

Loan Loss Reserve Accounting and Bank Behavior

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The rules governing banks' loan loss provisioning and reserves require a trade-off between the goals of bank regulators, who emphasize safety and soundness, and the goals of accounting standard setters, who emphasize the transparency of financial statements. A strengthening of accounting priorities in the decade prior to the financial crisis was associated with a decrease in the level of loan loss reserves in the banking system.

The recent financial crisis has prompted an evaluation of many aspects of banks' financing and accounting practices. One area of renewed interest is the appropriate level of loan loss reserves, the money banks set aside to offset future losses on outstanding loans.¹ Determining that level depends on balancing the requirements of bank regulators, who emphasize the importance of loan loss reserves to protect the safety and soundness of the bank, and of accounting regulators, who emphasize the transparency of financial statements. Loan loss reserves appear in two places in a

bank's financial statements: the balance sheet (Figure 1) and the income statement (Figure 2).² Outstanding loans are recorded on the asset side of a bank's balance sheet. The loan loss reserves account is a "contra-asset" account, which reduces the loans by the amount the bank's managers expect to lose when some portion of the loans are not repaid. Periodically, the bank's managers decide how much to add to the loan loss reserves account, and charge this amount against the bank's current earnings. This "provision for loan losses" is recorded as an expense item on the bank's income statement.

Figure 1: Hypothetical Bank Balance Sheet

Balance Sheet as of December 31, 2011 Hypothetical Bank (thousands of dollars)			
Assets		Liabilities and Equity	
Cash	\$ 8,000	Deposits	\$ 74,000
Securities	20,000	Other liabilities	19,000
Total loans	\$ 64,000	Total liabilities	\$ 93,000
Less: Reserves for loan losses	1,000		
Equals: Net loans	63,000	Owners' equity	7,000
Other real estate owned	400		
Other assets	8,600		
Total assets	<u>\$ 100,000</u>	Total liabilities and owners' equity	<u>\$ 100,000</u>

Figure 2: Hypothetical Bank Income Statement

Income Statement for Year Ending December 31, 2011	
Hypothetical Bank (thousands of dollars)	
Interest income	
Interest and fees on loans	\$ 7,000
Interest on securities	1,800
Other interest income	200
Noninterest income	
Service charges	400
Other noninterest income	600
Total income	\$ 10,000
Interest expense	
Interest on deposits	\$ 4,000
Other interest expense	2,000
Noninterest expense	
Salaries and benefits	1,000
Provision for loan losses	300
Other noninterest expense	1,700
Total expense	\$ 9,000
Income before taxes	\$ 1,000
Income taxes	250
Net income	\$ 750

A relatively large accrual for commercial banks, loan loss provisions have a significant effect on earnings and regulatory capital. Because loan loss provisions are at the discretion of bank managers, there is the potential for banks to provision more or less than necessary as a way to smooth their income. From an accounting perspective, this could introduce discretionary modifications to banks' earnings and reduce the comparability of results across firms.

On the other hand, higher provisioning might instead reflect a more cautious approach to building up reserves prior to future losses. From a prudential perspective, income smoothing could reduce the negative impact of asset volatility on bank capital. It also could reduce banks' procyclicality, since loan loss provisioning potentially creates a feedback mechanism between the financial and real sectors of the economy. If banks do not have sufficient reserves

to absorb losses when economic conditions worsen, they must rapidly increase their provisioning, which could cause them to curtail lending and potentially prolong the downturn.³

Accounting Goals and Regulatory Goals

According to the accounting guidelines established by the Financial Accounting Standards Board (FASB), banks may increase their loan loss reserves when it becomes highly probable that a loss is imminent, and if the amount of that loss can be reasonably estimated. One rationale for these guidelines is to prevent banks from using the loan loss reserves to smooth their earnings: A bank could shift income from good quarters to bad quarters by taking large provisions when income is high and small provisions when income is low. Managing earnings in this way could help publicly held banks maintain higher stock prices, and help bank managers meet their compensation targets. Empirical studies suggest that banks have used loan loss reserves to manage income,⁴ and that prior to rules changes in the 1980s and in 1990, banks also used their loan loss reserves to gain more favorable tax treatment and to manage their capital positions.⁵

