Mark-to-Market's Effect on Community Banking

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Abstract

Mark-to-market valuation of securities became increasingly common in the late 1990s and 2000s, as regulators sought to create more transparent and more current depictions of bank financial positions. However, MTM accounting may be sub-optimal in the presence of severe market frictions, such as those experienced during the financial crisis of the late 2000s. To comply with capital requirements associated with MTM accounting, banks of the late 2000s dramatically liquidated portfolios with potentially solvent assets in illiquid markets, taking huge losses. During the financial crisis, mortgage-backed securities held by banks began to plummet in value. Banks were forced to either liquidate these assets even though there were no buyers, or dramatically reduce the values of their portfolios based on fire-sale prices. On a cash-flow basis, these securities had value, since many mortgages bundled in these securities continued to be paid on time; but, with markets frozen, market prices did not reflect this value. This paper shows that, perhaps counter-intuitively, the steps taken by the Financial Accounting Standards Board (FASB) to relax MTM accounting standards may have acted as a stabilizing factor on the market price of community bank shares by allowing banks to selectively liquidate assets, boosting asset prices until uncertainty was resolved. We show that, for a sample of 134 community banks, share prices increased after the MTM relaxation, even after accounting for a variety of other economic factors.

Introduction

Mark-to-market accounting is not a new concept in the financial world; however, during the early acts of what would eventually become the financial melt-down, the Financial Accounting Standards Board (FASB) adjusted the accounting rules to specify that valuations should take into account the current state of the market for assets. On the surface, these adjustments might not seem to have changed the banking environment much; but, some have blamed this change in accounting standards with intensifying the severity and lengthening the duration of the recession by inadvertently damaging banks, the value of their assets, their ability to meet federal banking regulations, and their ability to extend credit when it was most needed. This paper examines the impact of recent changes in accounting standards (and other selected significant financial events occurring during the Great Recession) on the perceived risks associated with the banking sector. We specifically focus our attention on the impacts these changes had on community-based banks within the U.S.

Statements of Financial Accounting Standards Number 157 (also known as FAS157) defines fair value as "the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date."[1] FAS157 became effective for fiscal years that began after November 15, 2007. This rule change forced many companies, including banks, to place current market prices on assets that were considered to be amongst the hardest to value, those known as Level 3 assets.[2] Federal law requires banks to maintain a certain level of equity on their balance sheets and banks typically viewed as sound would have had at least $4 in equity for every $100 in assets (mostly outstanding loans). Note that many conservative banks had leverage ratios greater than this level. As one might

[1] http://www.fasb.org/cs/BlobServer?blobkey=id&blobwhere=1175823288587&blobheader=application%2Fpdf&blobcol=urldata&blobtable=MungoBlobs

[2] Level 1, 2, and 3 assets are classifications of a company's assets based on the degree of certainty around the assets' underlying value. Level 1 assets are both easily valued with certainty because they are liquid and have clear and identifiable market prices. Level 2 assets do not have regular market-based pricing, but have values that can be readily determined or closely approximated based on other data values or market prices. Level 3 assets are the least liquid of the asset types. The prices of these assets cannot be determined or approximated with observable measures. Fair values for level 3 assets are produced using either estimates or risk-adjusted value ranges. All three types were defined and part of the reporting requirements implemented under FAS157 in 2007 (see Investopedia at http://www.investopedia.com/terms/l/#axzz216dlWdTg).

imagine, a rule change regarding how a banks value their assets may, in turbulent times, impact their ability to comply with federal laws regarding equity and increase the likelihood of a federal takeover. Over the period from October 2007 to October 2008, approximately $8 trillion in wealth evaporated from the US stock market (Brunnermeier, 2009). The exposures to the housing collapse and severe market uncertainty froze credit markets. Late in December 2008, the value of real home equity had fallen by 41 percent. Existing median home prices fell 27 percent. By the third quarter of 2009, about 3.2 million homes had gone into foreclosure.[3] The loss of bank equity through negative re-valuation of assets during the housing crisis and the subsequent financial melt-down has been named as an exacerbating factor that may have helped extend and deepen the 2007-2009 Recession. When the prices of assets related to the real estate markets began to fall, banks were forced to take big write-downs on assets (specifically their mortgage portfolios). To counter these large losses in asset values, in many cases, banks have been pressured to increase their level of capital reserves through a combination of reduced lending, increased borrowing, and stakeholder/founder capital infusions.

