Panacea, Pandora’s Box, or Placebo: Feedback in Bank Holdings of Mortgage-Backed Securities and Fair Value Accounting

Abstract

We examine the relation between bank holdings of mortgage-backed securities (MBS) and MBS prices. Theory suggests feedback between MBS holdings and underlying asset markets can be aggravated by mark-to-market accounting. We measure feedback by the relation between asset returns and the changes in bank MBS holdings. Consistent with the existence of feedback effects related to mark-to-market, we find that for banks with high MBS, more nonperforming loans, and lower total capital ratio, changes in bank MBS positions are positively associated with changes in MBS prices and that this relation is reduced after the easing of mark-to-market rules. To assess the effect of feedback on shareholder value, we test whether the stock-price response of banks to the announcement of the easing of mark-to-market accounting is associated with the intensity of feedback behavior. We find that the market reaction to the easing of market-to-market is more positive for banks with more MBS, higher nonperforming loans and higher pre-rule-change feedback. Overall, our results suggest feedback related to mark-to-market accounting had measurable effects on shareholder value.

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Statement of the Impact on Business Results

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In 2007, a financial crisis shook the United States. Liquidity in short-term credit markets evaporated and banks were unable to offset the shortfall. The ensuing economic downturn gave the US Congress an argument for passing massive new financial regulation, The Dodd-Frank Wall Street Reform and Consumer Protection Act, affecting almost every aspect of the U.S. financial services industry. One hot issue in the debate surrounding this legislation was whether financial institutions should be prevented simultaneously engaging in trading and commercial lending. Rajan and Diamond (2009) argue that banks security trading contributed to the financial crisis. Another controversy concerns whether fair value accounting constrains banks’ capacity to provide liquidity in a crises (American Bankers Association, 2009) and causes excessive procyclicality (Bernanke, 2009). To provide evidence to assess the merits of the arguments that underlie these controversies, we examine the security trading behavior of banks and the impact of easing mark-to-market accounting requirement on their trading behavior.

Financial economic theory argues that if assets are valued based on a mark-to-market accounting rule, then a negative liquidity shock can force banks to sell these assets to meet margin requirement or to avoid the imposition of constraints by bank regulators. Selling assets when prices decline leads to further price declines – precipitating a downward spiral. This phenomenon is called “feedback” trading. If mark-to-market accounting intensifies feedback trading by banks, then easing of mark-to-market requirements can reduce feedback. We examine these predictions by examining how banks trade non-agency mortgage-backed securities (NA-MBS).
We discover five key empirical regularities. First, bank NA-MBS trades exhibit feedback. That is, they sell NA-MBS when price declines prior to the mark-to-market accounting rule change. Second, banks’ feedback trading is more pronounced for banks holding more NA-MBS, with more non-performing loans and with lower total capital ratio. Third, the easing of mark-to-market accounting rule reduces banks’ feedback trading. Fourth, bank stocks react positively to the accounting rule change. Fifth, a bank’s stock reacts more positively if the bank showed greater feedback trading prior to the rule change. Taken together, these findings suggest that the easing of mark-to-market accounting has measurable effect on bank stockholder wealth, because the accounting rule change reduced pressure on banks to unload securities at distressed prices.

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