The Federal Reserve System is the central bank of the United States. It performs five key functions to promote the effective operation of the U.S. economy and, more generally, the public interest.

The Federal Reserve

- **conducts the nation’s monetary policy** to promote maximum employment and stable prices in the U.S. economy;

- **promotes the stability of the financial system** and seeks to minimize and contain systemic risks through active monitoring and engagement in the U.S. and abroad;

- **promotes the safety and soundness of individual financial institutions** and monitors their impact on the financial system as a whole;

- **fosters payment and settlement system safety and efficiency** through services to the banking industry and U.S. government that facilitate U.S.-dollar transactions and payments; and

- **promotes consumer protection and community development** through consumer-focused supervision and examination, research and analysis of emerging consumer issues and trends, community economic development activities, and administration of consumer laws and regulations.

To learn more about us, visit [www.federalreserve.gov/aboutthefed.htm](http://www.federalreserve.gov/aboutthefed.htm).
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td>v</td>
</tr>
<tr>
<td>Corrections</td>
<td>vii</td>
</tr>
<tr>
<td>Summary</td>
<td>1</td>
</tr>
<tr>
<td>Banking System Conditions</td>
<td>3</td>
</tr>
<tr>
<td>Regulatory Developments</td>
<td>13</td>
</tr>
<tr>
<td>Supervisory Developments</td>
<td>21</td>
</tr>
<tr>
<td>Supervised Institutions</td>
<td>22</td>
</tr>
<tr>
<td>Large Financial Institutions</td>
<td>23</td>
</tr>
<tr>
<td>Community and Regional Banking Organizations</td>
<td>28</td>
</tr>
<tr>
<td>Appendix A: Data Sources and Terms</td>
<td>35</td>
</tr>
<tr>
<td>Data Sources</td>
<td>35</td>
</tr>
<tr>
<td>Notes on Data Sources and Terms</td>
<td>36</td>
</tr>
<tr>
<td>Appendix B: Abbreviations</td>
<td>41</td>
</tr>
</tbody>
</table>
Preface

The Federal Reserve Board publishes its semiannual Supervision and Regulation Report to inform the public and provide transparency about its supervisory and regulatory policies and actions, as well as current banking conditions.
Corrections

The Federal Reserve revised this report on November 10, 2022, to reflect corrections to the notes in box 2, figures B and C. The revisions are listed below.

On page 9, on figure B, the note was revised from “Due to disclosure limitations on loan loss reserves in 2022:Q2, Charles Schwab Corporation is excluded from the aggregate loan loss reserves as a percentage of total loans ratio in all periods. Due to disclosure limitations, 2022:Q2 loans and leases held for investment for The Goldman Sachs Group, Inc. and Morgan Stanley illustratively extrapolated by applying 2022:Q1 total gross loan growth rate to 2022:Q1 loans and leases held for investment balances.” to “Total loans reflects loans and leases held for investment. Due to disclosure limitations on loan loss reserves in 2022:Q3, The Charles Schwab Corporation is excluded from the aggregate loan loss reserves as a percentage of total loans ratio in all periods. Due to disclosure limitations, 2022:Q3 loans and leases held for investment for American Express Company, The Goldman Sachs Group, Inc., JPMorgan Chase & Co., M&T Bank Corporation, Morgan Stanley, Northern Trust Corporation, and State Street Corporation illustratively extrapolated by applying 2022:Q3 quarter-over-quarter total loan growth rate to 2022:Q2 loans and leases held for investment balances.”

On page 9, figure C, the note line was revised from “Due to disclosure limitations on CET1 capital and risk-weighted assets in 2022:Q2, Charles Schwab Corporation, M&T Bank Corporation, and Northern Trust Corporation are excluded from the aggregate CET1 ratio in all periods.” to “Due to disclosure limitations on CET1 capital and risk-weighted assets in 2022:Q3, The Charles Schwab Corporation, KeyCorp, M&T Bank Corporation, and Northern Trust Corporation are excluded from the aggregate CET1 ratio in all periods.”
Summary

While supervised firms entered 2022 in sound financial condition, market conditions are changing quickly. The vast majority of firms maintained capital above regulatory minimums. Loan delinquencies were historically low, and liquidity levels generally remained high. Increasing uncertainty about the economic outlook, however, may create new risks for firms to manage. In response to this uncertainty, firms increased credit loss provisions during the first half of 2022 and began taking other steps to prepare for the possibility of weaker economic conditions.

Most firms maintained satisfactory supervisory ratings, and the number of unresolved supervisory findings has been declining; however, some findings are taking longer than expected to remediate, especially for global systemically important banks (G-SIBs) and other large banks. In response, supervisory priorities are focused on firms’ remediation of previously identified supervisory findings and risks emerging from changing economic conditions.

This report focuses on developments in three areas:

1. Bank of England provides an overview of current financial conditions in the banking sector. In the first half of 2022, financial conditions remained sound as almost all banks reported capital above regulatory minimums, liquidity, though reduced, generally remained ample, and loan delinquencies were historically low. Credit risk, however, has increased. Banks have increased credit loss provisions in anticipation of future loan deterioration.

2. Regulatory Developments provides an overview of the Federal Reserve’s recent regulatory policy work.

3. Supervisory Developments provides an overview of the Federal Reserve’s supervisory programs and priorities. In addition to heightening its focus on financial risks, the Federal Reserve is continuing to closely assess firm responses to outstanding supervisory issues. This report also describes differences in supervisory approaches used at financial institutions of different asset sizes and levels of complexity.
Banking System Conditions

The banking system remains financially sound amid changing economic conditions.

Banks’ financial condition generally remains sound. Loan growth and higher interest rates are beginning to modestly boost the net interest margin, a measure of the income banks earn on loans and investments after deducting their funding costs. Problem loans remain low, as banks report low delinquency measures across all major loan categories. The industry continues to report capital and liquidity above regulatory minimums.

However, banks face challenges. The values of investment securities have fallen. In addition, some borrowers’ ability to repay floating rate loans may be adversely affected by resetting loan rates.

While recent stress test results showed that large banks would be well positioned to continue lending to households and businesses under simulated stressful conditions, firms will need to ensure that their stress analyses, liquidity, and capital positions adjust to developing market conditions, which may differ from the recent simulations.¹

Loan balances continue to increase.

Loan balances grew in the first three quarters of 2022, with robust loan growth across all major loan categories (figure 1). The commercial and industrial (C&I) and consumer loan categories had annualized growth rates above 10 percent in each of the first three quarters of 2022. Growth in consumer loans was primarily driven by higher credit card balances. Residential real estate (RRE) loans steadily increased in the first three quarters of 2022.

Growth in the “other loans” category remained strong through the third quarter of 2022. As noted in the May 2022 *Supervision and Regulation Report*, loans to nonbank financial institutions are responsible for most of the growth in the “other loans” category over the past few years.

Commercial real estate (CRE) loans grew despite reports of tighter lending standards in the Federal Reserve’s July 2022 “Senior Loan Officer Opinion Survey on Bank Lending Practices.” Surveyed banks reported tighter standards and weaker demand for most CRE loan categories. The exception was in loans secured by multifamily properties, where banks reported stronger demand.

In 2022, loans grew faster than deposits. As discussed in box 1, this is a reversal of the trend since the onset of the pandemic.

**Figure 2. Bank return on average assets (ROAA) and return on equity (ROE)**

Bank return on average assets and return on equity remained sound in 2022, declining a bit from their levels during the first half of 2021. Despite recent softening, both return on average assets and return on equity remain in line with historical levels (figure 2).

The recent decline in bank return on average assets and return on equity was largely driven by higher loan loss provisions, as banks added to their credit loss reserves for loans and leases amid accelerated loan growth and economic uncertainty. After reporting $5.3 billion in loan loss provisions in the first quarter of 2022, the industry reported another $11.7 billion in the second quarter. Still, loan loss provisions remain below their prepandemic level (figure 3).

After reaching a low point in 2021, the industry’s net interest margin increased modestly in the first half of 2022. Net interest margin widened as yields earned on loans and other assets moved

---

2 In the Federal Reserve’s H.8 release, “Assets and Liabilities of Commercial Banks in the United States,” the “other loans” category includes loans to nondepositary financial institutions and loans not categorized elsewhere.