The concern for many banks is not that asset prices have fallen, but that FAS157 has artificially force valuations too far down. Some bankers have voiced concerns that asset values on the books were (and are) far lower than they will eventually be worth when markets fully emerge from the economic recession. But, in the meantime, many banks have been forced into receivership when, on a cash-flow basis, they might have remained viable enterprises. According to Steve Forbes:

> "In effect, mark-to-market accounting rules forced financial institutions to value securities for capital purposes as though they were day-trading accounts. Traditionally, an asset was held at book value for regulatory capital purposes unless it was disposed of or became impaired. In 2007 that standard was overturned by the Financial Accounting Standards Board (FASB). When panic set in regulators and auditors forced banks and insurers to write down the values of

[3] Housing statistics obtained from the Joint Center for Housing Studies and The State of the Nation's Housing 2009. Cambridge,MA: Harvard University Press, http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/son2009_executive_summary.pdf, accessed June 14, 2012.

> assets to absurdly low levels that weren't even remotely justified by their cash flows."[4]

As a result, banks have lobbied for more (not less) flexibility in valuing their assets. It may be pointed out that banks themselves are not buying these assets at the prices near what they claim they are worth; however, given the potential for these assets negatively impacting the balance sheet and regulatory standing in the short term, it may be rational for these "fire-sale" deals to be left on the table by potential buyers in the banking sector.

From the standpoint of the investor, however, concerns have also been raised about the prospect of allowing banks to move away from the reporting standard required under FAS157, reducing the investors' ability to place a current value on a bank's stock. As previously stated, for some assets types held by banks, there have been essentially no willing buyers at the prices where banks would have them valued. However, reasonably savvy investors understand the rules of accounting, and if banks are forced to value their assets in a particular way, these same investors can look at the reported values and apply whatever correction they feel is appropriate. On the other hand, relaxing the rule may have the effect of injecting a layer of internal judgment that is likely to be dependent on each bank's individual situation or needs, and not on the market. So, much of the debate over accounting standards and their most recent modifications centered on the tradeoff between a bank's accounting transparency and its on-going viability in these most turbulent of economic times.

During the recession and financial melt-down, the FASB relented and adopted a series of rule changes that represented a compromise between what the banks wanted and what the investors wanted. In finding a middle ground, the rule changes included more flexibility in valuing assets, but also required more disclosures and reporting from banks. The question that naturally arises is whether these rule changes were neutral or whether they actually had a substantial impact on the real economy. According to a recent report by the Securities and Exchange Commission

[4] Forbes Magazine, June 28, 2010, http://www.forbes.com/forbes/2010/0628/opinions-steve-forbes-fact-comment-stop-this-horror.html

(SEC, December, 2008)
Rather than a crisis precipitated by fair value accounting, the crisis was a "run on the bank" at certain institutions, manifesting itself in counterparties reducing or eliminating the various credit and other risk exposures they had to each firm.

The SEC indicated that the financial crisis was due primarily to increased risk aversion among actors in financial markets and not due to the accounting standards.

The research herein contained, statistically tests the hypothesis that the relaxation of FAS157 had no impact on the value of banks, specifically community-based banks. This paper measures the impact of the two rule changes adopted by the FASB during the US financial crisis and the recession on the common stock values of selected US banks. A change in the stock price subsequent to an accounting rule change can be viewed as investors making their predictions in the market place about the relative risk associated with the stock. This research uses a unique dataset consisting of 134 publically traded community banks across the US. The banks were chosen based on their inclusion in the U.S. Banker's Top 200 Publically Traded Community Banks in 2005. We find compelling evidence that the FAS157 rule relaxation publically discussed in March 2009 and subsequently adopted in April 2009 did affect stock prices of these community-based banks. One explanation of our results is that by relaxing FAS157, investors viewed community-based banks as facing a lower risk of corrective action from regulators. We examine both disaggregated stock prices and a constructed aggregate index of stock prices for the 134 community-based banks over five-year period to measure the impact of rule changes on stock prices.

The Literature

A bank asset can be defined as anything of value that a bank owns or holds. This can include money accounts, mortgages, real estate, stocks, bonds, or other types of securities. On the liabilities side is mostly customer deposits and loans to the bank itself. Theory suggests banks' security holdings systematically add risk to the economy, since banks with a relatively high level of security holdings can be forced to sell securities when prices fall (Allen & Carletti, 2008; Brunnermeier & Pedersen, 2009; Shleifer & Vishny, 2010) and that mark-to-market accounting

for assets in the trading category can potentially force prices into a "feedback loop" (Allen & Carletti, 2008; Plantin, Sapra, & Shin, 2008), where falling asset prices forces liquidation of these assets, which results in even lower "market" prices. In these models, liquidity constraints and/or frozen markets can cause prices to deviate from discounted-cash-flow values and precipitate sales. Under a strict regime of mark-to-market accounting rules, a financial institution must value a portion its portfolio of loans and securities at the estimated prices they could bring on the market at present. But, during the depths of the U.S. financial crisis, markets for many financial assets essentially had frozen. Without good information about the quality of assets, demand collapsed, and setting a real-world price for an asset in those circumstances is not likely to be anything other than a guess.

