These posts were part of a series titled "Supervising Our Nation's Financial Institutions." The series, written by Julie Stackhouse, executive vice president and officer-in-charge of supervision at the St. Louis Federal Reserve, appeared over several months from July 2018 – January 2019. The blog can be accessed at https://www.stlouisfed.org/on-the-economy/

The ABCs of CAMELS

Tuesday, July 24, 2018

By Julie Stackhouse, Executive Vice President

The health of banks is important to everyone, whether a borrower or a saver, an individual or a business. Subject to certain restrictions, bank deposits up to $250,000 are insured by the Federal Deposit Insurance Corp. The agency's deposit insurance fund is financed by banks through fees. For catastrophic events, the fund is further supported by a $100 billion line of credit at the Treasury Department, meaning that taxpayers serve as the ultimate backstop in the event of a crisis.[1]

Because of the government safety net and in support of financial stability, bank supervisors monitor the health of banks through periodic examinations. At the conclusion of its exam, each bank is assigned a rating—called CAMELS—that allows comparisons of bank health over time and with peers.

CAMELS as a Health Monitor

CAMELS is an acronym representing its six components:

- Capital adequacy
- Asset quality
- Management
- Earnings
- Liquidity
- Sensitivity to market risk

Banks are rated on each component, and a composite rating is also computed. Ratings range from one to five:

- 1 is "strong."
- 2 is "satisfactory."
- 3 is "less than satisfactory."
- 4 is "deficient."
- 5 is "critically deficient."

To earn a 1 on any component, a bank must show the strongest performance and risk management practices in that area. Alternatively, a rating of 5 indicates weak performance, inadequate risk management practices and the highest degree of supervisory concern.

The overall, or composite, rating for each bank is based on the six components. However, it is not an arithmetic average of the individual component ratings. Rather, some components are weighed more heavily than others based on examiner judgment of risk.

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[1] The FDIC may borrow money from the U.S. Treasury, the Federal Financing Bank and individual banks to replenish the fund on a temporary basis. See the FDIC's Federal Deposit Insurance Act page for more information.

For community banks, the asset quality rating is critical because of the size of the loan portfolio at small banks. We'll take a deeper dive into asset quality and the other individual components of CAMELS in upcoming posts.

Who Sees the Rating?

At the conclusion of each examination, the bank's rating is revealed to senior bank management and the board of directors. If the rating is 3, 4 or 5, the board is typically required to enter into an agreement with bank supervisors to correct the issues. The most serious deficiencies can result in formal supervisory actions that can be enforced in court.

Each bank's CAMELS ratings and examination report are confidential and may not be shared with the public, even on a lagged basis. In fact, it is a violation of federal law to disclose CAMELS ratings to unauthorized individuals[2]. Outsiders may monitor bank health through private-sector firms that use publicly available financial data to produce their own analysis of bank health, sometimes even using their own rating system.

In next month's post, we'll begin a discussion of the individual components of the CAMELS rating, starting with the "C," or capital, component.

[2] Violators may be assessed criminal penalties under 18 USC §641.

CAMELS Ratings: Capital Adequacy

Thursday, August 23, 2018

By Julie Stackhouse, Executive Vice President

The Importance of Capital

For any business, capital is an important line of defense in the event of heavy losses. This is especially true for banks, which operate with relatively low levels of capital relative to the size of their balance sheets.

With that in mind, examiners assess capital adequacy based on a bank's business strategy, asset quality, concentration risks and growth targets. Federal law establishes minimum ratios of capital to assets, and mandates restrictions or penalties—called Prompt Corrective Action—when the capital ratios of banks deteriorate to unsafe levels.[3]

Quantitative Factors

Examiners consider a number of capital ratios when assessing capital adequacy. The ratios are calculated by dividing the quantity of capital by the bank's total assets or, depending on the ratio, by assets that are weighted for risk. The risk-weighting of assets recognizes the loss potential of different balance sheet strategies as well as the risk of off-balance sheet commitments such as unused lines of credit and derivative contracts.

In addition to making sure capital ratios meet regulatory minimums, examiners also compare a bank's capital ratios with those of similar banks. This "peer group" analysis is important in understanding the relative strength of capital.

Qualitative Factors

Examiners also consider a variety of qualitative factors when assessing the capital adequacy of a bank. These factors include the bank's liquidity position, managerial strength, asset quality, earnings capacity and sensitivity to market risk. Concentrations in the bank's loan book, for example, may warrant capital in excess of regulatory minimums.[4] Credit concentrations can significantly impair capital should the credit deteriorate in quality.