4 As of the second quarter of 2022, about one-third of the industry’s credit loss reserves for loans and leases were allocated to credit cards.
up faster than rates paid on deposits. Responses to the Federal Reserve’s May 2022 “Senior Financial Officer Survey” suggested that banks had passed through only a small portion of the general increase in interest rates this year to deposit customers.\(^5\) The lag in raising rates paid on deposits may have contributed to the leveling off in deposit balances.

Box 2 provides a summary of bank financial performance and capital positions through the third quarter based on the earnings results for a set of large banks.

Banks continue to report low delinquency and net charge-off rates in major loan categories.

Problem loans remain low. The aggregate loan delinquency rate dropped to its lowest level since the end of 2005, as delinquency rates declined or remained flat across all major loan categories in the first half of 2022 (figure 4).

Net charge-off rates stood near 15-year lows across all major loan categories. Only the consumer loan net charge-off rate increased in the first and second quarters of 2022, largely driven by credit card charge-offs (figure 5).

Large banks’ internal loan risk ratings continued to improve, as most sectors saw similar-to-stronger ratings in the first two quarters of 2022. C&I loan ratings in sectors most affected by the pandemic, such as the entertainment and recreation industry, had the most significant ratings improvement. Meanwhile, ratings in most CRE sectors remained stable or improved.

---

Capital and liquidity positions remain adequate, while securities depreciation is significant at some banks. Despite a modest decline in the first half of 2022, the banking industry’s capital position remains adequate. The industry aggregate common equity tier one (CET1) capital ratio was 12.1 percent at the end of the second quarter, slightly below its five-year average (figure 6). The recent decline in the CET1 capital ratio reflects both a slight decline in the level of capital (the numerator of the ratio)

### Box 1. Deposit Growth Slows while Loan Growth Accelerates

Banks saw extraordinary deposit growth between the end of 2019 and the start of 2022, as the onset of the pandemic triggered a surge in deposits. During this period, commercial banks added nearly $5 trillion in deposits. Banks invested much of the deposit inflow into liquid assets, such as cash and securities, rather than using the deposits to fund loans. While deposits are generally a stable source of funding, investing in liquid assets provided banks with protection against the potential for those deposits to be suddenly withdrawn. As deposits were growing rapidly, loans grew slowly in 2020 and 2021.

As a result, the ratio of loans to deposits fell from 76 percent at the end of 2019 to under 60 percent in the third quarter of 2021. The ratio of loans to deposits is a common measure of bank liquidity. A declining ratio typically signals increasing liquidity, as more deposits are available to fund a bank’s loans. In contrast, the ratio of loans to deposits steadily rose in 2022, as loan growth has been strong while deposits have leveled off. As seen in figure A, the loans to deposits ratio has retraced more than one-third of the decline that was triggered by the onset of the pandemic; however, it remains low compared to historical levels, suggesting liquidity remains sound.

### Figure A. Loans to deposits ratio

Note: Data are for all commercial banks.

and an increase in risk-weighted assets (the denominator of the ratio). The industry’s CET1 capital decline was driven in part by unrealized losses on available-for-sale securities at the largest firms (box 3). The industry added over $653 billion of risk-weighted assets in the first half of 2022 amid robust loan growth.

Liquid assets, such as cash and securities, remain at historically high levels. Securities depreciation contributed to a reduction in liquid assets as a share of total assets in the first half of 2022 (figure 7).

**Bank market indicators have weakened since the start of 2022.**

Market assessments of bank risk, including the market leverage ratio and credit default swap (CDS) spreads, provide supervisors with an independent, forward-looking assessment of the strength of the banking system. The market leverage ratio is a market-based measure of a firm’s capital position, where a higher ratio indicates more market confidence in the firm’s financial strength. CDS spreads are a market-based measure of a firm’s risk, where a lower spread indicates more market confidence in the firm.

---

6 While unrealized losses on available-for-sale securities are not included in CET1 capital for most other banks, these losses reduced banks’ tangible book value, as described in box 3.

7 Under the Federal Reserve’s capital rules, loans are generally assigned higher risk weights relative to other assets such as cash and securities.
Box 2. Year-to-Date Earnings at Large Firms

This box provides a preliminary recap of banking sector conditions through September 30, 2022, based on early reporting by a sample of large U.S. banks that reported third-quarter earnings on or before October 21. While such trends are indicative, it should be noted that the sample may not necessarily be representative of the banking sector.

Earnings Approximate Pre-pandemic Levels, though down Year-over-Year

Large banks’ earnings were near pre-pandemic levels in the first nine months of 2022, but below levels earned in 2021. Aggregate bank profitability, as measured by return on equity, approximated 11 percent in the first nine months of 2022, compared with 12 percent in the first nine months of 2019 and 15 percent earned in the first nine months of 2021 (figure A).

Figure A. Aggregate annualized return on common equity

![Graph showing annualized return on common equity]

Note: Aggregate annualized return on common equity calculated as annualized quarterly net income available to common shareholders divided by average quarterly common shareholders’ equity.
Source: Federal Reserve staff calculations using data from S&P Global Market Intelligence and Earnings Releases.

Relative to the first nine months of 2021, 2022 year-to-date growth in net interest income partially offset lower noninterest income, higher operating expenses, and the increase of loan loss reserves. Net interest income growth reflects the effect of rising interest rates on asset yields and accelerated loan growth. Declines in noninterest income were driven by lower investment banking and mortgage fees, while increased operating expenses largely reflect higher compensation expenses.

Credit loss provisions in the first nine months of 2022 increased relative to the first nine months of 2021, as banks built loan loss reserves amid loan growth and increased macroeconomic uncertainty. Loan loss reserves as a percent of loans have remained near 2021 year-end levels (figure B). Indicators of asset quality deterioration have remained near historically low levels.

Capital Ratios Declined Year-to-Date, and now Approximate the Pre-pandemic Level

Common equity tier 1 (CET1) capital ratios declined modestly since the start of 2022. The aggregate CET1 capital ratio for the sample approximated 11 percent on September 30, 2022, which was near the level immediately preceding the pandemic (figure C).

The sample includes the following 20 large U.S. bank holding companies and one savings and loan holding company subject to stress testing on an annual or biennial basis: Ally Financial Inc.; American Express Company; Bank of America Corporation; The Bank of New York Mellon Corporation; The Charles Schwab Corporation; Citigroup Inc.; Citizens Financial Group, Inc.; Fifth Third Bancorp; The Goldman Sachs Group, Inc.; Huntington Bancshares Incorporated; JPMorgan Chase & Co.; KeyCorp; M&T Bank Corporation; Morgan Stanley; Northern Trust Corporation; The PNC Financial Services Group, Inc.; Regions Financial Corporation; State Street Corporation; Truist Financial Corporation; U.S. Bancorp; and Wells Fargo & Company.
Increased risk-weighted assets, reflecting robust loan growth and market volatility, contributed to approximately 60 percent of the year-to-date decline in the aggregate CET1 capital ratio. Unrealized losses on available-for-sale securities, driven by rising interest rates, also reduced CET1 capital ratios for Large Institution Supervision Coordinating Committee firms and certain large banking organizations. To help preserve CET1 capital amid macroeconomic uncertainty and increased regulatory requirements effective as of October 1, 2022, some banks either slowed or suspended share repurchases.
The average market leverage ratio and average CDS spread for firms supervised by the Large Institution Supervision Coordination Committee (LISCC) program deteriorated in the first half of 2022 amid increased uncertainty related to the Russian invasion of Ukraine and as market participants reassessed the potential for an economic slowdown. Both indicators recovered slightly at the start of the third quarter. However, between mid-August and mid-October, the average market leverage ratio has fallen and the average CDS spread has increased (figure 8).

**Figure 8. Average credit default swap (CDS) spread and market leverage ratio (daily)**

Note: The market leverage ratio is the ratio of a firm’s market capitalization to the sum of market capitalization and the book value of liabilities. Averages are calculated from available observations for the eight LISCC firms (Bank of America Corporation; The Bank of New York Mellon Corporation; Citigroup Inc.; The Goldman Sachs Group; JPMorgan Chase & Co.; Morgan Stanley; State Street Corporation; and Wells Fargo & Company).

Source: Federal Reserve staff calculations using Bloomberg data.
Box 3. Effects of Securities Depreciation on Banks’ Capital and Liquidity Positions

Securities holdings at banks rose to a record high in 2022, largely driven by the deposit surge that followed the onset of the pandemic (figure A). Banks added nearly $2.3 trillion in securities from the start of 2020 to the end of 2021, when interest rates were low.