One purpose of the accounting standard is to help investors assess the value of a financial asset at a particular point in time, rather than relying on either the historical purchase price, which may not be a good indicator of current value. If the market for a particular asset (e.g., mortgage-backed securities) is distressed, it be would difficult to sell at any other price than that which may (or may not) only be indicative of market stresses. Furthermore, this fire-sale price may be below the value one might place on it based on cash flow. The rule was originally interpreted to indicate that one should use the lower sale value as the market value rather than using the cash-flow value. As a result, many banking institutions, large and small, posted tremendous losses in both 2007 and 2008 from marking down asset prices to market value. Many financial institutions had borrowed to invest using mortgage-backed securities (MBS) as collateral for the loans. When these securities were marked down lenders contractually began demanding their funds back, which started a chain reaction of margin calls that forced the sale of more MBSs and in turn led to more margin calls. Some of the blame for the financial crisis has been directed at regulation in general (Nichols, Hendrickson, & Griffith, 2011), faulting the presence of government sponsored enterprises, expansionary monetary policy and the Community Re-investment Act for creating an environment where banks were bloated on assets tied to housing market bubble.

A heated debate has grown over whether mark-to-market accounting standards during the financial crisis substantially undermined asset values and, as a result, unduly damaged the balance sheets of many financial institutions, particularly those of smaller banks that may have had greater share of their assets in these affected asset categories. Most of the attention has been directed at the Nation's larger institutions, since they held a large share of these undervalued assets (Amel-Zadeh & Meeks, October 27, 2009), finding that "mark-to-market accounting does not increase the perceived bankruptcy risk of banks;" however, smaller banking institutions, such as community banks, have been largely ignored in this debate.

Part of the reason for the lack of attention is that community banks held a relatively smaller share of the total of these "toxic assets." Nevertheless, assets tied to the real estate market made up a relatively large share of these smaller, community-based banks' portfolios. Thus, when real estate prices began to fall, smaller banks found themselves with no place to escape since markdowns in these assets meant markdowns in virtually their entire asset portfolio. Furthermore, none of the smaller institutions fell into the category of "too big to fail" since they, of course, were not "too big."

Chronology of Mark-to-Market Actions Before and During the Financial Crisis

At this point it may be informative to highlight the major changes that occurred in mark-to-market accounting standards from just prior to the 2007-2009 Recession. On September 30, 2008, the SEC and the FASB issued a joint clarification regarding the implementation of fair value accounting in cases where the market for the asset in question is disorderly or inactive. The updated guidelines specify that forced liquidations are not necessarily adequate indicators of fair value, because this type of sale is not considered to be an "orderly" transaction. The release further clarifies that estimates of fair value can be made using the expected cash flow basis from certain instruments under these conditions, provided that the estimates take into account and reflect adjustments that a willing buyer would make (e.g., adjustments for liquidity risks and perceived probability of default).[5]

[5] http://sec.gov/news/press/2008/2008-234.htm

The Emergency Economic Stabilization Act of 2008 (EESA) was passed and signed into law on October 3, 2008. The bill was primarily intended to provide authority for the federal government to purchase and insure certain types of troubled assets for the purposes of restoring stability to the U.S. economy and specifically to its financial system. As mark-to-market accounting rules were being blamed by some as major contributing factor in the growing financial collapse, Section 132 of the EESA restates the authority of the Securities and Exchange Commission (SEC) to suspend FAS157 if the SEC determines that the suspension is in the public interest and protects investors. As further required by Sec. 133 of this piece of legislation, the SEC began to conduct a study on "mark-to-market" accounting.[6]

On October 10, 2008, the FASB issued additional guidelines and went on to provide an example of how to estimate fair value in circumstances where the market for a particular asset is not active at a given reporting date.[7] On December 30, 2008, the SEC issued its report under Section 133 and decided not to suspend mark-to-market accounting.[8]

On March 16, 2009, FASB proposed allowing companies to use more leeway in valuing their assets under "mark-to-market" accounting, a move that could ease balance-sheet pressures many companies say they are feeling during the economic crisis.

