Financial Condition of Depository Banks

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Summary

A bank is an institution that obtains either a federal or state charter that allows it to accept federally insured deposits and pay interest to depositors. In addition, the charter allows banks to make residential and commercial mortgage loans; provide check cashing and clearing services; underwrite securities that include U.S. Treasuries, municipal bonds, commercial paper, and Fannie Mae and Freddie Mac issuances; and other activities as defined by statute.

Congressional interest in the financial conditions of depository banks or the commercial banking industry has increased in the wake of the financial crisis that unfolded in 2007-2009, which resulted in a large increase in the number of distressed institutions. A financially strained banking system would have difficulty making credit available to facilitate macroeconomic recovery.

The financial condition of the banking industry can be examined in terms of profitability, lending activity, and capitalization levels (to buffer against the financial risks). This report focuses primarily on profitability and lending activity levels. Capitalization issues are discussed in CRS Report R42744, *U.S. Implementation of the Basel Capital Regulatory Framework*, by Darryl E. Getter.

The metrics related to asset performance and earnings show an increase in profitability for the banking industry although many small bank institutions are still experiencing distress. Non-current loans still exceed the capacity of the banking industry to absorb potential losses if they were all to become uncollectible. Consequently, lending activities are likely to be restrained until bank loan-loss capacity as well as overall economic conditions improve. Furthermore, profitability in banking is not likely to indicate that pre-crisis lending patterns have resumed. Given the required increases in capitalization buffers to absorb loan defaults as well as the (expected) costs associated with funding loans, profitability trends may differ for banks by size, particularly after accounting for differences in the revenue generating activities of small and large banks.

Contents

Figures

Contacts

Introduction

Financial intermediation is the process of matching savers, who are willing to lend funds to earn a future rate of return, with borrowers, who are presently in need of funds to make transactions. It is expensive, however, for savers to locate, underwrite, and monitor repayment behavior of borrowers. Similarly, it is expensive for borrowers to locate a sufficient amount of savers with funds and favorable lending terms. Hence, banks develop expertise in *intermediation*, or facilitating the transfer of funds from savers to borrowers. Although other institutions (e.g., credit unions, insurance companies, pension funds, hedge funds) also engage in the financial intermediation matching process, this report examines how depository banks are faring in this activity.

A commercial or depository bank is typically a corporation that obtains either a federal or state charter to accept federally insured deposits and pay interest to depositors; make residential and commercial mortgage loans; provide check cashing and clearing services; and may underwrite securities that include U.S. Treasuries, municipal bonds, Fannie Mae and Freddie Mac issuances, and commercial paper (unsecured short-term loans to cover short-term liquidity needs). The permissible activities of depository banks are defined by statute.[1]

The typical intermediation transaction made by banks consists of providing loans to borrowers at higher rates than the cost to borrow the funds from savers, who provide loanable funds in the form of bank deposits. Banks profit from the *spread* between the rates they receive from borrowers and the rates they pay to depositors. Facilitation of the intermediation transaction involves risk. Banks face the risk that borrowers can default on their loans, making it more difficult to repay depositors. In addition, banks face funding or liquidity risk stemming from more frequent movements in short-term interest rates. Banks must have access to an uninterrupted source of short-term funding (deposits) until its long-term loans are fully repaid, which is explained in more detail later in this report, and fluctuations in short rates translates into fluctuations in their profit spreads. Furthermore, depositors could suddenly and simultaneously decide to withdraw their deposits, perhaps due to a sudden change in economic conditions or even speculation about deteriorating economic conditions, resulting in financial distress for a bank or several banks.[2] Hence, bank profitability and financial risk are inextricably linked.

In addition to default and funding risks, financial intermediation increases the vulnerability of borrowers to economic downturns. During business cycle booms, lenders may grow optimistic

[1] Underwriting in banking refers to two types of activities. *Loan underwriting* occurs when a bank performs a (default) risk assessment of a potential borrower to determine whether to extend credit (loanable funds), the amount, and how much to charge the borrower. *Securities underwriting* occurs when a bank agrees to take on the risk of distributing securities (in the form of bonds or stocks) of another entity that wishes to attract outside investors to provide funding. If, however, the bank is unable to find enough interested investors, then it retains any unsold securities and assumes the default risk associated with the entity. The Glass-Steagall Act restricts the securities underwriting activities of depository banks. Depository banks may underwrite federal, state, and local government securities as well as the securities guaranteed by federal or state governments; but they are not allowed to underwrite equity securities (corporate stock). See CRS Report R41181, *Permissible Securities Activities of Commercial Banks Under the Glass-Steagall Act (GSA) and the Gramm-Leach-Bliley Act (GLBA)*, by David H. Carpenter and M. Maureen Murphy.

[2] This phenomenon is known as a bank run. The federal deposit insurance system in the United States was established in the1930s to insure deposits, which helps to sustain public confidence and avoid runs on U.S. banks. See CRS Report R41718, *Federal Deposit Insurance for Banks and Credit Unions*, by Darryl E. Getter.

and increase credit availability as if the ideal economic and financial market conditions will persist.[3] The trade-off or costs associated with an expansion of lending is a corresponding rise in the severity of financial distress should economic conditions suddenly deteriorate. In other words, recessions that occur when individuals have more loan repayment obligations (or more leveraged financially) are likely to be more arduous, in particular if these individuals (via job losses or pay cuts) suddenly face lower income prospects.

Hence, U.S. depository banks are required to comply with *safety and soundness* regulations, which are designed to monitor and buffer against the types of financial intermediation risks that can result in financial distress for banks and the broader economy. The propagation of intermediation risks is curbed when lending activity is restrained, but there is a cost associated with a reduction of financial risk. Recessions are likely to be milder when fewer loan repayment obligations are outstanding, but the trade-off is a less robust economic expansion. Fewer loans translate into fewer transactions that could possibly have spurred greater economic activity.[4] Consequently, determining how much financial intermediation risk is optimal for the banking system to take while simultaneously trying not to undermine economically stimulative lending activity is often a regulatory challenge.

Congressional interest in the financial conditions of depository banks, also referred to as the commercial banking system, has increased following an increase in distressed institutions and widespread credit tightening. The conditions of the banking industry can be examined in terms of profitability, lending activity, and capitalization levels (to buffer against the financial risks); but this report focuses primarily on profitability and lending activity levels. Particular attention will be paid to metrics related to asset performance and earnings of depository banks. These measures show that profitability for the banking industry has improved, but lending activity has not returned to pre-crisis levels.

Important Definitions and Distribution by Size

This report discusses the depository (commercial) banking institutions as having one aggregate balance sheet. The following balance sheet terminology is used.

- Bank *assets* include long-term consumer, residential, and commercial loans that banks originate as well as cash and other financial securities that they hold in their asset portfolios. Bank assets will generate earnings (revenues) or losses, depending upon whether customers repay or default on their loans.
- Bank *liabilities* include the funds that they borrow. When customers (depositors) make savings or checking deposits into a bank, the bank is essentially borrowing those funds for short periods of time in order to lend them out for longer periods of time. The interest paid for these borrowings are, therefore, the costs incurred by the bank to obtain the funds necessary to originate new loans.

