

Financial Statements and Reality: Do Troubled Banks Tell All?

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T*his analysis provides direct evidence of exams' significant role in uncovering financial problems and ensuring bank accounting statements reflect them.*

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Efforts requiring banks to divulge information on their financial condition have a long history. In the early 1800s, some states required banks to file reports of condition with the governor or legislature, arguing the state was a shareholder in the banks and therefore entitled to the information (Robertson 1995). However, the reports contained only broad breakdowns of assets and liabilities and no information bank directors did not wish to disclose. In 1869, Congress empowered the comptroller of the currency to “call” for a full statement of condition from national banks several times a year. Regulators have since made many changes to the resulting call report, but its purpose remains the same—to provide timely information regarding the condition of banks.

The modern call report, or Report of Condition and Income, is filed quarterly by all banks and contains hundreds of accounting items that regulators and private analysts use to characterize the financial condition of both individual banks and the industry. Call reports now include detailed measures of assets, liabilities, revenues, expenses, and off-balance-sheet activity. The level of detail is somewhat greater for large banks than for small ones, but even small banks file an extensive report.

This article analyzes call report revisions to assess the extent to which regulatory exams promote accurate data. If the loan-loss accounting in call reports is widely used to measure loan quality, the findings support the view that exams are important in the public dissemination of accurate information on banks' financial condition.

DISCLOSURE OF LOAN LOSSES

An old saw in banking is that making loans is easy, but getting paid back is hard. While banks have developed a substantial tool kit for identifying creditworthy borrowers, all loans entail some risk and inevitably, some will not be repaid. A loan that appears sound at origination may deteriorate in quality and eventually become a loan for which repayment is highly unlikely. Because loans are a primary banking product, a true picture of a bank's overall financial condition often depends on the accuracy with which loan portfolio problems have been identified and measured. As a result, the accuracy of the line items pertaining to loan quality and performance has the potential for determining a call report's usefulness in tracking financial developments.

The banking industry uses a specialized system to account for loan quality problems, at

the heart of which is the allowance for loan and lease losses (ALLL). Through provision for loan and lease losses, banks add funds to ALLL. These provisions are an expense item and reduce a bank's net income.¹ The ALLL balance is subtracted from total loans, so that loans on the balance sheet are reported net of ALLL. When loans are charged off, total loans are reduced by the amount of the losses, but the losses are charged against ALLL, leaving net loans unaffected.² If a bank recovers some of the losses on loans previously charged off, the recoveries are added back to ALLL.

When a bank charges off a loan, the resulting loss does not affect reported profitability, since the charge-off is against ALLL. Credit quality problems affect reported profitability when a bank incurs the provision expense, since the expense directly reduces net income. As a result, timely disclosure of information on credit quality and its impact on overall operating results depends on the degree to which provisions are made in anticipation of, or concurrent with, actual impairment in the loan portfolio. If adequate provisions are made only after the impairment occurs, profitability prior to the provisions is overstated.

Regulatory guidance directs banks to make provisions if ALLL is insufficient to absorb estimated credit losses. However, the definition of estimated credit losses highlights the difficulty in pinpointing an appropriate level for provisions: "Estimated credit losses are anticipated losses that are reasonably expected to occur but whose amounts or obligors cannot be specifically identified" (Federal Reserve Board of Governors 1999). Because assessing the adequacy of ALLL and the need for provisions is based on an estimate of losses, in many cases it may only be possible to determine a range of suitable levels for provision expense, rather than the single most appropriate level. In addition, exam findings can lead banks to charge off some existing loans, thereby reducing ALLL and potentially requiring additional provisions.

EXAMS AND TRANSPARENCY

Various incentives may induce banks to set provisions outside the range commensurate with credit quality. In response, policymakers have sought to blunt or counteract these incentives.

Banks can reduce the variability of reported income by making higher provisions than necessary when credit quality and net income are high. In this case, provisions would not have to increase as much if credit quality

were to deteriorate. This form of income smoothing might lead outside observers and investors to regard banks as more stable and less risky than they are.³ An undesirable aspect of such income smoothing is that it could make a bank's financial condition less transparent to the users of financial statements.⁴

Potential tax benefits are another incentive for manipulating loan-loss provisions. Before the 1986 Tax Reform Act, provisions were treated as a deductible expense, and setting higher provisions often lowered taxable income. However, for banks with assets over \$500 million, the act linked the amount of a bank's deduction to its actual charge-off experience (Walter 1991).

Another factor that might prompt banks to set an inappropriate level of ALLL and provision expense involves regulatory or market-based penalties for a deterioration in financial condition. Risk-based capital requirements allow banks to count ALLL only in Tier 2 capital and only up to 1.25 percent of risk-weighted assets (Kwan and O'Toole 1997). By not making the necessary provisions, banks with asset-quality problems can raise reported net income and retained earnings, thereby boosting Tier 1 capital and potentially avoiding the numerous restrictions regulators typically place on troubled banks.