On April 2, 2009, after a 15-day public comment period, FASB eased the mark-to-market rules. Financial institutions are still required by the rules to mark transactions to market prices but more so in a steady market and less so when the market is inactive. The effect of this policy change was to provide relief to the ailing banking sector by removing the unnecessary "positive feedback loop," and limiting the losses that can result in a deeply weakened economy, but without abandoning MTM when stability returns to the sector.[9]

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[6] http://sec.gov/news/press/2008/2008-242.htm

[7] http://www.fasb.org/cs/BlobServer?blobkey=id&blobwhere=1175820925446&blobheader=application%2Fpdf&blobcol=urldata&blobtable=MungoBlobs

[8] http://sec.gov/news/press/2008/2008-307.htm

[9] http://online.wsj.com/article/SB123867739560682309.html

On April 9, 2009, FASB issued the official amendment to FAS157 that issued even more guidance on how to fairly value assets/securities that are in illiquid markets so that investors can more accurately determine the value for themselves. The amendment states that if the market for a security is illiquid, and/or a sale, hypothetical or not, was not orderly (i.e., forced) then management is allowed to use different "techniques" to value those securities, such as discounting cash flows.[10] Early adopters were allowed to apply the ruling as of March 15, 2009, and the rest as of June 15, 2009. According to a Bloomberg article (March, 30 2009), it was anticipated that the new amendments could significantly affect banks' statements of earnings and allow them to defer reporting losses.[11] The changes, however, affected accounting standards applicable to a broad range of derivatives, not just banks holding mortgage-backed securities.

On July 21, 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act was signed into law. Some have suggested that in addition to limiting financial executives' pay, increasing oversight on quasi-banking institutions, hedge funds and private equity funds, that this piece of legislation would also unduly restrict the ability of banks and other financial institutions to make loans. The rule-making phase has ushered in intensified capital, liquidity and risk requirements along with more stringent reporting. Most of all, there is uncertainty among those affected, which has created an air of hesitancy regarding, potentially lucrative, new loans.

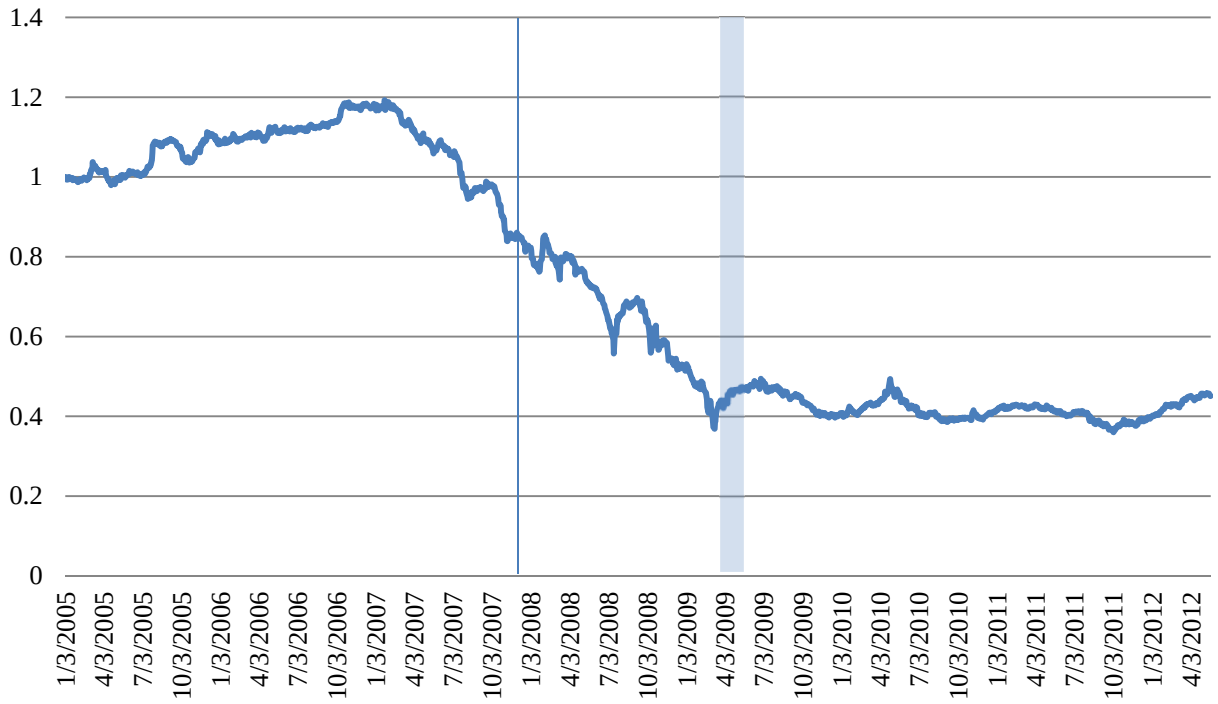
Data and Estimation Residential Delinquencies

