total</i>
Publically traded banks on IDEA database			313			313
Deleted because of securities registration termination						(24)
Deleted because of merger in quarter under consideration			(1)			(1)
Deleted because of inability to timely file Form 10-Q						(1)
Deleted because of early adoption of FVO						<u>(25)</u>
Available observations after above deletions	25	287	312	26	236	262
Deleted because of missing data	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>(1)</u>	<u>(1)</u>
Final sample	<u>25</u>	<u>287</u>	<u>312</u>	<u>26</u>	<u>235</u>	<u>261</u>

Table 2 (Continued)

Panel B: Distribution of FVO Elections by Quarter and Type of Financial Instrument

Elected items	Early Adopters (2007:Q1)		Regular Adopters (2008:Q1)	
	<i># of observations</i>	<i>% of early adopters</i>	<i># of observations</i>	<i>% of regular adopters</i>
Total:	25	100%	26	100%
Financial assets:	18	72%	22	85%
Available-for-sale securities	18	72%	6	23%
Held-to-maturity securities	2	8%	0	0%
Loans held for investment	5	20%	2	8%
Loans held for sale	2	8%	16	62%
Securities purchased under agreement to resell	3	12%	0	0%
Other assets	1	4%	2	8%
Financial liabilities (“debt”):	16	64%	8	31%
Securities sold under repurchase agreements	2	8%	0	0%
Deposits	3	12%	0	0%
Certificates of deposit	2	8%	5	19%
FHLB advances	3	12%	0	0%
Short-term borrowings	2	8%	0	0%
Notes payable	0	0%	2	8%
Subordinated debt	8	32%	1	4%
Long-term debt	6	24%	1	4%
Other liabilities	4	16%	0	0%

Table 3
Means and Medians of Explanatory Variables for Adopters and Nonadopters in 2007:1Q and 2008:1Q

Panel A: 2007:1Q

<i>Explanatory Variables</i>	Mean			Median			<i>Wilcoxon rank-sum test (Z-value)</i>
	<i>Adopters (N=25)</i>	<i>Nonadopters (N=287)</i>	<i>Difference t Test</i>	<i>Adopters (N=25)</i>	<i>Nonadopters (N=287)</i>	<i>Difference</i>	
<i>EarV</i>	0.0835	0.0799	0.0036 0.16	0.0472	0.0457	0.0014	-0.05
<i>REcor</i>	-0.0538	-0.0007	-0.0531 -0.43	-0.2401	-0.0119	-0.2281	-0.49
<i>IH_dmy</i>	0.2400	0.0906	0.1494 1.68 #	0.0000	0.0000	0.0000	2.36 **
<i>Der</i>	2.7417	0.1503	2.5913 1.71 *	0.0166	0.0021	0.0146	2.69 ***
<i>UGLAFS</i>	-0.0015	-0.0013	-0.0002 -0.29	-0.0021	-0.0013	-0.0009	-1.33 #
<i>UGLNFA</i>	0.0010	0.0016	-0.0006 -0.33	0.0015	-0.0019	0.0034	1.24
Tier 1 risk-based capital ratio	11.5191	11.9048	-0.3857 -0.42	10.5600	11.2900	-0.7300	-1.66 *
<i>UGLAFS x RC_dmy</i>	-0.0004	-0.0005	0.0002 0.31	0.0000	0.0000	0.0000	-0.35
<i>UGLNFA x RC_dmy</i>	0.0023	0.0013	0.0009 0.75	0.0000	0.0000	0.0000	2.32 **
Total assets (\$M)	207,000	13,400	193,600 1.96 *	2,211	1,891	320	1.25

Table 3 (Continued)