As interest rates increased in 2022, the fair value of securities held by banks fell significantly. (The fair value of securities is generally inversely related to interest rates.) Securities depreciation attributable to available-for-sale securities resulted in $224 billion of unrealized losses as of June 30, 2022 (figure B). Unrealized losses on available-for-sale securities are included in accumulated other comprehensive income, reducing banks’ tangible book value. Lower tangible book value can adversely affect stock price valuation in periods of stress or market participants’ capital assessments. For some large banks, these unrealized losses also reduce their regulatory capital.

In addition, liquidity regulations require certain large banks to hold a prescribed level of liquid assets. Eligible securities are included in the calculation of liquid assets at their fair value. As a result, these large banks saw their liquid asset buffers decline because of the loss in value of eligible securities. However, large banks continue to meet their regulatory liquidity requirements.

Figure A. Deposits and securities (amortized cost)

![Graph showing deposits and securities (amortized cost) from 2017 to 2022.]

Note: Domestic deposits only.
Source: Call Report and FR Y-9C.

Figure B. Net unrealized gains (losses) on available-for-sale securities

![Graph showing net unrealized gains (losses) from 2017 to 2022.]

Note: Net unrealized gains (losses) are computed as fair value less amortized cost.
Source: Call Report and FR Y-9C.

1 Securities include U.S. Treasury securities, U.S. government agency and sponsored agency obligations, securities issued by states and political subdivisions in the United States, mortgage-backed securities, asset-backed securities, structured financial products, and other debt securities. Securities held for trading are excluded.

2 The depreciation of securities does not result in realized losses unless the securities are sold.
Regulatory Developments

The Federal Reserve has taken several policy actions since the publication of the May 2022 *Supervision and Regulation Report*. These actions are consistent with promoting a safer and fairer banking system as highlighted in box 4. Significant actions are detailed in table 1 below. All Supervision and Regulation (SR) and Consumer Affairs (CA) letters are available on the Board’s public website.  

Recently issued guidance on crypto-asset-related activities (box 5) continues the Federal Reserve’s efforts to expand supervisory programs to address emerging technology risks. These efforts support the financial industry’s innovative use of technology to efficiently provide financial services in a safe-and-sound manner.

Other policy efforts have focused on operational risks. These include fostering a smooth transition away from London Interbank Offered Rate, or LIBOR, to alternative interest rate benchmarks in financial contracts (box 6). Additionally, the Federal Reserve is working within its existing authority to address climate change implications for supervised financial institutions (box 7).

---

8 The Federal Reserve publishes SR and CA letters to address significant policy and procedural matters related to the Federal Reserve System’s supervisory responsibilities and its consumer compliance supervisory responsibilities, respectively. SR letters are available on the Board’s public website at https://www.federalreserve.gov/supervisionreg/srl/letters/sri/letters.htm, and CA letters are available on the Board’s public website at https://www.federalreserve.gov/supervisionreg/celetters/celetters.htm.
Box 4. Making the Financial System Safer and Fairer

Vice Chair for Supervision Michael S. Barr spoke recently and detailed the Federal Reserve’s commitment to continue working to make the financial system safer and fairer, in support of an economy that serves the needs of households and businesses. The speech set forth Vice Chair Barr’s near-term priorities:

**Capital:** The Federal Reserve is reviewing its capital tools to understand how they are supporting the resilience of the financial system, both individually and in combination. This review will inform any improvements to the regime, including adjustments that align with the final “Basel III” standards.

**Resolution:** The Federal Reserve, along with the Federal Deposit Insurance Corporation (FDIC), will rigorously review firms’ resolution plans and make clear where firms’ practices do not meet expectations and when remediation is necessary. The Federal Reserve will also review the current policy framework that supports the resolvability of large banks that are not global systemically important banks and anticipates issuing guidance to these firms. Future policy actions will be considered in consultation with the other bank regulatory agencies.

On October 14, the Federal Reserve Board invited public comment on an advance notice of proposed rulemaking—developed jointly with the FDIC—to enhance regulators’ ability to resolve large banks in an orderly way should they fail (box 8). The advance notice of proposed rulemaking asks for comment on several potential new requirements and resources that could be used for an orderly resolution of these large banking organizations, including a long-term debt requirement, “clean holding company” requirements, and other options.

**Bank Merger Policy Review:** The Federal Reserve will evaluate its approach to reviewing banks’ proposed acquisitions of depository institutions.

**Stablecoins:** The Federal Reserve will continue to partner with other regulatory agencies and work with Congress to develop supervisory guardrails to address the risks of stablecoins.

**Financial Risks from Climate Change:** The Federal Reserve will work with the Office of the Comptroller of the Currency (OCC) and the FDIC to provide guidance to large banks on the financial risks of climate change. The Federal Reserve will also conduct a pilot microprudential climate scenario analysis exercise in 2023 to enhance the ability of supervisors and firms to measure and manage climate-related financial risks.¹

**Innovation, Access, and Consumer Protection:** The Federal Reserve aims to support innovation while exercising oversight to ensure the safety of the banking system. The Federal Reserve will use supervision and regulation to promote fair lending, consumer protection, and transparency in the consumer financial services marketplace. Additionally, the Federal Reserve will focus on providing access to fast and efficient digital payments.

**Crypto-Asset-Related Activity:** The Federal Reserve will work with the OCC and FDIC to make sure that the crypto-asset-related activity of supervised banks is subject to the necessary safeguards to protect the safety of the banking system as well as bank customers.

**Community Reinvestment Act:** With the other bank regulatory agencies, the Federal Reserve will strengthen and modernize Community Reinvestment Act regulations to achieve the objectives of the law.

Links to the speech and video replay are available on the Board’s public website at [https://www.federalreserve.gov/newsevents/speech/barr20220907a.htm](https://www.federalreserve.gov/newsevents/speech/barr20220907a.htm).

---

¹ See Board of Governors of the Federal Reserve System, “Federal Reserve Board Announces that Six of the Nation’s Largest Banks Will Participate in a Pilot Climate Scenario Analysis Exercise Designed to Enhance the Ability of Supervisors and Firms to Measure and Manage Climate-Related Financial Risks,” news release, September 29, 2022, [https://www.federalreserve.gov/newsevents/pressreleases/other20220929a.htm](https://www.federalreserve.gov/newsevents/pressreleases/other20220929a.htm).
<table>
<thead>
<tr>
<th>Date issued</th>
<th>Rule/guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/19/2022</td>
<td>Federal Reserve Board invites comment on proposal that provides default rules for certain contracts that use the LIBOR reference rate, which will be discontinued next year. Federal Reserve Board press release: <a href="https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220719a.htm">https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220719a.htm</a></td>
</tr>
<tr>
<td>8/16/2022</td>
<td>Federal Reserve Board provides additional information for banking organizations engaging or seeking to engage in crypto-asset-related activities. Federal Reserve Board press release: <a href="https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220816a.htm">https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220816a.htm</a></td>
</tr>
<tr>
<td>9/28/2022</td>
<td>Federal Reserve Board finalizes supervisory framework for insurance organizations that are overseen by the Board. Federal Reserve Board press release: <a href="https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220928a.htm">https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220928a.htm</a></td>
</tr>
<tr>
<td>9/29/2022</td>
<td>Federal Reserve Board announces that six of the nation’s largest banks will participate in a pilot climate scenario analysis exercise designed to enhance the ability of supervisors and firms to measure and manage climate-related financial risks. Federal Reserve Board press release: <a href="https://www.federalreserve.gov/newsevents/pressreleases/other20220929a.htm">https://www.federalreserve.gov/newsevents/pressreleases/other20220929a.htm</a></td>
</tr>
<tr>
<td>10/3/2022</td>
<td>Federal Reserve Board finalizes updates to the Board’s rule concerning debit card transactions. Federal Reserve Board press release: <a href="https://www.federalreserve.gov/newsevents/pressreleases/bcreg20221003a.htm">https://www.federalreserve.gov/newsevents/pressreleases/bcreg20221003a.htm</a></td>
</tr>
<tr>
<td>10/6/2022</td>
<td>Federal Reserve announces it will replace its current bank application filing system with a new and upgraded system later this month. Federal Reserve Board press release: <a href="https://www.federalreserve.gov/newsevents/pressreleases/bcreg20221006a.htm">https://www.federalreserve.gov/newsevents/pressreleases/bcreg20221006a.htm</a></td>
</tr>
<tr>
<td>10/14/2022</td>
<td>Federal Reserve Board invites public comment on an advance notice of proposed rulemaking to enhance regulators’ ability to resolve large banks in an orderly way should they fail. Federal Reserve Board press release: <a href="https://www.federalreserve.gov/newsevents/pressreleases/bcreg20221014a.htm">https://www.federalreserve.gov/newsevents/pressreleases/bcreg20221014a.htm</a></td>
</tr>
</tbody>
</table>
Box 5. Guidance on Engagement in Crypto-Asset-Related Activities

The emerging crypto-asset sector presents potential opportunities for banking organizations, their customers, and the overall financial system; however, crypto-asset-related activities may also pose risks related to safety and soundness, consumer protection, and financial stability.