Figure 1 depicts a simple index of 134 community-based banking stocks. The index was created by adding the daily closing price of each bank in the sample, then dividing by the value in the initial period to normalize the index to a starting value of one. The graph indicates that starting in January 2005, community-based banking stocks were rising in value, but began to decline rapidly from the first quarter of 2007 to around March of 2009, where stock prices have since

[10] http://seekingalpha.com/article/294404-fair-value-accounting-is-alive-and-well
[11] http://www.bloomberg.com/apps/news?pid=newsarchive&sid=awSxPMGzDW38

remained relatively stable. These banks in the index were listed as the top publically traded U.S. community banks in terms of return on investment in 2005. The vertical line represents the timing of FAS157. The shaded area represents the spell from March 16th to April 9th 2009, the period over which the FASB proposed changes and eventually relaxed FAS157. The general decline in stock prices among these community banks had already begun; however, the timing of the cessation of the decline appears to coincide with the events before the April 9th FASB amendment to FAS157.

Figure 1: Community Banking Index of Stock Values
(based on 134 of the 187 best community banks of 2005 Based on ROI)



In this paper, we analyze the impact of changes in mark-to-market accounting rule changes on the stock prices (and price changes) for 134 U.S. community-based banks. We develop a stock portfolio index for these same banking stocks to develop a capital asset pricing model (Izan, 1980). We focus on the question of whether changes in fair value accounting standards helped to stem or mitigate the 2008 U.S. financial crisis in the eyes of investors. We estimate the

impact of these accounting policy changes. We use the daily adjusted closing price of each of the banks over the study period (2007-2011). We estimate the stock index price changes as a function of a variety of risk-related variables to isolate the impact of accounting rule changes. We focus on the impact of these accounting standards changes for the entire portfolio of 134 community banking stock. We estimate the following econometric model based on that used by Izan (1980), which examined the impact of regulatory announcements on the banking sector:

$$\mathbf{R}_{it} = \alpha_I + \beta_i \boldsymbol{R}_{mt} + \gamma_i \boldsymbol{D}_t + \mu_{it} \qquad (2)$$

The dependent variable, R_{it}, is the return for the equally-weighted portfolio of stocks associated with the firm(s) of interest (i.e., community banking). The variable γ measures the abnormal return for banking stocks during the occurrence of the event D_t. This approach directly estimates as a parameter the abnormal returns in the market model equation. The event, D_t, can be a single event or generalized to measure the impacts of multiple events occurring within the observation period by adding a separate dummy variable for each unique event. The variable R_{mt} incorporates a broad market index of securities. The dependent variable is the closing price change of the banking stock index.

Based on Zedeh and Meeks (Meeks, November 1, 2011), as a proxy for the risk of mark-to-market losses on asset-backed securities we include the on-the-run ABX.HE index (ABXaaa61) which reflects the price of 20 equally-weighted residential mortgage-backed securities (RMBS). The ABX.HE index is included because it is an investable index often used by financial institutions as a hedge against exposure to mortgage-backed securities and is included in bank assets for valuation purposes. One might expect that if potential mark-to-market mark-downs on asset-backed securities were to increase the risk of default for banks, the coefficient of ABX should be negative controlling for other market risk proxies.

The VIX index measures the implied volatility of the S&P 500 index options. It is calculated from a weighted average of implied volatilities of various options on the S&P 500 Index.[12] This measure is forward-looking since it is based on volatility of the price underlying security that is implied by the market price of the option. In an option pricing model, such as Black-Scholes, the value of an option depends on an estimate of the future realized price volatility. In some cases, the implied volatility of an option may be a more useful measure of an option's relative value than the actual prices of the underlying securities (Beckers, 1981).[13]

We also include the S&P financials index daily closing price (SPFCLOSE) to control for the impact of fluctuations in financial stock prices in general that may influence the momentum or direction of individual banking stocks.

We use the LIBOR-OIS (LIB-OIS) spread to measure the degree of illiquidity risk in the repo market (the market for the sale of securities tied to a re-purchase agreement) (Gorton, 2009Gorton, 2009). This same repo market illiquidity is what forced Lehman Brothers into bankruptcy, when the company was unable to secure a re-purchase agreement using mortgage related assets as collateral. The LIBOR (or London Inter-Bank Overnight Rate) is the funds rate for interbank loans. The OIS is the overnight index swap rate, which is based on the Federal Funds Rate. The LIBOR-OIS spread provides a measure of counterparty risk for the lender. An increasing spread indicates a greater risk premium for short-term liquidity. We would expect that a widening spread would have a negative impact on banking stocks in general. We also include a dummy variable to control for the second quarter relaxation in mark-to-market accounting standards.