[3] See Hyman P. Minsky, *The Financial Instability Hypothesis*, The Jerome Levy Economics Institute, Working Paper no. 74, May 1992.

[4] Bank capital levels may become less effective at reducing intermediation risks if lending activities migrate outside of the regulated banking system and are conducted by institutions that do not hold federally insured deposits.

- Bank *capital* is the difference between the value of assets and liabilities. Bank capital includes items such as common shareholder equity, retained earnings, and provisions set aside for loan and lease losses (discussed in more detail below). Banks that accept federally insured deposits are required to maintain sufficient capital reserves to protect bank creditors from loan defaults by bank customers. Asset (loan) defaults are less likely to result in failure of a bank to repay its shorter-term obligations if sufficient capital is maintained to absorb the losses. If, however, a bank's capital falls below minimum regulatory threshold levels, it would be considered undercapitalized and faces the prospect of being shut down by its regulator, which typically appoints the Federal Deposit Insurance Company (FDIC) [5] as the receiver of the insolvent institution. Consequently, compliance with regulatory capital requirements implies that capital reserves must grow proportionately with bank asset (lending) portfolios.[6]

Assets in the banking industry are not evenly distributed, which means that banking firms are not identical and, for some metrics, must be analyzed separately to get a more accurate assessment of financial conditions. Using data from the FDIC, **Figure 1** illustrates the number of U.S. banks over time by the following size categories of bank asset holdings (defined below): less than $100 million, $100 million-$1 billion, $1 billion-$10 billion, and greater than $10 billion. Community banks are commonly defined as financial institutions with total assets below $1 billion.[7] At the other extreme are the large financial institutions that have $10 billion or more in assets. The number of banks with more than $10 billion in assets has remained relatively constant, ranging from 95 to 108 institutions over the period.

Figure 1 also shows the dollar amount of bank assets in millions of dollars. As of 2012, the FDIC reports that industry assets were $14,450.67 billion. For several decades, bank assets have increased while the number of banking institutions has declined. The smallest of the community banks, those with less than $100 million and collectively holding approximately 1% of all industry assets, have accounted for most of the industry consolidation even prior to the 2007-2009 recession. Banks with more than $10 billion in assets collectively hold approximately 80% of all industry assets. Consequently, profitability and lending activities may differ by bank size.

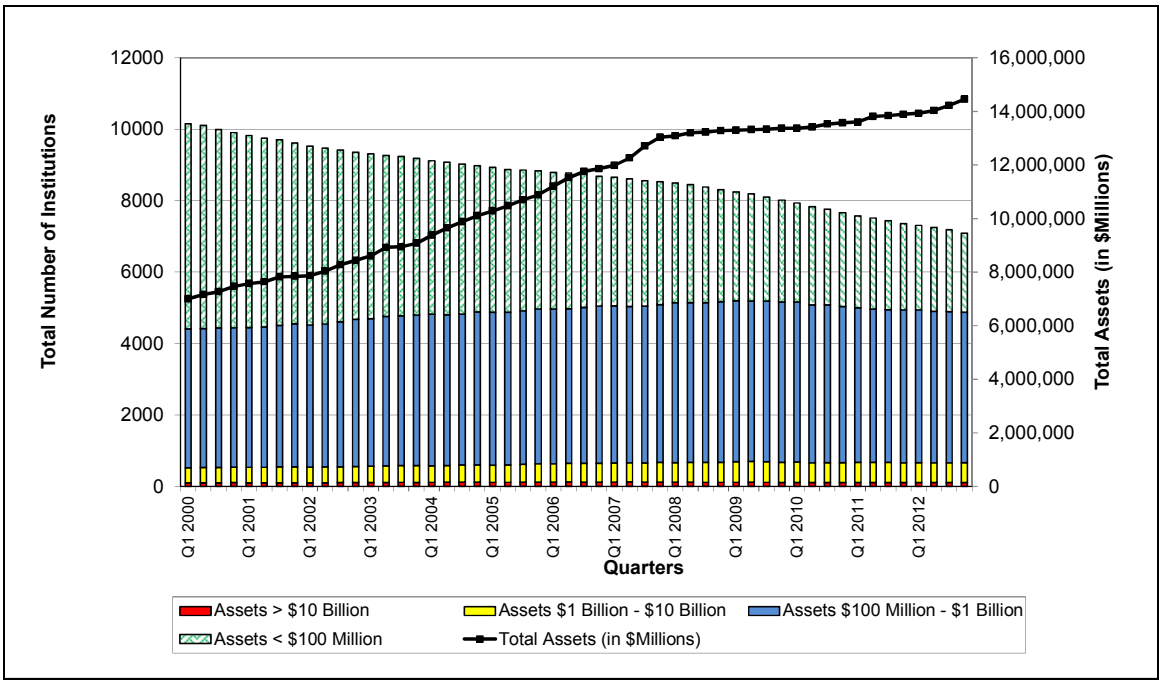
[5] When a bank fails, the Federal Deposit Insurance Corporation (FDIC) typically closes the institution and administers the repayment of depositors. See CRS Report R41718, *Federal Deposit Insurance for Banks and Credit Unions*, by Darryl E. Getter.

[6] Regulators require banks to maintain minimum *capital-asset ratio* levels, thus maintaining the proportional growth of assets and capital. Capital-asset ratios are computed by placing a financial institution's total capital in the numerator of the ratio and then dividing by its total assets, which are usually weighted by degree of default risk. Note that this analysis will focus primarily on the component of capital most closely associated with loan losses rather than discuss the more complex aspects of capital regulation. See Douglas J. Elliot, "A Primer on Bank Capital," The Brookings Institution, January 28, 2010, at http://www.brookings.edu/~/media/research/files/papers/2010/1/29%20capital%20elliott/0129_capital_primer_elliott.pdf; and CRS Report R42744, *U.S. Implementation of the Basel Capital Regulatory Framework*, by Darryl E. Getter.

[7] An alternate and more extensive definition of a community bank is associated with its functions as opposed to its asset size. See Federal Deposit Insurance Corporation, *FDIC Community Banking Study*, Washington, DC, December 2012, at http://www.fdic.gov/regulations/resources/cbi/report/cbi-full.pdf.

Figure 1. FDIC-Insured Institutions by Asset Size and Industry Asset Holdings

2000-2012



Source: FDIC.

Notes: The number of institutions holding $10 billion or more in assets appears as red dots sitting on the horizontal axis. The number of institutions range from 95 to 108 over the entire period.

Overview of Bank Industry Conditions

The banking system has recently seen unusually high numbers of distressed institutions, with failures at rates not seen since the savings and loan crisis that began in 1980 and lasted through the early 1990s.[8] The number of banks that failed, or fell substantially below their minimum capital reserve requirements, increased as the financial crisis of 2008 unfolded. No banks failed in 2005 and 2006, and only three bank failures occurred in 2007.[9] In contrast, the FDIC administered 25 bank failures in 2008, 140 bank failures in 2009, 157 bank failures in 2010, and 92 bank failures in 2011. In 2012, there were 51 bank failures.[10]

Of the 7,083 FDIC-insured institutions in 2012, the FDIC reports that approximately 35% reported negative quarterly income at various quarters after the financial crisis; the percentage of these unprofitable institutions fell to 10.48% in 2012. The FDIC also maintains a problem list of banks at risk of failure because their capital reserves have fallen below regulatory minimum

[8] See Federal Deposit Insurance Corporation, Division of Research and Statistics, *Chapter 4: The Savings and Loan Crisis and Its Relationship to Banking*, History of the Eighties—Lessons for the Future: An Examination of the Banking Crises of the 1980s and Early 1990s, Washington, DC, at http://www.fdic.gov/bank/historical/history/167_188.pdf.