Panel B: 2008:Q1

Variables	Mean				Median			Wilcoxon Rank-sum Test (Z-value)
	Adopters (N=26)	Nonadopters (N=235)	Difference	t Test	Adopters (N=26)	Nonadopters (N=235)	Difference	
<i>EarV</i>	0.2063	0.1273	0.0790	1.75 *	0.0831	0.0606	0.0226	1.98 **
<i>REcor</i>	0.2151	0.1981	0.0170	0.15	0.1203	0.3510	-0.2307	0.11
<i>IH_dmy</i>	0.4231	0.0553	0.3678	3.68 ***	0.0000	0.0000	0.0000	6.15 ***
<i>Der</i>	0.7529	0.0717	0.6812	2.20 **	0.2488	0.0009	0.2479	6.82 ***
<i>UGLAFS</i>	-0.0007	-0.0002	-0.0005	-1.15	-0.0006	0.0001	-0.0007	-2.54 **
<i>UGLNFA</i>	0.0139	0.0043	0.0096	2.40 **	0.0044	0.0020	0.0024	2.38 **
<i>Tier 1 risk-based capital ratio</i>	9.1743	11.4259	-2.2516	-6.10 ***	9.3000	10.6400	-1.3400	-4.61 ***
<i>UGLAFS x RC_dmy</i>	-0.0007	-0.0001	-0.0006	-1.41 #	-0.0003	0.0000	-0.0003	-2.28 **
<i>UGLNFA x RC_dmy</i>	0.0113	0.0025	0.0088	2.53 **	0.0038	0.0000	0.0038	3.38 ***
Total assets (\$M)	103,000	5,662	97,338	2.87 ***	27,000	1,690	25,310	6.43 ***

- a) All variables are defined in Table 1. Each continuous variable is winsorized at 0.5% and 99.5% to reduce the effects of outliers.
- b) To allow easier interpretation, statistics are reported for the Tier 1 risk-based capital ratio rather than for *RC_dmy* and for total assets rather than for *Log_TA*.
- c) ***, **, * and # indicate that the values for adopters are significantly different from nonadopters at a two-tailed p-value ≤ 0.01 , 0.05, 0.10 or 0.20, respectively, under a t-test for differences of means or a Wilcoxon rank-sum test for differences in medians.

Table 4
Pearson Correlations of Variables in 2007:1Q and 2008:1Q

Panel A: 2007:Q1

	<i>FVO_</i>	<i>AFS_</i>	<i>Debt_</i>								<i>UGLAFS</i>	<i>UGLNFA</i>
	<i>2007Q1</i>	<i>2007Q1</i>	<i>2007Q1</i>	<i>EarV</i>	<i>REcor</i>	<i>IH_dmy</i>	<i>Der</i>	<i>UGLAFS</i>	<i>UGLNFA</i>	<i>RC_dmy</i>	<i>RC_dmy</i>	<i>RC_dmy</i>
<i>AFS_2007Q1</i>	0.84											
<i>Debt_2007Q1</i>	0.79	0.57*										
<i>EarV</i>	0.01	-0.01	0.02									
<i>REcor</i>	-0.03	-0.04	-0.03	-0.03								
<i>IH_dmy</i>	0.13*	0.10	0.16*	0.15*	-0.02							
<i>Der</i>	0.30*	0.35*	0.38*	0.04	-0.05	0.34*						
<i>UGLAFS</i>	-0.02	-0.04	0.07	0.09	-0.02	0.03	0.03					
<i>UGLNFA</i>	-0.01	-0.03	0.02	0.01	0.02	0.06	0.03	-0.03				
<i>RC_dmy</i>	0.10	0.05	0.17*	0.07	-0.02	0.16*	0.12*	0.14*	0.09			
<i>UGLAFS</i> × <i>RC_dmy</i>	0.03	0.04	0.01	0.07	0.00	-0.04	-0.01	0.60*	-0.05	-0.33*		
<i>UGLNFA</i> × <i>RC_dmy</i>	0.02	-0.01	0.05	0.03	0.03	0.09	0.04	0.00	0.74*	0.13*	-0.07	
<i>Log_TA</i>	0.15*	0.12*	0.21*	0.17*	-0.03	0.46*	0.47*	0.09	0.09	0.35*	-0.03	0.13*

Table 4 (Continued)