In general, the impact of the standards change is an empirical question. Changes in accounting requirements can have three different effects: 1) the new rules can impose additional costs on the industry, which can be viewed as "unfavorable" news for investors, because compliance costs, at the very least, reduces profitability; 2) the new rules may be viewed as "favorable"

[12] There are also other volatility indices such as the VXN index (Nasdaq 100 index futures volatility measure), the QQV (QQQ volatility measure), IVX - Implied Volatility Index.

[13] See http://www.sciencedirect.com/science/article/pii/0378426681900327 at the Journal of Banking and Finance.

news, reducing fraud through better oversight and reporting, and increasing investor confidence; or, 3) the new rules may result in costs and benefits offsetting each other. In either of these three scenarios, investors are presented with new information for both the banking firms, and for the industry overall. If the information content of the new rule(s) is either on net positive or negative, then both the price(s) and rate(s) of return would be expected to adjust to take account. Our research addresses the question of whether the relaxation of FAS157 represented favorable or unfavorable news for investors in community-based banks.

Table 1 contains a description of the data we use to estimate community banking stock prices. On average, a share of stock in one of our 134 banks over the period between January 2006 and May 2012 sold for about $20.14; however, some shares sold for as little as $0.01 and for as much as $1658.90. Over the study period, the VIX daily closing price ranged from a low of $9.89 to a high of $80.86, and averaged $21.93. The ABX.HE index posted an average value of $89.02 over the study period, ranging from $59.75 to $100.38. The S&P Financials Index experienced closing prices that ranged from a low of $81.74 to a high of $509.55, recording an average value over the period of $302.32. Furthermore, the S&P Financials Index had the highest standard deviation of the market-based proxies used in our analysis at $81.74.

Table 1: Means of Data Used in Estimation

Variable	Obs	Mean	Std. Dev.	Min	Max
(Dep var) Adjclose	242079	20.14531	78.13565	0.01	1658.9
i_abxaaa61	204946	89.02948	9.376011	59.75	100.38
Vixclose	242079	21.92901	10.97618	9.89	80.86
Spfclose	241947	302.3168	123.2104	81.74	509.55
Lib-ois	208839	1.933831	2.193316	0.063	5.434
mar16_09	242079	0.002726	0.052144	0	1
A_mar16_09	242079	0.422796	0.494005	0	1
apr9_09	242079	0.002706	0.051946	0	1
A_apr9_09	242079	0.413018	0.492377	0	1

Estimates of the Banking Stock Index Returns

By constructing an index of these community bank stocks, we are able to smooth out the random variation of any particular stock value and focus on factors that are likely to influence the overall perception and value of community banking stock as a category. To address issues of stationarity we estimate the model in first differences using ordinary least squares. We include six lags of the independent variables, and we estimate heteroskedasticity and autocorrelation consistent errors following the Newey-West method. Table 3 presents our findings.

Positive changes in the S&P rates of return and its lags have, in general, positive and significant impacts on the change in prices of community banking stocks, indicating that a rising market tends to lift at community banking share prices as well. Changes in the VIX has a negative impact on community banking stock prices in contemporaneous periods, but is insignificant in many of the lagged periods, indicating that higher levels of volatility in the S&P results in falling stock prices. Since 2006, the LIBOR-OIS spread's contemporaneous impact on community banking stock is not significant. The only significant impact is in the fourth lag, and the impact is positive. Four of the six lags are negative, but are also insignificant.

The variables of particular interest are the dummy variables for March 16 and April 9, 2009. These two represent the starting of the discussion and comment period prior to the relaxation of FAS157, and the eventual date that FAS157 was actually relaxed. The impact of the March 16 dummy is both positive and significant at the 1 percent level in the difference model; however, the impact of the April 9 dummy is positive, but insignificant. In Table 2, the impact of the March and April dummies are positive, but are statistically insignificant. The likely reason for this combination of outcomes is that in the discussion and comment phase, investors likely were trading based on the notion that the rule relaxation was eminent. When the actual policy change occurred, the impact of that change had largely been priced into the market, and only a small positive adjustment occurred when the rule actually changed.