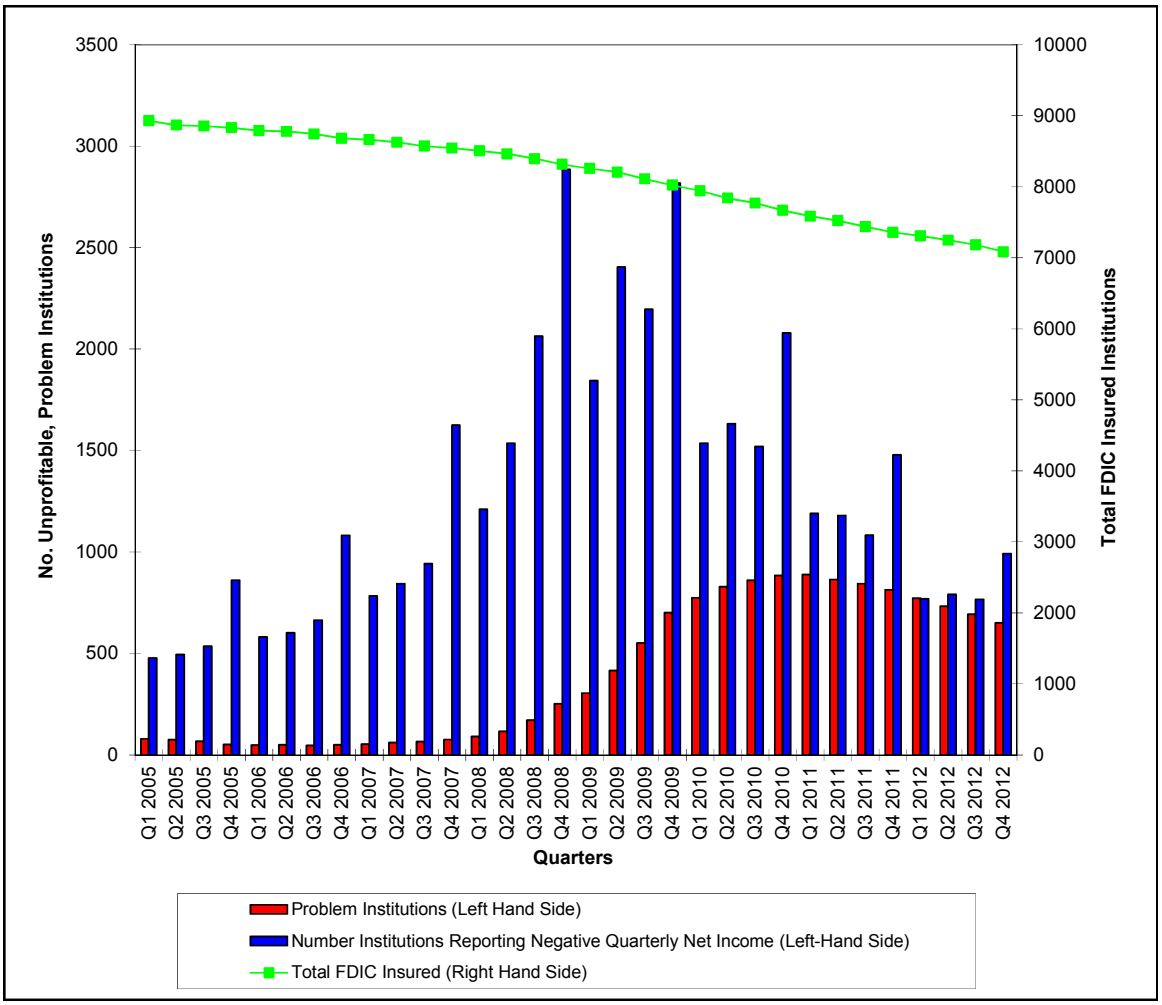
[9] See FDIC *Quarterly Banking Report* as of December 31, 2009, at http://www2.fdic.gov/qbp/2009dec/qbp.pdf.

[10] See FDIC *Quarterly Banking Report* as of December 31, 2012, at http://www2.fdic.gov/qbp/2012dec/qbp.pdf.

levels (but perhaps not yet far enough below to be shut down). The number of depository institutions on the FDIC's problem list rose from 52 banks in 2005, peaked at 888 in the first quarter of 2011, before falling to 651 by the end of 2012. The assets of the problem institutions, however, total $232.7 billion, representing approximately 1.6% of total industry assets. Hence, small institutions are likely to still be experiencing financial distress. **Figure 2** shows the number of FDIC-insured banks, the number of problem banks, and the number of unprofitable institutions by quarter since 2005. Note that an unprofitable institution may not also be counted on the FDIC's problem institution list if it has enough capital to absorb its quarterly revenue shortfalls and still meet the *adequately capitalized* or *well-capitalized* thresholds.[11]

Figure 2. Total FDIC Insured, Total Problem, Total Unprofitable Institutions

2005-2012



Source: FDIC.

Notes: The number of institutions reporting negative quarterly net income is computed by multiplying the total number of FDIC-insured institutions by the percentage of unprofitable institutions reported by the FDIC.

[11] The italicized terms refer to the capitalization categories established under the Prompt Corrective Action system of bank regulatory rules, which may be found at http://www.fdic.gov/regulations/laws/rules/2000-4400.html.

The industry is returning to profitability. The FDIC reports that industry net income rose to $141.3 billion, representing the highest net income level since 2006.[12] Although lending growth has increased, the FDIC reports that most of the earnings increase can be attributed to increases in noninterest (fee) income and lower provisions set aside for anticipated loan losses, which will be discussed below.

Return on assets (RoA) and return on equity (RoE) are commonly used metrics to gauge bank profitability. RoA is computed with net income (total assets minus total liabilities) in the numerator and average total assets in the denominator. The RoA measures the financial return of a bank's average assets or lending activities. Given that the banking industry relies heavily upon borrowed liabilities to fund assets, the numerator of the ratio would be significantly smaller than the denominator; therefore, a RoA of approximately 1% is considered profitable.[13] RoE is computed with net income in the numerator and the total amount of common shareholder equity in the denominator. The RoE is a measure of financial return for shareholders. Unlike RoA, RoE does not have a barometer of "acceptable" performance because it can increase due to either asset profitability or depleting capital positions, making it difficult to establish a benchmark standard.[14]

The FDIC reported industry declines in both RoA and RoE during the 2007-2009 recession as the numerators of both ratios fell even faster than their denominators. The negative returns coincided with the wave of loan defaults that also occurred during the recession, which led to deterioration of capital, increases in the number of banks on the FDIC's problem list, and increases in bank failures. The RoA and RoE measures, which are illustrated in **Figure 3**, have exhibited a reversal in course since the recession.