Given the current institutional framework, which assigns regulators a large role in the monitoring and disciplining of banks, this latter incentive provides a particularly strong reason for regulatory exams. The *Commercial Bank Examination Manual* states that "the examiner's responsibility to determine the adequacy of a bank's ALLL is one of the most important functions of any examination" (Federal Reserve Board of Governors 1999). In verifying the adequacy of ALLL, examiners consider information obtained during the current and prior exams, loan quality trends and peer group data, processes for internal credit review, past-due and restructured loans, and economic conditions. If after considering these factors an examiner finds that a bank's ALLL is too low, the institution normally is required to increase its provision expense and raise ALLL to the desired level.⁵

Several studies support the view that troubled banks often have insufficient ALLL and that exams are important in helping correct the problem. The General Accounting Office (1990, 1991) finds troubled or failing banks often have insufficient ALLL. Similarly, Berger, King, and O'Brien (1991) discuss the potential for insufficient ALLL, particularly when a bank has not been examined recently. Gilbert (1993) provides

Table 1
**Provision Expense as a Percentage of Average Assets,
 Year-End 1996–98**

Percentile	No revision	Downward revisions		Upward revisions	
	Reported	Reported	Revised	Reported	Revised
25	.03	.09	.00	.11	.30
50 (median)	.12	.26	.16	.25	.52
75	.24	.42	.29	.49	1.00
Average	.18	.37	.19	.42	.87
Percentage of banks	98.83	.17		1.00	

NOTES: The categories are based on revisions to the level of provisions. The data show the distribution of the ratio of provision expense to average assets.

SOURCE: Original and revised files of the Report of Condition and Income, Federal Financial Institutions Examination Council.

evidence of atypical movements in call report data for the quarters in which banks are downgraded by examiners.

Setting provisions requires detailed knowledge about a bank's loan portfolio. Regulators and, especially, bank managers are more likely than outsiders to have such detailed knowledge. If an exam aligns provision expense and ALLL with credit quality, it may facilitate the public communication of important bank-specific information and thereby enhance banking system transparency.

Consistent with this view, Docking, Hirschey, and Jones (1997) find a bank's announcement of loan-loss provisions adversely affects that bank's stock price and sometimes the stock price of other banks as well. Berger and Davies (1998) provide evidence that quarterly financial statements are a conduit for transmitting exam findings to financial markets. And Flannery and Houston (1999) find exams affect the relationship between a bank holding company's market and book value, possibly reflecting the improved accuracy of financial statements following an exam or a certification effect whereby exams serve as a stamp of approval on published financial statements.

Other researchers have reached a different conclusion, however, arguing essentially that outsiders can see through a bank's loan-loss accounting and discern the true quality of its loans, even if provisions and ALLL are lower than necessary. Wall and Koch (2000) cite several studies that indicate investors often do not react to announcements of loan-loss provisions, presumably having already effectively estimated the extent of the deterioration in bank loan portfolios. If, without substantial cost, outsiders can accurately estimate losses in a bank's loan portfolio on the basis of other information, the

benefits of exams in assessing loan quality and the sufficiency of ALLL may be limited mostly to the supervisory process itself, as opposed to the promotion of financial transparency in general.

These earlier studies address important issues. Do banks sometimes set provisions below what is needed to cover their loan losses? If so, how often does this occur and by what magnitude do banks underreport? Are exams effective in promoting adequate levels of ALLL? And finally, do provisions and ALLL convey useful information to outsiders about banks' financial condition? The following analysis addresses some of these issues further by providing evidence based on the incidence and size of revisions to call report data.

Sample

The analysis examines call report revisions to gain insight into exams' role in promoting accurate financial information. Given the importance of information on loan quality in assessing banks' overall financial condition, the analysis is limited to provision expense revisions. To focus on safety and soundness concerns, most of the analysis is directed at upward revisions. If examiners determine the provision expense a bank reports is inadequate, they may require the bank to make additional provisions and refile one or more recent call reports to reflect the change.⁶ It is important to note, however, that not all exam findings on provisions necessarily require call report revisions. If additional provisions are necessary, the expense may simply be reflected on a bank's subsequent call report. Nevertheless, the revisions provide a unique window through which to view the results of exam activity.