Panel B: 2008:Q1

	<i>FVO_</i> <i>2008Q1</i>	<i>LoanHFS_</i> <i>2008Q1</i>	<i>EarV</i>	<i>REcor</i>	<i>IH_dmy</i>	<i>Der</i>	<i>UGLAFS</i>	<i>UGLNFA</i>	<i>RC_dmy</i>	<i>UGLAFS</i> × <i>RC_dmy</i>	<i>UGLNFA</i> × <i>RC_dmy</i>
<i>LoanHFS_2008Q1</i>	0.77*										
<i>EarV</i>	0.11	0.08									
<i>REcor</i>	0.01	0.04	0.21*								
<i>IH_dmy</i>	0.38*	0.36*	0.24*	0.15*							
<i>Der</i>	0.31*	0.23*	0.12*	0.02	0.23*						
<i>UGLAFS</i>	-0.06	-0.05	0.00	0.04	-0.11	-0.17*					
<i>UGLNFA</i>	0.16*	0.10	0.08	0.10	0.13*	0.02	-0.04				
<i>RC_dmy</i>	0.23*	0.16*	0.16*	0.18*	0.19*	0.10	-0.04	0.10			
<i>UGLAFS</i> × <i>RC_dmy</i>	-0.11	-0.10	-0.03	-0.05	-0.17*	-0.13*	0.65*	-0.08	-0.10		
<i>UGLNFA</i> × <i>RC_dmy</i>	0.25*	0.20*	0.14*	0.10	0.19*	0.06	-0.10	0.56*	0.32*	-0.15*	
<i>Log_TA</i>	0.52*	0.42*	0.26*	0.21*	0.42*	0.47*	-0.10	0.12*	0.43*	-0.12*	0.24*

All variables are defined in Table 1. Each continuous variable is winsorized at 0.5% and 99.5% tails to reduce the effect of outliers.

* indicates that the correlation coefficients are significant at the 5% level or higher.

Table 5
Logistic Regression Estimation of Equation (1)

$$\text{Pr ob(FVO election dummy variable)} = f(\text{EarV}, \text{REcor}, \text{Der}, \text{IH_dmy}, \text{UGLAFS}, \text{UGLNFA}, \text{RC_dmy}, \text{UGLAFS} \times \text{RC_dmy}, \text{UGLNFA} \times \text{RC_dmy}, \text{Log_TA}). \quad (1)$$

Panel A: FVO Elections in 2007:1Q

Dependent variable =FVO_2007Q1			
<i>Explanatory variable</i>	<i>Predicted sign</i>	<i>Coef.</i>	<i>Z-value</i>
<i>EarV</i>	?	-0.23	-0.13
<i>REcor</i>	?	-0.09	-0.21
<i>IH_dmy</i>	?	0.57	0.75
<i>Der</i>	?	0.25	2.11 **
<i>UGLAFS</i>	-	-654.70	-2.71 ***
<i>UGLNFA</i>	-	-47.72	-1.41 *
<i>RC_dmy</i>	?	2.61	2.55 ***
<i>UGLAFS x RC_dmy</i>	+	777.93	2.91 ***
<i>UGLNFA x RC_dmy</i>	+	51.04	1.31 *
<i>Log_TA</i>	?	-0.12	-0.70
Intercept		-3.05	-1.16
Number of adopters			25
Number of total observations			312
Likelihood ratio X^2			26.81
P-value			0.0028
Pseudo R^2			15.39%

Table 5 (Continued)

Panel B: FVO Elections in 2008:1Q

Dependent variable = <i>FVO_2008Q1</i>			
<i>Explanatory variable</i>	<i>Predicted sign</i>	<i>Coefficient</i>	<i>Z-value</i>
<i>EarV</i>	+	-1.26	-0.73
<i>REcor</i>	-	-1.07	-2.09 **
<i>IH_dmy</i>	+	1.27	1.69 **
<i>Der</i>	+	-0.12	-0.38
<i>UGLAFS</i>	?	161.23	0.79
<i>UGLNFA</i>	?	39.56	1.51
<i>RC_dmy</i>	?	0.56	0.69
<i>UGLAFS x RC_dmy</i>	?	-220.03	-0.84
<i>UGLNFA x RC_dmy</i>	?	-7.09	-0.22
<i>Log_TA</i>	?	1.07	4.15 ***
Intercept		-19.54	-4.95
Number of adopters			26
Number of total observations			261
Likelihood ratio X^2			72.44
P-value			0
Pseudo R^2			42.80%