Those not familiar with the examination process may wonder why managerial capability is considered in the assessment of capital adequacy. Examiners have long found that the quality, experience and depth of bank management are critical factors in the long-term financial health of a bank. Strong management teams proactively implement policies, procedures and risk limits that promote capital protection.

Capital Planning

Besides maintaining minimum capital ratios, bank leadership is expected to implement adequate capital planning practice. Strong capital planning considers strategic growth opportunities, acquisition plans, changes in balance sheet composition and dividend/capital repurchase plans.

Many banks "stress" capital ratios to reflect the potential impact of negative economic or financial events. These exercises allow bank management to identify actions that can be taken during such events, including expense reductions, new capital issuance and dividend reductions.

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[3] See Stackhouse, Julie. "Views: Prompt Corrective Action: What Does It Mean for a Bank's Liquidity?" Central Banker, Fall 2008.

[4] An asset concentration exists when extensions of credit possess similar risk characteristics and, when aggregated, exceed 25 percent of the bank's capital structure.

The capital of large banking organizations is routinely stressed by regulatory capital planning exercises, including the Comprehensive Capital Analysis and Review process and the Dodd-Frank Act Stress Test.[5]

The Capital Adequacy Rating

After carefully considering the factors noted above, the examiner will assign a rating to capital adequacy ranging from 1 (strong) to 5 (critically deficient). The capital component rating is an important factor in the bank's overall CAMELS rating. Examiners work closely with banks assessed a capital adequacy rating of 3, 4 or 5 to identify ways to strengthen capital protection.

[5] See "Stress Tests and Capital Planning." Board of Governors of the Federal Reserve System, June 28, 2018.

CAMELS Ratings: Asset Quality

Tuesday, September 25, 2018
By Julie Stackhouse, Executive Vice President

A bank's assets—including loans, leases, securities and derivative contracts—drive its earnings performance and, therefore, its long-term viability. In short, banks make money by making loans and investments that generate income and can be repaid.

Risky Business

Lending is a risky business for banks because of the uncertainty of loans. To make loans, bankers use personal and corporate deposits placed at the bank, as well as other funding sources. If loans are not repaid, the bank will lose money. Inevitably, some loans will default despite the best intentions of bankers and their customers.

Because of the importance of asset quality to a bank's viability—especially a community bank's—examiners pay close attention to the level, distribution, severity and trend of poor-performing assets.[6] In reviewing asset quality, examiners first consider the risk management practices of the bank, including:

- The ability of bank personnel to underwrite, monitor, manage and control risks under current and stressed market conditions
- Internal loan review processes that help catch problem assets early and provide for good management reports
- Policies, procedures and risk limits that guide lending decisions and reflect the "risk appetite" of the bank's board of directors
- Active internal monitoring of credit quality with action taken to address noted weaknesses

Examiners then test the bank's process by reviewing a statistical sample of assets. Sampling allows the examiners to determine management's effectiveness in implementing the policies, procedures and risk limits set out by the board of directors.

Other Considerations

While review of policies and a statistical sample of the assets themselves are keys to a bank examination, the asset quality rating also depends on the level of funds redirected from earnings to cover potential and known losses on assets. This reserve is called the allowance for loan and lease losses (ALLL).

Examiners look at both the level of the ALLL—making sure it is proportionate to the level of credit risk in the portfolio—and the methodology used to determine it. When loans go bad, the bank forecloses on the loan, and any losses are offset by the reserve.

Examiners also consider any concentration of assets, such as unusually high volumes of lending to real estate developers. Losses from unexpected changes in economic, industry or geographic conditions are magnified when concentrations exist.

Assigning the Rating

After completing this comprehensive review, examiners assign an asset quality rating of 1 to 5 using the following definitions:

1. Strong asset quality and credit administration practices

[6] In practice, examiners use a number of labels or categories (some of them overlapping) to assess asset quality, including problem, classified, delinquent, nonaccrual, nonperforming and restructured.

2. Satisfactory
3. Less than satisfactory
4. Deficient
5. Critically deficient

A bank's asset quality rating is an important input into other CAMELS components. Should asset quality deteriorate, more funds must be set aside to fund the ALLL, depressing earnings. Operating losses can deplete capital and threaten the bank's solvency.

For community banks—where loans are the primary component of the asset side of the balance sheet—good lending practices are essential. For this reason, bankers and examiners alike pay close attention to asset quality.