In August, the Federal Reserve issued a supervisory letter, SR 22-6, “Engagement in Crypto-Asset-Related Activities by Federal Reserve-Supervised Banking Organizations,” that provides information for banking organizations engaging or seeking to engage in crypto-asset-related activities. This supervisory letter outlines the steps Federal Reserve supervised banks should take prior to engaging in crypto-asset-related activities. These steps include assessing whether such activities are legally permissible and determining whether regulatory filings are required. Additionally, the supervisory letter states that Federal Reserve-supervised banking organizations should notify the Federal Reserve prior to engaging in crypto-asset-related activities.

The supervisory letter also emphasizes that Federal Reserve supervised banking organizations should have adequate systems and controls in place to conduct crypto-asset-related activities in a safe and sound manner prior to commencing such activities.

The Federal Reserve continues to work with the Office of the Comptroller of the Currency and Federal Deposit Insurance Corporation on crypto-asset-related policy initiatives.

Box 6. London Interbank Offered Rate Transition

U.S. banking supervisors have observed significant progress on the United States dollar (USD) London Interbank Offered Rate (LIBOR) benchmark transition. Supervisors encouraged banks to stop using LIBOR as a pricing benchmark in new transactions after December 31, 2021. In the second half of 2021, banks began shifting their contracts from USD LIBOR to alternative reference rates. The Secured Overnight Financing Rate (SOFR) has been the predominant alternative reference rate for both loans and derivative instruments.

Firms previously had identified a subset of legacy LIBOR contracts that did not have a clearly defined or practicable replacement benchmark rate as problematic. In March, Congress passed the Adjustable Interest Rate (LIBOR) Act. This law eases the transition for these contracts by directing the Federal Reserve to select an alternative SOFR-based benchmark for these contracts to use as of June 30, 2023, when USD LIBOR will no longer be available. The Federal Reserve published a notice of proposed rulemaking to implement the law on July 28.

Supervisors continue to closely monitor firms’ LIBOR transition efforts. Firms are making substantial progress in updating contracts with new alternative rate benchmarks. However, the volume of legacy USD LIBOR contracts remains high, and significant work remains. Supervisors are focusing their monitoring efforts on evaluating firm plans for addressing legacy contracts. They want to ensure that banking organizations are proactively transitioning legacy contracts to alternative benchmark rates and reducing LIBOR exposures well in advance of the rate’s cessation.

---

Box 7. Climate-Related Policies and Actions

Climate change poses significant challenges for the global economy and the financial system. The Federal Reserve’s responsibilities with respect to climate change are important, but narrow: the Federal Reserve is committed to working within its existing mandates and authorities to promote a safe and stable financial system.

The Federal Reserve’s primary supervisory focus is to evaluate whether supervised institutions operate in a safe and sound manner and manage all material risks, including those related to climate change. For large institutions, the Federal Reserve is taking steps to promote the resilience of these institutions to climate-related financial risks.

Federal Reserve Board to Develop Interagency Guidance for Large Banks

In that regard, the Federal Reserve Board intends to develop interagency guidance on the financial risks of climate change for large banks. The Office of the Comptroller of the Currency (OCC), the Federal Reserve Board, and the Federal Deposit Insurance Corporation (FDIC) have identified the effects of climate change as an emerging risk to the safety and soundness of financial institutions and the stability of the financial system. The Federal Reserve Board intends to work with the OCC and the FDIC to propose guidance for large banks on the identification, measurement, monitoring, and management of climate-related financial risks. These principles will help large banks understand risk exposure and incorporate climate-related financial risks into risk-management frameworks.

Pilot Climate Scenario Analysis Exercise in 2023

In addition, the Federal Reserve Board will engage with six of the nation’s largest banks to conduct a pilot climate scenario analysis exercise in 2023. Climate scenario analysis is an emerging tool that assesses the resilience of financial institutions under different hypothetical climate-related scenarios. This exercise will be distinct and separate from bank stress tests. Bank stress tests are designed to assess whether large banks have enough capital to continue lending to households and businesses during a severe recession. The climate scenario analysis exercise, however, will be exploratory in nature and will not have capital consequences. By considering a range of possible future climate pathways and associated economic and financial developments, scenario analysis can assist firms and supervisors in understanding climate-related financial risks.

---

Box 8. Advance Notice of Proposed Rulemaking on Large Bank Resolvability

The Federal Reserve Board has invited public comment on an advance notice of proposed rulemaking to enhance regulators’ ability to resolve large banks in an orderly way should they fail.

Recent merger activity and organic growth have increased the size of large banking organizations. If they were to fail, their large size could complicate efforts by regulators to resolve the firms without disruption to customers and counterparties.

As a result, the advance notice of proposed rulemaking asks for comment on several potential new requirements and resources that could be used for an orderly resolution of these large banking organizations, including a long-term debt requirement.

“As the banking system changes, policymakers must continuously evaluate whether resolution-related standards and prudential standards for large banks keep pace,” Vice Chair for Supervision Michael S. Barr said. “That is why we welcome comment on an advance notice of proposed rulemaking on resolution-related standards, and are evaluating whether capital requirements for large banks, including global systemically important banks—as well as other elements of the prudential framework—should be updated.”

The advance notice of proposed rulemaking was jointly developed with the Federal Deposit Insurance Corporation. Comments will be accepted for 60 days after publication in the Federal Register.1

Supervisory Developments

This section provides an overview of recent supervisory efforts to assess firms’ safety and soundness and compliance with laws and regulations. There are separate subsections for large financial institutions (LFIs) with assets of $100 billion or more and community and regional banking organizations. Supervisory approaches and priorities differ across these groups.

The Federal Reserve is responsible for overseeing the implementation of certain laws and regulations relating to consumer protection and community reinvestment. The scope of the Federal Reserve’s supervisory jurisdiction varies based on the consumer law or regulation and on the asset size of the state member bank. Consumer-focused supervisory work is designed to promote a fair and transparent marketplace for financial services and to ensure supervised institutions comply with applicable federal consumer protection laws and regulations.

More information about the Federal Reserve’s consumer-focused supervisory program can be found in the Federal Reserve’s 108th Annual Report 2021.9

Supervisors are focusing on remediation of outstanding supervisory findings and evolving risks.

Supervisory priorities are focused on both previously identified supervisory findings and emerging concerns arising from changing economic conditions. Examiners will be monitoring and assessing a supervised institution’s remediation of supervisory findings in areas such as independent risk management and controls, compliance, operational and cyber resilience, and information technology. Supervisors also recognize that financial risks may be heightened in the uncertain economic environment, including higher credit and interest rate risks.

As economic conditions evolve, supervisors will be monitoring the potential effect on the operations and financial condition of supervised institutions, including

• exposure to leveraged positions in interest rate-sensitive markets,
• changes in liquidity and capital,
• changes in the stability of customer deposits,
• investment securities valuations,

---

• increases in bank and customer borrowing costs,
• potential declines in collateral values,
• impacts to the financial condition of customers, and
• availability of credit and financial services.

The Federal Reserve announced changes to bank application filing.

The Federal Reserve recently announced the replacement of the bank application filing system with a new and upgraded system known as FedEZFile (box 9). FedEZFile will provide real-time status tracking, two-way messaging, and digitally signed documents for applications.

Box 9. Federal Reserve Replaces Electronic Applications System (E-Apps) with FedEZFile™

On October 17, 2022, the Federal Reserve released FedEZFile™ and FedEZFile Fluent™ to replace the Electronic Applications System (E-Apps) that previously facilitated the Federal Reserve’s application filing process. FedEZFile provides an intuitive and transparent application filing experience, while minimizing paper forms and communications. FedEZFile Fluent is a companion learning resource that provides written and video guidance for registering, accessing, and using the system.

All pending applications filed prior to October 17, 2022, have been transferred to FedEZFile for continued processing.