Table 5 (Continued)

Panel C: FVO Election for AFS Securities in 2007:1Q

Dependent variable =AFS_2007Q1				
<i>Explanatory variables</i>	<i>Predicted sign</i>	<i>Coef.</i>	<i>Z-value</i>	
<i>EarV</i>	?	-0.64	-0.25	
<i>REcor</i>	?	-0.25	-0.50	
<i>IH_dmy</i>	?	0.15	0.14	
<i>Der</i>	?	0.38	2.60 ***	
<i>UGLAFS</i>	-	-710.10	-2.67 ***	
<i>UGLNFA</i>	-	-44.76	-1.30 *	
<i>RC_dmy</i>	?	2.56	2.19 **	
<i>UGLAFS x RC_dmy</i>	+	901.86	2.97 ***	
<i>UGLNFA x RC_dmy</i>	+	41.22	0.95	
<i>Log_TA</i>	?	-0.29	-1.21	
Intercept		-1.07	-0.31	
Number of adopters			18	
Number of total observations			312	
Likelihood ratio X ²			28.22	
P-value			0.0017	
Pseudo R ²			20.50%	

Table 5 (Continued)

Panel D: FVO Elections for Debt in 2007:1Q

Dependent variable = <i>Debt_2007Q1</i>			
<i>Explanatory variable</i>	<i>Predicted sign</i>	<i>Coef.</i>	<i>Z-value</i>
<i>EarV</i>	?	0.16	0.09
<i>REcor</i>	?	-0.05	-0.10
<i>IH_dmy</i>	?	0.37	0.40
<i>Der</i>	?	0.27	2.09 **
<i>UGLAFS</i>	-	-34.30	-0.09
<i>UGLNFA</i>	-	-62.23	-1.23
<i>RC_dmy</i>	?	2.18	1.92 **
<i>UGLAFS x RC_dmy</i>	+	152.22	0.40
<i>UGLNFA x RC_dmy</i>	+	71.81	1.31 *
<i>Log_TA</i>	?	-0.09	-0.44
Intercept		-3.38	-1.06
Number of adopters			16
Number of total observations			312
Likelihood ratio X^2			25.53
P-value			0.0044
Pseudo R^2			20.23%

Table 5 (Continued)

Panel E: FVO Elections for Loans Held for Sale in 2008:1Q

Dependent variable = <i>LoanHFS_2008Q1</i>			
<i>Explanatory variable</i>	<i>Predicted sign</i>	<i>Coefficient</i>	<i>Z-value</i>
<i>EarV</i>	+	-2.48	-1.04
<i>REcor</i>	-	-0.56	-0.94
<i>IH_dmy</i>	+	1.55	1.81 **
<i>Der</i>	+	-0.18	-0.62
<i>UGLAFS</i>	?	177.31	0.74
<i>UGLNFA</i>	?	-6.23	-0.24
<i>RC_dmy</i>	?	-0.58	-0.64
<i>UGLAFS</i> × <i>RC_dmy</i>	?	-308.82	-1.02
<i>UGLNFA</i> × <i>RC_dmy</i>	?	38.79	1.15
<i>Log_TA</i>	?	0.97	3.48 ***
Intercept		-17.76	-4.26
Number of adopters			16
Number of total observations			261
Likelihood ratio X^2			44.68
P-value			0
Pseudo R^2			37.13%

a) All variables are defined in Table 1.

b) Each continuous variable is winsorized at 0.5% and 99.5% to reduce the effects of outliers.

c) ***, **, * indicate that the results are significant at the 0.01, 0.05, and 0.10 level in a one-tailed test if the coefficient has the predicted sign, and a two-tailed test otherwise.