Despite the potential to use loan loss reserves to achieve objectives other than ensuring safety and soundness, prudential considerations suggest that higher reserves, all else equal, enable the bank to absorb greater unexpected losses without failing. This would involve a more forward-looking approach to loan loss provisions that factors in future losses due to changing economic conditions, even if an event that would make losses likely has not yet occurred. In addition, the "event-driven" accounting approach does not reflect the fact that a booming economy tends to be accompanied by more risk-taking in lending and relaxed underwriting standards, potentially generating bad loans that won't be revealed until the boom ends.

As noted above, the accounting guidelines for loan loss reserves could make banking more procyclical. If loan loss reserves are relatively low during good times, banks would have to rapidly increase their loan loss provisioning when an economic downturn occurs and defaults become more common.⁶ But

requiring banks to build up reserves at a time when bank funds already might be strained could cause banks to reduce their lending activities, thereby exacerbating a credit crunch and putting further pressure on earnings.

Loan Loss Reserves Pre-Crisis

In addition to the supervision of their primary federal regulators, publicly held banks are also subject to oversight by the Securities and Exchanges Commission (SEC). The SEC's mission is to "protect investors, and maintain fair, orderly, and efficient markets," which includes overseeing the disclosure of information by public companies. With respect to loan loss reserves, the SEC is primarily concerned with the transparency of financial statements, and thus emphasizes accounting goals over safety and soundness regulatory objectives. In 1997, the SEC expressed concern that U.S. banks were overstating their loan loss reserves, and in 1998, the commission required SunTrust Bank to restate its earnings for 1994–96, lowering the loan loss reserve by \$100 million. While directed toward a single bank, the SEC's action reflected a strengthening of accounting priorities—one that might have had an effect on the level of loan loss reserves throughout the banking system.

Two of the authors of this Economic Brief (Balla and Rose) examined a sample of more than 13,000 banks between 1992 and 2007 to study whether the SEC's SunTrust decision affected accounting for loan loss reserves.⁷ The majority of the banks in the sample—73 percent—were privately held throughout the sample period, and 16 percent were publicly held throughout. The remaining 11 percent switched ownership type during the period, mostly from private to public.⁸

Because privately held banks are not subject to SEC oversight, the authors hypothesized that the SEC's decision had a greater effect on the loan loss reserves of publicly held banks. In the years prior to the SunTrust restatement, the authors find that the level of loan loss reserves for publicly held banks was on average 20.9 percent higher than the level at privately held banks. After 1998, that gap narrowed considerably; loan loss reserves at publicly held banks

were only 9.5 percent higher. Publicly held banks also substantially decreased provisioning relative to privately held banks. Quarterly loan loss provisions were on average 47 percent higher at publicly held banks pre-SunTrust compared to 35 percent higher post-SunTrust.

It's uncertain to what degree privately held banks were affected. Because they are not subject to SEC oversight, Balla and Rose hypothesized that the SEC's action might not have an impact on their behavior. This was the case in several of the tests the authors ran, although in others it appears that privately held banks did reduce reserves and provisioning, perhaps because bank regulators incorporated the SEC's guidance into the rules applicable to all banks. Overall, however, the results show that the SEC's SunTrust decision was associated with a lowering of loan loss reserves throughout the banking system in the years prior to the financial crisis, and that the decision had a greater effect on the actions of publicly held banks. What remains uncertain is whether the banks held a higher level of reserves prior to the SunTrust restatement in 1998 in an attempt to smooth their income, or whether the banks were simply taking a cautious approach to loan loss accounting by recognizing losses early.

The Future of Loan Loss Reserves

Loan loss reserve accounts are an important part of banks' ability to sustain losses. However, such protection has not always been the only consideration in how banks manage loan loss reserves. The SEC's decision requiring SunTrust to restate earnings in 1998 reflected a strengthening of accounting priorities in order to ensure the transparency of financial statements. The increased emphasis on accounting goals might have increased the procyclicality of banks by preventing them from building up reserves when the economy was strong, and requiring them to rapidly increase reserves when the economy turned weak.