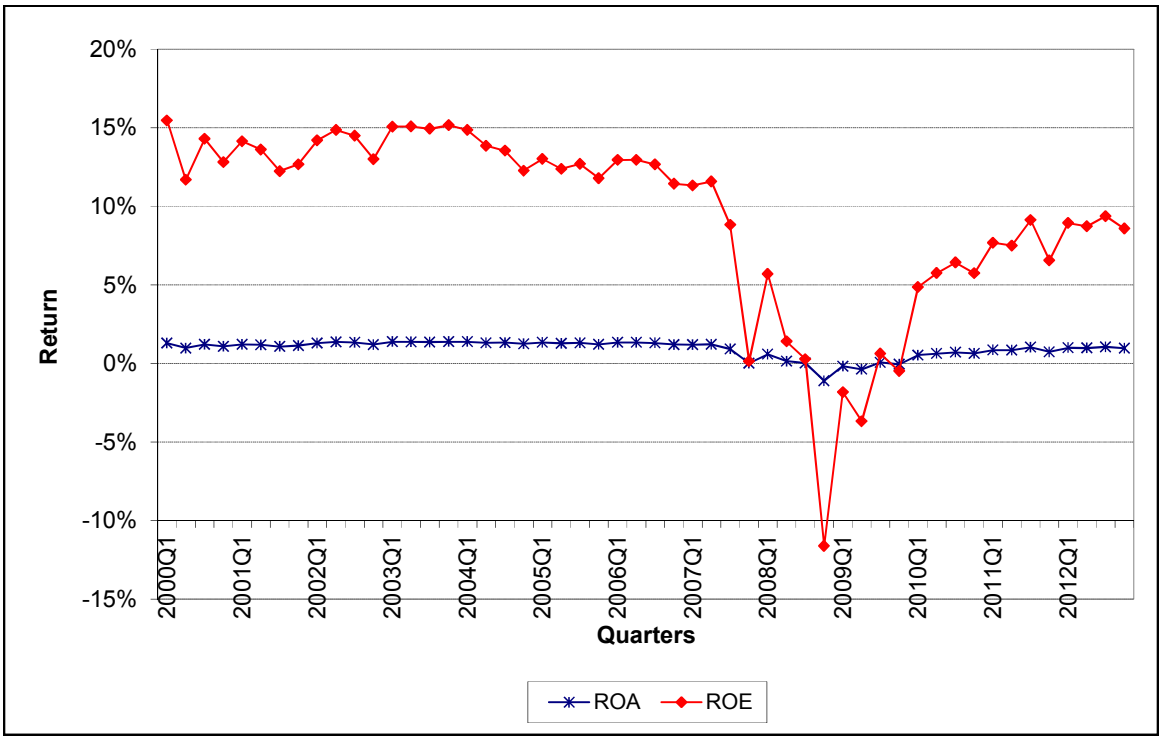
[12] See FDIC press release at http://fdic.gov/news/news/press/2013/pr13014.html.

[13] See Ricki Helfner, chairman, "On the Release of the Quarterly Banking Profile," Speech at Federal Deposit Insurance Corporation, Washington, DC, September 12, 1995, at http://www.fdic.gov/news/news/speeches/archives/1995/sp12sept95.html.

[14] See European Central Bank, *Beyond RoE—How to Measure Bank Performance*, Appendix to the Report on EU Banking Structures, Germany, September 2010, http://www.ecb.europa.eu/pub/pdf/other/beyondroehowtomeasurebankperformance201009en.pdf.

Figure 3. Return on Assets, Return on Equity

2000-2012



Source: FDIC.

As previously stated, declines in RoA and RoE may be attributed to loan repayment problems that led to an increase in the numbers of distressed institutions. *Non-current assets* are loans that borrowers do not repay as scheduled. The *allowances for loan and lease losses* (ALLL) is a component of regulatory bank capital set aside for anticipated (or estimated) loan losses. *Loan loss provisioning* refers to increasing the amount of ALLL when loan default risks increase; decreases are referred to as *charge-offs* or deductions from ALLL when lenders determine that non-current assets will not be repaid.[15] **Figure 4** shows the increase in both noncurrent assets and charge-offs after 2007.

Banking organizations are required to hold capital for both anticipated and unanticipated default risks. The federal bank regulators believe that most banking organizations already hold sufficient capital to meet the proposed higher requirements to buffer against *unanticipated* losses.[16] On the

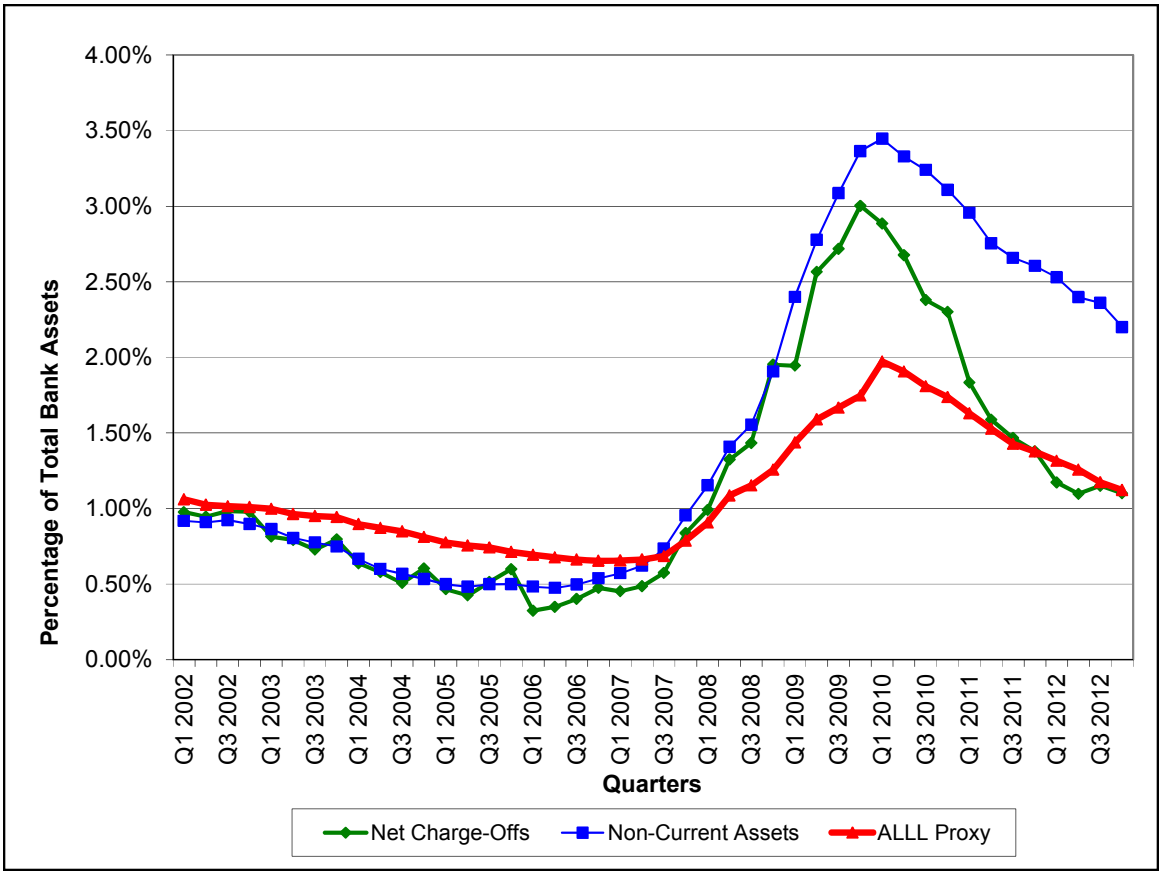
[15] Net charge-offs are charge-offs minus the delinquent loans that recover. Mortgage and credit card charge-offs differ. A credit card loan charge-off can be recognized immediately, but writing off mortgages takes considerably more time. When it becomes clear that a mortgage default cannot be cured, the property is generally seized via foreclosure and must be resold to recover some losses. For more information on the foreclosure process, see Appendix A of CRS Report R41572, *Incentives and Factors Influencing Foreclosure and Other Loss Mitigation Outcomes*, by Darryl E. Getter.