The data this study uses are obtained from files at the Federal Reserve Bank of Dallas and are limited to commercial banks, year-end 1996–98. The originally reported data are from files transmitted from the Federal Reserve Board, seventy to eighty days following the report dates. The revised data are for the same report dates but were transmitted from the Board in May 2000. Any differences between the original data and the data obtained in May reflect revisions made sometime after the data were published as "final," which typically occurs about sixty-five days after the report date.⁷

Several additional restrictions frame the analysis. First, the sample is limited to banks that received a satisfactory rating on the last exam prior to the report date.⁸ Focusing on these banks facilitates an assessment of whether new or emerging problems are freely divulged by banks

or reported only at the behest of examiners. In addition, banks less than four years old are excluded, since young banks typically exhibit unique financial characteristics and are not directly comparable to more mature banks. The resulting sample contains 24,519 year-end call reports for the period from 1996 through 1998.

Results

The analysis reveals an interesting relationship between revisions to call report data and exam results.

Frequency and Magnitude of Revisions. While banks in general seldom revise their financial reports, when they do, the revision is often substantial. As Table 1 shows, reported provision expense was unrevised nearly 99 percent of the time.⁹ Downward revisions were made to only 0.17 percent of the reports. However, banks revised their provisions upward in 1 percent of the cases examined, and these revisions tended to be large. The median ratio of provision expense to average assets originally reported by the banks that revised upward is 0.25 percent, compared with a median ratio of 0.52 percent based on the revised reports. The same comparison holds for the average of the revised provision expense ratio, which is more than twice as high as originally reported. These revisions are sufficient to lower reported profitability appreciably. For the banks that revised their provisions upward, the return on assets originally reported is 1.02 percent, on average, compared with 0.71 percent for the revised reports.

The number of upward revisions in our sample is fairly small. However, these were good times for the banking industry. Because financial problems were few, the need for increases in provisions could be expected to have been low. The analysis below controls for this factor by examining sound and troubled banks separately.

Financial Problems, Exams, and Revisions. To investigate whether revisions to provision expense are driven by examiners' findings, the sample is divided into five groups. The first group contains banks for which an exam began in the first quarter of the year immediately following the fourth quarter report date. The second group is banks for which the first exam in the subsequent year occurred in the second quarter, and so on for the third and fourth groups. The fifth group contains banks that were not examined in the year following the call report date.

The banks are also divided into ten asset-quality categories. These categories are based

Table 2
Percentage of Banks with Upward Revisions to Provision Expense, Year-End 1996–98

Asset-quality category	Quarter of first exam in subsequent year				
	First	Second	Third	Fourth	None
1	.76	.00	.23	.00	.00
2	1.32	.46	.95	.28	.70
3	.57	.43	.89	.00	.29
4	.40	.23	.23	.00	.28
5	1.26	.21	.92	.00	.14
6	1.37	.41	.00	.00	.56
7	.99	.69	.46	.59	.54
8	1.76	1.83	1.09	.59	.71
9	3.26	3.02	.93	1.56	.84
10	9.60	3.37	1.84	1.12	1.46

NOTES: The percentages are based on the number of upward revisions to the level of provisions. The asset-quality categories are based on the ratio to assets of loans past-due thirty days or more and still accruing and nonaccrual loans, where the first group is banks with the lowest problem-asset ratios and the tenth group those with the highest ratios. The ratios are calculated using revised data. Each asset-quality group contains 10 percent of the sample.

SOURCE: Original and revised files of the Report of Condition and Income, Federal Financial Institutions Examination Council.

on the ratio to assets of loans past-due thirty days or more and still accruing and nonaccrual loans. The first group is banks with the lowest problem-asset ratios and the tenth group those with the highest ratios. The ratios are calculated using revised data.¹⁰ Each group contains 10 percent of the sample.

This exercise indicates that banks with severe asset-quality problems are more likely than other banks to revise their loan-loss provision upward. In addition, banks that are examined—particularly in the first quarter of the year after the call report date—also are more likely to raise their provision. As Table 2 shows, almost 10 percent of the banks in the worst asset-quality group that were examined in the first quarter revised their loan-loss provision upward. In contrast, only 1.46 percent of the banks in the worst asset-quality group that were not examined in the year following the call report date revised their provision upward. Moreover, only 0.76 percent of the banks in the best asset-quality group that were examined in the first quarter revised their provision upward. None of the unexamined banks in the best asset-quality group raised their provision expense.

Further evidence that exams are a significant impetus for call report revisions is obtained by dividing the banks into two categories based on whether they were downgraded by examiners to problem status. Of the banks examined and downgraded in the first quarter, 36 percent revised their loan-loss provision upward. In contrast, of the banks examined in the first quarter that were not downgraded,

only 1.4 percent raised their provision expense. For banks examined in the fourth quarter, about 2 percent of those that were downgraded restated their provision at a higher level, while under 1 percent of those that remained in nonproblem status revised it upward. These figures indicate banks that are downgraded by examiners, particularly early in the year, often revise the preceding year's fourth quarter call report to reflect a greater degree of financial difficulty than originally reported.¹¹

Summary of Findings. These data provide a look at the frequency and magnitude of call report revisions and their relationship to exams. Upward revisions of provisions are large enough to reduce profitability appreciably. For banks in general, the revisions are infrequent. However, banks with new or emerging problems often significantly underreport provision expense. There is a strong relationship between examiner downgrades of banks and upward revisions to the provision expense reported for the previous year, especially when the downgrades occur early in the current year.