References

- Accounting Principles Board (APB). 1971. *Interest on Receivables and Payables*. Opinion No. 21. New York City: APB.
- Ahmed, A. S., C. Takeda, and S. Thomas. 1999. Bank loan loss provisions: A reexamination of capital management, earnings management and signaling effects. *Journal of Accounting and Economics* 28: 1–25.
- American Accounting Association (AAA). 2007. Response to FASB exposure draft, “The fair value option for financial assets and financial liabilities, including an amendment of FASB statement no. 115.” Financial Accounting Standards Committee comment letter. *Accounting Horizons* 21: 189-200.
- American Institute of Certified Public Accountants (AICPA). 2001. *Accounting by Certain Entities (Including Entities with Trade Receivables) that Lend to or Finance the Activities of Others*, Statement of Position No. 01-6. New York City: AICPA.
- Beatty, A., S. Chamberlain, and J. Magliolo. 1995. Managing financial reports of commercial banks: The influence of taxes, regulatory capital, and earnings. *Journal of Accounting Research* 33 (2): 231–261.
- Carpenter, A. 2007. Speech by SEC staff: Remarks before the 2007 AICPA national conference on Current SEC and PCAOB developments. December 10. www.sec.gov.
- Center for Audit Quality. 2007. CAQ Alert: FAS 159 early adoption date approaching—factors to consider. April 18. www.thecaq.org.
- FEI Financial Reporting Blog. 2009. Fair value option. May 18. financialexecutives.blogspot.com.
- Fiechter, P. 2009. Application of the fair value option under IAS 39: Effects on the volatility of bank earnings. Working paper, University of Zurich. April.
- Financial Accounting Standards Board (FASB). 1982. *Accounting for Certain Mortgage Banking Activities*. Statement of Financial Accounting Standards No. 65. Norwalk, CT: FASB.
- _____. 1993. *Accounting for Certain Investments in Debt and Equity Securities*. Statement of Financial Accounting Standards No. 115. Norwalk, CT: FASB.
- _____. 1998. *Accounting for Derivative Instruments and Hedging Activities*. Statement of Financial Accounting Standards No. 159. Norwalk, CT: FASB.
- _____. 2006. *Fair Value Measurements*. Statement of Financial Accounting Standards No. 157. Norwalk, CT: FASB.
- _____. 2007. *The Fair Value Option for Financial Assets and Financial Liabilities, Including an Amendment of FASB Statement No. 115*. Statement of Financial Accounting Standards No. 159. Norwalk, CT: FASB.
- Guthrie, K., J. Irving, and J. Sokolowsky. 2009. Accounting choice and the fair value option. Working paper, College of William and Mary, June.
- Henry, E. 2009. Early adoption of SFAS no. 159: Lessons from games (almost) played. *Accounting Horizons* 23: 181-199.
- Hodder, L., M. Kohlbeck, and M. L. McNally. 2002. Accounting choices and risk management: SFAS No. 115 and U.S. bank holding companies. *Contemporary Accounting Research* 19 (2) (Summer): 225–270.
- International Accounting Standards Board. Frequently amended. *Financial Instruments: Recognition and Measurement*. IAS 39. London, UK: IASB.

- Kim, M., and W. Kross. 1998. The impact of the 1989 change in bank capital standards on loan loss provisions and loan write-offs. *Journal of Accounting and Economics* 25 (1): 69–99.
- Kroeker, J. 2007. Speech by SEC staff: Remarks before the 2007 conference on principles-based accounting and the challenges of implementation. April 4. www.sec.gov.
- Moyer, S. 1990. Capital adequacy ratio regulations and accounting choices in commercial banks. *Journal of Accounting and Economics* 13: 125–154.
- Song, C. 2008. An evaluation of FAS 159 fair value option: Evidence from the banking industry. Working paper, Virginia Polytechnic Institute and State University. September.