[16] See Department of the Treasury: Office of the Comptroller of the Currency, Federal Reserve System, Federal Deposit Insurance Corporation, "Regulatory Capital Rules: Regulatory Capital, Implementation of Basel III, Minimum Regulatory Capital Ratios, Capital Adequacy, Transition Provisions, and Prompt Corrective Action," 77 *Federal Register* 52796, August 30, 2012 at http://www.gpo.gov/fdsys/pkg/FR-2012-08-30/pdf/2012-16757.pdf; and U.S. Congress, Senate Committee on Banking, Housing, and Urban Affairs, *Basel III*, Testimony of Michael S. Gibson, Director, Division of Banking Supervision and Regulation, Federal Reserve Board, 112th Cong., 2nd sess., November (continued...)

other hand, ALLL requirements change more frequently (quarterly) or when expected credit losses may have increased. Hence, a bank may have sufficient capital to meet unanticipated defaults, which may be associated with unforeseen events (such as a sudden increase in the unemployment rate), but it may still need to increase ALLL provisions should a borrower begin showing signs of repayment difficulties that may go into default. If banks can absorb anticipated loan losses using current income earnings, their capital will be left intact for unanticipated losses.

Figure 4. Non-Current Assets, Net Charge-Offs, Allowances for Loan & Lease Losses (ALLL Proxy)

2002-2012



Source: FDIC.

Notes: The ALLL proxy is computed by CRS using FDIC data.

The FDIC reports a continued decline in aggregate ALLL provisioning as of 2012.[17] As mentioned earlier, the FDIC reported that lower levels of provisions that were set aside for distressed loans was an important factor in determining industry profitability in 2012. The ratio of

(...continued)

14, 2012 at http://www.federalreserve.gov/newsevents/testimony/gibson20121114a.htm.

[17] ALLL provisioning declined for thirteen consecutive quarters as of December 31, 2012. For more details on the decline in loan loss provisions, see FDIC *Quarterly Banking Reports* for March 31, 2012 at http://www2.fdic.gov/qbp/2012mar/qbp.pdf and December 31, 2012 at http://www2.fdic.gov/qbp/2012dec/qbp.pdf.

aggregate ALLL provisioning to total bank assets, also shown in **Figure 4**, is an ALLL proxy indicating that loan loss provisioning matched and often exceeded the *anticipated* percentage of problem assets prior to 2007, which are composed of net charge-offs and non-current assets.[18] The ALLL indicator suggests that the amount of loan loss provisioning after the end of 2012 appears to cover net charge-offs; however, the percentage of non-current loans must decline even more relative to the current level of ALLL provisioning (or ALLL provisioning must increase more) before the industry can fully cover its anticipated default risks.

Although the ALLL indicator in **Figure 4** was constructed for illustrative purposes, the *coverage ratio*, which is defined as the amount of loan loss reserves and equity per dollar of noncurrent loans, is more commonly used to assess the extent of non-performing assets relative to ALLL levels.[19] Despite industry efforts to increase loan loss provisioning, the more rapid pace of non-current loans led to a substantial decline in the industry coverage ratio, shown in **Figure 5**. A coverage ratio below 100% indicates that there is insufficient ALLL to cover weak loans that could go into further distress. Consequently, regulators are requiring banks to increase loan loss provisioning (as well as other components of regulatory capital) to levels that better match the levels of problem loans.[20]

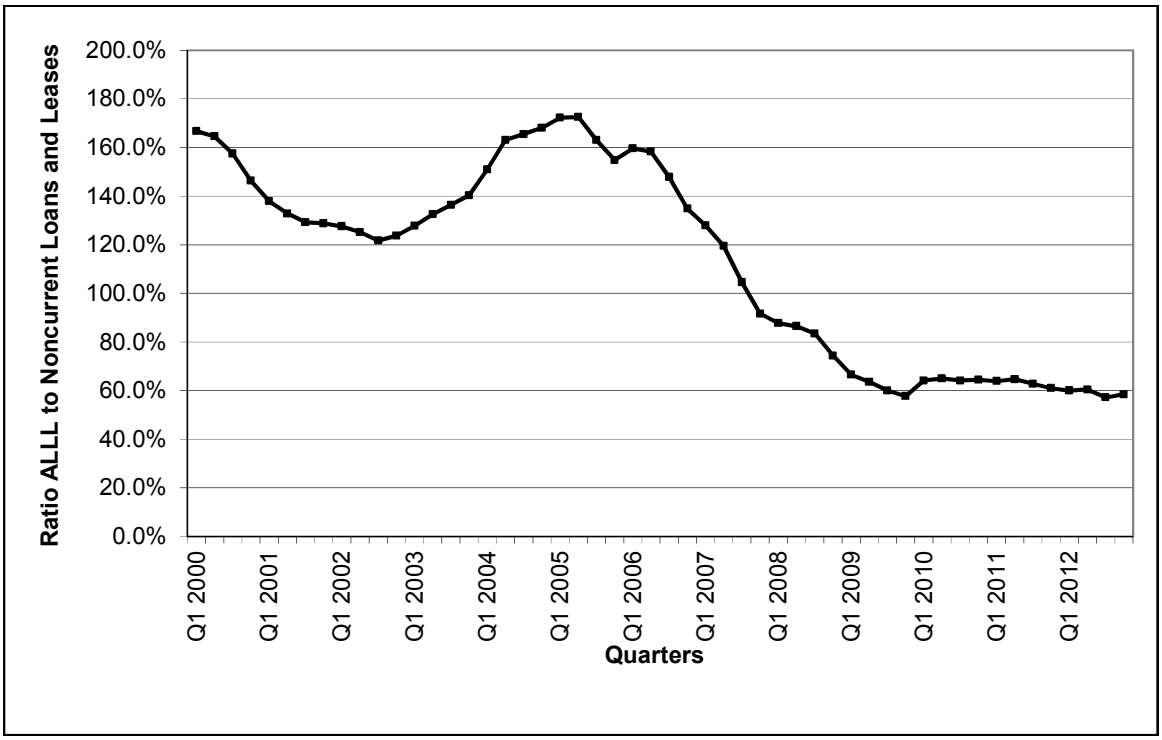
[18] The ratio of ALLL-to-total assets in this analysis follows a similar practice found in Luc Laeven and Giovanni Majnoni, "Loan Loss Provisioning and Economic Slowdowns: Too Much, Too Late?" *Journal of Financial Intermediation*, vol. 12, no. 2 (April 2003), pp. 178-197. Loan loss reserve proceeds, however, must come from current income earnings as opposed to total assets.