We also included in these specifications a dummy variable indicating the timing of the adoption of the Dodd-Frank act, which by some accounts has or will result in a title wave of new banking and financial regulations. The act was passed in response the 2007-2009 recession. The law was initially proposed in June of 2009, and was subsequently passed in on July 21, 2010. The act outlines new agencies tasked with monitoring systemic financial risks and researching the state of the economy, so that the government can respond to emerging threats to the stability of the US financial system. Interestingly,

the Act is estimated to have a positive and significant impact on the change in community bank stock prices; however, by comparison, the impact is substantially smaller than the relaxation of FAS157. It should be noted that the impact of the act on the stock values at the time of passage would have to be based on perception alone. The major provisions of the act have yet to take effect. Overall, the regression predicted 31 percent of the variation in the dependent variable and based on the Durbin-Watson statistic exhibits no significant serial correlation.

Table 2: Aggregated Model (dependent variable ∆Price)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	-2.04	0.63	-3.25***	0.00
∆(LIBOR-OIS)	5.62	16.10	0.35	0.73
∆ABXAAA61	1.22	1.00	1.22	0.22
∆SPFCLOSE	1.52	0.19	8.06***	0.00
∆VIXCLOSE	-0.80	0.43	-1.88*	0.06
∆(LIBOR-OIS) (-1)	-24.87	20.59	-1.21	0.23
∆ABXAAA61 (-1)	-1.23	1.23	-1.00	0.32
∆SPFCLOSE (-1)	0.70	0.18	3.83***	0.00
∆VIXCLOSE (-1)	-0.08	0.53	-0.15	0.88
∆(LIBOR-OIS) (-2)	-19.58	16.64	-1.18	0.24
∆ABXCLOSE (-2)	-0.28	1.47	-0.19	0.85
∆SPFCLOSE (-2)	0.38	0.13	2.93***	0.00
∆VIXCLOSE (-2)	-0.09	0.38	-0.25	0.80
∆(LIBOR-OIS) (-3)	-5.12	23.11	-0.22	0.82
∆ABXAAA61 (-3)	0.01	1.22	0.01	0.99
∆SPFCLOSE (-3)	0.36	0.14	2.65**	0.01
∆VIXCLOSE (-3)	-0.07	0.41	-0.18	0.86
∆(LIBOR-OIS) (-4)	34.30	19.33	1.77*	0.08
∆ABXAAA61 (-4)	0.09	1.05	0.08	0.93
∆SPFCLOSE (-4)	0.33	0.13	2.55**	0.01
∆VIXCLOSE (-4)	0.15	0.46	0.33	0.75
∆(LIBOR-OIS) (-4)	-7.66	18.52	-0.41	0.68
∆ABXAAA61 (-5)	-1.18	1.03	-1.15	0.25
∆SPFCLOSE (-5)	0.42	0.16	2.71***	0.01
∆VIXCLOSE (-5)	0.50	0.33	1.51	0.13
∆(LIBOR-OIS) (-6)	-2.35	15.65	-0.15	0.88
∆ABXAAA61 (-6)	0.54	1.12	0.48	0.63
∆SPFCLOSE (-6)	0.31	0.13	2.35**	0.02
∆VIXCLOSE (-6)	-0.20	0.38	-0.54	0.59
April 9_09	5.03	4.45	1.13	0.26
December 30_08	0.24	3.75	0.06	0.95
March 16_09	17.61	5.70	3.09***	0.00
September 15	1.45	1.62	0.89	0.37
Sep 30 – Oct 10_08	-1.62	9.82	-0.16	0.87
Dodd-Frank	2.27	0.71	3.21***	0.00

R-squared	0.33	Mean dependent var	-1.77
Adjusted R-squared	0.31	S.D. dependent var	20.83
S.E. of regression	17.26	Akaike info criterion	8.56
Sum squared resid	417017.80	Schwarz criterion	8.69
Log likelihood	-6105.81	Hannan-Quinn criter.	8.61
F-statistic	20.28	Durbin-Watson stat	2.12
Prob(F-statistic)	0.00		

Conclusions

The focus on much of the research into the impact of FAS157's relaxation on the banking industry has focused on the very largest banks, and has largely ignored the impact on smaller, community-based banks. Although, individually, community-based banks do not command a large share of the banking market, together this segment of the banking industry issues about half of the loans issued through the Small Business Administration. And, considering the emphasis on the role of small businesses in the effort to move into a robust recovery from the most recent recession, it is important to look at (financial) factors negatively affecting this important slice of the economy.

Accounting standards and government regulation have a substantial impact on the real economy. Supporters of FAS157 have argued that accounting standards that are clearly stated and uniformly applied are neutral, and that banks that failed during the financial crisis would have failed irrespective of the accounting rules. The value of the stocks associated with the banks reflects the overall health and earnings potential an investor expects in the future from each of these stocks.