Answers to frequently asked questions related to FedEZFile and the transition from E-Apps are available on the Federal Reserve’s public website.1


Supervised Institutions

The Federal Reserve supervises bank holding companies, savings and loan holding companies, and state member banks of varying size and complexity. The Federal Reserve follows a risk-focused approach by scaling supervisory work to the size and complexity of an institution.

• The Large Institution Supervision Coordinating Committee (LISCC) program supervises firms that pose elevated risk to U.S. financial stability.

• The Large and Foreign Banking Organization (LFBO) program supervises U.S. firms with total assets of $100 billion or more and all foreign banking organizations operating in the U.S. regardless of size.
• Regional banking organizations (RBOs)—U.S. firms with total assets between $10 billion and $100 billion—are supervised by the RBO program.
• Community banking organizations (CBOs)—U.S. firms with less than $10 billion in total assets—are supervised by the CBO program.

Table 2 provides an overview of the organizations supervised by the Federal Reserve, by portfolio, including the number of institutions and total assets in each portfolio.

<table>
<thead>
<tr>
<th>Portfolio</th>
<th>Definition</th>
<th>Number of institutions</th>
<th>Total assets ($ trillions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Institution Supervision Coordinating Committee (LISCC)</td>
<td>Eight U.S. global systemically important banks (G-SIBs)</td>
<td>8</td>
<td>14.7</td>
</tr>
<tr>
<td>State member banks (SMBs)</td>
<td>SMBs within LISCC organizations</td>
<td>4</td>
<td>1.2</td>
</tr>
<tr>
<td>Large and foreign banking organizations (LFBOs)</td>
<td>Non-LISCC U.S. firms with total assets $100 billion and greater and FBOS</td>
<td>173</td>
<td>10.3</td>
</tr>
<tr>
<td>Large banking organizations (LBOs)</td>
<td>Non-LISCC U.S. firms with total assets $100 billion and greater</td>
<td>18</td>
<td>5.0</td>
</tr>
<tr>
<td>Large FBOS (with IHC)</td>
<td>FBOS with combined U.S. assets $100 billion and greater</td>
<td>11</td>
<td>3.1</td>
</tr>
<tr>
<td>Large FBOS (without IHC)</td>
<td>FBOS with combined U.S. assets $100 billion and greater</td>
<td>7</td>
<td>1.0</td>
</tr>
<tr>
<td>Small FBOS (excluding rep offices)</td>
<td>FBOS with combined assets less than $100 billion</td>
<td>106</td>
<td>1.1</td>
</tr>
<tr>
<td>Small FBOS (rep offices)</td>
<td>FBOS U.S. representative offices</td>
<td>31</td>
<td>0</td>
</tr>
<tr>
<td>State member banks</td>
<td>SMBs within LFBO organizations</td>
<td>9</td>
<td>1.4</td>
</tr>
<tr>
<td>Regional banking organizations (RBOs)</td>
<td>Total assets between $10 billion and $100 billion</td>
<td>99*</td>
<td>2.7</td>
</tr>
<tr>
<td>State member banks</td>
<td>SMBs within RBO organizations</td>
<td>32</td>
<td>1.0</td>
</tr>
<tr>
<td>Community banking organizations (CBOs)</td>
<td>Total assets less than $10 billion</td>
<td>3,544**</td>
<td>2.8</td>
</tr>
<tr>
<td>State member banks</td>
<td>SMBs within CBO organizations</td>
<td>654</td>
<td>0.6</td>
</tr>
<tr>
<td>Insurance and commercial savings and loan holding companies (SLHCs)</td>
<td>SLHCs primarily engaged in insurance or commercial activities</td>
<td>6 insurance</td>
<td>0.9</td>
</tr>
</tbody>
</table>

* Includes 98 holding companies and 1 state member bank without a holding company.
** Includes 3,490 holding companies and 54 state member banks without holding companies.

Large Financial Institutions

This section of the report discusses the supervisory approach for LFIs, U.S. firms with total assets of $100 billion or more and foreign banking organizations with combined U.S. assets of $100 billion or more. These firms are either within the LISCC portfolio or the LFBO portfolio. Large financial institutions are subject to regulatory requirements that are tiered to the risk profiles of these firms. Appendix A provides an overview of key regulatory requirements.
Supervisory efforts for large financial institutions focus on four components:

1. capital planning and positions,
2. liquidity risk management and positions,
3. governance and controls, and
4. recovery and resolution planning.\(^{10}\)

For large financial institutions, the Federal Reserve’s assessment of a firm’s condition is reflected in the firm’s supervisory rating under the LFI rating system.\(^{11}\) The LFI rating system represents a supervisory evaluation of whether a firm possesses sufficient financial and operational strength and resilience to maintain safe-and-sound operations and comply with laws and regulations, including those related to consumer protection, through a range of conditions.\(^{12}\) The LFI rating system comprises the following three components:

- capital planning and positions,
- liquidity risk management and positions, and
- governance and controls.

For the first quarter of 2022, just under half of these firms have satisfactory ratings across all three LFI rating components. Most firms are generally meeting supervisory expectations with respect to capital planning and positions and liquidity risk management and positions; however, some firms continue to face challenges related to governance and controls. Overall, the percentage of large financial institutions rated satisfactory has been stable, with a slight decrease since 2021 (figure 9).

Large financial institutions have remained well capitalized. Their aggregate CET1 capital ratio in the second quarter of 2022 was 11.9 percent. While capital ratios have declined from the end of 2021, recent stress test results suggest that these firms remain sufficiently capitalized to continue lending to households and businesses in a simulated period of stress.

Liquidity positions remain generally adequate, and these firms generally continued to maintain sufficient liquid assets to meet liquidity needs for a 30-day stress scenario.


At the same time, many of these firms have multiple unresolved supervisory findings on governance and controls that are under remediation, including weaknesses in operational resilience, information technology, third-party risk management, and Bank Secrecy Act/anti-money-laundering compliance. Additionally, some firms are addressing weaknesses in data quality programs, risk-weighted asset calculations, and liquidity management.

**Large financial institutions are generally meeting supervisory expectations for capital, but some weaknesses were noted.**

The supervision of large financial institutions’ capital planning and positions includes a supervisory stress test, the stress capital buffer requirement, and a review of firms’ annual capital plan submissions. The Federal Reserve released the results of its 2022 annual stress test in June. The test assesses whether large financial institutions are sufficiently capitalized to absorb losses and continue to lend to households and businesses during a hypothetical recession. The June results showed that these firms would experience substantial losses but would maintain capital ratios well above minimum risk-based requirements under the severely adverse scenario simulated by the stress test.13

The Federal Reserve uses the stress test results to set the stress capital buffer requirement, which integrates the stress test with the non-stress capital requirements into one forward-looking and risk-sensitive capital requirement. In the 2022 stress test, aggregate losses at larger banks were $50 billion more than that of the 2021 stress test. Additionally, the aggregate 2.7 percentage point decline in capital was slightly larger than the 2.4 percentage point decline from the 2021 stress test but is comparable with recent years. All banks in the 2022 stress test remained above their minimum capital requirements, despite total projected losses of $612 billion.

---

The Federal Reserve’s capital plan rule requires large financial institutions to submit capital plans to the Federal Reserve annually. Federal Reserve examiners perform a firm-specific, qualitative review of each firm’s submission. For the eight largest and most complex firms, this included

- an assessment of firms’ methodologies for projecting allowances for credit losses in stress under the current expected credit loss (CECL) accounting standard,
- trading and counterparty stress loss practices,
- interest rate risk management,
- stress scenario design practices, and
- interpretations of the capital rule and related governance processes.

While most firms’ capital planning practices met supervisory expectations, some weaknesses were identified. Identified weaknesses include insufficient rigor in loss estimation approaches and market stress scenarios. In addition, supervisors found some errors in risk-weighted assets calculations in implementing the capital rule.

The number of supervisory findings at large financial institutions increased during the first half of 2022.

Supervisory findings—such as matters requiring attention (MRAs) or matters requiring immediate attention (MRIAs)—are used to identify and communicate areas where banks do not meet supervisory expectations. Supervisory findings are communicated to a banking organization’s management and board of directors, generally in an exam or inspection report. Outstanding MRAs at large financial institutions have decreased substantially in the years since the financial crisis of 2007–08 but increased slightly during the first half of 2022 (figure 10).

While many firms have broadly met expectations in capital planning and liquidity risk management, they still have work to do to meet supervisory expectations for governance and controls (figure 11).
Governance and controls findings represent over 75 percent of the outstanding issues at large financial institutions. Governance and controls findings include deficiencies related to operational resilience, information technology, third-party risk management, and compliance.