[19] See James B. Thomson, "Current Banking Conditions, FDIC-Insured Institutions," Federal Reserve Bank of Cleveland, *Economic Trends*, June 1, 2010, at http://www.clevelandfed.org/research/trends/2010/0610/02banfin.cfm.

[20] In addition to responding to higher balance sheet risks, regulators are implementing Basel II.5, Basel III, and the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank Act; P.L. 111-203), which collectively will result in higher bank capital requirements. See CRS Report R42744, *U.S. Implementation of the Basel Capital Regulatory Framework*, by Darryl E. Getter.

Figure 5. Coverage Ratio

2000-2012



Source: FDIC.

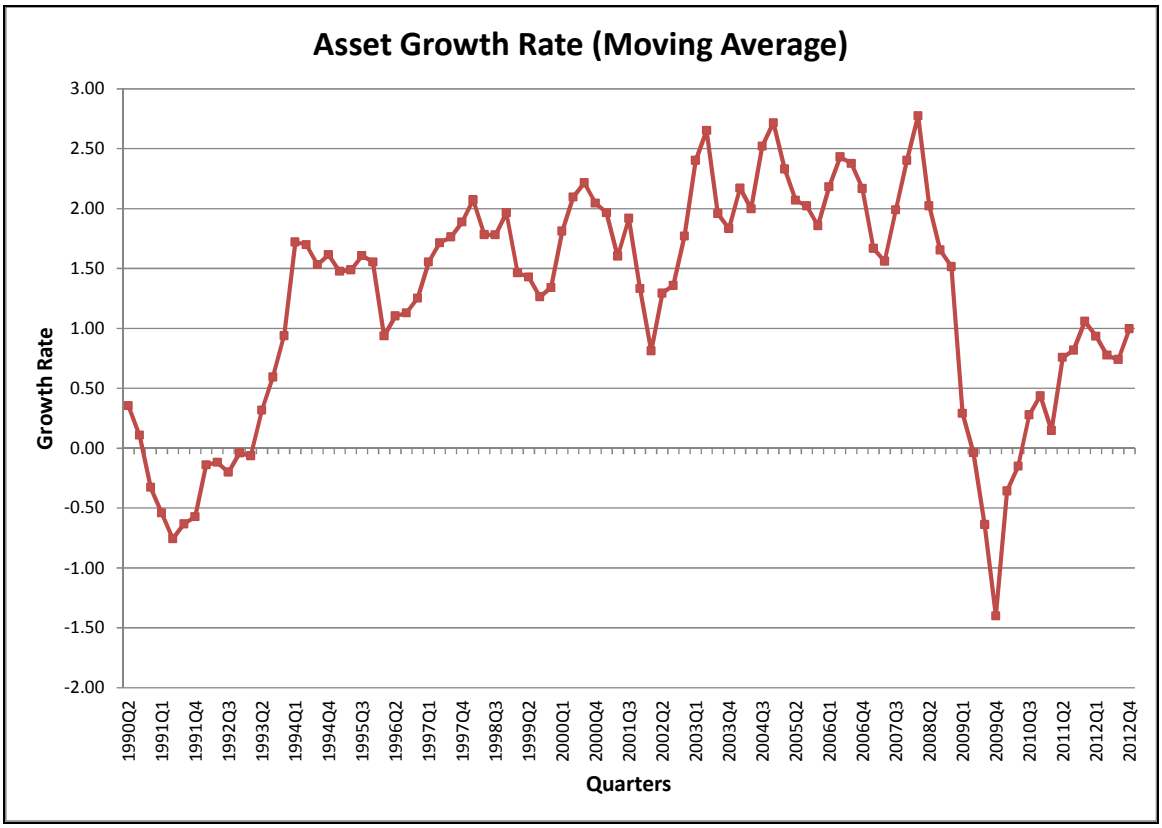
As regulators have taken measures to restore ALLL and other components of bank capital to higher levels, the growth rate of bank lending portfolios is likely to be affected. Similarly, a weak demand for loans or decline in the number of borrowers deemed creditworthy can also cause banks to make fewer loans, meaning that asset portfolios would grow at a slower pace.[21] The asset growth rate is computed as the percentage change in total assets from quarter to quarter, and is shown in **Figure 6**. The asset growth rate fell below negative 2% beginning in the first quarter of 2009, which had not occurred since the 1990-1991 recession[22], and remained negative until a year later; 2010 also saw negative asset growth during the second and fourth quarters. Given the magnitude of loan repayment problems, banks grew more cautious about lending (or growing their asset portfolios) to avoid the risk of further weakening their ALLL and capital reserve positions, which are more difficult to keep in regulatory compliance in a distressed environment. Consequently, although the rate of bank lending has increased since the recession, it has not returned to pre-recessionary levels despite the industry's return to profitability.

[21] See CRS Report R41623, *U.S. Household Debt Reduction*, by Darryl E. Getter.

[22] See National Bureau of Economic Research Business Cycle Dating Committee, March 1991, at http://www.nber.org/March91.html.

Figure 6. Asset Growth Rate

1990-2012



Source: FDIC.

Notes: The asset growth rate is shown as a moving average, which was computed by CRS.

Overview of Revenue Composition by Bank Size

As previously stated, banks typically borrow funds from depositors for shorter periods of time relative to their originated loans. Banks must continuously renew their short-term borrowings until longer-term loans have been fully repaid. For example, suppose a bank originates a consumer loan that is expected to be repaid in full over two years. Over the two years that the loan is being repaid, the bank will simultaneously "fund the loan," meaning that it will treat its depositors' funds as a sequence of quarterly (for a total of eight quarters) or monthly (for a total of 24 months) short-term loans and make periodic interest payments to depositors.[23] The spread or difference between lending long and borrowing short is known as the *net interest margin*.

Smaller banks typically engage in "relationship banking," meaning that they develop close familiarity with their respective customer bases and typically provide financial services within a circumscribed geographical area. Relationship banking allows these institutions to capture

[23] For example, if a bank originates a two-year loan at a fixed 6% interest rate and pays depositors a 2% return, then the net interest margin or spread would be 4%. Given that the 6% rate is fixed, fluctuations in short-term interest rates mean that the spread would also fluctuate over the two years that the loan is being repaid.

lending risks that are unique, infrequent, and localized. These institutions, which rely heavily on commercial (real estate and retail) lending and funding with deposits, typically have higher net interest margins than large banks. Funding loans with deposits is cheaper than accessing the short-term financial markets, particularly for small institutions that do not have the transaction volume or size to justify the higher costs.