CAMELS Ratings: Management

Tuesday, October 30, 2018

By Julie Stackhouse, Executive Vice President

The Role of Bank Leaders

Individuals in leadership roles at a bank have multiple responsibilities. Importantly, regulators expect management to operate the bank in a safe and sound manner. This includes a culture that promotes compliance with all applicable rules and regulations, including those associated with consumer protection and the Community Reinvestment Act.

Bank examiners are tasked with appraising the knowledge, character and leadership capabilities of the individuals who guide and supervise the bank. To do so, examiners ask key questions, including:

- Is the bank operating in compliance with laws and regulations?
- Does the bank perform satisfactorily in key areas, such as its capital level, asset quality, earnings, liquidity and sensitivity to market risk?
- Does management respond quickly to address shortcomings resulting from failed internal control processes, audits and examinations?
- Does management implement policies and a culture that promotes the safe and effective operation of the bank?
- Does the board of directors appropriately govern the bank's operations, including the establishment of its strategies and the approval of budgets? Does bank management inform the board of its progress in executing strategies and performance against budget? Does the board understand the key risks facing the bank?
- Are decisions made by management consistent with the direction set by the board of directors?

Risk Management

In assessing management, Federal Reserve examiners also consider the effectiveness of a bank's risk management processes. Sound risk management is vital for bank management to capably execute its responsibilities.

The risk management assessment considers:

- The effectiveness of oversight provided by the bank's board of directors and senior management
- The effectiveness of policies, procedures and limits
- The strength of internal controls, risk monitoring and management information systems

Risk management systems vary in sophistication and are dependent on the size and complexity of the bank.

Summing It Up

After analyzing the competency and control of bank management, examiners assign a management rating from 1 to 5. Ratings of 1 (strong) and 2 (satisfactory) are positive ratings. Ratings of 3 (less than satisfactory), 4 (deficient) and 5 (critically deficient) result in supervisory follow up. This could include an independent study of the effectiveness of management, expectations for stronger oversight by the board of directors or, in extreme cases, removal of management from their positions.

CAMELS Ratings: Earnings

Tuesday, November 20, 2018

By Julie Stackhouse, Executive Vice President

Banks, like other firms, are in the business of making money and won't stay in business if they lose money over any significant period of time.

Earnings Components

Banks derive income from:

- Assets that earn interest, such as loans
- Products and services that don't earn interest, such as fees for services

Interest income from loans and investments generally makes up the majority of earnings for community banks. While loans typically comprise the bulk of assets that earn interest, banks also hold investments to bolster interest income when quality loan demand is lacking. Noninterest income from fees and other sources are usually supplemental in nature, comprising a much smaller portion of total bank income.

Bank expenses are also divided into interest and noninterest components. Interest expenses for a typical community bank are driven by the interest rates paid on deposits, although there may be interest expenses from borrowed money. Noninterest expenses are the expenses related to bank operations, such as salary and overhead.

The third main component affecting earnings is an expense called the provisions for loan losses. Provisions for loan losses are used to build a fund (called the loan loss reserve) to cover loans that are not paid off.

Adding It Up

When evaluating earnings, bank examiners complete a number of assessments that adjust for a bank's size. They can then compare those assessments to the past performance of the bank and to that of similar institutions. These appraisals give examiners a good sense of the quantity of bank earnings and how they might be changing.

Just as important, though, is the sustainability of good-quality earnings. Poor asset quality may portend a large loan loss provision that will depress future earnings. Depending on how the bank's balance sheet is structured, volatility in interest rates may also jeopardize future earnings.

Importance of Earnings

While earnings are important for maintaining operations, they serve other important purposes. Building capital is important for banks that want to grow since all banks are subject to minimum capital requirements. Healthy earnings also allow banks to pay dividends to their shareholders, providing them with a reason to keep and perhaps augment their investment.

As with the other components of CAMELS, the earnings component is rated on a scale of 1 to 5, with 1 indicating strong earnings that are consistent with operations support and capital maintenance. Banks assigned ratings of 4 or 5 on the earnings component have deficient earnings that threaten their ongoing viability. When this occurs, regulators will typically require these banks to stop paying dividends.

CAMELS Ratings: Liquidity

Tuesday, December 18, 2018

By Julie Stackhouse, Executive Vice President

To understand the importance of liquidity, it is important to remember that a fundamental purpose of a bank is to redeploy consumer and business deposits and other liabilities into loans requested by other consumers and businesses. Because loans and deposits may not pay off (or mature) at the same time, the bank must manage its liquidity. Stated simply, liquidity is the ability of bank management to meet deposit outflows while continuing to fund demand for loans.