CONCLUSION

This analysis provides direct evidence of exams' significant role in uncovering financial problems and ensuring bank accounting statements reflect them. The auditing role of exams directly manifests itself in the difference between original and revised call reports. For the report dates used in the analysis, more than one-third of the banks that fell into problem status had to revise their most recent call report to reflect a greater degree of financial difficulty than originally reported. To the extent outsiders use provisions and ALLL in assessing loan quality, these results support the view that exams are important in the public dissemination of accurate information on banks' financial condition.

The findings also point to the need for further research. Because call reports are filed quarterly, whereas banks are typically examined about once every twelve to eighteen months, call report data potentially provide a more up-to-date picture of a bank's condition than on-site exams alone. For this reason, regulators use call report data extensively in a variety of efforts to monitor banks' condition. One such effort involves the construction and implementation of statistical early-warning models to identify emerging financial problems. These statistical systems typically rely heavily on call report data for input variables. (Cole, Cornyn, and Gunther 1995 provide an example of this use of call

report data.) However, if call report information does not accurately reflect financial conditions when published, the report's usefulness in tracking financial developments between on-site exams could be reduced. Additionally, if inaccuracies in the call report data are ultimately corrected, the revisions might overstate the report's usefulness in tracking financial developments in real time, as Cole and Gunther (1998) point out. These considerations suggest the need to analyze early-warning models based on originally published data to assess whether these models' ability to identify financial problems is appreciably lower than that of models based on revised data.

NOTES

- ¹ Banks can use a reverse provision to remove funds from ALLL.
- ² For simplicity, the text refers exclusively to loan performance. Losses on leases are treated similarly.
- ³ Greenawalt and Sinkey (1988) find evidence of income smoothing and further discuss banks' motivation for the practice. See also Wall and Koch (2000).
- ⁴ An interagency statement on March 10, 1999, directs banks to maintain "prudent, conservative, but not excessive, loan-loss allowances that fall within an acceptable range of estimated losses" (Securities and Exchange Commission et al. 1999). The statement also discusses plans for interagency cooperation in issuing guidance on appropriate methodologies, documentation, and disclosure.
- ⁵ In addition to examiner review, a bank's loan-loss accounting may be reviewed by independent auditors. While all commercial banks are subject to exams, not all are subject to external audits. The Federal Reserve requires bank holding companies with consolidated assets of \$500 million or more to have an annual external audit. New banks are also required to have external audits. The Securities and Exchange Commission requires audits for publicly traded companies, including bank holding companies. Finally, the Federal Deposit Insurance Corporation Improvement Act of 1991 requires annual external audits for any bank insured by the Federal Deposit Insurance Corp. with assets greater than \$500 million (Federal Reserve Board of Governors 1994).
- ⁶ The analysis assumes the judgment of examiners is correct—that is, an upward revision to provision expense is taken to mean the initial level of ALLL was, in fact, too low.
- ⁷ As regulators process call report data, substantial effort is devoted to validating the reported information. The primary goal is to ensure the data are accurate before they are published as "final." While the data are typically published about sixty-five days after the

report date, revisions can be made for up to five years.

- ⁸ Satisfactory status corresponds to a safety and soundness rating of 1 or 2. Safety and soundness ratings of 3, 4, and 5 are considered unsatisfactory.
- ⁹ In first quarter 1998, banks began reporting provision for credit losses and no longer reported provision for loan and lease losses. The new provision covers loan and lease losses but also includes provisions for losses on certain types of off-balance-sheet activity. For simplicity, we refer to provision expense in all years as provision for loan and lease losses. Banks continue to report ALLL and now also report an allowance for credit losses, which includes the allowance for losses on off-balance-sheet activity. Comparing the two quantities makes it possible to estimate the size of the provision for losses on off-balance-sheet activity. The provision for losses on this activity is very small overall in comparison with the provision for loan and lease losses, and for the vast majority of banks the provision for off-balance-sheet losses is zero.
- ¹⁰ Similar but not identical results are obtained when the originally reported data are used to calculate the ratios.
- ¹¹ Upward revisions to provision expense tend to occur mostly at small and midsize banks. The incidence is fairly equal for banks with assets under \$100 million, from \$100 million to \$500 million, and above \$500 million but below \$1 billion. Banks with assets of \$1 billion or more have a substantially lower incidence of upward revisions. However, in our sample few downgrades occur in the largest size category. The relative lack of financial problems among the large banks may help explain their low incidence of upward revisions to provision expense.

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