In contrast, large institutions typically engage in "transactional banking" or high-volume lending that employs automated underwriting methodologies that often cannot capture atypical lending risks.[24] Large banks are not as dependent upon deposits to fund their lending activities given their greater ability to access short-term money markets. Large banks typically have lower spreads because their large-scale activities generate large amounts of fee income from a wide range of activities, which can be used to cover the costs of borrowing in the short-term money markets.[25] Revenues are earned by originating and selling large amounts of loans to nonbank institutions, such as government-sponsored enterprises (Fannie Mae and Freddie Mac) and non-depository institutions that hold financial assets (e.g., insurance companies, hedge funds). A large share of fees are still generated from traditional banking activities (e.g., safe deposit, payroll processing, trust services, payment services) and from facilitating daily purchase and payment transactions, in which service fees may be collected from checking, money orders, and electronic payment card (debit and credit) transactions.[26] Hence, transactional or high-volume banking activities allow large banks to generate fee income and engage in financial transactions characterized by minimum deal size or institutional size requirements, which simultaneously act as a barrier to participation by community banks.[27]

Given the differences in the composition of bank revenue streams, the net interest margins and fee income streams are illustrated by asset size categories. **Figure 7** presents the net interest margins (or spreads) by bank size. By 2009, the net interest margins had declined for small banks, but they still remained higher over time than the margins for larger banks. The net interest margins for large banks increased over the recession period as they experienced a large influx of deposits during the recession, perhaps due to uncertainty in the money market; this "flight to safety" influx resulted in a substantial drop in their funding costs.[28] In other words, large banks

[24] For more information on automated underwriting, see Wayne Passmore and Roger Sparks, *The Effect of Automated Underwriting on the Profitability of Mortgage Securitization*, Federal Reserve Board, Finance and Discussion Series 1997-19, Washington, DC, 1997, at http://www.federalreserve.gov/pubs/feds/1997/199719/199719abs.html.

[25] See Judy Plock, Mike Anas, and David Van Vickle, "Does Net Interest Margin Matter to Banks?," Federal Deposit Insurance Corporation, *FDIC Outlook*, June 2, 2004, at http://www.fdic.gov/bank/analytical/regional/ro20042q/na/infocus.html.

[26] See CRS Report R41529, *Supervision of U.S. Payment, Clearing, and Settlement Systems: Designation of Financial Market Utilities (FMUs)*, by Marc Labonte.

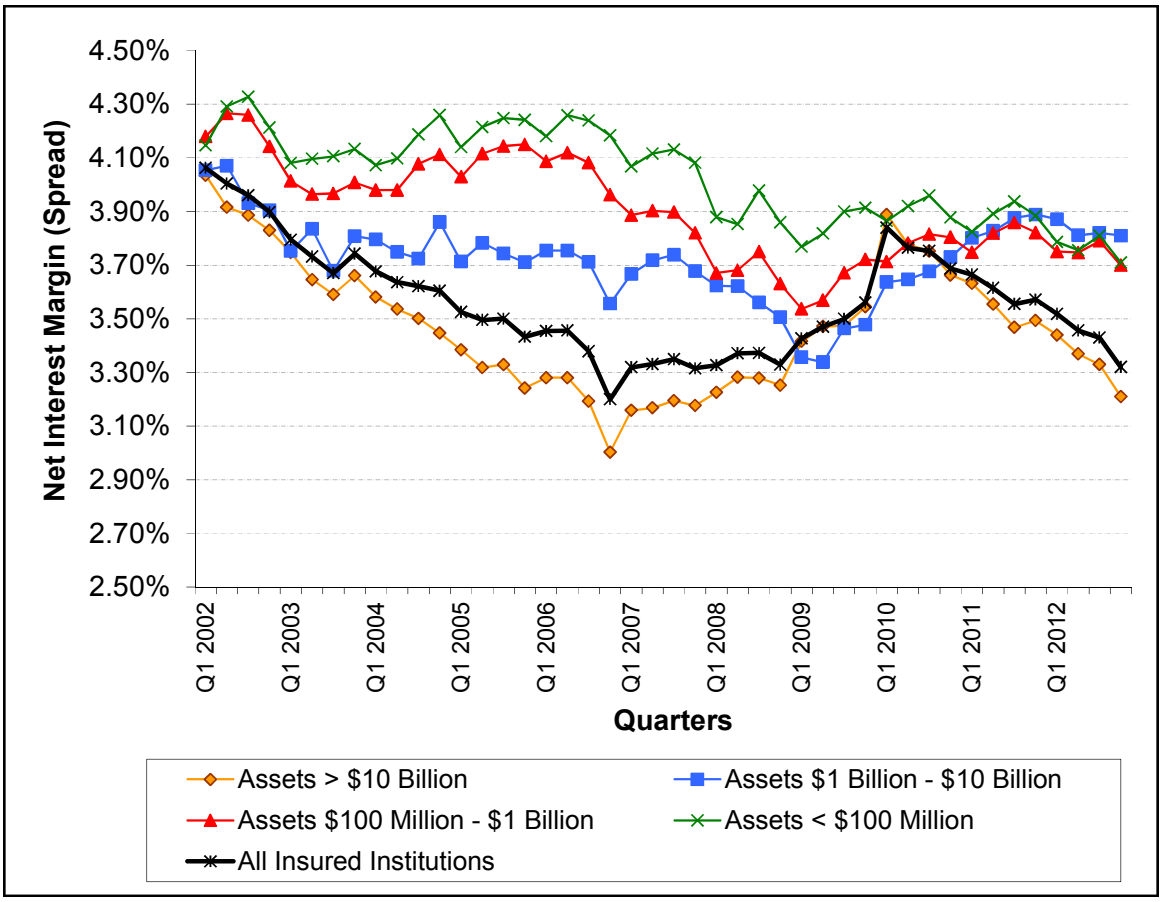
[27] See Conference of State Bank Supervisors, Community Banks and Capital: Assessing a Community Bank's Need and Access to Capital in the Face of Market and Regulatory Challenges, December 2011, at http://CSBS-CommunityBanksCapitalWhitePaper120811.pdf.

[28] For more information on the influx of deposits into the banking system, see Paul Davis, "In Cash Glut, Banks Try to Discourage New Deposits," *American Banker*, July 2010, at http://www.americanbanker.com/bulletins/-1023018-1.html; Office of the Comptroller of the Currency, *Semi-Annual Risk Perspective*, Spring 2012, at http://occ.gov/publications/publications-by-type/other-publications-reports/semiannual-risk-perspective/semiannual-risk-perspective-spring-2012.pdf. Many depositors may have moved money to larger banks in response to uncertainty in the money markets. For discussions about money market funds falling below $1 per share, see Nada Mora, "Can Banks Provide Liquidity in a Financial Crisis?," *Economic Review, Federal Reserve Bank of Kansas City*, Third Quarter 2010, pp. 31-68; CRS Report R42083, *Financial Stability Oversight Council: A Framework to Mitigate Systemic Risk*, by Edward V. Murphy; and CRS Report R42787, *An Overview of the Transaction Account Guarantee (TAG) Program and the Potential Impact of Its Expiration or Extension*, by Sean M. Hoskins.

were able to rely relatively less on short-term financial markets and could, instead, take advantage of cheaper funding from deposits. Although net interest margins may appear to be returning to pre-recession trends, the future performance of this spread would still be affected by any of the following factors. The spread may be affected by an increase in liquid asset holdings (e.g., securities backed by the U.S. federal government), perhaps due to weaker demand for more illiquid loans (e.g., mortgages, commercial loans) or lower capital requirements associated with holding more liquid loans. The spread may also be affected by the amount of deposits that remain or flow out of the banking system as the economy strengthens. Hence, it has become more challenging to predict future profitability arising from more traditional lending activities.