Remediation of issues around technology infrastructure, data, and operational resilience often take longer to address than issues in other business and risk-management areas. Many require a firm to develop a multiyear remediation plan. When reviewing these plans, supervisors expect firms to make the needed investments in systems and risk management to ensure adequate controls. Supervisors also expect firms to remediate findings in a timely manner.

Deficiencies for foreign firms are generally consistent with those highlighted for domestic institutions; however, a key difference is foreign firms’ compliance with Bank Secrecy Act/anti-money-laundering expectations. As noted in previous reports, some foreign firms have a number of Bank Secrecy Act/anti-money-laundering findings and enforcement actions. In some cases, these issues result in less-than-satisfactory supervisory ratings for governance and controls.
Community and Regional Banking Organizations

This section of the report discusses the financial condition and supervisory approach for banking organizations with assets less than $100 billion, including community banking organizations (CBOs), which have less than $10 billion in total assets, and regional banking organizations (RBOs), which have total assets between $10 billion and $100 billion.

**CBOs and RBOs have generally remained in stable financial condition.**

Most community and regional banking organizations are in stable financial condition and have addressed pandemic-related conditions. Although capital ratios are slightly below pre-pandemic levels, more than 99 percent of CBOs and all RBOs report capital ratios above well-capitalized minimums as of the second quarter of 2022. Liquidity levels are sufficient. Core deposits as a share of total assets remain above pre-pandemic levels. More recently, these firms have begun deploying deposits to new lending activity or securities purchases. The ratio of loans to deposits remains well below pre-pandemic levels.

Credit risk remains a focus for the supervision of CBOs and RBOs. Current problem loan rates remain low, and these firms hold allowances for potential credit deterioration. A number of these banks, however, are highly concentrated in CRE lending and have higher CRE concentrations than larger banks. Banks with high CRE concentrations can be exposed to higher risk of credit deterioration. In evaluating a bank’s CRE concentration risk, examiners consider the loan composition of...

---

**Box 11. Large Financial Institution Supervisory Priorities for 2023**

**Capital**
- Financial risks impacted by economic changes, including
  - interest rate risk
  - market and counterparty credit risk
  - consumer and commercial credit risk
- Risk management practices in credit, market, and interest rate risk
- Implementation of regulatory phase-ins (e.g., counterparty rules)
- LIBOR transition

**Liquidity**
- Intraday liquidity risk management

**Governance and controls**
- Operational resilience, including cybersecurity and information technology risks
- Third-party risk management
- Compliance, internal loan review, and audit
- Firm remediation efforts on previously identified MRAs

**Recovery and resolution planning**
- Recovery planning and preparedness
and risk diversification in its CRE loan portfolio. Some types of CRE loans such as land development and construction loans can pose a greater level of risk than owner-occupied CRE loans. The Federal Reserve is closely monitoring banks reporting significant CRE concentrations, further described in box 12.

**Box 12. Outlook on Commercial Real Estate Credit Conditions and Concentration Risk**

As discussed in the November 2021 *Supervision and Regulation Report*, banks are a critical funding source of CRE debt. Through the second quarter 2022, CRE lending and performance remained strong. CRE loans continued to grow, and delinquency rates declined to a historic low and remained below other major loan categories; however, there were some signs of deterioration as CRE loans 30–89 days past due increased for the second consecutive quarter in 2022 (figure A). In addition, the outlook for some CRE properties is being affected by changing economic conditions and greater reliance on remote work. As a result, Federal Reserve supervisors remain focused on monitoring banks with concentrations in CRE loans because these banks could be adversely affected by stress in the CRE sector. Supervisors are particularly focused on assessing whether risk management at these banks is commensurate with the level of concentration and the loan composition of a bank’s CRE loan portfolio.

![Figure A. Commercial real estate loans 30–89 days past due](image)

**Figure A. Commercial real estate loans 30–89 days past due**

Note: A bank is considered concentrated if its construction & land development loans to tier 1 capital plus reserves is greater than or equal to 100 percent or its total CRE loans (including owner-occupied loans) to tier 1 capital plus reserves is greater than or equal to 300 percent. This is a more conservative measure than the SR 07-1 measure because it includes owner-occupied, and it does not consider the 50 percent growth rate during the prior 36 months.

Source: Call Report.

(continued)
Most community and regional banking organizations’ earnings are driven by net interest margin. Most small banks are well-positioned for a rising rate environment and should see improvements in earnings. For these firms, second-quarter 2022 earnings have improved over the first quarter because of an increased net interest margin.

**CBOs and RBOs continue to face operational risks, with credit and market risks increasing.**

Cybersecurity remains a notable issue for CBOs and RBOs, which continue to face cyberattacks. Reliance on third-party service providers and other technology solutions also presents operational risks. Moreover, these banks face challenges in attracting and retaining qualified staff to maintain their cyber risk-management programs.

Rising interest rates may begin to affect some borrowers’ ability to make loan payments, particularly for borrowers with floating rate loans. As described in box 3, for some financial institutions,
current market conditions have also led to unrealized losses on securities. As these conditions evolve, CBOs and RBOs may be less inclined to sell these securities to meet liquidity needs.

**After trending down in recent years, supervisory findings at CBOs have increased slightly and have remained flat at RBOs.**

Outstanding supervisory findings for CBOs and RBOs increased modestly in 2022 after declining in recent years (figure 12). This trend reflects a recent increase in the number of supervisory ratings downgrades as well as findings from the examinations that were postponed in 2020 and 2021. Outstanding CBO findings increased slightly from the end of 2021 to June 2022. For RBOs, the total outstanding findings remained flat from the end of 2021 to June 2022.

The most cited supervisory findings at CBOs continue to pertain to information technology and operational risk, at 32 percent of outstanding CBO findings. For RBOs, weaknesses in management, risk management, and internal controls are the most cited category, at 33 percent.

**Nearly all CBOs and RBOs remain in satisfactory condition.**

As of June 2022, nearly 97 percent of top-tier CBOs and RBOs are rated satisfactory or stronger. More than 97 percent of CBO and RBO state member banks are rated satisfactory.15 Both levels are relatively unchanged from the prior report (figure 13).

**The 2022–23 supervisory activities will be hybrid with a focus on assessing credit and operational risks.**

Federal Reserve examiners are using a hybrid approach for examinations, conducting in-person activities when examiners deem an in-person exam necessary or when requested by the bank. Reflecting increased credit risk concerns, the Federal Reserve has enhanced procedures for monitoring credit concentrations, including CRE loans. Additionally, the Federal Reserve will continue to

---

15 Refer to the CAMELS definition in appendix A for an explanation of the supervisory ratings framework for state member banks.
prioritize the supervisory assessment of CBOs’ and RBOs’ ability to manage credit risk, interest rate risk, and operational risk (box 13).

Many CBOs will implement the CECL methodology in 2023. Therefore, the Federal Reserve is prioritizing the review of CBOs’ implementation of CECL, including the calculation of their allowances for credit losses (ACL). The Federal Reserve developed two tools to aid CBOs in implementing CECL, as further described in box 14.

---

16 Supervision of community banks that are state member banks is primarily through a point-in-time, full-scope examination. Supervision of regional banks is slightly more intensive and consists of a limited number of risk-focused examinations and continuous monitoring. For more background on supervision of community and regional banks, refer to Board of Governors of the Federal Reserve System, The Fed Explained: What the Central Bank Does (Washington: Board of Governors, August 2021), https://www.federalreserve.gov/aboutthefed/files/the-fed-explained.pdf#page=66.

17 Refer to the Federal Reserve System’s CECL Resource Center at https://www.supervisionoutreach.org/cecl.
Box 14. New Current Expected Credit Losses Tool for Community Banks

On June 7, 2022, the Federal Reserve announced a second tool to support larger community banks (those between $1 billion and $10 billion in total assets) in implementing the current expected credit losses (CECL) methodology.1 This tool is known as the Expected Loss Estimator, or ELE, and is an Excel-based automation of the weighted-average remaining maturity (WARM) methodology.2 The ELE tool relies on a bank’s own loan data to calculate the allowance for credit losses (ACL) and has fully viewable code and formulas. This transparency allows a bank to independently understand the tool and provides the bank the capability of adjusting the tool as bank management deems necessary. Ultimately, a bank’s management is responsible for determining the appropriateness of the WARM methodology for calculating its ACL and the data and assumptions used in the calculation.