Addressing procyclicality is part of the international policymaking agenda. The Basel III accord, the 2010 revision to international bank capital standards, explicitly addresses countercyclical capital buffers and is expected to be adopted by bank regulators in the United States.⁹ In addition, the FASB (jointly with the

International Accounting Standards Board) is considering revisions to bank accounting for loan losses.¹⁰ The proposed revisions, which are expected to be open for public comment in 2012, would allow more forward-looking loan loss provisioning. They would create a “three-bucket” expected loss approach, in which loans would be split into three different categories based on credit quality, and credit impairment would be evaluated separately for each bucket. Loans could be moved from one bucket to another as new information becomes available, allowing bankers to separate loans that might be impaired due to unknown future economic events from loans where a loss is imminent. The results of Balla and Rose’s paper suggest that banker incentives might be well aligned with such a provisioning approach. ■

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Endnotes

¹ For example, see Ben S. Bernanke, “Financial Reform to Address Systemic Risk,” Speech to the Council on Foreign Relations, Washington, D.C., March 10, 2009.

² Figures 1 and 2 are adapted from figures in “Loan Loss Reserves” by John R. Walter, Federal Reserve Bank of Richmond *Economic Review*, July/August 1991, vol. 77, no. 4, pp. 20–30.

³ For example, see Eliana Balla and Andrew McKenna, “Dynamic Provisioning: A Countercyclical Tool for Loan Loss Reserves,” Federal Reserve Bank of Richmond *Economic Quarterly*, Fall 2009, vol. 95, no. 4, pp. 383–418; and Anne Beatty and Scott Liao, “Regulatory Capital Ratios, Loan Loss Provisioning and Pro-cyclicality,” November 2009, Manuscript, Ohio State University and University of Toronto.

⁴ Larry D. Wall and Timothy W. Koch, “Bank Loan-Loss Accounting: A Review of Theoretical and Empirical Evidence,” Federal Reserve Bank of Atlanta *Economic Review*, Second Quarter 2000, vol. 85, no. 2.

⁵ For example, see Walter (1991) and Anwer S. Ahmed, Carolyn Takeda, and Shawn Thomas, “Bank Loan Loss Provisions: A Reexamination of Capital Management, Earnings Management, and Signaling Effects,” *Journal of Accounting and Economics*, November 1999, vol. 28, no. 1, pp. 1–25.

⁶ In a sample of 45 countries, Luc Laeven and Giovanni Majnoni find evidence that banks delay provisioning until cyclical downturns have already set in, thereby magnifying the impact of the economic cycle on banks’ income and capital. See Laeven and Majnoni, “Loan Loss Provisioning and Economic Slowdowns: Too Much, Too Late?” *Journal of Financial Intermediation*, April 2003, vol. 12, no. 2, pp. 178–197.

⁷ Eliana Balla and Morgan J. Rose, “Loan Loss Reserves, Accounting Constraints, and Bank Ownership Structure,” Federal Reserve Bank of Richmond Working Paper No. 11-09, December 2011.

⁸ At the beginning of the period, the sample included 11,400 banks. Due to consolidation in the banking industry, the number of banks in the sample fell to 6,889 in 2007. The authors use a dynamic sample that includes newly chartered commercial banks; therefore, the total number of banks in the sample is larger than the number of banks in any one quarter. The study is based on Commercial Bank Reports on Condition and Income, or Call Reports. A bank is defined as publicly held if its stock or the stock of its holding company is traded on a stock exchange.

⁹ See Huberto M. Ennis and David A. Price, “Basel III and the Continuing Evolution of Bank Capital Regulation,” Federal Reserve Bank of Richmond *Economic Brief*, no. 11-06, June 2011.

¹⁰ A project update on “Accounting for Financial Instruments—Credit Impairment—Joint Project of the FASB and IASB” is available at http://www.fasb.org/jsp/FASB/FASBContent_C/ProjectUpdatePage&cid=1176159268094.

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