Figure 7. Net Interest Margins by Bank Size Categories

2002-2012



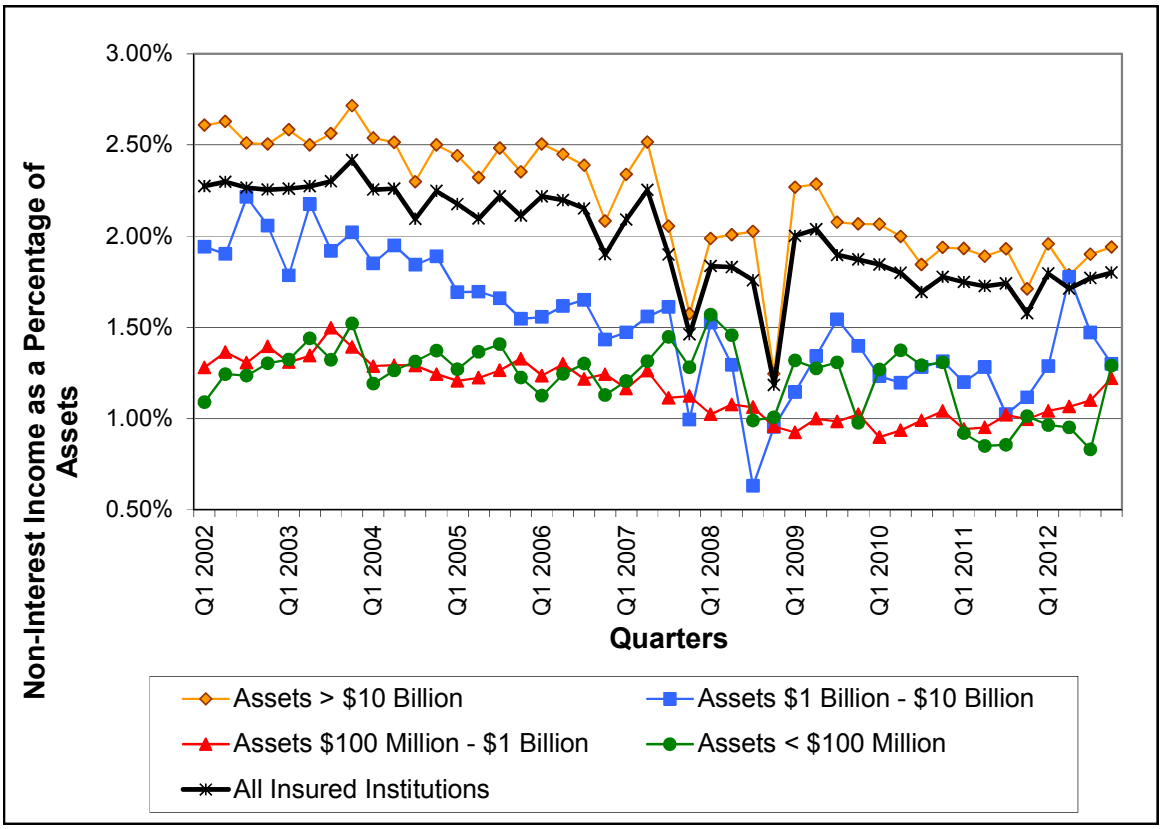
Source: FDIC.

Figure 8 presents non-interest income as a percentage of assets by bank size. As mentioned earlier, the FDIC reported that non-interest was an important determinant of industry profitability in 2012. The overall profitability trend of fee generating activities has rebounded since the recession, but there appears to be more volatility in the fee income revenues of smaller institutions. Although greater reliance upon fee income as a percentage of (large) bank income suggests a reduction in exposure to credit and funding risks, it may not necessarily translate into

greater stability of earnings streams.[29] For example, banks no longer collect fees by selling mortgage loans to the private-label mortgage securitization market, which was largely abandoned by investors at the beginning of the financial crisis.[30] In other words, high-volume fee-generating transactions are still dependent upon fluctuations in investor demand for securities that are created from securitized (structured finance) deals, which adds variability to income. In addition, regulatory costs may reduce fee income. Recent regulation of credit card fees as well as on fees that large institutions may collect from debit transactions would affect the earnings streams.[31] Banks would likely seek new opportunities to provide financial services to generate new fee revenues. Hence, future fee generating activities are still affected by financial market uncertainty.

Figure 8. Percentage of Non-Interest Income by Bank Size Categories

2002-2012



Source: FDIC.

[29] Robert DeYoung and Tara Rice, "How Do Banks Make Money? The Fallacies of Fee Income," Federal Reserve Bank of Chicago, *Economic Perspectives*, 2004, pp. 34-51, at http://www.chicagofed.org/digital_assets/publications/economic_perspectives/2004/ep_4qtr2004_part3_DeYoung_Rice.pdf.

[30] For information on securitization markets issues, see U.S. Congress, Senate Committee on Banking, Housing, and Urban Affairs, Subcommittee on Securities, Insurance and Investment, *Securitization of Assets: Problems and Solutions*, Testimony of George P. Miller, American Securitization Forum, 111th Cong., 1st sess., October 7, 2009.

[31] See CRS Report RL34393, *The Credit Card Market: Recent Trends and Regulatory Actions*, by Darryl E. Getter; and CRS Report R41913, *Regulation of Debit Interchange Fees*, by Darryl E. Getter.

Conclusion

The banking industry has exhibited signs of improved profitability since the 2007-2009 financial crisis, but lending has not returned to pre-crisis levels. Bank profitability ratios have returned to positive territory. Net interest margins and fee income as a percentage of assets are less volatile now than when the U.S. economy was in recession. The industry, however, still has more non-current assets relative to ALLL that can absorb potential losses; and there are still many banks on the FDIC's problem list. These factors may be influencing the asset growth rate, which has been positive since 2011, but remains below the average rate of growth observed over the past two decades.

Profitability in the banking industry is not necessarily evidence of a return to previous lending patterns given that the industry is adapting its business model under the new regulatory environment. Lending costs are expected to increase for depository banks as a result of higher overall capital requirements established by the Basel Committee on Banking Supervisors and by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (P.L. 111-203, 124 Stat. 1376).[32] Given that large banks are less dependent upon traditional lending activities than smaller banks, the large institutions may be able to generate enough fee income from a wide range of other financial activities to remain profitable even if lending activity does not resemble pre-recessionary levels. Hence, profitability trends may differ for banks by size.

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[32] For more information on the Basel Committee of Banking Supervisors and the Basel III Accord, see http://www.bis.org/.