This research presents evidence that the relaxation of FAS157 resulted in a positive impact on the stock prices of community banks. Although the sample we use consists of banks that were viewed as healthy before the outset of the financial crisis, we might reasonably expect that the impact on banks in weaker financial health could be even larger. Furthermore, investors, who are argued to benefit the most from transparent accounting standards and who are keenly aware of the changes that took place, on average bid the price of these banking stocks up after the rule relaxation. If, on net, the rule change were expected to do more harm to the investor, we would have expected the value of these stocks to fall.

Appendix

Price	Sum of all banks' stock prices. Stock prices used denote value at closing.
LIBOR-OIS	LIBOR-OIS spread
ABX	ABX.HE 2006 index
SPF	S&P 500 Financials Index at close
VIX	VIX Index at close
April 9	Dummy variable that equals 1 between April 6, 2009 and April 15, 2009
December 30	Dummy variable that equals 1 between December 24, 2008 and January 5, 2009
March 16	Dummy variable that equals 1 between March 10, 2009 and March 19, 2009
September 15	Dummy variable that equals 1 between September 12, 2006 and September 20, 2006
Sep 30 - Oct 10	Dummy variable that equals 1 between September 30, 2008 and October 10, 2008
Dodd-Frank	Dummy variable that equals 1 after July 21, 2010
Δ	Denotes first difference
(-t)	Denotes a variable lagged t days

Citations

Allen, F., & Carletti, E. (2008). Mark-to-market accounting and liquidity pricing. *Journal of Accounting and Economics, 45*(2–3), 358-378. doi: 10.1016/j.jacceco.2007.02.005

Amel-Zadeh, A., & Meeks, G. (October 27, 2009). Bank Failure, Mark-to-Market and the Financial Crisis.

Beckers, S. (1981). Standard deviations implied in option prices as predictors of future stock price variability. *Journal of Banking & Finance, 5*(3), 363-381. doi: http://dx.doi.org/10.1016/0378-4266(81)90032-7

Brunnermeier, M. K. (2009). Deciphering the Liquidity and Credit Crunch 2007-2008. *Journal of Economic Perspectives, 23*(1), 77-100. doi: doi: 10.1257/jep.23.1.77

Brunnermeier, M. K., & Pedersen, L. H. (2009). Market Liquidity and Funding Liquidity. *Review of Financial Studies, 22*(6), 2201-2238. doi: 10.1093/rfs/hhn098

Gorton, G., and A. Metrick. (2009). The run on repo and the panic of 2007-2008 *NBER working paper* (pp. 15223).

Izan, H. Y. (1980). Mandatory Audit Regulation for Banks: An Empirical Evaluation of Its Effects. *The Journal of Business, 53*(4), 377-396.

Meeks, A. A.-Z. a. G. (November 1, 2011). Bank Failure, Mark-to-Market and the Financial Crisis *Working Paper Series* (pp. 45). Cambridge, U.K.: Judge Business School, University of Cambridge.

Nichols, M. W., Hendrickson, J. M., & Griffith, K. (2011). Was the Financial Crisis the Result of Ineffective Policy and Too Much Regulation? An Empirical Investigation. *Journal of Banking Regulation, 12*(3), 236-251. doi: http://www.palgrave-journals.com/jbr/index.html

Plantin, G., Sapra, H., & Shin, H. S. (2008). Marking-to-Market: Panacea or Pandora's Box? *Journal of Accounting Research, 46*(2), 435-460. doi: 10.1111/j.1475-679X.2008.00281.x

Shleifer, A., & Vishny, R. W. (2010). Unstable banking. *Journal of Financial Economics, 97*(3), 306-318. doi: 10.1016/j.jfineco.2009.10.007

My objections to fair-value and mark-to-market accounting date back to 1992, when I performed an analysis of its effect on community banks and was critical of the fact that the present-value calculations could be easily manipulated. The study appeared in the fall issue of Bank Accounting& Finance magazine that year. â€¦ SUBSCRIBE TODAY! Subscribe to Questia and enjoyÂ Financial Accounting Standards Board--Management. Accounting law--Evaluation. Banking industry--Laws, regulations and rules. Related books and articles. Books. Mark-to-market or fair value accounting refers to accounting for the "fair value" of an asset or liability based on the current market price, or for similar assets and liabilities, or based on another objectively assessed "fair" value.Script errorScript error Fair value accounting has been a part of Generally Accepted Accounting Principles (GAAP) in the United States since the early 1990s, and is now regarded as the "gold standard" in some circles.