---

2 Refer to the Federal Reserve System’s CECL Resource Center at https://www.supervisionoutreach.org/cecl.
Appendix A: Data Sources and Terms

Data Sources

The Supervision and Regulation Report includes data both on institutions supervised by the Federal Reserve System and some institutions outside Federal Reserve supervision. The report reflects data through October 14, 2022. This appendix details these sources.

FFIEC Call Reports

The FFIEC Consolidated Reports of Condition and Income, also known as the Call Report, is a periodic report that is required to be completed by every national bank, state member bank, insured nonmember bank, and savings association as of the last day of each calendar quarter. The details required to be reported depend on the size of the institution, the nature of the institution’s activities, and whether it has foreign offices. Call Report data are a widely used source of timely and accurate financial data regarding a bank’s financial condition and the results of its operations. The data collected from the Call Report are used to monitor the condition, performance, and risk profiles of reporting institutions individually and as an industry.

FR Y-9C

The Consolidated Financial Statement for Holding Companies, also known as the FR Y-9C report, collects basic financial data from domestic bank holding companies (BHCs), savings and loan holding companies (SLHCs), U.S. intermediate holding companies of foreign banking organizations (U.S. IHCs), and securities holding companies (SHCs). Initiatives to reduce reporting costs for firms led to increases in the minimum asset size thresholds for reporting from $500 million to $1 billion, and from $1 billion to $3 billion effective March 2015 and September 2018, respectively. In addition, BHCs, SLHCs, U.S. IHCs, and SHCs meeting certain criteria may be required to file this report, regardless of size. However, when such BHCs, SLHCs, U.S. IHCs, or SHCs own or control, or are owned or controlled by, other BHCs, SLHCs, U.S. IHCs, or SHCs, only top-tier holding companies must file this report for the consolidated holding company organization. The information contained in the report is as of the last day of each calendar quarter.

H.8—Assets and Liabilities of Commercial Banks in the United States

The H.8 release provides an estimated weekly aggregate balance sheet for all commercial banks in the United States. The H.8 release is primarily based on data that are reported weekly by a sample of approximately 875 domestically chartered banks and foreign-related institutions. Data
for domestically chartered commercial banks and foreign-related institutions that do not report weekly are estimated at a weekly frequency based on quarterly Call Report data.

Notes on Data Sources and Terms

CAMELS Ratings

Following an examination of a commercial bank, the examiner’s conclusions regarding the overall condition of the bank are summarized in a composite rating assigned in accordance with guidelines provided under the Uniform Financial Institution Rating system (referred to as “CAMELS”). The composite rating represents an overall appraisal of six key assessment areas (components) covered under the CAMELS rating system: Capital, Asset quality, Management, Earnings, Liquidity, and Sensitivity to market risk.

In addition to and separate from the interagency Uniform Financial Institutions Rating System, the Federal Reserve assigns a risk-management rating to all SMBs. The summary, or composite, rating, as well as each of the assessment areas, including risk management, is delineated on a numerical scale of 1 to 5, with 1 being the highest or best possible rating. Thus, a bank with a composite rating of 1 requires the lowest level of supervisory attention while a 5-rated bank has the most critically deficient level of performance and, therefore, requires the highest degree of supervisory attention.

When appraising the six key assessment areas and assigning a composite rating, the examiner weighs and evaluates all relevant factors for downgrades and upgrades of supervisory ratings.

Commercial Real Estate Loans

Commercial real estate loans are the sum of construction, land development, and other land loans; loans secured by multifamily residential properties; and loans secured by nonfarm non-residential properties.

Note: H.8 commercial real estate data include loans secured by farmland.

Common Equity Tier 1

Common equity capital is currently evaluated using a common equity tier 1 (CET1) capital ratio, which was introduced into the regulatory capital framework in 2014, consistent with international Basel III reforms. The CET1 capital ratio is defined as CET1 capital, which consists primarily of common stock and retained earnings, as a percent of risk-weighted assets. Advanced approaches institutions are required to report risk-weighted assets using an internal model-based approach and a standardized approach. An advanced approaches institution is subject to the lower of the
ratios. CBOs that have opted into the community bank leverage ratio (CBLR) framework are not required to report a CET1 capital ratio and risk-weighted assets.

From 2006 through 2013, tier 1 common capital was used to measure common equity capital for all firms. In 2014, both tier 1 common capital (for non-advanced approaches firms) and CET1 capital (for advanced approaches firms) were used. From 2015 to present, CET1 capital has been used for all firms.

Community Bank Leverage Ratio Framework

The CBLR framework, which became effective January 1, 2020, allows qualifying CBOs to adopt a simple leverage ratio to measure capital adequacy. To qualify for the framework, a CBO must have less than $10 billion in total consolidated assets, have limited trading activity and off-balance-sheet exposure, meet the leverage ratio requirement, and not be part of an advanced approaches banking organization. The leverage ratio requirement for the CBLR framework was temporarily lowered to 8 percent beginning in the second quarter of 2020 through the remainder of calendar year 2020. The requirement was set at 8.5 percent for calendar year 2021 and returned to its previous 9 percent level beginning January 1, 2022.

The leverage ratio requirement for the CBLR framework is defined with respect to tier 1 capital as a percent of average total consolidated assets for the quarter as reported on Schedule RC-K on the Call Report or Schedule HC-K on Form FR Y-9C, as applicable. A CBLR banking organization with a ratio above the requirement will not be subject to other capital and leverage requirements.

Consumer Loans

Consumer loans include credit cards, other revolving credit lines, automobile loans, and other consumer loans (includes single payment and installment loans other than automobile loans, and all student loans).

Credit Default Swap Spread

The five-year credit default swap spread is the premium payment expressed as a proportion of the notional value of the debt that is being insured against default (typically $10 million in senior debt) in basis points. Data are based on daily polls of individual broker-dealers worldwide. Note that these broker quotes are typically not transaction prices. Data provided are for LISCC firms only.

Credit Loss Reserves

Credit loss reserves represent the allowance for credit losses on a bank’s portfolio of financial instruments carried at amortized cost (including loans held for investment, held-to-maturity debt securities, trade receivables, reinsurance receivables, and receivables that relate to repurchase
agreements and securities lending agreements), net investment in leases as a lessor, and off-
balance-sheet credit exposures not accounted for as insurance or derivatives. Credit loss reserves
are recorded on a bank’s balance sheet.

Note: For banks that have not yet adopted the current expected credit loss (CECL) methodology,
credit loss reserves represent the allowance for losses on a bank’s portfolio of loans and leases
held for investment.

**Current Expected Credit Losses Methodology**

In 2016, the Financial Accounting Standards Board (FASB) announced significant changes to credit
loss accounting under U.S. generally accepted accounting principles (GAAP). Refer to Accounting
Standards Update No. 2016-13, Financial Instruments—Credit Losses, Topic 326, Measurement
of Credit Losses on Financial Instruments.

The CECL methodology replaced the incurred loss methodology for financial assets measured at
amortized cost. For these assets, CECL requires banking organizations to recognize lifetime
expected credit losses. Further, banking organizations are required to incorporate reasonable and
supportable forecasts in developing their estimate of lifetime expected credit losses, while also
considering past events and current conditions.

Supervised institutions that are SEC filers, excluding smaller reporting companies, were required
to adopt CECL on January 1, 2020. All other institutions are required to implement CECL by 2023.
For additional information, refer to the Federal Reserve’s CECL Resource Center - CECL Resource
Center (supervisionoutreach.org).

**Delinquent Loans**

Delinquent loans are the sum of 90+ days past due loans and nonaccrual loans.

**Liquid Assets**

Liquid assets are cash plus estimates of securities that qualify as high-quality liquid assets, as
defined by the Board’s liquidity coverage ratio rule.

**Market Leverage Ratio**

The market leverage ratio—defined as the ratio of the firm’s market capitalization to the sum of
market capitalization and the book value of liabilities—can be considered a market-based
measure of firm capital (expressed in percentage points). Data provided are for LISCC firms only.
Net Interest Margin

Net interest margin measures a bank’s yield on its interest-bearing assets after netting out interest expense.

Prime Brokerage

Some large banks offer a suite of services to large investment funds known as prime brokerage. These services include the ability to borrow securities or cash, cash management, access to research, and providing connections to potential investors. Lending is an important aspect of these services. The investment funds typically obtain loans secured by equities or other securities through the prime broker.