Sources of Funds: Liabilities

Banks accept deposits—typically called "core" deposits—from consumers and small businesses. For the most part, the federally insured portion of these deposits tends to be stable, lower cost than other funding sources and less sensitive to rising interest rates.

Banks can also supplement funding needs through other sources called "noncore" or wholesale funds. Examples include:

- Certificates of deposit and other time deposits that exceed the federally insured limit
- Federal Home Loan Bank and/or Federal Reserve bank discount window borrowings
- Insured brokered deposits

Noncore funding sources are often short term in nature and may be sensitive to interest rate changes, depending on maturity. Examiners closely review the strategies of banks with an unusually heavy reliance on noncore funding sources. In such a situation, examiners will typically request a comprehensive contingency funding plan that contains a strategy for addressing funding shortfalls should a bank's financial health come under stress.

Uses of Funds: Assets

Banks generate earnings primarily by making loans. However, many loans are comparatively long term in nature relative to sources that fund them. For that reason, banks maintain other assets on their balance sheets that can quickly be converted into cash to meet expected and unexpected withdrawals or a loss of funding sources. These assets are considered sources of liquidity and include:

- Cash and similar balances
- Interest-bearing balances from other banks
- Loans held for sale
- The investment securities portfolio

The Liquidity Rating

Examiners review the structure of a bank's assets and liabilities, as noted above. They also examine a bank's liquidity policies, procedures and management information systems, including the efforts of bank management to test hypothetical deposit outflows under a variety of assumptions, like a changing interest rate environment.

Banks that perform well in these scenarios typically exhibit a sufficient level of asset liquidity, a high reliance on core deposits, and adequate or better funds management practices. Examiners will rate the liquidity of these banks as strong (1) or satisfactory (2).

On the other hand, banks with low levels of liquid assets, a high reliance on noncore/wholesale funding sources and weak funds management practices raise more concerns. As such, examiners will rate the liquidity of such

banks as needs improvement (3), deficient (4) or critically deficient (5). Banks in these situations are typically required to develop plans to improve liquidity and to submit those plans to regulators for review.

CAMELS Ratings: Sensitivity to Market Risk

Thursday, January 24, 2019

By Julie Stackhouse, Executive Vice President

Sensitivity to market risk is defined by regulators as the degree to which changes in interest rates, foreign exchange rates, commodity prices or equity prices can adversely affect a bank's earnings and, in turn, its financial health. For many banks—and especially community banks—interest rate risk is the predominant market risk they face.

Common Interest Rate Risk Challenges

In general, banks must manage four types of interest rate risk:[7]

1. Repricing risk: The risk that assets and liabilities will reprice or mature at different times.
2. Basis risk: The risk that changes in the rates used to price assets and liabilities do not change in a corresponding manner. For example, the interest rate on a loan tied to the national prime rate might not change in the same manner as the rate on a certificate of deposit tied to a U.S. Treasury rate.
3. Prepayment or extension risk: Prepayment risk is the risk that asset repayments pick up at a time when interest rates are low, resulting in both reduced interest income and the reinvestment of repaid funds in lower-yielding assets. The inverse of prepayment risk is extension risk. In this situation, asset repayments slow, reducing the funds available to invest at higher yields.
4. Yield curve risk: The risk that uneven changes in short- and long-term interest rates will disproportionately affect asset values or cash flows.[8]

If a bank fails to manage these risks adequately, its earnings, capital and liquidity can be damaged.

What Are Regulatory Expectations?

During their review, examiners determine the level of sensitivity to market risk posed by the bank's assets and liabilities and assess its potential impact on capital and earnings. This assessment includes both quantitative and qualitative components, including:

- The composition of assets and liabilities on the bank's balance sheet
- Policies and limitations set by the board of directors that establish risk tolerance
- Risk measurement systems and reporting
- The level of protection provided by earnings and capital
- Audit and/or independent review of the bank's market risk management procedures
- Recent or planned changes in the bank's strategic direction

As with other components in the CAMELS rating system, sensitivity to market risk is assigned a rating of 1 to 5. Organizations with ratings of 3, 4 or 5 will be expected to take action to strengthen their management of market risk.

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[7] Gray, Doug. "Interest Rate Risk Management at Community Banks." Community Banking Connections, Third Quarter 2012.

[8] A yield curve is a line on a graph that plots interest rates of similar financial instruments at differing maturity dates.