Provisions

Provisions represent the amount necessary to adjust credit loss reserves to reflect management’s current estimate of expected credit losses. Provisions are recorded as an expense item on the bank’s income statement.

Note: For banks that have not adopted the CECL methodology, provisions represent the amount needed to make the allowance for losses on a bank’s portfolio of loans and leases adequate to absorb management’s estimate of loan and lease losses.

Residential Real Estate Loans

Residential real estate loans refer to loans secured by 1 to 4 family residential properties, including: revolving, open-end loans secured by 1 to 4 family residential properties and extended under lines of credit; closed-end loans secured by first liens on 1 to 4 family residential properties; and closed-end loans secured by junior (i.e., other than first) liens on 1 to 4 family residential properties.

Tangible Book Value

Tangible book value is calculated by subtracting intangible assets and goodwill from a bank’s book value of capital.

Tiering of Regulation

In October 2019, the Board adopted rules that tier its regulations for domestic and foreign banks and holding companies to match their risk profiles more closely. The rules establish a framework that sorts institutions with $100 billion or more in total assets into four categories based on several factors, including asset size, cross-jurisdictional activity, reliance on weighted short-term wholesale funding (wSTWF), nonbank assets (NBA), and off-balance-sheet exposure (table A.1).
Top Holder

All data, unless otherwise noted, refer to the top-holder data. This population generally comprises top-tier Call Report filers and top-tier Y-9C filers, including depository SLHCs and foreign banking organizations. In instances where a top-tier holding company does not file the Y-9C, we combine financial data of subsidiary banks/thrifts to approximate the consolidated financial data of the holding company. Commercial and insurance SLHCs, cooperative banks, and non-deposit trust companies are excluded from the top-holder population.

Table A.1. List of domestic and foreign firms, by category, as of 2022:Q2

<table>
<thead>
<tr>
<th>Firm type</th>
<th>Category I</th>
<th>Category II</th>
<th>Category III</th>
<th>Category IV</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>U.S. G-SIBs</td>
<td>&gt;=$700b total assets or &gt;=$75b in cross-jurisdictional activity</td>
<td>&gt;=$250b total assets or &gt;=$75b in NBA, wSTW, or off-balance-sheet exposure</td>
<td>Other firms with $100b to $250b total assets</td>
</tr>
<tr>
<td>Domestic firms</td>
<td>Bank of America</td>
<td>Capital One</td>
<td>Ally Financial</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bank of New York Mellon</td>
<td>Charles Schwab</td>
<td>American Express</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Citigroup</td>
<td>PNC Financial</td>
<td>Citizens Financial</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Goldman Sachs</td>
<td>Trust Financial</td>
<td>Discover</td>
<td></td>
</tr>
<tr>
<td></td>
<td>JPMorgan Chase</td>
<td>U.S. Bancorp</td>
<td>Fifth Third</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Morgan Stanley</td>
<td></td>
<td>Huntington</td>
<td></td>
</tr>
<tr>
<td></td>
<td>State Street</td>
<td></td>
<td>KeyCorp</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wells Fargo</td>
<td></td>
<td>M&amp;T Bank</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Regions Financial</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SVB Financial</td>
<td></td>
</tr>
<tr>
<td>Foreign firms (standards vary by legal entity)</td>
<td>Barclays US Credit</td>
<td>BMO Financial</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Suisse USA</td>
<td>BNP Paribas USA</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Deutsche Bank USA</td>
<td>HSBC North America</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DWS USA</td>
<td>MUFG Americas</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TD Group US UBS Americas</td>
<td>RBC US</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Santander Holdings USA</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Intermediate holding company</td>
<td>Barclays US Credit</td>
<td>BMO Financial</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bank of America</td>
<td>Suisse USA</td>
<td>BNP Paribas USA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>MUFG</td>
<td>Deutsche Bank</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sumitomo Mitsui</td>
<td>Mizuho</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Toronto-Dominion</td>
<td>Royal Bank of Canada UBS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Combined U.S. operations</td>
<td>Bank of Montreal</td>
<td>Banco Santander</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bank of Canada UBS</td>
<td>BNP Paribas</td>
<td>Bank of Nova Scotia</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Deutsche Bank</td>
<td>Canadian Imperial</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mizuho</td>
<td>HSBC</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Royal Bank of Canada UBS</td>
<td>Societe Generale</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Appendix B: Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACL</td>
<td>allowance for credit losses</td>
</tr>
<tr>
<td>AI</td>
<td>artificial intelligence</td>
</tr>
<tr>
<td>AML</td>
<td>anti-money laundering</td>
</tr>
<tr>
<td>API</td>
<td>application programming interface</td>
</tr>
<tr>
<td>BHC</td>
<td>bank holding company</td>
</tr>
<tr>
<td>BSA</td>
<td>Bank Secrecy Act</td>
</tr>
<tr>
<td>CA</td>
<td>Consumer Affairs</td>
</tr>
<tr>
<td>CBLR</td>
<td>community bank leverage ratio</td>
</tr>
<tr>
<td>CBO</td>
<td>community banking organization</td>
</tr>
<tr>
<td>CDS</td>
<td>credit default swap</td>
</tr>
<tr>
<td>CECL</td>
<td>current expected credit loss</td>
</tr>
<tr>
<td>CET1</td>
<td>common equity tier 1</td>
</tr>
<tr>
<td>CLD</td>
<td>construction, land, and development</td>
</tr>
<tr>
<td>CRE</td>
<td>commercial real estate</td>
</tr>
<tr>
<td>C&amp;I</td>
<td>commercial and industrial</td>
</tr>
<tr>
<td>ELE</td>
<td>expected loss estimator</td>
</tr>
<tr>
<td>FASB</td>
<td>Financial Accounting Standards Board</td>
</tr>
<tr>
<td>FBO</td>
<td>foreign banking organization</td>
</tr>
<tr>
<td>FDIC</td>
<td>Federal Deposit Insurance Corporation</td>
</tr>
<tr>
<td>FFIEC</td>
<td>Federal Financial Institutions Examination Council</td>
</tr>
<tr>
<td>Fintech</td>
<td>financial technology</td>
</tr>
<tr>
<td>GAAP</td>
<td>generally accepted accounting principles</td>
</tr>
<tr>
<td>G-SIB</td>
<td>global systemically important bank</td>
</tr>
<tr>
<td>HELOC</td>
<td>home equity line of credit</td>
</tr>
<tr>
<td>IHC</td>
<td>intermediate holding company</td>
</tr>
<tr>
<td>IT</td>
<td>information technology</td>
</tr>
<tr>
<td>LBO</td>
<td>large banking organization</td>
</tr>
<tr>
<td>LFBO</td>
<td>large and foreign banking organization</td>
</tr>
<tr>
<td>LFIs</td>
<td>large financial institutions</td>
</tr>
<tr>
<td>LISCC</td>
<td>Large Institution Supervision Coordinating Committee</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>NBA</td>
<td>nonbank assets</td>
</tr>
<tr>
<td>NMB</td>
<td>nonmember bank</td>
</tr>
<tr>
<td>OCC</td>
<td>Office of the Comptroller of the Currency</td>
</tr>
<tr>
<td>RBO</td>
<td>regional banking organization</td>
</tr>
<tr>
<td>RRE</td>
<td>residential real estate</td>
</tr>
<tr>
<td>SEC</td>
<td>U.S. Securities and Exchange Commission</td>
</tr>
<tr>
<td>SHC</td>
<td>securities holding company</td>
</tr>
<tr>
<td>SLHC</td>
<td>savings and loan holding company</td>
</tr>
<tr>
<td>SMB(s)</td>
<td>state member bank(s)</td>
</tr>
<tr>
<td>SOFR</td>
<td>Secured Overnight Financing Rate</td>
</tr>
<tr>
<td>SR</td>
<td>Supervision and Regulation</td>
</tr>
<tr>
<td>USD</td>
<td>United States dollar</td>
</tr>
<tr>
<td>U.S. G-SIB</td>
<td>global systemically important bank in the United States</td>
</tr>
<tr>
<td>WARM</td>
<td>weighted-average remaining maturity</td>
</tr>
<tr>
<td>wSTWF</td>
<td>weighted short-term wholesale funding</td>
</tr>
</tbody>
</table>
Find other Federal Reserve Board publications (www.federalreserve.gov/publications.htm) or order those offered in print (www.federalreserve.gov/files/orderform.pdf) on our website. Also visit the site for more information about the Board and to learn how to stay connected with us on social media.